

## **APPENDIX B: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS**

---

## APPENDIX B: DEFINITIONS, ABBREVIATIONS AND ACRONYMS

### Definitions and Abbreviations

**acre** - A unit of measurement of area equivalent to 43,560 square feet.

**alluvium** - Deposits resulting from the operations of water including floodplains, lakes, rivers and fans at the foot of mountain slopes.

**aquifer** - A permeable region of rock or soil through which groundwater can move.

**aquitard** - A material of low permeability that greatly slows the movement of groundwater.

**British thermal unit (BTU)** - A unit of heat energy defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit. One BTU equals approximately 778.169 foot pounds, 1.055 056 kilojoules or 0.293 071 watt hour.

**candidate species** - Any species of fish, wildlife or plant which has been determined to be a candidate for listing under Section 4 of the Endangered Species Act of 1973 (amended).

**catenary** - A messenger wire that sags between support points (much like a utility transmission line), which supports, by means of intermediate wire hangers, an essentially level contact wire for the overhead contact system (OCS).

**California Environmental Quality Act (CEQA)** – Modeled after NEPA, this California state law encourages the protection of the environment through policies and procedural requirements.

**cultural resources** - Archaeological and historic resources that could potentially be affected by a given project. Cultural resources include buildings, sites, districts, structures or objects having historical, architectural, archaeological, cultural or scientific importance.

**cumulative impact** - The impact on the environment that results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions.

**dBA** - A sound level in decibels, measured with a sound level meter having metering characteristics and frequency weighting specified in American National Standard Specifications for sound level meters ANSIS1.4-1971. It is common to refer to numerical units of an A-weighted sound level as "dBA."

**Environmental Assessment/Draft Environmental Impact Report (EA/DEIR).** A report that determines whether the project will have a significant effect on the environment in accordance with NEPA, and identifies and analyzes environmental effects of project alternatives in accordance with CEQA.

**electromagnetic field (EMF)** – electromagnetic fields associated with electromagnetic radiation.

**electromagnetic interference (EMI)** – Electromagnetic interference may include the interruption, obstruction, or other degradation in the effective performance of

**fill** - Earth used to create embankments or to raise low-lying areas in order to bring them to grade.

**Finding of No Significant Impact/Final Environmental Impact Report (FONSI/FEIR).** A report that responds to comments received on the EA/DEIR, presents a finding of no significant impact in accordance with NEPA, and identifies and analyzes environmental effects of a preferred project alternative in accordance with CEQA.

**floodplain** - The part of the ground surface inundated with water on a recurring basis, usually associated with the one percent recurrence interval (100-year) flow.

**g** - horizontal ground acceleration

**gram** - Unit of measurement of mass, metric system.

**ha** - hectare (10,000 square meters)

**High Occupancy Vehicle (HOV).** A “carpool,” or vehicle occupied by two or more persons.

**High Occupancy Vehicle lane (HOV Lane).** A system of exclusive lanes signed and striped for use by vehicles with multiple occupants (two or more persons) or ridership. HOV lanes are designed on roadways to reduce traffic congestion, improve safety, reduce fuel consumption and to improve air quality.

**Kilo** - Prefix used in metric measurement, 1000.

**KiloJoule – kJ** - A common metric unit of work or energy, comparable to the British thermal unit (BTU). One kiloJoule equals approximately 0.947 817 Btu, 0.277 778 watt hour, or 737.562 foot-pounds.

**kiss-and-ride** - A passenger loading area where vehicles can pick up and drop off passengers.

**km** - Kilometer.

**kmpH** - Kilometer per hour.

**KV** - Kilovolt.

**L<sub>dn</sub>** - Day-Night Equivalent Sound Level. A 24-hour equivalent sound level with a 10 dB penalty assessed to noise events occurring at night (10 p.m. to 7 a.m.).

**L<sub>eq</sub>** - Equivalent Sound Level. A measure of sound energy over a period of time, or a sound level which, in a stated period of time, would contain the same acoustical energy as the time-varying sound during the same period.

**Level of Service (LOS).** The operating level of an intersection or roadway segment can be described using the term Level of Service. LOS is a qualitative description of traffic operation based on delay and maneuverability. For roadways, it can range from “A” – representing free flow conditions – to “F” – representing gridlock. Intersection LOS is determined on the basis of delay.

