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## Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADFW	average dry weather flow
ADI	Area(s) of Direct Impact
af	acre-feet
AFY	acre-feet per year
ALS	advanced life support
amsl	above mean sea level
APE	Area(s) of Potential Effect
ASA	Area(s) of Sensitivity Assessment
AST	aboveground storage tank
Basin Plan	Water Quality Control Plan for the North Coast Region
BAAQMD	Bay Area Air Quality Management District
BEP	Business Emergency Plan
bgs	below ground surface
BLS	Basic Life Support
BMPs	Best Management Practices
BOD	biochemical oxygen demand
CA FID	California Facility Inventory Database
CA WDS	California Waste Discharge System
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CalARP	California Accidental Release Prevention Program

California Register	California Register of Historical Resources
CalOSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CC	California Coast
CC Chinook	California Coastal Chinook salmon
CCC coho	Central California Coast coho salmon
CCC steelhead	Central California Coast steelhead
Coastal Commission	California Coastal Commission
CCR	California Code of Regulations
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CDWR	California Department of Water Resources
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geological Survey

CH <sub>4</sub>	methane
CHMIRS	California Hazardous Material Incident Report System
CHSC	California Health and Safety Code
CIP	Capital Improvements Program
CMP	Congestion Management Program
CNDDDB	California Natural Diversity Database
CNRA	California Natural Resources Agency
CNEL t Level	Community Noise Equivalent
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2e</sub>	CO <sub>2</sub> equivalent
CSC	California Species of Special Concern
CTR	California Toxics Rule
CTS	California tiger salamander
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council
CWA	Clean Water Act
cy	cubic yards
CZMA	Coastal Zone Management Act
dB	decibel
dBA	A-weighted decibels
dbh	diameter at breast height
DEIR	Draft Environmental Impact Report
DO	dissolved oxygen
DTSC	California Department of Toxic Substances Control

DWR	California Department of Water Resources
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMI	Emissions Inventory Data
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
ERNS	Emergency Response Notification System
ERP	Emergency Response Plan
FEMA	United States Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Safety Zone
FINDS	Facility Index System
FMMP	Farmland Mapping and Monitoring Program
FMA	Flood Mitigation Assistance
FMP	Fisheries Management Plan
FPD	Fire Protection Department
FPP	Farmland Protection Program
FPPA	Farmland Protection Policy Act
FRHZ	Fault Rupture Hazard Zone
ft	feet
FTA	Federal Transit Administration
g	gravity
GHG	greenhouse gases
HazMat	hazardous material

HCP	Habitat Conservation Plan
HHW	higher high water
HIST UST	Historic Underground Storage Tank
HMBP	Hazardous Materials Business Plan
Hz	hertz
HWCL	Hazardous Waste Control Law
HWTS	Hazardous Waste Tracking System
IBC	International Building Code
ICBO	International Conference of Building Officials
ICC	International Code Council
IHA	Incidental Harassment Authorization
IHA	International Hydropower Association
IPCC	Intergovernmental Panel on Climate Change
IRWMP	Integrated Regional Water Management Plan
km	kilometers
KOP	Key Observation Point
kV	kilovolt
kWh	kilowatt hours
LAFCO	Local Agency Formation Commission
LCP	Local Coastal Plan
Ldn	day-night average noise level
Leq	equivalent sound level
Leq	energy-equivalent noise level
LESA	Land Evaluation and Site Assessment
lf	linear feet
Lmax	instantaneous maximum noise level

Lmax	maximum noise level
LOS	Level of Service
LUST	leaking underground storage tank
M	Richter magnitude
M&I	municipal and industrial
MBTA	Migratory Bird Treaty Act
mg	milligrams
mg/L	milligrams per liter
µg/m <sup>3</sup>	micrograms per cubic meter
µS/cm	microsiemens per centimeter
mgd	million gallons per day
MHHW	mean higher high water
MLLW	mean lower low water
MLPA	Marine Life Protection Act
MMPA	Marine Mammal Protection Act
MMI	Modified Mercalli Intensity
MP	milepost
MPAs	Marine Protected Areas
mph	miles per hour
MPN	most probable number
MRZ	Mineral Resources Zone
MSDS	Material Safety Data Sheet
MSA	Magnuson-Stevens Fishery Conservation and Management Act
msl	mean sea level
MW	megawatt

