

# GLOSSARY

## A

**Abatement:** Reducing the degree or intensity of, or eliminating, pollution.

**Acid Neutralization Sump:** A basin in which wastewater containing acids is neutralized prior to being discharged to a sewer.

**Action Level:** A guideline established by the environmental protection agencies that identifies the concentration of a substance in a particular media (water, soil, etc.) that may present a health risk when exceeded. The action level is also referred to as applied action level (AAL). If contamination is found in concentrations above the action level, measures must be taken to decrease the concentrations of contamination.

**Adjacent Steep Slope:** A slope with a gradient of 15 percent or steeper within 500 feet of the site.

**Administrative Civil Liability (ACL):** Means monetary assessments imposed by a Regional Water Board.

**Administrative Order:** A legal document signed by 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 whereby the respondent is ordered to pay a penalty for violations of a statute.

**Administrative Order On Consent:** A legal agreement signed by EPA and an individual, business, or other entity through which the violator agrees to pay for correction of 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.

**Administrative Procedures Act:** A law that spells out procedures and requirements related to the promulgation of regulations.

**Administrative Record:** All documents which EPA considered or relied on in selecting the response action at a Superfund site, culminating in the record of decision for remedial action or, an action memorandum for removal actions.

**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 waste-water.

**Advisory:** A non-regulatory document that communicates risk information to those who may have to make risk management decisions.

**Advisory Level:** The level above which an environmental protection agency suggests it is potentially harmful to be exposed to a contaminant.

**Aeration:** A process that promotes breakdown of contaminants in soil or water by exposing them to air.

**Affected Public:** 1. The people who live and/or work near a hazardous waste site. 2. The human population adversely impacted following exposure to a toxic pollutant in food, water, air, or soil.

**Agent:** Any physical, chemical, or biological entity that can be harmful to an organism (synonymous with stressor).

**Air Binding:** Situation where air enters the filter media and harms both the filtration and backwash processes.

**Air Contaminant:** Any particulate matter, gas, or combination thereof, other than water vapor.

**Air Pollutant:** Any substance in air that could, in high enough concentration, harm man, other animals, vegetation, or material. Pollutants may include almost any natural or artificial composition of airborne matter capable of being airborne. They may be in the form of solid particles, liquid droplets, gases, or in combination thereof. Generally, they fall into two main groups: (1) those emitted directly from identifiable sources and (2) those produced in the air by interaction between two or more primary pollutants, or by reaction with normal atmospheric constituents, with or without photoactivation. Exclusive of pollen, fog, and dust, which are of natural origin, about 100 contaminants have been identified. Air pollutants are often grouped in categories for ease in classification; some of the categories are: solids, sulfur compounds, volatile organic chemicals, particulate matter, nitrogen compounds, oxygen compounds, halogen compounds, radioactive compound, and odors.

**Air Pollution:** The presence of contaminants or pollutant substances in the air that interfere with human health or welfare, or produce other harmful environmental effects.

**Air Quality Standards:** The level of pollutants prescribed by regulations that are not being exceeded during a given time in a defined area.

**Air Quality Criteria:** The levels of pollution and lengths of exposure above which adverse health and welfare effects may occur.

**Airborne Particulates:** Total suspended particulate matter found in the atmosphere as solid particles or liquid droplets. Chemical composition of particulates varies widely, depending on location and time of year.

**Sources of airborne particulates include:** Dust, emissions from industrial processes, combustion products from the burning of wood and coal, combustion products associated with motor vehicle or non-road engine exhausts, and reactions to gases in the atmosphere.

**Aliquot:** A measured portion of a sample taken for analysis. One or more aliquots make up a sample.

**Alternate Method:** Any method of sampling and analyzing for an air or water pollutant that is not a reference or equivalent method but that has been demonstrated in specific cases-to EPA's satisfaction-to produce results adequate for compliance monitoring.

**Alluvial:** An area of sand, clay or other similar material that has been gradually deposited by moving water.

**Ambient Air:** Any unconfined portion of the atmosphere: open air, surrounding air.

**American Public Works Association (APWA):** Is an international educational and professional association of public agencies, private sector companies, and individuals dedicated to providing high quality public works goods and services. APWA is the largest and oldest organization of its kind in the world, with headquarters in Kansas City, MO., an office in Washington D.C., and 67 chapters throughout North America. APWA provides a forum in which public works professionals can exchange ideas, improve professional competency, increase the performance of agencies and companies, and bring important public works-related topics to public attention in local, state and federal arenas. APWA has 26,000 members.

**Anticipated Noncompliance:** A discharger will give advance notice to the Regional Water Board and local storm water management agency of any planned changes in the construction activity which may result in noncompliance with the general permit requirements.

**Anti-Degradation Clause:** Part of federal air quality and water quality requirements prohibiting deterioration where pollution levels are above the legal limit.

**Anti-seep Collar:** A device constructed around a pipe or other conduit and placed through a dam, levee, or dike for the purpose of reducing seepage losses and piping failures.

**Aqueous:** Water based liquid.

**Aquifer:** A water-bearing soil layer, under the surface of the earth. This zone is often the source of drinking or irrigation water.

**Arborist:** A specialist in the care and maintenance of trees

**Area Source:** Any source of air pollution that is released over a relatively small area but which cannot be classified as a point source. Such sources may include vehicles and other small engines, small businesses and household activities, or biogenic sources such as a forest that releases hydrocarbons.

**Assessment Endpoint:** In ecological risk assessment, an explicit expression of the environmental value to be protected; includes both an ecological entity and specific attributed thereof. entity (e.g., salmon are a valued ecological entity; reproduction and population maintenance--the attribute--form an assessment endpoint.)

**Assimilation:** The ability of a body of water to purify itself of pollutants.

**Assimilative Capacity:** The capacity of a natural body of water to receive wastewaters or toxic materials without deleterious effects and without damage to aquatic life or humans who consume the water.

**Attenuation:** The process by which a compound is reduced in concentration over time, through absorption, adsorption, degradation, dilution, and/or transformation. An also be the decrease with distance of sight caused by attenuation of light by particulate pollution.

**Attrition:** Wearing or grinding down of a substance by friction. Dust from such processes contributes to air pollution.

## B

**Backfill:** to refill an excavated area with uncontaminated soils; or, the material itself that is used to refill an excavated area.

**Background Concentration:** represents the average amount of toxic chemicals in the air, water or soil to which people are routinely exposed.

**Background Level:** 1. The concentration of a substance in an environmental media (air, water, or soil) that occurs naturally or is not the result of human activities. 2. In exposure assessment the concentration of a substance in a defined control area, during a fixed period of time before, during, or after a data-gathering operation.

**BACT-Best Available Control Technology:** An emission limitation based on the maximum degree of emission reduction (considering energy, environmental, and economic impacts) achievable through application of production processes and available methods, systems, and techniques. BACT does not permit emissions in excess of those allowed under any applicable Clean Air Act provisions.

**Bacteria:** (Singular: bacterium) Microscopic living organisms that can aid in pollution control by metabolizing organic matter in sewage, oil spills or other pollutants. However, bacteria in soil, water or air can also cause human, animal and plant health problems.

**Baffle:** A flat board or plate, deflector, guide, or similar device constructed or placed in flowing water or slurry systems to cause more uniform flow velocities to absorb energy and to divert, guide, or agitate liquids.

**Bankfull Discharge:** A flow condition where streamflow completely fills the stream channel up to the top of the bank. In undisturbed watersheds, the discharge conditions occurs on average every 1.5 to 2 years and controls the shape and form of natural channels.

**Base Flood:** A flood having a 1 percent chance of being equaled or exceeded in any given year. This is also referred to as the 100-year flood.

**Base Flood Elevation:** The water surface elevation of the base flood. It shall be referenced to the National Geodetic Vertical Datum of 1929 (NGVD).

**Basin Plan:** A plan and all implementing regulations and procedures including but not limited to land use management adopted by ordinance for managing surface and storm water quality and quantity management facilities and features within individual subbasins.

**Bed Load:** Sediment particles resting on or near the channel bottom that are pushed or rolled along by the flow of water.

**BEN:** EPA's computer model for analyzing a violator's economic gain from not complying with the law.

**Berm:** A ledge, wall or a mound of earth used to prevent the migration of contaminants.

**Best Available Control Technology (BACT):** For any specific source, the currently available technology producing the greatest reduction of air pollutant emissions, taking into account energy, environmental, economic, and other costs.

**Best Available Control Technology (BACT):** The most stringent technology available for

controlling emissions; major sources are required to use BACT, unless it can be demonstrated that it is not feasible for energy, environmental, or economic reasons.

**Best-of-Breed:** Means quality, highest possible product or service available.

**Best Management Practices (BMPs):** Means schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, waste disposal, or drainage from rain material storage.

**Biofiltration:** The simultaneous process of filtration, infiltration, adsorption, and biological uptake of pollutants in stormwater that takes place when runoff flows over and through vegetated areas.

**Biofiltration Swale:** A sloped, vegetated channel or ditch that provides both conveyance and water quality treatment to stormwater runoff. It does not provide stormwater quantity control but can convey runoff to BMPs designed for that purpose. **Biological Control:** A method of controlling pest organisms by means of introduced or naturally occurring predatory organisms, sterilization, the use of inhibiting hormones, or other means, rather than by mechanical or chemical means.

#### **BMP Identification and Selection:**

1) BMP Good Housekeeping practices are simply maintaining a safe, orderly, and clean work environment. Some ways of doing this include:

- Improving operation and maintenance of machinery and processes.
- Implement careful storage practices.
- Keep a current up-to-date inventory, and label all containers.
- Schedule routine cleanup operations.
- Train employees on good housekeeping techniques.

#### 2) BMP Preventive Maintenance

- A program must be developed that includes inspections and routine maintenance of all equipment, including tanks, drums, and containers, and other facility operations. The best way to stop a spill is to never allow it to spill to begin with.

#### 3) BMP Spill Prevention and Response

- In areas that have been designated with a high possibility of a leak or spill, permittees should ensure that employees are aware of correct response procedures, including material handling and storage requirements. Spill cleanup equipment must be on site at high-risk locations. A spill plan should be formulated in case of an emergency, including notifying the appropriate authorities

#### 4) BMP Sediment and Erosion Control

- The plan must identify activities that present a potential for significant soil erosion, and any measures taken to control such erosion.

#### 5) BMP Management of Runoff

- The plan should include any existing storm water controls such as vegetative swales, reuse of collected storm water, infiltration, or detention ponds.

BMP Implementing Appropriate Controls, Permittees should:

- a) Develop a schedule for implementation.
- b) Delegate responsibilities to specific individuals for certain aspects of the plan and monitoring implementation.
- c) Ensure that management approves the schedule and strategy, and schedule specific times to report progress to management.

#### BMP Employee Training

Permittees must develop a training program that covers such topics as spill prevention and response, good housekeeping, and material management practices. The goal of employee training should be to teach all personnel the goals of the storm water pollution prevention plan, and create an overall sensitivity to its concerns.

#### BMP Evaluation

1) Annual Site Compliance Evaluation, each year qualified personnel should conduct a site compliance evaluation which would inspect all drainage areas for evidence of pollutants, evaluate good housekeeping measures, observe structural measures, and inspect all sites for problems. The plan should be implemented within 12 weeks. A report of all findings should be prepared and signed, and kept with the plan.

