| Term | Definition: |
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| **WATER TERMS refer to USGS Science Glossary** | https://www.usgs.gov/special-topics/water-science-school/science/water-science-glossary |
| | https://water.usgs.gov/water-basics_glossary.html |
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| Acre-foot (acre-ft) | The volume of water needed to cover an acre of land to a depth of one foot; equivalent to 43,560 cubic feet or 325,851 gallons. |
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| Active Water Resource Management | Rules and regulations adopted by the State Engineer to undertake the supervision of the physical distribution of water, to prevent waste, and to administer the available supply of water by priority date or by alternative administration, as appropriate. These rules apply to all water rights within the state from all sources of water, surface water and hydrologically connected groundwater. |
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| AWWA : | American Water Works Association. A nonprofit, scientific, and educational society dedicated to providing total water solutions assuring the effective management of water. |
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| Affidavit of Publication (AoP): | Sworn statement of a newspaper publisher certifying that a Notice for Publication was published on the dates indicated. |
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| Alluvium : | General term for deposits of clay, silt, sand, gravel, or other particulate material deposited by a stream or other body of running water in a streambed, on a flood plain, on a delta, or at the base of a mountain. |
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| Alternate forms of Administration : | 1) Shortage Sharing Agreements: Voluntary shortage sharing agreements are one way of extending limited water supplies during the drought. An agreement might be among multiple water right owners -- for example, between farmers, municipalities, businesses, Native Americans, and others – to share available water supplies under existing conditions. A shortage sharing agreement has worked successfully in the San Juan Basin, for example. |
| | 2) Rotation Agreements: Voluntary rotation agreements work when water users take turns using water, according to a set schedule that is agreed upon by all water users sharing a source. Agricultural communities have used rotation successfully on the Jemez River, where non-Indians and Pueblos share water supplies. |
| | 3) Rotation Agreements: Voluntary rotation agreements work when water users take turns using water, according to a set schedule that is agreed upon by all water users sharing a source. Agricultural communities have used rotation successfully on the Jemez River, where non-Indians and Pueblos share water supplies. |
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| Application (for Permit): | A request for a permit from the State Engineer to appropriate water; make changes to a water right; contruct or repair a well or point of diversion; or construct**, alter or rehabilitate** a dam or impoundment. |
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| Appropriate (verb) : | To take the legal steps necessary to create a right to take water from a natural stream or aquifer for application to beneficial use. |
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| Appropriation : | The right to take water from a natural stream or aquifer for beneficial use at a specified rate of flow, either for immediate use or to store for later use. May be confirmed by a water court decree or permit or license issued by the State Engineer. |
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| Aquifer : | 1. A geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to springs and wells. |
| | 2. A geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells. |
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| Aquaculture : | The method of raising organisms in water in a controlled environment for food, conservation restoration, or sport (WRATS Taxonomy). |
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| Artesian : | The word artesian, properly used, refers to situations where the water is confined under pressure below layers of relatively impermeable rock. |
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| Base Flow : | The sustained low flow of a stream, usually ground-water inflow to the stream channel. |
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| Basin : | 1. An underground water source, the boundaries of which have been determined and proclaimed by the state engineer of New Mexico to be reasonably ascertainable. |
| | 2. A surface water drainage basin. |
| | 3. A division of a surface water drainage basin (also referred to as subbasin). |
| | 4. An area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel |
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| Bedload : | That part of the sediment load in which the particles of material move on or near the streambed. |
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| Bedrock : | ~~General term for~~ consolidated (solid) rock that underlies soils or other unconsolidated material. |
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| Bolson : | An alluvium-floored basin, depression, or wide valley, mostly or completely surrounded by mountains with no surface drainage outlet. Bolson fill is the alluvial detritus that fills a bolson--also commonly called bolson deposits. |
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| Brackish Water: | Water containing 1,000 to 10,000 milligrams per liter of total dissolved solids. |
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| Bubblers : | Irrigation heads that deliver water to the soil adjacent to the heads. |
