



In Brief

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Water Talk

Water issues involve terminology relating to natural bodies of water and manmade water systems, the treatment and condition of water testing and measuring, and legalese relating to the business of water.

Not everyone wants to pump, transfer, purify, desalinate, chlorinate, aerate, conserve, or market water, but everyone is affected by it. Some discussions of water require a hydrologist or an attorney with a specialization in water law to translate.

The following compilation of terms should make it easier to understand discussions about water, whether involving lakes, bays, estuaries, droughts, floods, irrigation, wastewater, potable water, rule of capture, historic use, consumptive use, or just plain thirst.

- by Samm Osborn, SRC



abandoned well: a well whose use has been permanently discontinued or which is in a state of such disrepair that it cannot be used for its intended purpose.

acre-feet: the amount of water required to cover one acre with 1 foot of water.

advanced treatment: a level of wastewater treatment more stringent than secondary treatment; requires an 85-pound reduction in conventional pollutant concentration or a significant reduction in non-conventional pollutants. (See: tertiary treatment)

advanced wastewater treatment: any treatment of sewage that goes beyond the secondary or biological water treatment stage and includes the removal of nutrients such as phosphorus and nitrogen and a high percentage of suspended solids. (See: primary and secondary treatment)

aerated lagoon: a holding and/or treatment pond that speeds up the natural process of biological decomposition of organic waste by stimulating the growth and activity of bacteria that degrade organic waste.

aeration: a process which promotes biological degradation of organic matter in water by passively exposing it to air or directly supplying the circulation of air.

aeration tank: a chamber used to inject air into water.

alkaline: the condition of water or soil which contains a sufficient amount of alkali substance to raise the pH above 7.0.

alkalinity: the capacity of bases to neutralize acids (e.g., adding lime to lakes to decrease acidity.)

ampermometric titration: a way of measuring concentrations of certain substances in water using an electric current that flows during a chemical reaction.

anisotropy: in hydrology, the conditions under which one or more hydraulic properties of an aquifer vary from a reference.

aqueous: something made of water.

aquifer: an underground geological formation, or group of formations, containing water; sources of groundwater for wells and springs.

aquifer test: a test to determine hydraulic (movement or operation by water under pressure) properties of an aquifer.

aquitard: geological formation that may contain groundwater but is not capable of transmitting significant quantities of it under normal hydraulic gradients; may function as confining bed.

area of review: in the underground injection control program (UIC), the area surrounding an injection well that is reviewed during the permitting process to determine if flow between aquifers will be induced by the injection operation.





back pressure: a pressure that can cause water to backflow into the water supply when a user's waste water system is at a higher pressure than the public system.

backflow/back siphonage: a reserve flow condition created by a difference in water pressures that causes water to flow back into the distribution pipes of a drinking water supply from any source other than the one intended.

backwashing: reversing the flow of water back through the filter media to remove entrapped solids.

basin: 1- an artificially enclosed area of a river or harbor designed so that the water level remains unaffected by tidal changes; 2- small enclosed or partly enclosed body of water.

beneficial use: the use of a reasonable amount of water necessary to accomplish the purpose of an appropriation, without waste. Some common types of beneficial use are: domestic, irrigation, municipal, wildlife, recreation, and mining.

bioremediation: use of living organisms to remove pollutants from water or wastewater.

blackwater: water that contains animal, human, or food waste.

bloom: a proliferation of algae and/or higher aquatic plants in body of water; often related to pollution, especially when pollutants accelerate growth.

bog: a type of wetland that accumulates appreciable peat deposits; primarily dependent on precipitation for their water source and

usually acidic and rich in plant residue with a conspicuous mat of living green moss.

brackish: mixed fresh and salt water.

breakpoint chlorination: addition of chlorine to water until the chlorine demand has been satisfied.



channelization: straightening and deepening streams so water will move faster, a marsh-drainage tactic that can interfere with waste assimilation capacity, disturb fish and wildlife habitats, and aggravate flooding.

cistern: small tank or storage facility used to store water for a home or farm; often used to store rain water.

