

CHAPTER VIII Acronyms/Abbreviations and Glossary

VIII.A ACRONYMS/ABBREVIATIONS

<i>Acronym/ Abbreviation</i>	<i>Definition</i>
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AB 32	California Global Warming Solutions Act of 2006
ABAG	Association of Bay Area Governments
ACB	Articulated Concrete Block
ACBM	Asbestos Containing Building Materials
ACORN	Association of Community Organizations for Reform Now
ADA	American Disabilities Act
ADMP	Asbestos Dust Mitigation Plan
ADRP	Archaeological Data Recovery Plan
AEP	Association of Environmental Professionals
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
Agency	San Francisco Redevelopment Agency
Agency Commission	San Francisco Redevelopment Agency Commission
AGO	California Attorney General's Office
ALS	Advanced Life Support
AMI	Area Median Income
AMP	Archaeological Monitoring Program
ANSI	American National Standards Institute
AOC	Administrative Order of Consent
ARB	California Air Resources Board
AST	Above-Ground Storage Tank
AT&T Park	San Francisco Giants Ballpark
ATCM	Asbestos Airborne Toxic Control Measure
ATP	Archaeological Testing Plan
ATSDR	Agency for Toxic Substances and Disease Registry
AWSC	All-Way Stop Controlled
AWSS	Auxiliary Water Supply System
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Basin Plan	San Francisco Bay Basin Water Quality Control Plan
BASMAA	Bay Area Stormwater Management Agencies Association
BAT	Best Available Technology Economically Achievable
BAU	Business as Usual
Bay	San Francisco Bay
Bay Area	San Francisco Bay Area

Acronym/ Abbreviation	Definition
Bay Plan	San Francisco Bay Plan
Bay Trail	San Francisco Bay Trail
Bay Trail Plan	<i>San Francisco Bay Trail Plan</i>
BCDC	San Francisco Bay Conservation and Development Commission
BCT	Best Conventional Pollutant Control Technology
BERA	Baseline Ecological Risk Assessment
BFE	Base Flood Elevation
BIT	Bayview Industrial Triangle
BLIP	Branch Library Improvement Program
BLS	Basic Life Support
BMPs	Best Management Practices
Board of Supervisors	San Francisco Board of Supervisors
BOE	Bureau of Engineering
Boundaries Analysis	San Francisco Police Department District Station Boundaries Analysis
BRAC	Base Realignment and Closure
Brisbane Baylands North	Brisbane Baylands Future Phase Area
Brisbane Baylands South	Brisbane Baylands Phase I Specific Plan Area
BRT	Bus Rapid Transit
BTI	Bayview Transportation Improvements
BTIP	Bayview Transportation Improvements Project
BVHP	Bayview Hunters Point
BVHP Area Plan	Bayview Hunters Point Area Plan
BVHP Redevelopment Plan	Bayview Hunters Point Redevelopment Plan
BWWF	Bayside Wet Weather Facilities
C&D	Construction and Demolition
C-1 Baylands	Commercial Mixed-Use Zoning District
C ₂ F ₆	PFC: Hexafluoroethane
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAC	Citizens Advisory Committee
CAFE	Corporate Average Fuel Economy
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Department of Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Climate Action Plan (as used in the Greenhouse Gas Emissions section)
CAP	Corrective Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARE	Community Air Risk Evaluation
CAT	Climate Action Team
CBC	California Building Code
CCAR	California Climate Action Registry
CCBA	Core Community Benefits Agreement
CCR	California Code of Regulations
CCSF	City and County of San Francisco
CDC	Centers for Disease Control

<i>Acronym/ Abbreviation</i>	<i>Definition</i>
CDFG	California Department of Fish and Game
CDPH	California Department of Public Health
CDPR	California Department of Parks and Recreation
CEC	California Energy Commission
CEG	Certified Engineering Geologist
Central Bay	San Francisco Bay Central
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Cleanup and Liability Act
CESA	California Endangered Species Act of 1984
CEUS	California Commercial End-Use Survey
CF ₄	PFC: Tetrafluoromethane
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	Methane
CHP	California Highway Patrol
CIE	Cultural/Institutional/Educational
City	City and County of San Francisco
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Program
CMTF	Construction Management Traffic Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
COG	Council of Governments
Concept Plan	Bayview Hunters Point Community Revitalization Concept Plan
Construction General Permit	NPDES General Permit for Storm Water Discharges Associated with Construction Activity
Corps	United States Army Corps of Engineers
CP	Candlestick Point
CP-HPS Phase II	Candlestick Point–Hunters Point Shipyard Phase II
CPSRA	Candlestick Point State Recreation Area
CPSRA General Plan	Candlestick Point State Recreation Area General Plan
CPUC	California Public Utilities Commission
CPX	Candlestick Point Downtown Express
CRHR	California Register of Historic Resources
CSMP	Construction Site Monitoring Program
CSO	Combined Sewer Overflow
CTMP	Construction Transportation Management Plan
CTTP 2000	Census 2000 Transportation Planning Package
CWA	Clean Water Act of 1977
CY	Cubic Yards

