Who Owns the Water in Montana?

Water Fact Sheet #1

Italicized terms are defined in Fact Sheet #10

All waters in Montana, above and below the surface of the earth, are held by the state on behalf of its citizens. The notion that water is a "public" resource was first stated in the 1889 Montana Constitution and was reaffirmed in the 1972 Constitution. Article IX Section 3, asserts that "All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to *appropriation* for *beneficial uses* as provided by law."

The State of Montana therefore "owns" Montana's waters, and it administers a system of *water rights* under the *doctrine of prior appropriation* that gives a person the right to appropriate water for a variety of beneficial uses.

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The Montana Legislature passed the Montana Water Use Act, effective July 1, 1973. The Act established an adjudication system to adjudicate pre-July 1, 1973 water rights, a permit system to control and regulate post-July 1, 1973 water appropriations, changes in use of existing water rights, and created a centralized system of recording water rights. The Act confirmed the fundamental principles of Montana's prior appropriation doctrine, including the following:

1. Montana's water belongs to the state for the beneficial use of its people. Therefore, water right holders do not own the water; they possess the right to use the water.

2. Doctrine of Prior Appropriation (first in time, first in right).

3. "Use it or lose it." A water right holder must use the water or risk losing the right to use it.

4. The water diverted must be for a beneficial use and all beneficial uses are equal under the law.

5. A water right is a property right and can be separated from the land.

6. One must have a water right to beneficially use water, and after July 1, 1973, new water rights can be obtained only from the Montana Department of Natural Resources and Conservation (DNRC), generally through the permitting process.

7. Any change in the purpose, place of use, place of storage, or point of diversion of a water right can not adversely affect other water rights and must first be approved by the DNRC.

A water right is a unique property right known as a "usufructuary" right. The owner of a water right has the right to the use of the water; they do not own the water itself.

Generally, a water right is attached to the land on which the water is used. If ownership of the land changes, the water right transfers to the new owner unless the water right is expressly severed from the land in the deed.

In some cases, a landowner may want to subdivide their land and split the water right between the different parcels. A landowner may also want to separate the water right from the land by selling the water

right and keeping the land, or keeping the land and selling the water right.

In the event of a change of ownership, the seller is required to file a Water Right Ownership Update with the DNRC. If the water right is severed from the land or split among multiple owners, the seller may need to undergo a change process and show that the proposed changes to the water right will not have an adverse effect upon other users. It is always a good idea to contact DNRC for more information regarding the specifics of your situation if you are unsure.

Water rights can also be relinquished due to non-use, or *abandonment*. Abandonment only applies to water users who intentionally cease to appropriate all or part of a water right over an extended period of time. Non-use as a result of inadequate supply is not evidence of abandonment.

Montana recognizes a variety of water rights. Water rights established prior to July 1, 1973 are known as *existing water rights*. These water rights are also known as use rights, or filed rights. The *priority date* of existing water rights is generally the date water was first put to beneficial use, or the date notice of the intent to appropriate was filed.

Certain pre-July 1st, 1973 livestock and domestic uses from in-stream or groundwater sources were exempt from the statewide water right adjudication process. These are known as exempt rights. A *decreed* water right is a water right issued by the court upon adjudication of a stream (see Fact Sheet #7: *What is Water Rights Adjudication?*).

In 1969, the Montana Legislature authorized the Montana Fish and Game Commission to appropriate waters on 12 streams to maintain *instream flows* and protect fish and wildlife habitat. These rights are known as *Murphy Rights*, after the legislator who sponsored the measure. The priority dates for Murphy Rights are 1970 and 1971 (see Fact Sheet #8: *How Are Instream Flows Protected*).

Federal and Indian reserved water rights were created by an act of Congress, treaty, or an executive order establishing a tribal reservation or federal reservation, such as national parks, forests, and monuments. These rights are also known as Winters Doctrine rights, named for the U.S. Supreme Court case that established the existence of these rights in 1908 (see Fact Sheet #9: *What Are Federal or Tribal Reserved Water Rights*).

For new users looking to acquire a water right after June 30, 1973, the *Montana Water Use Act* established a permitting system administered by the DNRC. Any new surface water or groundwater appropriators must obtain a *beneficial water use permit* before constructing the diversion works or diverting water. The Montana Water Use Act provides for limited exceptions to the permitting requirements for small groundwater wells and small stock ponds on non-perennial streams.

Source: Jerryhopman/iStock/Thinkstock

Some river basins in Montana are closed to certain types of new surface water appropriations because of limited water availability and a concern for protecting existing water rights (see Fact Sheet #6: *How Is Water Managed in the Event of Water Shortages*). In some areas of the state, groundwater resources may also be closed to new or expanded appropriations through the establishment of Controlled Groundwater Areas. These areas may be designated by the DNRC to protect existing uses and/or public health.

Water users looking to acquire a water right in a closed basin or controlled ground water area should contact the DNRC to learn more about the permitting process in these areas.

Who Manages Montana's Water?

Water Fact Sheet #2

Italicized terms are defined in Fact Sheet #10

Montana's water is diverted, allocated, channeled, dammed, conveyed, regulated, protected, treated, and monitored. In a word, it is managed. How water is managed—and who does the managing—depends on a range of factors, including the intended use of the water, existing flood or drought conditions, demand for water, legal constraints, and water quality concerns. Not surprisingly, a number of federal and state agencies, as well as regional and local organizations, play roles in managing Montana's water. Some of the key players are described here.

Water Supply Managers

The primary state agency charged with managing the use of Montana's water resources is the Department of Natural Resources and Conservation (DNRC). DNRC's responsibilities under the *Montana Water Use Act* (Title 85, Montana Code Annotated) pertain to acquiring new water rights, changing existing water rights, and maintaining a centralized water right record system. Eight regional water offices assist in these activities (Figure 1). The DNRC is also responsible for developing the State Water Plan (see Fact Sheet #5: *History of Water Planning in Montana*), administering state floodplain and dam safety programs, and the operation and maintenance of 24 state-owned water projects.

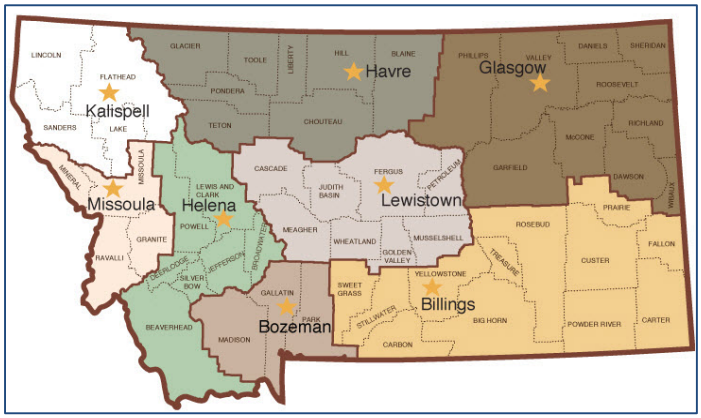


Figure 1-Montana DNRC regional water offices

Under the supervision of the Montana Supreme Court, the Water Court has sole jurisdiction over the adjudication of pre-1973 water right claims (see Fact Sheet #7: *What is Water Rights Adjudication?).*

Montana's District Courts can play an important role in local water management through their powers to appoint *water commissioners* with the authority to distribute water on decreed streams (See Fact Sheet #6: *How Is Water Managed in the Event of Water Shortages*). Resolution of water right disputes may be sought through DNRC or through the District Courts.

The Yellowstone River, the longest free flowing river in the lower 48 states, flows 900 miles without being dammed.

Montana Fish, Wildlife, and Parks (FWP) is responsible for protecting fisheries and recreational opportunities on Montana's waters. The scope of FWP management includes reviewing comprehensive water plans and projects for impacts on fish and wildlife populations, working to recover endangered fish and wildlife species, and administering an instream flow leasing program. Additionally, FWP issues permits for fishing and river recreation.

Tribal water resources on Montana's Indian Reservations are managed under the framework of each tribe's Federal Reserved Water Rights Compact (see Fact Sheet #9: *What are Federal and Tribal Reserved Water Rights?).* State water resources on the Indian reservations are managed under the *Montana Water Use Act*. Provision is made for dispute resolution between state and tribal uses under the terms of each Compact.

At the federal level, the U.S. Bureau of Reclamation manages 15 dams and reservoirs, 9 diversion dams, 10 pumping plants and 3 hydroelectric power plants

in Montana. These facilities provide a variety of benefits and serve multiple Congressionally-authorized purposes.

