WATER RESERVATION DEFINITIONS

Adverse Effect	The use of water which prevents an existing water right holder from exercising their water right.
Agricultural Irrigation	Irrigation of pastures, agricultural products sold commercially, or cropped forage used as fodder.
Applicant	The person or persons who apply to the District for permission to use a portion of the water reserved to the District.
Application	An application to the District for an authorization to use reserved water
Authorization	The instrument by which the District allows an applicant to use a portion of its reserved water.
Beneficial use	The use of reserved water for the benefit of the applicant, other persons, or the public for agricultural irrigation purposes.
Board	The Board of Natural Resources and Conservation (now defunct)
Conveyance facility	Any facility used to transport water from the source or diversion facility to the place of use or delivery facility.
Delivery facility	Any facility that is used for field delivery of water to the acreage being irrigated.
Department	Department of Natural Resources and Conservation
Detailed Development Plan	The plan submitted by the applicant detailing the proposed reserved water use. It includes the application for reserved water use and all required information, i.e., soils, engineering, maps
District	Conservation District
Diversion facility	Any facility that is used to divert water from a source of water in order that it be put to beneficial use.
Impoundment or Storage facility	Any facility that impounds and/or regulates flow of water for use at a later, more beneficial time.
Person	An individual, association, partnership, corporation, state agency, political subdivision, the United States or any agency thereof, or any other entity.
Point of Diversion	Location of the facility used to divert water from a source of water in order that it be put to beneficial use
Project	Maximum acreage that can be irrigated utilizing the District reservation and all appropriate facilities

Reservation	The reserved water right granted to the District by the Board pursuant to the Final Board Order.
Reserved water	The water which was granted as the reserved water right of the District by the Board.
Senior rights	Those water rights or water use permits for beneficial use of water in existence prior to Final Board Order
Supervisor	One of the members of the governing body of the District
Waste	The unreasonable loss of water through the design or negligent operation of a water distribution facility or the application of water to anything but beneficial use.
Water user	A person who is issued an Authorization.
Waterspreading Irrigation	A type of agricultural irrigation whereby the timing and volume of water application is based upon the characteristics of the flood hydrograph of the source and the intake characteristics of the soil.

WATER RESOURCE TERMS

Acre-foot (Ac-Ft)	The amount of water required to cover one acre to a depth of one foot. An acre-foot equals 325,851 gallons, or cubic feet. A flow of 1 cubic foot per second produce 1.98 acre-feet per day.
Aquifer	A geologic formation that will yield water to a well in sufficient quantities to make the production of water from the formation feasible for beneficial use; permeable layers of underground rock or sand that hold or transmit grour below the water table.
Beneficial use	the amount of water necessary when reasonable intelligence and diligence are used for a stated purpose; Tax recognized the following uses as beneficial: (1) domestic and municipal uses, (2) industrial uses, (3) irrigation (4) hydroelectric power, (5) navigation, (6) recreation, (7) stock raising, (8) public parks and (9) game preservation.
Conduit	A natural or artificial channel through which fluids maybe conveyed.
Conservation	To protect from loss and waste. Conservation of water may mean to save or store water for later use.
Consumptives use	The quantity of water not available for reuse. Evapotranspiration, evaporation, incorporation into plant tissue, and infiltration into groundwater are some of the reasons waters may not be available for reuse.
Creek	A small stream of water which serves as the natural drainage course for a drainage basin. The term is relative to size. Some creeks in a humid region would be called rivers if they occurred in an arid area.
Cubic foot per second (CFS)	The rate of discharge representing volume of one cubic foot passing a given point during 1 second. This rate is equivalent to approximately 7.48 gallons per second, or 1.98 acre-feet per day.
Dam	A structure of earth, rock, or concrete designed to form a basin and hold water back to make a pond, lake, or river.
Discharge	The volume of water that passes a given point within a given period of time. It is an all-inclusive outflow term, derived from variety of flows such as from a pipe to a stream, or from a stream to a lake or ocean.
Drainage Area	Of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divided which direct surface runoff from precipitation normally drains by gravity into the stream above the specified location.
EPA	Environmental Protection Agency
Erosion	The wearing away of the land surface by wind, water, ice, or other geologic agents. Erosion occurs naturally for or runoff but is often intensified by human lands use practices.

