



# Glossary of Terms

**Acre-foot** – One acre-foot is defined as the volume of water that would cover one acre of land to a depth of one foot, which is approximately 325,851 gallons (or about 43,560 cubic feet). This unit of water is often used in agricultural and water resource contexts for assessing water availability and usage. As an example, Horsetooth Reservoir has a capacity of 156,735 acre-feet.

**Beneficial use** – In Colorado water law, the concept of beneficial use dictates that water must be put to practical and productive uses, such as irrigation for agriculture, supplying water to municipalities, industrial purposes, domestic consumption, sustaining natural ecosystems, and recreational activities. It's a foundational principle aimed at ensuring that water resources are utilized efficiently and effectively to meet the needs of various users while promoting responsible stewardship of water.

**Colorado Big-Thompson Project (CBT)** – A large-scale water diversion and storage project in Colorado, designed to collect water from the Colorado River Basin and transport it to the front range for irrigation, municipal supply, and hydroelectric power generation. In simple terms, water from the Western slope (Grand Lake) gets pumped through the Rocky Mountains (over the continental divide) and is distributed to the Eastern slope, which includes Horsetooth Reservoir and Carter Lake.

**Curtailment** – The reduction or limitation of water allocations to users due to shortages in a river's flow. It's typically implemented during times of drought or when the available water supply cannot meet the demands of all users. Curtailment measures may involve reducing water allocations to agricultural, industrial, or municipal users.

**Ditches and canals** – These pieces of water infrastructure are artificial channels for water transport in water resource management. Ditches are narrow, often shallow trenches used for irrigation or drainage, while canals are larger waterways for conveying water over longer distances and across diverse terrain, serving purposes like irrigation, flood control, and urban water supply. In Northern Colorado, these tend to all end up in some sort of water storage (i.e., reservoir), and are often managed by ditch companies.

**Ditch company** – An organization or entity responsible for managing and maintaining a network of ditches and canals used for irrigation or drainage purposes. These companies are typically formed by landowners who rely on the ditches to supply water to their fields or to manage excess water. Ditch companies often oversee the construction, operation, and maintenance of the ditches, as well as the allocation of water rights among their members.

**Diversion** – The process of diverting water from its natural course or location, typically from a river, stream, or other water source, for various purposes such as irrigation, municipal supply, industrial use, or hydropower generation. Water diversions in Colorado are regulated by complex legal frameworks and water rights systems.

**Drought tolerant landscape** – A type of landscaping design and practice that emphasizes the use of plants and materials that require minimal water to thrive, particularly in semi-arid regions prone to water scarcity or drought conditions.

**Ecological conditions** – The overall health, structure, and functioning of ecosystems, including factors such as biodiversity, habitat quality, species populations, and ecosystem services.

**Floods** – An overflow of water onto normally dry land or when the levels of water go above the normal confines of a water body. Floods are caused by heavy rainfall, rapid snowmelt, or the breaching of natural or artificial barriers such as levees or dams. Flooding tends to be more severe following a wildfire, especially a wildfire with high burn severity.

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**Graywater** – Wastewater produced from everyday household tasks like bathing, laundry, and dishwashing that has the potential for reuse in non-drinking applications like irrigation, toilet flushing, and specific cleaning tasks following basic treatment. However, navigating water rights and health regulations in Colorado adds layers of complexity to this practice. In many instances, water providers in the region do not permit the use of graywater.

**Highest producing lands** – Agricultural lands or regions with high productivity and output in terms of crop yields, livestock production, or other agricultural activities, often supported by favorable climate, soil fertility, water availability, and management practices.

**Impaired waters** – Bodies of water, such as rivers, lakes, and estuaries, that do not meet established water quality standards due to pollution, contaminants, or other factors, posing risks to human health and aquatic ecosystems.

**Instream flow** – Instream flow refers to the volume of water within a natural stream or river channel. In the context of water rights in Colorado, instream flow is a legal term used to describe water rights that are specifically allocated to maintain certain flow levels in streams and rivers to protect and preserve the aquatic environment and ecosystem.

**Intense wildfires** – Wildfires with high burn severity. These are characterized by their rapid spread, high intensity, and significant ecological and socio-economic impacts, often fueled by dry vegetation, hot temperatures, and strong winds. Intense wildfires have a greater impact to vegetation and soils, therefore a slower recovery in high burn severity areas.