Clean Water Act (CWA): Federal Water Pollution Control Act Amendments of 1972 that became commonly known as the Clean Water Act after it was amended in 1977; establishes the basic structure for regulating discharges of pollutants into the waters of the United States; gives EPA the authority to implement pollution control programs such as setting wastewater standards for industry; sets water quality standards for all contaminants in surface waters and funded the construction of sewage treatment plants under the construction grants program and recognized the need for planning to address the critical problems posed by nonpoint source pollution; does not deal directly with groundwater or water quantity issues.

colonia: a residential area that may lack basic water and sewer systems; often found along the Texas-Mexico border and in New Mexico, Arizona, and California.

combined sewer overflows: discharge of a mixture of storm water and domestic waste when the flow capacity of a sewer system is exceeded during rainstorms.

combined sewers: a sewer system that carries both sewage and storm water runoff.

community water system: a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

complete treatment: a method of treating water that consists of the addition of coagulant chemicals, flash mixing, coagulation-flocculation, sedimentation, and filtration; conventional filtration.

conservation: preserving and renewing, when possible; the use, protection, and improvement of natural resources according to principles that will ensure their highest economic or social benefit.

consumptive use: water removed from available supplies without return to a water resources system. (e.g., water used in manufacturing, agriculture, and food preparation.)



dechlorination: removal of chlorine from water.

demineralization: a treatment process that removes dissolved minerals from water.

desalination/desalinization: removing salts from ocean or brackish water by using various technologies.

dewater: 1-remove a portion of the water in a sludge or slurry to dry the sludge so that it can be handled and disposed of; 2-remove or drain the water from a tank or trench.

direct filtration: a method of treating water which consists of the addition of coagulant chemicals, flash mixing, coagulation, minimal flocculation, and filtration.

direct runoff: water that flows over the ground surface or through the ground directly into streams, rivers, and lakes.

drainage: improving the productivity of agricultural land by removing excess water from the soil by such means as ditches or subsurface drainage tiles or interconnected pipe.

drainage basin: the area of land that drains water, sediment, dissolved materials to a common outlet at some point along a stream channel.

drainage well: a well drilled to carry excess water off agricultural fields.

drawdown: 1- the drop in the water table or level of water in the ground when water is being pumped from a well; 2- the amount of water used from a tank or reservoir; 3- the drop in the water level of a tank or reservoir.

dredging: removal of mud from the bottom of water bodies.

drinking water equivalent level (DWEL): the scientifically-based measure of chemicals in drinking water deemed safe for human consumption over a lifetime.

Drinking Water State Revolving Fund (DWSRF): a program of the Environmental Protection Agency that provides grant funding to states to allow them to assist public water systems to make infrastructure improvements needed to

protect public health and ensure compliance with the Safe Drinking Water Act.

drought: a long period of abnormally low rainfall, especially one that adversely affects growing or living conditions.

drought preparedness: a plan that provides a framework for an integrated approach to minimize the impacts of drought on people and resources.



effluent: wastewater -- treated or untreated -- that flows out of a treatment plant, sewer, or industrial outfall; generally refers to wastes discharged into surface waters.

effluent limitation: restrictions established by a state or Environmental Protection Agency on quantities, rates, and concentrations in wastewater discharges.

environmental flow: the amount of water needed in rivers, streams, and coastal bays to support fish and wildlife populations.

erosion: the wearing away of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building, or logging.

estuary: region of interaction between rivers and near-shore ocean waters, where tidal action and river flow mix fresh and salt water; a brackish water ecosystem such as a bay, river mouth, salt marsh, and lagoon that shelters and feeds marine life, birds, and wildlife.

exempted aquifer: underground bodies of water defined in the Underground Injection Control program as aquifers that are potential

sources of drinking water though not being used as such, and thus exempted from regulations barring underground injection activities.

existing use: withdrawal and beneficial use of groundwater in a quantity demonstrated to be the current, ongoing use for a beneficial purpose, or during some time period that includes the present, and that may be protected against new uses of groundwater or increased by historic users of groundwater.



fen: low, flat, swampy land; a bog or marsh.

finished water: water that has passed through all the processes in a water treatment plant and is ready to be delivered to consumers.

first draw: water that comes out when a tap is first opened, likely to have the highest level of lead contamination from plumbing materials.

flowmeter: a gauge indicating the velocity of wastewater moving through a treatment plant or of any liquid moving through various industrial processes.

fluoridation: the addition of a chemical to increase the concentration of fluoride ions in drinking water to reduce the incidence of tooth decay.

fluoride: gaseous, solid, or dissolved compounds containing fluorine that result from industrial processes.

furrow irrigation: irrigation method in which water travels through the field by means of small channels between each groups of rows.



grandfathered use: withdrawal and beneficial use of groundwater in a quantity demonstrated to have been put to use for a beneficial purpose prior to a date established by a groundwater conservation district with regulatory authority over the withdrawal and beneficial use of groundwater.

grassed waterway: natural or constructed watercourse or outlet that is shaped or graded and established in suitable vegetation for the disposal of runoff water without erosion.

gray water: domestic wastewater composed of wash water from kitchen, bathroom, and laundry sinks, tubs, and washers.

ground cover: plants grown to keep soil from eroding.