2) Record keeping and Internal Reporting, records of all spills, leaks, inspections, and maintenance activities should be maintained for at least one year after the permit expires. Date, times, weather conditions, causes, and resulting problems should all be noted.

3) Plan Revisions, any changes in a facilities design, construction, or maintenance will necessitate changes in the plan.

**Biota:** The animal and plant life of a given region.

**Blackwater:** Water that contains animal, human, or food waste.

**Blasting:** Any excavation or demolition conducted with then use of explosives.

**Bog:** A type of wetland that accumulates appreciable peat deposits. Bogs depend primarily on precipitation for their water source, and are usually acidic and rich in plant residue with a conspicuous mat of living green moss.

**Borrow Pit:** An excavated area where soil, sand or gravel has been dug up for use elsewhere.

**Brackish:** Mixed fresh and salt water.

**Breakthrough:** A crack or break in a filter bed that allows the passage of floc or particulate matter through a filter; will cause an increase in filter effluent turbidity.

**Buffer Strips:** Strips of grass or other erosion-resisting vegetation between or below cultivated strips or fields.

## C

**California Code of Regulations (CCR):** Contains the text of regulations that have been formally adopted by state agencies, reviewed and approved by the Office of Administrative Law and filed with the Secretary of State. The CCR consists of 27 titles and contains the regulations of approximately 200 regulatory agencies. Title 23 is Water and covers the regulations and regulatory issues at is relates to water in the state.

**California Environmental Quality Act (CEQA):** Is California's broadest environmental law. CEQA discloses and assesses all potential environmental impacts of a proposed project. Disclosure occurs through Initial Studies, Negative Declarations, and Environmental Impact Reports. CEQA also requires alternatives, mitigation measures, and mitigation monitoring.

**California Stormwater Quality Task Force (SQWTF):** Pursuant to the Clean Water Act amendments of 1987 and the establishment of a stormwater NPDES permit mandate, the state chapters of the American Public Works Association joined with the State Resources Control Board in the creation of a statewide Stormwater Quality Task Force. The purpose of the Task Force is to assist the state in achieving compliance with the federal mandate. The Task Force is providing a forum through which the state can secure the information needed to develop a compliance program which would satisfy the Clean Water Act, yet is within the capability of the State and its stormwater agencies.

**California Toxics Rule (CTR):** Is EPA developed regulations establishing water criteria for toxic pollutants for California

**Cap:** A layer of material, such as clay or a synthetic material, used to prevent rainwater from penetrating and spreading contaminated materials. The surface of the cap is generally mounded or sloped so water will drain off.

**Carbon Adsorption:** A treatment system in which contaminants are removed from groundwater and surface water by forcing water through tanks containing activated carbon, a specially-treated material that attracts and hold, or retains, contaminants.

**Catch Basin:** Box-like underground concrete structure with openings in curbs and gutters designed to collect runoff from streets and pavement.

**Catchline:** The point where a severe slope intercepts a different, gentler slope.

**Catchment:** Surface drainage area.

**Channel:** Feature that conveys surface water and is open to the air.

**Channelization:** Alteration of a stream channel by widening, deepening, straightening, cleaning, or paving certain areas to change flow characteristics.

**Check Dam:** Small dam constructed in a gully or other small watercourse to decrease the streamflow velocity, minimize channel scour, and promote deposition of sediment.

**Chronic Violator:** Chronic violations is exceedance of the monthly average effluent limit for any pollutant in any four months in a six month period, or exceedance of the monthly average effluent limitation for any pollutant in the same season for two years in a row.

**Clay Lens:** A naturally occurring, localized area of clay which acts as an impermeable layer to runoff infiltration.

**Clean Water Act** (CWA): Means the Federal Water Pollution Control Act enacted by Public Law 92-500 as amended by Public laws 95-217, 95-576, 96-483, and 97-117; 33 USC. 1251 et seq.

**Cn:** Soil Conservation Service's Curve Number. This number describes the runoff characteristics of a particular type of soil.

**Closed Depression:** An area which is low-lying and either has no, or such a limited, surface water outlet that during storm events the area acts as a retention basin.

**Coastal Zone:** Lands and waters adjacent to the coast that exert an influence on the uses of the sea and its ecology, or whose uses and ecology are affected by the sea.

**Code of Federal Regulations** (CFR): Document that codifies all rules of the executive departments and agencies of the federal government. It is divided into fifty volumes, known as titles. Title 40 of the CFR (referenced as 40 CFR) lists all environmental regulations.

**Coefficient of Haze** (COH): A measurement of visibility interference in the atmosphere.

**Cohesion:** The capacity of a soil to resist shearing stress, exclusive of functional resistance.

**Common Sense Initiative:** Voluntary program to simplify environmental regulation to achieve cleaner, cheaper, smarter results, starting with six major industry sectors.

**Comparative Risk Assessment:** Process that generally uses the judgement of experts to predict effects and set priorities among a wide range of environmental problems.

**Competency:** Skill in, expertise (also Core Competencies): the primary skill or expertise in a service offered and executed by a company or individual. Example: TSMOs core competencies is controlling water and air pollutants from construction, industrial erosion and non-natural cuts in the land.

**Compliance Schedule:** A negotiated agreement between a pollution source and a government agency that specifies dates and procedures by which a source will reduce emissions and, thereby, comply with a regulation.

**Composite Sample:** A series of water samples taken over a given period of time and weighted by flow rate.

**Comprehensive Environmental Response Compensation and Liability Act** (CERCLA) (pronounced SIR-cla): Provides a federal Superfund to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through the Act, EPA was given power to seek out those parties for any release and assure their cooperation in the cleanup. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. EPA also recovers costs from financially viable individuals and companies once a response action has been completed. EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies.

**Concentration:** The relative amount of a substance mixed with another substance. An example is five ppm of carbon monoxide in air or 1 mg/l of iron in water.

**Conduit:** Any pipe for collecting and directing the storm water

**Congestion Management Agency** (CMA): The CMA helps local governments meet the requirements of federal, state and local transportation laws by providing technical assistance. The CMA also coordinates with county and regional transportation organizations.

**Consent Decree:** A legal document, approved by a judge, that formalizes an agreement reached between EPA and potentially responsible parties (PRPs) through which PRPs will conduct all or

part of a cleanup action at a Superfund site; cease or correct actions or processes that are polluting the environment; or otherwise comply with EPA initiated regulatory enforcement actions to resolve the contamination at the Superfund site involved. The consent decree describes the actions PRPs will take and may be subject to a public comment period.

**Conservation Easement:** Easement restricting a landowner to land uses that are compatible with long-term conservation and environmental values.

**Conservation:** Preserving and renewing, when possible, human and natural resources. The use, protection, and improvement of natural resources according to principles that will ensure their highest economic or social benefits.

**Constructed Wetland:** A wetland that is created on a site that previously was not a wetland. This wetland is designed specifically to remove pollutants from stormwater runoff.

**Construction Site:** Is the location of the construction activity.

**Construction and Demolition Waste:** Waste building materials, dredging materials, tree stumps, and rubble resulting from construction, remodeling, repair, and demolition of homes, commercial buildings and other structures and pavements. May contain lead, asbestos, or other hazardous substances.

**Construction Ban:** If, under the Clean Air Act, EPA disapproves an area's planning requirements for correcting nonattainment, EPA can ban the construction or modification of any major stationary sources of the pollutant for which the area is in nonattainment.

**Contaminant:** Any physical, chemical, biological, or radiological substance or matter that has an adverse effect on air, water, or soil.

**Contamination:** Means an impairment of quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease including any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected. (California Water Code Section 13050(k))

**Contamination Source Inventory:** An inventory of contaminant sources within delineated State Water-Protection Areas. Targets likely sources for further investigation.

**Continuous Discharge:** A routine release to the environment that occurs without interruption, except for infrequent

shutdowns for maintenance, process changes, etc.

**Contour Plowing:** Soil tilling method that follows the shape of the land to discourage erosion.

**Conventional Pollutants:** Statutorily listed pollutants understood well by scientists. These may be in the form of organic waste, sediment, acid, bacteria, viruses, nutrients, oil and grease, or heat.

**Conventional Site Assessment:** Assessment in which most of the sample analysis and interpretation of data is completed off-site; process usually requires repeated mobilization of equipment and staff in order to fully determine the extent of contamination.

**Conventional Systems:** Systems that have been traditionally used to collect municipal wastewater in gravity sewers and convey it to a central primary or secondary treatment plant prior to discharge to surface waters.

#### CONVERSION FACTORS

1 inch = 25.4 millimeters  
1 foot = 0.3048 meters  
1 yard = 0.9144 meters

1 mile = 1609 meters  
1 mile = 1.609 kilometers

1 acre = 0.4047 hectare (Ha)  
1 acre = 4047 square meters

1 square foot = 0.0929 sq meters  
1 square yard = 0.8361 sq meters

1 cubic foot = 0.02832 cubic meters  
1 cubic foot = 7.481 gallons

1 cubic yard = 0.7645 cubic meters  
1 cubic yard = 27 cubic feet  
1 cubic yard = 202 gallons

1 gallon = 3.785 liters  
1 cubic meter = 1000 liters

1 pound = 0.4535 kilograms  
1 pound/sq inch = 6.89 kilopascals

1 short ton = 2000 pounds  
1 short ton = 907.18 kilograms  
1 short ton = 0.9078 metric tons

1 metric ton = 2205 pounds  
1 metric ton = 1000 kilograms

**Conveyance:** A mechanism for transporting water from one point to another, including pipes, ditches, and channels.

**Conveyance Loss:** Water loss in pipes, channels, conduits, ditches by leakage or evaporation.

**Conveyance System:** The drainage facilities, both natural and manmade, which collect, contain, and provide for the flow of surface and stormwater from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small

drainage courses, streams, rivers, lakes and wetlands. The human-made elements of the conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities.

**Cost/Benefit Analysis:** A quantitative evaluation of the costs which would be incurred by implementing an environmental regulation versus the overall benefits to society of the proposed action.

**Cost Recovery:** A legal process by which potentially responsible parties who contributed to contamination at a Superfund site can be required to reimburse the Trust Fund for money spent during any cleanup actions by the federal government.

**Cost Sharing:** A publicly financed program through which society, as a beneficiary of environmental protection, shares part of the cost of pollution control with those who must actually install the controls. In Superfund, for example, the government may pay part of the cost of a cleanup action with those responsible for the pollution paying the major share.

**Cost-Effective Alternative:** An alternative control or corrective method identified after analysis as being the best available in terms of reliability, performance, and cost. Although costs are one important consideration, regulatory and compliance analysis does not require EPA to choose the least expensive alternative. For example, when selecting or proving a method for cleaning up a Superfund site, the Agency balances costs with the long-term effectiveness of the methods proposed and the potential danger posed by the site.

**Cover Crop:** A crop that provides temporary protection for delicate seedlings and/or provides a cover canopy for seasonal soil protection and improvement between normal crop production periods.

**Created Wetland:** A wetland that is created on a site that previously was not a wetland. This wetland is created to replace wetlands that were unavoidably destroyed during design and construction of a project. This wetland cannot be used for treatment of stormwater runoff.

