

ACRONYMS, ABBREVIATIONS AND GLOSSARY

Acronyms and Abbreviations

ABAG	Association of Bay Area Governments
ADFW	average dry weather flow
ADI	Area of Direct Impact
af	acre-feet
AFY	acre-feet per year
afa	acre-feet per annum
amsl	above mean sea level
APE	Areas of Potential Effect
ASA	Area of Sensitivity Assessment
ASCE	American Society of Civil Engineers
ASR	Aquifer Storage and Recovery
ASTs	aboveground storage tanks
Authority	North Bay Water Reuse Authority
BA	Biological Assessment
BAAQMD	San Francisco Bay Area Air Quality Management District
BCDC	Bay Conservation and Development Commission
BEA	Bureau of Economic Analysis
BEPA	Bald Eagle Protection Act
bgs	below ground surface
BMOs	Basin Management Objectives
BMPs	Best Management Practices
BOD	biochemical oxygen demand
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CA FID	Facility Inventory Database
Cal EPA	California Environmental Protection Agency

CalARP	California Accidental Release Prevention Program
CalTrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CDPH	California Department of Public Health
CDMG	California Division of Mines and Geology
CEQ	Council of Environmental Quality
CEQA	California Environmental Quality 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 ₄	Methane
CHMIRS	California Hazardous Material Incident Report System
CHP	California Highway Patrol
CHSC	California Health and Safety Code
CIP	Capital Improvements Program
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	CO ₂ equivalent
CRLF	California red-legged frog
CSC	California Species of Special Concern
CTS	California tiger salamander
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council

CWA	Clean Water Act
cy	cubic yards
dB	decibel
dba	A-weighted decibels
DEIR	Draft Environmental Impact Report
DGESL	Department of Geosciences Environmental Studies Laboratory
DOT	Department of Transportation
DSOD	Division of Safety of Dams
DTSC	California Department of Toxic Substances Control
DWR	Department of Water Resources
EDD	Economic Development Department
EDR	Environmental Data Resources
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMI	Emissions Inventory Data
EMS	Emergency Medical Services
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Science Associates
ESU	Evolutionary Significant Unit
FCWCD	Flood Control and Water Conservation District
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FIGR	Federation of Indians of Graton Rancheria
FINDS	Facility Index System
FMMP	Farmland Mapping and Monitoring Program
FMP	Fisheries Management Plan
FPPA	Farmland Protection Policy Act
FPP	Farmland Protection Program
FRHZ	Fault Rupture Hazard Zone
ft	feet
FTA	Federal Transit Administration
FUDS	Formerly Used Defense Sites
g	gravity

GHG	Green House Gases
GULP	Groundwater Under Local Protection
H:V	horizontal-to-vertical
hp	horsepower
HWCL	Hazardous Waste Control Law
Hz	hertz
I & I	Infiltration and Inflow
IBC	International Building Code
ICBO	International Conference of Building Officials
ICC	International Code Council
IPS	Influent pump station
IRWMP	Integrated Regional Water Management Plan
kwH	kilowatt hours
km	kilometers
kV	kilovolt
L _{dn}	day-night average noise level
L _{eq}	energy-equivalent noise level
L _{max}	maximum noise level
LESA	Land Evaluation and Site Assessment
lf	linear feet
LGVSD	Las Gallinas Valley Sanitary District
LOS	Level of Service
LUST	Leaking Underground Storage Tank
M	Richter magnitude
M&I	municipal and industrial
MBTA	Migratory Bird Treaty Act
MCFC&WCD	Marin County Flood Control & Water Conservation District
mg	milligrams
MG	million-gallon
mg/L	milligrams per liter
mgd	million gallons per day
MMI	Modified Mercalli Intensity
MMWD	Marin Municipal Water District
MST	Milliken-Sarco-Tulucay
MOU	Memorandum of Understanding

MP	milepost
mph	miles per hour
MPN	Most Probable Number
MRZ	Mineral Resources Zone
msl	mean sea level
MTC	Metropolitan Transportation Commission
$\mu\text{S/cm}$	microsiemens per centimeter
Mw	Moment magnitude
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NBA	North Bay Aqueduct
Napa SD	Napa Sanitation District
NBBR	Nesting Breeding Birds and Raptors
NBWA	North Bay Watershed Association
NBWRA	North Bay Water Reuse Authority
NBWRP	North Bay Water Recycling Program
NCTPA	Napa County Transportation Authority
NEPA	National Environmental Protection Act
NMWD	North Marin Water District
NMFS	National Marine Fisheries Service
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen oxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
Novato SD	Novato Sanitary District
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NPPA	Native Plant Protection Act
NRCS	National Resource Conservation Service
NSCARP	North Sonoma County Agricultural Reuse Project
NUSD	Novato Unified School District
NVUSD	Napa Valley Unified School District