Acronym/ Abbreviation	Definition
D4D	Design for Development
DBH	Diameter at Breast Height
DBI	Department of Building Inspection
DCP	Dust Control Plan
DDA	Disposition and Development Agreement
DDC	Deep Dynamic Compaction
DDT	Dichloro-diphenyl-trichloroethane
Demand Report	2004 San Francisco Retail Water Demands and Conservation Potential Report
DHS	California Department of Health Services
DMMO	Dredged Material Management Office
DOD	Department of Defense
DOE	United States Department of Energy
DOT	United States Department of Transportation
DPH	Department of Public Health
DPM	Diesel Particulate Matter
DPR	California Department of Parks and Recreation
DPS	Distinct Population Segment
DPW	Department of Public Works
DTSC	California Department of Toxic Substances Control
Dust Ordinance	Construction Dust Control Ordinance
DWR	Department of Water Resources
EAM	Early Action Measure
eb	East Bound
EE	Environmental Evaluation
EFH	Essential Fish Habitat
EHSP	Environmental Health and Safety Plan
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act of 2007
EMFAC	Emission Factor Model
EMS	Emergency Medical Services
EMS	Environmental Management System (as used in the Utilities section)
ENA	Exclusive Negotiations Agreement
ENVIRON	ENVIRON International Corporation
EPA	United States Environmental Protection Agency
ERA	Ecological Risk Assessment
ERM	Effects Range Median
ERO	Environmental Review Officer
ESA	Environmental Site Assessment (as used in the Hazards and Hazardous Materials section)
ESA	Endangered Species Act (as used in the Biological Resources section)
ESCP	Erosion and Sediment Control Plan
ESUs	Evolutionary Significant Units
ETCA	Early Transfer Cooperation Agreement
F	Fahrenheit

<i>Acronym/ Abbreviation</i>	<i>Definition</i>
FAA	Federal Aviation Administration
FAC	Facultative
FACW	Facultative Wetland
FARR	Final Archaeological Resources Report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act of 1973
FFA	Federal Facilities Agreement
FHWA	Federal Highway Administration
Findings	Findings of Fact
FIRM	Flood Insurance Rate Map
FMP	Fisheries Management Plan
FOSET	Finding of Suitability for Early Transfer
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability Transfer
FS	Feasibility Study
FTA	Federal Transit Administration
FTE	Full-time Equivalent
g	Gravity
GE	California Registered Geotechnical Engineer
General Plan	San Francisco General Plan
Geomatrix	Geomatrix Consultants, Inc.
GGBHTD	Golden Gate Bridge, Highway, and Transportation District
GGNRA	Golden Gate National Recreation Area
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GP Guidelines	General Plan Guidelines 2003
GPM	Gallons Per Minute
GPR	Green Point Rated
GPRC	Geotechnical Peer Review Committee
gsf	Gross Square Feet
GWP	Global Warming Potential
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HASP	Health and Safety Plan
HBO	Home Based Other Trip
HBS	Home Based Shopping
HBW	Home Based Work
HCD	Housing and Community Development
HCM	Highway Capacity Manual
HCM	Highway Capacity Manual
HFCs	Hydrofluorocarbons
HHRA	Human Health Risk Assessment
HHWP	Hetch Hetchy Water and Power
HI	Hazard Index
HMBP	Hazardous Materials Business Plan
Housing Program	Citywide Tax Increment Housing Program

Acronym/ Abbreviation	Definition
Housing Variant	Variant 2: No Stadium – Housing Variant
HOV	High Occupancy Vehicle
HPRP	Hunters Point Redevelopment Plan
HPS	Hunters Point Shipyard
HPS Phase II	Hunters Point Shipyard Phase II
HPS Redevelopment Plan	Hunters Point Shipyard Redevelopment Plan
HPX	Hunters Point Shipyard Downtown Express
HR 2764	The Consolidated Appropriations Act of 2008
HRA	Historical Radiological Assessment
HTL	High Tide Level
HUD	US Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
I-280	Interstate 280
IB	India Basin
IBC	International Building Code
IBIP	India Basin Industrial Park
ICBO	International Conference of Building Officials
ICC	International Code Council
ICs	Institutional Controls
IEPR	Integrated Energy Policy Report
Industrial General Permit	NPDES General Industrial Permit for Discharges of Storm Water Associated with Industrial Activities
Interim CIP	Wastewater Enterprise Interim Capital Improvement Program
IPCC	Intergovernmental Panel on Climate Change
IR Sites	Installation Restoration Sites
IRP	Installation Restoration Program
ITL	Interim Target Level
JARPA	Joint Aquatic Resources Permit Applications
JPB	The Peninsula Corridor Joint Powers Board
K	Kindergarten (as used in the Public Services section)
KJ	Franciscan Complex
Kyoto Protocol	United Nations' Framework Convention on Climate Change Agreement
lbs	pounds
LCA	Life Cycle Assessment
LCFS	Low Carbon Fuel Standard
LEED®	Leadership in Energy and Environmental Design
Lennar Urban	Lennar/Bayview Hunters Point Limited Liability Corporation
L_{eq}	Average Noise Level
LID	Low Impact Development
LIFOC	Lease in Furtherance of Conveyance
L_{max}	Highest Peak Noise
L_n	Statistical Sound Level
LOMR-F	Letter of Map Revision Based on Fill
LOS	Level of Service
Lower Bay	San Francisco Bay Lower

