Air Quality Element

Since passage of the Federal Clean Air Act in 1970,[1] Americans have become increasingly aware of and concerned about the quality of the air we breathe. For many years even prior to the Clean Air Act, Riversiders noted the brownish haze that obscured views of the distant mountains and on particularly hot summer days, could cause breathing difficulties. Although air quality has improved dramatically in Riverside over the past 35 years, air quality is often identified as a major issue that impacts the quality of our lives. Riversiders continue to be exposed to air pollution transported by prevailing wind patterns from Los Angeles and Orange counties. Residents also continue to experience the negative effects of vehicle emissions associated with the commuter traffic that passes through the City.

See the Introduction under "Related Plan, Programs and Legislation" and this Element under "Context – Regulatory Framework" for more information on the Federal Clean Air Act.

As we work toward improving local and regional air quality, we recognize that air quality is a community-wide and regional issue that does not respect neighborhood or jurisdictional boundaries. Each resident and every community throughout the region must accept a portion of the responsibility for addressing air quality problems.

Our Proactive Approach to Improving Air Quality

The Air Quality Element is a planning tool the City of Riverside will use to protect the public's health and welfare. The State of California does not require general plans to include Air Quality Elements. However, Riverside recognizes the importance of air quality not only to public health and safety, but also to the City's economic well being and its image in the region. In fact, the City was selected as a winner of a 2004 Clean Air Awards in the category of Model Community Achievement from the South Coast Air Quality Management District and has taken the necessary action steps to become a Model Clean Air City. In response, the City has integrated air quality concerns throughout this General Plan, not just in this Air Quality Element. As such, this Element identifies the role the City can play in helping the South Coast Air Basin attain the goal of meeting Federal and State air quality standards, as well as the function the City has in protecting its own residents and businesses from the impacts of harmful air contaminants. To achieve these goals, the Element sets forth a number of provisions and

[1] The Federal Clean Air Act was passed in 1970 and amended in 1977 and 1990.

programs to reduce current pollution emissions, to require new development to include measures to comply with air quality standards and to address new air quality requirements. In addition, the Element identifies strategies the City will utilize to ensure that its residents and businesses are not unnecessarily exposed to toxic air contaminants.

AUTHORITY FOR THIS ELEMENT

The Air Quality Element follows guidelines in the State Government Code Sections 65302(d) and 65303. It identifies and establishes the City of Riverside policies governing the achievement and maintenance of acceptable air quality within the region.

CONTEXT

Riverside lies within the eastern portion of the South Coast Air Basin (Basin), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties. The Basin is topographically bounded by the Pacific Ocean to the west, with the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east.

The topography and climate of the region combine to create an area of high air pollution potential in the Basin. Due to the low average wind speeds in the summer and a persistent daytime temperature inversion, emissions of hydrocarbons and oxides of nitrogen — the major by-products of vehicle engine combustion — have an opportunity to combine with sunlight in a complex series of reactions. These reactions produce a photochemical oxidant commonly known as "smog." Since the greater Los Angeles metropolitan region and the Inland Empire experience more days of sunlight than any other major urban area in the United States, except Phoenix, the smog potential in the region is higher than in most other major metropolitan areas in the country.

WHAT IS AIR POLLUTION?

Air pollution results from naturally occurring conditions and predominantly, from the activities of humans. Natural sources include dust from barren ground surfaces and forest fires. Sources contributed by our activities include industrial processes, chemical emissions from paints and similar materials and of course cars. Mobile air pollution sources and consumer products such as automobiles, trucks, gas-powered lawn mowers, leaf blowers and household cleaners contribute approximately 80 percent of the pollutants entering the air basin daily. The

other 20 percent of our air pollution originates from stationary sources such as factories, businesses and livestock operations.

Why do we care about air pollution? Many people experience some kind of air pollution-related symptoms such as watery eyes, coughing or wheezing. Even for healthy people, polluted air can cause respiratory irritation or breathing difficulties during exercise or outdoor activities. Riversiders are exposed to a number of pollutants in typical outdoor air. However, the health risks depend on an individual's current health status, the pollutant type and concentration and the length of exposure to the polluted air.

Air pollution is linked to increases in respiratory illness, decreased lung function, a decreased tolerance for exercise, longer hospital stays and a slight increase in mortality.

Clear Skies Over Riverside

AIR POLLUTION

Air pollution consists of several different components from numerous sources.

OZONE

Ozone is a gas composed of three atoms of oxygen. Ozone occurs both in the Earth's upper atmosphere and at ground level. Ozone can be good or bad, depending on where it is found.[2]

Good Ozone

Ozone occurs naturally in the Earth's upper atmosphere — six to thirty miles above the Earth's surface — where it forms a protective layer that shields us from the sun's harmful ultraviolet rays. This beneficial ozone is gradually being destroyed by man-made chemicals. An area where the protective "ozone layer" has been significantly depleted — for example, over the North or South Pole — is sometimes called "the ozone hole."

[2]EPA. Air Quality Index-A Guide to Air Quality and Your Health. 2003.

Bad Ozone

In the Earth's lower atmosphere, near ground level, ozone is formed when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, household and other domestic chemicals, and other sources react chemically in the presence of sunlight. Ozone at ground level is a harmful air pollutant.

Health Risks

Ozone is a highly reactive compound and a strong oxidizing agent. When ozone comes into contact with the respiratory tract, it can react with tissues and cause damage in the airways. Since it is a gas, it can penetrate into the gas exchange region of the deep lung. Individuals exercising outdoors, including children and people with preexisting respiratory disease(s) such as asthma, are considered the most susceptible to ozone effects.

PARTICULATE MATTER

Airborne particulates are a complex group of pollutants that vary in source, size and composition, depending on location and time. The components include nitrates, sulfates, elemental carbon, organic carbon compounds, acid aerosols, trace metals and material from the Earth's crust. Substances of biological origin, such as pollen and spores, may also be present. There are also differences in the composition and sources of particles in the different size ranges that may have implications for health.

Fine Particles (PM 2.5)

Particles less than 2.5 micrometers in diameter are called "fine" particles. These particles are so small they can be detected only with an electron microscope. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning and some industrial processes.

Coarse Dust Particles (PM 10)

Particles between 2.5 and 10 micrometers in diameter are referred to as "coarse." Sources of coarse particles include crushing or grinding operations and dust stirred up by vehicles traveling on roads.

