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- EE Construction Impacts Technical Memorandum
- FF Cumulative Impacts Technical Memorandum
- GG Sunnyvale Analysis/Existing Plus Project Conditions
- HH Conceptual Engineering Drawings
- II Travel Demand Modeling Technical Memorandum

Glossary

100-year Floodplain

The land area that is susceptible to inundation by floodwaters, which has a one percent chance of occurring in any given year.

Above-Grade

Located above existing ground level; elevated.

Active Fault

A fault that has moved within late-Quaternary time (the last 750,000 years).

Active Recreation Area

A mix of uses in a neighborhood park that includes the following facilities or facility types: athletic fields, building or structures for recreational activities, concession, community garden, courses or courts, children's play area, dog play area, or a bike path.

Activity Centers

Local and major attractions (e.g., commercial, medical, civic, and educational facilities) with a high volume of traffic and large population and commercial densities that have a great demand for transit.

Adjusted Environmental baseline

Defined as the existing conditions in 2010, adjusted for regional growth that would occur by 2035, and equivalent to the No Build Alternative (2035). For the purpose of the analysis of the Draft EIS/EIR, it is used to evaluate significance of the alternatives under NEPA and CEQA.

Adverse Effect

A term used in NEPA to describe unfavorable, harmful, or detrimental changes in environmental conditions.

Aesthetics

Visual quality, visual characteristics, and the overall appearance of the project in the community context. Issues of light and glare, community view-sheds, architectural compatibility with existing development or a specific site or setting are all part of the issue of "aesthetics" as addressed within the framework of NEPA and CEQA.

Air Dispersion Modeling

An air analysis, and for the Eastside Transit Corridor Phase 2 project, a thermal plume study, that determines risk to train passengers from exposure to the high temperature plume emitted from the Operating Industries, Inc. (OII) remediation system stacks on the north side of SR 60. High temperature gases are emitted from the OII landfill thermal oxidizer stacks, which are located approximately 360 feet north of the proposed LRT tracks along the original SR 60 southern alignment. Air dispersion modeling estimated the temperature of the exhaust gas plume at the point where the plume would cross the proposed LRT tracks for both the southern alignment and the North Side Design Variation.

Alluvial

A fine-grained fertile soil deposited by water flowing over flood plains or in river beds; clay or silt or gravel carried by rushing streams and deposited where the stream slows down.

Alquist-Priolo Earthquake Fault Zone

Active fault zones, identified pursuant to the Alquist-Priolo Earthquake Fault Zone Act. This Act is intended to prevent the construction of new buildings for human occupancy over active faults. It requires identification of active fault zones and regulation of development within these zones. General Plan Safety

Elements typically identify Alquist-Priolo Earthquake Fault Zones and incorporate the Act's requirements. The Act does not apply to publicly owned facilities, critical facilities and lifelines, or industrial facilities.

Alternatives Analysis (AA)

A study to evaluate the costs, benefits, and impacts of a range of transportation alternatives designed to address mobility problems and other locally-identified objectives in a defined transportation corridor. The AA process includes initial technical analyses and community and public agency feedback gathered at meetings and public workshops.

Ambient Noise

The all-encompassing noise level associated with a given environment, which may generally include local traffic, community activities, and existing commercial and industrial operation in the vicinity.

Amtrak

A National Railroad Passenger Corporation that provides rail passenger service.

Ancillary Facilities

Ancillary facilities include items in the Metro design criteria included at stations, such as station markers, station entry portal configuration (canopies/pavilions), security cameras, bus shelters, benches, emergency telephones, public telephones, stairs, escalators, elevators, map cases, fare collection, pedestrian and street lighting, hand railings, landscaping, trash receptacles, bike racks and lockers, emergency generator, power boxes, fire hydrants, and artwork.

Anticline

An upward fold in layers of rock. For instance, the Elysian Park Anticline is a fold in the earth that stretches from about El Monte and arcs northwest through East Los Angeles, Lincoln Heights, Elysian Park and Silver Lake.

Aquifer

An underground layer of permeable rock from which groundwater can be extracted.

Application Screening Index (ASI)

The summation of the pollutant screening indexes for all pollutants; if the ASI is less than 1, then the emissions source is compliant with the South Coast Air Quality Management District's (SCAQMD) risk thresholds.

Area of Potential Effect (APE)

"...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." 36 CFR Part 800.16(d) Establishing the area of potential effect is only applicable in the scope of the cultural resources impact analysis.

Area of Potential Impact (API)

The area within which potential direct impacts from the proposed action could occur for environmental issue areas other than cultural resources. An area that is analyzed from a spatial perspective and from a temporal perspective. The area of potential impact is different for each issue area; therefore, the analyses include a unique approach for each issue area based on the zone in which environmental impacts could occur.

Archaeological Resource

Any material remains of past human life or activities which are of archaeological interest, as determined under the uniform regulations promulgated pursuant to the Archaeological Resources Protection Act of

1979. Such regulations containing such determination shall include, but not be limited to: pottery, basketry, bottles, weapons, weapon projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items. No fossilized and fossilized paleontological specimens, or any portion or piece thereof, shall not be considered archaeological resources, under the regulations under this paragraph, unless found in an archaeological context. No item shall be treated as an archaeological resource under regulations under this paragraph unless such item is at least 100 years of age.

At-Grade

A guideway (track) or road with horizontal alignment at an elevation generally the same as the surrounding areas and at ground level (i.e., not elevated or depressed); a surface-level guideway.

Arterial Street

A major thoroughfare, used primarily for through traffic rather than for access to adjacent land, that is characterized by high vehicular capacity and continuity of movement.

Assessor's Parcel Number (APN)

A number assigned to a parcel of real property by the Office of Assessor of Los Angeles County for the purposes of identification and record-keeping.

Attainment Area

A geographic area that meets or does better than the national ambient air quality standard for a criteria pollutant.

Avoidance Alternative

In reference to Section 4(f), a feasible and prudent avoidance alternative, as defined in 23 CFR 774.17, avoids using the Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweigh the importance of protecting the Section 4(f) property.

Ballast

Trackbed forming upon which railroad ties are laid.

Ballast Mats

Reduces the level of noise and vibrations and increasing the elasticity of rails.

Bents

Cross-sectional frame structure used to support the viaduct and aerial trackway.

Best Available Control Technologies (BACT)

An emissions limitation which is based on the maximum degree of control that can be achieved. It is a case-by-case decision that considers energy, environmental, and economic impacts. BACT can consist of add-on control equipment or modification of the production processes or methods. This includes fuel cleaning or treatment and innovative fuel combustion techniques. BACT may be a design, equipment, work practice, or operational standard if imposition of an emissions standard is infeasible.

Best Management Practices (BMPs)

Applicable to management of water quality; methods or measures designed and selected to reduce or eliminate the discharge of pollutants from not readily identifiable sites (e.g., stormwater runoff from properties over a wide area). In water quality, BMPs include treatment requirements and operating procedures and practices to control the water that runs off of a site, spills or leaks, sludge or waste disposal, or drainage from raw material storage.

Bioretention Facilities

Also known as a rain garden; a vegetated closed depression that retains and filters stormwater runoff from an area of impervious surface such as pavement.

British Thermal Unit (BTU)

The quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at sea level.

Bus Rapid Transit (BRT)

An enhanced bus system that operates on dedicated bus lanes or other transit-ways in order to combine the flexibility of buses with the efficiency of rail.