<i>Acronym/ Abbreviation</i>	<i>Definition</i>
LRV	Light-Rail Vehicle
LRV	Light Rail Vehicle
LTMS	Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region
LTS	Less-Than-Significant Impact
LTS/M	Less-Than-Significant Impact with Mitigation
LUPs	Linear Underground/Overhead Projects
LWCF	Land and Water Conservation Fund
LWCFA	Land and Water Conservation Fund Act of 1965
M	Moment Magnitude (as used in the Geology and Soils section)
M	Manufacturing
M-1	Light Industrial District
M-2	Heavy Industrial District
MBRs	Membrane Bioreactors
MBTA	Migratory Bird Treaty Act
MBtu	Million British Thermal Units
MC	Motor Coach
MEA	Major Environmental Analysis
MED	Medical and Health Services
MEI	Maximally Exposed Individual
MEP	Maximum Extent Practicable (as used in the Hydrology and Water Quality section)
MEP	Maximum Extent Possible (as used in the Hydrology and Water Quality section)
MGD	Million Gallons per Day
MHW	Mean High Water
MID	Modesto Irrigation District
MIP	Management and Information Professional Services
Mitigation Monitoring Plan	Wetland and Jurisdictional Waters Mitigation Monitoring Plan
MLD	Most Likely Descendant
MLLW	Mean Lower Low Water
MM	Mitigation Measure
MMI	Modified Mercalli Intensity
MMPA	Marine Mammal Protection Act
MMRP	Mitigation Monitoring and Report Program
MMTCO ₂ E	Million Metric Tons of CO ₂ -Equivalent
MOA	Memorandum of Agreement
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSA	Magnuson-Stevens Act
MT	Metric Tonnes
MTC	Metropolitan Transportation Commission
MTS	Metropolitan Transportation System
MU	Mixed-Use
Muni	San Francisco Municipal Railway

Acronym/ Abbreviation	Definition
Municipal Stormwater General Permit	Phase II NPDES General Permit for the Discharge of Storm Water from Small MS4s
N ₂ O	Nitrous Oxide
NAHC	Native American Heritage Commission
NALs	Technology-Based Numeric Action Levels
NAT	No Action Taken
NAVD88	North American Vertical Datum of 1988
Navy	United States Navy
nb	North Bound
NC	Neighborhood Commercial
NC-1	Neighborhood Commercial Cluster
NC-2	Small-Scale Neighborhood Commercial
NCD-IB	Neighborhood Commercial District, India Basin
NEHRP	National Earthquake Hazards Reduction Program
NELs	Technology-Based Numeric Effluent Limitations
NFA	No Further Action
NFIP	National Flood Insurance Program
NFL	National Football League
NGVD29	National Geodetic Vertical Datum
NHB	Non-home Based
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic Safety Administration
NI	No Impact
NMFS	National Marine Fisheries Services
NO ₂	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPRA	National Parks and Recreation Association
NPS	National Park Service
NPSs	Nonpoint Sources (as used in the Hydrology and Water Quality section)
NPWWF	North Point Wet Weather Facility
NRDL	Naval Radiological Defense Laboratory
NRHP	National Register of Historic Places
NSC	No Significant Contribution
NSMCSD	North San Mateo County Sanitation District
NTP	Neighborhood Transportation Plan
NURP	Nationwide Urban Runoff Program
NWIC	California Archaeological Site Survey Northwest Information Center
O&G	Oil and Grease
O ₃	Ozone
OBL	Obligate
°F	degrees Fahrenheit

<i>Acronym/ Abbreviation</i>	<i>Definition</i>
OHW	Ordinary High Water
OPR	California Office of Planning and Research
OS	Open Space
OSHA	Occupational Safety and Health Agency
P	Public
PA	Programmatic Agreement
PA	Public Address System (as used in the Noise and Vibration section)
PA&ED	Project Approval and Environmental Document
PA/SI	Preliminary Assessment and Site Identification
PAC	Bayview Hunters Point Project Area Committee
PAHs	Polycyclic Aromatic Hydrocarbons
Pathogens	Bacteria and Viruses
Pb	Lead
pc/h	Passenger cars per hour
pc/mi/ln	Passengers cars per mile per lane
PCBs	Polychlorinated Biphenyls
PCC	Portland Concrete Cement
PCEs	Primary Constituent Elements
PCOs	Parking Control Officers
PCWQCA	Porter-Cologne Water Quality Control Act
PDF	Project Design Feature
PDR	Production, Distribution, and Repair
PDT	Pacific Daylight Time
PE	Professional Engineer
PEIR	Program Environmental Impact Report
Peninsula	San Francisco Bay Area Peninsula
PFCs	Perfluorocarbons
PG&E	Pacific Gas and Electric
Phase I ESA	Phase I Environmental Site Assessment
PI	Project Impact
Pier 80 Outfall	Southeast Pollution Control Outfall
Planning Code	San Francisco Planning Code
Planning Commission	San Francisco Planning Commission
Planning Department	San Francisco Planning Department
PM	Particle Matter
PM ₁₀	Respirable Particulate Matter
PM _{2.5}	Fine Particulate Matter
Port	Port of San Francisco
ppm	Parts per Million
PPRF	Pulse Plasma Rock Fragmentation
PRC	Public Resources Code
PRDs	Permit Registration Documents
PRMMP	Paleontological Resources Monitoring and Mitigation Program
Project	Candlestick Point – Hunters Point Shipyard Phase II Development Plan Project
PSSG	Public Safety Strategies Group