Health Risks

The health effects of particulates tend to be most severe with particulates sized 10 micrometers in diameter and smaller, since these

can be inhaled more readily and deposited in the lower airways and deep areas of the lung. High levels of inhaled fine particulate matter can lead to an increased level of lung disease, respiratory infections and more frequent and severe asthma attacks.

CARBON MONOXIDE

Carbon monoxide (CO) is an odorless, colorless gas. It forms when the carbon in fuels does not completely burn. Vehicle exhaust contributes roughly sixty percent of all carbon monoxide emissions nationwide and up to ninety percent in cities. Other sources include fuel combustion in industrial processes and natural sources such as wildfires. Carbon monoxide levels typically are highest during cold weather because cold temperatures make combustion less complete and cause inversions that trap pollutants close to the ground.[3]

Health Risks

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise and the reduction of oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but reduces the amount of oxygen reaching the body's organs and tissues by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses and patients with chronic hypoxemia (oxygen deficiency), as seen in high altitudes.[4]

SULPHUR DIOXIDE

Sulfur dioxide (SO2), a colorless, reactive gas, is produced when sulfur-containing fuels such as coal and oil are burned. Major sources include power plants and industrial boilers. Generally, the highest levels of sulfur dioxide are near large industrial complexes.

Health Risks

Sulfur dioxide is an irritant gas that is removed by the nasal passages. People with asthma who are physically active outdoors are most likely to experience the health effects of sulfur dioxide. The main effect, even with brief exposure, is a narrowing of the airways that may cause

[3]EPA. Six Common Air Pollutants. 2003.

[4]EPA. Ibid. 2003.

wheezing, chest tightness and shortness of breath. At very high levels, sulfur dioxide may cause wheezing, chest tightness and shortness of breath even in healthy people who do not have asthma.

LEAD

Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase-out of leaded gasoline beginning in 1978, metal processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities and lead-acid battery manufacturers.

Health Risks

Infants, fetuses and children are the most sensitive to the adverse affects of lead exposure. Lead can be stored in the bone from early-age environmental exposure and elevated blood levels can occur due to the breakdown of bone tissue such as during pregnancy and osteoporosis. Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous incidences of lead exposure of their mothers.

NITROGEN OXIDES

Nitrogen oxide (NO_x) is a general term pertaining to compounds of nitric acid, nitrogen dioxide (NO_2) and other oxides of nitrogen. Major sources of NO_x include power plants, large industrial facilities and motor vehicles. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition.

Health Risks

Nitrogen oxides are emitted from combustion processes and irritate the nose and throat. NO_x increase susceptibility to respiratory infections, especially in people with asthma. The principal concern regarding NO_x is that it is a precursor to the formation of ozone.

KEY STUDIES

The combination of topography and climate, population growth and high levels of pollutants produced in the region have resulted in high air pollution potential despite stringent air quality rules and regulations. As a result, the Basin has been designated as a nonattainment area for

ozone and particulate matter (PM). The South Coast Air Quality Management District expects to meet Federal PM10 standards by 2006; however, it does not ~~expect to meet the~~project attainment of ozone standards until after 2010.

Air Pollution and Health Effects Near High-Traffic Areas

Since the 1950s, Riverside has been negatively affected by the amount of air pollutants in the air, primarily transported by wind patterns from Los Angeles and Orange Counties. Air quality is frequently identified as one of the City's major problems, impacting health and quality of life. To fully understand air quality's effects on health, many studies have been performed, as listed below, to show how air pollution can impact the community, especially near high traffic areas.

Smog May Cause Life-long Lung Deficits

Researchers at the University of Southern California undertook a comprehensive eight-year study (1993-2001) to track major pollutant loads in 12 Southern California areas and simultaneously monitor pulmonary health of almost 1,800 children as they moved from fourth to twelfth grade. The study found that "teenagers in smoggy communities are nearly five times as likely to have clinically low lung function compared to teens living in low pollution communities."[5]

~~***Air Pollution from Busy Roads Linked to Shorter Life Spans for Nearby Residents***~~

~~Dutch researchers looked at the effects of long-term exposure to traffic-related air pollutants on five thousand adults. They found that people who lived near a main road were almost twice as likely to die from heart or lung disease and 1.4 times as likely to die from any cause compared with those who lived in less-trafficked areas. Researchers say these results are similar to those seen in previous U.S. studies on the effects of long-term exposure to traffic-related air pollution. The authors say traffic emissions contain many pollutants that might be responsible for the health risks, such as ultrafine particles, diesel soot and nitrogen oxides, which have been linked to cardiovascular and respiratory problems.~~[5]

[5] University of Southern California. USC Public Relations. Website News Release. September 8, 2004. ~~Hoek, Brunekreef, Goldbohn, Fischer, van den Brandt. (2002). Association between mortality and indicators of traffic-related air pollution in the Netherlands: a cohort study. Lancet, 360 (9341): 1203-9.~~

~~Truck Traffic Linked to Childhood Asthma Hospitalizations~~

~~A study in Erie County, New York (excluding the city of Buffalo) found that children living in neighborhoods with heavy truck traffic within two hundred meters of their homes had increased risks of asthma hospitalization. The study examined hospital admission for asthma among children ages 0-14 and residential proximity to roads with heavy traffic.~~

Pregnant Women Who Live Near High Traffic Areas More Likely to Have Premature and Low Birth Weight Babies

Researchers observed an approximately ten to twenty percent increase in the risk of premature birth and low birth weight for infants born to women living near high-traffic areas in Los Angeles County. In particular, the researchers found that for each one part per million increase in annual average carbon monoxide concentrations where the women lived, there was a nineteen percent and eleven percent increase in risk for low birth weight and premature births, respectively.[6]

Traffic-Related Air Pollution Associated with Respiratory Symptoms in Two Year Old Children

This cohort study found that two-year-old children who are exposed to higher levels of traffic-related air pollution are more likely to have self-reported respiratory illnesses, including wheezing, ear/nose/throat infections and reporting of physician-diagnosed asthma, flu or serious cold.[7]

People Who Live Near Freeways Exposed to 25 Times More Particle Pollution

Studies conducted in the vicinity of Interstates 405 and 710 in Southern California found that the number of ultrafine particles in the air was approximately twenty-five times more concentrated near the freeways and that pollution levels gradually decrease to near normal (background) levels around three hundred meters, downwind from the freeway. The researchers note that motor vehicles are the most significant source of ultrafine particles, which have been linked to increases in mortality and morbidity. Recent research concludes that ultrafine particles are more toxic than larger particles with the same chemical composition. Moreover, the researchers found considerably higher concentrations of carbon monoxide pollution near the freeways.[8]

---

[6] Wilhelm, Ritz. (2002). Residential Proximity to Traffic and Adverse Birth Outcomes in Los Angeles County.

