XII - AIR QUALITY ELEMENT

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XII AIR QUALITY ELEMENT

VISION STATEMENT

Rancho Cordova will achieve cleaner skies, visible scenic corridors, a healthy community, and improved air quality. Residents, industries, and community leaders will actively promote innovative land use patterns, new modes of transportation, the use of alternative fuels, improved construction equipment, and widespread air quality efforts. Residents will be able to exercise and play outdoors year-round without being exposed to health risks.

INTRODUCTION

Air quality is measured by the level of certain pollutants in the air, and is a significant factor in health, comfort, and well being within a community. Improving the air quality in Rancho Cordova will enhance the quality of life of the City's residents and employees and improve the scenic visibility of the foothills and sierras. Rancho Cordova will approach air quality issues comprehensively, leading to a noticeable improvement in both local and regional air quality.

PURPOSE

This Air Quality Element establishes a framework for how the City will improve air quality in the Planning Area and work with other communities in the region and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to improve air quality in the Sacramento Valley Air Basin. This Element also underscores the effects that land use patterns and the resulting transportation behavior have on air quality. The goals, policies, and actions outlined in this Element focus on improving air quality through embracing regional coordination, "smart growth" land use concepts, transportation demand management, energy conservation, cleaner industries and vehicles, and public education.

RELATED PLANS AND PROGRAMS

The Air Quality Element relates to several other plans and programs, including the following:

- **California Clean Air Act.** The California Clean Air Act requires nonattainment areas to achieve and maintain the state ambient air quality standards by the earliest practicable date and also requires local air districts to develop plans for attaining the state ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide standards. The Air Quality Element contains policies that support attainment of air quality standards.

- **1994 Sacramento Area Regional Ozone Attainment Plan.** The Clean Air Plan was developed cooperatively with all the air quality districts in the Sacramento Region. Because the region could not demonstrate compliance with federal ozone standards, the region accepted a designation of "severe nonattainment" for the federal one-hour ozone standard, and additional emission requirements were placed on stationary sources. The Air Quality Element contains policies that support attainment of air quality standards.

- **Sacramento Metropolitan Air Quality Management District (SMAQMD) Rules and Regulations.** The rules are comprised of 10 regulations, including: General Rules; Permits; Fees; Prohibitory Rules; Agricultural Burning; Hearing Board; Emergency Episode Plan; New Source Performance Standards; National Emission Standards For Hazardous Air Pollutants (NESAPs); and Mobile Sources. The Air Quality Element contains policies related to new pollution sources, emission standards and mobile sources.

- **Sacramento Metropolitan Air Quality Management District (SMAQMD) Guide to Air Quality Assessment in Sacramento County.** SMAQMD has developed the Guide to Air Quality Assessment in Sacramento County for calculating a project's air quality impacts during the environmental review process. SMAQMD recommends that this Guide be used by lead agencies at local, State, and federal levels for projects that are likely to result in emission impacts in Sacramento County. The Air Quality Element contains policies related to coordinating with SMAQMD on environmental documents for projects.

- **California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective".** The California Environmental Protection Agency and the California Air Resources Board released the "Air Quality and Land Use Handbook: A Community Health Perspective" (handbook) in April 2005. The

handbook recommends specific buffers between heavily traveled roadways (e.g., freeways) and land uses for sensitive populations. The Air Quality and Land Use Elements contain policies related to buffers between incompatible land uses.

- **Sacramento Transportation and Air Quality Collaborative.** The Collaborative is a consortium of 48 regional and local organizations developed to address air quality, transportation, land use, and governance issues in the greater Sacramento area. The Collaborative seeks to increase public participation through education, evaluation of transit systems, land use developments, jobs/housing balances, and encouragement of regional planning efforts to achieve and maintain clean air quality as measured by federal and state ambient air quality standards. The Air Quality, Land Use, and Housing Elements contain policies that are support the Collaborative's efforts in land planning, jobs-housing balances, and achieving air quality standards.

- **Metropolitan Transportation Plan (MTP).** The MTP is a 23-year long-range plan for transportation improvements in the greater six-county Sacramento region. The MTP establishes goals, policies, programs, and projects that will meet the mobility needs of the Sacramento region while satisfying federal air quality standards. SACOG is the metropolitan planning organization responsible for developing the MTP every three years. The Circulation and Air Quality Elements contain policies for mobility and attainment of air quality standards.