The U.S. Army Corps of Engineers operates Fort Peck Dam on the Missouri River and Libby Dam on the Kootenai River in Montana. The Corps operates these facilities for Congressionally-authorized purposes including flood control, navigation, irrigation, hydropower, water supply, water quality, recreation, and fish and wildlife.

The Federal Energy Regulatory Commission also plays a role in water management through conditions attached to licenses issued for construction and operation of hydropower projects.

Water Supply Managers
MT DNRC: www.dnrc.mt.gov
MT FWP: www.fwp.mt.gov
Bureau of Reclamation: *www.usbr.gov*
Army Corps of Engineers: www.usace.army.mil
U.S. Geological Survey: *www.usgs.gov*

Water Quality Managers
MT DEQ: www.deq.mt.gov
US EPA: www.epa.gov

Organizations
Montana Conservation Districts: www.macdnet.org
Montana Irrigation Districts: www.mtwra.org
Montana Watershed Coordination Council: www.mtwatersheds.org

Information Resources
State Library Water Information System: http://nris.mt.gov/wi.asp
Montana Water Center http://watercenter.montana.edu/
Montana Watercourse http://mtwatercourse.org/index.php
Montana Bureau of Mines and Geology http://www.mbmg.mtech.edu/grw/grw-main.asp

Although not directly involved in water management, the U.S. Geological Survey (USGS) is the primary collector of streamflow data. The USGS publishes studies on water use throughout the country, as well as flood and drought conditions. All water managers use this valuable information.

Water Quality Managers

Many of the above agencies have some responsibilities for managing water quality, but few agencies focus entirely on water quality protection. The U.S. Environmental Protection Agency (EPA) monitors and regulates water quality standards for safe drinking water. At the state level, the Montana Department of Environmental Quality (DEQ) has the authority to issue permits and undertake enforcement actions to ensure compliance with state and federal water quality laws, such as the Clean Water Act. DEQ's Water Protection Bureau administers waste treatment plans and discharge permits to protect the quality of Montana's surface water and groundwater.

Local Water Management Organizations

While state and federal agencies do much of the work in water planning and management, regional and local organizations are closer to the physical use of the water and the needs of local water users. Local water management organizations include irrigation districts, conservation districts, water users associations, and local watershed groups.

Sources of Information

Because there are many agencies and groups involved in water management in Montana, it can be difficult to know where to start when looking for water information. The Montana State Library's Water Information System is the starting point for locating information regarding Montana's water resources, such as data on surface water, groundwater, water quality, riparian areas, water rights, climate data, and more.

National databases on water quality and streamflow are maintained by the EPA and U.S. Geological Survey (USGS), respectively.

How Much Water Is There and How Is It Used?

Water Fact Sheet #3

Italicized terms are defined in Fact Sheet #10

In an average year, almost 44 million *acre-feet* of water flow out of Montana. Of this amount, 65 percent originates within Montana's borders. The remainder flows into the state from Wyoming, Idaho, and Canada. The state is divided into seven major river *basins*: Kootenai, Clark Fork, St. Mary, Upper Missouri, Lower Missouri, Little Missouri, and Yellowstone.

The average annual amount of water flowing into and out of each basin is shown in Figure 3. Together, the Kootenai and Clark Fork produce the most water per unit area supplying 59 percent of Montana's water but cover only 17 percent of the area of Montana. In contrast, the Missouri basins cover over half of the area in Montana but because these watersheds contain more semi-arid plains areas, they produce only 18 percent of the total water. Water use can be estimated as either the *water withdrawn* or the *water consumed* for a particular purpose. Water withdrawn refers to water extracted from the ground or *diverted* from a *surface water* source (Figure 1). Some of this withdrawn water reenters the system downstream as *return flow*. Water consumed refers to water no longer available for use because it has evaporated, transpired through natural vegetation, been consumed by humans or livestock, or used for crop production or industrial applications.

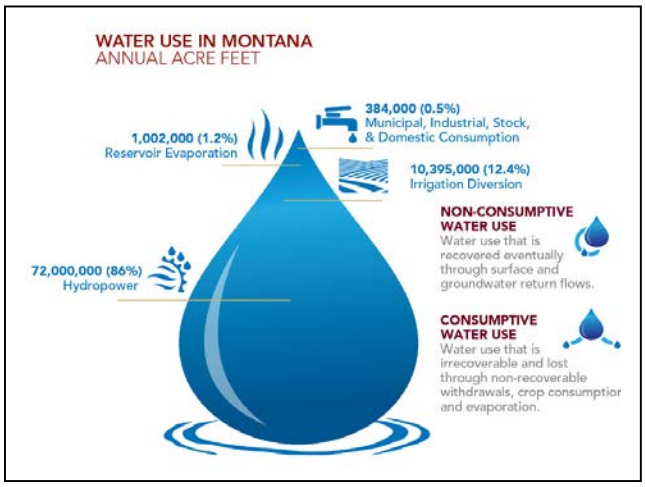


Figure 1- Water use in Montana by purpose.

Although water use varies by basin, irrigation accounts for approximately 12.4 percent of the water withdrawn and approximately 68 percent of the water consumed in Montana (Figure 1 and 2). *Reservoir* evaporation such as water evaporated from lakes and ponds also accounts for a large portion of water consumed, although the water is not technically diverted. Approximately 1.2 million acre-feet, or 28 percent of the total water consumed, evaporates from reservoirs.

Most of the water used in Montana comes from surface water sources. *Groundwater* use, although small compared to surface water, provides much of the water used for public supply and self-supplied domestic and industrial uses. Groundwater also provides a significant source of irrigation water in some areas (see Fact Sheet #4: *Can Groundwater Meet the Demand for New Water Uses in Montana?).*

Montana withdrew about 1.4 times the national average for total water withdrawn and 1.7 times the national average for surface water withdrawn in the year 2000, making Montana one of the larger water consumers in the nation (Figure 4). Montana was well below the national average for average groundwater withdrawn in 2000.

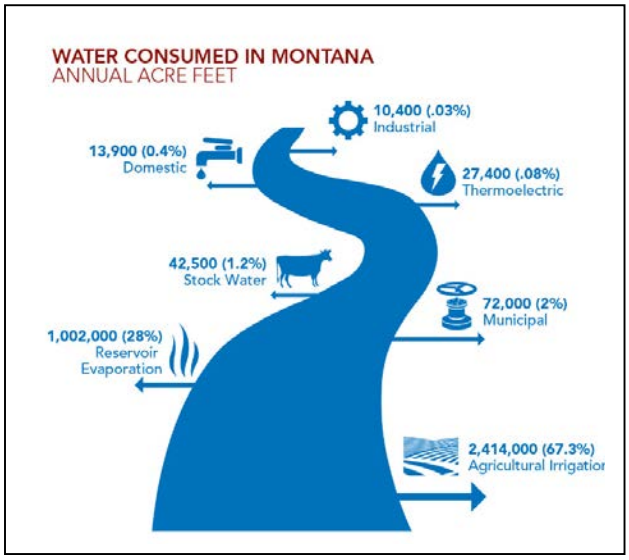


Figure 2 - Water Consumption in Montana by purpose.