CAL3QHC

A traffic model that calculates delays and queues that occur at signalized intersections. CAL3QHC also predicts air pollutant concentrations near highways and arterial streets due to emissions from motor vehicles operating under free flow conditions, and the estimation of the contribution of emissions from idling vehicles. CAL3QHC required inputs include: meteorological inputs, roadway geometries and receptor locations, traffic inputs and vehicular emission factors. The CAL3QHC model was used to estimate localized impacts from CO from the five intersections with the most potential for adverse impacts under each alternative.

CalEEMod

A statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas emissions associated with both construction and operational from a variety of land use projects.

California Act

The provisions of the California Relocation Act (or California Act) apply in the absence of federal funds and/or involvement if a public entity undertakes a project and consequently must provide relocation assistance and benefits. The California Act seeks to (1) ensure consistent and fair treatment of owners of real property, (2) encourage and expedite acquisition by agreement to avoid litigation and relieve congestion in the courts, and (3) promote confidence in the public land acquisitions process. Owners of private property have state constitutional guarantees regarding property acquisition, damages, and just compensation.

California Environmental Quality Act (CEQA)

A statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.

California Natural Diversity Database (CNDDDB)

A program that inventories the status and locations of rare plants and animals in California.

California Register of Historical Resources (CRHR)

An authoritative listing of California's historical resources, including buildings, sites, structures, objects and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. These historic properties are to be protected from substantial adverse change.

Candidate Species

Plants and animals that have been studied and the U.S. Fish and Wildlife Service (Service) has concluded that they should be proposed for addition to the Federal endangered and threatened species list. These

species have formerly been referred to as category 1 candidate species. From the February 28, 1996 Federal Register, page 7597: "those species for which the Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list but issuance of the proposed rule is precluded."

Capital Funding Sources

A selection of local, state and federal revenue sources that would be used to fund the Eastside Transit Corridor Phase 2 project.

Cast-in-drilled-hole (CIDH)

Pre-drilling utilizing a pre-augering method. CIDH eliminates the hammering of piles into the ground by using large augers to drill a hole into which a steel frame is placed. The drilled hole and steel frame insert are then filled with concrete to create "cast-in-drilled hole" columns or piles.

Catalyst

Initiating economic development and revitalization to the extent of the alternatives by attracting investment and other businesses to the community.

Catch Basin

A collection structure below ground designed to collect and convey water into the storm drain system.

Catch Basin Inserts

Devices installed under a storm-drain grate that provide water quality treatment through filtration, settling, or adsorption.

Catch Basin Screens

Mesh wire or perforated plates that cover the openings of catch basins in order to prevent trash from entering the storm drain system.

Census Designated Places (CDPs)

Area within the United States identified by the U.S. Census Bureau for statistical purposes, but which may not map directly to a city/town or other ordinary location type.

Census Block

The smallest unit of geography defined by the U.S. Bureau of the Census. A Census Block is a geographic sub-division of a Census Tract and is typically the size of a city block in urban areas and slightly larger in rural areas.

Census Tract

A standard area in certain large American cities used by the U.S. Bureau of the Census for purposes of population enumeration. Census tracts usually have a population between 2,500 and 8,000 persons.

Center Platform Station

Rail station with tracks and patron access to trains on both sides of the platform; rail tracks are located on each side of the platform.

Climate Change Scoping Plan

California's roadmap that identifies regional transportation-related greenhouse gas (GHG) emission reduction targets for passenger vehicles, consistent with the requirements of Senate Bill 375.

CO Hot Spots Analysis

An analysis to ensure that the project would not significantly increase carbon monoxide (CO) concentrations in the general project area.

Compensatory Flood Storage

The replacement for any loss of existing flood storage caused by development within the floodplain.

Compensatory Mitigation

The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Complete Streets Act

Assembly Bill 1358 requires cities and counties to include complete streets policies as part of their general plans so that roadways are designed to safely accommodate all users, including bicyclists, pedestrians, transit riders, children, older people, and disabled people, as well as motorists. As of January 2011, any substantive revision of the circulation element in the general plan of a California local government will include complete streets provisions.

Conceptual Level Engineering

Conceptual level engineering provides a higher level of definition of system design and operational parameters for the four Final Alternatives, identified for further analysis in the Alternatives Analysis Study. This level of engineering allows for further refinement of project-related technical information, including operating speeds and travel times, ridership forecasts, travel benefits and capital and operating costs.

Constitutional Guarantees

The U.S. Constitution guarantees right to free speech, equality protection, equality and grants citizenship to all personas born in the United States, regardless of color, creed, or origin.

Constrained Plan

Projects that are listed in Metro's 2009 LRTP and identified for construction and implementation through the year 2035.

Construction Staging Areas

Construction staging areas would be needed for equipment storage; construction materials delivery; equipment assembly; materials production; dewatering activities; access roads; construction worker parking; temporary trailer offices; demolition staging; spoils removal; and other related activities during the construction period. Construction staging areas are temporary and would be located within the right-of-way necessary for each alignment or on land to be acquired for guideway construction, stations, the maintenance yard, parking, or TPSS construction.

Constructive Use

Defined as proximity impacts, such as noise or visual effects that substantially impair the activities, features, or attributes that qualify a resource for Section 4(f) protection. These impacts would have to substantially reduce the value of the resource in terms of its Section 4(f) significance in order to be considered a constructive use (23 CFR 774.15).

Consumer Price Index (CPI)

A measure of the average change over time in the prices paid by consumers for a market basket of consumer goods and services.

Continuously-Welded Rail (CWR)

Rails welded into a continuous string, which improves joint bars and hardening rail ends.

Cost-effectiveness

An index defined by the Federal Transit Administration (FTA) for purposes of evaluating major transit investments. It relates the planning and operating costs of a project to the project's ridership numbers and travel time savings.

Criteria Pollutants

Air pollutants of concern with national air quality standards that define allowable concentrations of these substances in ambient air. The criteria pollutants include ground-level ozone, carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x), particulate matter (PM₁₀), and lead.

Crossover Track

A connection between two adjacent parallel tracks that allow trains to move between, or cross over from one set of tracks to the other.

Cumulative Impact

Combined impacts from a collection of projects when evaluated all together.

Cumulatively Considerable

The incremental effects of an individual project are significant when viewed in combination with the effects of past projects, the effects of other current projects, and the effects of probable future projects (Section 15064).

A-Weighted Decibel Sound Level (dBA)

An expression of the relative loudness of sounds in air as perceived by the human ear.

Decibel Sound Level (dB)

A unit of measurement of the intensity of sound or the changes in air pressure created by sound. Zero db is the weakest sound that can be detected by a young and alert person without hearing impairment.

De Minimis Impact

For publicly owned parks, recreation areas, and wildlife and waterfowl refuges under Section 4(f), a *de minimis* impact is one that will not adversely affect the activities, features, or attributes of the property (23 CFR 774.17). For historic sites, a *de minimis* impact means that the Federal Transit Administration (FTA) has determined (in accordance with 36 CFR Part 800) that either no historic property is affected by the project or that the project will have "no adverse effect" on the historic property.

Detention Basin

An area where excess stormwater is stored or held temporarily and then slowly drains when water levels in the receiving channel recede. In essence, the water in a detention basin is temporarily detained until additional room becomes available in the receiving channel.

Detention Ponds

A man-made depression that collects and cleans storm water runoff. Detention ponds help to slow the rate of storm water runoff from the neighborhood and improve the quality of the storm water leaving the detention pond. They are important in protecting public and private property, public health and safety, and water quality. The pond collects and traps sediment from storm water that would otherwise clog our rivers and streams, and degrade the environment for fish, birds and other wildlife.