Ground Water Under the Direct Influence (UDI) of Surface Water: any water beneath the surface of the ground with 1- significant occurrence of insects or microorganisms, algae, or large-diameter pathogens; 2- significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions.

groundwater: the supply of fresh water found beneath the Earth's surface, usually in aquifers, which supply wells and springs.

groundwater (conservation) districts: underground water conservation districts of Texas that have the powers and duties to manage groundwater as defined in Chapter 36 of the Texas Water Code.

Groundwater Disinfection Rule: a 1996 amendment of the Safe Drinking Water Act requiring the Environmental Protection Agency to promulgate national primary drinking water regulations requiring disinfection as for all public water systems, including surface waters and ground water systems.

gully: a deep furrow, ditch, or channel cut in the earth by running water after a prolonged downpour; ditches deep enough to cross with farm equipment.

gully erosion: severe erosion in which gullies are cut to a depth greater than 30 centimeters or one foot.



hard water: alkaline water containing dissolved salts that interfere with some industrial processes and prevent soap from sudsing.

historic use: withdrawal and beneficial use of groundwater in a quantity demonstrated to have been put to beneficial use at some time or during some period in the past, but prior to the effective date of a groundwater conservation district's rules, and that may be preserved against new uses of groundwater or increased use by historic users of groundwater.

holding pond: a pond or reservoir, usually made of earth, built to store polluted runoff.

homeowner water system: any water system which supplies piped water to a single residence.

hydraulic: of, involving, moved by, or operated by a fluid, especially water, under pressure.

hydraulic conductivity: the rate at which water can move through a permeable medium.

hydraulic gradient: the direction of groundwater flow due to changes in the depth of the water table.

hydrogeology: geology of ground water, with particular emphasis on the chemistry and movement of water.

hydrologic cycle: movement or exchange of water between the atmosphere and earth.

hydrology: the science dealing with the properties, distribution, and circulation of water.

hydrolysis: the decomposition of organic compounds by interaction with water.

hydronic: a ventilation system using heated or cooled water pumped through a building.

hydrophilic: having a strong affinity for water.

hydrophobic: having a strong aversion for water.

hydropneumatic: a water system, usually small, in which a water pump is automatically controlled by the pressure in a compressed air tank.



impermeable: not easily penetrated; the property of a material or soil that does not allow, or allows only with great difficulty, the movement or passage of water.

impoundment: a body of water created through the capture or accumulation and storage of water - as in damming.

indirect discharge: introduction of pollutants from a non-domestic source into a publicly owned waste-treatment system. Indirect dischargers can be commercial or industrial facilities whose wastes enter local sewers.

industrial sludge: semi-liquid residue or slurry remaining from treatment of industrial water and wastewater.

infiltration: 1- the penetration of water through the ground surface into sub-surface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls. 2- the technique of applying large volumes of waste water to land to penetrate the surface and percolate through the underlying soil. (See: percolation)

infiltration gallery: a sub-surface groundwater collection system, typically shallow in depth, constructed with open-jointed or perforated pipes that discharge collected water into a watertight chamber from which the water is pumped to treatment facilities and into the distribution system, usually located close to streams or ponds.

infiltration rate: the quantity of water that can enter the soil in a specified time interval.

inflow: entry of extraneous rain water into a sewer system from sources other than infiltration, such as basement drains, manholes, storm drains, and street washing.

influent: water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant.

instream use: water use taking place within a stream channel. (e.g., hydro-electric power generation, navigation, water quality improvement, fish propagation, recreation, etc.)

interbasin transfers (IBTs): movement of surface water from one basin to another subject to approval and regulation in Texas by the Texas Commission on Environmental Quality.

interstate waters: waters that flow across or form part of state or international boundaries.

irrigation: applying water or wastewater to land areas to supply the water and nutrient needs of plants.

irrigation efficiency: the amount of water stored in the crop root zone compared to the amount of irrigation water applied.