[7] Brauer et al. (2002). Air Pollution from Traffic and the Development of Respiratory Infections and Asthmatic and Allergic Symptoms in Children. Am J Respiratory and Critical Care Medicine. Vol. 166 pp 1092-1098.

[8] Zhu, Hinds, Kim, Sioutas. "Concentration and size distribution of ultrafine particles near a major highway." Journal of the Air and Waste Management Association. September 2002.

~~Asthma More Common for Children Living Near Freeways~~

~~A study of nearly ten thousand children in England found that wheezing illness, including asthma, was more likely with increasing proximity of a child's home to main roads. The risk was greatest for children living within ninety meters of the road.~~[9] ~~A study of one thousand sixty-eight Dutch children found that asthma, wheeze, cough and runny nose were significantly more common in children living within one hundred meters of freeways. Increasing density of truck traffic was also associated with significantly higher asthma levels, particularly in girls.~~[10]

Children Living Near Busy Roads More Likely to Develop Cancer

A 2000 Denver study showed that children living within two hundred fifty yards of streets or highways with twenty thousand vehicles per day are six times more likely to develop all types of cancer and eight times more likely to get leukemia. The study looked at associations between traffic density, power lines and all childhood cancers with measurements obtained in 1979 and 1990. It found a weak association from power lines but a strong association with highways. It suggested that benzene pollution might be the cancer promoter causing the problem. Distance-weighted traffic density in proximity to a home is a risk factor for leukemia and other childhood cancers.[11]

~~Most Traffic-Related Deaths Due to Air Pollution, Not Traffic Accidents~~

~~Another study analyzed the effect of traffic-related air pollution and traffic accidents on life expectancy in the area of Baden-Wurttemberg, Germany. It estimated that four thousand three hundred twenty-five deaths in this region would result from motor vehicle emissions, compared to eight hundred ninety-one from traffic accidents (over a lifetime).~~[12]

---

[9] ~~Venn et al. (2001). "Living Near A Main Road and the Risk of Wheezing Illness in Children." American Journal of Respiratory and Critical Care Medicine. Vol. 164, pp 2177-2180. van Vliet et al. (1997). Motor exhaust and chronic respiratory symptoms in children living near freeways. Environmental Research.~~

[10] ~~74:12-132.Zhu, Hinds, Kim, Shen, Sioutas. "Study of ultrafine particles near a major highway with heavy-duty diesel traffic." Atmospheric Environment. 36(2002), 4323-4335.~~

[11] Pearson et al. (2000). Journal of Air and Waste Management Association. 50:175-180.

[12] ~~Szagun and Seidel. (2000). "Mortality due to road traffic in Baden-Aurttemberg – air pollution, accidents, noise." *Gesundheitswesen.* 62(4). 225-33.~~

Emissions from Motor Vehicles Dominate Cancer Risk

The most comprehensive study of urban toxic air pollution ever undertaken shows that motor vehicles and other mobile sources of air pollution are the predominant source of cancer-causing air pollutants in Southern California. Overall, the study showed that motor vehicles and other mobile sources accounted for about ninety percent of the cancer risk from toxic air pollution, most of which is from diesel soot (seventy percent of the cancer risk). Industries and other stationary sources accounted for the remaining ten percent. The study showed that the highest risk is in urban areas where there is heavy traffic and high concentrations of population and industry.[13]

~~*A study by USC's medical school published on September 9, 2004 in the New England Journal of Medicine showed that 18-year-olds in heavily polluted Southern California communities such as Upland, Mira Loma, Riverside, Long Beach and San Dimas were the most likely to have weak lungs. As adults, they likely will be less able to fight off life-threatening illness. (See the September 9, 2004 Press Enterprise article entitled Region's Smog Stunts Young Lungs for more information on this study.)*~~

~~***Cancer Risk Higher Near Major Sources of Air Pollution, Including Highways***~~

~~A 1997 English study found a cancer corridor within three miles of highways, airports, power plants and other major polluters. The study examined children who died of leukemia or other cancers from the years 1953-1980, where they were born and where they died. It found that the greatest danger lies a few hundred yards from the highway or pollution facility and decreases with greater distance from the facility.[14]~~

~~***A School's Proximity to Freeways Associated with Asthma Prevalence***~~

~~A study of one thousand four hundred ninety-eight children in thirteen schools in the Province of South Holland, Netherlands found a positive relationship between school proximity to freeways and asthma occurrence. Truck traffic intensity and the concentration of emissions measured in schools were found to be significantly associated with chronic respiratory symptoms.[15]~~

~~***Lung Function Reduction Among Children More Likely if Living Near Truck Traffic***~~

~~A European study determined that exposure to traffic-related air pollution, "in particular diesel exhaust particles," may lead to reduced lung function in children living near major motorways.[16]~~

[13] South Coast Air Quality Management District. *Multiple Air Toxics Exposure Study-II.* March 2000.

~~[14] Knox and Gilman (1997). "Hazard proximities of childhood cancers in Great Britain from 1953-1980." Journal of Epidemiology and Community Health. 51: 151-159.~~

~~[15] Speizer, F. E. and B. G. Ferris, Jr. (1973). "Exposure to automobile exhaust. I. Prevalence of respiratory symptoms and disease." Archives of Environmental Health. 26(6): 313-8. van Vliet, P., M. Knape, et al. (1997). Motor vehicle exhaust and chronic respiratory symptoms in children living near freeways. Environmental Research. 74(2): 122-32.~~

~~[16] Brunekreef B, Janssen NA, de Hartog J, Harssema H, Knape M, van Vliet P. (1997). "Air pollution from truck traffic and lung function in children living near motorways." Epidemiology. 8(3):298-303.~~

~~Asthma Symptoms Caused by Truck Exhaust~~

~~A study was conducted in Munster, Germany to determine the relationship between truck traffic and asthma symptoms. In total, three thousand seven hundred three German students between the ages of twelve to fifteen years, completed a written and video questionnaire in 1994-1995. Positive associations between both wheezing and allergic rhinitis and truck traffic were found during a twelve-month period. Potentially confounding variables, including indicators of socio-economic status, smoking, etc., did not alter the associations substantially.~~[17]

~~Proximity of a Child's Residence to Major Roads Linked to Hospital Admissions for Asthma~~