Dewatering

Removal or draining of groundwater or surface water from a site by pumping or evaporation.

Discharge

Direct or indirect introduction of diffuse sources or substances, caused by general construction activities (e.g., dredged or fill materials), into surface water or a municipal separate storm sewer system.

Disproportionate Effect

High and adverse human health or environmental impacts that could affect low-income and minority populations more than others. Whether an adverse effect is “disproportionately high” on minority and low-income populations depends on whether that effect is (1) predominantly borne by an EJ population, or (2) will be suffered by the EJ population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-EJ population. It is important to note that determinations of disproportionately high and adverse effects take into consideration the mitigation and enhancement measures that are planned for the proposed action.

Downdrains

Culverts or lined ditches that are placed on steep slopes, which carry runoff from the top of a slope to the bottom.

Dredge

Fill materials from construction activities.

Dual Track

A double-track railway that involves running one track in each direction, compared to a single-track railway in which trains in both directions share the same track.

Easement

The use of one party's property by another party. Easements are agreed upon by both parties and compensation is often involved.

Effect (as Related to Historic/Cultural)

Refers to alterations in the character or use of historic properties by the alternatives. Used instead of “impacts” (referred to elsewhere in the Draft EIS) because of the unique requirements and terminology for assessing historic resource impacts.

Electromagnetic Fields

A field of force that consists of both electric and magnetic components, resulting from the motion of an electric charge and containing a definite amount of electromagnetic energy.

EMFAC

The Emissions Factors model develops emission factors for different vehicle classes. EMFAC is also used to describe the on-road fleet mix (relative ratio of passenger cars, buses, delivery trucks, heavy duty diesel trucks, motorcycles, recreational vehicles, etc.) for the South Coast Air Basin (SoCAB) in each year of the analysis.

Employment Centers

Areas with high concentration of employment, which tend to have high number of transit trips, congestion, and constrained parking.

Encroachment

A situation in which a property owner violates the property rights of his neighbor by building something on the neighbor's land, using a portion of the land, or by allowing something to hang over onto the neighbor's private property.

Endangered Species

Any species of plant, animal (and its critical habitat), or other organism that is in danger of extinction throughout all or a significant portion of its range. Such plant and animal species are protected under the Federal Endangered Species Act (FESA) (as amended, 16 United States Code [USC] 1531 et seq.) and the California Endangered Species Act (CESA) (Fish and Game Code, Sections 2050 et seq.).

Environmental Impact Report (EIR)

A detailed report required under the California Environmental Quality Act (CEQA) describing and analyzing the significant environmental effects of a proposed project, identifying alternatives and discussing ways to reduce or avoid the possible significant environmental impacts.

Environmental Impact Statement (EIS)

A full disclosure document required under the National Environmental Policy Act (NEPA) that details the process through which a project was developed, includes consideration of a range of reasonable alternatives, analyzes the potential environmental effects resulting from the alternatives, and demonstrates compliance with other applicable environmental laws and executive orders.

Environmental Justice

The term stems from the 1994 Presidential Executive Order 12898 to promote equity for disadvantaged communities and promote the inclusion of racial and ethnic populations and low-income communities in decision-making. Local and regional transportation agencies must ensure that services and benefits, as well as burdens, are fairly distributed to avoid discrimination.

Environmentally Superior Alternative

As required per Section 15126.6(e)(2) of the *CEQA Guidelines*, the environmentally superior alternative is based on the results of the technical analysis of all the alternatives as reported in the EIR and on input from the public during public scoping and the public comment period for the EIR. The identification of an environmentally superior alternative is separate from the selection of a locally preferred alternative (LPA). For the Eastside Transit Corridor Phase 2 project, following the Draft EIS/EIR public comment period, the Metro Board of Directors may choose to select a LPA after examining the Draft EIS/EIR, comments received during the public comment period, and other relevant information. This selection may or may not be the environmental superior alternative.

Ephemeral Waterway

Smaller rivers and creeks that have a defined channel and carry flow for relatively brief periods of time during and shortly after rain. Ephemeral waterways have distinctive vegetation, indicative of short periods of saturation and/or inundation.

Evaporative Emissions

Hydrocarbon pollutants that escape into the air through fuel evaporation. With today's efficient exhaust emission controls and today's gasoline formulations, evaporative losses can account for a majority of the total hydrocarbon pollution from current model vehicles on hot days when ozone levels are highest.

Extreme Nonattainment

Exceedance of the one-hour national ambient air quality standard for ozone.

Façade

Typically the front of a building, however it can refer to any face of a building given special architectural treatment.

Fair Market Value

A just compensation amount of the real estate property interests and rights acquired.

Falsework

Temporary support structures used to during the construction of aerial structures and bridges.

Fare Collection

A system designed to enable Metro to collect fares from transit patrons.

Fault Zone

Regulatory earthquake zones around active faults. The zones are defined by turning points connected by straight lines. Most of the turning points are identified by roads, drainages, and other features on the ground.

Federal Register

The official publication for rules, proposed rules, and notices of Federal agencies and organizations, as well as executive orders and other Presidential documents.

Field Reconnaissance

Observations to identify environmental features and collect necessary field data to establish the present and existing condition of resources within the project area.

Fill

Engineered earth material with various mixtures of clay, silt, sand or fine-grained gravel sizes.

Final Design

The last phase of project development during which the project sponsor prepares for construction. This preparation is intended to provide a smooth transition between project development and project implementation. For transit projects, FTA approval to enter final design authorizes the project sponsor to undertake construction preparation activities such as utility relocation, right-of-way acquisition, development of detailed specifications, preparation of final construction plans, development of construction cost estimates, and development and/or solicitation of bid documents. Remaining uncertainties or risks associated with minor design scope and the procurement process are also addressed in final design.

Fixed Guideway

Any transit service that uses exclusive or controlled rights-of-way or rails; system of vehicles that can operate only in its own guideway constructed for that purpose (e.g. commuter rail, light rail).

Flood Control Basin

Storage and infiltration facility that primarily controls floodwater runoff into a river.

Flood Zone X

Area of minimal flood hazard, usually depicted on flood insurance rate maps (FIRMs) as above the 500-year flood level.

Flood Zone AE

Areas subject to a one percent or greater annual chance of flooding in any given year.

Floodplain

Low, flat, periodically flooded lands adjacent to rivers, lakes and oceans and subject to geomorphic (land-shaping) and hydrologic (water flow) processes.

Flowage Easement

The right of the government to use another's land for flooding and flood control purposes. Namely the right to flood the property in connection with the operation of a reservoir; the right to prohibit construction or maintenance of any structure for human habitation; the right to approve all other structures constructed on flowage easement land, except fencing.

Fossil Fuels

Hydrocarbon-containing natural resources used for construction vehicles and equipment and in the manufacturing process for project components (i.e., electricity and fuel for buses, worker vehicles, and maintenance operations).

Freight

A term used to denote goods or produce transported by ship, plane, train or truck from the location of their manufacture or harvest to their final retail destination.

Federal Transit Administration (FTA) Category 1 Land Use

Buildings or parks where quiet is an essential element of their purpose.

FTA Category 2 Land Use

Residences and buildings where people normally sleep. This includes residences, hospitals, and hotels where nighttime sensitivity is assumed to be of utmost importance.

FTA Category 3 Land Use

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches and office buildings.

Fugitive Dust

Soil particles suspended in the air by wind action and human activities. Fugitive dust particles are composed mainly of soil minerals (e.g. oxides of silicon, aluminum, calcium, and iron), but can also contain sea salt, pollen, spores, tire particles, etc.

