

2017 – Glossary of water terms used by the NM State Engineer Office

AWWA : American Water Works Association. The drinking water industry's trade association; headquarters are in Denver.

Acre-Foot : Volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot, equivalent to 325,851 gallons.

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.

Appropriate (verb) : To take the legal actions necessary to create a right to take water from a natural stream or aquifer for application to beneficial use.

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. Usually confirmed by a water court decree. (See also Prior Appropriation, Riparian Rights and Water Right.)

Aquaculture : Art and science of farming organisms that live in water, such as fish, shellfish, and algae.

Aquifer : 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 and springs.

Artesian Water : Ground water under sufficient pressure to rise above the level at which the water-bearing bed is reached in a well. The pressure in such an aquifer commonly is called artesian pressure, and the formation contains artesian water is an artesian aquifer.

Artificial Recharge : The addition of water to the ground water reservoir by man's activities, such as irrigation or induced infiltration from streams or wells.

Automatic Controller : A solid state timer capable of operating valve stations to set the days and length of time water is applied.

Average Annual Yield (Water) : The average annual supply of water produced by a given stream or water development over a period of 12 months.

Average Winter Consumption (AWC) : The amount of water used on average by a customer during the winter; provides a good indication of indoor water use.

Backflow Prevention : Prevention of the flow of any foreign liquids, gases or substances into the distribution pipelines of a potable water supply; accomplished by an air gap or mechanical backflow obstacle.

Bank Storage : Water absorbed and stored in the banks of a stream, lake, or reservoir when the stage rises above the water table in the bank formations and stays there for an appreciable length of time. Bank storage may be returned in whole or in part as seepage back to the water body when the level of the surface water returns to a lower stage.

Base Flow : Sustained or fair-weather runoff--generally that portion of the streamflow derived from discharging ground water or other delayed sources such as lakes or snow fields.

Bedload : That part of the sediment load in which the particles of material move on or near the streambed.

Bedrock : General term for consolidated (solid) rock that underlies soils or other unconsolidated material.

Beneficial Use of Water : The use of water by man for any purpose which benefits are derived, such as domestic, municipal, irrigation, livestock, industrial, power development, and recreation. Under the New Mexico constitution beneficial use is the basis, the measure and the limit of the right to use water; therefore, beneficial use of public water diverted or impounded by manmade works is an essential element in the development of a water right.

Biochemical Oxygen Demand (BOD) : The quantity of oxygen utilized primarily in the biochemical oxidation of organic matter in a specified time and at a specified temperature.

Bolson : An alluvium-floored basin, depression, or wide valley, mostly surrounded by mountains and drained by a system that has no surface outlet. Bolson fill is the alluvial detritus that fills a bolson--also commonly called bolson deposits.

Bubblers : Irrigation heads which deliver water to the soil adjacent to the heads.

Bypass Flow : Water that is allowed to flow past a diversion structure or storage facility.

Call : A demand that upstream water rights with more recent (junior) priority dates than the calling right cease diverting; the exercise of a senior water right holder in "calling" for his or her water rights, requiring junior water right holders to allow water to pass to the senior right holder.

Center-Pivot Irrigation : See Irrigation.

Chemigation : Application of pesticides or fertilizers to farmlands through irrigation systems.

Clean Water Act : The federal law that establishes how the United States will restore and maintain the chemical, physical, and biological integrity of the country's waters (oceans, lakes, streams and rivers, ground water and wetlands). The law provides protection for the country's waters from both point and non-point sources of pollution.

Closed Basin : A basin is considered closed with respect to surface flow if its topography prevents the occurrence of visible outflow. It is closed hydrologically if neither surface nor underground outflow can occur.

Coliform : A bacteria that originates in the digestive system of mammals. If found in water, it alerts lab technicians that pathogens might be present.

Compact : A formal agreement between states concerning the use of water in a river or stream that flows across state boundaries.

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.

Conduit : A 24-inch or larger diameter pipe carrying raw or potable water from or to treatment facilities, reservoirs and delivery points feeding a distribution system.

Confining Bed : A rock formation that will not readily transmit water and which retards or stops the free movement of water underground. Confining beds have also been called aquicludes, aquitards, or semiconfining beds.

