

# Water Words

## A

### **Abandoned well:**

A well whose use has been permanently discontinued or is in such disrepair that it cannot be used for its intended purpose.

### **Abatement debris:**

Waste from remediation activities.

### **Abatement:**

Reducing the degree or intensity of, or eliminating, pollution.

### **Absorption:**

The uptake of water, other fluids, or dissolved chemicals by a cell or an organism (as tree roots absorb dissolved nutrients in soil).

### **Accident site:**

The location of an unexpected occurrence, failure or loss, either at a plant or along a transportation route, resulting in a release of hazardous materials.

### **Acid deposition:**

A phenomenon that occurs when emissions of sulfur and nitrogen compounds and other substances are transformed by chemical processes in the atmosphere, often far from the original sources, and then deposited on earth in either wet or dry form. The wet form, popularly called "acid rain," can fall to earth as rain, snow, or fog. The dry form is acidic gases or particulates.

### **Acid mine drainage:**

Drainage of water from areas that have been mined for coal or other mineral ores. The water has a low pH because of its contact with sulfurbearing material and is harmful to aquatic organisms.

### **Acid neutralizing capacity:**

Measure of ability of a base (e.g., water or soil) to resist changes in pH.

### **Acid rain:**

(See Acid deposition)

### **Acidic:**

The condition of water or soil that contains a sufficient amount of acid substances to lower the pH below 7.0.

**Acre foot:**

The amount of water needed to cover one acre of land one foot deep (equal to 325,851 gallons). An acre foot can support the annual indoor and outdoor needs of one to two urban households.

**Action:**

Specific task or grouping of tasks that lead to incremental progress toward achieving objectives (outputs: products or services) and, ultimately, goals (outcomes) and mission.

**Activated carbon:**

A highly adsorbent form of carbon used to remove odors and toxic substances from liquid or gaseous emissions. In waste treatment, it is used to remove dissolved organic matter from waste water.

**Activated sludge:**

Product that results when primary runoff is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment, speeding the breakdown of organic matter in raw sewage undergoing secondary waste treatment.

**Active Life:**

The period during which wastes are being discharged to a waste management unit. For surface impoundments, active life includes the time when the impoundment contains fluids, including waste and leachate.

**Active storage capacity:**

The usable reservoir capacity available for seasonal or cyclic water storage.

**Adaptive Management**

Systematic process for continually improving management practices in response to an evaluation of outcomes/results of activities, projects, programs, and policies.

**Adjudication (Water Right):**

A determination of water rights for an entire stream or ground water basin.

**Administrative order:**

A legal document signed by U.S. EPA directing an individual, business, or other entity to take corrective action or refrain from an activity. It describes the violations and actions to be taken, and can be enforced in court. Such orders may be issued, for example, as a result of an administrative complaint ordering the respondent to pay a penalty for violations of the *Clean Water Act*.

**Administrative order on consent:**

A legal agreement signed by U.S. EPA and an individual, business, or other entity through which the violator agrees to pay for correction of *Clean Water Act* violations, take the required corrective or cleanup actions, or refrain from an activity. It describes the actions to be taken, may be subject to a comment period, applies to civil actions, and can be enforced in court.

**Adsorption:**

Removal of a pollutant from air or water by collecting the pollutant on the surface of a solid material; e.g., an advanced method of treating waste in which activated carbon removes organic matter from wastewater.

**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 also Sewage treatment, Tertiary 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 that promotes biological degradation of organic matter in water. The process may be passive (as when waste is exposed to air), or active (as when a mixing or bubbling device introduces the air).

**Aeration tank:**

A chamber used to inject air into water.

**Aerobic:**

Life or processes that require, or are not destroyed by, the presence of oxygen. (See Anaerobic)

**Aerobic treatment:**

Process by which microbes decompose complex organic compounds in the presence of oxygen and use the liberated energy for reproduction and growth. Such processes include extended aeration, trickling filtration, and rotating biological contactors.