~~A study in Birmingham, United Kingdom, determined that living near major roads was associated with the risk of hospital admission for asthma in children younger than five years of age. The area of residence and traffic flow patterns were compared for children admitted to the hospital for asthma, children admitted for nonrespiratory reasons and a random sample of children from the community. Children admitted with an asthma diagnosis were significantly more likely to live in an area with high traffic flow located along the nearest segment of main road than were children admitted for nonrespiratory reasons or children form the community.~~[18]

~~Exposure to Carcinogenic Benzene Higher for Children Living Near High Traffic Areas~~

~~German researchers compared forty-eight children who lived in a central urban area with high traffic density with seventy-two children who lived in a small city with low traffic density. They found that the blood levels of benzene in children who lived in the high-traffic-density area were seventy-one percent higher than those of children who lived in the low-traffic-density area. Blood levels of toluene and carboxyhemoglobin (formed after breathing carbon monoxide) were also significantly elevated (fifty-six and thirty-three percent higher, respectively) among children regularly exposed to vehicle emissions. Aplastic anemia and leukemia are associated with excessive exposure to benzene.~~[19, 20]

---

[17] ~~Duhme, H., S. K. Weiland, et al. (1996). "The association between self-reported symptoms of asthma and allergic rhinitis and self-reported traffic density on street of residence in adolescents." Epidemiology 7(6):578-82.~~

[18] ~~Edwards, J., S. Walters, et al. (1994). "Hospital admissions for asthma in preschool children: relationship to major roads in Birmingham, United Kingdom." Archives of Environmental Health. 49(4): 223-7.~~

[19] ~~"California, 1994-1996." Environmental Health Perspectives. doi: 10.1289~~

[20] ~~Jermann E, Hajimiragha H, Brockhaus A, Freier I, Ewers U, Roscovanu A. "Exposure of children to benzene and other motor vehicle emissions." Zentralblatt fur Hygiene und Umweltmedizin 189:50-61, 1989.~~

REGULATORY FRAMEWORK

Several Federal and State agencies, working under the directives of comprehensive legislation and adopted rules, share responsibility for working to improve air quality and the health of Americans.

The Federal Clean Air Act

See the Introduction under "Related Plan, Programs and Legislation" for more information on the Federal Clean Air Act.

The Federal Clean Air Act (CAA) sets national ambient air quality standards (NAAQS) for six pollutants: carbon monoxide, ozone, particulates, nitrogen oxides, sulfur dioxide and lead. In 1997, the U.S. EPA revised the NAAQS for ozone and total inhalable particulate matter (PM 10) and adopted new standards for fine particulate matter (PM 2.5) The CAA requires designated agencies in any region of the nation not meeting NAAQS to prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The CAA was amended in 1977 and 1990 to extend deadlines for compliance and the preparation of revised State Implementation Plans (SIP). In response, the Governor of California designated agencies to develop these plans. For the South Coast Air Basin, the designated agency is the South Coast Air Quality Management District, or SCAQMD.

California Clean Air Act

See the Introduction under "Related Plan, Programs and Legislation" for more information on the California Clean Air Act.

In 1988, the California Legislature enacted the California Clean Air Act (CCAA). The CCAA established a legal mandate to achieve health-based State air qualify standards, which are more health protective than national standards, at the earliest practical date. The CCAA requires regional emissions to be reduced by five percent or more per year (or fifteen percent or more in a three-year period) until attainment is demonstrated. Each region that did not meet a national or State air quality standard was required to prepare a plan that demonstrated how the five-percent reduction was to be achieved.

South Coast Air Quality Management District

As noted above, the SCAQMD is the lead agency in charge of developing the regional air quality plan, with input from the Southern California Association of Governments (SCAG). The SCAQMD is responsible for the overall development and implementation of the air quality management plan (AQMP), which covers the South Coast Air Basin and other areas within SCAQMD's jurisdiction.

To facilitate monitoring of air pollution levels and to work toward achieving standards, the SCAQMD has divided the Basin into thirty-two monitoring areas. Riverside is located within the Metropolitan Riverside

County #1 monitoring area, with the monitoring station located directly in Riverside. According to SCAQMD data, State standards are rarely exceeded for CO and NO_x, yet frequently exceeded for O_3.

Local Agencies Primarily Responsible for Development of Air Quality Plans

For the Basin, the SCAQMD is the lead agency in charge of, with input from SCAG, developing the regional air quality plan. The SCAQMD is responsible for the overall development and implementation of the air quality management plan (AQMP), which covers the South Coast Air Basin and other areas within the SCAQMD's jurisdiction. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. The SCAQMD has authority to reduce emissions from stationary sources, some area sources and certain indirect sources.

SCAG has the primary responsibility for providing future growth projections and the development of transportation control measures. The first AQMP was adopted in 1979. In addition, the California Air Resources Board, a State agency, is responsible for control of pollution from motor vehicles.

Air Quality Management Plan

The Air Quality Management Plan, or AQMP, is a comprehensive plan that includes control strategies to bring a county or region designated as a "non-attainment area" into compliance with the requirements of the Federal and/or California Ambient Air Quality Standards.

See the Introduction under "Related Plan, Programs and Legislation" for more information on the Air Quality Management Plan.

The 1994, 1997 and 2003 AQMPs for the South Coast Air Basin incorporate a number of measures to reduce air pollution in the Basin toward the goal of meeting Federal and State requirements. These measures include strategies to meet Federal and State standards for CO, PM10, NO_X and ozone; control of toxic air contaminants and acutely hazardous emissions; and control of global warming and ozone-depleting gases. These measures are updated periodically.

Health Standards

Health-based air quality standards have been established by California and the Federal government for the following criteria pollutants: ozone, CO, nitrogen dioxide (NO_2), PM10, sulfur dioxide (SO_2) and lead. These standards were established to protect individuals from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the Federal standards and in the case of PM10 and SO_2, far more stringent. The State and National ambient air quality standards for each of these pollutants and their effects on

health are summarized in Table AQ-1 (Air Pollution Sources, Effects and Standards).