Acronym/ Abbreviation	Definition
PST	Pacific Standard Time
PV	Photovoltaic
Qaf	Artificial Fill
Qc	Colma Formation
Qm	Bay Mud Deposits
QMS	Quality Management System
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
Qsr	Slope Debris and Revise Fill
Qu	Undifferentiated Sedimentary Deposits
R Value	Rainfall Erosivity Value
R&D	Research and Development
R&D Variant	Variant 1: No Stadium – Additional Research and Development Variant
RBCA	Risk Based Corrective Action
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REAP	Rain Event Action Plan
REB	Resource Efficient Building
RECs	Recognized Environmental Conditions
Recycled Water General Permit	General Waste Discharge Requirements for Landscaping Irrigation Uses of Municipal Recycled Water
RET	Retail
RFS	Renewable Fuel Standard
RFS	Renewable Fuel Standard
RH-1	Residential House One-Family District
RH-1D	Residential House Character District
RH-2	Residential House Two-Family District
RHNA	Regional Housing Needs Assessment
RHNP	Regional Housing Needs Plan
RI	Remedial Investigation
RIC	Rapid Impact Compaction
RM-1	Residential, Mixed District
RM-2	Residential, Mixed Moderate Density District
RMP	Risk Management Plan
ROD	Record of Decision
ROG	Reactive Organic Gas
ROWD	Report of Waste Discharge
RPD	San Francisco Recreation and Park Department
RPP	Residential Permit Parking
RPS	Renewables Portfolio Standard
RTAC	Regional Targets Advisory Committee
RTPs	Regional Transportation Plans
RUSLE	Revised Universal Soil Loss Equation
RV	Recreational Vehicle
RWMP	Recycled Water Master Plan
RWQCB	Regional Water Quality Control Board

<i>Acronym/ Abbreviation</i>	<i>Definition</i>
RWS	Regional Water System
RWSAP	Retail Water Shortage Allocation Plan
SamTrans	San Mateo County Transit Districts
SAP	Special Area Plan
SB	Senate Bill
sb	South Bound
SC	Specific Conductance
SC	Standard Condition (as used in the Climate Change section)
SC/PI	Significant Contribution/Project Impact
SCBA	Self-Contained Breathing Apparatus
SCP	Stormwater Control Plan
SDMP	Stormwater Drainage Master Plan
Seaport Plan	San Francisco Bay Area Seaport Plan
SF ₆	Sulfur Hexafluoride
SFAB	San Francisco Bay Area Air Basin
SFBC	San Francisco Building Code
SFCAP	San Francisco Climate Action Plan
SFCD	San Francisco City Datum
SF-CHAMP	San Francisco County's travel demand model
SFCTA	San Francisco County Transportation Authority
SFDPH	San Francisco Department of Public Health
SFDPW	San Francisco Department of Public Works
SFEI	San Francisco Estuary Institute
SFFD	San Francisco Fire Department
SFGSP	San Francisco Groundwater Supply Project
SFHA	San Francisco Housing Authority
SFHA	Special Flood Hazard Area (as used in the Hydrology and Water Quality section)
SFMTA	The San Francisco Municipal Transportation Agency
SFO	San Francisco International Airport
SFPD	San Francisco Police Department
SFPL	San Francisco Public Library
SFPUC	San Francisco Public Utilities Commission
SFPUC	San Francisco Public Utilities Commission
SFRPD	San Francisco Recreation and Park Department
SFRWQCB	San Francisco Bay Regional Water Quality Control Board
SFUSD	San Francisco Unified School District
SHPO	State Historic Preservation Officer
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SLERA	Screening-Level Ecological Risk Assessment
SO ₂	Sulfur Dioxide
SoMa	South of Market
SP	Service Population
SPP	Spill Prevention Plans
SRA	State Recreation Area

Acronym/ Abbreviation	Definition
SRRE	Source Reduction and Recycling Element
SSSC	Side-Street Stop Controlled
Stormwater Design Guidelines	Draft San Francisco Stormwater Design Guidelines
SU	Significant and Unavoidable Impact
SUD	Special Use District
SVE	Soil Vapor Extraction System
SVOCs	Semi-Volatile Organic Compounds
SVP	Society for Vertebrate Paleontology
SWIS	Solid Waste Information
SWMP	Site Waste Management Plan (as used in the Utilities section)
SWMP	Stormwater Management Plan (as used in the Hydrology and Water Quality section)
SWPCP	Southeast Water Pollution Control Plant
SWPPP	Storm Water Pollution Prevention Plans
SWRCB	State Regional Water Quality Control Board
TAC	Toxic Air Contaminants
TAZ	Traffic Analysis Zones
TBD	To Be Determined
TC	Trolley Coach
TDM	Transportation Demand Management
TDM Plan	Transportation Demand Management Plan
TDS	Total Dissolved Solids
TEP	Transit Effectiveness Project
TEPHd	Total Extractable Petroleum Hydrocarbons as Diesel
Tg	Teragram
TMDL	Total Maximum Daily Load
TNM	Traffic Noise Model
TOC	Total Organic Carbon
Tower Variants	Candlestick Point Tower Variants
TPH	Total Petroleum Hydrocarbons
TPS	Transit Preferential Street
TPS	Transit Preferential Street
Triple A	Triple A Machine Shop
TSDs	Treatment, Storage, and Disposal Facilities
TSS	Total Suspended Solids
UCSF	University of California, San Francisco
UPC	Universal Paragon Corporation
URBEMIS	Urban Emissions Model
US	United States
US DOT	United States Department of Transportation
US EPA Levels	Information of Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety
US-101	United States Highway 101
USACE	United States Army Corps of Engineers
USC	United States Code