**Criteria:** Descriptive factors taken into account by EPA in setting standards for various pollutants. These factors are used to determine limits on allowable concentration levels, and to limit the number of violations per year. When issued by EPA, the criteria provide guidance to the states on how to establish their standards.

**Criteria Pollutants:** Pollutants for which there are considered to be safe levels of exposure, and for which standards have been set. Current criteria pollutants are: sulfur

oxides, particulate matter, carbon monoxide, nitric oxides, ozone and lead.

**Cross-Connection:** Any actual or potential connection between a drinking water system and an unapproved water supply or other source of contamination.

**Cubic Feet Per Minute (CFM):** A measure of the volume of a substance flowing through air within a fixed period of time. With regard to indoor air, refers to the amount of air, in cubic feet, that is exchanged with outdoor air in a minute's time; i.e., the air exchange rate.

**Culvert:** A covered channel or pipe that directs water or other substances from a conveyance system or storage container.

**Cumulative Ecological Risk Assessment:** Consideration of the total ecological risk from multiple stressors to a given eco-zone.

**Curb Stop:** A water service shutoff valve located in a water service pipe near the curb and between the water main and the building.

## D

**Data Quality Objectives (DQOs):** Qualitative and quantitative statements of the overall level of uncertainty that a decision-maker will accept in results or decisions based on environmental data. They provide the statistical framework for planning and managing environmental data operations consistent with user's needs.

**Dead Storage:** The permanent pool volume located below the out structure of a storage device. Dead storage provides water quality treatment but does not provide water quantity treatment.

**Delegated State:** A state (or other governmental entity such as a tribal government) that has received authority to administer an environmental regulatory program in lieu of a federal counterpart. As used in connection with NPDES, UIC, and PWS programs, the term does not connote any transfer of federal authority to a state.

**Density:** A measure of how heavy a specific volume of a solid, liquid, or gas is in comparison to water depending on the chemical.

**Department of Fish and Game (DFG):** The DFG's mission is to manage, protect, maintain, and improve the fish, game and aquatic resources.

**Department of Toxic Substance Control (DTSC):** A department within the California Environmental Protection Agency charged with the responsible overseeing the investigation and clean-up of hazardous waste sites. Through its inspection, compliance and corrective action programs, DTSC ensures that state and federal requirements for managing hazardous wastes are implemented. DTSC was formerly the California Department of Health Services, Toxic Substances Control.

**Depression Storage:** The amount of precipitation that is trapped in depressions on the surface of the ground.

**Design Storm:** A prescribed hyetograph and total precipitation amount (for a specific duration recurrence frequency) used to estimate runoff for a hypothetical storm of interest or concern for the purposes of analyzing existing drainage, designing new drainage facilities or assessing other impacts of a proposed project on the flow of surface water.

**Detention:** The storage and subsequent release of excess stormwater runoff from a site.

**Detention Facility:** An above or below ground facility, such as a pond or tank, that temporarily stores stormwater runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system. There is little or no infiltration of stored stormwater.

**Detention Time:** The theoretical time required to displace the contents of a stormwater treatment facility at a given rate of discharge (volume divided by rate of discharge).

**Dewater:** To remove water from wastes, soils or chemicals.

**Dike:** A low wall that can act as a barrier to prevent a spill from spreading.

**Diluent:** Any liquid or solid material used to dilute or carry an active ingredient.

**Dilution Ratio:** The relationship between the volume of water in a stream and the volume of incoming water. It affects the ability of the stream to assimilate waste.

**Directly Connected Impervious Area (DCIA):** Refers to the total size of impervious area (pavement, roofs) draining directly to a site drainage system. For example, if roof runoff is discharged to some type of infiltration device and is completely infiltrated, the impervious area associated with the roof is not directly connected.

**Direct Discharger:** A municipal or industrial facility which introduces pollution through a defined conveyance or system such as outlet pipes; a point source.

**Direct Runoff:** Water that flows over the ground surface or through the ground directly into streams, rivers, and lakes.

**Discharge:** The release of storm water or the other substance from a conveyance system or storage container.

**Discharger:** The person(s) and/or authority discharging storm water from a conveyance system or storage container.

**Dissolved Air Floatation (DAF):** A waste generated from treatment of wastewater from petroleum refining and the manufacture of industrial chemicals. It is listed as a hazardous waste by the U.S.EPA.

**Disturbance:** Any event or series of events that disrupt ecosystem, community, or population structure and alters the physical environment.

**Diversion:** 1. Use of part of a stream flow as water supply. 2. A channel with a supporting ridge on the lower side constructed across a slope to divert water at a non-erosive velocity to sites where it can be used and disposed of.

**Downgradient:** The direction in which groundwater flows.

**Drain Inlet:** Street exits points for stormwater and other related water runoff.

**Drainage:** Refers to the collection, conveyance, containment, and/or discharge of surface and storm water runoff.

**Drainage Basin:** A geographic and hydrologic sub-unit of a watershed.

**Drainage Channel:** A drainage pathway with a well-defined bed and banks indication frequent conveyance of surface and stormwater runoff.

**Drainage Course:** A pathway for watershed drainage characterized by wet soil vegetation; often intermittent in flow.

**Drainage Divide:** The boundary between one drainage basin and another.

**Drain:** A buried pipe or other conduit (closed drain). A ditch (open drain) for carrying off surplus surface water or ground water.

**Drainage Easement:** A legal encumbrance that is placed against a property's title to reserve specified privileges for the users and beneficiaries of the drainage facilities contained within the boundaries of the easement.  
**Drainage, Soil:** The removal of water from a soil.

**Drinking Water Equivalent Level:** Protective level of exposure related to potentially non-carcinogenic effects of chemicals that are also known to cause cancer.

**Dry Pond:** A facility that provides stormwater quantity control by containing excess runoff in a detention basin, then releasing the runoff at allowable levels.

**Dry Vault/Tank:** A facility that treats stormwater for water quantity control by detaining runoff in underground storage units and then releases reduced flows at established standards.

**Dustfall Jar:** An open container used to collect large particles from the air for measurement and analysis.

**Dust Sources (at construction sites or from off-site construction activities):**

Unpaved Travel Surfaces

- Temporary parking lots and staging areas
- Construction stock piles
- Construction traffic
- Construction access and sediment tracking off-site

Exposed Areas

- Construction sites, bare ground areas
- Land clearing and grubbing activities
- Earthwork, dozing, grading, scraping
- Drilling and blasting
- Soil and debris piles
- Tilling

Materials Handling

- Batch drop, dumping
- Conveyor transfer and stacking
- Material transfer points
- Crushing, milling, and screening operations
- Spilled materials
- Demolition and debris disposal

**Duty to Comply:** A discharger must comply with all of the conditions of a general permit. Any permit noncompliance constitutes a violation of the CWA and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action and/or removal from general permit coverage.

**Duty to Mitigate:** A discharger shall take all responsible steps to minimize or prevent any discharge in violation of this general permit which has a reasonable likelihood of adversely affecting human health or the environment.

**Duty to Provide Information:** A discharger shall furnish the Regional Water Board, State Board, or USEPA, within a reasonable time, any requested information to determine compliance with the general permit. The discharger shall furnish upon request, copies of records required to be kept by the general permit.

## E

**Ecological Impact:** The effect that a man-caused or natural activity has on living organisms and their non-living (abiotic) environment.

**Ecological Risk Assessment:** The application of a formal framework, analytical process, or model to estimate the effects of human actions(s) on a natural resource and to interpret the significance of those effects in light of the uncertainties identified in each component of the assessment process. Such analysis includes initial hazard

identification, exposure and dose-response assessments, and risk characterization.

**Ecology:** The relationship of living things to one another and their environment, or the study of such relationships.

**Effluent:** Wastewater, treated or untreated, that flows out of a treatment plant, sewer or industrial outfall. Generally refers to wastes discharged into surface water. Resource: DTSC

**Effluent Limitations:** The new CWC section 13263.6 requires the regional Board to prescribe effluent limitations as part of the waste discharge requirements (WDRs) of a POTW for all substances that the most recent toxic chemical release data reported to the state emergency response commission pursuant to Section 313 of the Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. sec.11023) indicate as discharged into the POTW, for which the State or regional Board has: (1) established numeric water quality objectives and (2) has determined that the discharge is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to, an excursion above any numeric water quality objective. Source: California SWRCB

**Emergency Spillway:** A channel used to safely convey flood discharges in excess of the capacity of the principal outlet.

**Emergency Planning and Community Right to Know Act of 1986 (EPCRA):** Is a federal law that establishes programs to provide the public with information about hazardous and toxic chemicals in their communities and establishes emergency planning and notification requirements to protect the public in the event of a release of extremely hazardous substances.

**Endangered Species:** Animals, birds, fish, plants, or other living organisms threatened with extinction by anthropogenic (man-caused) or other natural changes in their environment. Requirements for declaring a species endangered are contained in the Endangered Species Act.

**Endangerment Assessment:** A study to determine the nature and extent of contamination at a site on the National Priorities List and the risks posed to public health or the environment. EPA or the state conducts the study when a legal action is to be taken to direct potentially responsible parties to clean up a site or pay for it. An endangerment assessment supplements a remedial investigation.

**End-To-End Solutions Company:** A company that offer products and/or services that cover the entire spectrum of a given project or division within a project. Example: Total Site Maintenance (TSM) is an end-to-end solutions company in controlling water and air pollutants from construction, industrial erosion and non-natural cuts in the land

**Energy Dissipater:** Any means by which the total energy of flowing water is reduced. In stormwater

design, they are usually mechanisms that reduce velocity prior to, or at, discharge from an outfall in order to prevent erosion. They include rock splash pads, drop manholes, concrete stilling basins or baffles, and check dams.

**Enforceable Requirements:** Conditions or limitations in permits issued under the Clean Water Act Section 402 or 404 that, if violated, could result in the issuance of a compliance order or initiation of a civil or criminal action under federal or applicable state laws. If a permit has not been issued, the term includes any requirement which, in the Regional Administrators judgement, would be included in the permit when issued. Where no permit applies, the term includes any requirement which the RA determines is necessary for the best practical waste treatment technology to meet applicable criteria.

**Enforcement:** EPA, state, or local legal actions to obtain compliance with environmental laws, rules, regulations, or agreements and/or obtain penalties or criminal sanctions for violations. Enforcement procedures may vary, depending on the requirements of different environmental laws and related implementing regulations. Under CERCLA, for example, EPA will seek to require potentially responsible parties to clean up a Superfund site, or pay for the cleanup, whereas under the Clean Air Act the Agency may invoke sanctions against cities failing to meet ambient air quality standards that could prevent certain types of construction or federal funding. In other situations, if investigations by EPA and state agencies uncover willful violations, criminal trials and penalties are sought.

**Enhancement:** To raise ecological value, desirability, or attractiveness of an environment associated with surface water.

**Environment:** The sum of all external conditions affecting the life, development and survival of an organism.

**Environmental Assessment:** An environmental analysis prepared pursuant to the National Environmental Policy Act to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement.

**Environmental Audit:** An independent assessment of the current status of a party's compliance with applicable environmental requirements or of a party's environmental compliance policies, practices, and controls.

**Environmental/Ecological Risk:** The potential for adverse effects on living organisms associated with pollution of the environment by effluents, emissions, wastes, or

accidental chemical releases; energy use; or the depletion of natural resources.

