

# *Definitions*

## **POTABLE WATER SUPPLY DEFINITIONS**

**AQUIFER.** A porous, water-bearing geologic formation. Generally restricted to materials capable of yielding an appreciable supply of water.

**BASIN.** A natural or artificially created space or structure, surface or underground, which has a shape and character of confining material that enables it to hold water.

**CONTAMINATION.** Any introduction into the water of microorganisms, chemicals, wastes, or wastewater in a concentration that makes the water unfit for its intended use.

**EVAPORATION.** The quantity of water that is evaporated (the process by which water becomes a vapor at a temperature below the boiling point), the rate is expressed in depth of water, measured as liquid water, removed from a specified surface per unit of time, generally in inches or centimeters per day, month or year.

**EVAPOTRANSPIRATION.** Water withdrawn from soil by evaporation and/or plant transpiration.

**GROUNDWATER.** Subsurface water occupying the saturation zone, from which wells and springs are fed. In a strict sense the term applies only to water below the water table.

**HYDROLOGIC CYCLE.** The circuit of water movement from the atmosphere to the earth and return to the atmosphere through various stages or processes such as precipitation, interception, runoff, infiltration, percolation, storage, evaporation, and transpiration.

**IMPERMEABILITY.** The property of material which prevents perceptible movement of water through it if under pressure ordinarily encountered in subsurface water. Even though the material allows capillary movement, it still may be impermeable.

**LEVEL OF SERVICE.** An indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. Level of service shall indicate the capacity per unit of demand for each public facility. 9J-5.003(62)

**PEAK DEMAND.** The maximum momentary load placed on a water plant or pumping station. This is usually the maximum average load in one hour or less, but may be specified as instantaneous or with some other short time period.

**PERCOLATION.** The flow or trickling of a liquid downward through a contact or filtering medium. The liquid may or may not fill the pores of the medium. Also called filtration.

**PRODUCTION FAILURE.** When actual delivery of water to member governments by Tampa Bay Water exceeds 94% of the aggregate permitted capacity of the utility's production facilities during a 12 month period.

**PORE.** As applied to stone, soil or other material, any small interstice or open space, generally one that allows the passage or absorption of liquid or gas.

**POTABLE WATER.** Water intended for drinking, culinary or domestic purposes, subject to compliance with County, State and Federal drinking water standards.

**POTABLE WATER FACILITIES.** A system of structures designed to collect, treat and/or distribute potable water, including wells, reservoirs, treatment plants, and distribution mains.

**PRECIPITATION.** The total measurable supply of water received directly from clouds as rain, snow, hail or sleet, usually expressed as depth in a day, month or year, and designated as daily, monthly or annual precipitation.

**QUALITY WATER.** Water which (1) meets State and Federal drinking water regulations and standards as defined in Rule 62-550, Florida administrative Code, as it may be amended or superseded from time to time, including regulations pertaining to surface water or groundwater under the direct influence of waters, but excluding regulations pertaining to disinfection and corrosivity, and (2) would not cause a particular Utility operated by a Member Government of Tampa Bay Water to adopt new treatment techniques beyond modified chemical dosages and/or optimization of existing unit processes to meet a moderately altered source of Water, and (3) meets the following supplemental parameters: 9a) Sulfides, 0.1 mg/l; (b) Total Hardness, 300 mg/l as CaCO<sub>3</sub>; and Alkalinity, 40 mg/l as CaCO<sub>3</sub> (minimum value).\*

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\*Source: Tampa Bay Water Master Water Supply Contract and Interlocal Agreement, 1998.

**RECLAIMED WATER.** The recovery of wastewater for useful purposes by treatment processes and subsequent return to either a land surface, surface water, or groundwater source.

**REVERSE OSMOSIS.** The process for removing minerals or impurities such as chlorides from non-potable water by filtering through a membrane or series of membranes, thereby rendering water of potable quality.

**RUNOFF.** That portion of the available water supply that is transmitted through natural surface channels. Or, that portion of the precipitation which is not absorbed by the deep strata, but finds its way into the streams after meeting the persistent demands of evapotranspiration, including interception and other losses.

**SALT WATER INTRUSION.** The invasion of a body of fresh water by a body of salt water. It can occur in either surface or groundwater bodies.

**SHORTFALL.** A situation in which Tampa Bay Water fails to deliver the quantity of quality water required by a Member Government.

