

ATTACHMENT 7

GLOSSARY OF COMMON WATER RESOURCES TERMS

The following glossary was taken from Chapter 11 of the *National Handbook of Recommended Methods for Water Data Acquisition*, a USGS handbook available on-line and listed above.

Acre-foot [unit] (acre-ft): The volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot.

Advance time [irrigation]: Time required for a given stream of irrigation water to move from the upper end of a field to the lower end of the field.

Afterbay [power]: A lake or water impoundment downstream from a powerplant that receives the water after it has passed through the hydroelectric turbines.

Agriculture water use [water-use category]: Composed of livestock, animal specialty, and irrigation water use.

Animal specialties water use [water-use category]: Water use associated with the production of fish in captivity (aquaculture water use), except fish hatcheries (commercial water use), and other commercially raised animals such as horses, but excluding livestock. Activities included in SIC code 027. See also livestock water use and aquaculture water use.

Application efficiency [irrigation]: The ratio of the average depth of irrigation water infiltrated and stored in the root zone to the average depth of irrigation water applied, expressed as a percent.

Application rate [irrigation]: Rate at which water is applied to a given area. Usually expressed in units of depth per time.

Aquaculture water use [water-use category]: Water used for farming of organisms that live in water, such as fish, excluding fish hatcheries (commercial water use), shrimp, and other shellfish. Activities included in SIC code 0273. Subset of animal specialties water use.

Aquifer [hydrology]: (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 wells and springs (USGS); (2) A geologic formation, group of formations, or part of a formation having structures that permit appreciable water to move through them under ordinary field conditions (ASCE).

Aquifer depletion [management]: Condition of declining water levels within the aquifer's structure because natural recharging from surface water and precipitation is inadequate to maintain normal level. Can be caused by withdrawal rates exceeding recharge rates.

Beneficial use[management]: Any of a number of water uses that are recognized by a political entity as valuable to society and worthy of protection, are defined by statutes, and may need to be protected against quality or quantity degradation. These water uses include, but are not necessarily limited to, domestic, municipal, agricultural, and industrial supply; cooling in thermoelectric power generation; and instream uses that include hydroelectric power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Blowdown [power]: The continuous or intermittent discharge, or purging, of a small amount of circulating water to maintain an acceptable concentration of dissolved solids in the water.

Cesspool [wastewater]: An underground catch basin for liquid waste, such as household waste. Also called a septic tank.

Cistern [water supply]: A reservoir, tank, or vessel for storing or holding water or other liquid.

Clearwell [water supply]: A reservoir for the storage of filtered water of sufficient capacity to prevent the need to vary the filtration rate with variations in demand. Also used to provide chlorine-contact time for disinfection.

Commercial water use [water-use category]: Water used for motels, restaurants, office buildings, ski resorts, water parks, and other commercial facilities and institutions. Also includes fish hatcheries. The water may be obtained from a public water supply or may be self supplied. See also fish hatchery and institutional water use.

Conjunctive water use [management]: A practice whereby two or more independent sources of water are used in combination or alternately, for meeting one or more objectives, such as, improved reliability of supply, long-term cost effectiveness, and environmental protection.

Crop requirement [irrigation]: The volume of water required by the crop to maintain optimum growth.

Consumptive use [general]: (1) That part of withdrawn water that is evaporated, transpired, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water environment (USGS). (2) Water whose state, chemical, or biological characteristics are altered sufficiently to render it useless to further beneficial uses (BOR). Also referred to as water consumption or water consumed.

Consumptive use [irrigation]: The total amount of water taken up by vegetation for transpiration or building of plant tissue, plus the unavoidable evaporation of soil moisture, snow, and intercepted precipitation associated with vegetal growth (ASAE).

Conveyance [general]: The systematic and intentional flow or transfer of water from one point to another. Conveyance types include water instream conveyance, water distribution, and wastewater collection.

Conveyance loss [general]: Water that is lost in transit from a pipe, canal, conduit, or ditch by leakage or evaporation. If the water is lost due to leakage, it may be considered return flow if it percolates to an aquifer and is available for reuse. If the water evaporates, it is considered consumptive use.

Cooling pond [power]: A cooling pond is a shallow reservoir having a large surface area to allow heat to be removed from water.