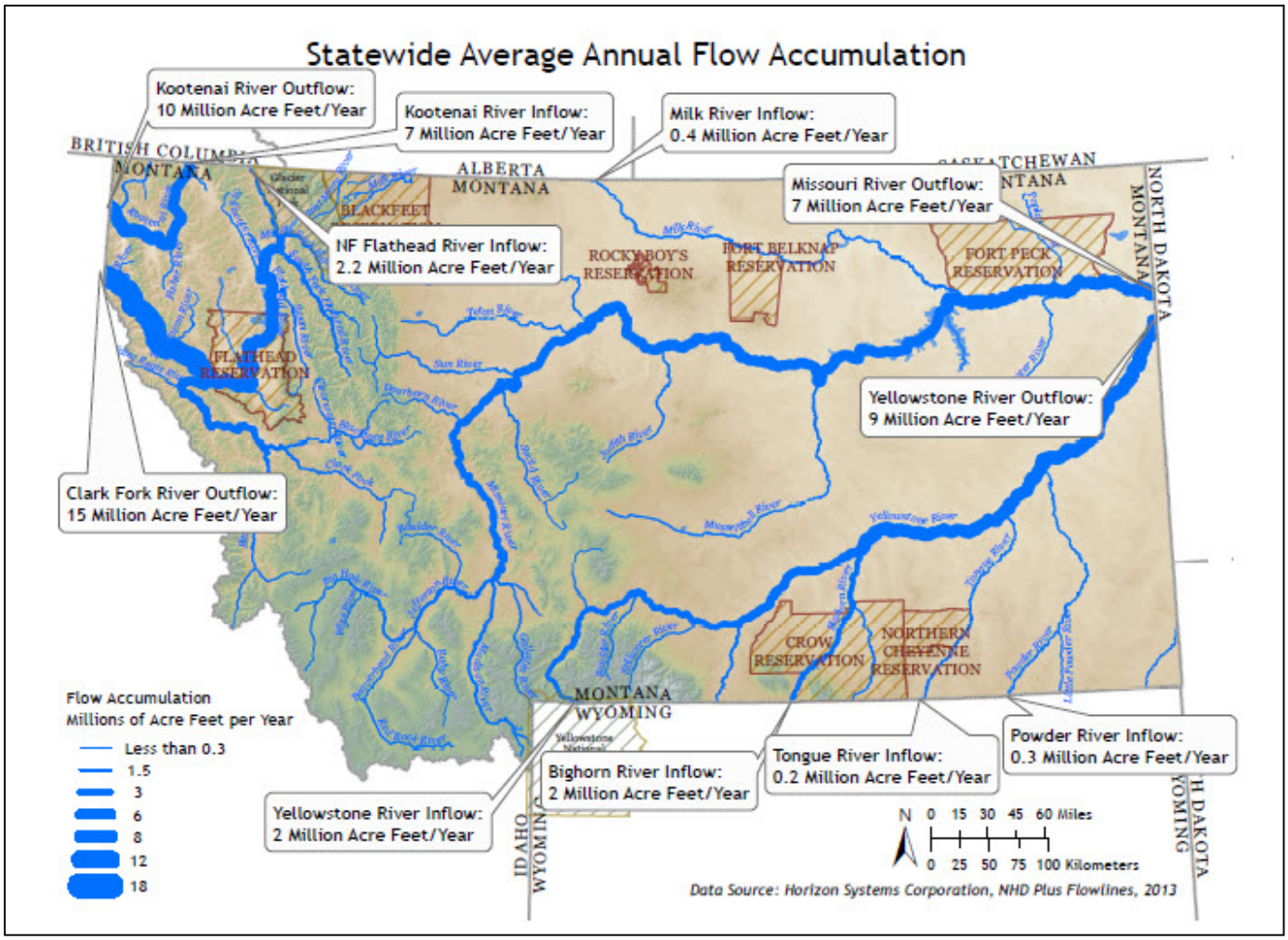


Figure 3 – Statewide average inflows and outflows in Montana.

By category, irrigation and livestock represent the only industries in which Montana exceeds the national average. Concerns with the amount of water used in hydraulic fracturing, commonly known as fracking, have increased as the exploration of shale formations in the state continues. Currently, fracking contributes less than a tenth of the water consumed in Montana, although it is 100 percent consumptive. The chief shale formation being accessed, the Bakken formation, extends into the northeastern part of the state. Most of the activity of the Bakken has been focused in North Dakota; however, as more productive wells are drilled in Montana, some of the focus could shift westward.

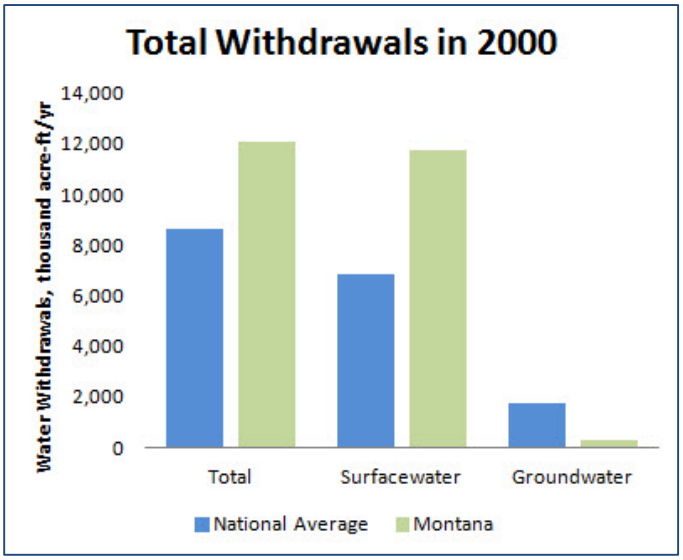


Figure 4. National and state average withdrawal in 2000.

Can Groundwater Meet the Demand for New Water Uses in Montana?

Water Fact Sheet #4

Italicized terms are defined in Fact Sheet #10

Groundwater plays an important role in meeting Montana's demand for water. Underground layers of saturated sediment deposits or fractured bedrock—known as *aquifers*—store and transmit large amounts of water. Water can infiltrate into aquifers from precipitation, irrigation, streams, lakes, or wetlands. This water, known as aquifer recharge, replenishes the groundwater supply. Climate variability also factors into groundwater supply. The amount of groundwater stored in aquifers decreases during droughts, but often recovers in rainy seasons.

Groundwater and *surface water* are connected in all but rare conditions. Depending on the elevation of the water table relative to the stage of the stream, groundwater can discharge into surface water or surface water can recharge groundwater sources. During seasonal dry periods and droughts, many Montana streams would be reduced to trickles if not for groundwater inflow. Increased groundwater pumping will reduce flow in connected streams and increase the severity of impacts during droughts.

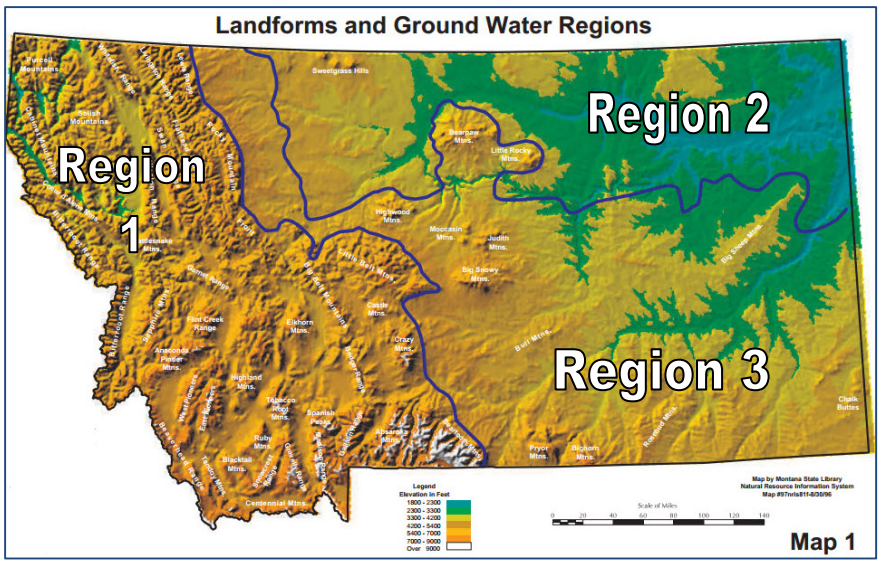


Figure 1- Landforms and Groundwater Regions

Different kinds of aquifers are found in various parts of the state. Differing land formations reflect differing geology and climate and give indication to the groundwater flow system(s) in the area. The mountainous, western third of the state lies within the Western Mountain Ranges Region (Figure 1- Region 1). Glaciers heavily covered this region, leaving behind deposits of loosely arranged sediment in the valleys when they melted. Loose sediment deposited by streams, known as alluvium, are characteristic of the valley bottoms in the intermountain regions of western Montana. These types of loose deposits often contain high yielding aquifers that supply many users. Groundwater development outside the valley bottoms is often from bedrock aquifers. In contrast to high yielding alluvial aquifers, the bedrock aquifers may not provide a reliable source of water.

Extensive plains with scattered mountain ranges characterize the remainder of the state. The northeastern region of the state (Figure 1- Region 2) contains the fewest mountains and lowest elevations. This region underwent several episodes of glaciation, and therefore is known as the Glaciated Central Region. As the glaciers melted, till and fine-grain sediment were left behind and dominate the geology in the region. Aquifers in these deposits generally yield small quantities of water; however, many wells obtain high yields in buried pre-glacial alluvial channels. Alluvial aquifers of modern streams, particularly the Missouri and Yellowstone Rivers, also are a source of high-yield wells. Bedrock sandstone aquifers are the source of lower yield wells, mostly for stock and domestic uses.

The final region of the state, the Non-Glaciated Central Region (Figure 1- Region 3), contains scattered mountain ranges, but was not covered by glaciers. Bedrock aquifers are the primary source of ground-

water for much of the region. These aquifers generally support low-producing domestic and stock wells that have relatively poor water quality. Bedrock aquifers in the Kootenai and Madison formations may provide large volumes of groundwater; however, water quality can be a problem. Alluvial terrace deposits in central Montana provide groundwater for domestic, stock, and municipal uses. Alluvial deposits along the Yellowstone and other larger rivers in the region represent the most reliably productive aquifers.