Conjunctive Water Use : Combined use of ground water and surface water.

Conservation : Obtaining the benefits of water more efficiently, resulting in reduced demand for water. Sometimes called "end-use efficiency" or "demand management."

Consumption Pattern : The variation in the amount of water a customer uses over time.

Consumptive Irrigation Requirement (CIR) : The quantity of irrigation water, exclusive of precipitation, stored soil moisture, or ground water that is required consumptively for crop production.

Consumptive Use (Evapotranspiration) : The quantity of water used in a given area in transpiration, building of plant tissue, and evaporated from adjacent soil, water surface, snow or intercepted precipitation in a specific period of time.

Continental Divide : An imaginary boundary line that runs north to south through the Rocky Mountains, separating rivers that flow west to the Pacific Ocean from those that flow south and east toward the Gulf of Mexico and the Atlantic Ocean.

Conveyance Loss : Water that is lost in transit from a canal, conduit, or ditch by leakage or evaporation. Generally, the water is not available for further use; however, leakage from an irrigation ditch, for example, can percolate to a groundwater source and be available for further use.

Cubic Foot Per Second (CFS) : The rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second. It is equivalent to 7.48 gallons per second, or 448.8 gallons per minute.

Cumulative Impact Analysis : A review of the cumulative environmental, social and economic impacts of proposed water projects and activities associated with development within an ecosystem or drainage area.

Declared Underground Water Basin : An area of the state proclaimed by the State Engineer to be underlain by a ground water source having reasonably ascertainable boundaries. By such proclamation the State Engineer assumes jurisdiction over the appropriation and use of ground water from the source.

Demand Forecast : A prediction of future water use. Most water demand forecasting models are either directly or indirectly based upon projected changes in demographic data, such as population, etc.

Demand Management : Reductions of water usage accomplished either through temporary measures such as restrictions during a drought, or through long-term conservation programs. These include replacement of inefficient fixtures with more efficient fixtures such as 1.6 gallon toilets, installation and maintenance of landscapes that have low water requirements, or through changes in customer attitudes toward water conservation, leading to reduction in water use.

Depletion : That part of a withdrawal that has been evaporated, transpired, incorporated into crops or products, consumed by man or livestock, or otherwise removed.

Development : The construction, erection, or emplacement of one or more buildings, structures, or surface improvements on land which is a premises in order to establish or expand a principal residential or nonresidential use.

Direct Flow (or Direct Right) : Water diverted from a river or stream for use without interruption between diversion and use except for incidental purposes, such as settling or filtration.

Discharge : Rate of flow at a given instant in terms of volume per unit of time; pumping discharge equals pumping rate, usually given in gallons per minute (gal/min); stream discharge, usually given in cubic feet per second (ft³/s). With respect to underground water, the movement of water out of an aquifer. Discharge may be natural, as from springs, as by seepage, or it may be artificial as by constructed drains or from wells.

Dissolved Oxygen : The amount of free (not chemically combined) oxygen in water. Usually expressed in milligrams per liter.

Dissolved Solids : Chemical compounds in solution.

Disturbed Slopes : Slopes that have been altered from their natural configuration or vegetative cover by human activity.

Distribution Main : See Water Main.

Diversion : A turning aside or alteration of the natural course of a flow of water, normally considered physically to leave the natural channel. In some states, this can be a consumptive use direct from a stream, such as by livestock watering. In other states, a diversion must consist of such actions as taking water through a canal or conduit.

Domestic Water Use : Water for normal household purposes, such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns, gardens and livestock supplied from a domestic source. Also called residential water use. The water can be obtained from a public supply or be self-supplied.

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.

Drawdown (Ground Water) : 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.

Drip Irrigation : See Irrigation.

Drought : A long period of below-average precipitation.

Dryland Farming : Practice of crop production without irrigation in semiarid regions usually by using moisture-conserving farming techniques.

Due Diligence : The efforts necessary to bring an intent to appropriate water to fruition; actions that demonstrate a good faith intention to complete a diversion of water within reasonable time.

Duty of Water : The amount of water that through careful management and use, without wastage, is reasonably required to be applied to a tract of land for a length of time that is adequate to produce the maximum amount of the crops that are ordinarily grown there.

