

General Plan

Air Quality Element

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County of Sacramento
Office of Planning and Environmental Review

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**SACRAMENTO COUNTY GENERAL PLAN
AIR QUALITY ELEMENT**

GOALS AND POLICIES

GOAL: Improve air quality to promote the public health, safety, welfare, and environmental quality of the community.

Multidisciplinary Coordination

Objective: The integration of air quality planning with land use, transportation and energy planning processes to provide a safe and healthy environment.

Intent: Poor air quality in Sacramento County is largely a result of mobile source emissions. The existing transportation system encourages the use of the single-occupant automobile and does not emphasize efficient use of alternative modes of transit. Land uses in Sacramento County have been planned to accommodate the use of petroleum-fueled vehicles, instead of mass transit, or alternative transportation modes. Air quality planning can only achieve success through the implementation of land use and transportation policies that offer alternatives to automobile-oriented development and promote infill development over urban expansion.

The young and elderly are known to suffer greater threats to their health from air pollution compared to the rest of the population. Land uses, such as schools, hospitals, parks and elderly housing, should be located away from uses that generate a heavy concentration of emissions to minimize the possible effects of air pollution from both stationary and mobile sources.

Policies:

- AQ-1. New development shall be designed to promote pedestrian/bicycle access and circulation to encourage community residents to use alternative modes of transportation to conserve air quality and minimize direct and indirect emission of air contaminants.
- AQ-2. Support Regional Transit's efforts to secure adequate funding so that transit is a viable transportation alternative. Development shall pay its fair share of the cost of transit facilities required to serve the project.
- AQ-3. Buffers and/or other appropriate exposure reduction measures shall be established on a project-by project basis and incorporated during review to provide for protection of sensitive receptors from sources of air pollution or odor. The California Air Resources Board's "Strategies to Reduce Air Pollution Exposure Near High Volume Roadways" Technical Advisory and the AQMD's "Mobile Sources Air Toxics Protocol" or

applicable AQMD guidance shall be utilized when establishing these exposure reduction measures.

- AQ-4. Developments which meet or exceed thresholds of significance for ozone precursor pollutants, and/or Greenhouse Gases (GHG) as adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD), shall be deemed to have a significant environmental impact. An Air Quality Mitigation Plan and/or a Greenhouse Gas Reduction Plan shall be submitted to the County of Sacramento prior to project approval, subject to review and recommendation as to technical adequacy by the Sacramento Metropolitan Air Quality Management District.
- AQ-4A. Residential zones should not be located adjacent to industrial zones (M-1 and M-2) or general agriculture zones (AG-10 to 160). In the event that a residential zone is located adjacent to an industrial or agricultural zone, the developer of the property(ies) being rezoned shall be required to implement exposure reduction measures developed in consultation with the Sacramento Metropolitan Air Quality Management District.
- AQ-4B. Land uses with sensitive receptors (such as residences, schools, senior care facilities and day care centers) which are proposed within 500 feet of a freeway or other high volume roadway (defined as an urban roadway with more than 100,000 average daily trips or a rural roadway with more than 50,000 average daily trips), a railyard or an active railroad shall incorporate exposure reduction measures consistent with the guidance listed in Air Quality Element policy AQ-3.

Implementation Measures:

- A. Support and implement the Sacramento City/County Bikeways Master Plan and the American Disabilities Act (ADA) Transition & Pedestrian Master Plan to provide safe and convenient access throughout the County. Examine the feasibility of providing bikeway routes through employment centers that encourage bicycle commute trips. (PLANNING & ENVIRONMENTAL REVIEW, SACDOT)
- B. The County in conjunction with the Sacramento Metropolitan Air Quality Management District shall establish an Air Quality Mitigation Program to reduce emissions. The Air Quality Mitigation Program shall address:
- The submittal requirements of the Air Quality Mitigation Plan.
 - Emission reduction measures which contribute towards reducing air pollution and improving the air quality impacts resulting from the indirect source¹. Each measure shall be assigned a point value by SMAQMD for reduced emissions and the indirect source shall be required to meet a minimum of 15 points.

¹ Indirect source is a land use that generates or attracts mobile source activity that results in emissions of a pollutant for which there is a State ambient air quality standard.

