

AB 617 West Oakland Community Action Plan
Glossary

AB 617 – Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017) directs the state, in consultation with local air districts, to select communities in California that are exposed to high levels of air pollution. Selected communities will work with local air districts on action plans to reduce people’s exposure to particulate matter and toxic air contaminants, and/or to develop community air monitoring plans.

abatement device – Devices designed to capture, remove and/or reduce pollutants that would otherwise be emitted into the air. Examples are baghouses, scrubbers, dust collectors, direct flame afterburners, vapor recovery units, and water sprayers.

area sources – Sources of air pollutants that individually emit small quantities of air pollutants but may emit considerable quantities of emissions when combined. Examples include water heaters, landscaping equipment (blowers, mowers, and tree trimmers), and consumer products (cleaners, paints, wood preservatives, aerosol sprays, disinfectants, air fresheners, automotive products, and hobby supplies).

Bay Area Air Quality Management District (Air District or BAAQMD) – The regional air pollution control agency with jurisdiction over the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, Santa Clara, San Mateo, and the southern portions of Solano and Sonoma counties. The Air District oversees policies and adopts regulations for the control of air pollution from stationary sources, adopts clean air plans, offers incentives for emission reductions from mobile sources, enforces air quality rules, and collects, monitors, and models air quality data.

best available control technology (BACT) – BACT is the most stringent emissions *control* that has been achieved in practice or found by the Air District to be technologically feasible and cost-effective for a class of sources. Differs from best available retrofit technology in that BACT is for new or modified sources of air pollution and BARCT is for retrofitting existing sources of air pollution.

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best practices to reduce emissions – Measures that reduce emissions, and therefore reduce health risks from air pollution. Examples include retrofitting diesel generators to low or zero emitting technology, electrifying loading docks, limiting truck idling times, requiring low or zero emitting truck engines, and adding abatement devices to stationary sources.

best practices to reduce exposure – Measures that may not reduce actual emissions but reduce people’s *exposure* to pollutants and reduce health risks. Examples include HVAC (heating ventilation, air conditioning) air filters, planting vegetation between a source of pollution and residential units and prohibiting trucks on residential streets.

boiler – A water heater for generating steam.

back-up diesel generator (BUG) – BUGs include stationary generators and portable generators. Stationary generators are often sources of emergency power for commercial, industrial, and residential buildings. Portable generators are used as temporary power when and where an electrical grid is not available, at construction sites, outdoor gatherings such as concerts and festivals, and disaster recovery sites. See also diesel engine.

black carbon – Black carbon is the sooty black material emitted from gasoline and diesel engines, coal-fired power plants, and other sources that burn fossil fuel. It comprises a significant portion of particulate matter. Inhalation of black carbon is associated with health problems including respiratory and cardiovascular disease, cancer, and birth defects.

bulk cargo – Cargo which is loaded into a ship’s hold without being boxed, bagged, or hand stowed, or is transported in a large tank space.

bus rapid transit (BRT) – Also called a busway or transitway, BRT is a public transport system designed to improve capacity and reliability relative to a conventional bus system, by prioritizing intersection signals for transit, creating bus-only lanes and bus loading platforms, collecting fares on the platform before entering the bus, and serving limited stops.

California Air Resources Board (CARB) – State agency that oversees policies and adopts regulations for the control of air pollution from mobile sources and some stationary sources. CARB’s mission is to promote and protect public health, welfare, and ecological resources through the reduction of air pollutants.