- **Metropolitan Transportation Improvement Program (MTIP).** The MTIP is the short-term implementation plan for the MTP. The current MTIP is the 2005/07 plan. The MTIP contains two separate documents, 1) Sacramento Ozone Non-Attainment Area and 2) Yuba Sutter Ozone Non-Attainment Area. The Air Quality Element contains policies that support attainment of air quality standards.

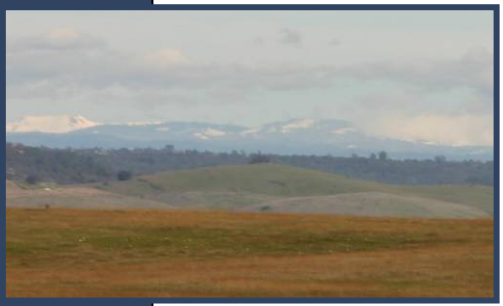
- **Caltrans publications and guidance on air quality.** The Caltrans Division of Environmental Analysis Headquarters Air Quality Coordination Branch manages regional and project-level air quality issues, consults and coordinates with State, federal, and regional air and transportation planning agencies, and builds and maintains air quality analysis tools and procedures related to transportation air quality issues, including model and guidance documents. The Circulation and Air Quality Elements contain policies for transportation and attainment of air quality standards.

- **Rancho Cordova Pedestrian Master Plan.** The Pedestrian Master Plan establishes polices, programs, and projects to improve the pedestrian system with the City of Rancho Cordova. An improved pedestrian system will allow more people to use walking as a method of transit, reducing automobile emissions and

thus improve air quality. This Element contains policies and actions related to encouraging all modes of transportation, including walking.

Relationship to Other Elements

The Air Quality Element an optional element chosen for inclusion because it addresses significant local needs and issues. The Air Quality Element directs policy on air quality in Rancho Cordova and is closely related to other General Plan Elements. This element is tied to the Land Use Element through policies related to land use patterns and density. The Circulation Element is related to this element through policies related to supporting multiple forms of transportation to improve air quality. The Air Quality Element relates to the Urban Design Element through policies pertaining to landscaping, and walking/bicycling to services and shopping. The Economic Development Element contains policies related to encouraging infill to reduce air pollution. Where the overlap can be identified, cross-references are provided to alert the reader to the other elements.



ISSUES AND CONSIDERATIONS

Setting

The U.S. Environmental Protection Agency and the California Air Resources Board established ambient air quality standards for common pollutants. These standards represent the safe levels of contaminants that avoid the specific adverse health effects associated with each pollutant. The most common air pollutants with known harmful effects are listed below.

- Ozone, commonly referred to as smog, is a respiratory irritant that increases susceptibility to respiratory infections and diseases and harms lung tissue at high concentrations.

- Fine particulate matter is produced by fuel-burning vehicles and industries and affects health because it can bypass the body's natural filtration system more easily than larger particles, lodging deep in the lungs.

- Carbon monoxide is produced mainly by motor vehicle emissions and at low concentrations reduces the amount of oxygen in the bloodstream and may aggravate cardiovascular disease.

- Toxic air contaminants may be released as emissions from normal operations, or during accidental releases of hazardous materials. Adverse health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Rancho Cordova is located within Sacramento County, which is located at the southern end of the Sacramento Valley Air Basin. At the time this General Plan was prepared, Sacramento County was designated nonattainment of national and state ambient air quality standards (AAQS) for ozone and PM10, as well as the state AAQS for PM2.5. The County was designated attainment or unclassified for all remaining pollutants.

Rancho Cordova Air Quality Monitoring Data

The SMAQMD and ARB maintain several air quality monitoring sites in the Sacramento area, however, none are located in the City of Rancho Cordova and not all monitoring sites measure all air pollutants. For instance, the Sloughhouse monitoring site, which is the site nearest to the City, only measures ozone. The nearest monitoring site for carbon monoxide, PM2.5, Nitrogen Dioxide, and Sulfur Dioxide is at Del Paso Manor at 2701 Avalon Dr. in Sacramento. The nearest monitoring site for PM10 is the Sacramento Branch Center Road site, located near Bradshaw Road south of U.S. 50, within the Planning Area. Based on these monitoring sites, all federal ambient air quality standards have been met in the City, with the exception of ozone, which exceeded the eight-hour average on ten occasions in 2005. Also, California standards for PM10 and ozone were exceeded in the City in 2005. Table AQ-1 shows monitoring data on Rancho Cordova's air quality.