**Environmental Equity/Justice:** Equal protection from environmental hazards for individuals, groups, or communities regardless of race, ethnicity, or economic status. This applies to the development, implementation, and enforcement of environmental laws, regulations, and policies, and implies that no population of people should be forced to shoulder a disproportionate share of negative environmental impacts of pollution or environmental hazard due to a lack of political or economic strength levels.

**Environmental Impact Statement:** A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and cites alternative actions.

**Environmental Lien:** A charge, security, or encumbrance on a property's title to secure payment of cost or debt arising from response actions, cleanup, or other remediation of hazardous substances or petroleum products.

**Environmental Site Assessment:** The process of determining whether contamination is present on a parcel of real property.

**Environmental Sustainability:** Long-term maintenance of ecosystem components and functions for future generations.

**Erosion:** The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep. Also, detachment and movement of soil or rock fragments by water, wind, ice, or gravity. The following terms are used to describe different types of water erosion.

**Erosion and Sediment Control:** Any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave a site. **Erosion and Sediment Control Facility:** A type of drainage facility designed to hold water for a period of time to allow sediment contained in the surface and stormwater runoff directed to the facility to settle out so as to improve the quality of the runoff.

**Erosion (Soil):** Soil erosion is the process by which soil particles are removed from the land surface, by wind, water or gravity. Most natural erosion occurs at slow rates; however, the rate of erosion increases when land is cleared or altered and left disturbed.

**Erosion (Rainfall Impact):** the impact of raindrops on bare soil causes erosion. Because the rainfall impact has a low velocity, this type of erosion will normally result in minimum surface erosion on undisturbed land. Even in areas of California with a semi-arid climate and minimal vegetative cover, natural desert soil conditions (including compacted hardpan) provide

protection against erosion for all but the most intense rainfalls. Construction activities remove the protective cover of vegetation and natural soil resistance to impact erosion.

**Erosion (Sheet):** After rainfall strikes the ground, it flows in a thin layer, called sheet flow for a short distance. The distance of sheet flow depends on slope, type of soil vegetative cover, and rainfall intensity. Sheet flow has a low velocity and causes little erosion on undisturbed soils. However, clearing the soil during construction makes the soil more susceptible to erosion, increases velocity, and causes the flow to concentrate in rivulets.

**Erosion (Rill and Gully):** as runoff accumulates, it concentrates in rivulets cutting grooves into the soil surface. If the flow is sufficient, rills may develop into gullies. Rills/gullies form sooner on exposed soils than vegetated soils.

**Erosion (Stream and Channel):** The banks and bottoms of natural drainage channels are commonly eroded by three factors which occur during construction

- Clearing the soil during construction increases the runoff flows, velocities and volumes which reach natural streams
- Covering the soil with buildings and pavement further increase runoff; and
- Site landscaping and improperly designed desiltation basins may disrupt the natural balance of erosion and sedimentation.

**Erosion (Wind):** Dust is defined as solid particulate matter which are predominately large enough to eventually settle out from the air but small enough to remain temporarily suspended in the air from an extended period of time. Dust from a construction site, originates as inorganic particulate from rock and soil surfaces, material storage piles and construction materials. The majority of dust generated and emitted into the air at a construction site is related to earth moving, demolition, construction traffic on unpaved surfaces, and wind over disturbed uncompacted soil surfaces.

**Escarpment:** A steep face or a ridge of high land.

**Estuary (estuarine):** Areas where fresh water from rivers and salt water from near shore ocean waters are mixed. These areas may include bays, mouths of rivers, salt marshes and lagoons. These water ecosystems shelter and feed marine life, birds and wildlife.

**Excavation:** any digging, trenching, quarrying, extraction, or tunneling.

**Existing Site Conditions:** The conditions (ground cover, slope, drainage patterns) of a site as they existed on the first day that

the project entered the design phase. Projects which drain into a sensitive area designated by a federal, state, or local agency may be required to use undisturbed forest conditions for the purposes of calculating runoff characteristics instead of using existing site conditions

**Experimental Best Management Practice (BMP):** A BMP that has not been tested and evaluated by the Department of Ecology in collaboration with local governments and technical experts.

**Exceedance:** Violation of the pollutant levels permitted by environmental protection standards.

**Exposure Pathways:** Existing or hypothetical routes by which chemicals in soil, groundwater or other media can come in contact with humans, animals or plants.

**Extraction:** Removal of materials, aggregate, or fossil fuels from the earth by excavation; including mining, surface stripping, open pit excavation, or tunneling.

**Extraction Wells:** Wells that are used primarily to remove groundwater from the ground. Water level measurements and water samples can be collected from extraction wells.

## F

**Filter Strip:** Strip or area of vegetation used for removing sediment, organic matter, and other pollutants from runoff and wastewater.

**Final Stabilization:** Means a uniform perennial vegetative cover of at least 70% of the native background cover for an area.

**Flood Frequency:** The frequency with which the flood of interest may be expected to occur at a site in any average interval of years. Frequency analysis defines the  $\Delta$ -year flood as being the flood that will, over a long period of time, be equaled or exceeded on the average once every  $\Delta$  years.

**Flood Fringe:** That portion of the floodplain outside of the floodway which is covered by floodwaters during the base flood. It is generally associated with standing water rather than rapidly flowing water.

**Flood Peak:** The highest value of the stage or discharge attained by a flood; thus, peak stage or peak discharge.

**Flood Routing:** An analytical technique used to compute the effects of system storage dynamics on the shape and movement of flow represented by a hydrograph.

**Flood Stage:** The stage at which overflow of the natural banks of a stream begins.

**Floodplain:** The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.

**Floodway:** The channel of the river or stream and those portions of the adjoining flood plains which are reasonably required to carry and discharge the base flood flow. The portions of the adjoining flood plains which are considered to be reasonably required is defined by flood hazard regulations.

**Flow Rate:** The rate, expressed in gallons - or liters-per-hour, at which a fluid escapes from a hole or fissure in a tank. Such measurements are also made of liquid waste, effluent, and surface water movement.

**Flume:** A natural or man-made channel that diverts water.

**Forebay:** An easily maintained, extra storage area provided near an inlet of a BMP to trap incoming sediments before they accumulate in a pond or wetland BMP.

**Freeboard:** The vertical distance between the design water surface elevation and the elevation of the barrier which contains the water.

**French Drain System:** a crushed rock drain system, constructed of perforated pipes, which is used to drain and disperse wastewater.

**Frequency of Storm (Design Storm Frequency):** The anticipated period in years that will elapse, based on average probability of storms in the design region, before a storm of a given intensity and/or total volume will recur; thus a 10-year storm can be expected to occur on the average once every 10 years. Sewers designed to handle flows which occur under such storm conditions would be expected to be surcharged by any storms of greater amount or intensity.

**Fresh Water:** Water that generally contains less than 1,000 milligrams-per-liter of dissolved solids.

**Frost-Heave:** The upward movement of soil surface due to the expansion of water stored between particles in the first few feet of the soil profile as it freezes. May cause surface fracturing of asphalt or concrete.

**Functions (wetlands):** The ecological (physical, chemical, and biological) processes or attributes of a wetland without regard for their importance to society (see also Values). Wetland functions include food chain support, provision of ecosystem diversity and fish and wildlife habitat, flood flow alteration ground water recharge and discharge, water quality improvement, and soil stabilization.

**Future Liability:** Refers to potentially responsible parties' obligations to pay for additional response activities beyond those specified in the Record of Decision or Consent Decree.

## G

**Gage:** Device for registering precipitation, water level, discharge, velocity, pressure, temperature, etc.

**Gaging Station:** A selected section of a stream channel equipped with a gage, recorder, or other facilities for determining stream discharge.

**Gauge:** A measure of the thickness of metal; e.g., diameter of wire, wall thickness of steel pipe.

**General Permit:** A permit applicable to a class or category of dischargers.

**General Plan Law:** each municipality is required by law to prepare a general plan to guide development. The general plan is a policy document that frames the long-term objectives for the physical development of the city/county. Each general plan must address at least seven elements (e.g., circulation, open space, conservation, etc.) The extent to which these elements are addressed is determined by local agency. The municipality may incorporate storm water management objectives for post-construction controls, and adopt specific ordinances, policies, etc., for specific control measures required for new development. The specific plan and zoning ordinance are implementation tools of the general plan. A specific plan has a three-fold purpose: (1) refine the general plan for a specific area within the general plan boundaries (2) regulate specific land uses within a specific area within the general plan boundary; and (3) establish detailed policies and regulations for the specific area. These policies and regulations may include storm water pollution controls. The specific plan can be adopted by resolution (making it a policy document) or by ordinance (making it a regulatory document). A zoning ordinance establishes development standards for lots and parcels. Storm water pollution controls can be implemented in the specific plan and zoning stages through enactment of ordinances. These ordinances may preserve watercourses, specify detention and retention requirements, define storm water design standards and create open space and buffer areas within the project site.

**Grab Sample:** A single sample collected at a particular time and place that represents the composition of the water, air, or soil only at that time and place.

**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.

**Ground Cover:** Plants grown to keep soil from eroding.

**Ground-Water Discharge:** Ground water entering near coastal waters which has been contaminated by land-fill leachate, deep well injection of hazardous wastes, septic tanks, etc.

**Ground Water Table:** The free surface of the ground water, that surface subject to atmospheric pressure under the ground, generally rising and falling with the season, the rate of withdrawal, the rate of restoration, and other conditions. It is seldom static.

**Gully:** A channel caused by the concentrated flow of surface and stormwater runoff over unprotected erodible land.

## H

**Harmful Pollutant:** A substance that has adverse effects to an organism including immediate death, chronic poisoning, impaired reproduction, cancer or other effects.

**Hazardous Waste:** Waste substances which pose a substantial or potential hazard to human health or the environment when improperly managed. Hazardous waste possesses at least one of these four characteristics (or appears on special U.S. EPA lists): ignitability, corrosivity, reactivity or toxicity.

**Health Risk/Endangerment Assessment:** a study prepared to assess health and environmental risks due to potential exposure to hazardous substances.

**Heavy Metals:** Metals of high specific gravity, present in municipal and industrial wastes, that pose long-term environmental hazards. Such metals include cadmium, chromium, cobalt, copper, lead, mercury, nickel, and zinc.

**Human Health Risk:** The likelihood that a given exposure or series of exposures may have damaged or will damage the health of individuals.

**Hydrogeology:** The geology of groundwater, with particular emphasis on the chemistry and movement of water.

**Hydrograph:** A graph of runoff rate, inflow rate or discharge rate, past a specific point over time.

**Hydrologic Soil Groups:** A soil characteristic classification system defined by the U.S. Soil Conservation Service in which a soil may be categorized into one of four soil groups (A, B, C, or D) based upon infiltration rate and other properties.

**Hydrology:** The science of the behavior of water in the atmosphere, on the surface of the earth, and underground.

**Hydrolysis:** The decomposition of organic compounds by interaction with water.

**Hydroperiod:** A seasonal occurrence of flooding and/or soil saturation; it

encompasses depth, frequency, duration, and seasonal pattern of inundation.

