

Glossary

A

action level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

aquifer - A natural underground geologic layer that is capable of storing water and may be used as a source of water supply.

ammonia - A compound commonly used with chlorine to disinfect water. (This process is called chlorination.)

B

board - The Board of Water Supply of the county of Maui. *(As stated in Section 1-2 of the Rules and Regulations.)*

C

chlorination - The process of disinfecting drinking water by applying chlorine before or after ammonia. This creates a persistent disinfectant residual.

chlorine - A disinfectant which destroys bacterial and viral organisms in water.

coliform - A group of bacteria commonly found in the intestines of warm blooded animals as well as in the environment. They are an indicator of potential pathogenic contamination of water. Adequate and appropriate disinfection effectively destroys coliform bacteria.

colony forming units (CFU) - A measurement used to count the number of bacteria colonies found in water.

consolidated metering system - Means by which water is furnished through a centralized metering system to multiple consumer units. *(As stated in Section 1-2 of the Rules and Regulations.)*

consumer - The person, firm, corporation, association, or governmental department, whether owner or tenant, whose name appears on the records of the department as the party responsible and liable for receiving water service from the department. *(As stated in Section 1-2 of the Rules and Regulations.)*

consumer's supply pipe - The pipe extending from the consumer's end of the service connection. *(As stated in Section 1-2 of the Rules and Regulations.)*

contaminant - Any natural or man-made physical, chemical, biological, or radiological substance or matter in water, which is at a level that may have an adverse effect on public health, and which is known or anticipated to occur in public water systems.

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- *Pesticides or herbicides*, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

corrosion - A dissolving and wearing away of metal caused by a chemical reaction, usually between water and metal pipes, or between two different metals. In a water system, corrosion can cause structural failure, leaks, loss of capacity, and deterioration of chemical and microbiological water quality.

cost of service lateral - The sum of the cost of the labor, materials, meter box, transportation, equipment, and road repair, if any, and other charges necessary for the complete installation of a service lateral, but excluding the cost of the meter. *(As stated in Section 1-2 of the Rules and Regulations.)*

D

department - The Department of Water Supply of the County of Maui, excluding the Board of Water Supply unless the context so indicates. *(As stated in Section 1-2 of the Rules and Regulations.)*

director - The person holding the office of "director" of the Department of Water Supply of the County of Maui. *(As stated in Section 1-2 of the Rules and Regulations.)*

disinfectant - A chemical (commonly chlorine, chloramine, or ozone) or physical process (e.g., ultraviolet light) that kills microorganisms such as bacteria, viruses, and protozoa.

disinfection by-products - During disinfection, certain by-products form as a result of chemical reactions between chlorine and naturally occurring organic matter in the water. The disinfection process is carefully controlled and monitored so that it remains effective, while keeping the levels of disinfection by-products low.

distribution system - A network of pipes that distribute potable water to customers' plumbing systems.

district boundaries - The boundaries of the various districts, such as urban districts, agricultural districts, rural districts, residential districts, industrial districts, hotel districts, apartment districts, etc., shall be as designated by the land use commission of the State of Hawaii or by the planning commission of the County of Maui. *(As stated in Section 1-2 of the Rules and Regulations.)*

dwelling unit - Any building, addition, extension, or any portion thereof, which is designated or intended for occupancy by one family or persons living together or by a person living alone. *(As stated in Section 1-2 of the Rules and Regulations.)*

E

(no entries)

F

fecal coliform - A group of coliform bacteria found in the feces of warm blooded animals that may indicate the presence of human or animal fecal contamination in the water.

filtration - A series of processes that physically removes particles from water.

G

ground water - The water that comes from an aquifer via wells.

H

heterotrophic- Describes organisms that use organic matter for energy and growth. Animals, fungi and most bacteria are heterotrophs.

heterotrophic plate count (HPC) - Formerly known as the standard plate count, this is a procedure for estimating the number of live heterotrophic bacteria in water. It is a measure of a broad spectrum of bacteria. This test can provide useful information about water quality and supporting data on the significance of coliform test results. The lower the HPC, the better the biological water quality.