California Environmental Quality Act (CEQA) – State environmental legislation designed to protect the environment and to inform and engage the public about projects considered by California public agencies. Applies to many projects proposed to be conducted or approved by a California public agency, including private projects requiring government approval. The public is engaged through scoping meetings, public notice, public review, hearings, and the judicial process. Documents to inform the public include an initial study (IS), to determine if a negative declaration or environmental impact report is needed; a negative declaration (ND), if no environmental impacts are identified in the initial study; and an environmental impact report (EIR), if the initial study does identify environmental impacts that need to be mitigated. On whole, CEQA and these documents help prevent or minimize environmental impacts through development of project alternatives, mitigation measures, and mitigation monitoring. See also environmental impact report.

cargo handling equipment (CHE) – Includes a variety of equipment at ports, warehouses, and rail yards including yard tractors, cranes, forklifts, and container handlers such as top picks and side picks, and bulk handling equipment, such as tractors, loaders, dozers, excavators, and backhoes.

chrome plating – Often referred to simply as “chrome”, chrome plating is a technique of electroplating a thin layer of chromium onto a metal object. The chromed layer can be decorative, provide corrosion resistance, ease cleaning procedures, or increase surface hardness. The process of chrome plating causes hexavalent chromium, a toxic air contaminant, to be emitted as an aerosol that can be inhaled and entrained inside the lungs.

complete streets – A transportation policy to design and operate streets to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. A complete street may include: sidewalks, bike lanes (or wide paved shoulders), dedicated bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and other features. See also transit-oriented development and mixed-use land use.

cooling towers – A cooling tower is a heat rejection device that transfers the waste heat from a water stream to the atmosphere through the cooling of the water stream to a lower temperature. Common applications for cooling towers include cooling the circulating water used in oil refineries, petrochemical and other chemical plants, thermal power stations and HVAC systems for cooling buildings.

commercial land use – Land designated by the local governing body for retail, service or office use, such as shopping malls, restaurants, office buildings, grocery stores, pharmacies, banks, hotels, or movie theatres.

community-scale modeling – Air quality modeling at the local level, to determine air pollution concentrations within a community. See also regional-scale modeling.

container cranes – A container crane (also container handling gantry crane or ship-to-shore crane) is a type of large dockside crane found at container terminals for loading and unloading intermodal containers from container ships. See also cargo handling equipment.

criteria air pollutants (CAP) – As defined by the U.S. Environmental Protection Agency (EPA), six air pollutants that the Clean Air Act directs the EPA to set standards for: particulate matter, photochemical oxidants (including ozone), carbon monoxide, sulfur oxides, nitrogen oxides and lead. These pollutants are found all over the U.S. They can harm your health and the environment, and cause property damage. See also National Ambient Air Quality Standards (NAAQS).

cumulative air quality impact – An environmental impact which results from the incremental impacts of an action or project when added to other past, present, and reasonably foreseeable future actions. For example, a manufacturing facility, a high-traffic freeway, and a construction site may each have an air quality impact that is not substantial when considered by itself but may have a substantial cumulative air quality impact when all three are considered together.

drayage trucks – A truck that is registered with the state to be able to enter ports or intermodal railyards. Drayage trucks transport goods a short distance, for example from a sea port to a freight rail station or warehouse.

diesel engine – An internal combustion engine powered by diesel fuel that creates incomplete combustion that results in the release of particulate matter emissions. Also called a compression-ignition engine. Diesel engines can power mobile, portable, and stationary equipment.

diesel particulate filter (DPF) – A device designed to reduce diesel particulate matter or soot emissions from the exhaust gas of a diesel engine. See also diesel particulate matter.

diesel particulate matter (DPM) – The solid material in diesel exhaust. Diesel particulate matter is typically composed of carbon particles (“soot”, also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. DPM is a toxic air contaminant.

dozer – A dozer is a crawler (continuous tracked tractor) equipped with a substantial metal plate (known as a blade) used to push large quantities of soil, sand, rubble, or other such material. Dozers are typically equipped at the rear with a claw-like device (known as a ripper) to loosen densely compacted materials.