Cooling tower [power]: A structure designed to remove as much heat from water as possible per unit of space occupied by the structure.

Cooling water [power, industry]: Water used for cooling purposes, such as of condensers and nuclear reactors.

Data collection [method]: Implementation of appropriate procedures for obtaining necessary information to monitor status of water quantity, quality, use or flow.

Data compilation [method]: Procedures used to develop necessary information products about water, including but not limited to, quality assurance, statistical analysis, mathematical manipulations, integration of data from several sources, and formatting for archiving.

Deep percolation [irrigation]: Water that moves downward through the soil profile below the root zone and cannot be used by plants.

Delivery [general]: The amount of water delivered to a point of use.

Desalination [water treatment]: Refers to the removal of salts from water. Desalination is primarily used to produce public-supply water that meets drinking-water standards. The primary types of desalination are (1) distillation, (2) electro dialysis, and (3) reverse osmosis. Additionally, many public water suppliers also dilute or blend saltwater with fresher water to produce potable water. Also see "Reverse osmosis."

Dewatering [hydrology]: (1) The draining, pumping, or removal of water that is affecting construction or mining site, or to lower the water table for agriculture. (2) The removal of water from a substance (sewage or waste screenings, for example).

Discharge: [Hydraulics] Measurement of the output from a water source such as a well, spring, pump, stream, or a storm or flood event. An area designed to receive the output flow from pumps or structures without erosion/cavitation.

Discharge point [wastewater]: A location at which effluent is released after use into a receiving stream or infiltration bed. Also referred to as an outfall.

Distribution conveyance [water supply]: The process of conveying water from a water supplier's points of withdrawal or treatment through the distribution system to the user or another water supplier. Water is "released" from the public water supplier into the distribution system and "delivered" to users. See also delivery and release.

Distribution uniformity [irrigation]: Measure of the uniformity of irrigation water distribution over a field.

Diversion [general]: Point of withdrawal from surface water.

Domestic water use [water-use category]: Water for household purposes, such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. Households include single and multi-family dwellings. Also called residential water use. The water may be obtained from a public water supply or may be self supplied.

Drainfield [wastewater disposal]: A network of buried piping or tubing where the liquid is discharged to the ground through the drain field. Most commonly used with septic tanks, but some are used for domestic or industrial wastewater disposal after treatment.

Drip [process]: Procedure that regulates an altering substance into a stream of water; for example, chlorination for drinking water, or the addition of fertilizer, pesticides, and herbicides into irrigation water.

End use [management]: Main, ultimate, or intended use for water as a result of certain process, delivery, or treatment.

Effective precipitation [irrigation]: That portion of total precipitation that becomes available for plant growth.

Effluent [wastewater]: Refers to the water that flows out of a wastewater treatment facility or other works used for the purpose of treating, stabilizing, or holding waste.

Evaporation [hydrology]: Process by which water is changed from a liquid into a vapor. See also evapotranspiration and transpiration.

Evapotranspiration [hydrology]: (1) A collective term that includes water discharged to the atmosphere, as a result of evaporation from the soil and surface-water bodies and, as a result of plant transpiration (USGS). (2) The combination of water transpired from vegetation and evaporated from the soil and plant surfaces (ASAE). See also evaporation and transpiration.

Exfiltration [general]: Leakage from a conveyance system or storage area into the surrounding and underlying materials. This process will occur if the ambient ground-water pressure is less than the internal pressure of the conveyance system or storage area at a breach.

Fish hatchery water use [water-use category]: Water used for raising fish for later release. Activities included in SIC code 0921. Subset of commercial water use

Forebay [power]: A lake or water impoundment (reservoir) at the end of a diversion canal or conduit and before the entrance to the powerplant.

Freshwater [hydrology]: Water that contains less than 1,000 milligrams per liter (mg/L) of dissolved solids. Water that contains more than 500 mg/L of dissolved solids may be undesirable for drinking and many industrial uses. Water that contains more than 1,000 mg/L is sometimes used for irrigation.

Gross head [power]: The difference between the upstream water surface (forebay elevation) and the downstream water surface (afterbay elevation) after the water has passed through the hydroelectric plant.

