Glossary

A-weighted decibels: Most sounds consist of a broad range of sound frequencies. Because the human ear is not equally sensitive to all frequencies, several frequency-weighting schemes have been used to develop composite decibel scales that approximate the way the human ear responds to sound levels. The "A-weighted" decibel scale (dBA) is the most widely used for this purpose.

Alternative: One of at least two proposed means of accomplishing project objectives. The point of considering alternatives is not to identify a different project to be developed, but to provide a basis for comparison and to foster informed decisions.

Alluvium: Sedimentary formation composed of clay, sand, gravel, and other materials moved and deposited by streams and deposited by them.

Ambient air quality: The existing or background air quality in a given community.

Ambient sound: The all-encompassing sound associated with a given community site, usually a composite of sounds from many sources, near and far, with no particular sound being dominant.

Aquifer: Stratum or zone below the surface of the earth capable of producing water through a well.

Artifacts: Portable objects found in archaeological contexts that are the result of human manufacture or modification.

Best Available Control Technology (BACT): An emission limitation based on the maximum degree of emission reduction (considering energy, environmental, and economic impacts) achievable through the application of production processes and available methods, systems, and techniques. BACT does not permit emissions in excess of those allowed under any applicable Clean Air Act provisions. Use of the BACT concept is allowable on a case-by-case basis for major new or modified emissions sources in attainment areas and applies to each regulated pollutant.

Bedrock: The rock that underlies gravel, soil, or other superficial material.

Beneficial use: A use of water defined by the State Water Resources Control Board that is of benefit to the people of the State of California, such as water supply, habitat, or recreation.

Block valve: Pipeline valve designed to prevent the flow of gas in either direction. May be remotely or manually operated.

Bore: A hole drilled into the earth, such as a well.

California Native Plant Society (CNPS) rating codes: System used to indicate the rarity, endangerment, and distribution of plant species on a scale of 1 to 3 (1 meaning wide distribution/not endangered and 3 meaning limited occurrence/endangered).

Cathodic protection: A technique used to prevent corrosion of the pipeline by passing a current through it.

CEQA: California Environmental Quality Act. Policies enacted in 1970, and subsequently amended, that provide guidelines for maintaining a quality environment for the people of California now and in the future.

Check Valve: Pipeline valve designed to automatically prevent the backflow of gas.

Community noise equivalent level (CNEL): The measurement used to characterize average sound levels over a 24-hour period, with weighting factors included for evening and nighttime sound levels. L_{eq} values for the evening period (7:00 p.m. to 10:00 p.m.) are increased by 5 dB, while L_{eq} values for the nighttime period (10:00 p.m. to 7:00 a.m.) are increased by 10 dB. For a given set of sound measurements, the CNEL value will usually be about 1 dB higher than the L_{dn} value. In practice, CNEL and L_{dn} are often used interchangeably.

Compression facilities: The machinery used to increase the pressure of gas in the pipeline system for transportation or injection.

Cultural resource: A physical place or object (object, document, artifact, building, structure, site, district, or landscape) that is of significance in local, state, or American history, architecture, archaeology, or culture.

Cumulative impacts: Two or more individual effects that, when considered together, are considerable or that compound or increase other environmental effects. The individual impacts may be changes resulting from a single project or a number of separate projects.

Dehydration: The process of removing water from the natural gas extracted from the storage formation.

Dewatering: The process of pumping water out of an excavation to allow construction.

Directional drilling: Method used to drill under rivers and major sloughs.

Discharge: Rate of flow at a given instant in terms of volume per unit of time. *Pumping discharge* equals *pumping rate*, usually given in gallons per minute. *Stream discharge* is usually given in cubic feet per second. In groundwater use, discharge is the movement of water out of an aquifer. Discharge may be natural, as from springs, seepage, or evapotranspiration, or it may be artificial, with the use of constructed drains or wells.

EIR: Abbreviation for Environmental Impact Report. A detailed document required by the California Environmental Quality Act describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects. The term "EIR" may mean either a draft or a final EIR, depending on the context. CEQA uses the term "EIR" in place of the term "EIS," which is used in NEPA.

Endangered animal species: Any animal species in danger of extinction throughout all or a significant portion of its range. This definition excludes species of insects that the Secretary of the Interior determines to be a pest and whose protection under the Endangered Species Act of 1973 would present an overwhelming and overriding risk to man.