Environmental Protection Agency (EPA) – The federal agency responsible for control of air and water pollution, toxic substances, solid waste, and cleanup of contaminated sites. The EPA sets national ambient air quality standards for criteria air pollutants, such as ozone, particulate matter, and lead.

excavators – Excavators are used for digging, material handling, construction, demolition and other tasks. Excavators consist of a boom, dipper, bucket, and cab on a rotating platform.

fine particulate matter (PM_{2.5}) – See particulate matter.

gasoline dispensing facilities (GDF) – Gas stations.

greenhouse gases (GHG) – Gases in the atmosphere that have a warming effect on the climate, including but not limited to: carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, perfluorocarbons and hydrofluorocarbons.

health risk assessment (HRA) – The calculation of probable health impacts based on exposure to pollution. See also toxic air contaminants.

high efficiency particulate air filters (HEPA filters) – HEPA filters are a type of mechanical air filter that works by forcing air through a fine mesh filter that traps small harmful particles such as pollen, pet dander, dust mites, and tobacco smoke. HEPA filters can also remove between 50% and 98% of particles in air, depending on the particle size and the filter minimum efficiency reporting value (MERV) rating. See also minimum efficiency reporting value.

hot spot – A hot spot is an area where air toxic containment concentration levels are higher than in the overall region. See also toxic air contaminants.

indirect sources – Land uses and facilities that attract or generate motor vehicle trips and thus result in air pollutant emissions; for example, shopping centers, office buildings, warehouses, and airports.

industrial land use – Land designated by the local governing body for manufacturing, assembly, and distribution of goods; may include land uses such as ports, factories, warehouses, and repair and equipment maintenance shops.

minimum efficiency reporting value (MERV) – MERV rates the effectiveness of air filters on a scale of 1 to 16. Higher MERV ratings correspond to a greater percentage of particles captured. See also high efficiency particulate air filters.

mixed-use land use – Land designated by the local governing body for two or more land uses, such as residential, commercial, cultural, institutional, and/or industrial uses. For example, mixing housing with office and retail uses (both considered commercial land use). Often designed to be a pedestrian-friendly development. See also transit-oriented development and complete streets.

mobile sources of air pollution – Sources of air pollution such as automobiles, motorcycles, trucks, off-road vehicles, boats, trains, and airplanes.

National Ambient Air Quality Standards (NAAQS) (pronounced \ˈnaks\) – Standards for the allowable ambient air concentrations of harmful pollutants, established by the U.S. Environmental Protection Agency (EPA) under authority of the Clean Air Act. See also criteria air pollutants. See also ppm and ppb.

new source review (NSR) – NSR is a federal Clean Air Act permitting program that requires industrial facilities to install modern pollution control equipment for new and modified sources. The Air District's NSR permitting program requires new and modified stationary sources to apply for air quality permits. Air District staff conducts an evaluation of the project to ensure that it will comply with all applicable air quality regulations, including BACT when it is required. See also best available control technologies (BACT).

off-road vehicles – Vehicles designed for use on steep or uneven ground or roads; for example, in construction, freight, and agricultural uses. Types include scrapers, backhoes, loaders, and forklifts. Quad bikes and ATVs (all-terrain vehicles) are also off-road vehicles.

on-road vehicles – Vehicles designed for use on paved roads, for example passenger cars, buses, motor homes, vans, motorcycles, and various sizes of trucks.

particulate matter (PM) – PM includes a wide range of disparate particles that vary greatly in terms of their size and mass, physical state (solid or liquid), chemical composition, toxicity, and how they behave and transform in the atmosphere. PM is commonly characterized based on particle size. Ultrafine PM includes the very smallest particles less than 0.1 micron in diameter (one micron equals one-millionth of a meter). Fine PM or PM_{2.5} consists of particles 2.5 microns or less in diameter (includes ultrafine PM). Coarse PM refers to particles between 2.5 microns and 10 microns in diameter. The term “coarse” particles may be misleading; it should be emphasized that even “coarse” particles are still very tiny, many times smaller than the diameter of a human hair. PM₁₀ consists of particles 10 microns or less in diameter (includes ultrafine, fine and coarse PM).

ppb (parts per billion) – A unit of measurement used to specify the concentration of a pollutant, such as in ambient air quality standards. For reference, ppb is the equivalent of one drop in one billion drops of water or about one drop of water in a swimming pool. The NAAQS standard for sulfur dioxide (SO₂) is measured in ppb. See also ppm and NAAQS.

ppm (parts per million) – A unit of measurement used to specify the concentration of a pollutant, such as in ambient air quality standards. For reference, one ppm is the equivalent of about one cup of water in a swimming pool, and one ppm is equivalent to 1,000 ppb. The NAAQS standards for carbon monoxide (CO), nitrogen dioxide (NO₂) and Ozone (O₃) are measured in ppm. See also ppb and NAAQS.

