

STATE OF CONNECTICUT SOURCE WATER ASSESSMENT PROGRAM

GLOSSARY OF TERMS AND DEFINITIONS

Aquifer Protection Area. The critical area in a stratified drift aquifer that provides water to a public water supply well. Approximately 121 aquifer protection areas have been designated around the state for individual wells or groups of wells that serve more than 1,000 people, in accordance with Sections 22a-354a through 22a-354bb of the Connecticut General Statutes.

Aquifer: An underground layer of consolidated rock ledge, unconsolidated gravel, or sediment containing enough water to supply a well. Water in an aquifer is commonly called groundwater

Bedrock Well. A well constructed by drilling a hole and inserting a casing to support the sides of the hole. The portion of the well that is in consolidated rock may not require support of a casing

Class I Land. Lands owned by a water company that are within 250 feet of a reservoir used for a drinking water supply, within 100 feet of its tributary, or within 200 feet of a public water supply well.

Class II Land. Lands within the public drinking water supply watershed but not included in Class I, or completely off the watershed but within 150 feet of a storage reservoir and the tributaries that directly enter it.

Contaminant Release Points. Sites or locations where a variety of solid and/or liquid wastes resulting from accidental spills, leaks or discharges were released to the environment. These wastes are known or presumed to be capable of impairing surface or groundwater quality. While these sources may fall within a drinking water supply source area, they may or may not presently be discharging to the environment or causing source water contamination.

Contaminant Source Inventory. The process of identifying and inventorying potential contaminant sources within a delineated source water area. The process includes recording existing data, describing potential contaminant sources within the drinking water source area, targeting likely contaminant sources for further investigation, collecting and interpreting new information on existing or potential contaminant sources through surveys, and the verifying accuracy and reliability of the information gathered.

Contaminant. Anything found in water (including microorganisms, minerals, chemicals, radionuclides, etc.) that may be harmful to human health.

Critical Area. All land within 250 ft of the high-water mark of a reservoir or lands within 100 ft of any watercourse inside watershed dividing line (Type-I class land)..

Diversion. The taking of water from a stream or other body of water into a canal, pipe or conduit that flows into a drinking water reservoir.

Dug Well. A well excavated into a shallow aquifer

Environmental Sensitivity. General conditions in a drinking water source area, including type and condition of drinking water source, DEP surface or groundwater classification, and evidence of contamination caused by human activity that can have an affect on water quality.

Gravel Pack Well. A well constructed into unconsolidated material (i.e., loose sand or gravel).

Groundwater Under the Direct Influence of Surface water. Any water beneath the surface of the ground with either significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as giardia lamblia, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions. Direct influence shall be determined for individual sources in accordance with criteria established by the department.

Level A Mapped Final Aquifer Protection Area. Final mapping of the land areas contributing water to a public supply well field, done in accordance with CT DEP regulations for Level A mapping. Level A is a refinement of Level B mapping, and requires extensive site-specific data be collected and utilized to develop a numerical groundwater model of the aquifer system. The model is then used to delineate the Aquifer Protection Area for each well field.

Level B Mapped Preliminary Aquifer Protection Area. Preliminary mapping of the land areas contributing water to a public supply well field, done in accordance with CT DEP Guidelines for Level B Mapping. This simple method uses the pumping rate of the well field, an estimate of aquifer properties, and topography to approximate the contributing land area.

Maximum Contaminant Level (MCL). The highest level of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. EPA sets MCLs at levels that are economically and technologically feasible. Some states set MCLs which are more strict than EPA's.

Non-Community Water System (NCWS). A public water system that is not a community water system. There are two types of NCWSs: transient and non-transient.

Non-Transient, Non-Community Water System. A water system which supplies water to 25 or more of the same people at least six months per year in places other than their residences. Some examples are schools, factories, office buildings, and hospitals which have their own water systems.

Organic Contaminants. Carbon-based chemicals, such as solvents and pesticides, which can get into water through runoff from cropland or discharge from factories. EPA has set legal limits for 56 organic contaminants.

Pathogen. A disease-causing organism like certain bacteria or viruses.

Potential Contamination Source (SPCS). An inventoried facility or activity that stores, uses, or produces chemicals or hazardous materials, and that has the potential to release contaminants identified in a state program (contaminants with MCLs plus any others a state considers a health threat) within a source water area in an amount which could contribute significantly to the concentration of the contaminants in the source waters of the public water supply. Potential risks associated with inventoried SPCS's are based on distance of SPCS sites to the drinking water source, number and type of SPCS contaminants and contaminant fate and transport in the environment.

Potential Risk Factors. Factors unique to a specific public drinking water source area, which determine its vulnerability to contamination. The major risk factors include the presence and type of known contaminant release points or significant potential contamination sources, and the breakdown of land use/land cover in the source water area.

Preserved Land. The term "preserved land", as used in the Source Water Assessment Program, includes any combination of land owned by the public water supply, state forest and parklands, and municipally or privately held land designated as open space.

Public Water System (PWS). Any water company supplying groundwater or surface water or both to fifteen (15) or more consumers or twenty-five (25) or more persons daily at least sixty days (60) of the year.

Runoff. The portions of rainfall or snow melt that flows overland into a stream, river or reservoir.

Safe Drinking Water Act. Enacted by Congress in 1974 and amended in 1986 and 1996, this law established standards for the treatment and distribution of public drinking water for the protection of public health.

Source Protection Needs. General or specific recommendations/opportunities to maintain or improve water quality in a delineated source water area using a variety of recognized best management practices to reduce the potential risk of drinking water contamination.

Source Water Area. An area of land delineated by the state that contributes water to a source of public drinking water supply, whether the source is groundwater or surface water or both.

Susceptibility Analysis. An analysis to determine where significant potential sources of contamination are located within a source water area and the susceptibility of public drinking water sources to these sources.

Transient, Non-Community Water System. A water system which provides water in a place such as a gas station or campground where people do not remain for long periods of time. These systems do not have to test or treat their water for contaminants, which pose long-term health risks because fewer than 25 people drink the water over a long period. They still must test their water for microbes and several chemicals.

Trophic Status. A term used to describe the level of nutrients, mainly nitrogen and phosphorus, in a reservoir that contribute to the growth of algae and plankton. The three trophic states used to characterize drinking water reservoirs are oligotrophic, mesotrophic and eutrophic. A reservoir having a low nutrient level and the least biological growth potential is called oligotrophic. A mesotrophic reservoir has a moderate level of nutrients with increased biological growth potential. High nutrient levels and biological growth potentials result in reservoirs that are classified as eutrophic.

Vulnerability Assessment. An evaluation of drinking water source quality and its vulnerability to contamination by pathogens and toxic chemicals.

Watershed Topography. Characterization of the slope or lay-of-the-land within a watershed.

Watershed. The land area that drains into a stream, river, or reservoir.



Keeping Connecticut Healthy

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