Full take

A full parcel acquisition.

Gapless Spring Frog

Point-less switches that eliminate the gap in the rail, and as a result, reduces noise impacts.

General Plan

A local government's set of policies and programs that form a long-term blueprint for physical development throughout the jurisdiction. All county and municipal jurisdictions in the state of California are required to maintain and update a General Plan, which includes elements key to communities and neighborhoods, such as land use and housing. At their discretion, municipalities may opt to include additional elements, which may also be relevant to communities and neighborhoods.

Global Warming Potential (GWP)

Value that represents how much a given mass of a chemical contributes to global warming over a given time period compared to the same mass of carbon dioxide.

Goods Movement

The movement or transport of freight.

Grade Crossing

An intersection of railroad tracks, roads, walkways, or a combination of these at the same level.

Grade Separation

An intersection crossing that uses an underpass or overpass.

Ground-borne Noise

A low-frequency rumble felt in the ground related to operational vibration.

Groundwater Basin

An underground reserve of water capable of furnishing a significant supply of groundwater to wells or storing a significant amount of water.

Groundwater Plume

A volume of groundwater that is contaminated and it extends downward and outward from a specific source. The shape and movement of the contaminated water is affected by the particles that are found in the plume.

Groundwater Recharge

A surface land area where water that eventually enters an aquifer (an underground reservoir) is first absorbed or soaked into the ground, and moves through pores and fractures in soil and rock to the water table or groundwater basin below.

Habitat Conservation Plan (HCP)

A plan which outlines ways of maintaining, enhancing, and protecting a given habitat type needed to protect species. The plan usually includes measures to minimize impacts, and might include provisions for permanently protecting land, restoring habitat, and relocating plants or animals to another area. An HCP is required before an incidental take permit may be issued.

Haul Routes

The path of streets and direction for trucks hauling construction equipment and material to and from a construction staging area or construction site.

Health Risk Assessment

The process to estimate the nature and probability of adverse health effects to humans who may be exposed to chemicals in contaminated environmental media, now or in the future.

Heavy Rail

Mode of urban passenger transit service that operates on an electric railway with the capacity for a heavy volume of traffic. It is characterized by high speed and rapid acceleration rail cars operating singly or in multi-car trains on fully grade-separated rights-of-way.

Herbaceous Cultivars

Common flowering garden plants.

Herbicides

Chemicals used to manipulate or control undesirable vegetation. In suburban and urban areas, herbicides are applied to lawns, parks, golf courses and other areas. Herbicides are also applied to water bodies to control aquatic weeds that impede irrigation withdrawals or interfere with recreational and industrial uses of water.

Historic Property

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Properties (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term also includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the NRHP criteria (36 CFR §800.16(l)).

Historic Resource

Under Section 15064.5(a)(2) of the *CEQA Guidelines*, a resource included in a local register of historical resources shall be presumed to be historically or culturally significant

Holocene

Geologic time period approximately within the last 11,000 years.

Horizontal Alignment

Horizontal alignment for linear transportation facilities such railways consists of tangents joined to circular curves by transition spirals.

Impact

An impact is a change in the condition or function of an environmental resource that occurs as a result of the proposed alternative. An impact can be adverse (negative) or beneficial (positive).

Permanent Impact

Permanent impacts are related to the operation (long-term) of the proposed alternative.

Construction Impact:

Construction impacts are related to the construction phase of the proposed alternative.

Adverse Impact:

An adverse impact is a negative impact of the proposed alternative (opposite of a benefit).

Impervious

A ground surface, such as asphalt, concrete, roof tops, clay, and compacted soils, that prevents passage of water or infiltration into the underlying soils.

Inactive Fault

A fault that has not demonstrated surface displacement of Quaternary age deposits (within the last 1.6 million years).

Infiltration

The absorption of water into the ground.

Infiltration Pit

A trench or pit that can reduce the amount of runoff from a property by storing water underground and allowing it to soak into the soil. The size and holding capacity are determined by the area draining to the pit and the permeability of the underlying soil.

Inorganic Compounds

Any compound not containing carbon atoms. Inorganics include salts, metals, substances made from single elements and any other compounds that do not contain carbon bonded to hydrogen.

Intermittent Waterway

Considered as being, but not limited to, any channel or flood prone area where periodic water flow or storage is diverted.

Inundation Hazard Zone

Areas that would flood should earthquake-induced failure of up-gradient dams, flood control facilities, or other water retaining structures occur.

Joint Development

An effort by a public agency and a private developer to undertake a construction project. Joint developments are usually a voluntary joining of governmental entities with private for-profit organizations to undertake mutually beneficial development in connection with public infrastructure.

Kilowatt Hours (kWh)

A unit of energy equivalent to one kilowatt of power expended for one hour of time.

Landfill Gas

By volume, landfill gas is approximately 50 percent methane and 50 percent carbon dioxide and water vapor, and is generated during the natural process of bacterial decomposition of organic material contained in municipal solid waste landfills.

Landfill Gas Extraction System

A landfill gas extraction system consists of vertical extraction wells (perforated pipes that penetrate the waste mass), connection pipes, and the gas plant. The system ensures the effective management of landfill gas and limits the potential negative or adverse effects of landfill gas.

Landfill Gas Migration

The production of landfill gas creates a positive pressure within the landfill that forces the gas to migrate. Landfill gas migrates from place to place by diffusion and pressure gradient and will follow the path of least resistance. Subsurface gas typically migrates above the groundwater table and is restricted laterally by streams. Porous soils lying above the bedrock can serve as pathways to transmit large volumes of gas. Underground off-site migration is common and can be facilitated by the presence of pipelines, buried utility corridors or trenches located within or adjacent to the landfill boundaries. Movement depends on soil type and moisture, and migration distances of 1,500 feet have been observed.

Laydown Areas

Staging areas where vehicles, supplies, and construction equipment are positioned for access to and use at a construction site, typically within a construction staging area.

Lateral Spreading

The finite, lateral displacement of gently sloping ground as a result of pore pressure build-up or liquefaction in a shallow underlying deposit during an earthquake.

Ldn

Average of the cumulative day-night noise level (24-hours).

Lead Agency

The public agency responsible for completing California Environmental Quality Act/National Environmental Policy Act compliance and documentation.

Lead Tracks

Tracks connecting the maintenance yard with the main line.

Leq

Equivalent, continuous noise level; measure of total noise energy of all sound during a time period.

Leq(h)

Hourly equivalent sound level; Leq for a 1-hour period; Leq(8) for an 8-hour period.

Level of Service (LOS)

A qualitative measure of operating road conditions that reflects the flow of traffic with a grading a scale of A to F; free-flow conditions are rated LOS A and congested conditions as LOS F.

Light Rail Transit (LRT)

A form of rail service operated on city streets, semi-exclusive rights-of-way, or exclusive rights-of way. This type of rail generally travels at slower speeds, has more frequent station stops, and has a lower passenger capacity than heavy rail.

Linked Trip

A complete trip from origin to destination on the transit system, regardless of the number of transfers at stops and stations.

Liquefaction

The term used to describe when loosely packed sandy or silty ground materials are saturated with water and shaken hard enough by an earthquake to lose strength and stiffness.

Local Street

A road that primarily provides access to land with little or no through movement.

Locally Preferred Alternative (LPA)

The selection of an alternative (including mode, alignment, stations) for the comprehensive assessment of environmental impacts and development of a major transit investment.