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| Center Pivot : | See Irrigation. |
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| Closed Basin : | (1) "Closed Basin" hydrologic unit - A drainage area that is 100% non-contributing. This means all surface flow is internal, no overland flow leaves the hydrologic unit through the outlet point |
| | (2) An administrative groundwater basin or distinct part of an administrative groundwater basin that the State Engineer has determined by an Order that no new appropriation of water can be acquired by permit. |
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| Combine: | Combining places of use into one new place of use and the authorized points of diversion are combined such that each point of diversion is considered as a primary or supplemental point of diversion to each of the combined water rights. |
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| Commingle: | Combining places of use of multiple water rights into a single place of use without changing the existing diversion limits from each point of diversion. |
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| Compact : | A formal agreement between states concerning the use of water in a river or stream that flows across state boundaries. |
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| Compact Call : | The requirement that an upstream state cease or curtail diversions of water from the river system that is the subject of the compact to satisfy the downstream state's compact entitlements. |
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| Conditions of Approval: | Requirements imposed by the State Engineer upon permit holders as requisites of granting and maintaining a permit in good standing. |
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| Confining Bed : | A body of low hydraulic conductivity material stratigraphically adjacent to an aquifer that restricts the movement of water into and out of the aquifers. |
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| Conjunctive Water Use : | Combined use of groundwater and surface water. |
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| Conservation : | Actions taken by water users (either systems or individuals) to reduce the diversion, consumptive use of water or to decrease depletions or increase the efficient use of water. |
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| Continental Divide : | The boundary, located in the western United States, that separates the Pacific and Atlantic watersheds. |
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| Cubic Foot (ft^3) of water: | A volumetric unit of water equivalent to the amount of water that can fill a container one foot by one foot by one foot. Equivalent to 7.48 gallons. |
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| Cubic Foot Per Second (CFS) : | The rate of discharge equivalent to flow through an area one foot by one foot at a velocity of one foot per second. |
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| Curtailment | The limitation on diversion of water rights based on a given system of administration. In the context of Active Water Resource Management curtailments may occur based on Priority, Shortage Sharing, Depletion Limit, or Direct Flow. |
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| Declared Underground Water Basin : | An area of the State proclaimed by the State Engineer to be underlain by a groundwater source having reasonably ascertainable boundaries. By such proclamation the State Engineer assumes jurisdiction over the appropriation and use of ground water from the source. |
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| Depletion : | The volume of water that is diverted from a source of water and not returned to the source. Term is closely related to Consumptive Use. |
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| Desalination: | The process of removal of salts from saline or brackish water. |
| | |
| Development : | The construction or placement of one or more structures or surface improvements on land in order to establish a residence or generate economic activity. |
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| Discharge : | Volume of water that passes a given point within a given period of time (Source - USBR) |
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| Drainage Basin : | A part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water. |
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| Drawdown (Groundwater) : | The depression or decline of the water level or potentiometric surface in a pumped well or in nearby wells caused by pumping. At the well, it is the vertical distance between the static and the pumping level. |
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| Drip Irrigation : | See Irrigation. |
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| Drought : | A deficiency of precipitation over an extended period of time resulting in a water shortage. |
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| Dryland Farming : | Practice of crop production in semi-arid areas without using irrigation from surface or groundwater sources, often accomplished by planting low water use crops and/or using water-conserving farming techniques. |
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| Due Diligence : | The actions and efforts undertaken to demonstate an intent to complete a diversion of water within a reasonable timeframe. |
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| Enlarging the Place of Use (spread irrigation) | Increasing the area of the permitted place of use without increasing the permitted amount of water diverted from the permitted source. |