Mendocino District	Mendocino County Russian River Flood Control and Water Conservation Improvement District
Mw	Moment magnitude
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NBBR	Nesting Breeding Birds and Raptors
NCRWQCB	North Coast Regional Water Quality Control Board
NGVD	National Geodetic Vertical Datum of 1929
NHPA	National Historic Preservation Act
NIMS	National Incident Management System
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	nitrogen dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
NO	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NPLt	National Priority List
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWIC	Northwest Information Center of the California Historical Resources Information System
O <sub>3</sub>	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OES	California Office of Emergency Services

OHP	California Office of Historic Preservation
OHW	ordinary high water
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Act
PADS	PCB Activity Database System
PCBs	Polychlorinated Biphenyls
PFMC	Pacific Fishery Management Council
PG&E	Pacific Gas & Electric Company
PGA	peak ground acceleration
pH	power of hydrogen
PM-10	Particulate matter < 10 microns
PM-2.5	Particulate matter < 2.5 microns
PM	particulate matter
POD	Pelagic Organism Decline
ppm	parts per million
ppt	parts per thousand
PPV	peak particle velocity
PRC	Public Resources Code
PRMD	County of Sonoma Permit and Resource Management Department
PSHA	probabilistic seismic hazard assessment
PVID	Potter Valley Irrigation District
PVP	Potter Valley Project
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RECs	Recognized Environmental Conditions
RH	Regional Haze Plan

RMP	Risk Management Plan
RMS	root mean square
RPA	Reasonable and Prudent Alternatives
RPM	Reasonable and Prudent Measures
ROG	reactive organic gases
RRCSCBP	Russian River Coho Salmon Captive Broodstock Program
RRCSD	Russian River County Sanitation District
RRCWD	Russian River County Water District
RRU	Russian River Utility
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAPOSP	Sonoma County Agriculture Preservation and Open Space District
SCTA	Sonoma County Transportation Agency
SCWA	Sonoma County Water Agency
SCWMA	Sonoma County Waste Management Agency
SDC	seismic design category
SF <sub>6</sub>	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigation, and Cleanup
SMARA	Surface Mining and Reclamation Act
SMP	Stream Maintenance Program
SMR	State Marine Reserve
SO <sub>2</sub>	sulphur dioxide
SOI	sphere of influence

SOP	Standard Operating Procedures
SR	State Route
SRA	State Responsibility Areas
SSWD	Sweetwater Springs Water District
SVFRA	Sonoma Valley Fire and Rescue Authority
SWEEPS	Statewide Environmental Evaluation and Planning System
SWF/LF	Solid Waste Facilities/Landfill Sites
SWMP	Stormwater Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
SWRCY	Recycling Facilities in California Database
T&E	threatened and endangered
TAC	toxic air contaminants
TDS	total dissolved solids
TMDL	Total Maximum Daily Load
TSCA	Toxic Substances Control Act
UBC	Uniform Building Code
UC	University of California
UGB	Urban Growth Boundary
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USDHS	United States Department of Health Services
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

UST	underground storage tank
UV	ultraviolet light
VCP	Voluntary Cleanup Program
VdB	decibel notation
Water Agency	Sonoma County Water Agency
WDR	waste discharge requirements
WDS	waste discharge system
WMI	Waste Management Incorporated
WMUDS/SWAT	Waste Management Unit Database System
WSE	Water Surface Elevation
WUA	Weighted Usable Area
WQCP	Water Quality Control Plans
WQOs	Water Quality Objectives

## Definition of Terms

**Aesthetic:** A sense of perception that may be visually pleasing.

**Aggregate:** Clean, broken rock used for preparation of concrete and as base materials for structures.

**Algae:** Aquatic, non-vascular plants, such as seaweed or pond scum.

**Alluvial fan deposits:** A geologic composition, of the Holocene age (10,500 years ago) and the Pleistocene age (10,500 years to 2 million years ago), blanketing the northern and central Sonoma Valley, composed of interbedded sand, silt, clay, and gravel.