irrigation return flow: surface and subsurface water which leaves the field following application of irrigation water.

isotropy: the condition in which the hydraulic or other properties of an aquifer are the same in all directions.



jar test: a laboratory procedure that simulates a water treatment plant's coagulation/flocculation units with differing chemical doses, mix speeds, and settling times to estimate the minimum or ideal coagulant dose required to achieve certain water quality goals.

junior water rights: a water right granted subsequent in time to another water right in the same basin. These rights are "junior" in time priority to all such rights that were previously granted or recognized by the state. No part of junior water rights can be impounded, diverted, or beneficially used and recognized until the senior right is satisfied in its entirety.



karst: a geologic formation of irregular limestone deposits with sinks, underground streams, and caverns.



lagoon: 1- a shallow pond where sunlight, bacterial action, and oxygen work to purify wastewater; also used for storage of wastewater or spent nuclear fuel rods. 2- shallow body of water, often separated from the sea by coral reefs or sandbars.

large water system: a water system that services more than 50,000 customers.



marsh: a type of wetland that does not accumulate appreciable peat deposits and is dominated by herbaceous vegetation; may be either fresh or saltwater, tidal or non-tidal. (See: wetlands)

million-gallon per day (MGD): a measure of water flow.

mining of an aquifer: withdrawal over a period of time of ground water that exceeds the rate of recharge of the aquifer.

municipal discharge: discharge of effluent from waste water treatment plants that receive waste water from households, commercial establishments, and industries.

municipal sewage: wastes (mostly liquid) originating from a community; may be composed of domestic wastewaters and/or industrial discharges.

municipal sludge: semi-liquid residue remaining from the treatment of municipal water and wastewater.

municipal utility district (MUD): a political subdivision of the State of Texas authorized by the Texas Commission on Environmental Quality to provide water, sewage, drainage, and other services within the MUD boundaries.



National Estuary Program: federal program established under the Clean Water Act Amendments of 1987 to develop and implement conservation and management plans for protecting estuaries and restoring and maintaining their chemical, physical, and biological integrity, as well as controlling point and nonpoint pollution sources.

National Primary Drinking Water Regulations (NPDWRs): legally enforceable standards that apply to public water systems designed to protect public health by limiting the levels of contaminants in drinking water; also called primary standards.

National Secondary Drinking Water Regulations (NSDWRs): non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water; also called secondary standards.

navigable waters: waters sufficiently deep and wide for navigation by all, or specified vessels;

such waters in the United States come under federal jurisdiction and are protected by certain provisions of the Clean Water Act.

non-community water system: a public water system that is not a community water system. (e.g., the water supply at a camp site or national park.)

non-potable: water that is unsafe or unpalatable to drink because it contains pollutants, contaminants, minerals, or infective agents.



ocean discharge waiver: a variance from Clean Water Act requirements for discharges into marine waters.

offstream use: water withdrawn from surface or groundwater sources for use at another place.

overland flow: a land application technique that cleanses waste water by allowing it to flow over a sloped surface.



perched water: zone of unpressurized water held above the water table by impermeable rock or sediment.

percolating water: water that passes through rocks or soil under the force of gravity.

percolation: 1- the movement of water downward or upward and radially through subsurface soil layers, usually continuing downward to groundwater. 2- slow seepage of water through a filter.

permeability: the rate at which liquids pass through soil or other materials in a specified direction.

pH: an expression of the intensity of the basic or acid condition of a liquid ranging from 0 to 14, where 0 is the most acidic and 7 is neutral; natural waters usually have a pH between 6.5 and 8.5.

potable water: water that is safe for drinking and cooking.

pretreatment: processes used to reduce, eliminate, or alter the nature of wastewater pollutants from non-domestic sources before they are discharged into publicly owned treatment works.

primary standards: See: National Primary Drinking Water Regulation.

process wastewater: any water that comes into contact with any raw material, product, byproduct, or waste.

product water: water that has passed through a water treatment plant and is ready to be delivered to consumers.

public water system: a system that provides piped water for human consumption to at least 15 service connections or regularly serves 25 individuals.