Effluent : The water leaving a water or wastewater treatment plant.

Effluent Exchange : The practice of using wastewater effluent as a replacement source for diversion of water upstream.

Endangered Species Act : The federal law that sets forth how the United States will protect and recover animal and plant species whose populations are in dangerous decline or close to extinction. The law protects not only threatened and endangered species but also the habitat upon which species depend.

Energy Policy Act (EPACT) : The 1992 federal law that states, among other things, that no toilet manufactured after January 1, 1994, shall use more than 1.6 gallons per flush (except "blowout" toilets and commercial toilets), and that showerheads and faucets manufactured after January 1, 1994, may not use more than 2.5 gallons per minute.

Environmental Impact Statement (EIS) : Detailed analysis of the impacts of a project on all aspects of the natural environment required by federal National Environmental Policy Act for federal permitting or use of federal funds.

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 of the region may be classified as ephemeral stream.

Evaporation : Process by which water is changed from the liquid state to the vapor state. See also Evapotranspiration; Transpiration.

Evaporation, Net Reservoir : The evaporative water loss from a reservoir after making allowance for precipitation on the reservoir. Net reservoir evaporation equals the total evaporation minus the precipitation on the reservoir surface.

Evapotranspiration : The process by which water is returned to the air through direct evaporation or by transpiration of vegetation.

Even-Numbered Properties : Properties whose official address ends in an even number, excluding city parks and golf courses. Landscaped areas associated with a building will use the number of that building as their address. Only one address shall be used for a large landscaped area associated with one building or activity, even if the landscaped area is broken into many separate subareas.

Exchange : A process by which water, under certain conditions, may be diverted out of priority at one point by replacing a like amount of water at a downstream location.

Expansion : Undeveloped areas adjacent to the boundaries of existing distributor contract areas that those distributors would logically be expected to serve in the future and that have been included in the Combined Service Area.

Fallow : Cropland, either tilled or untilled, allowed to lie idle, during the whole or the greater part of the growing season.

Farm Efficiency : The consumptive crop irrigation requirement divided by the farm delivery.

Fecal Coliform Bacteria : Bacteria that are present in the gut or the feces of warm blooded animals; they are indicators of possible sewage pollution.

FERC : Federal Energy Regulatory Commission; formerly the Federal Power Commission.

Federal Land Policy Management Act (FLPMA) : A federal law that requires land-use planning and management programs, along with land acquisition and disposition on national forest systems, including lands with the Department of Interior and the Department of Agriculture. The act requires that the lands be managed in a manner to protect the quality of scientific, scenic, historical, ecological, environmental, water resource and archaeological values.

Finished Water : Treated potable water that is considered safe and suitable for delivery to consumers.

Firm Annual Yield : The yearly amount of water that can be dependably supplied from the raw water sources of a given water supply system.

Flat Rates : The rate when customers are charged the same amount per bill based on a pre-determined formula (square footage, irrigable area and water-using devices) rather than being charged for actual consumption.

Flood Irrigation : See Irrigation.

Flood Plain : Land bordering a stream. The land was built up of sediment from overflow of the stream and is still subject to flooding when the stream is at flood stage.

Flow Restriction Device : Device applied by the water utility to the customer's meter that restricts the volume of flow to the customer.

Flume : A sloped channel that is utilized to convey water and is commonly constructed of wood or concrete. Some specialized flumes are used to measure flow (e.g. Parshall flume) by means of a calibrated throat or cross section (See also Weir.)

Free-Flowing Well : An artesian well in which the potentiometric surface is above the land surface. See also Potentiometric Surface.

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.

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.

Furrow Irrigation : See Irrigation.

Futile Call : A situation in which a junior (more recent) priority is allowed to continue to divert in spite of a downstream senior call when curtailing the junior would not produce any additional water for the senior.

Gaging Station : A particular site on a stream, canal, lake or reservoir where systematic observations of gage height or discharge are made.

Gaining Stream : A river, or reach of a stream or river, that gains flow from ground water seepage or from springs in, or alongside, the channel--sometimes called an effluent stream.

Gravity Irrigation : See Irrigation.

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).

Groundwater Mining : The condition that exists when the withdrawal of water from an aquifer exceeds the recharge causing a decline in the ground water level.

