

# **CHAPTER 8**

---

## **ACRONYMS, ABBREVIATIONS AND GLOSSARY**

### **8.1 ACRONYMS AND ABBREVIATIONS**

af – acre-foot (feet)

afy – acre-feet per year

AMBAG – Association of Monterey Bay Area Governments

APCD – Air Pollution Control District

AQMP – Air Quality Management Plan

ARM – Archaeological Resources Management

BA – Biological Assessment

bgs – below ground surface

BMP – Basin Management Plan

BMPs – best management practices

BOD – biological oxygen demand

CAA – (California) Clean Air Act

Cal-OSHA – California Occupational Safety and Health Administration

Caltrans – California Department of Transportation

CARB – California Air Resources Board

CCR – California Code of Regulations

CCRWQCB – (Central Coast) Regional Water Quality Control Board

CDFG – California Department of Fish and Game

CDMG – California Division of Mines and Geology

CDS – Coastal Distribution System

CEQA – California Environmental Quality Act

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

CESA – California Endangered Species Act

CFR – Code of Federal Regulations

cfs – cubic feet per second

CHP – California Highway Patrol

CIMIS – California Irrigation Management Information Service  
CMA – Congestion Management Agency  
CMP – Congestion Management Program  
CNDDDB – California Natural Diversity Data Base  
CNEL – Community Noise Equivalent Level  
CNPS – California Native Plant Society  
CO – carbon monoxide  
Corps – U.S. Army Corps of Engineers  
CPOU – Consolidated Place of Use  
CPUC – California Public Utilities Commission  
CVP – Central Valley Project  
CVPIA – Central Valley Project Improvement Act  
CWA – Clean Water Act  
CWC – California Water Commission  
CY – cubic yards  
dB – decibels  
dBA – A-weighted decibels.  
DEIR – Draft Environmental Impact Report  
DHS – (California) Department of Health Services  
DMS – Data Management System  
DOF – (California) Department of Finance  
DSOD – Division of Safety of Dams  
DTSC – Department of Toxic Substances Control  
DWR – (California) Department of Water Resources  
EA/FONSI – Environmental Assessment and Finding of No Significant Impact  
EC – electrical conductivity  
EIR – Environmental Impact Report  
EIS – Environmental Impact Statement  
EPA – U.S. Environmental Protection Agency  
ERNS – Emergency Response Notification System  
ESA – Environmental Science Associates  
ESU – Evolutionarily Significant Unit  
FEMA – Federal Emergency Management Agency  
FESA – Federal Endangered Species Act

FIRM – Flood Insurance Rate Maps  
ft – foot (feet)  
FWS – U.S. Fish and Wildlife Service  
GIS – geographic information system  
gpm – gallons per minute  
GPS – global positioning system  
H:V – horizontal-to-vertical  
HC – hydrocarbons  
HMBP – Hazardous Materials Business Plan  
HRG – Habitat Restoration Group  
ICBO – International Conference of Building Officials  
ICDS – Integrated Coastal Distribution System  
IDS – Inland Distribution System  
ITA – Indian Trust Asset  
LCP – Local Coastal Program  
Ldn – Noise level descriptor  
Leq – energy equivalent noise level (or “average” noise level)  
lf – linear feet  
LOA – Local-Only Alternative  
LOS – level-of-service  
LUP – Land Use Plan  
m – Richter magnitude  
µmhos/cm – micromhos per centimeter  
MBUAPCD – Monterey Bay Unified Air Pollution Control District  
MCFC & WCD – Monterey County Flood Control and Water Conservation District  
MCL – maximum containment level  
MCWRA – Monterey County Water Resources Agency  
MG – million gallons  
mg/L – milligram per liter  
mgd – million gallons per day  
mg-N/L – milligrams nitrogen per liter  
mL – milliliters  
MOA – Memorandum of Agreement  
mph – miles per hour