**liter** - Unit of measurement of volume (metric system).

**m** - meter.

**milliGauss (mG)** - A unit of magnetic flux density equal to 0.001 Gauss or 0.1 microTesla. The magnetic fields generated by power lines and electronic equipment are often measured in milliGauss.

**mitigation** - Measures taken to minimize adverse environmental impacts. Mitigation could reduce the magnitude and extent of an impact from a level of significance to a level of insignificance.

**mph** - miles per hour.

**microTesla (μT)** - A common unit of magnetic field intensity equal to 10<sup>-6</sup> Tesla. The unit is widely used to measure the strength of electromagnetic fields generated by powerlines or electronic equipment. By comparison, the strength of the Earth's own magnetic field at the surface is about 50 microTeslas. One microTesla equals 0.01 Gauss.

**National Environmental Policy Act (NEPA).** The United States' basic national charter for protection of the environment. It establishes policy, sets goals and provides means for carrying out the policy.

**National Historic Preservation Act of 1966** - The primary federal law pertaining to protection of cultural resources.

**National Register of Historic Places** - A federal listing of historic resources protected under the National Historic Preservation Act of 1966.

**National Register-eligible** - Cultural resources determined eligible for inclusion on the National Register of Historic Places.

**nonpoint source** - Pertains to the discharge of pollutants into waters or air where the pollutant sources come from an area rather than a single source that can be pinpointed.

**overhead contact system (OCS)** – An overhead system that provides power to electric vehicles. A mainline OCS typically comprises two conductors above each track in a catenary configuration. Both main wires are energized and are electrically common. Power is supplied from the contact wire to the pantograph.

**ozone** - A major component of photochemical smog, which is formed in the atmosphere by the chemical reaction between nitrogen dioxide and organic gases in the presence of sunlight. Excessive levels of ozone can cause eye irritation, reduced visibility, vegetation damage and aggravation of respiratory conditions. The biggest source of these gases is the automobile.

**pantograph** - Mounted on top of an electric vehicles, the pantograph slides under the contact wire and collects the traction current from it.

**park-and-ride** - A parking area intended for transit riders who arrive at transit stations by car.

**pb** - Lead.

**PM<sub>2.5</sub>** - Particulate matter less than 2.5 microns in diameter, considered to be fine particulate matter. (One micron is equal to one-millionth of a meter.)

**PM<sub>10</sub>** - Particulate matter less than 10 microns in diameter. (One micron is equal to one-millionth of a meter.)

**ppm** - parts per million.

**PPV** - Peak particle velocity. The maximum instantaneous peak in the velocity of an object's vibratory motion. The PPV is used to define thresholds of potential building damage from vibration.

**right-of-way** - Land dedicated to the transportation facility.

**Root-mean-square amplitude (RMS)**. The average energy of vibration measured over a short time interval, usually one second. RMS vibration velocity is considered the best available measure of potential human annoyance from ground-borne vibration.

**Section 106** - Section 106 of the National Historic Preservation Act of 1966.

**State Implementation Plan (SIP)** – a plan for attaining national ambient air quality standards required by the Clean Air Act.

**U.S. Army Corps of Engineers (ACOE).** Federal agency with jurisdiction over wetlands and waters of the U.S.

**U.S. Environmental Protection Agency (EPA).** The federal agency responsible for maintaining environmental quality including air quality, noise and hazardous waste management.

**U.S. Fish and Wildlife Service (USFWS).** The federal agency that administers the federal Endangered Species Act and is involved in protection of fish and wildlife habitat including wetland areas.

**Vdb** - Decibels of vibration velocity. An expression of ground-borne vibrations.

**watershed** - That part of the earth's surface from which storm water runoff flows to a single point.

**wetlands** - According to the U.S. Army Corps of Engineers, wetlands are areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, under normal conditions, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes and similar areas, and are subject to protection under Executive Order 11990 and Section 404 of the Clean Water Act (CWA).