TABLE AQ-1
AIR POLLUTION SOURCES, EFFECTS AND STANDARDS

Air Pollutant	State Standard	Federal Primary Standard	Sources	Primary Effects
Ozone (O_3)	0.09 ppm, 1-hour average	0.12 ppm, 1-hour average; 0.08 ppm, 8-hour average	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	Aggravation of respiratory and cardiovascular diseases; irritation of eyes; impairment of cardiopulmonary function; plant leaf injury.
Carbon Monoxide (CO)	9.0 ppm, 8-hour average; 20 ppm, 1-hour average	9.0 ppm, 8-hour average; 35 ppm, 1-hour average	Incomplete combustion of fuels and other carbon-containing substances such as motor vehicle exhaust; natural events, such as decomposition of organic matter.	Reduced tolerance for exercise; impairment of mental function; impairment of fetal development; death at high levels of exposure; aggravation of some heart diseases (angina); reduced visibility.
Nitrogen Dioxide (NO_2)	0.25 ppm, 1-hour average	0.053 ppm, annual average	Motor vehicle exhaust; high-temperature stationary combustion; atmospheric reactions.	Aggravation of respiratory illness; reduced visibility; reduced plant growth; formation of acid rain.
Sulfur Dioxide (SO_2)	0.25 ppm, 1-hour average; 0.05 ppm, 24-hour average with ozone > = 0.10 ppm, 1 hour average or TSP = 100 $\mu g/m^3$, 24-hour average	0.03 ppm, annual average; 0.14 ppm, 24-hour average	Combustion of sulfur-containing fossil fuels; smelting of sulfur-bearing metal ores; industrial processes.	Aggravation of respiratory diseases (asthma, emphysema); reduced lung function; irritation of eyes; reduced visibility; plant injury; deterioration of metals, textiles, leather, finishes, coatings, etc.
Fine Particulate Matter (PM 10)	30 $\mu g/m^3$, annual geometric mean; >50 $\mu g/m^3$, 24-hour average	50 $\mu g/m^3$, annual arithmetic mean; 150 $\mu g/m^3$, 24-hour average	Stationary combustion of solid fuels; construction activities; industrial processes; industrial chemical reactions.	Reduced lung function; aggravation of the effects of gaseous pollutants; aggravation of respiratory and cardio-respiratory diseases; increased coughing and chest discomfort; soiling; reduced visibility.
Lead	1.5 $\mu g/m^3$, 30-day average	1.5 $\mu g/m^3$, calendar quarter	Contaminated soil.	Increased body burden; impairment of blood formation and nerve conduction; behavioral and hearing problems in children.
Visibility Reducing Particles	Sufficient to reduce visual range to less than 10 miles at relative humidity less than 70%, 8-hour average (9am - 5pm)			Visibility impairment on days when relative humidity is less than seventy percent.

$\mu g/m^3$ = micrograms per cubic meter of air; ppm = parts per million parts of air, by volume.
Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 2001 (Version 3) update.

DOING OUR PART TO IMPROVE AIR QUALITY

Other elements, including Land Use and Urban Design, Circulation and Community Mobility and Public Safety all tie into this Element's commitment of improving residents' quality of life and well-being.

Riverside is committed to improving the public health, safety and welfare, including air quality. While some sources of air pollution are outside of the City's control, Riverside has ~~strives~~ become a recognized leader as a model clean ir city. To this end, Riverside ~~will~~ works to improve air quality through various strategies, including: encouraging use of alternative fuels, ~~improving the community's urban forest,~~ promoting increased use of public transit, minimizing ~~public transportation use and reducing~~ commuting ~~and travel~~ times and vehicle idling times, implementing measures to reduce ambient particulate matter, improving the urban forest ,and diversifying energy resources ~~by private automobiles~~.

Since the 1980s, Riverside and its community partners have actively and aggressively adopted programs focused on improving air quality.

LOCAL PROGRAMS

Tree Power — Residential Shade Tree Program

Riverside provides a number of air quality improvement programs.

Tree Power is a public benefit program that offers electric customers a rebate for planting selected shade trees in certain locations around their home to help save on summer cooling costs. As of 2003, more than twenty thousand free shade trees were planted by Riverside Public Utilities' electric customers.

Studies show that well-placed trees around a structure can reduce air conditioning or cooling costs by as much as twenty percent. In addition to their energy-saving benefits, trees serve a variety of worthwhile functions that enhance air quality, including cleaning the air and preventing soil erosion, a major source of PM 2.5 and PM 10 pollutants.

Riverside Infill Development Incentive

See the Land Use and Urban Design Element under "The Built Environment – Growing Smarter" and this Air Quality Element for additional information on the topic of infill development.

In particular, review Objectives LU-8, LU-9 and LU-10 and Policies AQ-1.5 and AQ-1.7.

The City's Riverside Infill Development Incentive (RIDI) Program provides incentives for single-family residential infill developments of five parcels or fewer in designated low-income areas. One key program objective is to provide housing in close proximity to existing business and employment areas, reducing the need for extensive vehicle trips. Developers and owner/builders can be reimbursed up to $5,000 per lot for actual expenses incurred for grading and soft costs. This program is available in the Arlanza, Casa Blanca, Downtown, Eastside and La Sierra neighborhoods.

UCR IntelliShare Program

UCR IntelliShare is a shared electric vehicle demonstration project at work on the UCR campus and beyond. This experimental program allows participants to rent and test electric cars for local trips. This project has been funded from the Federal Congestion Mitigation and Air Quality Improvement Program, the Riverside County Transportation Commission and CalTrans.

As of 2003, over three hundred UCR employees shared twenty-five electric vehicles to make local trips. Plans are in place to expand the program to include thirty-five vehicles at five stations.

UCR IntelliShare is a step toward transportation options that can help reduce congestion, improve air quality and optimize land use in major congested areas such as business centers, university campuses and tourist destinations.

~~**Electric Vehicle Purchase Incentive**~~

~~This program provides rebates to Riverside Public Utilities electric customers who purchase or lease an electric vehicle that is used as a primary or alternate means of transportation. The vehicles must be recognized by the Department of Motor Vehicles as street legal and must comply with all State laws.~~

~~Rebates are available on new electric vehicles that Riverside Public Utilities deems eligible. Customers receive rebates of five percent of the vehicle's total cash price up to $5,000, although this may change as the price of these vehicles change. Additionally, as technology advances, programs like this will require incentive refinements and other modifications.~~

~~*Riverside Public Utilities provides rebates for residents that purchase or lease an electric vehicle.*~~

PROGRAMS TO PURSUE

Many innovative options are available to reduce harmful emissions and improve the air we breathe. One major step toward improving air quality is reducing vehicle emissions. Riverside is moving toward making the City's fleet diesel free and eventually emissions free. Within the private market, the community is interested in developing incentives for persons who purchase ~~low emission~~alternative fuel vehicles, such as providing available or free parking in designated areas, encouraging auto dealers to promote the sale of low emission vehicles and providing convenient alternative fuel locations.