PZEV Partial zero emission vehicle – PZEV is an automobile that has zero *evaporative* emissions from its fuel system and meets Super Ultra Low Emissions Vehicle (SULEV) tailpipe-emission standards. Evaporative emissions are the gasoline fumes that escape during refueling or from the fuel tank and supply lines. See also ZEV.

regional-scale modeling – air quality modeling at a regional level, to determine air pollution concentrations within the region. See also community-scale modeling.

residential land use – Land designated by the local governing body for dwelling units. Can include single-family and/or multi-family housing, often specifies the number of dwelling units allowed per lot or acre; for example, R-1 means the parcel is zoned for a single-family residence.

Safe Routes to School (SRTS) – SRTS is an international movement and a federal program to make it safe, convenient, and fun for children, including those with disabilities, to bicycle and walk to school.

sensitive land uses – Places where sensitive populations are most likely to spend their time, such as schools, playgrounds, daycare centers, nursing homes, medical facilities, and residential communities. See also sensitive populations or sensitive receptors.

sensitive populations or **sensitive receptors** – People, including infants, children, the elderly, those with pre-existing conditions (such as asthma), pregnant women, and athletes (due to higher breathing rates) that are at greater risk than the general population to the adverse health effects of air pollutants. See also sensitive land uses.

stationary sources of air pollution – Non-mobile sources such as boilers, gas turbines, petroleum refining and processing units, and manufacturing equipment that emit air pollutants. A facility, such as a power plant or refinery, houses multiple sources within its property.

solvent cleaning operations – A process using solvents or solvent vapor to remove water-insoluble contaminants such as grease, oils, waxes, carbon deposits, fluxes, and tars from metal, plastic, glass, and other surfaces.

transloading – The operation of transferring cargo from one transportation mode to another. May also refer to the operation of transferring cargo from one container to another for any of several reasons, such as for consolidation, weight restrictions, palletizing, leasing contract requirements, or supply chain management (e.g., to synchronize delivery of goods to meet real-time demands).

transit-oriented development (TOD) – TOD is a type of land use that includes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood and located within a half-mile of quality public transportation. See also mixed-use land use and complete streets.

toxic air contaminants (TACs) – TACs (also toxic air pollutants or air toxics) are those pollutants that cause, or may cause, cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. Includes formaldehyde, methanol, ammonia, diesel particulate matter, and many others. See also diesel particulate matter.

tractor-trailer – A tractor-trailer is the combination of a tractor unit and one or more semi-trailers to carry freight. A semi-trailer attaches to the tractor with a fifth wheel hitch, with much of its weight borne by the tractor.

transportation refrigeration unit (TRU) – TRUs are refrigeration systems commonly powered by diesel internal combustion engines designed to refrigerate or heat perishable products that are

transported in various containers, including semi-trailers, truck vans, shipping containers, and rail cars.

vehicle miles traveled (VMT) – VMT is the number of miles a vehicle is driven and can be used to measure the number of miles traveled for all vehicles in a geographic region over a given time period. Annual VMT denotes the miles driven over a one-year period.

yard tractor – A tractor unit designed specifically for use in a container yard. See also cargo handling equipment.

yard truck – An off-road vehicle intended to move semi-trailers within a cargo yard, warehouse facility, or intermodal facility, much like a switcher locomotive is used to position railcars. See also cargo handling equipment.

zero-emission vehicle (ZEV) – A ZEV is a battery electric, hydrogen fuel cell electric, or other alternatively fueled vehicle that has no direct emissions (evaporative or tailpipe) of pollution. See also PZEV.