Long Range Transportation Plan (LRTP)

Metro's 2009 LRTP takes a three-decade look ahead to identify what transportation options best serve Los Angeles County's needs and expectations. The LRTP also identifies the Metro Board-adopted public transportation and highway projects, funding forecasts over a 30-year timeframe, multi-modal funding availability for the Call for Projects, sub-regional needs, and project performance measures. The plan also updates the 2001 LRTP by charting the latest regional population growth patterns and projections, identifying the latest developments in technical expertise and outlining the impact of Measure R, passed in Los Angeles County in 2008. The LRTP also identifies other infrastructural projects that could be funded if new revenue sources become available.

Low-Income

Individual or household with income at or below the U.S. Census poverty thresholds.

Maintenance Yard

Specialized facility that houses and performs routine maintenance on rail vehicles.

Map Case

A station amenity that provides a map of the transit system, station area information, schedules, fares, and boarding information.

Marsh

Area of vegetation that is susceptible to flooding. Found on the edge of a stream, pond, or lake, a marsh is defined as having no woody plants.

Materially Impaired

Exists when a historical resource is not maintained in such that it causes a substantial adverse change in the significance of that historical resource.

Measure R

A half-cent sales tax approved by two-thirds majority of Los Angeles County voters in November 2008 to help fund critical transit and highway projects countywide, including traffic relief and transportation upgrades.

Mechanically Stabilized Earth (MSE)

A wall system that consists of the original ground, concrete leveling pad, wall facing panels, coping, soil reinforcement, select backfill and any loads and surcharges.

Media Filtration

Capacity to extract and hold large amounts of water-borne particulate while continuing to deliver a rated flow of clean water.

Megaregion

A metropolitan area of dense urban settlements, edge cities, suburbs, exurbs, agricultural or pastoral lands, and wild lands. Often linear in form, megaregions can span hundreds of miles, and are connected by Interstate highways or motorways, main rail lines, and short to medium distance air routes.

Memorandum of Understanding (MOU)

A document providing a general description of the responsibilities that are assumed by two or more parties in their pursuit of the same goal.

Metro Board of Directors

A 13-member body of elected and appointed persons from throughout Los Angeles County who jointly govern and oversee the activities of Metro.

Metrolink

A regional passenger heavy rail system that is governed by the Southern California Regional Rail Authority (SCRRA), a joint power authority comprised of five county agencies. Metrolink has seven service lines, 55 stations and 44,000 daily boardings over a 512 route-mile network.

Metropolitan Planning Organization (MPO)

A transportation policy-making organization made up of representatives from local government and transportation authorities. MPOs are responsible for the planning, programming, and coordination federal transportation funds, including the preparation of short and long range transportation plans and programs.

Metropolitan Statistical Area (MSA)

A geographic entity of a group of counties and cities, for the purposes of a population Census and the compilation of related statistical data. A MSA consists of at least one urbanized area with a population of 50,000 or more, along with adjacent territory with a high degree of social and economic integration with the core.

Migratory Birds

Birds that fly to regions with the best ecological conditions and habitats for feeding, breeding and raising their young. Birds may migrate in terms of altitude, moving higher up a mountain in summer, and residing on lowlands during the winter months or migrating to the north and south during the various seasons throughout the year.

Mitigation

The effort or action of reducing or lessening the impact or affect to the population or the environment from a proposed action.

Mitigation Measure

Action that avoids, minimizes, or compensates for the significant impacts or effects of a project or action.

Mitigation Monitoring and Reporting Program

Lists all the committed mitigation measures and identifies the entity that is responsible for each monitoring and reporting task, be it the lead agency, other agency (responsible or trustee agency), or a private entity.

Mixed-flow Traffic Lanes

Lane for transit; public transit service would travel in the mixed traffic lanes with other vehicles.

Mobility

The ability to facilitate movement of individuals or groups from place to place.

Monocover

Landfill clay cover consisting of a layer of soil approximately four feet thick placed over a foundation layer, with a woven-like fabric between to hold it all in place. The functions of the monocover are to cover the contaminants, keep rainfall from entering the contaminated land, support vegetation and control gas emissions.

Navigable Waters

Tributaries of such waters as: interstate waters; intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

Nesting Season

Core season in which migratory bird is known to nest. In the project area nesting season occurs from mid-March through September.

New Cure, Inc.

Operators of the existing remediation system at the Operating Industries, Inc. (OII) former landfill Superfund site.

National Environmental Policy Act (NEPA)

Signed into law on January 1, 1970, establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. It established the Council on Environmental Quality (CEQ) and required federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.

National Register of Historic Places (NRHP)

Federal list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archeology, engineering, and culture. The National Register recognizes resources of local, state and national significance which have been documented and evaluated according to uniform standards and criteria. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. The National Register is administered by the National Park Service, which is part of the U. S. Department of the Interior.

National Wetlands Inventory (NWI)

A series of topical maps that show wetlands and deepwater habitats. The goal of the NWI is to provide current geospatially referenced information on the status, extent, characteristics, and functions of wetland, riparian, deepwater, and related aquatic habitats in priority areas, in order to promote the understanding and conservation of these resources.

Native trees

Noninvasive trees naturalized to a given region.

Native Wildlife Nursery Sites

Sites that ensure efficient production of good-quality plants and native wildlife.

Natural Petroleum Hydrocarbons

The organic compounds present in petroleum (e.g., oil, gasoline, diesel, and a variety of solvents and penetrating oils), consisting predominately of carbon and hydrogen. Natural petroleum hydrocarbons may be encountered in oil-bearing sediments in active oil fields.

New Starts Program

Administered by the Federal Transit Administration (FTA), a primary financial resource for supporting locally-planned, implemented, and operated transit "guideway" capital investments. From heavy to light rail, from commuter rail to bus rapid transit systems, the FTA's discretionary New Starts program has helped to fund new or extended transit fixed guideway systems across the country.

No Build Alternative

The No Build Alternative demonstrates how the regional transportation system would function if none of the proposed project alternatives were implemented, and serves as a benchmark for measuring the potential impacts of the Transportation Systems Management (TSM) and light rail technology (LRT) build

alternatives. Planning projections of what the future will be like without any new transportation investments added beyond what is currently under construction.

Noise-Sensitive land uses

Land uses that have been deemed sensitive to noise. These uses include, but are not necessarily limited to schools, hospitals, rest homes, long term care facilities, mental care facilities, residential uses, places of worship, libraries, and passive recreation areas.

Nonattainment Area

A geographic area that does not meet the national ambient air quality standard for a criteria air pollutant.

Nonrenewable Energy Sources

Energy resources that cannot be replaced after use or are replaced very slowly through a natural process. Currently, the world is dependent on non-renewable energy sources that are called fossil fuels which include coal, oil, natural gas, petroleum, propane.

Notice of Intent (NOI)

As defined in Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1508.22), the NOI is a formal announcement of intent to prepare an EIS or an environmental assessment. The NOI provides information on the nature of the proposed project and possible alternatives, invites public participation in the EIS process (including providing comments on the scope of the Draft EIS), announces that public scoping meetings will be conducted, and invites participating and cooperating agencies.

Notice of Preparation (NOP)

In accordance with the California Environmental Quality Act (CEQA), the NOP informs responsible agencies, interested agencies, organization, and individuals of the preparation of an EIR, describes the alternatives under consideration, invites public participation in the EIR process, and announces the public scoping meetings.

Oil/Water Separators

A device that treats vehicle and floor wash water by allowing substances lighter than water to float and substances heavier than water to sink.