**Hyetograph:** A graph of precipitation versus time.

**Illicit Discharge:** Federal regulations define an illicit discharge as any discharge to an MS4 that is not composed entirely of storm water with some exceptions. These exceptions include discharges from NPDES-permitted industrial sources and discharges from fire-fighting activities.

**Impervious Surface:** A hard surface area which either prevents or retards the entry of water into the soil. Common impervious surfaces include roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled surfaces.

**Impoundment:** A body of water or sludge confined by a dam, dike, floodgate or other barrier.

**Infiltration:** The downward movement of water from the surface to the subsoil.

**Infiltration Facility (or system):** A drainage facility designed to use the hydrologic process of surface and stormwater runoff soaking into the ground, commonly referred to as a percolation, to dispose of surface and stormwater runoff.

**Infiltration Pond:** A facility that provides stormwater quantity control by containing excess runoff in a detention facility, then percolating that runoff into the surrounding soil.

**Inlet:** An entrance into a ditch, storm sewer, or other waterway.

**Interim Remedial Measures (IRMs):** Cleanup actions taken to initiate site cleanup while long-term solutions are developed.

**Interim Remedial Actions (IRAs):** Cleanup actions taken to protect public health and the environment while long-term solutions are being developed.

**Invert:** The lowest point on the inside of a sewer or other conduit.

**Invert Elevation:** The vertical elevation of a pipe or orifice in a pond which defines the water level.

**Isopluvial Map:** A map with lines representing constant depth of total, precipitation for a given return frequency.

## J

**Joint and Several Liability:** Under CERCLA, this legal concept relates to the liability for Superfund site cleanup and other costs on the part of more than one potentially responsible party (i.e., if there were several owners or users of a site that became contaminated over the years, they could all be considered potentially liable for cleaning up the site.)

## L

**Lag Time:** The interval between the center of mass of the storm precipitation and the peak flow of the resultant runoff.

**Land Application:** Refers to the application of wastewater or storm water to agricultural land.

**Land Disturbing Activity:** Any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to demolition, construction, clearing, grading, filling and excavation.

**Leachate:** Water that collects contaminants as it trickles through wastes, pesticides or fertilizers. Leaching may occur in farming areas, feedlots, and landfills, and may result in hazardous substances entering surface water, ground water, or soil.

**Leaching:** Removal of the more soluble materials from the soil by percolating waters.

**Level Spreader:** A temporary BMP used to spread stormwater runoff uniformly over the ground surface as sheet flow. The purpose of level spreaders are to prevent concentrated, erosive flows from occurring. Level spreaders will commonly be used at the upstream end of wider biofilters to ensure sheet flow into the biofilter.

**Lead Agency:** A public agency which has the principle responsibility for ordering and overseeing site investigations and cleanup. Usually the agency with the broadest regulatory authority.

**Limiting Factor:** A condition whose absence or excessive concentration, is incompatible with the needs or tolerance of a species or population and which may have a negative influence on their ability to thrive.

**List:** Shorthand term for EPA list of violating facilities or firms debarred from obtaining government contracts because they violated certain sections of the Clean Air or Clean Water Acts. The list is maintained by The Office of Enforcement and Compliance Monitoring.

**Local Agency:** means any agency that is involved with providing review, approval, or oversight of the construction sites (a) construction activity, (b) erosion and sediment controls, or (c) storm water discharge.

**Lowest Observed Adverse Effect Level (LOAEL):** The lowest level of a stressor that causes statistically and biologically significant differences in test samples as compared to other samples subjected to no stressor.

**Low Flow Channel:** An incised or paved channel from inlet to outlet in a dry basin which is designed to carry low runoff flows and/or baseflow, directly to the outlet without detention.

## M

**Major Storm:** A precipitation event that is larger than the typically largest rainfall for a year.

**Mannings Equation:** An equation used to predict the velocity of water flow in an open channel or pipelines:

$$V = 1.486R^{2/3}S^{1/2} / n$$

where:

V is the mean velocity of flow in feet per second

R is the hydraulic radius in feet

S is the slope of the energy gradient or, for assumed uniform flow, the slope of the channel in feet per foot; and

n is Manning's roughness coefficient of the channel lining.

**Marien Chronic Criteria:** Water quality criteria established by the U.S. EPA which concentrations of constituents in water which, if not exceeded, are protective of aquatic ecosystems.

**Mass Wasting:** The movement of large volumes of earth material downslope.

**Maximum Available Control Technology (MACT):** The emission standard for sources of air pollution requiring the maximum reduction of hazardous emissions, taking cost and feasibility into account. Under the Clean Air Act Amendments of 1990, the MACT must not be less than the average emission level achieved by controls on the best performing 12 percent of existing sources, by category of industrial and utility sources.

**Maximum Contamination Level (MCL):** A contamination level for drinking water, established by the California Department of Health Services, Division of Drinking Water and Environmental Management, or by the U.S. EPA. These levels are legally enforceable standards which are based on health risk (primary standards) or non-health concerns such as odor or taste (secondary standards).

**Mean Depth:** Average depth; cross-sectional area of a stream or channel divided by its surface or top width.

**Mean Velocity:** The average velocity of a stream flowing in a channel or conduit at a given cross-section or in a given reach. It is equal to the discharge divided by the cross-sectional area of the reach.

**Media:** Specific environments--air, water, soil--which are the subject of regulatory concern and activities.

**Metals:** Elements, such as mercury, lead, nickel, zinc and cadmium, that are of environmental concern because they do not degrade over time. Although many are necessary nutrients, they are sometimes magnified in the food chain, and they can be toxic to life in high enough concentrations. They are also referred to as heavy metals.

**Mitigation:** means, in the following order of preference:

1. Avoiding the impact altogether by not taking a certain action or part of an action;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
3. Rectifying the impact by repairing, rehabilitating or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
5. Compensation for the impact by replacing, enhancing, or providing substitute resources or environments.

**Million-Gallons Per Day (MGD):** A measure of water flow.

**Minimization:** A comprehensive program to minimize or eliminate wastes, usually applied to wastes at their point of origin. (See: waste minimization.)

**Migration:** The movement of chemical contaminants through soils or groundwater.

**Mitigation:** Measures taken to reduce adverse impacts on the environment.

**Mixed Funding:** Settlements in which potentially responsible parties and EPA share the cost of a response action.

**Mobile Source:** Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, and locomotives.

**Moisture Content:** 1. The amount of water lost from soil upon drying to a constant weight, expressed as the weight per unit of dry soil or as the volume of water per unit bulk volume of the soil. For a fully saturated medium, moisture content indicates the porosity. 2. Water equivalent of snow on the

ground; an indicator of snowmelt flood potential.

**Monitoring:** Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, plants, and animals.

**Monitoring Wells:** Specially-constructed wells used exclusively for testing water quality.

**Mulch:** A layer of material (wood chips, straw, leaves, etc.) placed around plants to hold moisture, prevent weed growth, and enrich or sterilize the soil.

**Multi-Media Approach:** Joint approach to several environmental media, such as air, water, and land.

**Municipal Separate Storm Sewer System (MS4):** is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) which is owned or operated by the United States, a State, city, town, borough, county. In practical terms, operators of MS4s can include municipalities and local sewer districts, State and Federal departments of transportation, universities, hospitals, military bases, and correctional facilities.

## N

**National Ambient Air Quality Standards (NAAQS):** Standards established by EPA that apply for outdoor air throughout the country.

**National Environmental Performance Partnership Agreements:** System that allows states to assume greater responsibility for environmental programs based on their relative ability to execute them.

**National Municipal Plan:** A policy created in 1984 by EPA and the states in 1984 to bring all publicly owned treatment works (POTWs) into compliance with Clean Water Act requirements.

**National Pollutant Discharge Elimination Systems (NPDES):** is the national program for administering and regulating discharges to receiving waters according to the Clean Water Act (CWA). In California, the State Water Resources Control Board (SWRCB) has issued a general permit for storm water discharges associated with construction activities statewide (except for the Lake Tahoe Basin and Indian lands, which are covered by separate permits.

**Native Growth Protection Easement (NGPE):** An easement granted for the protection of native vegetation within a sensitive area or its associated buffer. The NGPE shall be recorded on the appropriate documents of title and filed with the County Records Division.

**Natural Location:** The location of those channels, swales, and other nonmanmade conveyance systems as defined by the first documented topographic

contours existing for the subject property, either from maps or photographs, or such other means as appropriate.

**New Development:** Includes the following activities: land disturbing activities, structural development, including construction, installation or expansion of a building or other structure; creation of impervious surfaces; Class IV: general forest practices that are conversions from timber land to other uses; and subdivision and short subdivision of land as defined in RCW 58.17.020. All other forest practices and commercial agriculture are not considered new development.  
**New Impervious Area:** The impervious area that is being created by the project.

**New Source Performance Standards (NSPS):** Uniform national EPA air emission and water effluent standards which limit the amount of pollution allowed from new sources or from modified existing sources.

**New Source Review (NSR):** A Clean Air Act requirement that State Implementation Plans must include a permit review that applies to the construction and operation of new and modified stationary sources in nonattainment areas to ensure attainment of national ambient air quality standards. vp  
NGVD: National Geodetic Vertical Datum

**No Further Remedial Action Planned:** Determination made by EPA following a preliminary assessment that a site does not pose a significant risk and so requires no further activity under CERCLA.

**Non-Attainment Area:** Area that does not meet one or more of the National Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air Act.

**Non-Attainment Pollutants:** Air pollutants (sulfur or nitric oxides, particulate matter, carbon monoxide, ozone and lead) that exceed set standards in a certain air basin.

**Non-Binding Allocations of Responsibility (NBAR):** A process for EPA to propose a way for potentially responsible parties to allocate costs among themselves.

**Non-Conventional Monitoring:** Is the enumeration of some quantity other than water quality data to infer pollution reduction or water quality improvement.

**Non-Conventional Pollutant:** Any pollutant not statutorily listed or which is poorly understood by the scientific community.

**Non-degradation:** An environmental policy which disallows any lowering of naturally occurring quality regardless of preestablished health standards.

**Nonpoint Source (NPS) Pollution:** Pollution that does not come from a point source. Nonpoint source pollution originates from aerial diffuse sources that are mostly related to land use.

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

**Normal Depth:** The depth of uniform flow. This is a unique depth of flow for any combination of channel characteristics and flow conditions. Normal depth is calculated using Manning's Equation.

**Nonstorm Water Discharge:** means any discharge to storm sewer systems that is not composed entirely of storm water except discharges pursuant to a NPDES Permit and discharges resulting from fire fighting activities.

**Nonstorm Water Management:** The SWPPP shall include provisions which eliminate or reduce, to the extent feasible, the discharge of materials other than storm water to the storm sewer system and/or receiving waters. Such provisions shall ensure, to the extent feasible, that no materials are discharged in quantities which will have an adverse effect on receiving waters. Materials other than storm water that are discharged shall be listed along with the estimated quantity of the discharged material.

**Notice of Deficiency:** An EPA request to a facility owner or operator requesting additional information before a preliminary decision on a permit application can be made.

**Notice of Intent (NOI):** Is a formal notice to the SWRCB submitted by the owner/developer that a construction project is about to begin. The NOI provides information on the owner, location, type of project, and certifies that the permittee will comply with conditions of the construction general permit. The NOI is not a permit application and no approval is required.