Ground water [hydrology]: 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 are filled with water).

Ground-water disposal [wastewater]: Refers to wastewater that is disposed of through the ground either by seepage or injection. This includes the following discharge methods, injection well, drain fields, percolation ponds, and spray fields (land application/spreading). Reuse systems and land disposal systems are considered a ground-water disposal method, such as the wastewater used to irrigate turf or crops is generally intended to filter through the soil.

Hydroelectric power water use [water-use category]: Water used in generating electricity at plants where the turbine generators are driven by falling water. Activities included in Standard Industrial Classification code 4911.

Hydroelectric plant capacity [power]: Maximum power generation that can be produced under normal head and full-flow conditions.

Hydroelectric turbine [power]: A machine, usually with vanes, blades, or buckets, that rotate about an axis driven by water. The mechanical energy produced can be used directly, or it can be converted to electrical power by linking the turbine's torque to an electrical generator.

Incidental use [management]: Beneficial uses made of water that were or are not the intended purpose.

Industrial wastewater-treatment facility [wastewater]: A facility that processes water following its industrial use to restore a specific level of quality to meet further beneficial uses or for release into wastewater-collection systems.

Industrial water use [water-use category]: Water used for industrial purposes, such as fabrication, processing, washing, in-plant conveyance, and cooling, and includes such industries as steel, chemicals, paper, and petroleum refining. The water may be obtained from a public water supply or may be self supplied.

Injection well [hydrology]: Refers to a well constructed for the purpose of disposing treated wastewater directly into the ground. Wastewater is generally forced (pumped) into the well for dispersal into a designated aquifer. Injection wells are generally drilled into nonpotable aquifers, unused aquifers, or below freshwater (potable water) levels.

Infiltration [general]: Water that infiltrates into a low-pressure or unpressurized conveyance system, such as a wastewater-collection system. This process will occur if the ambient ground-water pressure exceeds the internal pressure of the conveyance system at a breach.

Infiltration [irrigation]: The downward entry of water through the soil surface into the soil (ASAE). See also seepage.

Instream use [general]: Water that is used, but not withdrawn, from a surface-water source, or a ground-water source, for hydroelectric-power generation, navigation, water-quality improvement or waste assimilation, fish propagation, wildlife preservation, recreation, and ecosystem maintenance, which includes freshwater circulation to the estuaries and maintenance of riparian vegetation and floodplain wetlands. Also referred to as nonwithdrawal use or inchannel use.

Instream conveyance [general]: Flow of water from one water body to another without using the water.

Intake [water supply]: (1) Point of diversion of stream flow into a conduit or irrigation system conveyance. (2) Water infiltration into the soil.

Interbasin transfer [general]: Conveyance of water across a drainage or river basin divide. Also called transbasin diversion.

Irrigable area [irrigation]: Area capable of being irrigated, principally as regards to availability of water, suitable soils, and topography of land.

Irrigated land [irrigation]: Land that has had water applied to sustain plants during the year of inventory or during two (2) or more years out of the last four (4) years (SCS NRI).

Irrigation District [irrigation]: In the United States, a cooperative, self-governing public corporation set up as a subdivision of the State government, with definite geographic boundaries, organized and having taxing power to obtain and distribute water for irrigation of lands within the district; created under the authority of a State legislature with the consent of a designated fraction of the landowners or citizens.

Irrigation efficiency [irrigation]: The ratio of the average depth of irrigation water that is beneficially used to the average depth of irrigation water applied, expressed as a percent. Beneficial uses include satisfying the soil water deficit and any leaching requirement to remove salts from the root zone.

Irrigation requirement [irrigation]: For planning purposes, the total amount of water required at the field to produce the crop--less natural sources of water such as precipitation or subsurface water.

Irrigation return flow [irrigation]: The part of water diverted for irrigation that migrates to a surface-water body or aquifer. Irrigation return flow is particularly important for flood irrigation as return flows become the source for next downslope application area.

Irrigation supply [water-use category]: Water withdrawn by public and private water suppliers, which is delivered to users primarily for irrigation. Subcategory of water supply. Activities included under Standard Industrial Classification code 4971.