Groundwater supplied less than three percent of the water *diverted* for *beneficial uses* in Montana in 2000, but this fact belies the importance of groundwater to water users in the state. Groundwater contributes 48 percent of Montana's public water supply (see Fact Sheet #3: *How Much Water Is There and How Is It Used?*). Currently, groundwater provides the main source of drinking water for major cities such as Missoula and Kalispell. Of the rural, self-supplied domestic systems in Montana, 95 percent operate on groundwater sources. In some parts of the state, groundwater is the only reliable source of drinking and stock water. Where surface water supplies are limited, groundwater is an important source for irrigation, industrial, and commercial uses.

> …exempt wells may pump a maximum volume of 10 acre-feet, which is equivalent to providing in-house use for 40 homes

Many people wonder if groundwater could supply a greater share of the water used in Montana, particularly in areas where surface water supplies are heavily *appropriated*. The answer varies, depending on the hydraulic properties of the aquifer, its connection to surface water, and the legal availability of groundwater in the area. New wells require a *beneficial water use permit* from the Department of Natural Resources and Conservation (DNRC). Wells pumping less than 35 gallons per minute and producing under 10 acre-feet per year are *exempt* from the permitting process. To put that into context, exempt wells may pump a maximum volume of 10 acre-feet, which is equivalent to providing in-house use for 40 homes. Owners of exempt wells must file a Notice of Completion of Groundwater Development with the DNRC when the water is put to use. The DNRC can limit groundwater development to protect existing uses and/or public health by designating controlled groundwater areas. There are 15 active controlled groundwater areas in Montana (Figure 2).

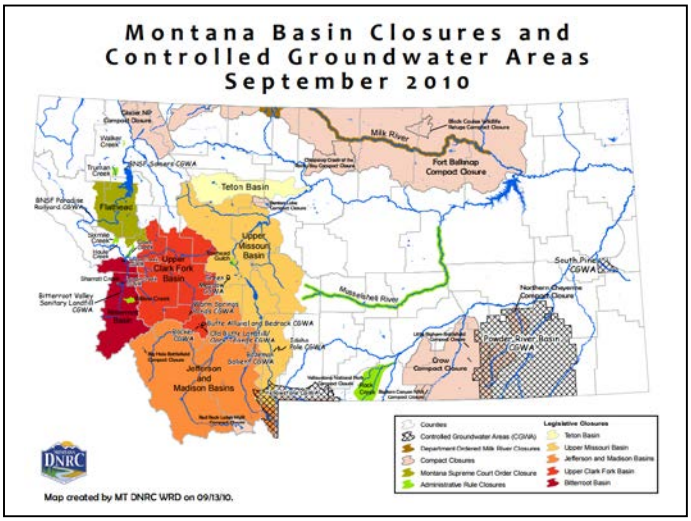


Figure 2- Controlled Groundwater Areas

Basin closures also occur in the state, either through legislation or by petition (see Fact Sheet #6: *How Is Water Managed in the Event of Water Shortages*). Much of the western portion of the state falls into basin closure areas. These basin closures restrict any new surface water appropriations for any use. Additionally, groundwater permits may only be issued if the applicant can show through a hydrologic study that the new appropriation will not adversely impact *senior water rights*. If adverse effects are expected, the applicant must provide a plan to mitigate the adverse effects, either through acquisition of a surface water right or through a recharge plan.

Montanans will continue to rely on groundwater as a water source. With each new development, careful analysis of the relationship between an aquifer and adjacent surface waters is required before groundwater can be allocated for new uses.

What is the History of Water Planning in Montana?

Water Fact Sheet #5

Italicized terms are defined in Fact Sheet #10

Planning for the conservation, development and beneficial use of Montana's water resources goes back to the early years of the 20th century. Initial efforts centered on the development of irrigated agriculture to promote settlement of the West. Water development projects were considered essential to the economic growth and viability of the state. In 1903, the U.S. Congress authorized construction of the Milk River Project as one of the first five reclamation projects built by the newly created Reclamation Service (now the Bureau of Reclamation) under the Reclamation Act of 1902. The Milk River Project's objective was to provide a stable source of water for irrigation of the lower Milk River Valley, and settlers moved to the valley on that promise.

In the 1920's, the Montana Irrigation Commission produced county-by-county plans for irrigation development. In addition, the Irrigation Commission assisted in organizing and managing irrigation districts around the state. It also had jurisdiction over the sale of water, water rights, and the contracting of water for irrigation. However, the Commission was abolished in 1929.

The precarious position of agriculture in Montana during the early 1930s promoted efforts toward seeking ways to develop Montana's water resources for beneficial use. Late in 1933, a special session of the state legislature passed House Bill No. 39 creating the State Water Conservation Board. Broad powers were given to the Board enabling it to cooperate and enter into agreements with all federal and state agencies, and to investigate, survey, construct, operate, maintain, and finance the construction of large water storage and distribution projects.

Between 1934 and 1960, the Board built 181 water conservation projects. These included 141 dams and reservoirs, 815 miles of canals, 23 miles of domestic water supply pipelines, and 24 miles of transmission lines to bring power to pumping stations. All told, the Board's actions created 438,017 *acre-feet* of storage and developed 405,582 acres of irrigated land (R. Kingery, personal communication 12 July 2013). This period also saw congressional approval of all the major federal water projects in Montana, including: Fort Peck, Canyon Ferry, Hungry Horse, Tiber, Yellowtail and Libby dams.

When Montana began to negotiate the Yellowstone Compact with Wyoming and North Dakota in 1939, the need for cataloging the state's water resources and their use became apparent. As a result, the 1939 Legislature authorized the collection of data pertaining to water use. Between 1942 and 1971, Montana initiated a comprehensive county-by-county assessment of water use. The resulting reports, known collectively as the Montana Water Resources Survey, contain an examination of water rights, water uses and irrigation development. This information was collected and published from 1943 thru 1965 by the State Engineers Office, and from 1966 thru 1971 by the Water Conservation Board. The historical information contained in the surveys provides an invaluable tool in today's efforts to adjudicate Montana's water rights.

In 1967, the Montana Legislature recognized the need for a comprehensive state water plan with passage of the Montana Water Resources Act of 1967 (89-101.2 R.C.M. 1947). The Act abolished the Water Conservation Board and transferred its powers and duties to the Water Resources Board. The Board was empowered to prepare a "*continuing comprehensive inventory of the water resources of the*

state," and prepare a "*comprehensive, coordinate multiple-use water resources plan known as the 'state water plan'."*

The responsibilities given to the Board reflect a change in direction and purpose of water resource planning – from "conservation" of water through irrigation to a total concern for full utilization of our water resources through comprehensive multiple-use planning. In 1971, the Water Resources Board became the Water Resource Division of the Montana Department of Natural Resources and Conservation (DNRC).

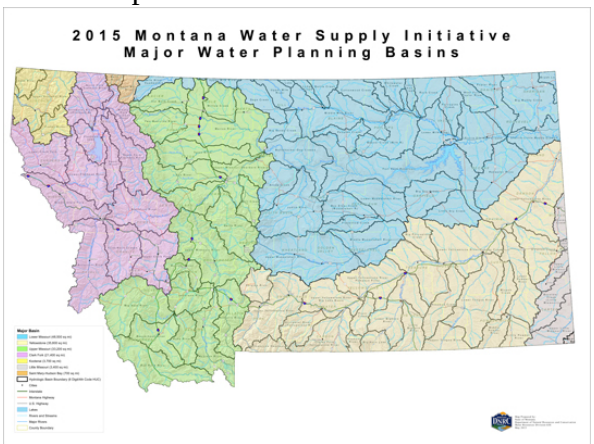
Between 1972 and 1985, the DNRC conducted a number of reconnaissance-level planning studies in each of Montana's major river *basins* with federal grant assistance. While these plans produced volumes of valuable technical information, inadequate consideration was given to the institutional and political feasibility of implementing the plan recommendations. Consequently, the plans had little effect on water management decision making within Montana. These plans were also ineffective for addressing the state's most critical water management problems such as interstate water allocation, quantification of *federally reserved water rights*, water use efficiency, *instream flow* protection and *groundwater* management. Federal funding to support state water planning ended in 1981.

In 1987, the DNRC embarked on a new approach to developing the state water plan. After reviewing the water planning processes of other western states, the DNRC adopted an approach similar to that used in Kansas. Under this approach, the state water plan provided a forum for all stakeholders to work collaboratively on resolving water management issues. This new approach included the formation of a State Water Plan Advisory Council and issued-focused Steering Committees. The resulting state water plan focused on nine specific water resource issues:

1. Agricultural Water Use Efficiency,
2. *Instream Flow* Protection,
3. Federal Hydropower and State Water Rights,
4. Water Information System,
5. *Water Storage*,
6. Drought Management,
7. Integrated Water Quality and Quantity Management,
8. Upper Clark Fork Basin Water Management,
9. *Groundwater*.

