

CHAPTER 10

AIR QUALITY ELEMENT



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GUIDING PRINCIPLE

The City of Carson is committed to improving air quality by: reducing total air emissions, educating the public on pollution control measures, minimizing dust generation, and encouraging the use of best available technology.

1.0 INTRODUCTION

The Air Quality Element is intended to protect the public's health and welfare by implementing measures that allow the South Coast Air Basin to attain Federal and State air quality standards, that will move toward a sustainable level of air quality. To achieve this goal, the Element sets forth a number of programs to reduce current pollution emissions and to require new development to include measures to comply with air quality standards. In addition, this Element contains provisions to address new air quality requirements.

2.0 STATE LAW REQUIREMENTS

The State of California Government Code Section 65302(d), which provides the statutory requirements for the Conservation Element, also serves as the applicable Government Code section for the Air Quality Element. Other relevant sections of the Government Code that are applicable to the Air Quality Element include Section 65303, which allows cities to include any other element or address any other subjects that may relate to the physical development of the city. Further guidance is



provided in the 1998 General Plan Guidelines regarding the assessment of air quality impacts in General Plans.¹

3.0 SUMMARY OF FINDINGS

Air quality conditions in Carson are influenced by many factors, including the topography, climate, and number and type of pollution producers. This section examines these issues and historical pollution levels in the community, as compared to State and Federal air quality standards.

3.1 CLIMATE

Carson is located within the South Coast Air Basin (SCAB). This Basin is a 6,600 square mile area that includes all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties. The South Coast Air 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 Southern California combine to make the distinctive climate in the South Coast Air Basin. The City of Carson is located in the southern portion of the Los Angeles Coastal Plain within the semi-marine microclimatic zone of the SCAB. A semi-permanent, subtropical high-pressure zone over the Pacific Ocean primarily controls the climate. Mild winters, warm summers, infrequent rainfall, moderate daytime onshore breezes and moderate humidity characterize local climatic conditions. The mild climate is occasionally disrupted by periods of hot weather, winter storm and Santa Ana winds. Minimum temperatures average around 42 degrees Fahrenheit during the winter, while summer temperatures average in the 70s. Annual precipitation is rather variable in Carson. Rainfall averages between 12 to 14 inches per year, occurring primarily from late October to early April.

Climatic patterns in the City are affected by the Palos Verdes Hills, which split onshore winds unless the marine layer is very deep. The dominant daily wind pattern is a daytime sea breeze and a nighttime land breeze. Thus, the predominant daytime wind comes from westerly and southwesterly directions, while the nighttime wind comes from a northerly direction. Average wind speeds are approximately 3.4 miles per hour. During the summer, the nighttime land breeze is very minimal resulting in light winds from the southwest. The predominant wind patterns are occasionally disrupted by winter storms or Santa Ana winds. The Santa Ana winds are strong northerly or northeasterly which are warm and dry and usually occur between September to March.

During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool

¹ Source: State of California, Governor's Office of Planning and Research, 1998 General Plan Guidelines, November 1998, page 64.



marine layer and prevents pollutants from dispersing upward and allows pollutants to accumulate within the lower layer. This situation is called a temporary inversion. In addition, light winds during the summer further limit ventilation.

Because of the low average wind speeds in the summer and a persistent daytime temperature inversion, emissions of hydrocarbons and oxides of nitrogen have an opportunity to combine with sunlight in a complex series of reactions producing photochemical oxidant (smog). The smog potential is increased in the basin because the South Coast region experiences more days of sunlight than any other major urban area except Phoenix, Arizona.

During the winter, the greatest pollution problems result from the presence of carbon monoxide and nitrogen oxide concentrations in conjunction with extremely low inversions and air stagnation during the night and early morning hours. Since carbon monoxide is produced almost entirely from automobiles, the highest concentrations are associated with areas of heavy traffic. Thus, due to the City's proximity of three major freeways, the potential for higher concentrations of carbon monoxide levels is enhanced.