**Alluvium:** Relating to, composed of, or found in clay, silt, sand or gravel that has been deposited by running water.

**Anadromous:** Relating to any species of fish that lives in the ocean as an adult, and returns to freshwater in order to spawn, or lay eggs, such as Chinook and Coho salmon.

**Anoxic:** Without oxygen; anoxic water is water that contains no dissolved oxygen.

**Anthropogenic:** Effects derived from human activities.

**Appurtenance:** Referring to an accessory of something else.

**Aquifer:** A water-bearing layer of permeable rock, sand, or gravel.

**Basin Plan:** Water Quality Control Plan for the North Coast.

**Bathtub ring:** As a reservoir's water level drops, an unvegetated band of soil is exposed around the perimeter of the lake.

**Bedload:** Particles of sand, gravel, or soil carried by the natural flow of a stream on or immediately above its bed.

**Berm:** A mound or wall of earth.

**Biogenic:** Greenhouse gasses from biogenic sources are those that result from biological activity.

**Biotic:** Caused or produced by living beings.

**Breaching:** The act of creating an opening in a barrier, such as a levee or sand bar, that allows a river to flow freely.

**Caisson:** A watertight well casing used in Ranney collectors.

**Caltrans:** California Department of Transportation

**Cathodic protection:** A series of metal anodes attached to a pipeline at intervals along the transmission system to prevent corrosion of the pipe.

**Caustic soda:** Sodium hydroxide (NaOH) is used to raise pH in treated water to reduce corrosion in pipes.

**Chaparral:** An ecological community comprised of shrubby plants and bushes.

**Chinook:** *Oncorhynchus tshawytscha*, Chinook salmon. Listed as threatened under the federal Endangered Species Act.

**Claystone:** Sedimentary rock composed primarily of clay-sized particles.

**Coho:** *Oncorhynchus kisutch*, California Coho salmon. Listed as endangered under federal and California Endangered Species Acts.

**Coliform:** Relating to the colon bacillus bacteria; used as an indicator of sewage contamination in water.

**Confluence:** The flowing together of two or more streams to form a larger stream or river.

**Cover:** Vegetation along streambeds, or in lakes, that protects fish from predators.

**Culvert:** A drain or sewer that crosses under a road or embankment, often utilizing a large corrugated pipe.

**Decision 1610:** State Water Resources Control Board's 1986 decision establishing minimum instream flow requirements for Dry Creek and the Russian River.

**Disorientation:** Losing a sense of direction and causing an interruption in the migration of fish upstream or downstream.

**Dissolved Oxygen:** Oxygen present in water.

**Drainage:** The geographical area that a river and its tributaries drain.

**Ecotone:** The zone of transition between two ecological systems.

**Effluent:** Outflow from a wastewater treatment plant after completion of the treatment process.

**Embryonic:** Referring to the early stage of development.

**Environmental impact:** Beneficial or negative change in the environment as a result of an organizations activities.

**Ephemeral creek or stream:** Flows only during, and for short periods following, precipitation.

**Erosion:** The process of removal of material, such as soil or rock, by water, wind, or ice.

**Estuary:** The area at the mouth of a river, where it meets the sea, and salt and fresh water mix to form brackish water.

**Ethnobotanical:** Referring to the plant lore of a race or people.

**Evapotranspiration:** The loss of water from the soil by both evaporation and the transpiration of plants.

**Fish ladder:** A passageway which allows fish to navigate around barriers, such as dams.

**Fledgling:** A young bird.

**Fluvial deposits:** River-produced deposits.

**Forbs:** Small broadleaf herbaceous plants.

**Frequency:** The number of sound waves per second produced by a sounding body.

**Friable:** Refers to the ease of crumbling of soils.

**General Plan:** An adopted city or county-wide set of policies designed to guide growth, development, and conservation of resources.