Air quality is a regional issue that rarely affects just one city. Regional growth patterns and other jurisdictions' contributions to pollution will continue to contribute the City's air quality issues.

Sources of Air Pollution in Rancho Cordova

Stationary sources of air pollution in Rancho Cordova include A. Teichert & Son Aggregate, AeroJet, Puente Wood Products, Sacramento Rendering Company, Teledyne Mec, Granite Construction, and concrete recycling. Mobile sources of air pollution in Rancho Cordova include cars, trucks, buses, motorcycles, off-road equipment, construction activities, and consumer products, as well as gas-powered lawn tools and mowers, farm and construction equipment, recreational vehicles, planes, and trains. Sources of toxic air contaminants in Rancho Cordova include manufacturing facilities, the Kiefer Landfill, and diesel exhaust from auto body shops, auto machine shops, dry cleaners, and gas stations. Indirect sources

of air pollution are predominantly from vehicle trips along major thoroughfares through and adjacent to Rancho Cordova.

Air Quality Emissions Under Buildout

Increases in operational air impacts with implementation of the proposed General Plan would generally consist of stationary and mobile sources.

- A stationary source of air pollution refers to an emission source that does not move (e.g., utilities and chemical and manufacturing facilities). Often, stationary sources are defined as large emitters that release relatively consistent qualities and quantities of pollutants. The term "area source" is used to describe the many smaller stationary sources located together whose individual emissions may be low, but whose collective emissions can be significant. Typically, area sources are those that emit less than 25 tons per year of any combination of hazardous air pollutants, or less than 10 tons per year of any single hazardous air pollutant.

- A mobile source of air pollution refers to a source that is capable of moving under its own power. In general, mobile sources imply on-road transportation, but there is also a non-road or off-road category that includes gas-powered lawn tools and mowers, farm and construction equipment, recreational vehicles, boats, planes, and trains.

Increases in industrial, commercial, and office uses as well as services that provide for an increasing population, intensify stationary source air emissions. According to this analysis, under buildout conditions, uses in the Planning Area may produce 14,296.66 tons of ROG, 3,168.86 tons of NOx, and 8,420.85 tons of PM10 per year. The projected air quality emissions associated with buildout of Rancho Cordova are shown in Table AQ-2.

TABLE AQ-1
RANCHO CORDOVA AREA AIR QUALITY MONITORING DATA FROM LOCAL MONITORING STATIONS

Pollutant	Standard[3]	2003		2004		2005	
		Highest	Days over	Highest	Days over	Highest	Days over
Ozone							
Highest 1-hour average[1]	0.09 ppm	0.131 ppm	1	0.114 ppm	0	0.132 ppm	3
Highest 8-hour average[2]	0.07 ppm	0.107 ppm	19	0.93 ppm	8	0.110 ppm	10
Carbon Monoxide							
Highest 8-hour average[1]	9.0 ppm	4.27 ppm	0	3.15 ppm	0	2.26 ppm	0
PM10							
Highest 24-hour average[1]	50 µg/m3	77.0 µg/m^3	4	45.0 µg/m^3	0	52.0 µg/m^3	1
PM2.5							
Highest 8-hour average[2]	65 µg/m3	73.2 µg/m^3	2	58.2 µg/m^3	0	45.7 µg/m^3	0
Sulfur Dioxide							
Highest 1-hour average[1]	.0.25 ppm	.003 ppm	0	.003 ppm	0	.003 ppm	0
Nitrogen Dioxide							
Highest 1-hour average[1]	0.25 ppm	.101 ppm	0	.066 ppm	0	.061 ppm	0

Source: California Air Resource Board (data from Del Paso Manor, Sloughouse, and Sacramento Branch Center Road monitoring stations)

Note: 1 California standard;
2 National standard
3 ppm = parts per million, µg/m^3 = micrograms per cubic meter.