The physical characteristics and patterns of land development in a region can also affect air quality by influencing the travel mode choices

residents have available to them. Certain types of development patterns necessitate the use of personal cars and trucks for travel. When jobs and housing are far away from each other and mass transit is not readily available, people depend on cars for daily travel. Extensive vehicle use contributes significantly to pollutant emissions. Making land use and transportation decisions that encourage mixed-use and transit-oriented development and providing reliable public transportation linkages are important community goals.

These land use decisions are reflected in the Air Quality Element but are also contained within the Land Use and Circulation Elements of the General plan.

PARTNERSHIPS FOR OUR CITY

Providing effective means to improve air quality will be dependent upon the creation of effective partnerships with other jurisdictions; local, County, State and Federal agencies; and educational and community organizations. UCR's IntelliShare Program is a prime example of an innovative, locally developed program that offers viable possibilities for expansion into the community. The City will continue to support the concept and explore opportunities for customizing this type of car-sharing system for use at the municipal level ~~many opportunities~~.

The Western Riverside County Clean Cities Coalition is a ~~another outlet for~~ partnership~~s~~ between the City and neighboring municipalities working to educate the public in making clean air choices, promoting the use of sustainable fuels, and making the Inland Empire a place where people can breathe clean, healthy air. ~~The City will continue to cooperate with this program and explore whether this type of car-sharing system would work for municipal employees.~~ Creating an effective local governing board such as a Clean Air Advisory Committee is another partnering opportunity for community members and civic leaders to direct air quality resources into programs that must benefit the City~~that will enable the City to focus on addressing clean air issues~~.

PLANNING FOR THE FUTURE

As identified above, this Element explains the role the City plays in helping the Basin attain the goal of meeting Federal and State air quality standards, as well as the function the City has in protecting its own residents and businesses from the impacts of harmful air contaminants. This Element includes goals and objectives that, through adoption and implementation, will assist in the attainment of State and Federal air

quality standards, as well as in the achievement of improved land use decisions as they relate to air quality.

This Element demonstrates Riverside's commitment to improving the public health, safety and welfare of residents and businesses living and working in the City. While this Element is meant to serve as a keystone of future City actions regarding air quality, it is important to remember that the objectives and policies of other elements, especially the Land Use and Urban Design Element and Circulation and Community Mobility Element, have also been crafted with an eye to improving air quality locally and regionally. For example, the Land Use Element encourages infill development as a means of reducing urban sprawl and its negative air quality impacts. Further, the Land Use Element seeks to improve the City's job base as one method of many to reduce the need for long-haul automotive commuting to Los Angeles and Orange counties.

The following air quality objectives and policies provide direction to and are consistent with objectives and policies in the Land Use and Urban Design, Circulation and Community Mobility and other General Plan elements.

LAND USE STRATEGIES

Objective AQ-1: Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.

ENVIRONMENTAL JUSTICE

Policy AQ-1.1: Ensure that all land use decisions, including enforcement actions, 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.

Policy AQ-1.2: Consider potential environmental justice issues in reviewing impacts (including cumulative impacts for each project proposed).

SENSITIVE RECEPTORS

Policy AQ-1.3: Separate, buffer and protect sensitive receptors from significant sources of pollution to the greatest extent possible.

Policy AQ-1.4: Facilitate communication between residents and businesses on nuisance issues related to air quality.

HOUSING STRATEGIES

See the Land Use and Urban Design Element under "The Built Environment – Growing Smarter" for more information on infill development.

In particular, review Objectives LU-8, LU-9 and LU-10.

Policy AQ-1.5: Encourage infill development projects within urbanized areas that include job centers and transportation nodes.

Policy AQ-1.6: Promote mixed-use development that allows the integration of retail, office, institutional and residential uses for the purpose of reducing costs of infrastructure construction and maximizing the use of land. *See policy AQ-1.12.*

Policy AQ-1.7: Continue to promote planned residential developments and infill housing, which reduce vehicle trips.

Policy AQ-1.8: Promote "Job/Housing Opportunity Zones" and incentives to support housing in job-rich areas and jobs in housing-rich areas, where the jobs are located at non-polluting or extremely low-polluting entities.

See the Open Space and Conservation Element under "Overarching Objectives," the Parks and Recreation Element under "Diverse Recreation Opportunities – Trails" and the Circulation and Community Mobility Element under " Alternative Modes of Transportation – Walking and Biking" for more information on the Master Plan for open spaces, trails and bikeways.

In particular, review Objectives PR-1 and CCM-10.

Policy AQ-1.9: Adhere to the adopted Master Plan for open spaces, trails and bikeways.

BUSINESS NEAR TRANSIT

Policy AQ-1.10: Encourage job creation in job-poor areas as a means of reducing vehicle miles traveled.

Policy AQ-1.11: Locate public facilities and services so that they further enhance job creation opportunities.

Policy AQ-1.12: Support mixed-use land use patterns, but avoid placing residential and other sensitive receptors in close proximity to businesses that emit toxic air contaminants to the greatest extent possible. Encourage community centers that promote community self-sufficiency and containment and dis-

courage automobile dependency. *See policy* AQ-1.6.

Policy AQ-1.13: Encourage employment centers that are non-polluting or extremely low-polluting and do not draw large numbers of vehicles in proximity to residential uses.

Policy AQ-1.14: Encourage community work centers, telecommuting and home-based businesses.

Policy AQ-1.15: Promote land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.

Policy AQ-1.16: Design safe and efficient vehicular access to commercial land uses from arterial streets to ensure efficient vehicular ingress and egress.

Policy AQ-1.17: Avoid locating multiple-family developments close to commercial areas that emit harmful air contaminants.

Policy AQ-1.18: Encourage "walkable" neighborhoods with pedestrian walkways and bicycle paths in residential and other types of developments to encourage pedestrian rather than vehicular travel.

Policy AQ-1.19: Encourage future commercial areas to foster pedestrian circulation through the land use entitlement process and/or business regulation.

Policy AQ-1.20: Create the maximum possible opportunities for bicycles as an alternative work transportation mode.

Policy AQ-1.21: Cooperate and participate in regional air quality management plans, programs and enforcement measures.

Policy AQ-1.22: Implement the required components of the Congestion Management Plan (CMP) and continue to work with Riverside County Transportation Commission on annual updates to the CMP.

See the Land Use and Urban Design Element under "The Built Environment – Growing Smarter" and the Circulation and Community Mobility Element under " Alternative Modes of Transportation – Walking and Biking" for more information on walkable neighborhoods.

In particular, review Objectives LU-8, LU-9, LU-10, PR-2.7 and CCM-10.