Irrigation system [irrigation]: Practices and equipment used in providing and distributing water to the land/crop being irrigated. Main systems and some associated terms are listed (technological advances are ongoing to reduce cost and improve efficiencies:

Alternate set irrigation: A method of managing irrigation whereby, at every other irrigation, alternate furrows are irrigated, or sprinklers are placed midway between their locations during the previous irrigation (ASAE).

Alternate side irrigation: The practice of furrow irrigating one side of a crop row (for row crops or orchards) and then, at about half the irrigation time, irrigating the other side (ASAE).

Basin irrigation: The flooding of an area of level land surrounded by dikes. Used interchangeable with level border irrigation, but usually refers to smaller areas (ASAE).

Border dike: Earth ridge or small levee built to guide or to hold irrigation or recharge water in a field (ASAE).

Border ditch: Small excavation used as a border of an irrigated strip or plot with water being spread from one or both sides (ASAE).

Border irrigation: The flooding of strips of land, rectangular in shape and cross leveled, bordered by dikes. Water is applied at a rate sufficient to move it down the strip in a uniform sheet. Border strips having no downfield slope are referred to as level order systems. Border systems constructed on terraced land are commonly referred to as benched borders (ASAE).

Check irrigation: Modification of a border strip with small earth ridges or checks constructed at intervals to retain water as the water flows down the strip (ASAE).

Continuous-flow irrigation: System of irrigation water delivery where each irrigator receives the allotted quantity of water continuously (ASAE).

Cutback irrigation: The reduction of the furrow or border inflow stream after water has advanced partially or completely through the field in order to reduce runoff.

Demand irrigation system: Irrigation water delivery procedure where each irrigator may request water in the amount needed and at the time desired (ASAE).

Drip irrigation: A method of microirrigation wherein water is applied to the soil surface as drops or small streams through emitters. Discharge rates are generally less than 8 Liters/hour (2 gal/hour) for single-outlet emitters and 12 Liters/hour (3 gal/hour) per meter for line-source emitters ASAE.)

Effluent irrigation: Land application of wastewater for irrigation and beneficial use of nutrients (ASAE).

Emitter types: Small microirrigation dispensing devices designed to dissipate pressure and discharge a small uniform flow or trickle of water at a constant discharge, which does not vary significantly because of minor differences in pressure head. Also called "dripper" or "trickler" (ASAE).

Compensating emitter: Designed to discharge water at a constant rate of a wide range of later line pressures (ASAE).

Continuous flushing emitter: Designed to continuously permit passage of large solid particles while operating at a trickle or drip flow thus reducing filter fineness requirements (ASAE).

Flushing emitter: Designed to have a flushing flow of water to clear the discharge opening every time the system is turned on (ASAE).

Line-source emitter: Water is discharged from closely spaced perforations, emitters, or a porous wall along the tubing (ASAE).

Long path emitter: Employs a long capillary-sized tube or channel to dissipate pressure (ASAE).

Multi-outlet emitter: Supplies water to 2 or more points through small diameter auxiliary tubing (ASAE).

Orifice emitter: Employs a series of orifices to dissipate pressure (ASAE).

Vortex emitter: Employs a vortex effect to dissipate pressure (ASAE).

Flood irrigation: Method of irrigation where water is applied to the soil surface without flow controls, such as furrows, borders, or corrugations (ASAE).

Full irrigation: Management of water application to fully replace the soil water deficiency over an entire field (ASAW).

Furrow: Small channel in the soil surface for conveying irrigation water (ASAE).

Furrow irrigation: Method of surface irrigation where the water is supplied to small ditches or furrows for guiding across the field (ASAE).

Gated pipe irrigation: Portable pipe with small gates installed along one side for distributing water to corrugations or furrows (ASAE).

Irrigation stream: Flow for irrigation of a particular tract of land. Flow or water distributed at a single irrigation. Sometimes called "irrigating head" (ASAE).

Irrigation check: Small dike or dam used in the furrow alongside an irrigation border to make the water spread evenly across the border (ASAE).

Irrigation interval: The average time interval between the commencement of successive irrigations for a given field. Sometimes called "irrigation frequency" (ASAE).

Irrigation set: The area irrigated at one time within a field (ASAE).