**Geologic formation:** A large mass of rock with distinct characteristics.

**Geomorphology:** The study of landforms and the processes that shape them.

**Glide:** A slowly flowing reach of a stream, usually broad and even in depth, with little surface agitation. May appear to be a flooded riffle. Substrate is usually covered by water.

**Gravel transport:** The act of gravel washing downstream by the force of river currents.

**Greenhouse gases:** Primarily carbon dioxide and methane, allow sunlight to enter the atmosphere freely. When sunlight strikes the Earth's surface, some of it is reflected back towards space as infrared radiation (heat), but greenhouse gases absorb this infrared radiation and trap the heat in the atmosphere.

**Greenstone:** Basaltic rock that was once solid deep-sea lava.

**Greywacke:** Also called lithic sandstone. A variety of sandstone containing quartz, feldspar, and small rock fragments set in a matrix of clay-sized particles.

**Grid:** A network of conductors for distribution of electric power.

**Groundwater:** Non-saline and saline water beneath the natural surface of the ground, may or may not flow through known and definite channels.

**Groundwater Recharge:** Refers to the replenishing of underground water resources.

**Habitat:** A site where a plant or animal lives and grows.

**Hatchery:** A facility for artificially spawning and rearing fish.

**Headwaters:** The source of a river, where it river originates.

**Heterogeneous:** Consisting of dissimilar ingredients.

**Horsepower:** A unit of power in the United States of America equal to 746 watts and nearly equivalent to the English gravitational unit of the same name that equals 550 foot-pounds of work per second.

**Hydraulic:** Pertaining to water in motion.

**Hydrocarbons:** Chemical compounds containing hydrogen and carbon. Most motor vehicles are powered by hydrocarbon based fuels.

**Hydroelectric:** Pertaining to the production of electricity by waterpower.

**Hydrogeologic:** Pertaining to the occurrence, distribution, character, and movement of subsurface water.

**Hydrologic:** Pertaining to the properties and circulation of water.

**Hydrology:** The study of water in all its forms and from all its origins to all its destinations on earth.

**Hydrophytic:** Pertaining to a plant that grows in a moist environment and requires large amounts of water for growth.

**Impermeable:** Not permitting the passage of a fluid; non-porous.

**Incubation:** The period of time for the development of a fish within an egg before hatching.

**In-fill:** The development of vacant or underutilized urban parcels.

**Infiltration ponds:** Ponds receiving diverted water from the river, for the purpose of augmenting recharge of the underground aquifer, improving radial collector well production.

**Infrastructure:** The basic framework of a system or organization.

**Inorganic:** Being composed of matter other than that of plants or animals.

**Invertebrate:** Any animal without a spine, such as insects.

**Kilovolt:** A unit of electrical potential equal to one thousand volts.

**Kilowatt-hours:** A unit of electrical energy equal to one thousand watts per hour.

**Lead Agency:** The California government agency that has the principal responsibility for carrying out or approving a project.

**Lithic scatter:** A concentration of stone tools and flakes of stone left over from tool-making activity.

**Macroinvertebrate:** Animals without a spine that live on rocks, logs, sediment, debris and aquatic plants during some period of their life. Includes crustaceans, mollusks, aquatic worms, and immature forms of aquatic insects.

**Mainstem; of the Russian River:** The entire river, excluding tributaries.

**Mean:** A measurement which is an average between the extremes.

**Megawatt-hours:** A unit of electrical energy equal to one million watts per hour.

**Metabolism:** The chemical process in living cells by which energy is provided for vital processes.

**Metamorphic rock:** A pre-existing rock that has been altered since its formation by temperature, pressure or the chemical environment.

**Micro-climate:** The local, rather uniform climate of a specific place or habitat, compared with the climate of the entire area of which it is a part.

**Midden site:** A localized concentration of shells and other artifacts left behind by Native American inhabitants.

**Migration; of fish:** Movement up or downstream as part of their natural life cycle.

**Mitigation:** Measures to rectify impacts by repairing, rehabilitating, or restoring the affected environment. Imposed as a condition of approval by the Lead Agency.