TABLE AQ-2
PROJECTED RANCHO CORDOVA BUILDOUT AIR QUALITY

Input Assumptions Planning or Focus Area (Model Run)	Dwelling Units		Commercial		Office		Industrial	
Planning or Focus Area (Model Run)	/# Units	Trip Gen Rate	/1000 sqft	Trip Gen Rate	/1000 sqft	Trip Gen Rate	/1000 sqft	Trip Gen Rate
General Plan Planning Area	126,241.00		11,971,169		36,397,637		22,840,982	
City Area	75,923.00	6.42	5,764,627	21.47	21,614,312	1.66	7,705,690	3.48
Non-City Area/Unincorporated	50,318.00		6,206,542		14,783,325		15,135,292	

Projected Annual Emissions									
Planning or Focus Area (Model Run)	Area Source Emissions (tons/yr)			Mobile Source Emissions (tons/yr)			Total Emissions (tons/yr)		
	ROG	NOx	PM10	ROG	NOx	PM10	ROG	NOx	PM10
General Plan Planning Area	12,347.99	1,966.26	22.62	1,948.67	1,202.60	8,398.23	14,296.66	3,168.86	8,420.85
City Area	2,905.58	258.55	482.00	194.74	144.05	867.52	3,100.32	402.61	1349.53
Non-City Area/Unincorporated	1,949.85	176.17	319.46	150.82	111.12	665.15	2,100.67	287.29	984.61

Projected Daily Emissions									
Planning or Focus Area (Model Run)	Area Source Emissions (tons/day)			Mobile Source Emissions (tons/day)			Total Emissions (tons/day)		
	ROG	NOx	PM10	ROG	NOx	PM10	ROG	NOx	PM10
General Plan Planning Area	33.83	5.39	0.06	5.34	3.29	23.01	39.17	8.68	23.07
City Area	7.96	0.71	1.32	0.53	0.39	2.38	8.49	1.10	3.70
Non-City Area/Unincorporated	5.34	0.48	0.88	0.41	0.30	1.82	5.76	0.79	2.70

Emissions were calculated based on default assumptions provided in the model for the lower Sacramento Valley area. Model default assumptions for pass-by and double-counting adjustments were included. Actual emissions will vary depending on how development occurs, the specific types of land uses developed, and emission control measures implemented.

ISSUES THIS ELEMENT ATTEMPTS TO SOLVE

The primary issues that the Air Quality Element attempts to solve, many of which were raised during General Plan workshops, include the following:

- Reversing increases in regional air pollution and achieving attainment for ozone levels at both the federal and state standards.
- Reducing or eliminating residents' health concerns that are attributable to air quality impacts.
- Improving visibility of scenic vistas.
- Creating incentives to decrease the number of vehicle miles traveled, length of trips, and traffic congestion.
- Improving air quality through land use and circulation patterns to discourage fuel-powered transit.
- Creating more choices for multiple forms of transportation and strengthening pedestrian and bicycle mobility.

While the focus of this element is on improving our local air quality, it is important to recognize that this element cannot change regional growth patterns or contributions to air pollution from other jurisdictions.

GOALS, POLICIES, AND ACTIONS

The goals of this element are as follows and are listed subsequently with corresponding policies and actions.

- **Goal AQ.1: Ensure a healthy community by participating in local and regional efforts to meet or exceed all state and federal air quality standards.**
- **Goal AQ.2: Support land use patterns and densities that lessen air quality impacts.**
- **Goal AQ.3: Support multiple forms of transportation and a circulation system design that reduces vehicle trips and emissions.**

- **Goal AQ.4: Support energy conservation, the use of alternative fuels, clean vehicles and industries to reduce air quality impacts.**

- **Goal AQ.5: Promote educational efforts to inform the community about the significance of air quality.**

GOAL AQ.1 - ENSURE A HEALTHY COMMUNITY BY PARTICIPATING IN LOCAL AND REGIONAL EFFORTS TO MEET OR EXCEED ALL STATE AND FEDERAL AIR QUALITY STANDARDS.

Policy AQ.1.1 - Coordinate with responsible agencies and other jurisdictions to improve air quality within Rancho Cordova and the greater Sacramento region.