On-road Fleet Mix

Combination of passenger cars, buses, delivery trucks, heavy duty diesel trucks, motorcycles, and recreational vehicles operating within a roadway.

Operable Unit (OU)

Term for each of a number of separate activities undertaken as part of a Superfund site cleanup. A typical operable unit would be removal of drums and tanks from the surface of a site or the remediation of contaminated groundwater.

Operating Industries, Inc. (OII)

The operator of the landfill on 190 acres in the City of Monterey Park; current owner of the record of the south parcel of the former landfill.

Operating and Maintenance (O&M)

Costs associated with the regular running and up-keep of a transportation facility.

Organochlorine Pesticides

Chlorinated hydrocarbons used extensively from the 1940s through the 1960s in agriculture and mosquito control. Insecticides were composed primarily of carbon, hydrogen, and chlorine. These compounds break down slowly and can remain in the environment long after application and in organisms long after exposure.

Overhead Catenary Wiring

The electrical lines that send power to the motors onboard a rail vehicle for propulsion.

Ozone

Ozone (O₃) is a highly reactive gas composed of three oxygen atoms. Ozone is both a natural and a man-made product that occurs in the Earth's upper atmosphere (the stratosphere) and lower atmosphere (the troposphere).

Paleontological Resources

Paleontological resources, or fossils, are the remains of extinct organisms, and provide the only direct evidence of ancient life. They are considered to be non-renewable resources because they cannot be replaced once they are destroyed. The Federal Land Policy and Management Act of 1976 mandates the treatment of paleontological resources as a scientific value.

Parapet

A low protective wall, recommended in lieu of a safety railing to provide additional shielding for nearby residences.

Park and Ride

Structures and lots that provide parking spaces to commuters who take public transit or meet up with carpool, vanpool, or buspool partners.

Partial Take

A portion of a parcel's area and rights that are acquired as fee-simple or exclusive easement.

Particulate Matter (PM)

A complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles.

Peak Particle Velocity

The measure used to quantify rock and structural damage.

Perennial Waterway

A natural waterway that has continuous flow in parts of its waterway bed year round during years of normal rainfall.

Permanent Incorporation

A Section 4(f) resource that would include purchasing part or all of it for use as right-of-way (ROW) or for transportation facilities, or purchasing a permanent easement for construction or operations. Even small partial acquisitions of Section 4(f) lands are considered permanent incorporation. Permanent incorporation does not include the maintenance or rehabilitation of historic transportation facilities for projects that will not affect the historic qualities of these facilities.

Permanent Underground Easement

Permanent underground easements are used when tunneling for a subway and for underground utilities.

Pervious

Concrete paved material or other surface material which permits rain and storm water runoff to percolate through it rather than flood surrounding area or storm drains.

Pollutant Screening Index (PSI)

Calculated by dividing the maximum annual and hourly emissions of each pollutant by the pollutant screening level for the given pollutant.

Pollutant Screening Level (PSL)

Published by the South Coast Air Quality Management District (SCAQMD) and are emission thresholds that are not expected to result in exceedances of the various risk levels.

Porous Pavement

A special type of pavement that allows rain to pass through and infiltrate into the underlying soil, thereby reducing runoff from the site and surrounding areas.

Potable Groundwater

Groundwater suitable and utilized for drinking purposes.

Poverty Threshold

A minimum income level below which a person is officially considered to lack adequate subsistence and to be living in poverty. According to the U.S. Census Bureau, “The official poverty thresholds do not vary geographically, but they are updated for inflation using Consumer Price Index. The official poverty definition uses money income before taxes and does not include capital gains for noncash benefits (such as public housing, Medicaid, and food stamps).” The annual income thresholds for poverty status are as follows: one person household is \$8,794; two person household is \$11,239; three person household is \$13,738; four person household is \$17,603; five person household is \$20,819; six person household is \$23,528; seven person household is \$26,754; and, eight person household is \$29,701.

Pre-cast

When a cast or molded material is fabricated at a plant or manufacturing facility and is transported to the project site and set in place.

Preliminary Engineering (PE)

Once the alternatives analysis is complete and a locally preferred alternative (LPA) is selected, project sponsors request FTA approval to begin preliminary engineering (PE). During PE, the project sponsor refines the definition of the LPA’s scope, schedule, and budget sufficient to complete the Federal environmental review process; that is, to determine the environmental, transportation, cultural, and social impacts of the proposed project and to develop (and commit to the implementation of) strategies for mitigating identified impacts and adverse effects. In addition, the products of preliminary engineering should include a final scope, including provisions for compliance with the Americans with Disability Act; a highly accurate cost estimate; a thorough project management plan suitable for the phase of project development; and a solid financial plan, with a majority of the proposed local funding committed to the project.

Project Area

Over 50 square miles of communities to the east and southeast of downtown Los Angeles. The project area is a smaller more refined area in which the alternatives studied in this Draft EIS/EIR are located. The project area includes portions of the cities of Commerce, Los Angeles, Montebello, Monterey Park, Pico Rivera, Rosemead, Santa Fe Springs, South El Monte, Whittier, and portions of unincorporated Los Angeles County, which include East Los Angeles and west Whittier-Los Nietos.

Project Study Area

Eighty-two square miles of land in eastern Los Angeles County and the area used during the Alternatives Analysis (AA) process to determine which alternatives to study in this Draft EIS/EIR; the project study area is generally bounded by I-10 to the north, Peck Road and Painter Avenue to the east, Olympic and Washington Boulevards to the south, and the Gold Line Eastside Extension to the west. The project study area consists of portions of eight jurisdictions, including the cities of Commerce, Montebello, Monterey Park, Pico Rivera,

Rosemead, Santa Fe Springs, South El Monte, Whittier, and portions of unincorporated Los Angeles County, which include East Los Angeles and west Whittier-Los Nietos.

Proposition A

A half-cent sales tax designated for transportation projects throughout Los Angeles County. Proposition A was approved in 1980 by County voters and was instrumental in the advancement of several projects including the Metro Blue Line to Long Beach and Metro Red Line to North Hollywood.

Proposition C

Proposition C was approved by County voters in 1990 as a half-cent sales tax for transportation improvements throughout the County. Revenues of the sales tax are distributed to five different categories including 5 percent to rail and bus security; 10 percent to commuter rail, transit centers, and park and ride lots; 25 percent to transit-related improvements to streets and highways; 20 percent as local return; and 40 percent discretionary for capital and operations improvement projects.

Property Acquisition

The process of obtaining or acquiring sufficient right-of-way to accommodate stations, access, and related facilities, including park and ride facilities or maintenance yards.

Protected Tree

Most of the cities in which the project area is located have local regulations pertaining to the protection of native or locally important trees and/or street trees in public areas. Depending on the cities' general plan policies and municipal codes, a protected tree is a Southern California native tree species, which measures four inches or more in cumulative diameter, four and one-half feet above the ground level at the base of the tree. Cities require the protection of native trees of a certain size, designated heritage trees, and/or street trees, and have a permit or review process to evaluate proposed impacts to these protected trees.

Queuing Calculations

Estimated waiting times.

Record of Decision

A public document required by NEPA, which sets forth the Federal agency's decision, and includes a comparative discussion of the project alternatives, a discussion of the factors considered in making the decision, a description of those mitigation measures which were adopted and an explanation of why mitigation measures were not adopted, as well as a monitoring and enforcement program for adopted mitigation measures (40 CFR 1505.2).

Regional Mobility

Movement between and among regional activity centers and the regional core.