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| Ephemeral Stream : | A stream or portion of a stream, which flows only in direct response to precipitation. Such flow is usually of short duration. Most of the dry washes and arroyos of the region may be classified as ephemeral streams. |
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| Evaporation : | Process by which water is changed from the liquid state to the vapor state. |
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| Evapotranspiration : | The unit volume of water consumed on a given area in the transpiration, building of plant tissue, and evaporation from either the ground or plant surface in a specific period of time. Can be expressed as either a volume per unit area (acre-feet per acre) or depth (inches). |
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| Fallow: | Cropland, either tilled or untilled, allowed to lie idle, during the whole or the greater part of the growing season. |
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| Flume : | A human-made sloped channel used to convey water from a point of diversion. Some specialized flumes are used to measure flow (e.g. Parshall flume) by means of a calibrated throat or cross section (See also Weir.) |
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| Free-Flowing Well : | An artesian well in which the potentiometric surface is above the land surface for which no steps have been taken to control the flow of water at the land surface. |
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| Freshwater : | Water that contains less than 1,000 mg/L (milligrams per liter) of dissolved solids; generally, more than 500 mg/L is considered undesirable for drinking and many industrial uses. |
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| Fugitive Water : | The pumping, flow, release, escape, or leakage of any water from any pipe, valve, faucet, connection, diversion, well, or any facility for the purposes of water supply, transport, storage, disposal, or delivery onto adjacent property or the public right-of-way. |
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| Futile Call : | When a water user requests through a water master the release of water, or curtailment of junior users upstream based on priority administration for diversion by the water userthat will not make it through the conveyances to reach the water user's point of diversion. |
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| Gaging Station : | A particular site on a stream, canal, lake or reservoir where systematic observations of hydrologic data are obtained. |
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| Gaining Stream : | A river, or reach of a stream or river, that gains flow from groundwater seepage or from springs in, or alongside, the channel--sometimes called an effluent stream. |
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| Groundwater Basin : | See "Declared Underground Water Basin" |
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| Groundwater : | Generally, all subsurface water as distinct from surface water; specifically, that part of the subsurface water in the saturated zone (a zone in which all voids, large and small, ideally are filled with water under pressure equal to or greater than atmospheric). |
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| Groundwater Mining : | The removal or withdrawal of water from an aquifer that exceeds the rate at which the aquifer is recharged. It is also called "overdraft" or "mining the aquifer." |
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| High Water Use Turf : | Grasses planted for aesthetic or recreational purposes which are not native to the local environment and require frequent watering to maintain viability. Examples include varieties of Bermuda, Bluegrass, Ryegrass, Fescue, and Bentgrasses. |
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| Hydraulic Gradient (Groundwater) : | The gradient or slope of the water table or potentiometric surface in the direction that yields a maxium rate of decrease in head. |
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| Hydroelectric Power : | Electric energy generated by means of water moving by gravity through a turbine which in turn spins a generator. |
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| Hydrograph : | A graph showing the stage, flow, velocity, or other property of water with respect to the passage of time. Hydrographs of wells show the changes in water levels during the period of observation. |
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| Hydrologic Cycle : | The cyclical movement of water between Earth's surface and atmosphere through precipitation and evapotranspiration. |
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| Impermeable : | Not capable of transmitting fluids or gases in appreciable quantities. Few rocks are completely impermeable; but some--such as unweathered granite, dense basalt, welded tuff, dense limestone, and well-cemented conglomerate--may be so considered for practical purposes. |
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| Infiltration ~~Rate~~ : | The amount of water absorbed by the soil per unit of time, usually expressed in inches per hour. |
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| Intermittent Stream : | A stream which flows for only a part of the time. Flow generally occurs for several weeks or months in response to seasonal precipitation, due to groundwater discharge, in contrast to the ephemeral stream that flows but a few hours or days following a single storm. |
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| Irrigated Area : | The gross area upon which irrigation water is applied. |