Endangered plant species: Species of plants in danger of extinction throughout all or significant portions of their ranges. Existence may be endangered because of the destruction, drastic change, or severe curtailment of habitat or because of overexploitation, disease, predation, or unknown reasons. Plant taxa from very limited areas (e.g., the type localities only or from restricted fragile habitats) are usually considered endangered.

Environment: The physical conditions in the area that will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The environment includes both natural and man-made conditions.

Equivalent sound level (L_{eq}): Time-varying sound levels are often described in terms of an equivalent constant decibel level. Equivalent sound levels (L_{eq}) are used to develop single-value descriptions of average sound exposure over various periods of time. Such average sound exposure values often include additional weighting factors for annoyance potential attributable to time of day or other considerations. The L_{eq} data used for these average sound exposure descriptors are generally based on A-weighted sound level measurements.

Erosion: The wearing away of land surface by running water (including rainfall), waves and currents, glacier ice, or wind.

Fault: A fracture or fracture zone along which there has been displacement of the sides relative to one another.

Field pipeline: Field pipelines consist of collection and distribution pipelines running from the well pads to the separation facility and a pipeline from the separation facility to the compressor.

Gas field: A naturally occurring accumulation of gases in geologically enclosed spaces, such as permeable material covered by cap rock.

Glycol reboiler: Part of glycol regeneration skid that heats the gylcol to drive out water captured from the gas in the dehydration process.

Glycol regeneration skid: A prefabricated piece of equipment used to remove water from glycol, which is used in the gas dehydration process.

Groundwater: Nonsaline and saline water beneath the natural surface of the ground, whether or not flowing through known and definite channels.

Groundwater basin: An interrelated set of water-bearing strata of permeable rock, sand, or gravel.

Groundwater head: The pressure of the water in the aquifer.

Habitat: The place where an animal or plant normally lives, often characterized by a dominant plant and codominant form, such as pinyon-juniper habitat.

Hazardous material: Substance that, because of its potential for corrosivity, toxicity, ignitability, chemical reactivity, or explosiveness, may cause injury to persons or damage property.

Hydrostatic testing: A method used for leak testing of oil and gas pipelines before they are put into operation. Water is pumped into isolated pipeline segments, and then, with the use of high-pressure test pumps, the pressure in the segments is raised to a high pressure, such as 1,850 pounds per square inch. A test duration of 8 hours is required.

Injection well: Well used to inject gas into the storage formation.

Interconnect facilities: Pipe fittings and valves used to connect the project to the existing Pacific Gas and Electric Company natural gas distribution system.

Inversion: A weather condition in which the normal relationship between temperature and height of air mass (decreasing temperature as elevation increases) is reversed.

L_{dn}: The day/night average sound level, defined as the 24-hour period L_{eq} with 10 dBA added to the nighttime average level, L_n.

L_{eq}: Equivalent sound level. The sound level containing the same level of energy as a time-varying signal over a given time period.

Liquefaction: A condition where soil strength is greatly reduced because of water pressure buildup, especially in saturated sandy soils that are subject to compaction remolding triggered by earthquake vibrations.

Lithologic studies: Evaluations of the layers of geologic formations.

Lmax: The maximum sound level recorded during a noise event.

Lmin: The minimum sound level recorded during a noise event.

LOS: Level of service. A roadway's existing traffic volume compared to the roadway's full capacity. LOS A represents free-flow conditions and indicates that only 60 percent or less of the roadway traffic capacity is being utilized. LOS F represents jammed conditions and indicates that the roadway is operating at more than 100 percent of its designed traffic capacity.

Midden: A refuse stockpile associated with a prehistoric cultural resource site.

Mitigation measure: Method or procedure undertaken for the purpose of avoiding or reducing potential impact(s) of an action.

National Environmental Policy Act (NEPA): Legislation enacted in 1969 that encourages restoration and maintenance of environmental quality to the overall welfare of living things.

National Pollutant Discharge Elimination System (NPDES): A provision of the Clean Water Act that prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or, where delegated, a tribal government on an Indian reservation.

National Register of Historic Places (NRHP): A list of significant historic and prehistoric sites and districts that provides procedural protection of these properties.

Notice of Intent (NOI): A notice prepared by a federal lead agency to inform cooperation agencies and interested parties of the proposed project. Required by NEPA.

Notice of Preparation (NOP): A notice prepared and mailed to all responsible agencies and interested parties informing the agencies of the proposed project and inviting comments regarding the scope issues to be addressed in the EIR. Required byCEQA.