NWIC	Northwest Information of the California Historical Resources Information System
NWPRA	Northwestern Pacific Railroad Authority
O ₃	Ozone
O & M	Operations and Maintenance
OES	California Office of Emergency Services
OHW	Ordinary high water
OPR	Office of Planning and Research
PBO	Programmatic Biological Opinion
PG&E	Pacific Gas & Electric Company
PGA	Peak ground acceleration
PM 10	Particulate matter ≤ 10 microns
PM 2.5	Particulate matter ≤ 2.5 microns
PM	Particulate matter
POD	Pelagic Organism Decline
PPCP	Pharmaceutical and Personal Care Products
ppm	parts per million
PPV	peak particle velocity
PVP	Potter Valley Project
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RH Plan	Regional Haze Plan
ROG	Reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCTA	Sonoma County Transportation Authority
SCWA	Sonoma County Water District
SD	Sanitation District
SDC	Seismic Design Category
SF ₆	Sulfur Hexafluoride
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigation, and Cleanup
SMARA	Surface Mining and Reclamation Act
SMART	Sonoma-Marin Area Rapid Transit
SMMP	Stream Management Master Plan

SO ₂	Sulfur Dioxide
SOI	Sphere of Influence
SR-37	State Highway 37
SSC	Species of Special Concern
SSCRCD	Southern Sonoma County Resource Conservation District
SVCSD	Sonoma Valley County Sanitation District
SVFRA	Sonoma Valley Fire and Rescue Authority
SVWRP	Sonoma Valley Recycled Water Project
SVUSD	Sonoma Valley Unified School District
SWEEPS	Statewide Environmental Evaluation and Planning System
SWF/LF	Solid Waste Facilities/Landfill Sites
SWMP	Stormwater Management Plan
SWP	State Water Project
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
UC	University of California
UBC	Uniform Building Code
UGB	Urban Growth Boundary
USACOE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank system
USTs	underground storage tanks
UV	ultraviolet light
VOMWD	Valley of the Moon Water District
WDS	Waste Discharge System
WMI	Waste Management Incorporated
WMUDS/SWAT	Waste Management Unit Database System

WQCP	Water Quality Control Plans
WRAP	Western Regional Air Partnership
WRP	Water Reclamation Plant
WSPP	Water Supply Planning Program
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

Glossary of Terms

100-year flood	The flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years.
acre-foot (AF)	The volume of water that would cover 1 acre to a depth of 1 foot. Equal to 1,233.5 cubic meters (43,560 cubic feet).
active fault	Defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 10,000 years).
anadromous fish	Fish that spend a part of their lifecycle in the sea and return to freshwater streams to spawn.
beneficial uses	Those uses of water as defined in the State of California Water Code (Chapter 10, Part 2, Division 2), including but not limited to, agricultural, domestic, municipal, industrial, power generation, fish and wildlife, recreation, and mining.
bentonite	A clay mineral used in drilling operations; mixed with water to form a gel that lubricates the drill bit, helps keep the walls of a borehole intact, and helps bring drill cuttings to the surface.
Biological Opinion	Document issued under the authority of the Federal Endangered Species Act stating the findings of the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service as to whether a federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction of adverse modification of critical habitat.
California Environmental Quality Act (CEQA)	Act requiring California public agency decision-makers to document and consider the environmental impacts of their actions. Also requires an agency to identify ways to avoid or reduce environmental damage and to implement those measures where feasible. Provides means to encourage public participation in the decision-making process.
channel	Natural or artificial watercourse, with a defined bed and banks to confine and conduct continuously or periodically flowing water.

CNEL	Community Noise Equivalent Level adds a 5-dBA “penalty” for the evening between 7:00 p.m. and 10:00 p.m. in addition to a 10-dBA penalty between 10:00 p.m. and 7:00 a.m. See also “decibel (dB)”, below.
cooperating agency	Any federal agency other than the lead agency that has jurisdiction by law or special expertise with respect to the environmental impacts expected to result from a proposed project.
criteria air pollutants	Pollutants that are the primary focus of regulatory agencies as indicators of ambient air quality, which include ozone, carbon monoxide (CO), nitrogen dioxide (NO ₂), sulfur dioxide (SO ₂), particulate matter (PM), and lead. These are the most prevalent air pollutants known to be harmful to human health, and extensive documentation on health-effects criteria is available for them.
critical habitat	An area designated as critical habitat listed in 50 CFR Parts 17 or 226 (50 CFR Section 402.02); specific geographic areas, whether occupied by special-status species or not, that are determined to be essential for the conservation and management of the special-status species, and that have been formally described in the Federal Register.
cultural resource	An aspect of a cultural system that is valued by or significantly representative of a culture or that contains significant information about a culture. Properties such as landscapes or districts, sites, buildings, structures, objects, or cultural practices that are usually more than 50 years old and possess architectural, historic, scientific, or other technical value.
cumulative impact	For NEPA purposes, defined in Council of Environmental Quality (CEQ) regulations as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions. Under CEQA, defined as the change in the environment that results from the incremental impact of the project when added to other, closely related past, present, and reasonably foreseeable probable future projects.
decibel (dB)	A unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals. An A-weighted dB (dBA) is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear. A measurement that includes the low frequency component is denoted by dBL.
desalination	A process whereby the salt concentration of sea water or brackish water is reduced, generally through an advanced form of water treatment.
dewater	To remove water.