MPN – most probable number  
MPWMD – Monterey Peninsula Water Management District  
msl – mean sea level  
MSWD – Mercy Springs Water District  
MVMT – million vehicle miles traveled  
Mw – moment magnitude  
NA – not applicable  
NAAQS – national ambient air quality standards  
NaOCl – sodium hypochlorite  
NCCAB – North Central Coast Air Basin  
NEPA – National Environmental Policy Act  
NH<sub>4</sub>-N – Ammonia as Nitrogen  
NHPA -- National Historic Preservation Act  
NMFS – National Marine Fisheries Service  
NO<sub>2</sub> – nitrogen dioxide  
NO<sub>3</sub> – nitrate  
NO<sub>3</sub>-N – nitrate as nitrogen  
NOAA – National Oceanic and Atmospheric Administration  
NOP – Notice of Preparation  
NOx – nitrogen oxides  
NPDES – National Pollutant Discharge Elimination System  
NPL – National Priority List  
NRCS – Natural Resources Conservation Service  
NRHP – National Register of Historic Places  
NTU – Nephelometric Turbidity Units  
O & M – operation and maintenance  
O<sub>3</sub> – ozone  
OSHA – (California) Occupational Safety and Health Administration  
PA – Programmatic Agreement  
PCBs – polychlorinated biphenyls  
PCSD – Pajaro Community Services District  
PEIR – Programmatic Environmental Impact Report  
PEIS – Programmatic Environmental Impact Statement  
PG&E – Pacific Gas and Electric Company

PM<sub>10</sub> – particulate matter (10 microns or less in diameter)  
ppb – parts per billion  
ppm – parts per million  
psi – pounds per square inch  
PVI<sub>GSM</sub> – Pajaro Valley Integrated Groundwater and Surface Water Model  
PVUSD – Pajaro Valley Unified School District  
PVWMA – Pajaro Valley Water Management Agency  
R/W – right-of-way  
RCRA – Resource Conservation and Recovery Act  
RMPP – Risk Management and Prevention Plan  
RO – Reverse Osmosis  
ROG – reactive organic gases  
RWC – Recycled Water Contribution  
RWF – Recycled Water Facility  
RWQCB – Regional Water Quality Control Board  
SAA – Streambed Alteration Agreement  
SAAQS – state ambient air quality standards  
SAR – Sodium Adsorption Ratio  
SBCWD – San Benito County Water District  
SCAQMD – South Coast Air Quality Management District  
SCCEPD – Santa Cruz County Environmental Planning Department  
SCCFC & WCD – Santa Cruz County Flood Control and Water Conservation District  
SCS – U.S. Soil Conservation Service  
SCVWD – Santa Clara Valley Water District  
SCWD – Soquel Creek Water District  
SDWA – Safe Drinking Water Act  
SIP – State Implementation Plan  
SO<sub>2</sub> – sulfur dioxide  
SOI – Sphere of Influence  
SPRR – Southern Pacific Railroad  
SR – State Route  
SWITRS – Statewide Integrated Traffic Reporting System  
SWPPP – Storm Water Pollution Prevention Plan  
SWRCB – (California) State Water Resources Control Board

TAC – Technical Advisory Committee  
TCM – Transportation Control Measures  
TDS – total dissolved solids  
TMDL – total maximum daily loads  
TRO – Trip Reduction Ordinance  
TSCA – Toxic Substances Control Act  
TSS – total suspended solids  
TU – turbidity units  
TUC R/W – Transportation and Utility Corridor right-of-way  
UBC – Uniform Building Code  
UPRR – Union Pacific Railroad  
USBR – United States Bureau of Reclamation  
USC – United States Code  
USDA – U.S. Department of Agriculture  
USDI – U.S. Department of the Interior  
USFWS – U.S. Fish and Wildlife Service  
USGS – U.S. Geological Survey  
USSCS – U.S. Soil and Conservation Service  
UTM – Universal Transverse Mercator  
uv - ultraviolet  
Valley – Pajaro Valley  
vpd – vehicles per day  
WC-2000 – Water Conservation Plan 2000  
WDR – Waste Discharge Requirements  
WHR – Wildlife Habitat Relationships  
WWD – Watsonville Water Department  
WWTF – Watsonville Wastewater Treatment Facility  
yr – year

## 8.2 DEFINITION OF TERMS

**Active fault (traces)** – defined by the State of California as an earthquake fault that has had surface displacement within Holocene time (approximately the last 10,000 years).

**Alluvium** – the general term for clay, silt, and gravel or similar unconsolidated detrital material deposited during comparatively recent geologic time by a stream or other body of running water.

**Aquifer** – a layer of underground sand, gravel, or spongy rock in which water collects.

**Aquitard** – A body of impermeable or less permeable material that retards but does not prevent the flow of water to or from an adjacent aquifer.