- An exception for projects that have already undergone the indirect source review in the development approval process.
 - A procedure to give credit for other measures required in a project that may also achieve a reduction in emissions. (PLANNING & ENVIRONMENTAL REVIEW, SMAQMD)
- C. Support the AQMD's development and adoption of construction and operational indirect source rules to mitigate the air quality impacts of new development. (PLANNING & ENVIRONMENTAL REVIEW, COUNTY ENGINEERING)
- D. Consider environmental justice issues as they relate to potential health impacts associated with air pollution and ensure that all land use decisions are made in an equitable fashion to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location from the health effects of air pollution. (PLANNING AND ENVIRONMENTAL REVIEW)
- E. Develop and implement guidelines for design of buffers to be established between industrial and residential land use as well as areas in a Permanent Agricultural Zone proposed for conversion from agricultural to urban use and adjacent farmlands. Develop and implement procedures for evaluating site specific buffer proposals and making recommendations to the County Planning Commission. Title to buffer areas may be transferred to an appropriate entity such as a resource conservation agency, but shall be credited to the proposed development as open space. Buffer design criteria shall include, but not be limited to, the following:
- i. Buffers shall generally consist of a physical separation 300-500 feet wide including roadways;
 - ii. Narrower buffers may be approved depending on the natural features of the buffer, if vegetative or solid barriers are used, applicable specific plan policies, the presence of pollutants, if and how pesticides are applied (i.e. ground or aerial application), and on the relative intensities of the land uses; and
 - iii. Buffers shall be provided by the proposed development and be fenced along its residential or urban side and posted against trespass.
 - iv. In addition to buffers, the County should require other appropriate exposure reduction measures between incompatible land uses. (PLANNING AND ENVIRONMENTAL REVIEW)
- F. Amend the Zoning Code to require a Conditional Use Permit to the Zoning Administrator for day care centers on properties that are within 500 feet of a freeway or other high volume roadway, a railyard or an active railroad that are identified in Sacramento Metropolitan Air

Quality Management District's (SMAQMD) Mobile Sources Air Toxics Protocol Tool or another similar SMAQMD tool. These uses shall incorporate exposure reduction measures consistent with the guidance listed in Air Quality Element policy AQ-3. (PLANNING AND ENVIRONMENTAL REVIEW)

- G. Prepare a digital map that identifies properties that are within 500 feet of a high volume roadway, a railyard or an active railroad and will be available at the public information counter and be available on the Office of Planning and Environmental Review's website. (PLANNING AND ENVIRONMENTAL REVIEW)

Motor Vehicle Emissions

Objective: A reduction in motor vehicle emissions through a decrease in the average daily trips and vehicle miles traveled and an increasing reliance on the use of low emission vehicles.

Intent: Vehicular emissions vary with each operational stage of a petroleum-fueled engine. Running exhaust emissions occur when the engine is warm and operational. These emissions increase with increased distance and decrease with decreased distance. Reductions in emissions which result from reducing the total number of daily trips arise from two sources. Emissions when the engine is first started, or "cold start emissions" are reduced with fewer trips. Additional emissions reductions are realized by limiting emissions which occur after a vehicle is stopped. These "hot soak emissions" occur when the heat from the engine causes gasoline in the fuel system to boil off.

Increasing the proportion of low emission vehicles and zero emission vehicles on Sacramento County roadways will help achieve clean air quality standards. The Sacramento Municipal Utilities District (SMUD) and the State of California are helping in this important approach to the problem by promoting cleaner low-emission vehicles. In addition to light-duty vehicle emissions, heavy-duty vehicles, both on-road and off-road, also contribute significantly to mobile source emissions. Policy AQ-11 supports the reduction of emissions from heavy-duty vehicles such as construction equipment.

Policies:

- AQ-5. Reduce emissions associated with vehicle miles travelled and evaporation by reducing the surface area dedicated to parking facilities; reduce vehicle emissions associated with "hunting" for on-street parking by implementing innovative parking innovative parking solutions including shared parking, elimination of minimum parking requirements, creation of maximum parking requirements, and utilize performance pricing for publicly owned parking spaces both on- and off-street, as well as creating parking benefit districts.