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| Irrigation (Agriculture) : | The controlled application of water to arable lands to supply the water requirements of crops that is not satisfied by precipitation. Systems used include the following:Generally, the controlled application of water to arable lands to supply water requirements of crops not satisfied by rainfall. (See also Irrigation water use.) Examples of types of irrigation are as follows: |
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| | 1. Center-pivot : Mechanized system which irrigates crops in a circular pattern by rotating pipes (typically 1,250 to 1,300 feet long) supported by fixed-space towers around a central pivot. Water is delivered from the pivot into nozzles attached to the pipes. Nozzle size increases with increased distance from the pivot point to ensure water is applied at a uniform rate along the pipe. The depth of water applied is dependent upon the rotation rate and sprinkler flow rate. |
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| | 2. Drip : The direct and precise application of water to the root zone of plants by applicators (orifices, emitters, porous tubing, perforated pipe) placed along a water delivery line. |
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| | 3. Flood : Water is applied at a single point (or through a gated pipe) from a ditch or pipe and allowed to flow freely over the land to irrigate the crops. |
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| | 4. Furrow : Water is diverted into small parallel channels called furrows, and crops are grown in rows on the ridges between furrows. |
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| | 5. Sprinkler : The application of water to land through the use of a nozzle which creates a spray pattern. Systems can be either fixed-position or a continuous-move system such as a center-pivot. |
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| | 6. Traveling gun : Sprinkler irrigation system consisting of a single large nozzle that rotates and is self-propelled. The name refers to the fact that the base is on wheels and can be moved by the irrigation or affixed to a guide wire. |
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| Irrigation (other) : | The controlled application of water on lands to maintain vegetative growth on lands for landscaping and recreational uses. |
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| Irrigation Efficiency : | The percentage of water diverted from a source that is consumed by crops. It is the prouduct of the off-farm and on-farm efficiencies. |
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| Junior Rights : | Water rights established later in time in relation to water rights established earlier in time (Senior Rights). This priority system designates which rights would be curtailed during a priority call as opposed to senior rights that would be allowed to continue diversion for beneficial use. |
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| KAF : | One thousand acre-feet. |
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| Karst : | A type of topography that is formed on limestone, dolomite, gypsum beds, and other rocks by dissolution and is characterized by closed depressions, sinkholes, caves, and underground drainage. Also characterized by collapsed structures that may or may not be visible at the surface. |
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| mg/L : | Milligrams per liter; a measure of a substance's concentration in water expressed as mass of the substance (milligrams) per volume of water (liter). |
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| MRWeb: | The State Engineer's online portal for water users to submit meter readings. |
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| Mayordomo : | Official manager and caretaker of an *acequia* or community ditch who carries out the established rules, or *reglas* , and instructions of the ditch commission. |
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| New Mexico Water Rights Reporting System (NMWRRS) | Online access to the State Engineer's water rights database, W.A.T.E.R.S. |
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| Non-Consumptive Use : | Use of water that does not permanently deplete the water from its source. Examples may include in-stream flows, carriage water, and return flows. |
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| Non-Potable: | Water that is not suitable for human consumption. For the purpose of Sections 72-12-25 through 72-12-28 NMSA 1978, means water containing not less than one thousand parts per million of dissolved solids. |
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| Non-Revenue Water | For a water system, the difference between the amount of water supplied and the amount billed at the customer meters. This includes both system losses and unmetered authorized consumption. |
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| Notice for Publication: | Public notice issued by the Office of the State Engineer to an applicant to be published in a newspaper of general circulation advertising an application for permit. |
| | |
| Perched Groundwater : | Water in a saturated zone of material underlain by a relatively impervious stratum which acts as a barrier to downward flow and which is separated from the main ground water body by a zone of unsaturated material above the main groundwater body. |
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| Porosity : | The ratio of the total volume of pore space (voids) in a rock or soil to its total volume, usually stated as a percentage. Effective porosity is the ratio of the volume of interconnected voids to the total volume. Unconnected voids contribute to total porosity but are ineffective in transmitting water through the rock. |
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| Potentiometric Surface : | An imaginary surface representing the total head in an aquifer. |