**Notice of Intent to Deny:** Notification by EPA of its preliminary intent to deny a permit application.

**Nuisance:** Means anything which meets all of the following requirements: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with comfortable enjoyment of life and property; (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; (3) occurs during or as a result of the treatment or disposal of wastes. (California Water Code Section 13050(m))

**Nutrients:** Essential chemicals needed by plants or animals for growth. Excessive amounts of nutrients can lead to degradation of water quality and algal blooms. Some nutrients can be toxic at high concentrations.

## O

**Ocean Discharge Waiver:** A variance from Clean Water Act requirements for discharges into marine waters.

**OECD Guidelines:** Testing guidelines prepared by the Organization of Economic and Cooperative Development of the United Nations. They assist in preparation of protocols for studies of toxicology, environmental fate, etc.

**Off-site:** Any area lying upstream of the site that drains onto the site and, any area lying downstream of the site to which the site drains.

**Orifice:** An opening with closed perimeter, usually sharp-edged, and of regular form in a plate, wall, or partition through which water may flow, generally used for the purpose of measurement or control of flow.

**Outfall:** The point where a storm drain discharges from a pipe, channel, ditch, or other conveyance to a waterway.

**Outlet Channel:** A waterway constructed or altered primarily to carry water from man-made structures, such as terraces, tile lines, and diversions.

**Overflow:** A pipeline or conduit device, together with an outlet pipe, that provides for the discharge of portions of combined sewer flows into receiving waters or other points of disposal, after a regular device has allowed the portion of the flow which can be handled by interceptor sewer lines and pumping and treatment facilities to be carried by and to such water pollution control structures.

**Overland Flow:** A land application technique that cleanses waste water by allowing it to flow over a sloped surface. As the water flows over the surface, contaminants are absorbed and the water is collected at the bottom of the slope for reuse.

**Overpacking:** Process used to isolate waste by jacketing or encapsulating waste to prevent further spread or leakage of contaminating materials.

**Overtopping:** To flow over the limits of a containment or conveyance element.

## P

**Particle Count:** Results of a microscopic examination of treated water with a special particle counter that classifies suspended particles by number and size.

**Particulate Loading:** The mass of particulates per unit volume of air or water.

**Particulates:** 1. Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog, found in air or emissions. 2. Very small solids suspended in water; they can vary in size, shape, density and electrical charge and can be gathered together by coagulation and flocculation.

**Parts Per Billion (ppb) Parts Per Million (ppm):** Units commonly used to express contamination ratios, as in establishing the maximum permissible amount of a contaminant in water, land, or air.

**Peak Discharge:** The maximum instantaneous rate of flow during a storm, usually in reference to a specific design storm event.

**Percent Saturation:** The amount of a substance that is dissolved in a solution compared to the amount that could be dissolved in it.

**Perched Groundwater:** Water which accumulates beneath the earth's surface but above the main water bearing zone (or aquifer).

**Percolating Water:** Water that passes through rocks or soil under the force of gravity.

**Permeability Rate:** The rate at which water will move through a saturated soil.

**Permeable Soils:** Soil materials with a sufficiently rapid infiltration rate so as to greatly reduce or eliminate surface and stormwater runoff. These soils are generally classified as SCS hydrologic soil types A and B.

**Permit:** An authorization, license, or equivalent control document issued by EPA or an approved state agency to implement the requirements of an environmental regulation; e.g., a permit to operate a wastewater treatment plant or to operate a facility that may generate harmful emissions.

**Persistence:** Refers to the length of time a compound stays in the environment, once introduced. A compound may persist for less than a second or indefinitely.

**Perviousness:** Related to the size and continuity of void spaces in soils; related to a soil's infiltration rate.

**Pesticide:** A general term used to describe any substance: usually chemical: used to destroy or control organisms; includes herbicides, insecticides, algicides, fungicides, and others. Many of these substances are manufactured and are not naturally found in the environment. Others, such as pyrethrum, are natural toxins which are extracted from plants and animals.

**pH:** An expression of the intensity of the basic or acid condition of a liquid; may range from 0 to 14, where 0 is the most acid and 7 is neutral. Natural waters usually have a pH between 6.5 and 8.5.

**Piezometers:** Small-diameter wells used to measure groundwater levels.

**Pilot Tests:** Testing a cleanup technology under actual site conditions to identify potential problems prior to full-scale implementation.

**Plugging:** Act or process of stopping the flow of water, oil, or gas into or out of a formation through a borehole or well penetrating that formation.

**Plume:** A body of contaminated groundwater flowing from a specific source.

**Point-of-Contact Measurement of Exposure:** Estimating exposure by measuring concentrations over time (while the exposure is taking place) at or near the place where it is occurring.

**Point Source:** any discernable, confined, and discrete conveyance from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

**Pollutant:** Generally, any substance introduced into the environment that adversely affects the usefulness of a resource or the health of humans, animals, or ecosystems..

**Pollutant Standard Index (PSI):** Indicator of one or more pollutants that may be used to inform the public about the potential for adverse health effects from air pollution in major cities.

**Pollution:** Means òthe man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.Ó (Clean Water Act Section 502(19)). Pollution also means òan alteration of the quality of the waters of the state by waste to a degree which unreasonably affects eitherËthe waters for beneficial usesËor facilities which serve these beneficial uses.Ó (California Water Code Section 130(1))

**Pollution Prevention:** 1. Identifying areas, processes, and activities which create excessive waste products or pollutants in order to reduce or prevent them through, alteration, or eliminating a process. Such activities, consistent with the Pollution Prevention Act of 1990, are conducted across all EPA programs and can involve cooperative efforts with such agencies as the Departments of Agriculture and Energy. 2. EPA has initiated a number of voluntary programs in which industrial, or commercial or ÒpartnersÓ join with EPA in promoting activities that conserve energy, conserve and protect water supply, reduce emissions or find ways of utilizing them as energy resources, and reduce the waste stream. Among these are: Agstar, to reduce methane emissions through manure management. Climate Wise, to lower industrial greenhouse-gas emissions and energy costs.

Coalbed Methane Outreach, to boost methane recovery at coal mines. Design for the Environment, to foster including environmental considerations in product design and processes. Energy Star programs, to promote energy efficiency in commercial and residential buildings, office equipment, transformers, computers, office equipment, and home appliances. Environmental Accounting, to help businesses identify environmental costs and factor them into management decision making. Green Chemistry, to promote and recognize cost-effective breakthroughs in chemistry that prevent pollution. Green Lights, to spread the use of energy-efficient lighting technologies. Indoor Environments, to reduce risks from indoor-air pollution. Landfill Methane Outreach, to develop landfill gas-to-energy projects. Natural Gas Star, to reduce methane emissions from the natural gas industry. Ruminant Livestock Methane, to reduce methane emissions from ruminant livestock. Transportation Partners, to reduce carbon dioxide emissions from the transportation sector. Voluntary Aluminum Industrial Partnership, to reduce perfluorocarbon emissions from the primary aluminum industry. WAVE, to promote efficient water use in the lodging industry. Wastewise, to reduce business-generated solid waste through prevention, reuse, and recycling.

**Porosity:** Degree to which soil, gravel, sediment, or rock is permeated with pores or cavities through which water or air can move.

**Post-Construction Storm Water Management:** The SWPPP shall describe the control practices to reduce pollutants in storm water discharges after all construction phases have been completed at the site. These must be consistent with all local post-construction storm water management requirements, policies, and guidelines. The discharger must consider site-specific and seasonal conditions when designing the control practices. Operation and maintenance of control practices after construction is completed shall be addressed, including short- and long-term funding sources and the responsible party.

**Potable Water:** Water that is safe for drinking and cooking.

**Potential Responsible Party (PRP):** an individual, company or governmental body identified as potentially liable for the release of sediment laden water and/or hazardous substances to the environment.

**Practicable:** Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

**Precautionary Principle:** When information about potential risks is incomplete, basing decisions about the best ways to manage or reduce risks on a preference for avoiding unnecessary health risks instead of on unnecessary economic expenditures.

**Precipitation:** Any form of rain or snow.

**Precipitator:** Pollution control device that collects particles from an air stream.

**Preliminary Assessment:** The process of collecting and reviewing available information about a known or suspected waste site or release.

**Prescriptive:** Water rights which are acquired by diverting water and putting it to use in accordance with specified procedures; e.g., filing a request with a state agency to use unused water in a stream, river, or lake.

**Pretreatment:** treatment of wastewater before it is discharged to a wastewater collection system.

**Prevalent Level Samples:** Air samples taken under normal conditions (also known as ambient background samples)

**Prevalent Levels:** Levels of airborne contaminant occurring under normal conditions.

**Primacy:** Having the primary responsibility for administering and enforcing regulations.

**Primary Drinking Water Regulation:** Applies to public water systems and specifies a contaminant level, which, in the judgment of the EPA Administrator, will not adversely affect human health.

**Project XL:** An EPA initiative to give states and the regulated community the flexibility to develop comprehensive strategies as alternatives to multiple current regulatory requirements in order to exceed compliance and increase overall environmental benefits.

**Proprietary Products:** Products developed by a specific company/owner of the patent trademark, etc for use usually within the companies specialized trade and/or industry. Example: Total Site Maintenance has developed BMP drain inlet filter systems Protocol: A series of formal steps for conducting a test.

**Public Access:** as it relates to the SWPPP is considered a report that must be made available to the public under Section 308(b) of the CWA.

**Public Comment Period:** The time allowed for the public to express its views and concerns regarding an action by EPA (e.g., a Federal Register Notice of proposed rule-making, a public notice of a draft permit, or a Notice of Intent to Deny).

**Public Hearing:** A formal meeting wherein EPA officials hear the public's views and concerns about an EPA action or proposal. EPA is required to consider such comments when evaluating its actions. Public hearings

must be held upon request during the public comment period.

**Public Notice:** 1. Notification by EPA informing the public of Agency actions such as the issuance of a draft permit or scheduling of a hearing. EPA is required to ensure proper public notice, including publication in newspapers and broadcast over radio and television stations. 2. In the safe drinking water program, water suppliers are required to publish and broadcast notices when pollution problems are discovered.

**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): A waste-treatment works owned by a state, unit of local government, or Indian tribe, usually designed to treat domestic wastewaters.

## Q

**Quality Assurance/Quality Control:** A system of procedures, checks, audits, and corrective actions to ensure that all EPA research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality.

## R

**Rare, Threatened, or Endangered Species:** Plant or animal species that are regionally relatively uncommon, are nearing endangered status, or whose existence is in immediate jeopardy and is usually restricted to highly specific habitats. Threatened and endangered species are officially listed by federal and state authorities, whereas rare species are unofficial species of concern that fit the above definitions.

**Rational Method:** A means of computing storm drainage flow rates (Q) by use of the formula  $Q = CIA$ , where C is a coefficient describing the physical drainage area, I is the rainfall intensity and A is the area.

**Reach:** A length of channel with uniform characteristics.

**Real-Time Monitoring:** Monitoring and measuring environmental developments with technology and communications systems that provide time-relevant information to the public in an easily understood format people can use in day-to-day decision-making about their health and the environment.

**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.

**Receiving Waters:** Bodies of water or surface water systems receiving water from upstream manmade (or natural) streams.