- **Action AQ.1.1.1** - Use the emissions guidelines produced by the California Air Resources Board, SMAQMD, and SACOG to ensure that City facilities and operations comply with mandated measures.

- **Action AQ.1.1.2** - Support SMAQMD in the development of improved ambient air quality monitoring capabilities, as well as the establishment of standards that more adequately address the air quality impacts of proposed project plans and proposals.

- **Action AQ.1.1.3** – Support intergovernmental efforts directed at adopting stricter standards related to lowest emission technology vehicles, and more efficient burning engines and fuels (e.g., HVAC, generators, construction equipment, stricter tailpipe emissions standards, etc.).

- **Action AQ.1.1.4 -** Update the General Plan as necessary if updates to the Sacramento Area Regional Ozone Attainment Plan would create inconsistencies between future buildout of the General Plan Planning Area and the Attainment Plan.

Policy AQ.1.2 – Evaluate projects for compliance with State and federal ambient air quality standards and the Sacramento Metropolitan Air Quality Management District's (SMAQMD) thresholds of significance. (Refer to Table AQ-3 in this Element for ambient air quality standards.)

- **Action AQ.1.2.1 -** Coordinate with SMAQMD through the environmental review process to ensure that proposed projects would not significantly affect the region's ability to meet State and federal air quality standards.

- **Action AQ.1.2.2** – Require project proponents to coordinate with SMAQMD on appropriate methodologies for evaluating project emissions and air quality impacts (e.g., emissions modeling software, SMAQMD's thresholds of significance, etc.).

- **Action AQ.1.2.3** – Require all new development projects that exceed SMAQMD's thresholds of significance to incorporate design, construction material, and/or other operational features that will result in a 15 percent reduction in emissions when compared to an "unmitigated baseline" project.

Policy AQ.1.3 - The City shall prohibit wood-burning open masonry fireplaces in all new development. Fireplaces with EPA-approved inserts, EPA-approved stoves, and fireplaces burning natural gas will be allowed.

Policy AQ.1.4 - The City shall develop an incentive program to encourage homeowners to replace high-pollution emitting non-EPA-certified wood stoves that were installed before the effective date of the applicable EPA regulation with newer cleaner-burning EPA-certified wood stoves.

An "unmitigated baseline project" is a development project that is built and/or operated without the implementation of trip-reduction, energy conservation, or similar features, including any such features that may be required by the Zoning Code or other applicable codes.

Policy AQ.1.5 - Require odor impact analyses be conducted for evaluating new development requests that either could generate objectionable odors that may violate SMAQMD Rule 402 or any subsequent rules and regulations regarding objectionable odors near sensitive receptors or locate new sensitive receptors near existing sources of objectionable odors. Should objectionable odor impacts be identified, odor mitigation shall be required in the form of setbacks, facility improvements or other appropriate measures.

GOAL AQ.2 - SUPPORT LAND USE PATTERNS AND DENSITIES THAT LESSEN AIR QUALITY IMPACTS.

Policy AQ.2.1 - Promote strategic land use patterns for businesses that reduce the number and length of motor vehicle trips and that encourage multiple forms of transportation for employees and patrons.

Cross reference: C.1.9.

- **Action AQ.2.1.1 -** Support the location of ancillary employee services, including childcare, restaurants, banking facilities, and convenience markets, at major employment centers for the purpose of reducing mid-day vehicle trips.

Policy AQ.2.2 - Encourage mixed-use developments that put residences in close proximity to services, employment, transit, schools, and civic facilities/services.

Cross reference: LU.1.3.2

Cross reference: LU.1.7

- **Action AQ.2.2.1 –** Promote compact development within one-quarter to one-half mile of rail transit stations and transit stations along enhanced transit corridors.

Cross reference: UD.2.1

- **Action AQ.2.2.2 –** Require greenfield areas of the City to be developed in keeping with the City's Building Block Concept of livable, walkable neighborhoods with services and employment opportunities integrated within every Village of the community.