Publicly Owned Treatment Works (POTWs): waste treatment works owned by a state, unit of local government, or Indian tribe, usually designed to treat domestic wastewaters.

pumping station: mechanical device installed in sewer or water system or other liquid-carrying pipelines to move the liquids to a higher level.

pumping test: a test conducted to determine aquifer or well characteristics.



quench tank: a water-filled tank used to cool incinerator residues or hot material during industrial processes.



raw water: intake water prior to any treatment or use.

reaeration: introduction of air into the lower layers of a reservoir to replenish dissolved oxygen and cause lower waters to rise to the surface and take on oxygen from the atmosphere.

recarbonization: process in which carbon dioxide is bubbled into water being treated to lower the pH.

receiving waters: a river, lake, ocean, stream, or other watercourse into which wastewater or treated effluent is discharged.

recharge: the process by which water is added to a zone of saturation, usually by percolation from the soil surface. (e.g., the recharge of an aquifer.)

recharge area: a land area in which water reaches the zone of saturation from surface infiltration. (e.g., where rainwater soaks through the earth to reach an aquifer.)

recharge rate: the quantity of water per unit of time that replenishes or refills an aquifer.

reclamation: restoration of materials found in the waste stream to a beneficial use which may be for purposes other than the original use.

red tide: a proliferation of a marine plankton toxic and often fatal to fish, perhaps stimulated by the addition of nutrients; may be red, green, or brown, depending on the coloration of the plankton.

reservoir: any natural or artificial holding area used to store, regulate, or control water.

residual saturation: saturation level below which fluid drainage will not occur.

rule of capture: rule established in Texas in 1904 which allows landowners to pump as much water beneath their land as they want without regard for the impact on their neighbors' supply.

run-off: the part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface water.



Safe Drinking Water Act (SDWA): federal law established 1974 designed to ensure the quality of drinking water in the United States. Under SDWA, the Environmental Protection Agency sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

safe water: water that does not contain harmful bacteria, toxic materials, or chemicals, and is considered safe for drinking even if it may have taste, odor, color, and certain mineral problems.

salinity: the percentage of salt in water.

salt water intrusion: the invasion of fresh surface or ground water by salt water.

sanitary sewer: a sewer system (separate from storm sewers) that carries household, industrial, and commercial waste.

secondary standards: See National Secondary Drinking Water Regulations (NSDWR)

seepage: percolation of water through the soil from unlined canals, ditches, laterals, water-courses, or water storage facilities.

senior water rights: a water right granted prior in time to another water right in the same basin. This right is "senior" in time priority to all such rights that were subsequently granted or recognized by the state. The entirety of senior rights can be impounded, diverted, and/or beneficially used and recognized before any part of a junior right is satisfied.

septic system: an on-site system designed to treat and dispose of domestic sewage.

septic tank: an underground storage tank for wastes from homes not connected to a sewer line; waste goes directly from the home to the tank.

service connector: the pipe that carries tap water from a public water main to a building.

service line sample: a one-liter sample of water that has been standing for at least six hours in a service pipeline and is collected according to federal regulations.

service pipe: the pipeline extending from the water main to the building served or to the consumer's system.

settling tank: a holding area for wastewater, where heavier particles sink to the bottom for removal and disposal.

sewage sludge: sludge produced at a Publicly Owned Treatment Works, the disposal of which is regulated under the Clean Water Act.

sewage: the waste and wastewater produced by residential and commercial sources and discharged into sewers.

sewer: a channel or conduit that carries wastewater and storm-water runoff from the source to a treatment plant or receiving stream.

silt: sedimentary materials composed of fine or intermediate-sized mineral particles.

sludge: a semi-solid residue from any of a number of air or water treatment processes.

soft water: any water that does not contain a significant amount of dissolved minerals such as salts of calcium or magnesium.

source-water protection area: the area delineated by a state for a public water supply or including numerous such suppliers, whether the source is ground water or surface water or both.

sparge/sparging: injection of air below the water table to strip dissolved volatile organic compounds and/or oxygenate ground water to facilitate the biodegradation of compounds.

Spill Prevention, Containment, and Countermeasures Plan (SPCP): plan covering the release of hazardous substances as defined in the Clean Water Act.

spring: ground water seeping out of the earth where the water table intersects the ground surface.

spring melt/thaw: the process whereby warm temperatures melt winter snow and ice that can result in abnormally large amounts of acidity entering streams and rivers.

stagnation: lack of motion in a mass of air or water that holds pollutants in place.

static water depth: the vertical distance from the centerline of the pump discharge down to the surface level of the free pool while no water is being drawn from the pool or water table.

static water level: 1- elevation or level of the water table in a well when a pump is not operating; 2- the level or elevation to which water would rise in a tube connected to an artesian aquifer or basin in a conduit under pressure.