Acronym/ Abbreviation	Definition
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	United States Green Building Council
USGS	United State Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
v/c	Volume/Capacity
VCA	Voluntary Cleanup Agreement
VdB	Vibration Decibels
VIS	Visitor Lodging
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
VOR	Vehicle Occupancy Rate
VTA	Santa Clara Valley Transportation Authority
V-Zones	Coastal High Hazard Areas
Waterfront Plan	Port of San Francisco Waterfront Land Use Plan
wb	West Bound
WDR	Waste Discharge Requirement
WEPA	Worker Environmental Awareness Program
WETA	San Francisco Bay Area Water Emergency Transportation Agency
WETA	Water Emergency Transit Authority
WHO	World Health Organization
WSA	Water Supply Assessment
WSAP	Water Shortage Allocation Plan
WSAS	Water Supply Availability Study
WSIP	Water Supply Improvement Program
WTP	Water Treatment Plant
WWII	World War II
XII	Total Destruction on the Modified Mercalli Intensity Scale
ZVI	Zero-Valent Iron

VIII.B GLOSSARY

Alluvial: A loose deposit of gravel, sand, mud, etc., formed by flowing water.

Alquist-Priolo Earthquake Fault Zone: In 1972 the State of California began delineating special studies zones (called Earthquake Fault Zones since January 1994) around active and potentially active faults in the state. The zones are revised periodically, and extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in the Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California-registered professional Geologist

Ambient: The lowest sound level repeating itself during a minimum 10-minute period as measured with a type 1, precision sound level meter, set on slow response and A-weighting.

Analytical Practical Quantification Limit: The lowest level of certainty that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Ballast Water: Water used to weight a ship to the water's surface, preventing toppling during heavy winds.

Basement Rock: Refers to the thick foundation of ancient and oldest metamorphic and igneous rock that forms the crust of continents. Sedimentary rocks are laid down on top of basement rock after the continents form. Some basement rock is visible from the surface, such as at the bottom of the Grand Canyon.

Break-bulk Cargo: A shipping term for any loose material that must be loaded individually, not in shipping containers or in bulk as with oil or grain.

Btu: Approximately the amount of energy needed to heat one pound of water one degree Fahrenheit.

Bulkhead Site: The area between the waterfront roadway and the pier or water. Many bulkhead sites house structures that provide entrances to the piers.

Cancer risk: Calculated approximation of the probability of an individual developing cancer as a result of exposure to a cumulative dose of a potential carcinogen based on estimated or measured concentrations in soil, groundwater, or air and a potency factor specific to that carcinogen.

Carbon Monoxide: A colorless, odorless gas produced by the incomplete combustion of fuels.

Carcinogen: Cancer-causing.

Characteristic Earthquake: Characteristic earthquakes are repeat earthquakes that have the same faulting mechanism, magnitude, rupture length, location, and, in some cases, the same epicenter and direction of rupture propagation as earlier shocks. As used in this report, the moment magnitude (M) of the "characteristic earthquake" indicates the scale of the seismic event considered representative of a particular fault segment, based on seismologic observations and statistical analysis of the probability that a larger earthquake would not be generated during a given time frame (often 50 or 100 years). In the Bay Area, the characteristic earthquake for the Peninsula segment of the San Andreas Fault has a moment magnitude (M) of 7.3; the Northern and Southern segments of the Hayward fault, an M of 6.9; and the Calaveras fault, M 6.2. The term "characteristic earthquake" replaces the term "maximum credible earthquake" as a more reliable descriptor of future fault activity (Working Group on California Earthquake Probabilities, *Earthquake Probabilities in the San Francisco Bay Region: 2002–2031*, USGS Open-File Report 2003-214, 2003).

Chronic exposure: Repeated doses of or exposure to a substance over a relatively prolonged period of time (i.e., many years versus a few days).

Colluvial: A loose deposit of rock debris accumulated through the action of gravity at the base of a cliff or slope.

Combined Sewer Overflow (CSO): An overflow is a pipe that discharges flows that exceed the capacity of the combined sewer system during very heavy rain. Such discharges receive primary (flow-through) treatment in underground storage/transport boxes. Overflow events are relatively rare in San Francisco.

Densification: Increasing the density of soil.

Detention: Slowing down, temporary storing, and releasing stormwater runoff at a controlled rate.

Dose: The amount of a chemical substance to which an organism is exposed.

Draft Final 2005 Industrial General Permit: Contains parameter benchmark concentrations for constituents commonly found in stormwater runoff from industrial facilities (indicator parameters), which are derived from US EPA's Multi-Sector General Permit.

Dual plumbing: A system of separated water and wastewater lines.

Effects Range Median (ERM): The concentration above which effects are frequently or always observed among most species of biota.

Embayment: A small bay or any small semi-enclosed coastal water body whose opening to a large body of water is restricted.

ENERGY STAR: A joint program of the US Environmental Protection Agency and the US Department of Energy that sets energy efficiency guidelines for appliances and homes.

Estuarine: The part of the mouth or lower course of a river in which the river's current meets the sea's tide.