LAND DENSITIES

Policy AQ-1.23: Increase residential and commercial densities around rail and bus transit stations.

Policy AQ-1.24: Support programs to provide "station cars" for short trips to and from transit nodes (e.g., Neighborhood Electric Vehicles).

Policy AQ-1.25: Serve as an advocate for the City's residents regarding location/expansion of facilities/uses (e.g., freeways, busy roadways), which are not within the City's authority to regulate, to ensure that the health impacts of such projects are thoroughly investigated and mitigated.

Policy AQ-1.26: Encourage neighborhood parks and community centers near concentrations of residential areas and include pedestrian walkways and bicycle paths to encourage non-motorized travel.

See the Land Use and Urban Design Element under "The Built Environment – Community Facilities," the Public facilities Element under "Community Centers" and the Parks and Recreation Element under "Diverse Recreation Opportunities – Community Centers" for more information on community centers.

In particular, review Objectives LU-~~25~~26, and PF-10.

TRANSPORTATION

Objective AQ-2: Reduce air pollution by reducing emissions from mobile sources.

REDUCING VEHICLE MILES TRAVELED

Policy AQ-2.1: Support Transportation Management Associations between large employers and commercial/ industrial complexes.

Policy AQ-2.2: Support programs and educate employers about employee rideshare and transit incentives for employers with more than 250 employees at a single location.

Policy AQ-2.3: Cooperate with local, regional, State and Federal jurisdictions to reduce vehicle miles traveled (VMT) and motor vehicle emissions through job creation in job-poor areas.

Policy AQ-2.4: Monitor and strive to achieve performance goals and/or VMT reduction which are consistent with SCAG's goals.

The goals set forth by SCAG can be accessed on SCAG's website at http://www.scag.ca.gov.

Policy AQ-2.5: Consult with the California Air Resources Board to identify ways that it may assist the City (e.g., providing funding, sponsoring programs) with its goal to reduce air pollution by reducing emissions from mobile sources.

Policy AQ-2.6: Develop trip reduction plans that promote alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education and preferential parking.

Policy AQ-2.7: Use incentives, regulations and Transportation Demand Management in cooperation with surrounding jurisdictions to eliminate vehicle trips that would otherwise be made.

Policy AQ-2.8: Work with Riverside Transit Authority (RTA) to establish mass transit mechanisms for the reduction of work-related and non-work-related vehicle trips.

Policy AQ-2.9: Encourage local transit agencies to promote ridership though careful planning of routes, headways, origins and destinations, types of vehicles.

Policy AQ-2.10: Identify and develop non-motorized transportation corridors.

Policy AQ-2.11: Develop ways to incorporate the "Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities" into the Development Review process and Citywide air quality education programs.

REDUCING TRAFFIC AT SPECIAL EVENT CENTERS

Policy AQ-2.1~~1~~2: Promote the use of peripheral parking by increasing on-site parking rates and offering reduced rates to peripheral parking.

Policy AQ-2.1~~2~~3: Encourage special event center operators to advertise and offer discounted transit passes with event tickets.

Policy AQ-2.1~~3~~4: Encourage special event center operators to advertise and offer discount parking incentives to carpooling patrons, with four or more persons per vehicle for on-site parking.

UTILIZING TRANSPORTATION SYSTEM MANAGEMENT

Policy AQ-2.1~~4~~5: Manage traffic flow through signal synchronization, while coordinating with and permitting the free flow of mass transit vehicles, as a way to achieve mobility.

Policy AQ-2.1~~5~~6: Minimize traffic hazards and delays through highway maintenance, rapid emergency response, debris removal and elimination of at-grade railroad crossings.

Policy AQ-2.1~~6~~7: Encourage, and to the extent possible, require through the land use entitlement or business regulation process, business owners to schedule deliveries at off-peak traffic periods.

TRANSPORTATION SYSTEM MANAGEMENT IMPROVEMENTS

Policy AQ-2.1~~7~~8: Manage the City's transportation fleet fueling standards to achieve the best alternate fuel fleet mix possible.

Policy AQ-2.1~~8~~9: Cooperate with local, regional, State and Federal jurisdictions to better manage transportation facilities and fleets.

TRANSPORTATION FACILITY DEVELOPMENT

Policy AQ-2.~~19~~20: Encourage the construction of high-occupancy vehicle (HOV) lanes or similar mechanisms whenever necessary to relieve congestion, safety hazards and air pollution, as described in the most recently approved Air Quality Management Plan.

Policy AQ-2.2~~0~~1: Emphasize the use of high-occupancy vehicle lanes, light rail and bus routes and pedestrian and bicycle facilities when using transportation facility development to improve mobility and air quality.

Policy AQ-2.2~~1~~2: Monitor traffic and congestion to determine when and where the City needs new transportation facilities to achieve increased mobility efficiency.

ENCOURAGING THE USE OF ALTERNATIVE FUELS

Policy AQ-2.2~~2~~3: Preserve transportation corridors with the potential of high demand or of regional significance for future expansion to meet project demand.

Policy AQ-2.2~~3~~4: Support full compliance with the SCAQMD's Clean Fleet Rules.

Policy AQ-2.2~~4~~5: Support the development of alternative fuel infrastructure that is publicly accessible.

Policy AQ-2.2~~5~~6: Allow or encourage programs for priority parking or free parking in City parking lots for alternative fuel vehicles, especially zero and super ultra low emission vehicles (ZEVs and SULEVs).

FUNDING

Policy AQ-2.2~~6~~7: Develop and coordinate a plan for effective use of AB 2766 (Motor Vehicle Fee Program) funds so that such funds are used for projects and programs identified in the most recently approved Air Quality Management Plan.

ADVOCACY

Policy AQ-2.2~~7~~8: Advocate to the State and Federal governments the need for increased regulation of diesel vehicles (e.g. trucks, trains and ships), an expedited schedule for fuel improvement and exhaust filtering and other emissions standards.

Policy AQ-2.2~~8~~9: Advocate to the State for the use of smog checks for diesel vehicles similar to those required of gas powered vehicles.

Policy AQ-2.~~29~~30: Continue our membership in the Western Riverside County Clean Cities Coalition.

STATIONARY POLLUTION SOURCES

Objective AQ-3: Prevent and reduce pollution from stationary sources, including point sources (such as power plants and refinery boilers) and area sources (including small emission sources such as residential water heaters and architectural coatings).

Policy AQ-3.1: Support the use of centrally heated and/or air conditioned facilities to utilize automated time clocks or occupant sensors to control heating and air conditioning.