Limited irrigation: Management of irrigation applications to apply less than enough water to satisfy the soil water deficiency in the entire root zone. Sometimes called "deficit" or "stress" irrigation (ASAE).

Microirrigation: The frequent application of small quantities of water as drops, tiny streams, or miniature spray through emitters or applicators placed along a water delivery line. Microirrigation encompasses a number of methods or concepts such as a bubbler, drip, trickle, mist, or spray (ASAE).

Mist irrigation: A method of microirrigation in which water is applied in very small droplets (ASAE).

Overhead irrigation: (See Sprinkler Irrigation).

Porous trickle tubing: (Microirrigation) Tubing with a uniformly porous wall. The pores are small and ooze water under pressure (ASAE).

Portable pipe: Irrigation system which is or can be moved between irrigation sets, such as sprinkler or gated pipe (ASAE).

Preplant irrigation: Irrigation applied prior to seeding. Sometimes called "preirrigation" (ASAE).

Spray irrigation: The application of water by a small spray or mist to the soil surface, where travel through the air becomes instrumental in the distribution of water (ASAE).

Sprinkler irrigation: Method of irrigation in which the water is sprayed, or sprinkled, through the air to the ground surface (ASAE).

Sprinkler irrigation systems (ASAE):

Boom: An elevated, cantilevered sprinkler(s) mounted on a central stand. The sprinkler boom rotates about a central pivot.

Center pivot: An automated irrigation system consisting of a sprinkler line rotating about a pivot point at one end and supported by a number of self-propelled towers. The water is supplied at the pivot point and flows outward through the line supplying the individual outlets.

Corner pivot: An additional span or other equipment attached to the outer end of a center pivot irrigation system that allows the overall radius to increase or decrease in relation to the field boundaries.

Lateral move: An automated irrigation machine consisting of a sprinkler line supported by a number of self-propelled towers. The entire unit moves in a generally straight path and irrigates a basically rectangular area. Sometimes called a "linear move".

Permanent: Underground piping with risers and sprinklers.

Portable (hand move): Sprinkler system which is moved by uncoupling and relocating the pipes manually, requiring no special tools.

Side-move sprinkler: A sprinkler system with the supply pipe supported on carriages and towing small diameter trailing pipelines, each fitted with several sprinkler heads.

Side-roll sprinkler: The supply pipe is usually mounted on wheels with the pipe as the axle and where the system is moved across the field by rotating the pipelines by engine power.

Solid set: System which covers the complete field with pipes and sprinklers in such a manner that all the field can be irrigated without moving any of the system.

Towed sprinkler: System where lateral lines are mounted on wheels, sleds, or skids, and are pulled or towed in a direction approximately parallel to the lateral.

Stress irrigation: Management of irrigation water to apply less than enough water to satisfy the soil water deficiency in the entire root zone. (preferred term is "Limited" irrigation.) (ASAE).

Subirrigation: Application of irrigation water below the ground surface by raising the water table to within or near the root zone (ASAE).

Subsurface drip irrigation: Application of water below the soil surface through emitters, with discharge rates generally in the same ranges as drip irrigation. This method of application is different from and not to be confused with subirrigation, where the root zone is irrigated by water table control (ASAE).

Surface irrigation: Broad class of irrigation methods in which water is distributed over the soil surface by gravity flow (ASAE).

Surge irrigation: A surface irrigation technique wherein flow is applied to furrows (or less commonly, borders) intermittently during a single irrigation set (ASAE).

Trickle irrigation: A method of microirrigation wherein water is applied to the soil surface as drops or small streams through emitters. (preferred term is "Drip" irrigation) (ASAE).

Water spreading: A specialized form of surface irrigation accomplished by diverting flood runoff from natural channels or water courses and spreading the flow over relatively level areas (ASAE).

Irrigation water use [water-use category]: The artificial application of water on lands to assist in the growth of crops or pasture. May also be used in greenhouses. Irrigation water use may also include application of water to maintain vegetative growth in recreational lands such as parks and golf courses. Also includes water used for frost and freeze protection of crops.

Land application [wastewater]: Means the reuse of reclaimed water or the use or disposal of effluents or wastewater residuals on, above, or into the surface of the ground through spray fields, land spreading, or other methods.