Regional Transportation Plan (RTP)

A long-term blueprint of a region's transportation system; usually RTPs are prepared every five years and include plans and projects for 30 years into the future. The RTP identifies and analyzes transportation needs of the metropolitan region and creates a framework for project priorities.

Relocation Assistance

Financial aid or compensation provided to displaced residents and businesses to relocate nearby if displaced by a project.

Renewable Energy Sources

Energy sources that are continually replenished. These include energy from water, wind, the sun, geothermal sources, and biomass sources such as energy crops.

Retaining Wall

A wall built to hold back or confine a mass of earth or body of water.

Ridership Forecast Modeling

Ridership model and methodologies used to evaluate different alternatives and estimate the ridership for each of the various build alternatives.

Riparian Habitat

Land and vegetation that is situated along bodies of freshwater including streams, lakes and rivers; sensitive natural area that surround water bodies in the watershed and are composed of moist to saturated soils, water-loving plant species and their associated ecosystems.

Runoff

The excess portion of precipitation that does not infiltrate into the ground, but “runs off” and reaches a stream, water body or storm drain.

Scoping

The process of affording an early opportunity for the public and agencies to identify potential environmental issues to be addressed and evaluated in the Draft EIS/EIR. Scoping includes the provision of materials describing the project, alternatives, impacts, and any other relevant information known about the proposed undertaking.

Section 106 of the National Historic Preservation Act (NHPA) of 1966

Regulates activities that could impact historic properties by “diminishing the visual integrity of the property’s significant historic features” (Title 36, CFR Part 800.5(a)(2)).

Section 4(f)

Section 4(f) protects important historical resources as well as publicly-owned recreation areas, parks, and wildlife refuges. This law prohibits the Department of Transportation from approving or funding a project that uses Section 4(f) resources, unless there is no feasible and prudent alternative or the project includes all possible measures to minimize the impacts of using the resources.

Sediment

Solid fragments of inorganic or organic material (e.g., silt, sand, gravel, chemical precipitates, and fossil fragments) that come from the weathering of rock and are carried and deposited by the movement of wind, water, or ice.

Sediment Ponds

Also known as settling basins, the ponds are designed to collect stormwater before it reaches natural water bodies, allowing sediment to settle.

Sedimentation

The process by which sand and mud carried by water from elsewhere/upstream settles down and accumulates on the bottom of a natural (river, stream, lake) or manmade (reservoirs, basins, tanks) body of water.

Seiche

A seiche is the sloshing of a closed body of water from earthquake shaking. Swimming pools often have seiches during earthquakes.

Seismic

The waves of energy caused by the sudden breaking of rock within the earth or an explosion. It is the energy that travels through the earth and is recorded on seismographs.

Seismically-induced Settlement

Seismically-induced settlement consists of compression of the dry soils above groundwater and liquefaction-induced settlement of the liquefiable soils below groundwater. These settlements occur primarily within the loose to moderately dense sandy soils due to volume reduction during or shortly after an earthquake event.

Sensitive Species

Species not yet officially listed but undergoing status review for listing on the U.S. Fish and Wildlife Service's official threatened and endangered list; species whose populations are small and widely dispersed or restricted to a few localities; and species whose numbers are declining so rapidly that official listing may be necessary.

Service Ratios

Response times or other performance objective measure for: fire protection, police protection, schools, parks, or other public facilities.

Shorebirds

Group of birds that have long bills, legs and toes in order to wade to forage on mudflats and in wetlands. Shorebirds generally inhabit open areas of beaches, grasslands, wetlands, and tundra.

Side Platform Station

Rail station with tracks and patron access to trains on one travel side of the platform; rail tracks are in the middle of two separate and distinct side platforms.

Significant Impact

Reasonably predictable beneficial or negative changes in the environment resulting from a proposed project.

Social Justice

The view that all persons, irrespective of ethnic origin, gender, possessions, race, religion, etc., deserve equal economic, political and social rights and opportunities, including employment and education.

Soft Costs

Professional engineering and related services.

South Coast Air Basin (SoCAB)

All of California is divided into air basins, which are served by either County air pollution control districts or multi-County air quality management districts. The SoCAB is home to more than 43 percent of California's population and represents 28 percent of California's air pollution.

South Coast Air Quality Management District

The air pollution control agency for the urban portions of Los Angeles, Orange County, Riverside and San Bernardino counties. The SCQAMD develops significance thresholds for mass daily emission rates of criteria pollutants for both construction and operational sources.

Southern California Association of Governments (SCAG)

The designated Metropolitan Planning Organization (MPO), representing six counties, 191 cities and more than 18 million riders. SCAG is mandated by the federal government to research and draw up planning and policy initiatives to address the region's transportation needs.

Special-status Species

Special status species include any species which is listed, or proposed for listing, as threatened or endangered by the U.S. Fish and Wildlife Service or National Marine Fisheries Service under the provisions of the Endangered Species Act; any species designated by the U.S. Fish and Wildlife Service as a "listed," "candidate," "sensitive" or "species of concern," and any species which is listed by the State in a category implying potential danger of extinction.

Specific Plan

A comprehensive planning and zoning document designed to implement the goals and policies of the General Plan for a defined geographic region of the community.

Spillover Parking

A higher number of parkers than parking spaces provided at the park and ride facilities.

Spreading Grounds

Designed by the Los Angeles County Department of Public Works to accept flood waters from the adjacent rivers and to allow water to quickly infiltrate into the ground.

Stakeholder

A person with an interest or concern in the proposed project. Stakeholders may include: community groups; industry or business associations; environmental groups; local councils; government departments; public and private schools/school systems; college, universities, and trade schools; youth groups; senior citizens' groups; politicians; and residents.

Standard Cost Categories (SCC)

Format required by FTA for submission of capital costs; these cost figures are gross capital expenditures relative to the No Building Alternative. Total capital costs are divided into five major categories: General Construction; Vehicles; Right-of-Way; Soft Costs; and, Unallocated Contingency.

Station Marker

Display that informs arrival times for Metro Rail lines.

Storm Drain Inserts

Devices that are used in storm drain conveyance systems to reduce pollutant loadings in stormwater runoff. Most storm drain inserts reduce oil and grease, debris, and suspended solids through gravity, centrifugal force, or other methods. Best management practices such as these can be useful in areas susceptible to spills of petroleum products, such as gas stations.

Storm Water Pollution Prevention Plan (SWPPP)

A Storm Water Pollution Prevention Plan is a site-specific, written document that: Identifies potential sources of stormwater pollution at a construction site; Describes practices to reduce pollutants in stormwater discharges from a construction site; Reduces pollutants by controlling the volume of stormwater runoff (e.g., taking steps to allow stormwater to infiltrate into the soil); and, Identifies procedures the operator will implement to comply with the terms and conditions of a construction general permit.

Streambed Alteration Agreement

Section 1601 of the California Fish and Game Code from the California Department of Fish and Wildlife (CDFW), which requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. If CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Streambed Alteration Agreement would be prepared. This ensures that project construction and operation would protect water quality.

Subsidence

The sinking or settling of the ground surface, which occurs when large amounts of groundwater have been withdrawn or extracted from certain types of geologic conditions, such as fine-grained sediments.

Subsurface Gases

A complex solution of hydrocarbons, such as methane and hydrogen sulfide, stored or trapped beneath the Earth's surface.