### Glossary of Acronyms

AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC	Alternating current
AC Transit	Alameda Contra Costa Transit District
ACHP	Advisory Council on Historic Preservation
ACOE	U.S. Army Corps of Engineers
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
APE	Area of Potential Effects
APTA	American Public Transit Association
ATC	Automatic train control
ATF	Auto-Transformer Feeding System Arrangement
ATS	Automated Train Stop
AWSS	Auxiliary Water Supply System
BAAB	Bay Area Air Basin
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BATA	Bay Area Toll Authority

## **APPENDIX B: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS**

---

BTU	British thermal unit
BCDC	San Francisco Bay Conservation and Development Commission
CAA	Clean Air Act of 1970
CAAQS	California Ambient Air Quality Standards
CAC	Community Advisory Committee
CALINE4	Computer model used to predict carbon monoxide levels
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBD	Central Business District
CCAA	California Clean Air Act
CCSF	City and County of San Francisco
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation & Liability Act
CERCLIS	Comprehensive Environmental Response Compensation Information System
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CLUP	Comprehensive Land Use Plan
CM	Construction Management
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	Carbon Monoxide
CTC	California Transportation Commission or Centralized Train Control
CPUC	California Public Utilities Commission
CY	Cubic yards
CFR	Codified Federal Regulations
CZMA	Coastal Zone Management Act
DC	Direct current
DPT	Department of Parking and Traffic
DPW	Department of Public Works
DWR	Department of Water Resources
EA/DEIR	Environmental Assessment/Draft Environmental Impact Report
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMU	Electric Multiple Unit
EPA	Environmental Protection Agency
FEIR	Final Environmental Impact Report
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
FVM	Fare Vending Machine
FY	Fiscal Year

---

**APPENDIX B: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS**

---

HASR	Historical Architectural Survey Report
HPSR	Historic Property Survey Report
HOV	High Occupancy Vehicle
Hz	Hertz
I-280	Interstate 280
ISP	Iron/Steel Pipe
ISTEA	Intermodal Surface Transportation Act of 1991
ITIP	Interregional Transportation Improvement Program
JPA	Joint Exercise of Powers Agency
JPB	Peninsula Corridor Joint Powers Board
LOS	Level of Service
LPA	Locally Preferred Alternative
LUST	Leaking Underground Storage Tank
MOA	Memorandum of agreement
MGP	Manufactured Gas Plant
MPO	Metropolitan Planning Organization
MTC	Metropolitan Transportation Commission
Muni	San Francisco Municipal Railway
MVA	Million-volt-amperes, often termed Megawatts
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NOP	Notice of Preparation
NO <sub>x</sub>	Nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Properties
O <sub>3</sub>	Ozone
O&M	Operating and Maintenance
OCS	Overhead Contact System
OSHA	Occupational Safety and Health Administration
PAH	Polyaromatic Hydrocarbons
PPA	Pollution Prevention Act
RIP	Regional Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Board
SAA	Streambed Alteration Agreement
SAMTRANS	San Mateo County Transit District
SFIA	San Francisco Institute of Architecture
SFO	San Francisco International Airport
SFRA	San Francisco Redevelopment Agency
SHPO	State Historic Preservation Office or Officer
SIP	State Implementation Plan
SO <sub>2</sub>	Sulphur dioxide
SP	Southern Pacific Railroad
SPRR	Southern Pacific Railroad
S RTP	Short Range Transit Plan



## APPENDIX B: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

---

STA	State Transit Assistance Program
STP	State Transportation Program
STIP	State Transportation Improvement Program
SWPPP	Storm Water Pollution Prevention Plan
TAC	Technical Advisory Committee
TAZ	Traffic Analysis Zone
TCM	Transportation Control Measure
TCRP	Transportation Congestion Relief Program
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21 <sup>st</sup> Century
TIP	Transportation Improvement Program
TIFIA	Transportation Infrastructure Financing and Innovation Act
TPSS	Traction Power Substation
TRP	Trip Reduction Program
TSM	Transportation Systems Management
UPRR	Union Pacific Railroad
US 101	U.S. Highway 101
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
VC	Volume-to-Capacity Ratio
VCP	Vitrified Clay Pipe
VHT	Vehicle Hours of Travel
VMT	Vehicle Miles of Travel