**Morphology:** The study of structure or form.

**Mouth of the river:** The area where the river ends and flows into the ocean.

**Negative Declaration:** A written statement that briefly describes the reasons why a proposed project will *not* have a significant effect on the environment and, therefore, does not require an EIR.

**Nephelometric Turbidity Unit:** A measurement used to describe the turbidity of a liquid.

**Nongame:** Referring to fish that are not economically important, or caught for sport.

**100 year flood plain:** An area of land that has a 1 percent chance in any given year of being inundated by a flood or is expected to be inundated once every 100 years.

**Organic:** Of, or pertaining to being composed of plant or animal matter.

**Organism:** Anything that is alive, such as an animal or plant.

**Outmigration:** The movement of juvenile fish downstream on their way to the ocean.

**Ozone; O<sub>3</sub>:** An unstable blue gas with a pungent odor used as an oxidant, bleach, and water purifier, and to treat industrial wastes.

**Ozone precursors:** Pollutants that react in the presence of sunlight to form ozone.

**Paleontological:** Referring to the study of life during past geological periods.

**Particulate:** Fine solid particles which remain individually dispersed in gases.

**Perennial:** Pertaining to being present during all seasons of the year.

**Permeable:** A porous formation through which gases or liquids can flow.

**Plate tectonics:** Global tectonics based on a model of the earth characterized by a small number of semi-rigid plates that float on the viscous underlayer in the mantle.

**Plutonic rock:** Intrusive, formerly molten, rock masses crystallized from magma below the surface of the earth.

**Point discharge:** A specific identifiable site or source from which wastewater is discharged into a body of water.

**Portaging:** Referring to the carrying of boats from one body of water to another or around obstacles.

**Potable:** Being suitable for drinking.

**Precipitation:** Any or all of the forms of water particles, whether liquid or solid, that fall from the atmosphere and reach the ground.

**Project-level:** Detail is provided for activities or facilities that need to be implemented or constructed early on in a project. Some site-specific or "project level" impacts of construction will be included.

**Radial collector well:** Concrete caisson well with a 13–18ft. inside diameter, extending 80–100ft deep, with perforated horizontal intake pipes 6–18in. in diameter extending radially for 70–350ft.

**Raptor:** Referring to a bird of prey.

**Reaches:** Sections of a river or stream.

**Reactive organic gases:** Organic compounds that lead to ozone formation.

**Rearing:** The development and growth of a juvenile into an adult.

**Recycled water:** Municipal, industrial, or agricultural wastewater that goes to a wastewater treatment facility where advanced treatment processes are used to remove bacteria and pollutants. It can be reused for beneficial uses and to offset demands for potable water supplies.

**Redd:** A nest created in the streambed gravel where salmonids lay eggs.

**Refugia:** Small isolated areas that have escaped extreme environmental changes undergone by the surrounding areas.

**Responsible Agency:** An agency, other than the Lead Agency, that also has a legal responsibility to carry out or approve a project.

**Riffles:** A shallow area across a streambed over which water flows swiftly causing ripples to occur. Substrate is often partially exposed.

**Riparian:** Pertaining to the banks of a stream, lake, reservoir, or other body of fresh water.

**Riparian vegetation:** Plants which grow along the streambank.

**Riprap:** A layer of large, durable materials (usually rock) used to protect a streambank from erosion. May also refer to the materials themselves.

**Riverine:** Living or situated on the banks of a river.

**Roiling:** To make a river or creek cloudy by stirring up sediment.

**Ruderal:** Plant communities that occur in disturbed areas, such as along roadsides, trails, parking lots, etc.

**Run:** A swiftly flowing reach of a stream with little surface agitation. May appear to be a flooded riffle. Substrate is usually covered by water.

**Rural residential:** Land use designation given to land where low density residential

**Salmonid:** Any species of soft-rayed fish belonging to the salmon family, including trout and salmon.

**Sandstone:** A type of sedimentary rock formed by the cementation of sand-sized individual grains.

**Seasonal wetland:** Areas that contain wetland species and are inundated with water during the rainy season but not during the dry season.

**Sedentism:** Archaeological term indicating the transition of a society from a nomadic existence to permanent settlements.