**SURFACE WATER.** A recognizable body of water including swamp or marsh areas, bayheads, cypress ponds, sloughs, and natural or constructed ponds contained within a recognizable boundary. This does not include stormwater detention areas designed to contain flow for less than 72 hours after a rainfall.

**TRANSPIRATION.** The process by which water vapor is lost to the atmosphere from living plants or the quantity of water thus dissipated.

**WATER CONSUMPTION.** The quantity, or quantity per capita, of water supplied in a municipality or district for a variety of uses or purposes during a given period. It is usually taken to mean all uses included within the term municipal use of water and quantity wasted, lost or otherwise unaccounted for.

**WATER DEMAND.** The water requirements for a particular purpose, as for irrigation, power, municipal supply, plant transpiration, storage.

**WATER MAIN.** The water pipe, from which domestic water supply is delivered to the service pipe.

**WATER QUALITY.** The chemical, physical and biological characteristics of water with respect to its suitability for a particular purpose. The same water may be of good quality for one purpose or use, and bad for another, depending on its characteristics and the requirements for the particular use.

**WATER RATE.** The charge for water consumed by consumers per unit of measurement, whether measured by metering or by a flat rate.

**WATER RECHARGE AREAS.** The land or water areas through which groundwater is replenished.

**WATER TABLE.** The upper surface of the zone of saturation, except where that surface is formed by an impermeable body.

**WATER WELLS.** Wells excavated, drilled, dug, or driven for the supply of industrial, agricultural, or potable water for general public consumption.

**ZONE OF PROTECTION.** The total area contributing water to a well under a given set of circumstances. The area changes over time in response to changes in the water table or potentiometric surface, well pumpage, and other withdrawals in the vicinity. It is determined by the construction of a flow net, based on potentiometric surface contours.

## WASTEWATER DEFINITIONS

**ADVANCED WASTE TREATMENT** wastewater treatment beyond the secondary, or biological, stage that includes the removal of nutrients such as nitrogen and phosphorus, as well as a high percentage of suspended solids.

**BIOCHEMICAL OXYGEN DEMAND (BOD)** a measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.

**EFFLUENT** wastewater, treated or untreated, that flows out of a treatment plant, sewer or industrial outfall.

**INFILTRATION** entry of water into a sewer system through such sources as defective pipes, pipe joints, connections or manhole walls.

**INFLOW** entry of water into a sewer system from sources other than infiltration, such as manholes.

**ONSITE TREATMENT AND DISPOSAL SYSTEMS** a sewage treatment and disposal facility, that contains standard subsurface, filled or mound drainfield system, an aerobic treatment unit, a graywater system tank, a grease interceptor, a dosing tank, a solids and effluent pump, waterless, incinerating or organic waste composting toilets, or a sanitary pit privy that is installed or proposed to be installed beyond a building sewer on land of the owner or on other land to which the owners have the legal right to install a system. This term does not include package sewer treatment facilities and other treatment works regulated under Chapter 403, F.S.

**PRIMARY TREATMENT** the first stage in wastewater treatment. Screens and sedimentation tanks are used to remove most material that floats or will settle. Primary treatment results in the removal of a substantial amount of suspended matter, but little or no dissolved or colloidal matter.

**SANITARY SEWER FACILITIES** structures or systems designed for the collection, transmission, treatment or disposal of sewage, and includes trunk mains, interceptors, treatment plants and disposal systems.

**SANITARY SEWER INTERCEPTOR** A sewerage conduit which connects directly to, and transmits sewage to a treatment plant.

**SANITARY SEWER TRUNK MAIN** a sewerage conduit which connects directly to, and transmits sewage to, an interceptor.

**SECONDARY TREATMENT** a level of treatment that removes approximately 85 percent of BOD and suspended solids. May be used interchangeably with the concept of biological wastewater treatment, where wastewater is mixed with air and sludge to encourage the growth of bacteria which consume organic pollutants.

**SEPTIC TANK** a watertight receptacle constructed to promote separation of solid and liquid components of wastewater, to provide digestion of organic matter, to store solids, and to allow clarified liquid to discharge for further treatment and disposal into a drainfield.

**SLUDGE** the accumulated solids separated from liquids, such as wastewater, during treatment or processing.

**SUSPENDED SOLIDS** solid pollutants that either float on the surface of, or are suspended in wastewater.

**WASTEWATER** the used water from a community that contains dissolved or suspended matter.