Exposure pathway: The course a chemical or pollutant takes from the source to the organism exposed. A complete exposure pathway consists of four elements: chemical sources, migration routes (i.e., transport in the environment), an exposure point for contact (i.e., soil, air, or, water); and exposure routes. An exposure pathway is not complete unless all four elements are present.

Exposure route: The way a chemical or pollutant enters the organism after contact. Four exposure routes are recognized in risk evaluation methods: ingestion, inhalation, dermal (skin and eye), and injection.

Extremely hazardous substance: In the context of *Public Resources Code* Section 21151.4 pertaining to hazardous materials emissions near schools, this refers to a material included on lists compiled pursuant to Section 25532 of the *California Health and Safety Code*, which incorporates regulated toxic and flammable substances under Section 112(r) of the federal *Clean Air Act* Table 3 of Section 112(r) lists those regulated substances pursuant to Section 25532(g)(2) of *California Health and Safety Code*. Threshold quantities for listed toxic and flammable substances are specified in the tables.

Fault Creep: Movement along a fault that does not entail earthquake activity.

Fine Particulate Matter: Extremely small, suspended particles or droplets 2.5 microns or smaller in diameter.

Fixed Source: A machine or device capable of creating a noise level at the property upon which it is regularly located, including but not limited to: industrial and commercial process machinery and equipment, pumps, fans, air-conditioning apparatus or refrigeration machines.

Floodway: The stream channel and portion of the adjacent floodplain that must remain open to permit passage of the base flood.

Foot-candle: A unit of light intensity that represents the illumination given off by a single candle at a distance of one foot.

Re-gunning crane: A type of crane used in shipbuilding and repair that is particularly suited to lift heavy objects such as ship engines.

General Plan: The General Plan, adopted by the City Council or local governing board after public hearings and citizen input, is a comprehensive, long-range policy document that guides the ultimate physical development of a city or local government.

Geogrid: Synthetic fabric (fiberglass, polyester, treated steel, etc.) formed into nets with openings more than ¼ inch in size to allow the fabric to interlock with surrounding soil, rock, and other below-ground-level materials and to function as reinforcement.

Granular: Made up of very small grains.

Ground Acceleration: The speed at which soil or rock materials are displaced by seismic waves. It is measured as a percentage of the acceleration of gravity (0.5g = 50 percent of 32 feet per second squared, expressed as a vertical or horizontal force). *Peak* ground acceleration is the maximum acceleration expected from the characteristic earthquake predicted to affect a given area. Repeatability acceleration refers to the acceleration resulting from multiple seismic shocks. Sustained acceleration refers to the acceleration produced by continuous seismic shaking from a single, long-duration event.

Hazard Index (HI): The calculated ratio of predicted acute or chronic exposure of noncarcinogenic substance to a toxicity reference dose level for that particular substance. A Hazard Index (HI) threshold of 1 has been established by most regulatory agencies, including the RWQCB and BAAQMD for comparison purposes. Adverse health effects are not anticipated when chronic and acute hazard indices are less than one.

Hazard: Any situation that has the potential to cause damage to human health or the environment.

Hazardous air emission: In the context of *Public Resources Code* Section 21151.4 pertaining to hazardous materials emissions near schools, this refers to a material included on the list of hazardous air emissions (toxic air contaminants) established by the California Air Resources Board per Section 44321 of the *California Health and Safety Code*.

Hazardous material: Any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and

safety of persons or harmful to the environment if released into the workplace or the environment (*California Health and Safety Code*, Section 25501).

Hazardous materials release site: Any area, location, or facility where a hazardous material has been released or threatens to be released to the environment (*California Health and Safety Code*, Section 25260(e)).

Hazardous substance: See “hazardous material.”

Hazardous waste: Waste that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed (*California Health and Safety Code*, Section 25117).

Head: Head (hydraulic head, piezometric head, groundwater head) is a measurement, in length, of the elevation to which water will rise in a well. It is related to water pressure and density. Groundwater always flows from high head to low head.

Hydromodification: The change in the stream flow hydrograph (e.g., flow rate, timing of peak flows, flow duration, and flow volume).

Intact Archaeological Deposit: An archaeological deposit in which the original or stratified association of archaeological remains are retained within an archaeological site.

Interim target level (ITL): Calculated site-specific concentration of a chemical in soil that would be used to identify locations in Candlestick Point sub-areas not subject to Article 22A testing that could require risk management measures during project development.

Lead: Occurs in the atmosphere as particulate matter. Sources of lead include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.

Lithology: The physical character of a rock or rock formation.

Local Electrical Capacity: A function of the capacity of the transmission network to convey power to a service area, the capacity of the local substations to “step down” the power to deliverable voltages, and of the adequacy of the local distribution network to deliver power to end users.

Mélange: A mélange (French for “mixture”) is a large body of rock characterized by a lack of bedding and includes rock fragments of all sizes contained in a fine-grained matrix. A mélange typically consists of a jumble of blocks of varied rock types.

Metamorphosed Rock: Metamorphosed rock is igneous or sedimentary rock that has been transformed, or ‘metamorphosed’, by intense heat and pressure (temperatures greater than 150 to 200 °C and pressures of 1500 bars) causing profound physical or chemical changes.

Micropascal: A measure of pressure per unit area where 1 micropascal equals 0.0000145 pounds per square inch.