**Mitigation strategies** – Measures and actions aimed at reducing or preventing the adverse impacts of natural or human-induced hazards and disasters, such as floods, droughts, wildfires, and climate change, through planning, preparedness, and risk reduction efforts. In the water plan context, these strategies will lessen water-related vulnerabilities.

**Municipality** – A local administrative division or government entity that typically governs an urban area, town, city, or sometimes a group of local communities. Municipalities are responsible for providing essential public services and amenities to residents within their jurisdiction, such as water supply, waste management, transportation, public safety, and local infrastructure maintenance. They are often governed by elected officials, such as mayors and city councils, who make decisions on behalf of the community and manage municipal affairs.

**Prior appropriation** – In Colorado, prior appropriation is a legal doctrine governing water rights allocation. Under this doctrine, water rights are allocated based on a "first in time, first in right" principle, meaning that the first person or entity to use water for a beneficial purpose has priority over subsequent users during times of scarcity (see water right).

**Resilient** – The capacity of a system, community, or ecosystem to withstand and recover from disturbances, shocks, or stresses while maintaining its essential functions and structures.

**Riparian areas** – Ecologically significant zones adjacent to rivers, streams, and other water bodies, characterized by unique vegetation, habitats, and wildlife, playing crucial roles in flood control, water quality maintenance, and biodiversity conservation.

**Stewardship** – The responsible and sustainable management and care of natural resources, ecosystems, and cultural heritage, with the goal of ensuring their preservation and protection for future generations.

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**Water adequacy** – The sufficiency of available water resources to meet the needs of various sectors, such as agriculture, industry, households, and the environment, without causing significant depletion or degradation.

**Water call (e.g., administrative call)** – A legal mechanism or process by which water rights holders are required to release or curtail their water withdrawals from a common source, usually to satisfy the needs of higher-priority users or to comply with regulatory mandates.

**Water conservation** – The deliberate and sustainable management of water resources to reduce consumption, minimize waste, and preserve natural ecosystems, often through the implementation of efficiency measures, regulations, and behavioral changes.

**Water efficiency** – The optimization of water use to minimize waste and maximize productivity, often achieved through the adoption of technologies, practices, and policies that reduce water consumption and losses.

**Water literacy** – The understanding and knowledge of water-related issues, including water availability, quality, conservation, and management practices, among individuals, communities, and decision-makers.

**Water provider** – An entity or organization responsible for supplying and distributing water to consumers, including households, businesses, industries, and agricultural operations, often through public utilities or private companies.

**Water right** – Legal entitlement or permission granted to an individual, organization, or entity to use a specific quantity of water from a water source for a defined purpose. Water rights in Colorado are governed by a system of prior appropriation, which means that the first person or entity to beneficially use the water for a beneficial purpose has a senior right, and subsequent users have junior rights. In Colorado, water rights are administered by the Colorado Division of Water Resources.

- **Senior water right** – A legal entitlement to use water that holds priority over other rights based on an earlier date of appropriation or establishment. In times of water scarcity or during regulatory restrictions, holders of senior water rights are entitled to access water before those with junior water rights.
- **Junior water right** – A legal entitlement to use water that holds a lower priority compared to senior water rights. Junior rights are established or appropriated after senior rights, meaning that during times of water scarcity or regulatory restrictions, holders of junior water rights must reduce their water usage or cease it altogether before senior rights holders are affected.

**Watershed** – A geographical area defined by the natural flow of water, such as rivers, streams, and tributaries, where all surface water drains into a single point or a common waterway, like a stream, river, lake, or ocean. Watersheds are scalable. They can be as small as a gulley, all the way up to Country-wide watersheds, like the Missouri, or the Upper Colorado River Basin.

**“Use it or lose it”** – If a water rights holder doesn't actively utilize their allotted water (see water right), they risk forfeiting those rights. This principle aims to promote efficient water usage by ensuring that allocated water resources are actively being used for beneficial purposes.

**Xeriscape** – A landscaping method designed to conserve water and promote sustainability, particularly in arid and semi-arid regions. It involves using native or drought-tolerant plants, minimizing the need for irrigation, and employing water-efficient techniques such as mulching and soil improvements.