Evapotranspiration	Combination of evaporation and transpiration of water into the atmosphere from living plants and soil. Distinguished by transpiration.
First in time, first in right	Phase indication that older water rights have priority over more recent rights if there is not enough water to save the rights.
Gaging station	The site on a stream, lake, or canal where hydrologic data is collected.
Gallon	A unit of volume. AU.S. Gallon contains 231 cubic inches, 0.133 cubic feed, or 3.785 liters. One U.S. gallon of weighs 8.3 lbs.
Groundwater	Water within the earth that supplies wells and springs; water in the zone of saturation where all openings in rock are filled, the upper surface of which forms the water table.
Headgate	The gate that controls waterflow into irrigation canal and ditchers. A watermaster regulates the headgates during distribution and posts Headgate notices declaring official regulations.
Impermeable	Material that does not permit fluids to pass through.
Impoundment	A body of water such as a pond, confined by a dam, dike, floodgate or another barrier. It is used to collect and store for future use.
Instream use	Use of water that does not require withdrawal or diversion from its natural watercourse, for example, the use of navigation, recreation, and support of fish and wildlife.
Intermittent Stream	One that flows periodically. Compare perennial stream
Irrigation efficiency	The percentage of water applied, and which can be accounted for, in the soil moisture increase for consumption.
Irrigation return flow	Water, which is not consumptively used by plants and returns to a surface or ground water supply. Under condition water right litigation, the definition may be restricted to measurable water returning to the stream from which it diverted.
Irrigation water	Water, which is applied to assist crops in areas or during times where rainfall is inadequate.
Leaching	Extraction or flushing out of dissolved or suspended materials from the soil, solid waste, or another medium by other liquids as they percolate down through the medium to groundwater.
Milligrams Per Liter (mg/L)	Milligrams per liter of water. This measure is equivalent to parts per million (ppm).

Non-consumptive Use	Using water in a way that does not reduce the supply. Examples include hunting, fishing, boating, water-skiing, and some power production. Compare consumptive use.
Perennial stream	One that flows all year round. Compare intermittent stream.
Permeability	The ability of a water bearing material to transmit water. It is measured by the quantity of water passing through cross section, in a unity time, under 100 percent hydraulic gradient.
pH	Numeric value that describes the intensity of the acid or basic (alkaline) conditions of a solution. The pH scale 14, with the neutral point at 7.0 Values lower than 7 indicate the presence of acids and greater than 7.0 the primary alkalis (base). Technically speaking, pH is the logarithm of the reciprocal (negative log) often hydrogen ion concentration (hydrogen ion activity) in moles per liter.
Point Source	Source of pollution that involves discharge of wastes from an identifiable point, such as a smokestack or sewer treatment plant. Compare nonpoint source.
Pond	A body of water is usually smaller that a lake and larger than a pool either naturally or artificially confined.
ppm	Parts per million. Number of parts of a chemical are found in one million parts of a solid, liquid, or gaseous mixture. Equivalent to mil-liter (Ug/L)
Priority date	The date of establishment of a water right. It is determined by adjudication of rights established before the passage of a water code. The rights established by application have the application date as the date of priority.
Pump	A device, which moves, compresses, or alters the pressure of a fluid, such as water or air, being conveyed through natural or artificial channel.
River	A natural stream of water of considerable volume.
River Basin	The area drained by a river and its tributaries.
Runoff	Surface water entering rivers, freshwater lakes, or reservoirs.
Salinity	Amount of dissolved salts in a given volume of water.
Sediment	Soil particles, sand, and minerals washed from the land into aquatic systems as a result of natural and human causes.
Spillway	The channel or passageway around or over a dam through which excess water is diverted.
Stream	A general term for a body of flowing water.
Streamflow	The discharge that occurs in a natural channel.

Surface impoundment	An indented area in the land's surface, such a pit, pond, or lagoon.
Surface Irrigation	Application of water by means other than spraying such that contact between the edible portions of any food crop irrigation water is prevented.
Surface Water	Water that flows in streams and rivers and in natural lakes, in wetlands, and in reservoirs constructed by humans.
TDS- total dissolved solids	The sum or all inorganic and organic particulate material. TDS is an indicator test used for wastewater analysis a measure of the mineral content of bottled water and groundwater. There is a relationship between TDS and conductivity. In general, for the San Antonio River basin, TDS/. 6 approximate conductivities. Or conductivity* approximates TDS. People monitoring water quality can measure electrical conductivity quickly in the field and TDS without doing any lab tests at all. See specific conductance.
Tributary	A stream that contributes its water to another stream or body of water.
USGS	United States Geological Survey
Water	The liquid that descends from the clouds as rain forms streams, lakes, and seas, and is a major constituent of matter. It is a n odorless, tasteless, colorless, very slightly compressible liquid.
Water quality criteria	Scientifically derived ambient limits developed and updated by EPA, under section 304 (a)(1) of the clean water specific pollutants of concern. Criteria are recommended concentrations, levels, or narrative statements that state be exceeded in a waterbody in order to protect aquatic life or human health.
Water Table	Level below the earth's surface at which the ground becomes saturated with water. The surface of an unconfinement, which fluctuates due to seasonal precipitation.
Water Well	Any artificial excavation constructed for the purpose of exploring for or producing ground water.
Water Year	The 12-month period, usually October1 through September30. The water year is designated by the calendar which it ends, and which includes 9 of the 12 months. Thus, the year ending September 30, 1998, is called the 1 year.
Watermaster	An employee of water department who distributes available water supply at the request of water right holders collect hydrographic data.
Watershed	Land area from which water drains toward a common watercourse in a natural basin.
Yield	The quantity of water expressed either as a continuous rate of flow (cubic feet per second, etc.) or as a volume time. It can be collected for a given use, or uses, from surface or groundwater sources on a watershed.