In 2009, the Montana Legislature amended the state water planning statute and directed the DNRC to update the state water plan and report to the 2015 Legislature. In response, the DNRC launched the Montana Water Supply Initiative (MWSI). The purpose of the MWSI was two-fold: first, to provide up-to-date water resource information essential for planning and estimating future water demand; and second, to actively engage citizens in developing an adaptive State Water Plan that identified options to meet future needs, satisfied existing beneficial uses, and protected the state's water resources.

Central to this effort was the formation of citizen-supported Basin Advisory Councils (BAC) in the Clark Fork/Kootenai, Upper Missouri, Lower Missouri, and Yellowstone River Basins. The BACs were appointed to actively engage water users in the planning process. In the wake of hundreds of hours of input from the BACs, the federal and state partners and dozens of public hearings across the state, DNRC's Water Management Bureau completed *basin* plans for each of the *basins* in the fall of 2014. Each of the *basin* plans provided the informational framework and recommendations to develop the comprehensive state water plan. On January 5, 2015, *A Watershed Approach to the 2015 Montana State Water Plan* was delivered to the legislature and released to the public.



How Is Water Managed in the Event of Water Shortages?

Water Fact Sheet #6

Italicized terms are defined in Fact Sheet #10

In order to put water to a beneficial use in Montana, a person must have a water right. Water rights in Montana are administered using the prior appropriation doctrine. The prior appropriation doctrine states that who is "first in time is first in right." The person with the earliest water right on a water source receives the most senior *priority date.* A water right with an early or senior priority date has more value in times of water scarcity than a water right with a later or more junior priority date. The holder of the earliest priority date has first chance to use the available water to the limits of their right. The second earliest priority date holder would have the next chance to use the remaining water, and so on.

Water shortages are not uncommon in the semi-arid landscape Montanans call home. How is water distribution handled when water is scarce? Water management on many of Montana's waterways is a complex process that requires cooperation among water users and water managers to work successfully. In some watersheds, water users have worked together to develop Drought Management Plans in the event of water shortages. A Drought Management Plan is a voluntary process in which water users agree upon specific management measures to limit water use and share sacrifice in the event of shortages. Listed below are some basic first steps water users commonly use to minimize shortages:

- voluntarily conserving water
- improving the efficiency of water delivery systems
- cutting back on their diversions so that all users are able to divert at least some of their needed supply.

If these voluntary measures are ineffective or inadequate to address shortages in supply, a water user always has the option of implementing more formal measures to exercise his or her water right.

When a *senior water right* holder is unable to obtain enough water to meet his right, he can "call" the water of a *junior water right* holder. By placing a call, the senior user is asking specific water users with later priority dates to limit or stop water diversions. When disputes arise over the administration of water rights, there are a number of remedies available to water users. For example, a water user can file an action in district court requesting a temporary restraining order and preliminary *injunction*. This process is the fastest way to obtain relief, but it is also the most expensive.

If a water source is subject to a water rights decree, water users may petition the district court to appoint a water commissioner to administer water rights according to priority based upon the decree.

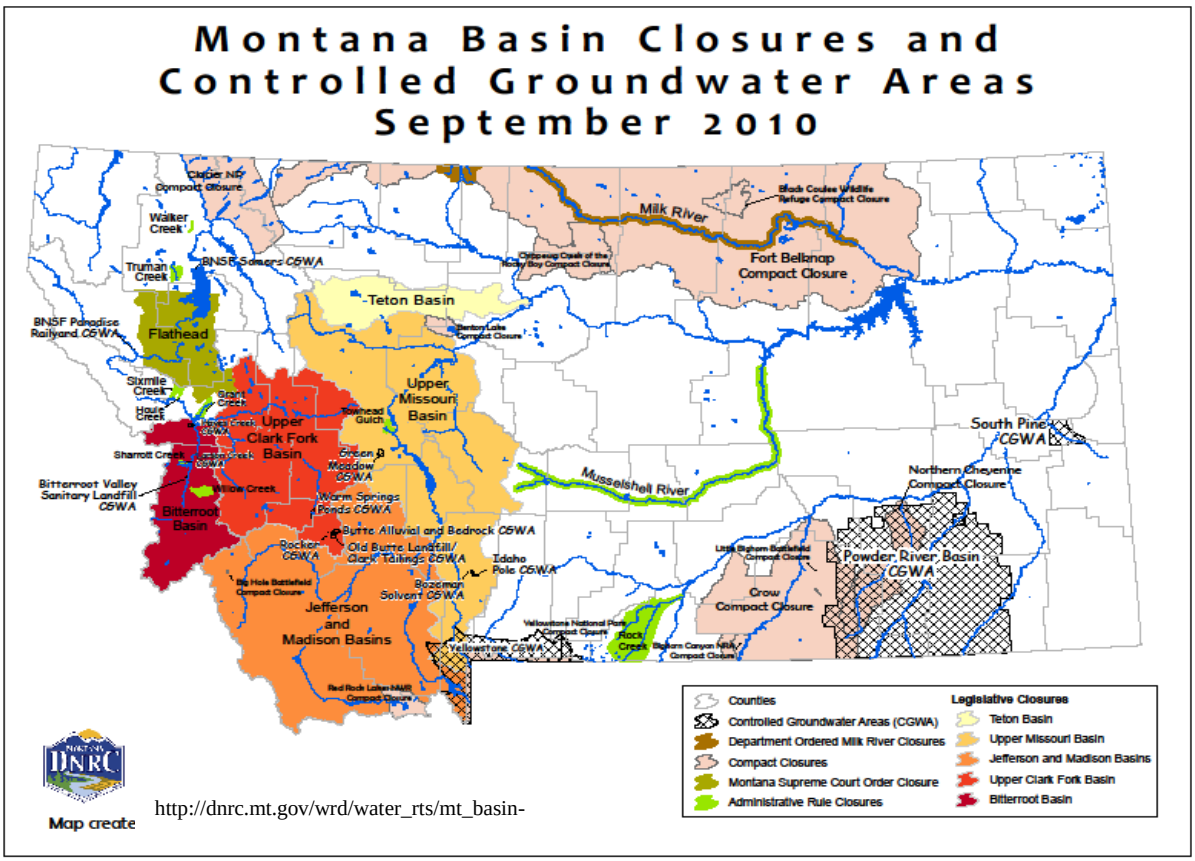
Source: konmesa/iStock/Thinkstock

Mediation may also be a useful tool for the resolution of water disputes between water users. A water user may petition the court for the appointment of a water mediator. The Water Court has special Water Masters who are trained and qualified as competent water mediators. Mediators do not have the power to order water users to do anything; however, they are often able to negotiate and propose solutions to these disagreements.

The specific type of relief available through the court system depends on the types of water rights that exist within the dispute. If you have questions about which specific remedies are available depending upon the status of your water rights, contact the DNRC or the Water Court to find out which remedies are available to you. In areas where not enough water exists to satisfy existing rights, new uses may be prohibited by rule or by statute.

The state of Montana has the ability to control or close river basins and *groundwater* sources to certain new water appropriations when there are problems involving water use and health. There are four types of closures:

1. A Controlled Groundwater Area (CGWA) may be designated to protect water quantity or quality. Certain local government entities or 1/3 of water rights holders in the proposed area can petition for a CGWA. The DNRC may also propose an area for designation and may then designate a CGWA by administrative rule assuming the criteria for establishing a CGWA are met (see Fact Sheet # 4: *Can Groundwater Meet the Demand for New Water Uses in Montana*?).
2. The DNRC may also adopt an administrative rule closing a basin or restricting new uses in a basin. In order for the DNRC to adopt an administrative rule closing a basin it must first receive a petition from the Department of Environmental Quality, or from 25 percent or ten (whichever is less) of water users in the basin. The closure can only occur when certain conditions threatening the water supply exist.
3. Statutory closures are created by the Montanan Legislature. These closures typically limit permit applications in basins that are over appropriated.
4. Compact closures can occur when the Reserved Water Rights Compact Commission negotiates compacts with tribes and federal agencies resulting in closures of certain water sources (see Fact Sheet #9: *What Are Federal or Tribal Reserved Water Rights* for more information).



What Is Water Rights Adjudication?