Cross reference: LU.5.1.1

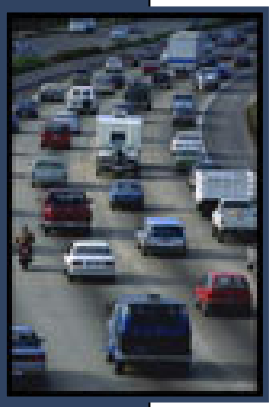
Policy AQ.2.3 – Encourage infill development as a way to reduce vehicle trips and improve air quality.

- **Action AQ.2.3.1 -** Identify and adopt incentives for planning and implementing infill development projects within urbanized areas and near job centers and transportation nodes.

Cross reference: NR.4.3.1

Policy AQ.2.4 - Maximize air quality benefits through selective use of landscaping vegetation that is low in emission of volatile organic compounds, and through re-vegetation of appropriate areas.

- **Action AQ.2.4.1** - Provide buffers and setbacks between sensitive land uses and sources of air pollution.



- **Action AQ.2.4.2 -** Promote criteria for all new parking lots to include tree plantings that will result in 50 percent shading of parking lot surface areas within 15 years.

Policy AQ.2.5 - Utilize the guidelines in the California Air Resources Control Board Air Quality and Land Use Handbook: A Community Health Perspective when evaluating new development requests that either would generate toxic air contaminant emissions near sensitive receptors or locate new sensitive receptors near existing sources of air toxic emissions or order to minimize health hazards, and implement all feasible best available control technology, as required by SMAQMD.

GOAL AQ.3 – SUPPORT MULTIPLE FORMS OF TRANSPORTATION AND A CIRCULATION SYSTEM DESIGN THAT REDUCES VEHICLE TRIPS AND EMISSIONS.

Cross reference: UD.1.6, C.2.2.1, OSPT.3.1,

Policy AQ.3.1 - Promote walking and bicycling as viable forms of transportation to services, shopping, and employment.

- **Action AQ.3.1.1** - Facilitate street design that encourages biking and walking in both new and established areas.

- **Action AQ.3.1.2 -** Require all new development to be designed to enable easy pedestrian and bicycle access and circulation.

- **Action AQ.3.1.3 –** Develop and distribute user-friendly maps of the City's existing and planned pedestrian and bicycle facilities to businesses and post on the City's website.

Policy AQ.3.2 - Promote mass transit as an alternative to single-occupant motor vehicle travel.

Cross reference: C.3.1

- **Action AQ.3.2.1 -** Provide and/or adequately advertise shuttles from local transit stations to special event and civic centers.

- **Action AQ.3.2.2 -** Encourage employers to provide: direct shuttle service to light rail; transit subsidies; bicycle facilities; ridesharing; flex schedules and alternative work schedules, including telecommuting and work-at-home programs; and preferential parking for carpools.

- **Action AQ.3.2.3 -** Support the development of Transportation Demand Management services through the City's Transit-Related Services Tax Area that result in active marketing of transit services, ride sharing programs, bike and pedestrian facilities, transit facilities, and provision of transit subsidies that provide air quality benefits.

- **Action AQ.3.2.4** - Require that new development pay its fair share of the cost of transit facilities and the operations and maintenance of transit services.

Policy AQ.3.3 - Involve local businesses in creating, maintaining, or promoting mass transit opportunities and reducing vehicle emissions.

- **Action AQ.3.3.1** - Encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations.

- **Action AQ.3.3.2 -** Recommend that business owners schedule deliveries at off-peak traffic periods.

Policy AQ.3.4 - Emphasize "demand management" strategies that seek to reduce single-occupant vehicle use in order to achieve state and federal air quality plan objectives.

Cross reference: C.1.9

- **Action AQ.3.4.1** – Continue to require, and update as necessary, designated carpool and vanpool parking in all new office developments as outlined in the zoning code.

- **Action AQ.3.4.2** - Consider developing a model trip reduction and air quality improvement program for City employees. The program could include flexible or compressed work schedules, commuter matching services, telecommuting options, and preferential carpool/vanpool parking, transit subsidies.

GOAL AQ.4 – SUPPORT ENERGY CONSERVATION, THE USE OF ALTERNATIVE FUELS, CLEAN VEHICLES AND INDUSTRIES TO REDUCE AIR QUALITY IMPACTS.

Policy AQ.4.1 - Promote improved air quality benefits through energy conservation measures for new and existing development.