LANDSCAPE IRRIGATION TERMS

Acre Foot (also, acre feet)	A measurement of water quantity most often used in agriculture. The amount of water needed to cover one acre of area with water one foot deep. Enough water to drown in, but not deep enough to swim in. See the irrigation formulas web page for conversion of acre-feet to other measurements.
Booster Pump	A device to increase the water pressure is a system where some pressure already exists. For example, I water comes from a water company at 40 PSI of pressure, but you need 80 PSI of pressure for the irrigation system, you would use a booster pump to increase the pressure.
Design Pressure	In the irrigation design tutorials the design pressure is the total pressure available to operate the irrigation system. Other uses of the term vary but usually refer to the operation pressure at which a specific piece of irrigation equipment is designed to operate.
Drip Irrigation	Any type of irrigation system that applies water to the soil very slowly, thus the name "drip" irrigation. Currently the most efficient irrigation technology in terms of both water and energy use.
Gallons Per Minute (GPM)	A measurement of water flow primarily used only in the United States of America.
Gravity Flow	The term given a water system that relies on gravity to provide the pressure required to deliver the water. Consists of a water source located at a higher elevation that the water delivery points.
Mainline	The name given the pipe(s) going from the water source to the control valves.
Nozzle	The part of a sprinkler that the water comes out of. Usually, a very carefully engineered part to assure a good spray pattern. In most cases the nozzle is removable so that it can be easily cleaned or replaced. With plastic nozzles replacement is generally preferred over cleaning as small scratches in the plastic can cause big problems with water distribution uniformity.
Operation Pressure	The pressure at which a device or irrigation system is designed to operate. Can mean just about anything depending on usage. There can be "optimum operating pressure" "minimum operating pressure", "maximum operating pressure" and "operating pressure range". In my tutorials I use "operating pressure" to signify the pressure required for the sprinkler head or drip emitter to operate as desired.
Precipitation Rate	A measurement of water application. The measurement is given in the depth of water applied to the soil. In other words, the depth that the water would be if it didn't Run-off or soak into the soil. In the USA precipitation rate is measured in inches per hour. In metric countries it is measured n millimeters per hour.

Pressure Gauge	A device is used to measure water pressure. The pressure gauges are "liquid filled", however most cheap gauges work well enough for irrigation use. If you do use a cheap gauge, don't leave it connected to the water pipe. The constant pressure will ruin it. Disen "gauge" it after each use!
Pressure Head	Measurement of water pressure based on the water depth. Measurement is stated as "feet of head" or "meters of head". One foot of head is the pressure at the bottom of a 1-foot-high column of water, which is also equal to 0.433 PSI. So, it's really a measure of the weight of water of a given depth. It doesn't matter how much water is present; the pressure head is only determined by the depth to the water. The water pressure at the bottom of a 2" diameter, 20-foot-tall water filled pipe is the same as the water pressure at the bottom of a 20-foot-deep lake.
PSI	Abbreviation "pound per square inch"
Pump	A device, which increases the water pressure or moves water. Technically most pumps don't move the water, they increase the water pressure, and the water pressure moves the water. Some pumps, for example a water wheel, actually move the water one buckets full at time.
PVC	Abbreviation for poly-vinyl-chloride. A type of plastic used to make water pipe. Usually white in color but sometimes it is gray, brown, tan, or purple. If it's purple it means, "Reclaimed water", you don't want to drink the water in it.
Riser	The connection between a sprinkler or other irrigation device and the pipe that supplies the water to it, usually consisting of a short nipple and sometimes a few ells.
Sprinkler	Sprinkler heads are devices, which distribute water over a given area for irrigation (or to put out fires).
Total Pressure Head (TDH)	The sum of all the factors, which increase or decrease the available water pressure.

DNRC Used Acronyms

AC-FT	Acre-foot
AUM	Animal Unit Month
BIA	Bureau of Indian Affairs (USDI)
BLM	Bureau of Land Management (USDI)
BMP	Best Management Practice [Urban Water Use]
CFS	Cubic foot per Second
CORPS	U.S. Army Corps of Engineers (also USACE)
CWA	Clean Water Act (EPA)
EA	Environmental Assessment (NEPA)
EC	Electrical Conductivity/Electroconductivity
EPA	[U.S.] Environmental Protection Agency
ET	Evapotranspiration
FSA	Food Security Act (USDA)
GIS	Geographic Information System
KW	Kilowatt
KWH	Kilowatt-Hour
LR	Leaching Requirement
MG/L	Milligrams per Liter
MW	Megawatt (one million watts)
NFS	National Forest Service (USDA)
NPS	Non-Point Source [pollution]
O&M	Operations and Maintenance
PH	Hydrogen Ion Concentration [Potential of Hydrogen]
POU	Point-of-Use [Treatment Device]
PPM	Parts per Million
SAR	Sodium Adsorption Ration
SS	Suspended Solids
TDS	Total Dissolved Solids
USFS	U.S. Forest Service (USDA)
USFWS	U.S. Fish and Wildlife Service (USDA)
USGS	U.S. Geological Survey (USDA)