Water Fact Sheet #7

Italicized terms are defined in Fact Sheet #10

When a judge hears a case and makes a decision, the matter is said to have been *adjudicated*. *Water rights* adjudication refers to the settling of *statements of claim* filed for water rights. Adjudication establishes all *existing water rights* in the state, and provides essential protection to all Montana water users. The adjudication process establishes the *priority date* and the amount of water claimed by users for *beneficial use*. It does not, however, provide any information regarding water supply or the availability of water in Montana.

Prior to 1973, a person could gain a right to use water simply by putting that water to beneficial use. As a result, no one knew how many water rights there were or exactly how much water had been *claimed* by users. In passing the 1973 *Montana Water Use Act*, (Act) the Legislature recognized that the amounts, ownership, and priority dates for all existing water rights needed to be more clearly defined. To accomplish this, the Act required that all water rights existing prior to July 1, 1973, were to be adjudicated in state courts. The Act also established a permit system for obtaining new water rights, and an authorization system for changing water rights. In addition, the Act established a central system for all water rights records.

In 1979, the Act was modified to establish a special court, known as the *Water Court* to adjudicate all existing water rights in a statewide proceeding.

*The adjudication process does **not** provide any information regarding **water supply** or the **availability** of water in Montana.*

In June of 1979, the Montana Supreme Court issued an order requiring every person declaring ownership of an existing water right to file a statement of claim with the Department of Natural Resources and Conservation (DNRC) no later than January 1, 1982. The Court later extended the deadline to April 30, 1982. Existing water rights not filed by the deadline were assumed to have been abandoned. Certain stock and domestic water claims were exempt from the Court's order.

By the April 30, 1982, deadline, over 200,000 claims for existing pre-1973 water rights were received. Because adjudication of these claims cannot occur all at once, the claims are being handled systematically for each of Montana's 85 river basins (Figure 1). The adjudication process starts with DNRC staff examining each statement of claim for completeness and accuracy according to rules established by the Montana Supreme Court. Discrepancies are then reported to the claimants and the Water Court. The reports are also made available to the public.

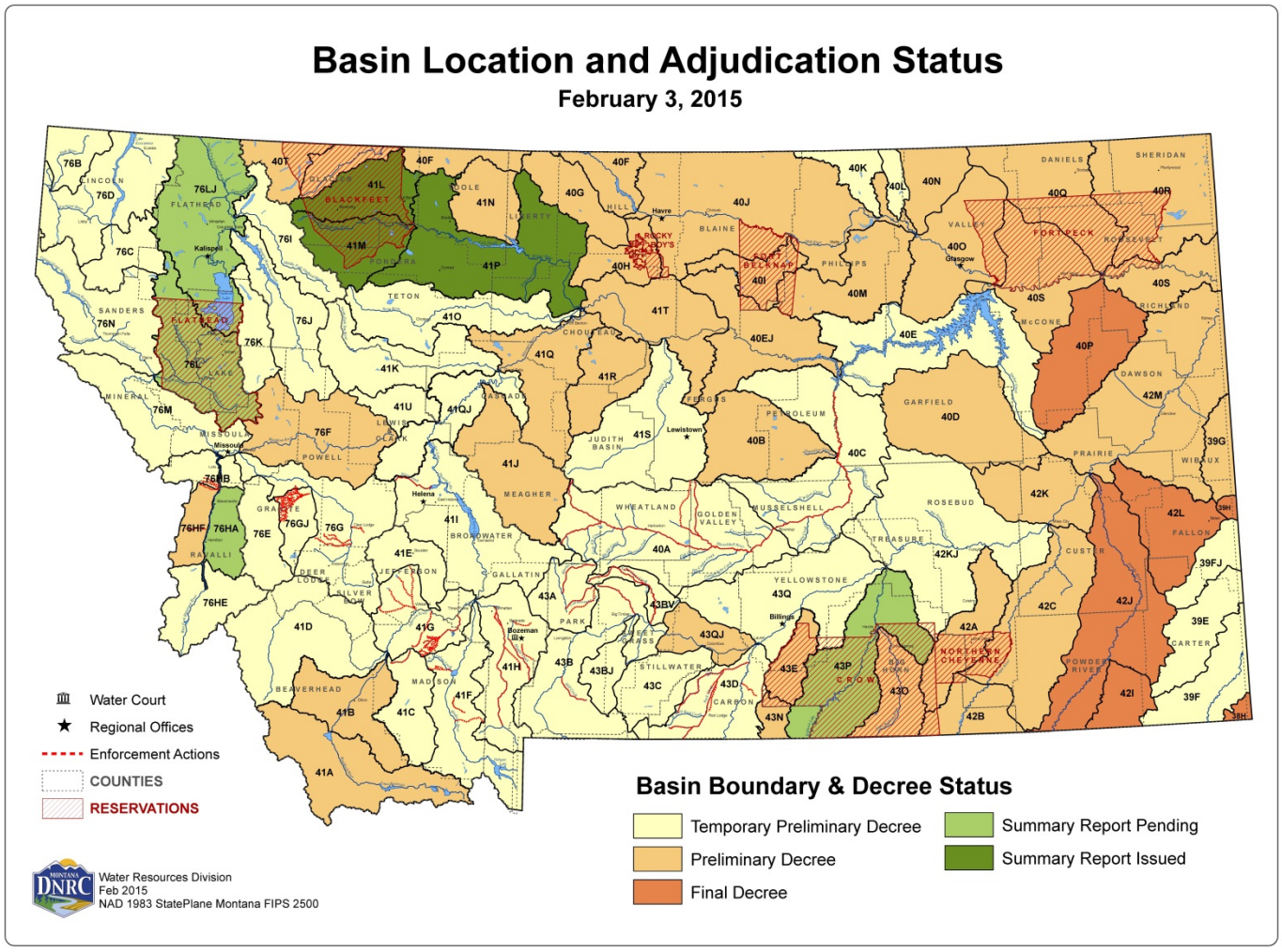


Figure 1-Basin location and adjudication status within Montana

The water judge, with the help of a water master, hears and decides all objections to the filed claims. After all objections have been resolved, the water judge issues a *decree* or ruling. Once a final decree is issued, the DNRC will release a Certificate of Water Right to each person decreed an existing water right. Water rights dated after July 1, 1973, are administered through the DNRC water rights permitting process and are therefore not subject to the adjudication process. By 1985, the first 20 water basins had been decreed.

The 2005 Montana Legislature passed House Bill 22 (HB22) to help speed up the adjudication process. HB22 called for the DNRC to evaluate the remaining 57,000 claims by June 30, 2015. In March of 2014 DNRC completed the examination of the 57,000 claims.

HB22 also set a target date for the Water Court to issue an initial degree for all basins in Montana by June 30, 2020. To assist the Water Court in meeting this target, the DNRC must provide the Court summary reports on the remaining basins to be decreed. In addition, HB22 requires the Water Court and the DNRC to provide progress reports to the Environmental Quality Council on a regular basis.

How Are Instream Flows Protected?

Water Fact Sheets #8

Italicized terms are defined in Fact Sheet #10

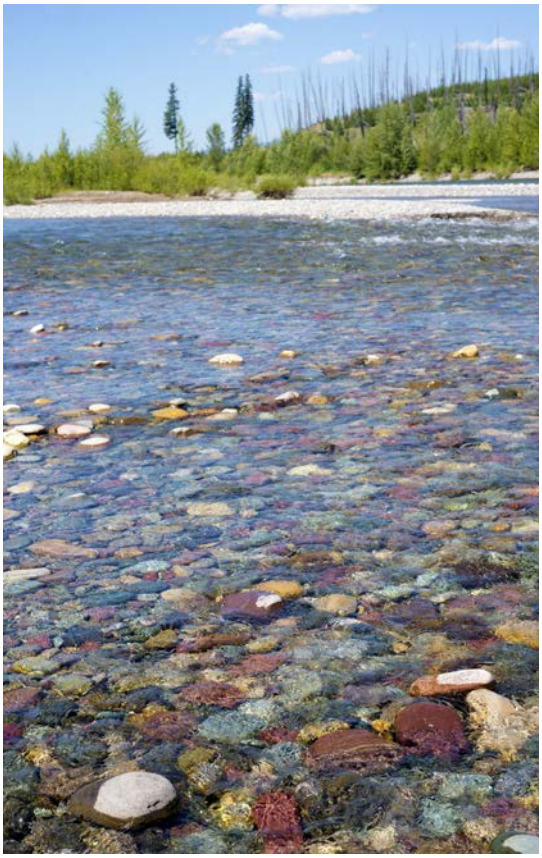
The allocation of water in Montana has traditionally focused on the need to satisfy off-stream uses for agriculture, industry, and domestic uses. However, Montana's rivers are well known for their outdoor recreational opportunities and world-class fisheries. Water rights, reservations and leases to keep water instream to protect fisheries, wildlife, and recreational uses have become widespread across the state.