**Basin sustainable yield** – the level of pumping that the groundwater basin can sustain without inducing seawater intrusion and/or lowering groundwater elevations.

**Blend water** – water to blend with recycled water in order to lower the total dissolved solids (TDS) level to 500 milligrams per liter, making it suitable for use on crops in the Pajaro Valley.

**Clearwell** – a reservoir used to hold treated water prior to its release into the distribution system.

**Coagulation** – chemical treatment process within wastewater treatment process that destabilizes small particles. Precedes flocculation.

**Corrosivity** – *Corrosivity* pertains to potential soil-induced electrochemical or chemical action that could dissolve or weaken uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and the electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on sulfate and sodium content, texture, moisture content and acidity of the soil.

**Costanoan** – From the Spanish “costenos,” or coast dwellers; native American inhabitants of San Francisco and Monterey Bays (same as *Ohlone*).

**Criteria air pollutant** – Pollutants that are pervasive in urban environments and for which health-based state or national ambient air quality standards have been established.

**Deciduous crops** – crops which shed leaves at the end of their growing season.

**Earthslip** – the relative displacement of formerly adjacent points on opposite sides of a fault, measured in the fault surface.

**Economic multipliers** – Economic multipliers quantitatively project the expected economic effects resulting from a specific change to the economy, such as an increase in local spending. Multipliers typically use Census survey and baseline data to represent the underlying structure of the area's economy and the economic inter-relationships between: (1) spending and employment, and (2) different sectors of the economy.

**Erosion** – the wearing away of the land surface by wind or water. Erosion occurs naturally from weather or runoff but can be intensified by land-clearing practices related to farming, residential or industrial development, road building, or timber cutting.

**Ethnography** – study of groups and/or cultures over a period of time.

**Evapotranspiration** – The loss of water from a given area during a specified time by evaporation from the soil surface and by transpiration from plants.

**Evolutionarily Significant Unit** – a set of populations that is morphologically and genetically distinct from other similar populations or a set of populations with a distinct evolutionary history.

**Expansive** – a clay soil that expands according to the amount of water it absorbs.

**Flocculation** – process in wastewater treatment where small particles join together to form larger, heavier particles.

**Floodplain** – land areas adjacent to rivers and streams that are subject to recurring inundation.

**Flow equalization** – the damping of flow rate variations so that a constant or nearly constant flow rate is achieved.

**Ground oscillation** – Ground Oscillation occurs on gentle slopes when liquefaction occurs at depth and no lateral displacement takes place. Soil units that are not liquefied may pull apart from each other and oscillate on the liquefied zone. Ground fissures can accompany ground oscillation and sand boils and damage underground structures and utilities.

**Groundshaking** – Ground shaking refers to the surface motion experienced during an earthquake. Ground shaking can be described in terms of peak acceleration, peak velocity and displacement of the ground.

**Groundwater overdraft** – occurs when water pumped from the ground exceeds the amount that the groundwater basin can safely provide, which causes groundwater levels to drop. If groundwater levels in a coastal aquifer fall below sea level, seawater intrusion will occur.

**Groundwater recharge** – process involved in the absorption and addition of surface water to the zone of saturation or aquifer.

**Groundwater table** – the surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere.

**Hazardous materials** – substances with certain physical and chemical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed.

**Hazardous waste** – any waste that may (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, or (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

**Hydrostatic barrier** – a pressure ridge formed by fresh water that is under a higher hydraulic head. This pressure ridge forms a stronger seaward gradient and impedes the landward advance of the salt water wedge.



**Inflow** – With reference to water and wastewater conveyance lines, inflow is surface water, such as rainfall runoff, which enters a wastewater collection system. Inflow results in increased wastewater flow levels.

**Land subsidence** – the sudden sinking or gradual downward settling of the Earth’s surface with little or no horizontal motion.

**Lateral spread** – a horizontal displacement of surficial blocks of sediments resulting from liquefaction in a subsurface layer.

**Liquefaction** – soil transformation from a solid state to a liquefied state as a consequence of increased pore pressure and reduced effective stress.

**Longshore drift** – material (such as shingle, gravel, sand, and shell fragments) that is moved along the shore by an ocean current caused by the approach of waves to a coast at an angle.