Livestock water use [water-use category]: Water used for livestock watering, feed lots, dairy operations, and other on-farm needs. Livestock as used here includes cattle, sheep, goats, hogs, and poultry, but excludes horses (animal specialties water use). Activities included in SIC codes 021-025.

Low pressure/low volume irrigation, Micro or Tickle [irrigation]: Irrigation systems that apply water directly on or near the soil surface, either in discrete drops, small streams, mist, or sprays. They include drip, spray, jet, and bubbler application.

Major user [management]: A user who withdraws, distributes, or uses water, or collects or returns wastewater at a rate averaging more than 10,000 gallons per day 0.010 million gallons per day (Mgal/d).

Makeup water [power]: The water added to a closed system to replace the circulating water lost by evaporation, drift, blowdown, and leakage.

Megawatt-hour [unit] (MWh): A unit of energy, equivalent to one million watt-hours.

Measuring point [general]: Specific point where data is collected. It is usually marked and has some specific criteria that assure consistent data collection

Million gallons per day [unit] (Mgal/d): A rate of flow of water.

Mining water use [water-use category]: Water used for the extraction of naturally occurring minerals including coal, ores, petroleum, and natural gas. Includes water associated with quarrying, dewatering, milling, and other on site activities done as part of mining. Excludes water used for processing, such as smelting and refining, or slurry pipeline (industrial water use). Activities included in SIC codes 10-14.

Non-recoverable ground water [irrigation]: Water lost through deep percolation that is not available for further use.

Outfall [wastewater]: Refers to the outlet or structure through which effluent is finally discharged to.

Offstream use [general]: Water withdrawn or diverted from a ground- or surface-water source for use.

Per capita water use [management]: The average volume of water used per person (or other unit) during a standard time period, generally per day. (Other units may include various types of livestock, hospital beds, etc.).

Point of diversion [water supply]: The location at which water is diverted or withdrawn from a source.

Percolation pond [wastewater]: Refers to a pond (usually man-made) designed to allow wastewater to percolate slowly into the ground. The pond acts as a holding facility while gravity allows the water to percolate or seep through the soil or other unconsolidated medium into the local water table and lower aquifers.

Potable water [water supply]: Water suitable for drinking or cooking, from both health and aesthetics considerations. Potable water is considered safe for human consumption and is often referred to as drinking water.

Precipitation [hydrology]: The liquid equivalent (depth) of rainfall, snow, sleet, or hail. The data that is used is more correctly referred to as "Observed Precipitation" and in all cases is somewhat less than actual due to the imperfectness of measuring devices.

Preirrigation [irrigation]: Application of water to cropland before planting to assure adequate crop germination and early plant growth.

Price elasticity [management]: A dimensionless measure of the relation between a percent change in water use and a percent change in price when other factors affecting water demand remain unchanged. The same concept may be applied to express responsiveness of water use to changes in other variables.

Public supply [water-use category]: Water withdrawn by public and private water suppliers and delivered to users or groups of users. Public water suppliers provide water for a variety of uses, such as domestic, commercial, industrial, thermoelectric power, and public water use. USEPA definition specifies 15 connections or 25 people. Activities included under SIC code 4941.

Public-supply delivery [public water supply]: Water delivered to a user or group of users through a public-supply distribution system.

Public use [public water supply]: Water supplied from a public water supply and used for firefighting, street washing, and municipal parks and swimming pools.

Public use, losses, and transfers [water supply]: Water from a public water supply that has not been accounted for as being distributed to domestic, commercial, industrial, or thermoelectric uses. Includes public water use (firefighting, street washing, and use at municipal parks and swimming pools), system flushing, leakage, meter-errors, and may also include transfer of water between public water suppliers.

Pumped storage [power]: Storage in an afterbay that is pumped back to the forebay above the powerplant at a time when customer demand for energy is low, such as at night. Pumped storage is a method of keeping water in reserve for use during peak period power demands. In some cases, the forebay may be located offstream.

Raw water [water supply]: Untreated water.

Recharge [hydrology]: Process by which water is added to the zone of saturation to replenish an aquifer.

Reclaimed wastewater [general]: Public or industrial treatment-plant effluent that has been diverted or intercepted for use before it reaches a natural waterway or aquifer.