- AQ-6. Provide incentives for the use of transportation alternatives, including a program for the provision of financial incentives for builders that construct ownership housing within a quarter mile of existing and proposed light rail stations.
- AQ-7. Implement a model trip reduction program for County employees which may include, but not be limited to, flexible and compressed work schedules, commuter matching services, telecommuting, preferential carpool/vanpool parking, carpool/vanpool and transit subsidies, and all other commute alternative incentives.
- AQ-8. Promote mixed-use development and provide for increased development intensity along existing and proposed transit corridors to reduce the length and frequency of vehicle trips.
- AQ-9. When park-and-ride facilities are requested by transit providers, the spaces provided for the park-and-ride facility may be counted as part of the total amount of parking required by the zoning code.
- AQ-10. Encourage vehicle trip reduction and improved air quality by requiring development projects that exceed the SMAQMD's significance thresholds for operational emissions to provide on-going, cost-effective mechanisms for transportation services that help reduce the demand for existing roadway infrastructure.
- AQ-11. Encourage contractors operating in the county to procure and to operate low-emission vehicles, and to seek low emission fleet status for their off-road equipment.

Implementation Measures:

- A. Low emission vehicles should be promoted through the following implementation measures. These measures are applicable to County operations and private enterprise.
- In cooperation with SMAQMD, provide incentives and infrastructure to support and encourage use of lowest emission vehicles. Develop and implement the means to increase awareness of the availability and advantages of these vehicles.
 - Promote and support the development, operation, and commercialization of lowest emission vehicles and shuttle services by providing preferential parking, particularly for employees. Replace aging Sacramento County vehicles with new vehicles meeting the cleanest emission standard possible at the time of purchase.
 - Establish a County of Sacramento Low-Emission Vehicle & Fleet Program that requires the purchase of low emission vehicles when practical. (PLANNING & ENVIRONMENTAL REVIEW, GENERAL SERVICES, BOARD OF SUPERVISORS)

- B. Support the use of demand management and pricing controls to accelerate and strengthen market-based strategies consistent with the General Plan. (PLANNING & ENVIRONMENTAL REVIEW)
- C. Work with SMAQMD, Sacramento Area Council of Governments (SACOG), and the business community to create trip reduction goals, a program to implement controls such as flexible and compressed work schedules, commuter matching services for vanshare and rideshare programs, telecommuting, preferential carpool/vanpool parking, parking pricing, transit subsidies, and other controls as may be necessary to obtain and monitor county trip reduction goals. (COUNTY EXECUTIVE, BOARD OF SUPERVISORS)
- D. Implement traffic signal preemption for transit vehicles to provide consistency and dependability in transit schedules. (SACDOT)
- E. Reassess Sacramento County and parking standards for maximization of *Transportation Control Measure (TCM)* effectiveness. (PLANNING & ENVIRONMENTAL REVIEW, SACDOT)
- F. Implement and enforce the County Zoning Code Developer Transportation Systems Management provisions. (PLANNING & ENVIRONMENTAL REVIEW, SACDOT)

Reducing Air Pollutants

Objective: Compliance with federal and state-air quality standards to reduce all air pollutants, including ozone-depleting compounds to ensure the protection of the stratospheric ozone layer.

Intent: Federal and state governments have established standards and criteria for certain pollutants. Concentrations of these pollutants in excess of the standard is in violation of state and federal laws and poses a threat to public health, environmental sustainability, and the scenic beauty of the region. While poor air quality poses a serious health risk, it can also create a severe economic drain as well. Failure to attain specified emission standards by the adopted attainment date could result in federal sanctions and increased air quality permit costs and regulations for local businesses. It is tremendously important that the County work to reach set standards to improve air quality for the health and economic wellbeing of the County, the region, and the state as a whole. The County shall coordinate air quality planning and public education efforts with any other local, regional, and state agencies in order to attain these standards.

The County supports “Cool Communities” programs designed to reduce the impacts of urban heat islands² by increasing the reflectivity and emissivity of surfaces within the community, as well as using vegetative cover to shade surfaces from the sun. Cool Communities strategies are most

² Heat islands form as vegetation is replaced by asphalt and concrete for roads, buildings, and other structures. These surfaces absorb – rather than reflect – the sun’s heat, causing surface temperatures and overall ambient temperatures to rise, resulting in urban areas that are 2 to 10 °F hotter than undeveloped areas on hot days.

successful when roofing, paving, and shade tree and shrub planting are used together on a wide scale to reduce the amount of heat energy absorbed by the built environment. This systematic approach reduces local ambient temperatures, energy used for air conditioning, and the potential for ozone formation in the lower atmosphere - a harmful pollutant.

Exposure to particulate pollution is linked to increased frequency and severity of asthma attacks, pneumonia and bronchitis, and premature death in people with pre-existing cardiac and respiratory diseases. The County supports efforts to reduce particulate pollution from wood burning, fugitive dust and transportation.