Murphy Rights

In 1969, Jim Murphy of Kalispell sponsored legislation to provide *instream flow* protection for specified rivers in Montana. *Murphy Rights* were approved by the Legislature for 12 of Montana's Blue Ribbon trout streams. These rights have a December 1970 priority date and provide instream flow protection on the following rivers: Madison, Gallatin, Missouri, Smith, Big Spring Creek, Blackfoot, Flathead, West Gallatin, Rock Creek, Yellowstone, Middle Fork Flathead, and South Fork Flathead.

Recreational Water Rights

Recreational water rights are held by the Montana Fish Wildlife and Parks (FWP) to maintain instream flows necessary for public recreational uses. In the Clark Fork and Kootenai Basins, these rights are limited to the Bitterroot River and several lakes in the Clearwater and Blackfoot drainages. In the Upper Missouri River Basin, FWP holds a public recreation claim for 200 cubic feet per second (cfs) in the Beaverhead River from Grasshopper Creek to Clark Canyon Dam, as well as a fish and wildlife claim for 25 cfs from Clark Canyon downstream to the confluence with the Big Hole River. These claims are relatively junior, with priority dates of August 29, 1964, and February 28, 1962, respectively. The FWP also holds a year-round public recreation claim for 1,946,624 *acre feet* in Canyon Ferry Reservoir with a priority date of May 24, 1949.



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Instream Flow Leasing

In 1989, DNRC presented a section for the State Water Plan outlining options and possible strategies to protect instream flows. It created a working group representing diverse interests to review the paper. The Department of Natural Resources and Conservation (DNRC) incorporated some ideas from the working group and presented all the options to the public at public meetings throughout the state.

In 1989, following a summer that saw record low flows across the state, FWP received limited authority to temporarily lease or convert a water right to instream flow. In 1995, the Legislature extended authority to a water right owner to convert their right to instream flow, or lease the water right to a private third party for instream flow. A lease for instream flow may be entered for a term lasting up to 10 years. All leases may be renewed an indefinite number of times, but not for more than 10 years for each term. A lease up to 30 years is allowed if the leased water is made available from the development of a water conservation or storage project.

Changes of Use

Landowners that wish to preserve instream flows on their property also have the option of changing their water right from a consumptive use right to an instream flow right. This process requires the landowner to go through the change process administered by DNRC to ensure that the change of use does not negatively impact other senior water rights. These conversions are limited to a term of not more than 10 years.

State Water Reservations

In 1979, the Yellowstone River Reservations process reserved the FWP instream flow rights for a large number of streams in the Yellowstone Basin. These reservations vary by month, generally following seasonal flow patterns.

In 1992, the FWP was granted water reservations for minimum instream flows for 245 streams or stream reaches in the Upper Missouri River Basin. The reservations are intended to provide some protection to fisheries, wildlife, and recreational use values, and they have a priority date of July 1, 1985. FWP was granted similar flows for 13 streams in the Lower Missouri River Basin.

The Bureau of Land Management (BLM) has instream flow reservations for 31 smaller streams on BLM lands in the Missouri River headwaters. A summary of BLM reservations is presented in the basin reports. These reservations, which include year-round minimum flows and peak discharges for stream channel maintenance, also have a July 1, 1985, priority date.

Federal Water Reservations

To date, there have been 18 compacts negotiated by the Reserved Water Rights Compact Commission and approved by the Montana Legislature. The Legislature has approved compacts for all of the seven Indian reservations in Montana, as well as for five federal agencies administering federal lands in the state. All of the federal and tribal compacts include some water rights to protect instream flows. Please see the individual compacts for specific information regarding these water rights.

Additional Information can be found at:

Montana State Water Plan:
http://dnrc.mt.gov/divisions/water/management/state-water-plan

Approved Water Compacts:
http://dnrc.mt.gov/divisions/reserved-water-rights-compact-commission/approved-compacts

What Are Federal or Tribal Reserved Water Rights?

Water Fact Sheet #9

Italicized terms are defined in Fact Sheet #10

The rights to use water on federal and tribal reservations of land within Montana are known as *federal or tribal reserved water rights*, or Winters rights, named for the U.S. Supreme Court case that established the existence of these rights in 1908. The landmark *Winters v. United States* involved a dispute between the Fort Belknap Indian Community in north central Montana and upstream farmers on the Milk River. When farmers began diverting water upstream from the reservation, this diminished water supplies for agriculture on the reservation. The dispute eventually made it to the U.S. Supreme Court. The Court sided with the tribal nations, holding that the 1855 treaty establishing the reservation had implicitly reserved an amount of water necessary to fulfill the purposes for which the reservation was established.

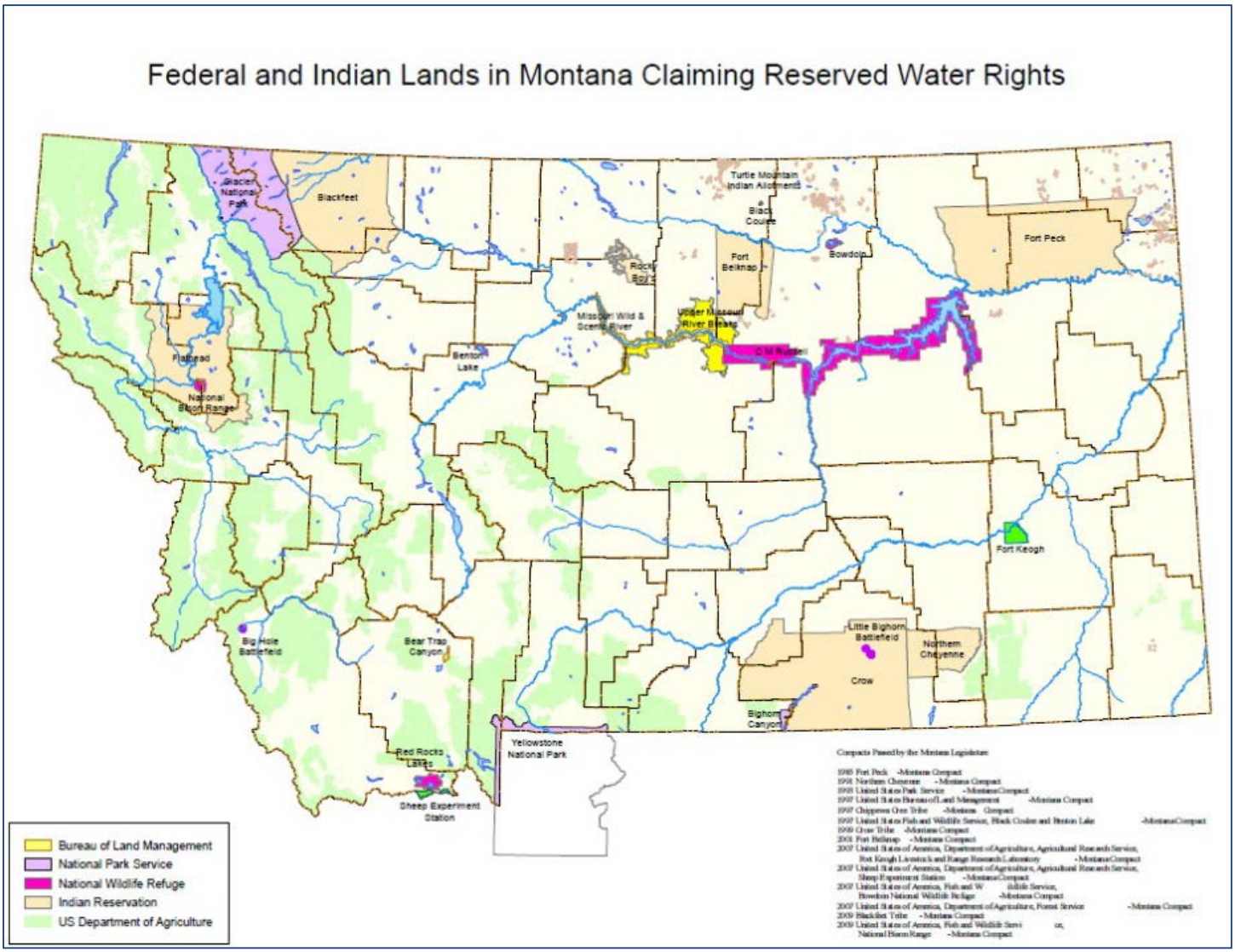


Figure 1- Locations of Federal and tribal reserved water rights in Montana

Although the principle of implied rights was originally established in the context of an Indian reservation, the rule of the case, known as the Winters Doctrine, has since been applied to any federal reservation of land requiring water to accomplish the purpose of the reservation. The Doctrine holds that with the withdrawal of land from the public domain, whether by executive order, treaty, or Act of Congress, there is an implied reservation of water sufficient to accomplish the purpose(s) for which the land was reserved. Such rights have a *priority date* of the date the reservation was established. Because the amount of water reserved is determined by the purpose(s) of the reservation, these rights are not established or determined by beneficial use, as state-based rights are. In addition, federal and tribal reserved water rights cannot be abandoned through non-use.