Groundwater Recharge : The addition of water to the zone of saturation. Infiltration of precipitation and its movement to the water table is one form of natural recharge.

Groundwater Reservoir Storage : The amount of water in storage within the defined limit of the aquifer.

Hand Watering : The application of water for irrigation purposes through a hand-held hose, including hoses moved into position by hand and left to flow freely or through a shut-off nozzle.

Harvested Water : Precipitation or irrigation runoff collected, stored, and available for reuse for irrigation purposes.

High Water Use Turf : A surface layer of earth containing regularly mowed grass, with its roots, which requires large volumes and/or frequent application of water throughout its life. High water use grasses include but are not limited to varieties of Bluegrass, varieties of Ryegrass, varieties of Fescue, and Bentgrass.

Hydraulic Gradient (Ground Water) : The gradient or slope of the water table or potentiometric surface in a specific direction.

Hydroelectric Power : Electric energy generated by means of a power generator coupled to a turbine through which water passes.

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.

Hydrologic Cycle : The movement of water from the atmosphere to the Earth and back. The three stages are precipitation, runoff or infiltration, and evaporation.

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.

Infiltration Rate : The amount of water absorbed by the soil per unit of time, usually expressed in inches per hour.

Inspection : An entry into and examination of premises for the purpose of ascertaining the existence or nonexistence of water violations.

Interbasin Transfer of Water : See Water exports; Water imports.

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 ground water discharge, in contrast to the ephemeral stream that flows but a few hours or days following a single storm.

Irrigated Area : The gross area upon which water is artificially applied.

Integrated Resource Planning (IRP) : A method for looking ahead using environmental, engineering, social, financial and economic considerations; includes using the same criteria to evaluate both supply and demand options while involving customers and other stakeholders in the process.

Irrigation : Generally, the controlled application of water to arable lands to supply water requirements of crops not satisfied by rainfall. (See also Irrigation water use.) Systems used include the following:

Center-pivot : Automated sprinkler irrigation achieved by rotating the sprinkler pipe or boom, supplying water to the sprinkler heads or nozzles, as a radius from the center of the circular field to be irrigated. The pipe is supported above the crop by towers at fixed spacings and propelled by pneumatic, mechanical, hydraulic, or electric power on wheels or skids in fixed circular paths at uniform angular speeds. Water, which is delivered to the center or pivot point of the system, is applied at a uniform rate by progressive increase of nozzle size from the pivot point of the system to the end of the line. The depth of water applied is determined by the rate of travel of the system. Single units are ordinarily about 1,250 to 1,300 feet long and irrigate about a 130-acre circular area.

Drip : An irrigation system in which water is applied directly to the root zone of plants by means of applicators (orifices, emitters, porous tubing, perforated pipe, and so forth) operated under low pressure. The applicators can be placed on or below the surface of the ground or can be suspended from supports.

Flood : The application of irrigation water where the entire surface of the soil is covered by ponded water.

Furrow : A partial surface flooding method of irrigation normally used with clean-tilled crops where water is applied in furrows or rows of sufficient capacity to contain the design irrigation stream.

Gravity : Irrigation in which the water is not pumped but flows in ditches or pipes and is distributed by gravity.

Sprinkler : A planned irrigation system in which water is applied by means of perforated pipes or nozzles operated under pressure so as to form a spray pattern.

Subirrigation : A system in which water is applied below the ground surface either by raising the water table within or near the root zone or by using a buried perforated or porous pipe system that discharged directly into the root zone.

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.

Irrigation Conveyance Loss : The loss of water in transit from a reservoir, point of diversion, or ground water pump to the point of use, whether in natural channels or in artificial ones, such as canals, ditches, and laterals.

Irrigation Efficiency : The percentage of the water diverted from a water source that is consumed. It is the product of the distribution efficiency and the farm efficiency.

Irrigation Leaching Requirement : The amount of water required to move residual salts out of the root zone and maintain an adequate soil-salt balance for crop production.

Irrigation Requirement : The quantity of water, exclusive of precipitation, that is required for production of a specific crop.

Irrigation Return Flow : Part of irrigation water that is not consumed by evapotranspiration and that drains from the irrigated area to an aquifer or surface water body.