**Recharge:** The flow to ground water from the infiltration of surface and stormwater runoff.

**Reclaim** (water reclamation): Planned use of treated effluent that would otherwise be discharged without being put to direct use.

**Red Border:** An EPA document undergoing review before being submitted for final management decision-making.

**Regional:** An action (here, for stormwater management purposes) that involves more than one discrete property.

**Regional (CA.) Water Quality Control Boards (RWQCB):** Staff monitors and enforces laws that protect the quality of water in California.

**Regional Detention Facility:** A stormwater quantity control structure designed to correct existing excess surface water runoff problems of a basin or sub basin. The area downstream has been previously identified as having existing or predicted significant and regional flooding and/or erosion problems. This term is also used when a detention facility is used to detain stormwater runoff from a number of different businesses, developments or areas within a catchment. The use of regional detention facilities may be more efficient than on-site stormwater treatment although the preferred option is to include some on-site stormwater treatment through the use of grassy swales, etc., even when regional detention facilities are used.

**Relative Ecological Sustainability:** Ability of an ecosystem to maintain relative ecological integrity indefinitely.

**Relative Risk Assessment:** Estimating the risks associated with different stressors or management actions.

**Release:** Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of a hazardous or toxic chemical or extremely hazardous substance. Remedial Action (RA): The actual construction or implementation phase of a Superfund site cleanup that follows remedial design.

**Release Rate:** The computed peak rate of surface and stormwater runoff for a particular design storm event and drainage area conditions.

**Representative Sample:** A portion of material or water that is as nearly identical in content and consistency as possible to that in the larger body of material or water being sampled.

**Reservoir:** Any natural or artificial holding area used to store, regulate, or control water.

**Residential Use:** Pesticide application in and around houses, office buildings,

apartment buildings, motels, and other living or working areas.

**Residual:** Amount of a pollutant remaining in the environment after a natural or technological process has taken place; e.g., the sludge remaining after initial wastewater treatment, or particulates remaining in air after it passes through a scrubbing or other process.

**Residual Saturation:** Saturation level below which fluid drainage will not occur.

**Responsible Party:** An individual or corporate entity that is considered legally liable for the contamination found at a property and, therefore, responsible for cleanup of the contamination.

**Responsiveness Summary:** A summary of oral and/or written public comments received by EPA during a comment period on key EPA documents, and EPA's response to those comments.

**Restoration:** Measures taken to return a site to pre-violation conditions.

**Restricted Entry Interval:** The time after a pesticide application during which entry into the treated area is restricted.

**Retention:** The process of collecting and holding surface and stormwater runoff with no surface outflow.

**Retention/Detention Facility (R/D):** A type of drainage facility designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration, and/or infiltration into the ground; or to hold surface and stormwater runoff for a short period of time and then release it to the surface and stormwater management system.

**Retrofitting:** The renovation of an existing structure or facility to meet changed conditions or to improve performance.

**Return Interval:** A statistical term for the average time of expected interval that an event of some kind will equal or exceed given conditions (e.g., a stormwater flow that occurs every 2 years).

**Rill:** A small channel eroded into the soil by surface runoff; can be easily smoothed out or obliterated by normal tillage.

**Riparian Habitat:** Areas adjacent to rivers and streams with a differing density, diversity, and productivity of plant and animal species relative to nearby uplands.

**Riprap:** A facing layer or protective mound of stones placed to prevent erosion or sloughing of a structure or embankment due to flow of surface and stormwater runoff.

**Riser:** A vertical pipe extending from the bottom of a pond BMP that is used to control the discharge rate from a BMP for a specified design storm.

**Risk:** A measure of the probability that damage to life, health, property, and/or the environment will occur as a result of a given hazard.

**Risk Assessment:** A health risk assessment is a document that describes the possible adverse health effects which may result from exposure to contaminants.

**Risk Characterization:** The last phase of the risk assessment process that estimates the potential for adverse health or ecological effects to occur from exposure to a stressor and evaluates the uncertainty involved.

**Risk Communication:** The exchange of information about health or environmental risks among risk assessors and managers, the general public, news media, interest groups, etc.

**Risk Management:** The process of evaluating and selecting alternative regulatory and non-regulatory responses to risk. The selection process necessarily requires the consideration of legal, economic, and behavioral factors.

**Risk-based Targeting:** The direction of resources to those areas that have been identified as having the highest potential or actual adverse effect on human health and/or the environment.

**River Basin:** The land area drained by a river and its tributaries.

**Running Losses:** Evaporation of motor vehicle fuel from the fuel tank while the vehicle is in use.

**Runoff:** water originating from rainfall and other sources (e.g., sprinkler irrigation) that is found in drainage facilities, rivers, streams, springs, seeps, ponds, lakes, wetlands, and shallow groundwater.

Runoff-off-site flows which flow onto your site.

## S

**Safe:** Condition of exposure under which there is a practical certainty that no harm will result to exposed individuals.

**Salinity:** The percentage of salt in water.

**Salts:** Minerals that water picks up as it passes through the air, over and under the ground, or from households and industry.

**Sanctions:** Actions taken by the federal government for failure to provide or implement a State Implementation Plan (SIP). Such action may include withholding of highway funds and a ban on construction of new sources of potential pollution.

**SBUH:** Santa Barbara Urban Hydrograph Method. An event-based hydrographic method of analysis used to determine stormwater runoff from a site.

**Screening Risk Assessment:** A risk assessment performed with few data and many assumptions to identify exposures that should be evaluated more carefully for potential risk.

**SCS:** Soil Conservation Service, U.S. Department of Agriculture.

**Secondary Standards:** National ambient air quality standards designed to protect welfare, including effects on soils, water, crops, vegetation, man-made (anthropogenic) materials, animals, wildlife, weather, visibility, and climate; damage to property; transportation hazards; economic values, and personal comfort and well-being.

**Sediment:** Fragmented material that originates from weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

**Sedimentation:** Is defined as the settling out of soil particles transported by water. Sedimentation occurs when the velocity of water in which soil particles are suspended is slowed sufficiently to allow particles to settle out. Larger particles, such as gravel and sand, settle more rapidly than fine particles such as silt and clay. Sedimentation occurs after erosion has taken place. Effective construction site management first minimizes excessive soil erosion by keeping the soil stabilized as long as possible, and second directs runoff from remaining disturbed areas to locations where sediments are removed prior to discharge to water courses.

**Sediment Yield:** The quantity of sediment arriving at a specific location.

**Sediments:** Soil, sand, and minerals washed from land into water, usually after rain. They pile up in reservoirs, rivers and harbors, destroying fish and wildlife habitat, and clouding the water so that sunlight can- not reach aquatic plants. Careless farming, mining, and building activities will expose sediment materials, allowing them to wash off the land after rainfall.

**Seepage:** Percolation of water through the soil from unlined canals, ditches, laterals, watercourses, or water storage facilities.

**Settleable Solids:** Those suspended solids in stormwater that separate by settling when the stormwater is held in a quiescent condition for a specified time.

**Sheetflow:** Runoff which flows over the ground surface as a thin, even layer, not concentrated in a channel.

**Short Circuiting:** The passage of runoff through a BMP in less than the design treatment time.

**Significant Materials:** Includes, but not limited to: raw materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

**Significant Quantities:** Is the volume, concentrations, or mass of a pollutant in storm water discharge that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and cause or contribute to a violation of any applicable water quality standards for the receiving water.

**Significant Violations:** Violations by point source dischargers of sufficient magnitude or duration to be a regulatory priority.

**Silt:** Sedimentary materials composed of fine or intermediate-sized mineral particles.

**Siltation:** The process by which a river, lake, or other water body becomes clogged with sediment. Silt can clog gravel beds and prevent successful salmon spawning.

**Single Operational Upset:** an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean water Act effluent discharge pollutant parameter. Single operational upset does not include; noncompliance to the extent caused by improperly designed or inadequate treatment facilities.

**Sinkhole:** A hollow depression in the land surface in which drainage collects; associated with underground caves and passages that facilitate the movement of liquids

**Site:** An area or place within the jurisdiction of the EPA and/or a state.

**Site Inspection:** The collection of information from a Superfund site to determine the extent and severity of hazards posed by the site. It follows and is more extensive than a preliminary assessment. The purpose is to gather information necessary to score the site, using the Hazard Ranking System, and to determine if it presents an immediate threat requiring prompt removal.

**Skimming:** Using a machine to remove oil or scum from the surface of the water.

**Slurry Wall:** Barriers used to contain the flow of contaminated groundwater or subsurface liquids.

**Soil and Water Conservation Practices:** Control measures consisting of managerial, vegetative, and structural practices to reduce the loss of soil and water.

**Soil Conditioner:** An organic material like humus or compost that helps soil absorb water, build a bacterial community, and take up mineral nutrients.

**Soil Erodibility:** An indicator of a soil's susceptibility to raindrop impact, runoff, and other erosive processes.

**Soil Group:** A classification of soils by the Soil Conservation Service into four runoff potential groups. The groups range from A soils, which are very permeable and produce little or no runoff, to D soils, which are not very permeable and produce much more runoff.

**Soil Permeability:** The ease with which gases, liquids, or plant roots penetrate or pass through a layer of soil.

**Soil Stabilization:** The use of measures such as rock lining, vegetation or other engineering structures to prevent the movement of soil when loads are applied to the soil.

**Solubility:** The amount of mass of a compound that will dissolve in a unit volume of solution.

**Solution(s):** Means the strategic plan, procedures and product/materials used to successfully achieve the desired results for a given project.

**Soot:** Carbon dust formed by incomplete combustion.

**Sorption:** The action of soaking up or attracting substances; process used in many pollution control systems.

**Source Control BMPs:** Operational practices that prevent pollution by reducing potential pollutants at the source.

**Source Reduction:** The technique of stopping and/or reducing pollutants at their point of generation so that they do not come into contact with storm water.

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

**Spillway:** A passage such as a paved apron or channel for surplus water over or around a dam or similar obstruction. An open or closed channel, or both, used to convey excess water from a reservoir. It may contain gates, either manually or automatically controlled, to regulate the discharge of excess water.

**Spoil:** Dirt or rock removed from its original location--destroying the composition of the soil

in the process--as in strip-mining, dredging, or construction.

**Spring Melt/Thaw:** The process whereby warm temperatures melt winter snow and ice. Because various forms of acid deposition may have been stored in the frozen water, the melt can result in abnormally large amounts of acidity entering streams and rivers, sometimes causing fish kills.

**Stagnation:** Lack of motion in a mass of air or water that holds pollutants in place.

**Standards:** Norms that impose limits on the amount of pollutants or emissions produced. EPA establishes minimum standards, but states are allowed to be stricter.

**State (CA.) Water Resources Control Board (SWRCB):** Is responsible for protecting the quality of water in California and allocating water rights.

**State Action Level (SAL):** The maximum concentration of a contaminant in drinking water that DTSC considers to be safe to drink. SALs are usually expressed in parts per billion (PPB) or parts per million (ppm).

**State Implementation Plans (SIP):** EPA approved state plans for the establishment, regulation, and enforcement of air pollution standards.