Ozone in the lower atmosphere creates a health hazard, but ozone in the upper atmosphere absorbs damaging ultraviolet rays and protects the earth's surface. The production of CO₂ and the release of "ozone-depleting" compounds such as Chlorofluorocarbons (CFC's) into the atmosphere eliminates ozone in the stratosphere. Policy measures by both the county and private sector can be implemented to comply with mandated and discretionary standards to reduce pollutants of air emissions.

Policies:

- AQ-12 Minimize air pollutant emissions from Sacramento County facilities and operations.
- AQ-13. Use California State Air Resources Board (ARB) and SMAQMD guidelines for Sacramento County facilities and operations to comply with mandated measures to reduce emissions from fuel consumption, energy consumption, surface coating operations, and solvent usage.
- AQ-14. Support SMAQMD's development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds and rules to more adequately address the air quality impacts of plans and proposals proposed by the County.
- AQ-15. Support intergovernmental efforts directed at stricter tailpipe emissions standards.
- AQ-16. Prohibit the idling of on-and off-road engines when the vehicle is not moving or when the off-road equipment is not performing work for a period of time greater than five minutes in any one-hour period.
- AQ-17. Promote optimal air quality benefits through energy conservation measures in new development.
- AQ-18. Require the recovery of chlorofluorocarbons (CFC's) when older air conditioning and refrigeration units are serviced or disposed.
- AQ-19. Require all feasible reductions in emissions for the operation of construction vehicles and equipment on major land development and roadway construction projects.

- AQ-20. Promote Cool Community strategies to cool the urban heat island, reduce energy use and ozone formation, and maximize air quality benefits by encouraging four main strategies including, but not limited to: plant trees, selective use of vegetation for landscaping, install cool roofing, and install cool pavements.
- AQ-21. Support SMAQMD's particulate matter control measures for residential wood burning and fugitive dust.
- AQ-22. Reduce greenhouse gas emissions from County operations as well as private development.

Implementation Measures:

- A. Identify the air quality impacts of development proposals to avoid significant adverse impacts, require appropriate mitigation measures or offset fees and submit development proposals to SMAQMD for review and comment prior to consideration by appropriate decision making bodies. (PLANNING & ENVIRONMENTAL REVIEW)
- B. Require surveying of County facilities and operations including, but not limited to the use of industrial diesel IC engines, heavy construction equipment, gasoline utility engines, or boilers and reduce the emissions through electrification, use of alternative clean fuels, or catalytic controls. (EMD)
- C. Minimize solvent use and release of reactive organic gases (ROG) in asphalt paving operations performed by Sacramento County, or by paving operations requiring Sacramento County permits. (PLANNING & ENVIRONMENTAL REVIEW, SACDOT, COUNTY ENGINEERING)
- D. Require that direct application of industrial solvents that emit ROG be done using controls consistent with ARB and SMAQMD guidelines in order to minimize ROG emissions for operations at Sacramento County Facilities, and consider requirements for commercial and industrial operations at new and modified facilities requiring County permits. (EMD)
- E. Extend the use of vapor recovery systems to aircraft and other fuel-handling operations that require County permits for their operations. (EMD, AIRPORTS)
- F. The County shall encourage County contractors and vendors to reduce emissions from their operations, and shall consider including a preference for low emission contractors and vendors in County requests for proposals where appropriate. (GENERAL SERVICES)
- G. Require the use of Best Available Control Technology (BACT)³ to reduce air pollution emissions. (PLANNING & ENVIRONMENTAL REVIEW, SMAQMD)
- H. In conjunction with SMAQMD and SACOG, support and participate in a public education and outreach program dealing with air quality issues, with a goal of attaining a solid foundation of public support for needed air quality measures. (PLANNING & ENVIRONMENTAL REVIEW)
- I. Implement appropriate measures to reduce harmful air emissions from wood burning fireplaces and stoves as adopted by the SMAQMD Board. (PLANNING & ENVIRONMENTAL REVIEW)
- J. Implement a program that will reduce greenhouse gas emissions from County operations, the current built environment and future development in compliance with the California Global

³ A regulation for control of air pollution from a stationary source, issued on a case by case basis by a permitting authority, that will realize the lowest achievable emission rate for the source to which it is applied.

Warming Solutions Act of 2006. (PLANNING & ENVIRONMENTAL REVIEW,
GENERAL SERVICES)

- K. Participate in research that examines the effects of climate change on human and natural systems in Sacramento County. (PLANNING & ENVIRONMENTAL REVIEW)