Irrigation Water Use : Artificial application of water on lands to assist in the growing of crops and pastures or to maintain vegetative growth on recreational lands such as parks and golf courses. See also Irrigation.

Junior Rights : Water rights that were obtained more recently and therefore are junior in priority to older or more senior rights. (See Priority)

KAF : One thousand acre-feet.

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.

Landscape Area : The entire parcel less the building footprint, driveways, non-irrigated portions of parking lots and required off-street parking. Includes the public right-of-way.

Losses Incidental to Irrigation : The quantity of water depleted by irrigation in excess of the beneficial irrigation consumptive use.

Low Water Use Plants : Plants which are able to survive without supplemental water once established.

mg/L : Milligrams per liter; a measurement describing the amount of a substance (such as a mineral, chemical or contaminant) in a liter of water. One milligram per liter is equal to one part per million.

Maximum Contaminant Level : The highest allowable amount of a constituent in water. Drinking water quality criteria are established by the U.S. Environmental Protection Agency as regulatory standards.

Mayordomo : Executive Officer or ditch boss of the community ditch or acequia.

Medium and Low Water Use Turf : A surface layer of earth containing regularly mowed grass, with its roots, which requires moderate or low volumes and/or frequency of application of water once established. Low and medium water use grasses include but are not limited to Bermuda and Bermuda hybrids, Zoysia, blue grama, and Buffalo grass.

Medium Water Use Plants : Plants which require some supplemental watering throughout the life of the plant.

Milligrams Per Liter : The weight in milligrams of any substance contained in 1 liter of liquid. (Equivalent to parts per million for values less than about 7,000 mg/L.)

Million Gallons Per Day : A rate of flow of water of one million gallons per twenty-four hour period.

Mulch : Any material such as leaves, bark, straw, or other materials applied to the soil surface to reduce evaporation.

Multi-Family Residential : A planning term used to describe a building in which two or more families live in separate but attached dwellings, e.g., apartment houses, townhomes and condominiums.

National Pollution Discharge Elimination System (NPDES) Permit : A permit required under Section 401 of the Clean Water Act regulating discharge of pollutants into the nation's waterways.

National Environmental Policy Act (NEPA) : The federal law enacted to ensure the integration of natural and social sciences and environmental design in planning and in decision-making that may impact the quality of the human environment.

Natural Replacement : The ordinary replacement of older, less efficient water fixtures (toilets, faucets, etc.) with new, more efficient fixtures as the older fixtures wear out, break or are replaced.

Net Demand : The water demand that is expected to occur in the future after reductions for natural replacement and conservation. It represents the actual demand that should be experienced in the future at customers' premises. Usually expressed in thousand acre-feet (KAF).

Non-Consumptive Use : Water drawn for use that is not consumed, such as water diverted for hydroelectric generation. It also includes such uses as boating and fishing, where water is still available for other uses at the same site.

Non-Point Source : The source of pollution discharged over a wide land area, not from one specific area, that finds its way into streams, lakes and oceans, such as runoff from streets, parking lots, lawns, agricultural land, individual septic systems, and construction sites.

Non-Potable : Water not suitable for drinking. (See also Potable, Reuse.)

Non-Tributary Groundwater : Underground water in an aquifer that neither draws from nor contributes to a natural surface stream in any measurable degree.

Odd-Numbered Properties : Properties whose official address ends in an odd number, excluding city parks and golf courses. Large landscaped areas associated with a building will use the number of that building as their address. Only one address shall be used for a large landscaped area associated with one building or activity, even if the landscaped area is broken into many separate subareas.

Overdraft : Withdrawals of ground water at rates perceived to be excessive. See also Groundwater mining.

Participation Agreement : An agreement in which a distributor or developer pays for the cost of the distribution facilities such as conduits, treated water reservoirs or pump stations required to provide service within that district from the nearest existing available source.

Parts Per Billion : A unit frequently used to measure contamination concentration (parts of contamination per billion parts of water). One thousand parts per billion is equal to one part per million.

Parts Per Million : A unit used to measure contamination concentration (parts of contamination per million parts of water). One part per million is equal to one milligram per liter. (This term is becoming obsolete as instruments measure smaller particles.)