storm sewer: a sewer system (separate from sanitary sewers) that carries water runoff from rain or snow away from buildings and land surfaces.

subwatershed: topographic perimeter of the catchment area of a stream tributary.

sump: a pit or tank that catches liquid runoff for drainage or disposal.

superchlorination: chlorination with doses that are deliberately selected to produce water free of combined residuals so large as to require dechlorination.

supercritical water: a type of thermal treatment using moderate temperatures and high pressures to enhance the ability of water to break down large organic molecules into smaller, less toxic ones.

supplier of water: any person who owns or operates a public water supply.

surface runoff: precipitation, snow melt, or irrigation water in excess of what can infiltrate the soil surface and be stored in small surface depressions.

surface water: all water naturally open to the atmosphere (rivers, reservoirs, ponds, streams, impoundments, seas, estuaries, etc.)

surface-water treatment rule: rule that specifies maximum contaminant level goals and disinfection requirements for public water systems using surface-water or ground-water sources under the direct influence of surface water; regulations also specify water quality, treatment, and watershed protection criteria under which filtration may be avoided.

swamp: a type of wetland dominated by woody vegetation but without appreciable peat deposits; may be fresh or salt water and tidal or non-tidal. (See: wetlands)



tail water: the runoff of irrigation water from the lower end of an irrigated field.

tank: a usually artificial pool, pond, reservoir, or cistern, especially one used to hold water for drinking or for irrigation.

tertiary treatment: advanced cleaning of wastewater that goes beyond the secondary or biological stage.

tidal marsh: low, flat marshlands traversed by channels and tidal hollows, subject to tidal inundation.

transient water system: a non-community water system that does not serve 25 of the same nonresidents per day for more than six months per year.

treated wastewater: wastewater that has been subjected to one or more physical, chemical, and biological processes to reduce its potential of being health hazard.

trench: a deep furrow or ditch.

trickle irrigation: method in which water drips to the soil from perforated tubes or emitters.

trickling filter: a coarse treatment system in which wastewater is trickled over a bed of stones or other material covered with bacteria that break down the organic waste and produce clean water.

turbidity: a cloudy condition in water due to suspended silt organic matter.



unconfined aquifer: an aquifer containing water that is not under pressure; the water level in a well is the same as the water table outside the well.

underground injection control (UIC): the program under the Safe Drinking Water Act that regulates the use of wells to pump fluids into the ground.

underground injection wells: steel and concrete-encased shafts into which hazardous waste is deposited by force and under pressure.

underground sources of drinking water: aquifers currently being used as a source of drinking water or those capable of supplying a public water system. (See: exempted aquifer)

unsaturated zone: the area above the water table where soil pores are not fully saturated, although some water may be present. (See: vadose zone)

urban runoff: storm water from city streets and adjacent domestic or commercial properties that carries pollutants of various kinds into the sewer systems and receiving waters.



vadose zone: the zone between land surface and the water table within which the moisture content is less than saturation and pressure is less than atmospheric. (See: unsaturated zone)



waste stream: the total flow of solid waste from homes, businesses, institutions, and manufacturing plants that is recycled, burned, or disposed of in landfills.

waste treatment lagoon: impoundment made by excavation or earth fill for biological treatment of wastewater.

waste treatment plant: a facility containing a series of tanks, screens, filters, and other processes by which pollutants are removed from water.

waste treatment stream: the continuous movement of waste from generator to treater and disposer.

wastewater infrastructure: the plan or network for the collection, treatment, and disposal of sewage in a community.

wastewater operations and maintenance: actions taken after construction to ensure that facilities constructed to treat wastewater will be

operated, maintained, and managed to reach prescribed effluent levels in an optimum manner.

wastewater: the spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.

water pollution: the presence in water of enough harmful or objectionable material to damage the water's quality.

watermaster: an official who ensures compliance with water rights by monitoring stream flows, reservoir levels, and water use; also coordinates diversions in the basins which are managed by watermaster programs.

water purveyor: a public utility, mutual water company, county water district, or municipality that delivers drinking water to customers.

water quality criteria: levels of water quality expected to render a body of water suitable for its designated use.

water quality standards: standards adopted by states and approved by the Environmental Protection Agency that prescribe the use of a body of water and establish the water quality criteria that must be met to protect designated uses.

water quality-based limitations: effluent limitations applied to dischargers when mere technology-based limitations would cause violations of water quality standards.