Recycled water [general]: Water that is used more than one time before it passes back into the natural hydrologic system, generally by the same user, or for similar purposes.

Release [general]: Water discharged by a user or group of users into a wastewater-collection system.

Reservoir [hydrology]: A pond, lake, tank, basin, or other space, either natural in its origin, or created in whole or in part by the building of engineering structures, which is used for storage, regulation, and control of water (ASCE).

Reservoir evaporation [hydrology]: The amount of water lost to the atmosphere through direct evaporation and sublimation losses during below freezing temperatures.

Residential water use [water-use category]: See domestic water use.

Resident population [management]: The number of persons who live in a State who consider it their primary place of residence. College students, military personnel, and inmates of penal institutions are counted as residents. Tourists and seasonal or part-time residents are considered nonresident population.

Return flow [general]: Water that is returned to surface or ground water, after use or wastewater treatment, and thus becomes available for reuse. Return flow can go directly to surface water, directly to ground water through an injection well or infiltration bed, or indirectly to ground water through septic systems. (2) That proportion of the water diverted from a stream that returns to the stream channel either as surface or underground flow (U.S. Department of Agriculture).

Reuse [general]: Use of water that has undergone wastewater treatment and is delivered to a user as reclaimed wastewater.

Reverse osmosis [water treatment]: Refers to the process of removing salts from water using a membrane. With reverse osmosis, the product water passes through a fine membrane that the salts are unable to pass through. This differs from electrodialysis, where the salts are extracted from the feedwater by using membrane charged with an electrical current to separate the ions. The positive ions go through one membrane, and the negative ions flow through another membrane, leaving the feedwater less mineralized.

Riparian [hydrology]: Pertaining to the banks of a body of water, a riparian owner is one who own the banks. A riparian water right is the right to use and control water by virtue of ownership of the banks (ASAE).

Rural water use [water-use category]: Replaced by the more specific terms of domestic (self supply) and livestock water use.

Safe yield [management]: Amount of ground water that can be withdrawn from an aquifer without degrading quality or reducing pumping level (ASAE).

Saline water [hydrology]: Water that contains more than 1,000 milligrams per liter (mg/L) dissolved solids.

Salinity [hydrology]: The concentration of dissolved solids or salt in water.

Seepage [hydrology]: (1) Water escaping through or emerging from the ground along an extensive line or surface as contrasted with a spring where the water emerges from a localized spot. (2) The slow movement (percolation) of water by gravity water through the soil.

Self-supplied water [general]: Water withdrawn from a ground- or surface-water source by a user and not obtained from a public water supply.

Septic tank [wastewater]: Refers to a buried tank for the separation in the absence of oxygen of solids, grease, and liquid components of wastewater. The liquid fraction from the septic tank is discharged to a drain field for disposal.

Service area [management]: (franchise area) A customer, group of customers, entity of group of activities which are served with water through a single delivery and or measuring/metering device from a main distribution system.

Spring [hydrology]: A surface where, without the agency of man, water issues from rock or soil onto the land or into a body of water, the place of issuance being relatively restricted in size. Springs are classified in accordance with many criteria, including character of the water, geologic formation, geographical location, and continuity of flow (ASCE).

Standard Industrial Classification (SIC) code [industry]: Four-digit codes established by the U.S. Office of Management and Budget (Executive Office of the President, Statistical Policy Division) 1987 or more current edition, and used in the classification of establishments by type of activity in which they are engaged.

Steam venting [power]: Release of steam into the atmosphere from a thermoelectric power generating plant. Usually occurs during shut down of a plant.

Stream [hydrology]: A body of flowing water. The term is usually applied to a body of water flowing in a natural surface channel, but is also applied to a body of water flowing in a well-defined open or closed conduit, a jet of water issuing from any opening such as a fissure in rock, a nozzle, or as a current in a still body of water such as a lake or a sea (ASCE).

Surface water [hydrology]: Water flowing or stored on the earth's surface (ASAE), such as a stream or a lake.

Surface water disposal [wastewater]: Refers to wastewater that is disposed of directly into a surface water body or wetland. This does not include water discharged into ponds for holding or percolation purposes.