**Modified Mercalli Intensity Scale** – earthquake intensity scale currently used in the United States. This scale, composed of 12 increasing levels of intensity that range from imperceptible shaking to catastrophic destruction, does not have a mathematical basis; instead it is an arbitrary ranking based on observed effects.

**Moment Magnitude** – measure of total energy released by an earthquake. Moment Magnitude is based on the area of the fault that ruptured in the quake, and is calculated in part by multiplying the area of the fault's rupture surface by the distance the earth moves along the fault.

**Mudflow** – mass of fluid composed of a mixture of mud, rock fragments, debris and water, moving downhill by gravity.

**Nitrates** – common groundwater contaminants in many agricultural areas.

**Nonpoint-source pollutant** – Any pollutants that enter the environment from general non-contained locations. Examples of non-point sources are roadway, parking lots, and landscaped areas. Pollutants from these locations can include petro-chemicals, heavy metals, and fertilizers.

**Ohlone** – native American inhabitants of San Francisco and Monterey Bays (same as *Costanoan*).

**Peak ground acceleration** – The maximum amount of ground acceleration experienced during an earthquake. Expressed as a fraction of g (gravity) which is equal to 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

**Percolate** – to cause a liquid to pass through a permeable substance.

**Phytophthora** – root rot caused by several related species of soil-borne fungi belonging to the genus *phytophthora*.

**Point-source pollutant**– Pollution that can be traced to a single point source, such as a pipe or culvert.

**Richter magnitude** – A logarithmic scale ranging from one to ten, used to express the total energy of an earthquake. An increase of one unit represents a 60-fold increase in energy.

**Riparian** – Vegetated ecosystems along a waterbody through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent waterbody. These systems encompass wetlands, uplands, or some combination of these two land forms; they do not in all cases have all of the characteristics necessary for them to be classified as wetlands.

**Seawater intrusion** – occurs when groundwater levels in a coastal aquifer fall below sea level, which in turn causes seawater to seep downhill to the inland areas of lowered groundwater. The intrusion of seawater makes the groundwater unusable for agriculture.

**Sedimentation** – Process by which material suspended in water is deposited in a body of water.

**Shoal** – a submerged ridge, bank, or bar consisting of, or covered by, unconsolidated sediments (mud, sand, gravel) which is at or near to the water surface.

**Shrink-swell capability** – Expansive soils possess a "shrink-swell" characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) occurring in fine-grained clay sediments caused by wetting and drying.

**Sinkhole** – A hollow place or depression in which drainage collects

**Smolt** – Stage in the life-cycle of a salmonid in which juveniles acquire a silvery color and migrate from freshwater to the ocean.

**Special-status resources** – animal species, plant species, or natural communities that have some rarity, endangerment, or protection status conferred by a state, federal, or statewide conservation organization

**Static slope instability** – Slope instability caused by static forces as opposed to seismically induced forces. Examples of static forces are gravity and increased bearing pressure, rather than seismic.

**Strike-slip fault** – a fault on which the movement is parallel to the fault's strike.

**Surface fault rupture** – a break in a rock on the Earth's surface due to mechanical failure or stress, which may or may not cause to displacement.

**Sustainable groundwater yield** – the maximum amount of groundwater that can be extracted from the aquifer system without adverse effect.

**Tectonic creek** – is the slow, apparently continuous movement on a fault.

**Tertiary treatment** – in the wastewater treatment process, post-secondary treatment of water designed to improve the quality of the water to the point where it can be put to a particular beneficial use.

**Tributary** – A stream or river that flows into a larger river or lake.

**Vernal pools** – surface depressions with a slowly permeable substratum that holds water after winter and spring rains within the annual grassland habitat.

**Water-bearing strata** – Geologic material, typically comprised of coarse-grained sediments that is capable of transmitting and storing groundwater.

**Water-bearing unit** – Subdivision of a particular geologic formation that is comprised of strata capable of transmitting and storing groundwater.

**Waters of the United States** – Tidal waters, all interstate waters including wetlands, and all other waters which could involve interstate or foreign commerce

**Watershed** – the land area that drains into a receiving waterbody.

**Wetlands** – those areas that are inundated or saturated by surface water or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions; wetlands generally include swamps, marshes, bogs, and similar areas.