Per Capita Use : The average amount of water used per person during a standard time period, generally per day.

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 ground water body.

Perennial Stream : A stream that normally has water in its channel at all times.

Phreatophyte : A plant that habitually obtains its water supply from the zone of saturation, either directly or through the capillary fringe.

Playa : Flat-floored bottom of an undrained desert plains basin.

Point Source : The source of pollution discharged from any identifiable point, including ditches, channels, sewers, tunnels and containers of various types.

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.

Potable Water : Water that is safe and palatable for human consumption.

Potentiometric Surface : An imaginary surface representing the static head of ground water in tightly cased wells that tap a water-bearing rock unit (aquifer); or in the case of unconfined aquifers, the water table.

Precipitation : Includes atmospheric hail, mist, rain, sleet and snow which descends upon the earth; the quantity of water accumulated from the above events.

Precipitation Rate : The amount of water applied per unit of time, usually expressed in inches per hour.

Pressure Pipe : Pipe used to distribute potable water throughout the city for fire fighting and domestic purposes.

Pressure Regulating Valve (PRV) : A device that takes pressure from a high zone through a valve and regulates it to a zone of lower pressure.

Pressure Zone : Geographical area within a water distribution system defined by a number of valves with at least two feeds.

Prior Appropriation : The water law doctrine that confers priority to use water from natural streams based upon when the water rights were acquired. Water rights in Colorado and other western states are confirmed by

court decree; holders of senior rights have first claim to withdraw water over holders who have filed later claims. (See also Water Right, Riparian Rights, Priority and Appropriation)

Projected Savings : An estimate of the amount of water that will not be used because both suppliers and customers are implementing certain efficiency practices.

Public Right-Of-Way : The area of land acquired or obtained by the city, county, or state primarily for the use of the public for the movement of people, goods, vehicles, or storm water. The public right-of-way includes curbs, streets, and storm water drainage inlets.

Ramping : Controlling streamflow so that flow changes are gradual and do not adversely impact safety and property downstream.

Rated Capacity : The volume of water a treatment plant is capable of producing under normal operating conditions.

Raw Water : Untreated water.

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 precipitation infiltrates to the water table, or artificial, as when water is injected through wells or spread over permeable surfaces for the purpose of recharging an aquifer.

Recoverable Ground Water : The amount of water which may be physically and economically withdrawn from the ground water reservoir.

Recycled Water : Water that is used more than one time before it passes back into the natural hydrologic system.

Reservoir : A body of water used to collect and store water, or a tank or cistern used to store potable water.

Reservoir Surcharge : Water in a reservoir that resides above the spillway.

Responsible Party : The owner, manager, supervisor, or person who receives the water bill, or person in charge of the property, facility, or operation during the period of time the violation(s) is observed.

Restricted Plants : Plants which are classified as restricted due to their high water use requirements and their potential for extensive use in landscaping. Restricted plants include high water use turf, clover, and Dichondra.

Return Flow : The part of a diverted flow which is not consumptively used and which returns to a water body.

Retrofit : An umbrella term that refers to the modification of something for more efficiency. In the case of water conservation, retrofit refers to modifications to plumbing fixtures to increase efficiency.

Reuse : To use again; recycle; to intercept, either directly or by exchange, water that would otherwise return to the stream system, for subsequent beneficial use. (See also Potable, Non-Potable.)

Reverse Osmosis : A water treatment technique that forces water through a dense membrane to remove impurities.

Riparian Rights : Water rights that are acquired together with title to the land bordering a source of surface water; the right to put to beneficial use surface water adjacent to one's land. Riparian rights are most common in states east of the Mississippi River. (See Appropriation, Prior Appropriation and Water Right.)

Riparian Vegetation : Vegetation growing on the banks of a stream or other body of surface water.

Runoff : Water which is not absorbed by the soil or landscape to which it is applied. Runoff occurs when water is applied too quickly (application rate exceeds infiltration rate), particularly if there is a severe slope. Storm water runoff which is created by natural precipitation rather than human-caused or applied water use. The part of the precipitation that appears in surface streams.

Safe Drinking Water Act (SDWA) : Federal legislation passed in 1974 that regulates the treatment of water for human consumption and requires testing for and elimination of contaminants that might be present in the water.