**Sedimentation:** The settling out of suspended materials from the water column.

**Seep:** Where fissures or breaks in the soil profile allow groundwater to seep toward the surface.

**Seiche:** A wave that oscillates in a bay, lake, or gulf as a result of seismic or atmospheric disturbance.

**Seismic:** The phenomena of earth movement, such as an earthquake.

**Self-sustaining:** Being able to maintain the population of a species by natural reproduction, and in the case of fish, not by hatchery plantings.

**Sensitive receptors:** Those people, or facilities, more easily impacted by adverse environmental changes, such as noise or air pollution, due to their nature, or the types of activities involved.

**Sensitive species:** Biological resources for which protection is necessary because they are especially sensitive to change and the adverse effects of activities.

**Seral or sere:** A series of successional plant communities leading from bare ground to the climax community.

**Serpentine:** A metamorphic rock which is the alteration product of several types of ultrabasic rocks.

**Shale:** A fine-grained sedimentary rock made of silt- and clay-sized particles.

**Siltation:** The depositing of silt transported by water.

**Siltstone:** A sedimentary rock composed predominantly of silt-sized particles.

**Smolt:** A juvenile salmonid which has physiologically adapted to live in seawater and is actively migrating to the ocean.

**Spawn:** The act of fish producing or depositing eggs and sperm.

**Spoils:** Soil and debris generated during excavation and trenching activities.

**Standby:** Kept ready to serve as a substitute.

**Steelhead trout:** *Oncorhynchus mykiss*. Listed as threatened under the federal Endangered Species Act.

**Stocked:** A stream or lake that has hatchery-raised fish released into it.

**Stormwater:** Water that accumulates on land, roads, and roofs as a result of storms, as well as runoff from urban areas from washing cars, overwatering lawns, etc. Flows down storm drains directly into streams, rivers and lakes.

**Strata:** Layers of sedimentary rock of one kind lying between beds of other kinds.

**Subsidence:** The settling of the earth's surface sometimes due to the excessive removal of groundwater.

**Substrate:** Bottom material. In the case of a river, material such as gravel, found in a river bed.

**Swale:** A linear level-floored open depression excavated by wind or formed by the build-up of two adjacent ridges. A seasonal wetland with an outlet preventing water from ponding.

**Tectonics:** A branch of geology that deals with regional structural and deformational features of the earth's crust.

**Telemetry:** Transmitting data by radio to a distant location.

**Terrestrial:** Living on the land as opposed to in the water or air.

**Thermal stratification in a reservoir:** Refers to a layer of warm above a layer of cold in a body of water such as a reservoir.

**303(d) List:** List of Impaired Waterbodies, EPA.

**Topography:** The natural surface features of a region.

**Tributaries:** Smaller streams that flow into a larger stream, river or lake.

**Tsunami:** A tidal wave produced by earth movement on the ocean floor.

**Turbidity:** A measurement of the clarity of water.

**Turbine:** A rotary engine actuated by the current of fluids.

**Unincorporated area:** An area of land that is not part of any municipality.

**Upland areas:** Land situated outside wetland and riparian zones which relies solely on precipitation as its source of water.

**Vegetated Seep:** Area where surface water soaks into the ground.

**Vegetated Swale:** A constructed earthen channel, with vegetation planted inside, which is used to direct and filter storm water runoff.

**Velocity:** The time rate of the change in direction of a body; speed.

**Vernal pool:** Seasonal wetlands forming in shallow depressions underlain by a shallow, relatively impermeable soil layer that restricts the downward movement of water.

**Viability:** Capable of living, growing or developing; having life force.

**Volcanic tuff:** Rock consolidated from volcanic ash.

**Warmwater fish:** Fish that inhabit warm water areas, such as bass in reservoirs.

**Wastewater:** Sewage, stormwater and water that has been used for various purposes in homes and businesses.

**Water Agency:** Sonoma County Water Agency

**Watershed:** The entire geographical area which is drained by a river and its tributaries.

**Wetlands:** Land containing much soil moisture, such as tidal flats or swamps.

**Xeric:** Dry habitat.