One-hundred-year flood: A flood that has a 1-percent probability of occurrence in a given year.

Paleontological resource: A fossil.

Pig: An internal inspection tool used to detect leaks. It is launched into the pipeline and records the pipe wall thickness to determine specific locations where the pipeline shows signs of weakness due to corrosion.

PM10 emissions: Emissions that contain suspended particulate matter 10 micrometers or larger in diameter. PM10 emissions are generated by a wide variety of sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere.

Pollutant ambient air concentrations: The amount of pollutants in the ambient air.

Porter-Cologne Water Quality Control Act: The primary water quality law in California that enables the state to implement the federal Clean Water Act.

Prime farmland: As designated by the Farmland Mapping and Monitoring Program, prime farmland is the land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops.

Produced water: Entrained water that is withdrawn during the gas withdrawal process.

Rare species: A species that, although not presently threatened with extinction, exists in such small numbers throughout its range that it may become endangered if its present environment worsens.

Recharge: The process by which water is added to a zone of saturation, usually be percolation from the soil surface.

Right-of-way: The right to pass over property owned by another. The strip of land over which facilities such as roadways, railroads, pipelines, or powerlines are built.

Riparian area: The area or zone along the banks of a stream or lake that is not covered by water.

Ruderal area: A disturbed area that has been allowed to become revegetated naturally.

Sedimentary unit: A geologic term that identifies layers in sedimentary rocks or formations.

Seismicity: The process or phenomenon of earth movements.

Sensitive plant communities: A plant community that has been identified by the U.S. Fish and Wildlife Service, California Department of Fish and Game, or California Native Plant Society that is endangered, threatened, or of limited extent.

Separation facilities: A facility that removes produced water from natural gas extracted from geologic formations.

Significant environmental impact: As defined by CEQA, Chapter 3, Article 1, Section 15002 (g), it is "a substantial *adverse* change in the physical conditions that exist in the area affected by the proposed project."

Slurry: A thin mixture of liquid, especially water, and any of several finely divided substances, such as cement or clay particles, used for backfilling.

Special-status species: Plant and wildlife species that are federally listed, proposed for listing, or candidates for listing as threatened and endangered under the federal or California Endangered Species Act.

Spread: The team working on a particular section of the pipeline construction. It consists of units for clearing and grading, ditching, hauling and stinging, pipe bending, line-up, welding, pipecoating, lowering and tying-in, backfilling, and cleanup and restoration.

Streambed alteration agreement: A permit pursuant to California Fish and Game Code Sections 1600 et seq. that allows a project applicant to work in the bed and banks of a stream.

Subsidence: A lowering of the ground surface, usually related to withdrawal of groundwater, oxidation of organic soil materials, or erosion.

Take: In general, killing of, damage to, or harassment of individuals of a protected species. Under the California Fish and Game Code, *take* is defined to mean possession. Under the federal Endangered Species Act, the definition includes the following activities, which are prohibited with regard to special-status species: harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to engage in any of these specifically enumerated activities. Under the Endangered Species Act, therefore, harassment and harm have been extended to include activities that affect habitat that supports listed species.

Threatened species: Species that, although not presently threatened with extinction, is likely to become endangered in the foreseeable future in the absence of special protection and management efforts.

Transmission pipeline: Generally a high-pressure, high-capacity pipeline that conveys materials from their point of origin or a storage facility to the load center, where the gas is distributed.

Unconfined aquifer: An aquifer where the water table is exposed to the atmosphere through openings in the overlying materials.

Visual resource: The physical features of a landscape which can be seen (e.g., land, water, vegetation, structures, and other features).

Waste discharge requirements: Waste discharge requirements are issued by the California Regional Water Quality Control Board under Section 402 of the Clean Water Act.

Water injection: The process of reinjecting produced water back into the formation that it was withdrawn from.

Waters of the United States: Creeks, streams, rivers, and other waterbodies that are under the jurisdiction of the U.S. Army Corps of Engineers.

Well head: The aboveground valves and connections of a well.

Well log: The geologic record of the materials that were drilled through when a well was developed.

Well pad: A level area that is prepared to facilitate the drilling of a well.

Williamson Act: The California Land Conservation Act (Williamson Act) enables counties and cities to designate agricultural preserves (Williamson Act lands) and offer preferential taxation to agricultural landowners based on the income-producing value of their property in agricultural use rather than on its assessed market value. In return for the preferential tax rate, the landowner is

required to sign a contract with the county or city agreeing not to develop the land for a minimum period.