Safety Factor : An amount of water added to demand projections to protect against unforeseen changes in water supply and demand.

Saline Water : Water that contains more than 1,000 milligrams per liter of dissolved solids. It generally is considered unsuitable for human consumption and less desirable for irrigation because of its high content of dissolved solids. Salinity generally is expressed as milligrams per liter (mg/L) of dissolved solids, with 35,000 mg/L defined as seawater. A general salinity scale is:

SALINITY	DISSOLVED SOLIDS (MG/L)
Slight	1,000-3,000
Moderate	3,000-10,000
Very	10,000-35,000
Brine	more than 35,000

Saltwater Intrusion : Replacement of freshwater by saline water in an aquifer or body of water.

Salvaged Water : The part of a particular stream or other water supply that is saved from loss and made available for use.

Secondary Treatment : Treatment of wastewater to a non-Potable level so that it may be returned to the stream. (See also Tertiary Treatment, Non-Potable.)

Sewage : Waste matter carried off by sewers and drains.

Sewage Treatment : The processing of wastewater for the removal or reduction in the level of dissolved solids or other undesirable constituents.

Sewage Treatment Return Flow : Water returned to the hydrologic system by sewage treatment facilities.

Shut-Off Nozzle : Device attached to end of hose that completely shuts off the flow even if left unattended.

Single-Family Residential : A lot or premises upon which is established one dwelling only. Of the allowable principal uses, such use shall be the only use on that lot or premises.

Sludge : A semi-liquid mass of accumulated settled solids deposited from the treatment plant process. Most water treatment plant sludge is inert and can be used as components in some manufactured products and as a base for fertilizer. Also called "residual solids."

Specific Capacity : In ground water hydrology, the yield of a well in gallons per minute per foot of drawdown after a period of sustained pumping.

Spill Water : Water released from a reservoir because the reservoir lacks sufficient storage capacity.

Spray Irrigation : The application of water to landscaping by means of a device that projects water through the air in the form of small particles or droplets.

Sprinkler Head : A device that projects water through the air in the form of small particles or droplets.

Sprinkler Irrigation : See Irrigation.

Static Water Pressure : The pipeline or municipal water supply pressure when water is not flowing.

Stock Pond/Tank : Any manmade or natural catchment used exclusively for livestock watering. Generally, for purposes of determining permitting requirements, a stock pond/tank either within a water course or off-stream that is used exclusively for livestock, of 10 acre-feet or less regardless of height, does not require a permit. However, there are basins in the state that require permitting in any case, so checking with the State Engineer is advised.

Storage : Water held in a reservoir for later use.

Stream, Perennial : A stream that flows continuously.

Streamflow : The discharge that occurs in a natural channel of a surface stream course.

Subirrigation : See Irrigation. **Supply Management** : Methods by which a utility maximizes use of available untreated water.

Surface Water : An open body of water, such as a stream or a lake.

Suspended Sediment : Sediment that is transported in suspension by a stream. Fragmental material, both mineral and organic, that is maintained in suspension in water by the upward components of turbulence and currents and/or by colloidal suspension.

Sustainability : A decision-making concept describing development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

System Loss : An amount of water, expressed as a percentage, lost to leaks, seepage and unauthorized use.

Tailwater Recovery : Process of collecting irrigation water runoff for reuse.

Tap : A physical connection made to a public water distribution system that provides service to an individual customer.

Tap Allocation : The process used for distributing 3/4-inch taps among applicants when shortages of treatment, transmission or distribution facilities and/or water supplies require a method of rationing taps.

Temporary Irrigation Systems: Irrigation systems which are installed and permanently disabled within a period of 36 contiguous months or less.

Tertiary Treatment : Treatment of wastewater to a level beyond Secondary Treatment but below Potable. (See also Secondary Treatment, Non-potable, Potable.)

Thermoelectric Power : Electrical power generated by using fossil-fuel (coal, oil, or natural gas), geothermal, or nuclear energy.