In Montana, reserved water rights have been claimed for seven Indian reservations, for national parks, forests, monuments, and wildlife refuges, and for federally designated wild and scenic rivers.

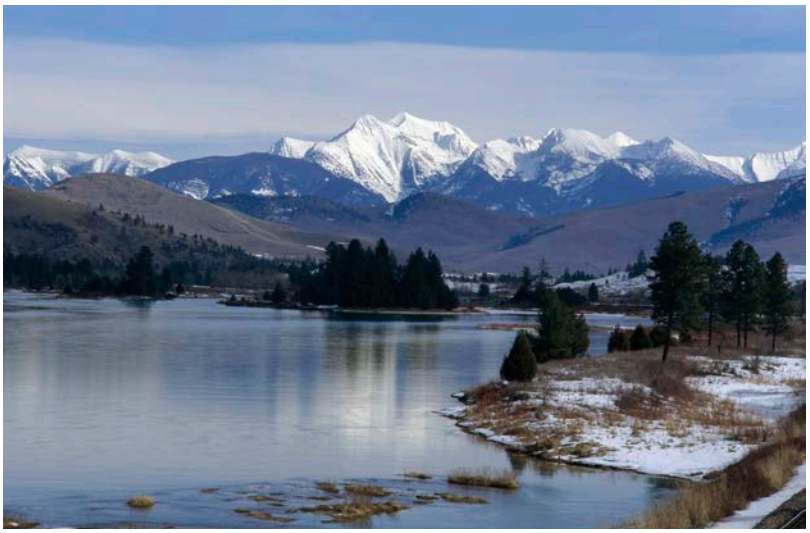
Montana's Reserved Water Rights Compact Commission (Commission) was established by the Montana Legislature in 1979 as part of the state-wide general stream adjudication process. The Commission is authorized to negotiate settlements with federal agencies and Indian tribes claiming federal reserved water rights within the state of Montana. The Commission includes nine members, each serving a four-year term. Two are appointed by the Speaker of the House, two by the President of the Senate, one by the Attorney General's office and four by the Governor's office. The Commission negotiates on behalf of the Governor's Office and represents the interests of Montana water users. The DNRC staff supports the Commission.

The requirement to file claims with the Montana Water Court in statewide general stream adjudication process is suspended for the tribal nations and the federal agencies pending the resolution of all negotiations by the Commission. This suspension ends June 30, 2015. Tribes and federal agencies for which no compact has been ratified must file their claims by that date.

Settlements negotiated by the Commission on behalf of Montana must be ratified by the Montana Legislature, appropriate federal authorities and also Tribal Councils in the case of settlements. In cases where federal appropriations are needed to implement provisions of the settlement, congressional approval is required. Once approved, the compacts are sent to the Water Court to be decreed.

Citizen participation is an essential element of each settlement negotiation. It ensures that the Commission's deliberations on behalf of Montana address the concerns of the public.

So far, there have been 18 compacts negotiated by the Commission and approved by the Legislature. The Legislature has approved compacts for seven Indian reservations in Montana, as well as for five federal agencies administering federal lands in the state.



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Water Fact Sheets Terminology

Water Fact Sheet #10

Abandonment- The intentional, prolonged, non-use of a perfected water right.

Acre-Feet- A unit of volume, commonly used in the United States, to describe large-scale water resources. It is the volume of one acre of surface area to a depth of one foot which is equal to 43,560 cubic feet.

Adjudication of Water Rights- In the context of Montana water law this refers to the statewide judicial proceeding to determine the type and extent of all water rights claimed to exist before July 1, 1973.

Aquifer- An underground layer of water bearing permeable rock or unconsolidated materials from which groundwater can be extracted.

Appropriate- To divert, impound, or withdraw, including by stock for stock water, a quantity of water for a beneficial use.

Basin- The area of land drained by a river and its tributaries, a watershed.

Beneficial Use- 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; use of water to maintain and enhance streamflows to benefit fisheries pursuant to conversion or lease of a consumptive use right.

Claim/Statement of Claim – The assertion that a water right exists under the laws of Montana or that a reserved water right exists under the laws of the United States in Montana's general adjudication.

Decree- A final product of adjudication and a legal document issued by a district court or the Montana Water Court defining the priority, amount, use, and location of a water right or set of water rights. The Montana Water Court adjudicates and prepares decrees for entire basins as part of the adjudication process.

Diversion- Structures, facilities, or methods used to appropriate, impound, or collect water including but not limited to a dike, dam, ditch, headgate, infiltration gallery, pipeline, pump, pit or well.

Exempt Wells - Under Montana water law, wells that divert 35 gallons per minute or less, and do not exceed 10 acre-feet per year in the total volume of water diverted are considered exempt from the permitting process. However, appropriators of water under these conditions are required to file a notice of completion with DNRC.

Existing Water Rights- "Existing right" or "existing water right" means a right to the use of water that would be protected under the law as it existed prior to July 1, 1973. The term includes federal non-Indian and Indian reserved water rights created under federal law and water rights created under state law

Federal or Tribal Reserved Water Rights- Established by an act of Congress, a treaty, or an executive order. Gives a right to use water; the amount of water reserved depends on the purpose for which the land was reserved.

Groundwater- Any water beneath the land surface.

Source: Sodapix/Thinkstock

Injunction- A court order for an individual to do or refrain from certain acts.

Instream Flow- Water left in a stream for non-consumptive uses such as aquatic habitat, recreation, navigation, or hydropower.

Junior Water Rights- A general term referring to a water right or the owner of a water right with a priority date that is later in time than another water right.

Montana Water Use Act- An act passed in 1973 to regulate Montana's water rights. All water rights prior to July 1, 1973 are to be finalized through an adjudication process and all new water rights have a permit system through DNRC. Also systems for changing water rights, centralized records, and reserving water for future consumptive and minimum instream uses were established.

Murphy Rights- Established in 1976. Appropriated stream flow amounts necessary for the preservation of fish and wildlife habitats. Named for the legislative author, Jim Murphy of Kalispell. They date back to 1970 and 1971 on 12 Blue Ribbon trout streams and only protect flows when senior water rights have been satisfied.

Prior Appropriation Doctrine- In the West water law generally follows the Prior Appropriation Doctrine. The person having the earliest priority date on their water right gets first use of the water; "First in time is first in right."

Priority Date- The clock time, day, month, and year assigned to a water right application or notice upon DNRC acceptance of the application or notice. The priority date determines the ranking among water rights.

Reasonable Use- The use of a water right taking into account the suitability of the watercourse, economic value, social value, and impacts on other users in the watercourse.

Reservoir- Pond, lake or basin, either natural or artificial, for the storage, regulation and control of water.

Return Flow- Part of a diverted flow that is applied to irrigated land or other beneficial use and is not consumed and returns underground to its original source or another source of water. Other water users may be entitled to this water as part of their water right.

Senior Water Rights- Senior water right holders have an earlier priority date than junior right holders and have first access to divert water from a source.

Surface Water- Water on the surface of the ground (lakes, rivers, ponds, floodwater, oceans, etc.); precipitation which does not soak into the ground or return to the atmosphere by evaporation or transpiration.

Storage- Water artificially impounded in surface or underground reservoirs for further use; water naturally detained in a drainage basin.

Unappropriated Water- Water which has not been appropriated, and in which no other person has or claims superior rights and interests.

Water Commissioner- Appointed by a district court to distribute water according to the water rights decree to aid in solving a water rights dispute.

Water Consumed- Water that is no longer available for use because it has evaporated, transpired through natural vegetation, been consumed by humans or livestock, used in the production of crops, or used for industrial applications.

Water Court- Located in Bozeman, the Montana Water Court's primary function is to carry out the state-wide adjudication. Disputes between water right holders are still handled in local district court, and the local district courts oversee water commissioners in their area.

Water Lease- An agreement with a water user to allow a person or organization, for a fee, to lease water from the user. Water leases are often used in Montana to maintain instream flow.

Water Withdrawn- Water extracted from the ground or diverted from a surface source. Some withdrawn water reenters the water system further downstream as return flow.