I

intake - An opening strainer or grating through which water enters, and is then conveyed, usually by gravity, to a reservoir.

irrigation - Use of water for grazing and agricultural purposes. *(As stated in Section 1-2 of the Rules and Regulations.)*

J

(no entries)

K

(no entries)

L

leaching - A chemical reaction between water and metals that allows for removal of soluble materials.

M

main or main pipe - The department's supply or distribution pipe from which service connections are made. *(As stated in Section 1-2 of the Rules and Regulations.)*

maximum contaminant level (MCL) - The maximum allowable level of a contaminant that federal or state regulations allow in a public water system. If the MCL is exceeded, the water system must treat the water so that it meets the MCL.

maximum contaminant level goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.

microbe, microbial - Any minute, simple, single-celled form of life, especially one that causes disease.

MG - million gallons

MGD - million gallons per day

mg/L - milligrams per liter

mL – milliliter

mrem/year - millirems per year, a measure of radiation absorbed by the body

multiple family districts - Duplex and apartment districts as described in the Permanent Ordinances of the County of Maui. *(As stated in Section 1-2 of the Rules and Regulations.)*

N

nitrates - A dissolved form of nitrogen found in fertilizers and sewage by-products which may leach into groundwater and other water sources. Nitrates may also occur naturally in some waters. Over time, nitrates can accumulate in aquifers and contaminate groundwater.

NTU (nephelometric turbidity unit) – The units used in the measure of the cloudiness of water. A nephelometer passes light through a sample and the amount of light deflected is then measured. High quality water has a low NTU.

O

off-site water improvements - That portion of a subdivision water system from the point of adequacy to the point of entry of such system into the subdivision boundaries. *(As stated in Section 1-2 of the Rules and Regulations.)*

on-site water improvements - That portion of the subdivision water system constructed within the property limits of the subdivision, to include all fire hydrant assemblies and service laterals whether on or off said property and as required by the department. *(As stated in Section 1-2 of the Rules and Regulations.)*

P

pathogens (disease-causing pathogens, waterborne pathogens) - A pathogen is a bacterium, virus or parasite that causes or is capable of causing disease. Pathogens may contaminate water and cause waterborne disease.

pCi/L, picocuries per liter - A curie is the amount of radiation released by a set amount of a certain compound. A picocurie is one quadrillionth of a curie.

pH - A measure of the acidity or alkalinity of water.

phosphate - An additive to drinking water to inhibit corrosion. Phosphates create a protective coating on metal surfaces and reduces its chemical activity, which decreases the processes that lead to corrosion. Zinc orthophosphate is commonly used to control corrosion, such as general corrosion, pitting, and lead or copper control.

pipeline appurtenance - Pressure reducers, bends, valves, regulators (which are a type of valve), etc.

point of adequacy - That point in the public water system, as determined by the director or his duly authorized representative, where there is adequate pressure, storage, and pipeline size to supply water to meet the fire flow, domestic, and irrigation demands for water without detriment to the existing consumers. *(As stated in Section 1-2 of the Rules and Regulations.)*

potable water - Water that is safe to drink.

ppb - Parts per billion. One part per billion corresponds to approximately 1 second in 31.7 years. Also the same as micrograms per liter ($\mu\text{g/L}$).

ppm - Parts per million. One part per million corresponds to 1 second in 11.5 days. Also the same as milligrams per liter (mg/L).

ppq - parts per quadrillion, or picograms per liter

ppt - parts per trillion, or nanograms per liter

premises - The parcel of land, lot or lots, on which the development, improvement, or service is planned. *(As stated in Section 1-2 of the Rules and Regulations.)*

private water system - A water system constructed, owned, operated, and maintained by private individuals, corporations, or organizations. *(As stated in Section 1-2 of the Rules and Regulations.)*

public water system - The water system owned, operated, and maintained by the Board of Water Supply of the County of Maui. *(As stated in Section 1-2 of the Rules and Regulations.)*