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| Prior Appropriation : | Doctrine of water allocation in the western United States that confers the prevailing right to the use of water from the same source as between two appropriators to the earliest user. Application of this system of rights is know as Priority Administration. (this term might be good to have its own definition, both generally and as it applies to AWRM.) |
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| Priority Call : | A demand that water rights with newer (aka junior) priority dates than the calling right cease diverting. The senior water right holder "calls" for their water rights, requiring the junior water right holders to cease diverting allowing for fulfillment of senior diversions. See also Futile Call. |
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| Produced Water: | Fluid that is an incidental byproduct from drilling for, or the production of, oil and gas. It is mostly naturally occurring, high-salinity water (formation water) but may also include drilling fluids. |
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| Rainwater Harvesting : | Precipitation that is collected from residential and commercial roof surfaces, stored, and available for reuse for on-site landscape irrigation and other on-site uses. |
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| Recharge : | The addition of water to an aquifer by infiltration, either directly into the aquifer or indirectly by way of another rock formation. Recharge may be natural, as when surface water infiltrates to groundwater, or artificial, as when water is injected through wells or spread over permeable surfaces for the purpose of recharging an aquifer. |
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| Reservoir : | An artificial lake which provides a source of water supply, flood control, or recreation. |
| | |
| Return Flow : | The part of a diverted flow which is not consumed and which returns to the same source from which it was diverted. |
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| Saline Water: | Water containing 10,000 to 35,000 milligrams per liter of dissolved solids. |
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| Self-supplied Water: | Water withdrawn from a surface or groundwater source by a user rather than obtained from a public water supply. |
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| Single-Family Residential : | A lot or premises upon which is established one dwelling only. |
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| Specific Capacity : | In groundwater hydrology, the yield of a well in gallons per minute per foot of drawdown after a period of sustained pumping. |
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| Sprinkler Irrigation : | See Irrigation. |
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| Stacked Irrigation Rights: | Two or more valid irrigation water rights permitted for use at a single place of use resulting in a permitted diversion amount of water that is greater than the applicable Farm Delivery Requirement (FDR). |
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| Storativity, or storage coefficient: | The volume of water that a permeable unit will absorb or expel from storage per unit surface area per unit change in hydraulic head. |
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| Streamflow : | The discharge that occurs in a natural channel of a surface stream course. |
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| Subirrigation : | Plant root zones being directly fed naturally by existing groundwater. |
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| Surface Water Basin : | 1. An area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. |
| | 2. A division of a surface water drainage basin (also referred to as subbasin). |
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| Transmissivity: | Measure of the amount of water than can be transmitted horizontally through a unit width by the full saaturated thickness of the aquifer under a hydraulic gradient of 1, typically expressed as ft^2/d. |
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| Tributary : | A stream or river that flows into a larger river, stream or lake. |
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| W.A.T.E.R.S. | Acronym for the State Engineer's water rights database; the Water Administration Technical Engineering Resource System. |
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| Watershed : | An area from which water drains and contributes to a given point on a stream or river. |
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| Water Right: | A right to divert waster form a surface or groundwater source for application to beneficial use. The right is usafructory, that is a right to use, not ownership of the water itself. |
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| Water Table : | The upper surface of zone of saturation in an unconfined aquifer at atmospheric pressure. See also Potentiometric Surface. |
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| Weir : | A vertical structure in an open channel with a calibrated opening that measures water's rate of flow. (See also Flume.) |
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| Withdrawal : | Water removed from the ground or diverted from a surface water source for use. |
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| Zone of Saturation : | The zone in which all the connected interstices or voids in permeable rock or soil formation are filled with water under pressure equal to or greater than atmospheric pressure. |
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| Xeriscape : | Landscaping concept that uses low-water use plants, efficient irrigation, and mulches to reduce water use. |