Tailwater [hydrology/irrigation]: Water, in a stream or canal, immediately downstream from a structure. Excess irrigation water which reaches the lower end of a field (ASAE).

Thermoelectric power water use [water-use category]: Water used in the process of the generation of electric power from fossil fuel (coal, oil, or natural gas), geothermal, biomass, solid waste, or nuclear energy. Cogeneration plants, which simultaneously generate electrical energy and low-grade heat from the same fuel, are also included. The water may be obtained from a public water supply or may be self supplied. Activities are included in SIC code 4911 along with hydropower.

Transbasin diversion [hydrology]: See Interbasin transfer.

Transpiration [hydrology]: Process by which water from plants or animals is evaporated into the atmosphere, through a porous membrane. See also evaporation and evapotranspiration.

Unaccounted for water [water supply]: Water supplied from a public water supply that has not been account for as being distributed to domestic commercial, industrial, or thermoelectric uses. It includes public water use (firefighting, street washing, and municipal parks and swimming pools), leakage (conveyance loss), and meter-errors.

Wastewater [general]: Water that carries wastes from homes, businesses, and industries; a mixture of water and dissolved or suspended solids.

Wastewater-collection conveyance [general]: The process of conveying wastewater from users through a wastewater-collection system (sewer system) to a wastewater-treatment facility. May also include storm runoff. Wastewater is released by the user into the collection system and received by the treatment facility. Wastewater can also be released from a local collection system into a regional collection system.

Wastewater treatment [general]: The processing of wastewater for the removal or reduction of contained solids or other undesirable constituents.

Wastewater-treatment return flow [general]: Water returned to the hydrologic system by wastewater-treatment facilities. Also referred to as effluent water.

Water demand [management]: 1. Relation between water use and price, when all other factors are held constant. Demand is relation of increased prices results in decreased water use. (Boland) 2. Demand is a general concept used by economists to denote the willingness of consumers or users to purchase goods, services, or inputs to production processes, since the willingness varies with the price of the thing being purchased. (Kindler). 3. Refers to the schedule of quantities that consumers would use per unit of time at a particular price per unit of water used.

Water disposal system [wastewater]: The complete system for removing excess water from land with minimum erosion. For sloping land, it may include a terrace system, terrace outlet channels, dams, and grassed waterways. For level land, it may include only surface drains or both surface and subsurface drains.

Water impoundment [hydrology]: A body of water created or stored by impoundment structures, such as dams, dikes, and levees.

Water requirement [management]: Water needed for a particular purpose, such as irrigation, power generation, public water supply, plant transpiration, or storage, that no matter what the price, the same quantity of water is purchased. generally independent of price.

Water supply [general]: All of the processes that are involved in obtaining water for the user before use. Includes withdrawal, water treatment, and distribution.

Water table [hydrology]: The upper surface of the saturated zone below the soil surface where the water is at atmospheric pressure (ASAE).

Water transfer [general]: Artificial conveyance of water from one area to another.

Water treatment [general]: The processes that withdrawn water may undergo prior to use, including chlorinations, fluoridation, and filtration.

Water use [general]: (1) In a restrictive sense, the term refers to water that is actually used for a specific purpose, such as for domestic use, irrigation, or industrial processing. (2) More broadly, water use pertains to human's interaction with and influence on the hydrologic cycle, and includes elements such as water withdrawal, distribution, consumptive use, wastewater collection, and return flow.

Water-resources region [management]: Designated natural drainage basin or hydrologic area that contains either the drainage area of a major river or the combined drainage areas of two or more rivers; of 21 regions, 18 are in the conterminous United States, and one each are in Alaska, Hawaii, and the Caribbean.

Water-resources subregion [management]: The 21 designated water-resources regions of the United States are subdivided into 222 subregions. Each subregion includes that area drained by a river system, a reach of a river and its tributaries in that reach, a closed basin(s), or a group of streams forming a coastal drainage system.

Watt-hour [power] (Wh): An electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electrical circuit steadily for one hour.

Wellhead [hydrology]: The above-ground part of a well.

Withdrawal [general]: The removal of surface water or ground water from the natural hydrologic system for use, including public-water supply, industry, commercial, domestic, irrigation, livestock, thermoelectric power generation, water uses.