water quality-based permit: a permit with an effluent limit more stringent than one based on technology performance.

water solubility: the maximum possible concentration of a chemical compound dissolved in water, allowing it to be easily dispersed through the environment.

water storage pond: an impound for liquid wastes designed to accomplish some degree of biochemical treatment.

water supply system: the collection, treatment, storage, and distribution of potable water from source to consumer.

water table: the level of groundwater.

water treatment lagoon: an impound for liquid wastes designed to accomplish some degree of biochemical treatment.

water well: an excavation where the intended use is for location, acquisition, development, or artificial recharge of groundwater.

water-source heat pump: heat pump that uses wells or heat exchangers to transfer heat from water to the inside of a building.

waterborne disease outbreak: the significant occurrence of acute illness associated with drinking water from a public water system that is deficient in treatment, as determined by appropriate local or state agencies.

watershed: the land area that drains into a stream.

watershed approach: a coordinated framework for environmental management that focuses public and private efforts on the highest priority problems within hydrologically-defined geographic areas taking into consideration both ground and surface water flow.

watershed area: a topographic area within a line drawn connecting the highest points uphill of a drinking water intake into which overland flow drains.

well plug: a watertight, gastight seal installed in a bore hole or well to prevent movement of fluids.

well point: a hollow vertical tube, rod, or pipe terminating in a perforated pointed shoe and fitted with a fine-mesh screen.

wellhead protection area: a protected surface and subsurface zone surrounding a well or well field supplying a public water system to keep contaminants from reaching the well water.

wetlands: an area that is saturated by surface or groundwater with vegetation adapted for life under those soil conditions, as swamps, bogs, fens, marshes, and estuaries.



xeriscaping: a method of landscaping in and for dry climates using a little water to supplement natural precipitation to grow plants and water conserving lawns.



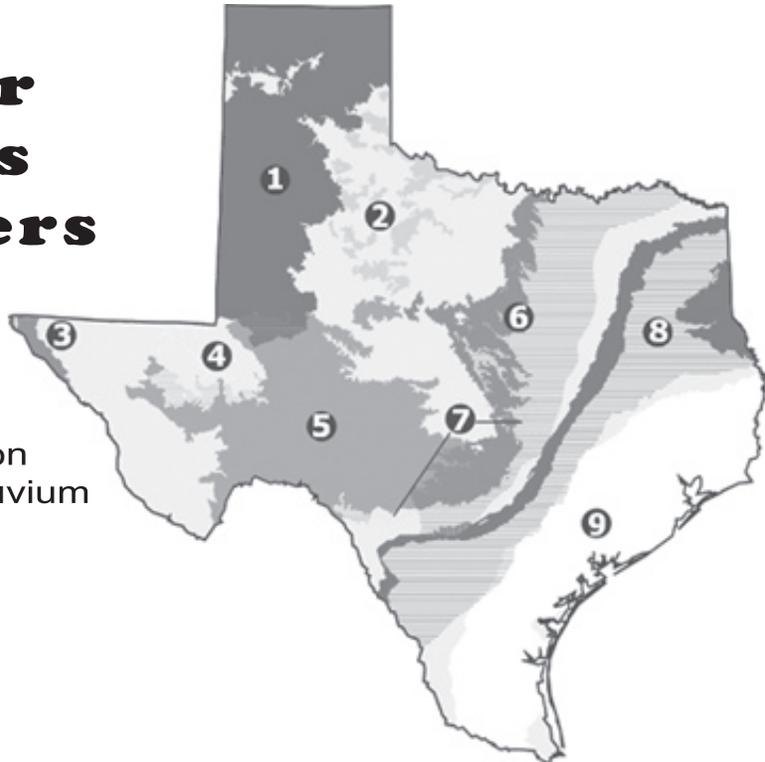
yield: the quantity of water that can be collected for a given use from surface or groundwater sources.



zone of aeration: the comparatively dry soil or rock located between the ground surface and the top of the water table.

zone of saturation: the soil or rock located below the top of the groundwater table. By definition, the zone of saturation is saturated with water.

Major Texas Aquifers



- 1. Ogallala
- 2. Seymour
- 3. Hueco-Mesilla Bolson
- 4. Cenozoic Pecos Alluvium
- 5. Edwards-Trinity
- 6. Trinity
- 7. Edwards (BFZ)
- 8. Carrizo-Wilcox
- 9. Gulf Coast

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