DNL	The 24-hour day and night A-weighted noise exposure level, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night (“penalizing” nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.
endangered species	Any species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that is in serious danger of becoming extinct throughout all or a significant portion of its range. Official federal designations of endangered species are made by the USFWS or NMFS and published in the Federal Register. Species are listed under the California Endangered Species Act by the California Department of Fish and Game.
Endangered Species Act (ESA)	The federal or state acts administered by the USFWS/NMFS and California Department of Fish and Game, respectively, to list and protect animal and plant species that are listed as threatened or endangered, are formally recognized candidates for listing, or are declining to a point where they may be listed.
Environmental Impact Report (EIR)	A detailed statement (i.e., report) prepared under the California Environmental Quality Act by a state or local agency describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects.
Environmental Impact Statement (EIS)	An environmental impact document required of federal agencies under the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. Describes the positive and negative effects of the proposed action, lists alternative actions, and documents the information required to evaluate the environmental impacts of a proposed action.
environmental justice	Defined by the U.S. Environmental Protection Agency (EPA) Office of Environmental Justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” Fair treatment means “no group of people, including racial, ethnic, or socioeconomic group shall bear a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.”
erosion	The gradual wearing away of land by water, wind, and general weather conditions; the diminishing of property by the elements. With regard to levees specifically: loss of levee material as a result of the effects of channel flows, tidal action, boat wakes, and wind-generated waves.
expansive soils	Soils that shrink and swell as a result of moisture changes.

fault	A planar rock fracture which shows evidence of relative movement. Large faults within the Earth's crust are the result of differential or shear motion.
fault rupture	Displacement at the earth's surface resulting from fault movement associated with an earthquake.
federal P&Gs	Principles and Guidelines for federal water studies, published as "Federal Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies" by the U.S. Water Resources Council, 1983.
floodplain	Any land area susceptible to inundation by floodwaters from any source.
flow	The volume of water passing a given point per unit of time.
groundwater	Any water naturally stored underground in aquifers, or that flows through and saturates soil and rock, supplying springs and wells.
habitat	The specific area or environment in which a particular type of animal or plant lives.
HAZNET	A California Department of Toxic Substances Control database that records annual hazardous waste shipments, as required by RCRA. All businesses that use and dispose of hazardous materials are entered into the database.
HIST UST	Contains a list of registered historical USTs
Important Farmland	Farmland categories mapped by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance are often described together under the term "Important Farmland."
infiltration	Process by which water on the ground surface enters into, or percolates through the soil
L50	The noise level that is equaled or exceeded 50 percent of the specified time period. The L50 represents the median sound level.
L90	The noise level that is equaled or exceeded 90 percent of the specified time period. The L90 is sometimes used to represent the background sound level.
Leq	The equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The Leq is the constant sound level that would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).
levee	An embankment raised to restrict a river to a defined channel.
liquefaction	The process in which soil loses cohesion when subject to seismic activity (i.e., shaking).