**Agency:**

California Environmental Protection Agency (Cal/EPA)

**Agricultural drainage:**

1. The process of directing excess water away from root zones by natural or artificial means, such as a system of drains placed below ground surface level; also called subsurface drainage. 2. The water drained away from irrigated farmland.

**Algae:**

Simple rootless plants that grow in sunlit waters in proportion to the amount of available nutrients. They can affect water quality adversely by lowering the dissolved oxygen in the water. They are food for fish and small aquatic animals.

**Algal blooms:**

Sudden spurts of algal growth, which can affect water quality adversely and indicate potentially hazardous changes in local water chemistry.

**Algicide:**

Substance or chemical used specifically to kill or control algae.

**Alkaline:**

The condition of water or soil that contains a sufficient amount of alkali substance to raise the pH above 7.0.

**Alkalinity:**

The capacity of bases to neutralize acids. An example is lime added to lakes to decrease acidity.

**Alluvial:**

Relating to, composed of, or found in alluvium

**Alluvium:**

Relating to and/or clay, silt, sand, gravel, or similar detrital material deposited by running water, as in a river bed, floor plain or delta.

**Ambient background concentration:**

A representative concentration of the water quality in a receiving water body, determined from monitoring. The statistic or data used to determine the value from the range of data is dependent on the purpose of the monitoring and the application of the data.

**Ambient medium:**

Material surrounding or contacting an organism (e.g., outdoor air, indoor air, water, or soil through which chemicals or pollutants can reach the organism.

**Amperometric titration:**

A way of measuring concentrations of certain substances in water using the electric current that flows during a chemical reaction.

**Anaerobic:**

A life or process that occurs in, or is not destroyed by, the absence of oxygen.

**Anadromous fish:**

Migratory fish that are born in freshwater, migrate to the ocean where they live their adult life, and migrate back to fresh water to lay their eggs. Salmon and steelhead are two very common anadromous fish in California.

**Adapt :**

To make changes to adjust to new or different conditions or information.

**Alternatives Analysis:**

The selection and evaluation of a range of alternatives (e.g., strategies) with the objective of selecting a preferred alternative.

**Anti-degradation clause:**

Part of federal and water quality requirements prohibiting deterioration where pollution levels are above the legal limit.

**Appellate body:**

The State Water Resources Control Board is the appellate body for actions or inactions by the Regional Water Quality Control Boards. Appeals to the State Board are called petitions.

**Appropriative rights:**

"First in time, first in right" principle water rights secured through a permit issued by the State Water Resources Control Board whereby a user may take water from a particular source without regard to the contiguity of the land to the source. This permit contains terms and conditions for use of the water.

**Applicable or Relevant and Appropriate Requirements (ARAR):**

Any state or federal statute that pertains to protection of human life and the environment in addressing specific conditions or use of a particular cleanup technology at a Superfund site.

**Aquaculture Project:**

A defined managed area, which uses discharges of pollutants into that designated area for the maintenance or production of freshwater, estuarine, or marine plants or animals.

**Aqueous solubility:**

The maximum concentration of a chemical that will dissolve in pure water at a reference temperature.

**Aqueous:**

Something made up of water.

**Aquifer:**

An underground geological formation, or group of formations, containing water: source of groundwater for wells and springs.

**Aquifer test:**

A test to determine hydraulic 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.

**Assay:**

A test for a specific chemical, microbe, or effect.

**Assessment endpoint:**

In ecological risk assessment, an explicit expression of the environmental value to be protected.

**Assimilation:**

The ability of a water body to purify itself of pollutants.

**Assimilative capacity:**

The capacity of a natural body of water to receive and dilute wastewaters or toxic materials without damage to aquatic life or humans who consume the water.

**Association of Boards of Certification:**

An international organization representing boards which certify the operators of waterworks and wastewater facilities.