- **Action AQ.4.1.1** - Require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following:

  – Requiring the use of the best available technologies to reduce air pollution standards.

  – Using building materials and methods that reduce emissions and improve indoor air quality (e.g., LEED certification, LEED Green Buildings, EPA Green Building, etc.).

  – Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants.

  – Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.

  – Utilizing automated time clocks or occupant sensors to control heating systems.

LEED stands for Leadership in Energy and Environmental Design. The LEED Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

- **Action AQ.4.1.2 -** Encourage the use of cost-effective and innovative emission-reduction technologies in building components and design.

- **Action AQ.4.1.3 -** Support the use of building materials and methods that increase efficiency beyond State Title 24 standards.

- **Action AQ.4.1.4 -** Encourage the use of "EPA Energy Star"-certified appliances.

- **Action AQ.4.1.5 -** Promote the implementation of sustainable design strategies for "cool communities," such as installing reflective roofing or light-colored pavement and planting urban shade trees.

- **Action AQ.4.1.6** - Consider incorporating energy-conserving design and construction techniques in all City facilities.

Policy AQ.4.2 - Support vehicle improvements and the use of clean vehicles that reduce emissions and improve air quality.

- **Action AQ.4.2.1** - Replace the City's fleet vehicles with new vehicles that utilize the lowest emission technology available, whenever economically feasible.

- **Action AQ.4.2.2 -** Consider adopting a policy that provides a preferential treatment to contractors using reduced emission equipment for City construction projects and for City contracts for services (e.g., garbage collection).

- **Action AQ.4.2.3 -** Encourage lowest emission technology buses in public transit fleets.

- **Action AQ.4.2.4 -** Promote developments and street systems that support the use of neighborhood electric vehicles.

- **Action AQ.4.2.5 -** Adopt an ordinance that limits the amount of time diesel-powered trucks, buses, and other heavy vehicles may idle in accordance with California Air Resources Control Board rules for mobile TAC sources, and that restricts placing new sensitive receptors within the proximity of known toxic air contaminant (TAC) producing facilities and land uses. Sensitive receptors shall be located a safe distance from TAC sources as described in California Air Resources Board guidelines and Sacramento Metropolitan Air Quality Management District requirements.

Policy AQ.4.3 - Support SMAQMD's program of retrofitting construction equipment to reduce air pollution.

- **Action AQ.4.3.1** - Enforce construction-related air quality mitigation measures adopted through the CEQA process.

GOAL AQ.5 – PROMOTE EDUCATIONAL EFFORTS TO INFORM THE COMMUNITY ABOUT THE SIGNIFICANCE OF AIR QUALITY.

Policy AQ.5.1 - Encourage employers to participate in SMAQMD's public education programs.

- **Action AQ.5.1.1 -** Provide air quality information on the City's website, including links to public information provided by SMAQMD and the California Air Resources Board.

- **Action AQ.5.1.2 –** Encourage employers to post flyers about carpools, vanpools, and other modes of transportation that contribute to improved air quality in locations that are easily visible to employees.

Policy AQ.5.2 - Support programs that encourage children to safely walk or bike to school.

AIR QUALITY STANDARDS

The following table contains federal and state ambient air quality standards that shall be used in conjunction with the Sacramento Metropolitan Air Quality Management District's thresholds of significance to evaluate development projects for air quality impacts. This table is referenced in Policy AQ.1.2 of this Element.

TABLE AQ-3
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	-	0.09 ppm
	8-Hour	0.08 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9 ppm	9.0 ppm
	1-Hour	35 ppm	20.0 ppm
Nitrogen Dioxide	Annual Average	0.053 ppm	--
	1-Hour	--	0.25 ppm
Sulfur Dioxide	Annual Average	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	--	0.25 ppm
PM_{10}	Annual Average	50 µg/m^3	20 µg/m^3
	24-Hour	150 µg/m^3	50 µg/m^3
$PM_{2.5}$	Annual	15 µg/m^3	12 µg/m^3
	24-Hour	65 µg/m^3	--

Notes: PPM = Parts per Million; µg/m3 = Micrograms per Cubic Meter
Source: Sacramento Metropolitan Air Quality Management District, 2004