Lmax	The instantaneous maximum noise level for a specified period of time.
Microconstituents	Microconstituents is a term currently used to describe a variety of natural and manmade substances, including pharmaceuticals, household cleaning products, personal care products, plastics, packaging, and other products of a developed society.
modeling	Computer simulations of natural and man-made water systems used to provide a forecast of outcomes for a variety of parameters, such as water quality, flow rates, and reservoir levels, under an assumed set of conditions.
National Environmental Policy Act (NEPA)	Act that directs federal agencies to prepare an environmental impact statement for all major federal actions that may have a significant effect on the environment. States that it is the goal of the federal government to use all practicable means, consistent with other considerations of national policy, to protect and enhance the quality of the environment. Requires all federal agencies to consider the environmental impacts of their proposed actions during the planning and decision-making processes.
non-attainment	The Clean Air act (1990) defines this as a locality where are pollution levels persistently exceed national ambient air quality standards, or the contributes to ambient air quality in a nearby area that fails to meet standards.
Notice of Availability (NOA)	The notice issued by a local, state, or federal agency to publicly announce that a draft environmental impact report or environmental impact statement is available for review, pursuant to the California Environmental Quality Act and the National Environmental Policy Act, respectively.
Notice of Intent (NOI)	The notice issued by a federal agency to publicly announce its intention to prepare an environmental impact statement, pursuant to the National Environmental Policy Act.
Notice of Preparation (NOP)	The notice issued by a state or local agency to publicly announce its intention to prepare an environmental impact report, pursuant to the California Environmental Quality Act.
Proposed Project/ Proposed Action	North Bay Water Recycling Program or North San Pablo Bay Restoration and Reuse Project
Record of Decision (ROD)	Concise, public, legal document that identifies and officially discloses the federal lead agency's decision following the completion of an environmental impact statement.
recycled water	Wastewater that becomes suitable for a specific beneficial use as a result of treatment.
reservoir	An artificially impounded body of water.
responsible agency	As per the CEQA Guidelines, a public agency other than the lead agency that has discretionary approval over a project.

riparian area	The land adjacent to a natural watercourse such as a river or stream. Riparian areas support vegetation that provides important wildlife habitat, as well as important fish habitat when sufficient to overhang the bank or fall into the water.
salinity	The amount of dissolved salts in a given volume of water.
seawater intrusion	The intrusion and mixing of saline or brackish water into a body of freshwater (in this case, into the Delta).
sedimentation	The phenomenon of sediment or other fine particulates entering a water body, or being disturbed from the bottom of a water body such that they move downstream and settle on the substrate in other aquatic areas.
seiche	A wave on the surface of a lake or landlocked bay caused by atmospheric or seismic disturbances.
seismicity	The frequency, intensity, and distribution of earthquake activity in a given area.
siltation	Sediment influx either from erosion or sediment carried into a water body by inflowing rivers and tributaries.
special-status species	Federal and state classifications for plant and animal species that are listed as threatened or endangered, are formally recognized candidates for listing, or are declining to a point where they may be listed.
stage	Water surface elevation; the elevation above mean sea level (msl) datum (typically measured in feet msl).
stormwater	Untreated surface runoff into a body of water during periods of precipitation.
Stormwater Pollution Prevention Plan (SWPPP)	Required to be developed and implemented when an entity is obtaining a General Permit under the National Pollutant Discharge Elimination System (NPDES). The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges, and (2) to describe and ensure the implementation of best management practices to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges.
subsidence	A decrease in ground surface elevation in the Delta, which results primarily from peat soil being converted into gas.
take	Defined in the Federal Endangered Species Act as "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct" on special-status species covered under the Act.
terrestrial species	Types of species of animals and plants that live on or grow from the land.

threatened species	Legal status afforded to plant or animals species that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range, as determined by the U.S. Fish and Wildlife Service or NMFS for federal species and by the California Department of Fish and Game for state species.
tidal flow	Water movements caused by tidal forces (i.e. gravitational); used to describe the movement of water in Delta channels caused by tidal level variations propagating from San Francisco Bay.
total organic carbon (TOC)	A measure of organic matter content in water, which plays a significant role in aquatic ecosystems and has direct implications to drinking water treatment, including the potential for formation of disinfection byproducts.
turbidity	A measure of the cloudiness of water caused by the presence of suspended matter. Turbidity in natural waters may be composed of organic and/or inorganic constituents, and has direct implications to drinking water treatment.
viewshed	An area of land, water, and other environmental elements that is visible from a fixed vantage point. Viewshed is typically evaluated both from a roadway and conversely of a roadway as viewed from the adjacent area.
waters of the U.S.	As defined in the Clean Water Act Section 404, waters of the U.S. applies only to surface waters, rivers, lakes, estuaries, coastal waters, and wetlands. Not all surface waters are legally waters of the U.S. Generally, those waters include interstate waters and tributaries, intrastate waters and tributaries used in interstate and/or foreign commerce, territorial seas at the cyclical high-tide mark, and wetlands adjacent to the above.
watershed	A region or area that ultimately drains to a particular watercourse or body of water.
wetland	A zone that is periodically or continuously submerged or has high soil moisture, has aquatic and/or riparian vegetation components, and is maintained by water supplies significantly in excess of those otherwise available through local precipitation.
Williamson Act	The California Land Conservation Act of 1965, commonly known as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use for 10 years. In return, landowners receive property tax assessments that are based on farming and open space uses as opposed to full market value.