Modified Mercalli Intensity (MMI) Scale: A 12-point scale of earthquake intensity based on local effects experienced by people, structures, and earth materials. Each succeeding step on the scale describes a progressively greater amount of damage at a given point of observation. Effects range from those which are detectable only by seismicity recording instruments (I) to total destruction (XII). Most people will feel Intensity IV ground motion indoors and Intensity V outside. Intensity VII frightens most people, and Intensity IX causes alarm approaching panic. The scale was developed in 1902 by Giuseppe Mercalli for European conditions, adapted in 1931 by American seismologists Harry Wood and Frank Neumann for conditions in North America, and modified in 1958 by Dr. Charles F. Richter to accommodate modern structural design features.

Moment Magnitude (M): A logarithmic scale introduced by Hiroo Kanamori in 1977 that is used by modern seismologists to measure the total amount of energy released by an earthquake. For the purposes of describing this energy release (i.e., the “size” of an earthquake on a particular fault segment for which seismic resistant construction must be designed) the moment magnitude (M) of the characteristic earthquake for that segment has replaced the concept of a maximum credible earthquake of a particular Richter magnitude. This has become necessary because the Richter scale “saturates” at the higher magnitudes; that is, the Richter scale has difficulty differentiating among the sizes of earthquakes above M 7.5. To correct for this effect, the formula used for the M scale incorporates parameters associated with the rock types at the seismic source and the area of the fault surface involved in the earthquake. Thus, the moment magnitude is related to the length and width of the fault rupture. It reflects the amount of “work” (in the sense of classical physics) done by the earthquake. The relationship between Richter and moment magnitudes is not linear (i.e., moment magnitude is not a set percentage of Richter magnitude): the two values are derived using different formulae. The four well-studied earthquakes listed below exemplify this relationship.

<i>Location</i>	<i>Date</i>	<i>Richter Magnitude</i>	<i>Moment Magnitude</i>
New Madrid MO	1812	8.7	8.1
San Francisco CA	1906	8.3	7.7
Anchorage AK	1964	8.4	9.2
Northridge CA	1994	6.4	6.7

Although some of the values shown on the M scale appear lower than those of the traditional Richter magnitudes, they convey more precise (and more useable) information to geologic and structural engineers.

Multi-Sector General Permit: Provides coverage for industrial facilities located in five states, in certain Native-American lands, as well as for various federal facilities, where US EPA is the NPDES permit authority.

Municipal Separate Storm Sewer System (MS4): An 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) (i) designed or used for collecting or conveying storm water, (ii) that is not a

combined sewer, and (iii) that is not part of a Publicly Owned Treatment Works. The term MS4 also refers to the jurisdiction that operates such a system.

Native soil: Soil that exists in BWP project site that does not contain fill materials.

National Geodetic Vertical Datum (NGVD29): Equivalent to -1.77 feet based on the San Francisco City Datum, or roughly equivalent to mean sea level.

Naturalized Plants: Those that were originally installed as ornamental plantings but are now found growing ‘naturally’ in a variety of habitats.

Nitrogen Dioxide: A reactive, oxidizing gas capable of damaging cells lining the respiratory tract which is an essential ingredient in the formation of ozone.

North American and Pacific Plates: Tectonic plates that cover most of North America and the Pacific Ocean, respectively. These two plates have formed a transform boundary (where two plates grind past one another) on the western edge of California, along the San Andreas Fault system.

Oil and Grease (O&G): At very low concentrations, O&G can cause sheen on the surface of water. O&G can adversely affect aquatic life, create unsightly floating material, and make water undrinkable.

Offset Surface: Surfaces not in alignment, or offset, from each other that may have arisen from old landslides.

Orthents Soils: In USDA soil taxonomy, Orthents are defined as Entisols (soils that do not show any soil profile development) that lack horizon development due to either steep slopes or parent materials that contain no permanent weatherable minerals.

Outfall: An outfall is a pipe that discharges treated stormwater and wastewater flows into a receiving water body.

Overconsolidated: Subjected to an effective pressure greater than the pressure of the present.

Overflow: A pipe that discharges flows that exceed the capacity of the combined sewer system during heavy rain.

Ozone: A gas that is formed when reactive organic gases (ROG) and nitrogen oxides (NO_x)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight.

Pathogen Indicator Bacteria: Although they are not generally harmful themselves, these bacteria indicate the possible presence of disease-causing bacteria, viruses, and protozoa.

pH: A numeric measurement of the hydrogen-ion concentration in water.

Pier: A structure that extends out over the water.

Pollutant Loads: The amount of pollutants entering a water body, generally expressed in terms of mass released over a given time frame (e.g., pounds/day).

Polycyclic aromatic hydrocarbon (PAH): Organic chemical byproduct formed by the incomplete combustion of raw fuel materials, typically present as a constituent of heavy-end fuels (e.g., diesel) or other petroleum-based products such as asphalt.

Powered Construction Equipment: Any tools, machinery, or equipment used in connection with construction operations which can be driven by energy in any form other than manpower, including all types of motor vehicles when used in the construction process of any construction site, regardless of whether such construction site be located on-highway or off-highway, and further including all helicopters or other aircraft when used in the construction process except as may be preempted for regulation by state or federal law.

Quaternary: The geologic time period after the Neogene period, approximately 1.8 million years ago to the present.