Superfund

The name given to the federal government's environmental program established to address abandoned and/or uncontrolled hazardous waste sites. It is also the name of the fund established by the Comprehensive Environmental Response, Compensation and Liability Act of 1980. This law allows the U.S. Environmental Protection Agency (EPA) to clean up toxic waste sites and to compel responsible parties to perform cleanups or reimburse the government for EPA-lead cleanups. A superfund site associated with contamination of large groundwater and/or soil gas plumes that may pose significant concern to the environment.

Surface Fault Rupture

A crack in the Earth's surface, resulting from the fault displacement at the ground surface that often occurs as a result of moderate- to large-magnitude earthquakes (about magnitude 6.5 and greater).

Sustainable

An ability or capacity of a resource to be maintained or to sustain itself, without jeopardizing the potential for people to meet their needs in the future.

Swale

A shallow, depressed strip of land or a trench in which the filtering action of grass and soil infiltration are utilized to remove pollutants from urban stormwater.

Temporary Construction Easement

Temporary and partial use of a property, limited to the construction period, and may be used for construction staging or equipment use or storage.

Temporary Occupancy

Not considered use of a Section 4(f) resource as long as the duration is temporary; the magnitude and nature of changes to the resources are minimal; there are no anticipated permanent adverse physical impacts to the Section 4(f) resources or related activities; the land is fully restored; and there is agreement among appropriate federal, state, and local officials with jurisdiction over the resource.

Thermal Plume

A stream of heat energy.

Threatened Species

Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Threshold of Significance

The "threshold of significance" for a given environmental effect is simply that level at which the Lead Agency finds the effects of the project to be significant. "Threshold of significance" can be defined as: a quantitative or qualitative standard, or set of criteria, pursuant to which the significance of a given environmental effect may be determined.

Tie Pads

A device or assembly between the rail base and the concrete rail seat that prevents undue wear and deterioration of the railroad ties.

Total Maximum Daily Loads (TMDLs)

Estimates of the amount of specific pollutants that a body of water can safely take without threatening beneficial uses.

Toxic Air Contaminants (TAC)

Air contaminants of significant health concern. TACs can cause cancer or non-cancer health effects like asthma, nervous system disorders, birth defects, and developmental problems in children. Most TACs are categorized as organic (primarily volatile) or inorganic (primarily particulate) emissions. Therefore, emissions of TACs are typically calculated by applying chemical specific mass fractions (also called speciation profiles) to the total organic gases or PM₁₀ emission rates calculated for criteria pollutant emission inventories.

Transformers

Transformers are used to "transform" or convert voltage from one level to another, usually from a higher voltage to a lower voltage; a passive device which transforms alternating current (AC) electric energy from one circuit into another through electromagnetic induction.

Transit Oriented Development (TOD)

A type of medium- to high-density mixed-use development that links land use and transit facilities to support the transit system and help reduce sprawl, traffic congestion and air pollution. TOD calls for locating housing, along with complementary public uses (jobs, retail and services) at strategic points along a transit line.

Transit Dependent

Population who needs convenient and reliable transit options to get where they want and need to go; typically defined as an individual with no vehicle, worker over the age of 16 taking public transportation to work, and persons with a disability.

Transit-supportive Land Uses

Land uses that encourage transit use and transportation network efficiency. Examples of such land uses include: mixed-use development near transit nodes; medium to high density development with pedestrian facilities; retail, office, restaurants, and service; and hotels and apartments.

Traction Power Substation (TPSS)

The traction power supply and distribution system consists of traction power substations located along the system route and the overhead and underground wiring needed to move power from the substations to the operating vehicles. All components connect to the distribution circuits of the local power utility company in order to power mass transit and railway networks.

Transit Service Equity

Equitable distribution of transit service; provide transit service in the most equitable and least discriminatory manner possible.

Unallocated Contingency

Additional cost included in the estimate that may be used to cover unforeseen costs, inflation, and/or implementation of mitigation measures.

Uniform Act

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, or Uniform Act, must be implemented if there are any displacements as a direct cause of a project. The Uniform Act mandates that certain relocation services and payments be made available to eligible residents, businesses, and non-profit organizations displaced as a direct result of projects undertaken by a federal agency or with federal financial assistance. The Uniform Act provides for uniform and equitable treatment of persons displaced from their homes and businesses and establishes uniform and equitable land acquisition policies. Owners of and holders of real estate interests in private property have federal constitutional guarantees that their

property will not be acquired, taken, or damaged for public use unless they first receive an offer of just compensation.

Vapor Intrusion

The process in which chemical vapors from contaminated soil or groundwater affect the indoor air quality in a building. Whenever chemicals are spilled on the ground or leak from an underground storage tank, they can soak into the soil or dissolve into the groundwater and begin to spread. The contaminated soil or groundwater can emit vapors that spread to areas occupied by buildings. Vapors can enter the buildings through cracks in basements, foundations, sewer lines, and any other type of opening.

Vegetated Filter Strips

Vegetated filter strips (grassed filter strips, filter strips, and grassed filters) are vegetated surfaces that are designed to treat sheet flow from adjacent surfaces. Filter strips function by slowing runoff velocities and filtering out sediment and other pollutants, and by providing some infiltration into underlying soils.

Vehicle Hours of Travel (VHT)

Ratio of traffic volume and travel time (average speed for each hour).

Vertical Circulation Elements (VCE)

Comprised of stairs and/or escalator combinations near transit stations that provide passengers with direct access to station platforms at an aerial (elevated) structure, ground level or underground facility.

Vibration Decibels (VdB)

A unit describing vibration intensity using vibration velocity levels.

Viaducts

Bridge-like structures carrying a road or railroad across a valley or other low ground.

Volatile Organic Compounds (VOCs)

A large group of carbon-based chemicals that easily evaporate at room temperature. These organic chemicals emit as gases from certain solids or liquids, which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors.

Volume to Capacity (V/C) Ratio

The ratio used to assess traffic status in cities, in which V is the total number of vehicles passing a point in one hour and C for the maximum number of vehicles that can pass a certain point at the reasonable traffic condition.

Waterbirds

A group of birds such as loons, grebes, herons, ducks, and geese, gulls, and pelicans. They tend to gather in large assemblages, called colonies, during the nesting season, and they obtain all or most of their food (fish and aquatic invertebrates) from the water.

Watershed

An area of land where all of the water under the land mass or drains off the land mass converges into one place.

Water Table

A level or elevation beneath the land surface, below which all pore spaces are filled with water and above which the pore spaces are filled with air.

Wayfinding

Signage to direct users to relocated routes and spaces.

Wetlands

Areas in which water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Wetlands provide aquatic habitat for many species.

Wildlife Corridor

An animal passageway that follows the natural migratory, breeding and hunting patterns of wildlife on the ground and in the air. These corridors connect large open spaces so that the wildlife can continue to thrive.

Year of Expenditure (YOE) dollars

YOE dollars reflect the financial impact of funds that would need to be expended in the actual year of expenditure and the relative effects of inflation on costs and revenues. Annual and compounded inflation rates and the project implementation schedule are used to project from base year dollars to YOE dollars. For example, in YOE dollars, \$1.00 in 2011 is equivalent to \$1.03 in 2012, using an inflation rate of 3.0 percent.

Zero Emission Bus

A bus that does not produce emissions because it does not use a combustion engine. Examples include electric and hydrogen fuel-cell buses. Instead of a diesel engine, a zero-emission bus uses a fuel cell, an electrochemical device, to combine hydrogen fuel and oxygen to produce electricity, heat and water. The electricity produced powers the bus.

Zoning

Human activity divided into familiar categories of residential, commercial, and industrial, and each placed in a separate part of a city or county.