Policy AQ-3.2: Require residential building construction to comply with energy use guidelines in Title 24 of the California Administrative Code.

Policy AQ-3.3: Support SCAQMD's efforts to require stationary air pollution sources, such as gasoline stations, restaurants with charbroilers and deep fat fryers, to comply with or exceed applicable SCAQMD rules and control measures.

Policy AQ-3.4: Require projects to mitigate anticipated emissions which exceed AQMP Guidelines.

Policy AQ-3.~~6~~5: Consider ordinances that encourage residential builders to go above and beyond State codes to conserve energy and reduce air pollution.

Policy AQ-3.~~7~~6: Support "green" building codes that require air conditioning/filtration installation, upgrades or improvements for all buildings, but particularly for those associated with sensitive receptors.

Policy AQ-3.~~8~~7: Require use of pollution control measures for stationary and area sources through the use of best available control activities ~~BACT, BARCT~~, fuel/material substitution, cleaner fuel alternatives, product reformulation, change in work practices and of control measures identified in the latest AQMP.

REDUCTION OF PARTICULATE MATTER

Objective AQ-4: Reduce particulate matter, as defined by the Environmental Protection Agency (EPA), as either airborne photochemical precipitates or windborne dust.

MONITORING FOR PARTICULATE MATTER

Policy AQ-4.1: Identify and monitor sources, enforce existing regulations and promote stronger controls to reduce particulate matter (e.g., require clean fuels for street sweepers and trash trucks, exceed the AQMD requirements for fleet rules).

CONTROL MEASURES

Policy AQ-4.2: Reduce particulate matter from agriculture (e.g., require use of clean non-diesel equipment and particulate traps), construction, demolition, debris hauling, street cleaning, utility maintenance, railroad rights-of-way and off-road vehicles to the extent possible.

Policy AQ-4.3: Support the reduction of all particulates potential sources.

Policy AQ-4.4: Support programs that reduce emissions from building materials and methods that generate excessive pollutants through incentives and/or regulations.

Policy AQ-4.5: Require the suspension of all grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.

COOPERATION AMONG AGENCIES

Policy AQ-4.~~5~~6: Cooperate with local, regional, State and Federal jurisdictions to better control particulate matter.

Policy AQ-4.~~6~~7: Support legislation or other negotiations which would prevent the idling of trains within the City's boundaries (e.g. institute nuisance actions).

ENERGY CONSERVATION

Objective AQ-5: Increase energy efficiency and conservation in an effort to reduce air pollution.

Policy AQ-5.1: Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.

Policy AQ-5.2: Develop incentives and/or regulations regarding energy conservation requirements for private and public developments.

Policy AQ-5.3: Continue and expand use of renewable energy resources such as wind, solar, water, landfill gas, and geothermal sources.

Policy AQ-5.4: Continue and expand the creation of locally-based solar photovoltaic power stations in Riverside.

Policy AQ-5.5: Continue and expand Riverside Public Utilities' rebate programs to promote energy efficiency.

PUBLIC EDUCATION

Objective AQ-6: Develop a public education program committed to educating the general public on the issues of air pollution and mitigation measures that can be undertaken by businesses and residents to improve air quality.

Policy AQ-6.1: Provide air quality information through the City's website, including links to AQMD, CARB and other environmental-based sites.

Policy AQ-6.2: Organize a City-sponsored event on a topic that improves air quality, including alternative fuel vehicle forums and clean household product events.

Policy AQ-6.3: Work with school districts to develop air quality curriculum for students, and continue Riverside Public Utilities' Energy Education Program.

Policy AQ-6.4: Encourage, publicly recognize and reward innovative approaches that improve air quality.

Policy AQ-6.5: Involve environmental groups, the business community, special interests and the general public in the formulation and implementation of programs that effectively reduce airborne pollutants.

Policy AQ-6.6: Provide public education to encourage use of low- or zero-emission vehicles.

Policy AQ-6.7: Provide public education to encourage ecologic responsibility in consumers ~~choice of cleanest paints, consumer products, etc~~ when purchasing products for home improvement, household and personal care.

Policy AQ-6.8: Continue Riverside Public Utilities' Energy Innovation Grant (EIG) program to fund research, development and demonstration projects aimed at advancing science and accelerating new technology.

Policy AQ-6.9: Continue Riverside Public Utilities' Green Power public information program to increase awareness of renewable energy resources.

MULTI-JURISDICTIONAL COOPERATION

Objective AQ-7: Support a regional approach to improving air quality through multi-jurisdictional cooperation.

See the Land Use and Urban Design Element under "Our Neighborhoods – Sphere of Influence" and the Open Space Element under "Overarching Objectives" for more information on City/County cooperation.

In particular, review Objective LU-~~86~~88 and Policy OS-1.7.

Policy AQ-7.1: Promote and participate with regional and local agencies, both public and private, to protect and improve air quality.

Policy AQ-7.2: Support SCAG's *Regional Growth Management Plan* by developing intergovernmental agreements with appropriate governmental entities such as the Western Riverside Council of Governments, sanitation districts, water districts and those subregional entities identified in the *Regional Growth Management Plan.*

Policy AQ-7.3: Participate in the development and update of those regional air quality management plans required

under Federal and State law and meet all standards established for clean air in these plans.

Policy AQ-7.4: Coordinate with the SCAQMD to ensure that the City's air quality plans regarding reduction of air pollutant emissions are being enforced.

Policy AQ-7.5: Establish and implement air quality, land use and circulation measures that improve not only the City's environment but that of the entire region.

Policy AQ-7.6: Establish a level playing field by working with local jurisdictions to simultaneously adopt policies similar to those in this Air Quality Element.

Policy AQ-7.7: Support legislation that promotes cleaner industry, clean fuel vehicles and more efficient burning engines and fuels.

Policy AQ-7.8: Support the introduction of Federal, State or regional enabling legislation to promote inventive air quality programs which otherwise could not be implemented.

Policy AQ-7.9: Adhere with Federal, State and regional air quality laws, specifically with Government Code Section 65850.2, which requires that each owner or authorized agent of a project indicate, on the development or building permit for the project, whether he/she will need to comply with the requirements for a permit for construction or modification from the SCAQMD.

Policy AQ-7.10: Incorporate, to the extent applicable and permitted by law, current and proposed AQMP measures.

Policy AQ-7.11: Seek opportunities to pool AB 2766 (Motor Vehicle Fee Program) funds with neighboring cities to fund programs (e.g., traffic synchronization, fueling station infrastructure, etc.) that will mitigate mobile source emissions.