



Dictionary of Basic Water Terms

Absolute water right. Final or perfected water right. When the water has actually been put to beneficial use, the right is absolute.

Acre-foot (af). The basic measurement of standing water, an acre-foot is the amount of water it would take to cover an acre of land to a depth of 1 foot. It is approximately 325,850 gallons.

Adjudication. Adjudication is the judicial decree describing a water right and determining its priority date. The older the right, the more senior the right. (First in time, first in line) Water rights must be adjudicated in one of Colorado's 7 water courts.

Appropriation. Appropriation is the right to take water from a stream and put it to beneficial use. Appropriation is the basis of Colorado water law. Appropriative rights are considered property rights and may be bought, sold, leased, and exchanged, just as any other real property may. Appropriation establishes a water right by diversion and application to beneficial use.

Basin. A river basin is the drainage area of a particular river.

Beneficial use refers both to the purpose of the use (irrigation, municipal, etc.) and the manner of the use (demonstrated need for the amount of water appropriated under reasonably efficient practices)

Beneficial Use. Appropriation of water must be for a beneficial use. Only the amount reasonably needed for a lawful purpose is "beneficial." Colorado law does not designate all beneficial uses. It says instead, "use of that amount of water that is reasonable and appropriate under reasonably efficient practices without waste for which the appropriation was lawfully made." C.R.S. 37-92-103(4)

Bypass flow. A bypass flow is not a water right. It is a condition on the use of public land. A special use permit is required in order to operate a dam or diversion works on federal land. The federal land manager may impose a bypass flow requirement on the permit. Under low flow stream conditions, the operators may be required to close their head gates or to otherwise release water, allowing the water to bypass the diversion structure and simply remain in the stream. Unlike a state water right for an instream flow, a bypass flow is not a specified flow between two discrete points. A bypass flow requirement means that a federal land manager may direct the operator of a dam or other water diversion works located on federal lands to allow a portion of the stream to "pass by" the structure. The bypassed water remains in the stream.

Colorado General Assembly. The actual term for the Colorado legislature.

Compensatory storage. Compensatory storage refers to the concept that the impacts of a transbasin diversion may be partially offset or compensated by constructing additional storage within the basin of origin. Green Mountain Reservoir was constructed as compensatory storage on the West Slope for the Colorado Big Thompson project which diverts Colorado River Water to the East Slope.

Conditional right. Conditional rights are a way to essentially hold your place in line within the priority system until appropriated water is actually used. A conditional right is a right to use water conditioned upon completion of a specified project within a reasonable amount of time. Maintaining a valid conditional right requires a showing of diligence (periodic proof that you are really going to build something someday). A conditional water right becomes an absolute right when the water is actually used.



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Conjunctive use. Joint use of ground and surface water.

Consumptive use. Water that is “consumed” and does not return to the natural stream system from which it was taken for beneficial use.

Cubic feet per second (cfs). CFS is a measure of the rate of the flow of a cubic foot of water past a specific point. One cfs amounts to a volume of one cubic foot (7.48 gallons) per second. It is equal to 448.8 gallons/minute or 1.984 acre feet/day. One cfs was estimated by NWF to be roughly equivalent to the flow of thirty garden hoses going at the same time.

Diversion. A diversion is a physical structure that removes or controls the natural flow of water. Generally a diversion takes water out of a stream. It can also mean to control the water in the stream. (See RICD)

Equitable apportionment. When the Supreme Court is called upon to resolve disputes between states over water, it weighs the equities of each state in resolving the dispute. The Supreme Court has ruled that equitable apportionment will not protect waste. A state's commitment to conservation is an integral factor in determining its equitable apportionment of a disputed interstate river.

Evapo-transpiration. The combined effect of losing water through evaporation and transpiration by plants. Such water is consumed (“consumptively used”) in the process of irrigation and thus cannot be returned to the natural stream.

Federal reserved water rights. When the federal government reserves land for a specific purpose, such as a national forest or a wilderness area, it also reserves sufficient water for the stated purpose of the reservation.

Foreign water. Water transported from a different basin. Foreign water may be used to extinction. Also called non-native water or imported water.

Ground water. Ground water is water under the ground. Legally, there are three kinds of ground water, tributary, non-tributary, and not-non-tributary.

Instream flow right (ISF). A state water right created by the Colorado Legislature. The state itself holds the ISF rights on behalf of the people of Colorado. An ISF is to preserve or (thanks to our efforts in 2002 and SB156) also enhance the environment to a reasonable degree. Instream flow is the only beneficial use that does not require a diversion.

Interstate compacts. Colorado's share of water in the interstate rivers is protected by 9 interstate agreements with other states, which have been ratified by Congress and have the status of federal law.

Material injury. A measurable negative impact or effect. No proposed change in water use may occur if it would materially injure any other existing water right.



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Non-tributary ground water is water deep within the ground that is not connected to surface water.

Not-non-tributary is a legislatively created category that applies only in the Denver Basin.

Prior appropriation. Also known as “first in time, first in right,” the prior appropriation doctrine is the fundamental basis of Colorado water law. Water rights are ranked according to chronology, not location. The older the right, the more senior the right. When supplies are limited, senior rights are met. Junior rights may not be met.

Priority date. Date of the appropriation of a water right.

Recreational in-channel diversion (RICD). An RICD is a decreed water right that refers to the use of water in the stream channel where a structure controls the flow of the stream within a designated section in order to provide specific beneficial recreational uses. For example, the city of Fort Collins has an in-channel water right for fish ladders and a boat chute in the Poudre River to improve recreational use through the town.

Return flow. When water is taken from a natural stream and put to beneficial use, that which is not consumed returns to the stream. It is subject to use by the next appropriator.

Riparian doctrine. Body of water law common in most Eastern states where the water is plentiful. Water use is tied to ownership of the land adjacent to the water. The use must be reasonable (not defined) and may not interfere with the reasonable use of other riparian users. It is a very different system of water law than that which evolved in Western states where water is scarce.

Riparian. Area adjacent to a natural water body.

Surface water. Surface waters include streams, lakes, ponds, and ground waters directly connected with them. Laws governing the use of surface waters are administered in accordance with the doctrine of prior appropriation.

The 1876 Colorado Constitution named only agricultural, municipal, industrial, and domestic uses as beneficial uses. In 1973 the legislature passed a minimum stream flow bill which created a new category of beneficial use. State held instream flows sufficient to protect the environment to a reasonable degree are a beneficial use. In 2002 the law was amended to also permit improvement of the stream as a valid beneficial use.

The compacts entitle Colorado to take a great deal of water from the interstate rivers, provided we can show that we NEED the water. The compacts protect our share, but stipulate that we may only divert the water when we need it. We may not simply hoard the water to prevent downstream states from getting it. “Use it or lose it” does not apply to compacted interstate water allocations.

Transbasin diversion. Removal of water from the drainage area in which it occurs naturally for use in an entirely different basin. The water so removed is totally gone from the basin of origin. Water used in the new basin will return to streams in the new basin. None returns to the stream in the basin from which it was taken.

Tributary ground water is water underneath the ground that is physically connected with surface water. Surface water law applies to tributary ground water because what affects tributary ground water also affects surface water.



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Water right. A water right is a right to use water. Water rights are fully transferable property rights. We do not own the drops of water. We own a specified use of the water.

Special thanks to Jo Evans, former Colorado legislator and former director of Colorado Trout Unlimited, for starting this dictionary of basic water terms.