**Steep Slope:** Slopes of 40 percent gradient or steeper.

**Storm Drains:** Above and below ground structures for transporting storm water to streams or outfalls for flood control purposes. Source: Bay Area Preamble to the California Storm Water BMP Handbook

**Storm Frequency:** The time interval between major storms of predetermined intensity and volumes of runoff for which storm sewers and other structures are designed and constructed to handle hydraulically without surcharging and backflooding, e.g., a 2-year, 10-year or 100-year storm.

**Storm Water:** means storm water runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

**Storm Water Pollution Prevention Plan (SWPPP):** is a report that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the storm water, and a description of measures or practices to control these pollutants. The SWPPP must be prepared and implemented before construction begins.

**Stormwater Drainage System:** Constructed and natural features which function together as a system to collect, convey, channel, hold,

inhibit, retain, detain, infiltrate, divert, treat or filter stormwater.

**Stormwater Facility:** A constructed component of a stormwater drainage system, designed or constructed to perform a particular function, or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catchbasins, oil/water separators, sediment basins and modular pavement.

**Stormwater Quality:** A term used to describe the chemical, physical, and biological characteristics of stormwater.

**Stormwater Quantity:** A term used to describe the volume characteristics of stormwater.

**Stormwater Site Plan:** A plan which shows the measures that will be taken during and after project construction to provide erosion and sediment control and stormwater control.

**Stream Gaging:** The quantitative determination of stream flow using gages, current meters, weirs, or other measuring instruments at selected locations. See gaging station.

**Streams:** Those areas where surface waters flow sufficiently to produce a defined channel or bed. A defined channel or bed is indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. The channel or bed need not contain water year-round.

**Stressors:** Physical, chemical, or biological entities that can induce adverse effects on ecosystems or human health.

**Strip-Cropping:** Growing crops in a systematic arrangement of strips or bands that serve as barriers to wind and water erosion.

**Subbasin:** A drainage area which drains to a water course or waterbody named and noted on common maps and which is contained within a basin.

**Subdivision Map Act:** Many privately funded construction projects within California are regulated under the authority of the Subdivision Map Act, which grants the municipality authority to develop subdivision ordinances. These ordinances may include standards for proposed projects. Grading standards and erosion protection standards, detention/retention design standards, dust control regulations are also enacted through subdivision regulations and ordinances. In addition, as part of the subdivision processes, the subdivisions must comply with the general plan, CEQA, zoning ordinances and specific plan policies and/or regulations. Such compliance may include storm pollution control measures. Subdivision plan review is accomplished in a two-stage process: a tentative map review/approval process presents the final opportunity for the municipality to require conditions of approval for the project, such as the selection of post-construction BMPs. After the tentative map approval, the project

proponents must complete the second stage, submitting a final map showing that the conditions established by the tentative map are satisfied. Improvement plans for the construction of the project facilities (e.g., post-construction BMPs) are processed concurrently with the preparation of the final map. A plan for controlling erosion and sedimentation during construction should also be prepared at the time improvement and grading plans are prepared. Upon acceptance, the local agency may approve the final maps, and improvement plans based on conformance with previous established standards, ordinances, policies, and conditions of approval. Source: Bay Area Preamble to the California Storm Water BMP Handbook

**Subgrade:** A layer of stone or soil used as the underlying base for a BMP.

**Subsidence:** Sinking or settling of soils so that the surface is disrupted, creating a shallow hole or depression.

**Suggested No Adverse Response Level (SNARL):** drinking water standards established by the U.S. EPA, but are not enforceable by law.

**Superfund:** The program operated under the legislative authority of CERCLA and SARA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions.

**Surface Runoff:** Precipitation, snow melt, or irrigation water in excess of what can infiltrate the soil surface and be stored in small surface depressions; a major transporter of non-point source pollutants in rivers, streams, and lakes.

**Surface Water:** All water naturally open to the atmosphere (rivers, lakes, reservoirs, ponds, streams, impoundments, seas, estuaries, etc.)

**Surveillance System:** A series of monitoring devices designed to check on environmental conditions.

**Susceptibility Analysis:** An analysis to determine whether a Public Water Supply is subject to significant pollution from known potential sources.

**Suspended Loads:** Specific sediment particles maintained in the water column by turbulence and carried with the flow of water.

**Suspended Solids:** Small particles of solid pollutants that float on the surface of, or are suspended in, sewage or other liquids. They resist removal by conventional means.

**Swale:** A shallow drainage conveyance with relatively gentle sideslopes, generally with flow depths less than one foot.

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

**SWPPP Training:** Shall include procedures to ensure that all inspections required in Section B.4 of the Monitoring Program and Reporting Requirements of the general permit, and maintenance and repair required are done by trained personnel.

**Synergism:** An interaction of two or more chemicals that results in an effect greater than the sum of their separate effects.

## T

**Technology-Based Limitations:** Industry-specific effluent limitations based on best available preventive technology applied to a discharge when it will not cause a violation of water quality standards at low stream flows. Usually applied to discharges into large rivers.

**Terracing:** Dikes built along the contour of sloping farm land that hold runoff and sediment to reduce erosion.

**TESC:** Temporary Erosion and Sediment Control (Plan).

**Tidal Marsh:** Low, flat marshlands traversed by channels and tidal hollows, subject to tidal inundation; normally, the only vegetation present is salt-tolerant bushes and grasses. (See: wetlands.)

**Tillage:** Plowing, seedbed preparation, and cultivation practices.

**Time of Concentration:** The time period necessary for surface runoff to reach the outlet of a subbasin from the hydraulically most remote point in the tributary drainage area.

**Time-weighted Average (TWA):** In air sampling, the average air concentration of contaminants during a given period.

**Toe of Slope:** A point or line of slope in an excavation or cut where the lower surface changes to horizontal or meets the existing ground slope; or a point or line on the upper surface of a slope where it changes to horizontal or meets the original surface.

**Topography:** The physical features of a surface area including relative elevations and the position of natural and man-made (anthropogenic) features.

**Total Maximum Daily Load (TMDL):** A TMDL is a measure of the maximum level of a pollutant in a waterway which would allow the waterway to sustain applicable water quality standards,

considering seasonal variations and a determinable margin of safety.

**Total Solids:** The solids in water, sewage, or other liquids, including the dissolved, filterable, and nonfilterable solids. The residue left when the moisture is evaporated and the remainder is dried at a specified temperature, usually 130°C.

**Total Suspended Solids (TSS):** A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for total suspended non-filterable solids. (See: suspended solids.) Total Suspended Particles (TSP): A method of monitoring airborne particulate matter by total weight.

**Transboundary Pollutants:** Air pollution that travels from one jurisdiction to another, often crossing state or international boundaries. Also applies to water pollution. **Travel Time:** The estimated time for surface water to flow between two points of interest.

**Treatment Control BMPs:** Treatment methods to remove pollutants from storm water.

**Trickle Irrigation:** Method in which water drips to the soil from perforated tubes or emitters.

**Turbidimeter:** A device that measures the cloudiness of suspended solids in a liquid; a measure of the quantity of suspended solids.

**Turbidity:** Describes the ability of light to pass through water. The cloudy appearance of water caused by suspended and colloidal matter (particles).

## U

**Underdrain:** Plastic pipes with holes drilled through the top, installed on the bottom of an infiltration BMP which are used to collect and remove excess runoff.

**Unstable Slopes:** Those sloping areas of land which have in the past exhibited, are currently exhibiting, or will likely in the future exhibit, mass movement of earth.

**Urbanized Area:** Areas designated and identified by the U.S. Bureau of Census according to the following criteria: an incorporated place and densely settled surrounding area that together have a maximum population of 50,000.

**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.

## V

**Vector Waste:** The waste material that is found in the bottom of a catch basin.

**Valued Environmental Attributes/Components:** Those aspects (components, processes, functions) of ecosystems, human health, and environmental welfare considered to be important and potentially at risk from human activity or natural hazards. Similar to the term AValued environmental components used in environmental impact assessment.

**Values:** Wetland processes or attributes that are valuable or beneficial to society (also see Functions). Wetland values include support of commercial and sport fish and wildlife species, protection of life and property from flooding, recreation, education, and aesthetic enhancement of human communities.

**Variance:** Government permission for a delay or exception in the application of a given law, ordinance, or regulation.

**Vegetative Controls:** Non-point source pollution control practices that involve vegetative cover to reduce erosion and minimize loss of pollutants. **Vehicle Miles Traveled (VMT):** A measure of the extent of motor vehicle operation; the total number of vehicle miles traveled within a specific geographic area over a given period of time.

**Vegetative Filter Strip:** A facility that is designed to provide stormwater quality treatment of conventional pollutants but not nutrients through the process of biofiltration.

**Visible Dust Emissions (VDE):** Is visible dust of such opacity as to obscure an observers view to a degree equal to or greater than an opacity of 40%, for a period or periods aggregating more than three (3) minutes in any one (1) hour, except as set forth in Rule 8030 section 5.1.2

## W

**Waste:** 1. Unwanted materials left over from a manufacturing process. 2. Refuse from places of human or animal habitation.

**Waste Load Allocation:** 1. The maximum load of pollutants each discharger of waste is allowed to release into a particular waterway. Discharge limits are usually required for each specific water quality criterion being, or expected to be, violated. 2. The portion of a streams total assimilative capacity assigned to an individual discharge.

**Waste Minimization:** Measures or techniques that reduce the amount of wastes generated during industrial production processes; term is also applied to recycling and other efforts to reduce the amount of waste going into the waste stream.

**Water Quality BMP:** A BMP specifically designed for pollutant removal.

**Water Quality Criteria:** Levels of water quality expected to render a body of water suitable for its designated use. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes.

**Water Quality Design Storm:** The 6-month recurrence interval 24-hour duration storm event.

**Water Quality Standards:** State-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of the water body 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. Usually applied to discharges into small streams.

**Water Quality-Based Permit:** A permit with an effluent limit more stringent than one based on technology performance. Such limits may be necessary to protect the designated use of receiving waters (e.g., recreation, irrigation, industry or water supply).

**Water Quantity BMP:** A BMP specifically designed to reduce the peak rate of stormwater runoff.

**Water Solubility:** The maximum possible concentration of a chemical compound dissolved in water. If a substance is water-soluble it can very readily disperse through the environment.

**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.

**Watershed:** The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point.

**Water Table:** In a shallow aquifer, a water table is the depth at which free water is first encountered in a monitoring well.

**Water Mining:** activities related to production, diversion, storage or conveyance of water, including irrigation canals, but

excluding irrigation ditches within agricultural fields.

**Wet Pond:** A facility that treats stormwater for water quality by utilizing a permanent pool of water to remove conventional pollutants from runoff through sedimentation, biological uptake, and plant filtration.

**Wet Vaults/Tanks:** Underground storage facilities that treat stormwater for water quality through the use of a permanent pool of water that acts as a settling basin.

**Wetland:** an area that is regularly saturated by surface or ground water and, under normal circumstances, capable of supporting vegetation typically adapted for life in saturated soil conditions. Wetlands are critical to sustaining many species of fish and wildlife. Wetlands generally include swamps, marshes, and bogs. Wetlands may be either coastal or inland.

## Y

**Yard Waste:** The part of solid waste composed of grass clippings, leaves, twigs, branches, and other garden refuse.

**Yield:** The quantity of water (expressed as a rate of flow or total quantity per year) that can be collected for a given use from surface or groundwater sources.