Q

(no entries)

R

raw (source) water - Water that has not been treated in any way; it is generally considered to be unsafe to drink.

reservoir - An impoundment used to store water.

run - The distance of water main and appurtenances to be installed from the point of adequacy to the point in question. *(As stated in Section 1-2 of the Rules and Regulations.)*

S

sample - The water that is analyzed for the presence of EPA-regulated drinking water contaminants. Depending on the regulation, EPA requires water systems and states to take samples from source water, from water leaving the treatment facility, or from the taps of selected consumers.

service lateral - The main tap, pipes, fittings, and valves and appurtenances from the water main to and including the meter box. *(As stated in Section 1-2 of the Rules and Regulations.)*

sub divider - Any person, firm, corporation, partnership, association, trust or other legal entity, or a combination of any thereof, who or which causes land to be divided into a subdivision for himself, itself, or for others. *(As stated in Section 1-2 of the Rules and Regulations.)*

subdivision - Improved or unimproved land or lands divided or proposed to be divided into two or more lots, parcels, sites, or other divisions of land for purposes, whether immediate or future, of sale, lease, rental, transfer of title to or interest in any or all of such parcels, and shall include re-subdivision, and when appropriate to the context shall relate to the process of subdividing of the land or territory subdivided. Easements for roadway or access purposes shall be construed as subdivided land. The term includes a building or group of buildings, other than a hotel, containing or divided into three or more dwelling units. Planned unit development and condominium for purposes of this rule shall be included in this definition. *(As stated in Section 1-2 of the Rules and Regulations.)*

subdivision water system - That water system from the point of adequacy, as determined by the director or his duly authorized representative, to and within any subdivision, including main, valves, hydrants, laterals, pumps, tanks, reservoirs, and all appurtenances necessary to provide water and fire protection for such subdivision. *(As stated in Section 1-2 of the Rules and Regulations.)*

surface water - Water which is open to the atmosphere and subject to surface runoff; generally, lakes, streams, rivers, reservoirs.

T

TCE, trichloroethylene – An organic chemical used as a solvent and degreaser that causes adverse health effects; it is a common groundwater contaminant.

treated water - Disinfected and/or filtered water served to water system customers. It must meet or surpass all drinking water standards to be considered safe to drink.

treatment technique (TT) - A required process intended to reduce the level of a contaminant.

trihalomethanes (THM) - Four separate compounds including chloroform, dichlorobromomethane, dibromochloromethane, and bromoform. Often formed during chlorination by reactions with natural organic materials in the water. The resulting compounds are suspected of causing cancer.

turbidity - A measure of the cloudiness of water caused by suspended particles.

U

unit - One lot if the actual lot size is less than twice the minimum lot size as established in accordance with the zoning of the area by the Maui county planning commission and the State of Hawaii land use commission. Where the actual lot size is twice as large or larger, the lot shall be considered as containing as many units as determined by the whole number by dividing the actual area of the lot by the minimum lot size. *(As stated in Section 1-2 of the Rules and Regulations.)*

US EPA-United States Environmental Protection Agency. A regulatory of the US federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

V

valve - A device that opens and closes to regulate the flow of liquids. Faucets include valves.

W

water service - The complete installation of pipes, fittings, appurtenances, and meter necessary to provide service to a consumer. This term also refers to the delivery of water to consumers. *(As stated in Section 1-2 of the Rules and Regulations.)*

water system - A network of pipelines, storage, pumps, and other appurtenances, wells, or other sources which furnishes a supply of water to the consumer. *(As stated in Section 1-2 of the Rules and Regulations.)*

water system development fee - A monetary charge imposed on an applicant to fund a portion of costs to construct water system improvements or to recover the cost of existing water system improvements made in anticipation of additional demand on water system. *(As stated in Section 1-2 of the Rules and Regulations.)*

watershed - An area which drains all of its water to a particular water course or body of water, such as a stream, river, or reservoir.

X

(no entries)

Y

(no entries)

Z

(no entries)