Quay Wall: A wharf or bank that is constructed to accommodate the loading of ships and other vessels.

Reclaimed Complex Soils: Soils found on reclaimed land, such as tidal flats that were once part of San Francisco Bay.

Record of Decision: A signed federal document representing the culmination of the federal environmental document review and approval process, and documenting federal project environmental approval. Mitigation measures that will be incorporated in the project are typically summarized in an attached appendix.

Remedial action or remediation: Actions required by state or local laws, ordinances, or regulations necessary to prevent, minimize, or mitigate damage that may result from the release or threatened release of a hazardous material (*California Health and Safety Code*, Section 25260(g)). These actions include the cleanup of the site, monitoring, testing and analysis of site conditions, site operation and maintenance, and placing conditions or restrictions on the land use of the site upon completion of remedial actions.

Retention: Capturing stormwater runoff and preventing discharge from the detention device.

Respirable Particulate Matter: Extremely small, suspended particles or droplets 10 microns or smaller in diameter.

Reverse-slip Fault: A fault with predominantly vertical movement in which the upper block moves upward in relation to the lower block.

Richter Magnitude Scale: The Richter Magnitude Scale is a logarithmic scale developed during 1935 and 1936 by Dr. Charles F. Richter and Dr. Beno Gutenberg to measure earthquake magnitude by the amount of energy released, as opposed to earthquake intensity as determined by local effects on people, structures, and earth materials (as in the Modified Mercalli Intensity Scale). Each whole number on the Richter scale represents a 10-fold increase in amplitude of the waves recorded on a seismogram and about a 32-fold increase in the amount of energy released by the earthquake. Because the Richter scale tends to saturate above approximately M 7.5, it is being replaced in modern seismologic investigations by the moment magnitude (M) scale.

Risk: The probability of exposure to hazardous material and severity of harm that exposure would pose to human health or the environment, where the degree of risk is a function of the means of exposure, in addition to the inherent toxicity of the material.

San Francisco City Datum: A local vertical geodetic reference system specific to the City and County of San Francisco and formally established in 1964 as 8.616 feet above the National Geodetic Vertical Datum of 1929 (NGVD29), making it about 8.13 feet above mean sea level.

Seawall Lot: A parcel of land, generally located on the land side of a waterfront roadway, which was created when the seawall was built.

Semi-volatile organic compound (SVOC): An organic chemical that readily, but only partially, evaporates or changes from a liquid to gas at temperatures normally found at the ground surface and at shallow depths.

Serpentinite: A rock composed almost entirely of serpentine materials.

Shadow Fan/Shadow Trace: A figure identifying the maximum extent of all project-related shadows from one hour after sunrise to one hour before sunset for an entire year.

Shale Matrix: Shale, or mudstone, is a fine-grained sedimentary rock, usually formed from clay minerals compacted together by pressure. The matrix, or groundmass, is the fine-grained mass of material in which other larger grains are embedded within.

Shear Strength: Describes the maximum strength of soil at which point significant plastic deformation (yielding) occurs due to an applied shear stress.

Shear Zone: A wide zone of sheared rock, where intense foliation and deformation may occur. The zone may be associated with a fault, but it is often difficult to distinguish a fault plane in the zone.

Sheet Piles: Flat metal “boards” that are driven into the substrate with a pile driver. They interlock with each other to form a vertical water tight wall.

Specific Conductance (SC): A numerical expression of the ability of water to carry an electric current.

Subduction: An area where two tectonic plates converge and move towards one another, with one sliding underneath the other and moving down into the earth’s mantle, part of the earth’s internal structure.

Sulfur Dioxide: A colorless, extremely irritating gas or liquid.

Surcharging: Overloading and flooding of the drainage system.

Terrane: A crustal block or fragment that is typically bounded by faults which has a geologic make-up distinct from those of surrounding areas.

Total Organic Carbon (TOC): An indicator of the total organic matter present in water.

Total petroleum hydrocarbons (TPH): Fuel products such as diesel, gasoline, and motor oil containing organic chemical compounds of varying types and concentrations that are specific to type product.

Total Suspended Solids (TSS): An indicator of the undissolved solids in stormwater runoff.

Toxic: Concentration of a substance that would be lethal or produce other adverse responses detrimental to the health of an organism.

Toxic Hot Spots: Locations in enclosed bays, estuaries, or the ocean where pollutants have accumulated in the water or sediment to levels that (1) may pose a hazard to aquatic life, wildlife, fisheries, or human health; (2) may impact beneficial uses; or (3) exceed State Water Resources Control Board or Regional Water Quality Control Board-adopted water quality or sediment quality objectives.

Treatability Studies: Pilot-scale type tests conducted at hazardous wastes sites to determine if a treatment technology will work for that site's particular set of environmental conditions.

Urban Land: Per USDA soil taxonomy, Urban Land is soil that has been modified by disturbance of the natural layers with additions of fill material several feet thick to accommodate large industrial and housing installations.

Volatile Organic Compound (VOC): An organic chemical that readily evaporates at temperatures normally found at the ground surface and at shallow depths.

Waffling Grade: A surface texture marked by ridges and valleys that would help to channel flow.

Waste Discharge Requirement (WDR): WDRs are regulatory requirements pertaining to water quality. WDRs may apply to a general activity or program (e.g., construction runoff) or they may be specific to a particular facility. An NPDES permit is an example of a type of WDR.