Total Dissolved Solids (TDS) : An aggregate of carbonates, bicarbonates, chlorides, sulfates, phosphates, nitrates, etc., of calcium, magnesium, manganese, sodium, potassium, and other cations which form salts. High

TDS concentrations exert varying degrees of osmotic pressures and often become lethal to the biological inhabitants of an aquatic environment. The common and synonymously used term for TDS is "salt".

Total Sediment Load : The sum of the bedload and the suspended sediment load.

Trans-Basin Diversion : The conveyance of water from its natural basin into another basin.

Trans-Mountain Diversion : The conveyance of water from one watershed to another, usually from the Western Slope to the Front Range.

Transmissibility (Ground Water) : The rate at which water at the prevailing water temperature is transmitted through a unit width of the aquifer under a unit hydraulic gradient. It is generally expressed as gallons per day through a vertical strip of the aquifer 1 foot wide under a hydraulic gradient of 1 foot per foot, or more recently as cubic feet per day under the same conditions. It replaces the term "coefficient of transmissibility".

Transpiration : Process by which water absorbed by plants, usually through the roots. The residual water vapor is emitted into the atmosphere from the plant surface. See also Evaporation; Evapotranspiration.

Trap Efficiency of Reservoirs : Ratio of sediment retained to sediment inflow expressed as a percentage.

Treated Water : Water that has been filtered and disinfected. Term is sometimes used interchangeably with potable water.

Tributary : A stream or river that flows into a larger one.

Tributary Drainage : The area from which water drains by gravity into a water course.

Tributary Ground Water : Water below the Earth's surface that is physically or hydrologically connected to natural stream water so as to affect its flow whether in movement to or from that stream.

Turbidity : The opaqueness or reduced clarity of a fluid due to the presence of suspended matter.

Unaccounted-For Water : The difference between the total amount of water leaving treatment facilities and the total amount of water measured at customers' meters. Besides system losses, it also includes beneficial uses such as unmetered fire fighting and water used in system maintenance, along with meter under-registration.

Unconstrained Demand : The demand that would be experienced were it not for conservation and natural replacement. Usually expressed in thousand acre-feet (KAF).

Urban Runoff : Water from an urban area that neither infiltrates the soil nor is consumed, but flows into a storm sewer or open waterway.

Valve : Mechanical device for controlling or stopping flow of water in a pipe.

Water Balance : Allocation of water uses by specific sites to compare with meter records.

Wastewater : Water that contains dissolved or suspended solids as a result of human use.

Water Budget : An accounting of the inflow to, outflow from, and storage changes of water in a hydrologic unit.

Water Exports : Artificial transfer (pipe, canals) of water to one region or subregion from another.

Water Main (or Distribution Main) : A 12-inch or smaller diameter pipe along public streets or appropriate rights-of-way used for distributing water to individual customers.

Water Right : Legal rights to use a specific quantity of water, on a specific time schedule, at a specific place, and for a specific purpose.

Watershed : An area from which water drains and contributes to a given point on a stream or river.

Water Table : The upper surface of zone of saturation. See also Potentiometric Surface.

Water Waste : The non-beneficial use of water. Non-beneficial uses include but are not restricted to:

- Landscape water applied in such a manner, rate and/or quantity that it overflows the landscaped area being watered and runs onto adjacent property or public right-of-way;
- Landscape water which leaves a sprinkler, sprinkler system, or other application device in such a manner or direction as to spray onto adjacent property or public right-of-way;
- Washing of vehicles, equipment, or hard surfaces such as parking lots, aprons, pads, driveways, or other surfaced areas when water is applied in sufficient quantity to flow from that surface onto adjacent property or the public right-of-way;
- Water applied in sufficient quantity to cause significant ponding on impervious surfaces on non-city owned property.

Weir : A vertical structure in an open channel with a calibrated opening that measures water's rate of flow. (See also Flume.)

Wetlands : Lands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and that, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

Withdrawal : Water removed from the ground or diverted from a surface water source for use.

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.

Xeriscape : Landscaping concept that requires less water on vegetation that is suited to soils and climate. The term was developed by Denver Water in 1981. It is derived from the Greek word Xeros, meaning dry.

µg/L (micrograms per liter) : A measurement describing the amount of a substance (such as a mineral, chemical or contaminant) in a liter of water. It is expressed in terms of weight per volume. One µg/L is equal to one part per billion.