However, Carson is rarely affected by the same heat and smog conditions as the Central Los Angeles basin, based on its proximity to the Pacific Ocean. The Ocean plays an important role in affecting local temperatures. As a result of the fairly narrow spread between the warmest and coldest monthly mean sea surface temperature in southern California coastal waters, the relatively warm ocean modifies the climate in Carson in winter and provides cooling sea breezes in summer. The breezes serve to disperse pollutants through the air basin.

3.2 AMBIENT AIR QUALITY STANDARDS

Ambient air quality is described in terms of compliance with Federal and State standards. Ambient air quality standards are the levels of air pollutant concentration considered safe to protect the public health and welfare. They are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. National Ambient Air Quality Standards (NAAQS) were established by the United States Environmental Protection Agency (EPA) in 1971 for six air pollutants. States have the option of adding other pollutants, to require more stringent compliance, or to include different exposure periods.

The California Air Resource Board (CARB) is required to designate areas of the State as attainment, non-attainment, or unclassified for any State standard. An "attainment" designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A "non-attainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An "unclassified" designation signifies that data do not support either an attainment or non-attainment status.



State and Federal ambient air quality standards have been established for the following pollutants:

- Ozone (O₃),
- Carbon Monoxide (CO),
- Nitrogen Dioxide (NO₂),
- Sulfur Dioxide (SO₂),
- Fine Particulate Matter less than 10 microns in diameter (PM₁₀), and
- Lead.

For some of these pollutants, notably O₃ and PM₁₀, the State standards are more stringent than the Federal standards. The State has also established ambient air quality standards for:

- Sulfates,
- Hydrogen Sulfide,
- Vinyl Chloride, and
- Visibility Reducing Particles.

The above-mentioned pollutants are generally known as “criteria pollutants.”

In 1997, the EPA announced new ambient air quality standards for O₃ and PM₁₀. The new standards were intended to provide greater protection of public health. The EPA proposed to phase out the 1-hour O₃ standard and replace it with an 8-hour standard. The EPA also announced new PM_{2.5} standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA’s new standards. Beginning in 2002, based on three years of monitoring data, the EPA will designate areas as non-attainment that do not meet the new PM_{2.5} standards.²

Following the announcement of the new national standards, the SCAQMD began collecting monitoring data to determine the region’s attainment status with respect to the new standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. The ambient annual PM₁₀ standard was lowered from 30 micrograms per cubic meter (µg/m³) to 20 µg/m³. As no ambient annual state standard existed for PM_{2.5}, a new annual standard was established at 12 µg/m³. A 24-hour average standard for both PM₁₀ and PM_{2.5} was retained. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State PM₁₀ standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.³ Particulate matter impacts primarily effect infants, children, the elderly, and those with pre-existing cardiopulmonary disease.

² Environmental Protection Agency Website, <http://www.epa.gov/air/aqtrnd97/brochure/pm10.html>.

³ Staff Report: Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates. California Environmental Protection Agency, Air Resources Board, May 3, 2002.



The South Coast Air Basin has the worst air quality problem in the State. Despite implementing many strict controls, the South Coast Air Quality Management District (SCAQMD) portions of the basin still fail to meet the Federal air quality for three of the six criteria pollutants: ozone (O₃), carbon monoxide (CO) and fine particulate matter (PM₁₀). Because Federal pollution standards have not been achieved, the basin is considered a non-attainment area for Federal standards for these pollutants. For State standards, the Orange County portion of the basin is designated as non-attainment for O₃ and PM₁₀.⁴

3.3 LOCAL AMBIENT AIR QUALITY

The SCAQMD operates several air quality monitoring stations within the Air Basin. The City of Carson is located within Source Receptor Area (SRA) 4. The communities within an SRA are expected to have similar climatology and subsequently, similar ambient air pollutant concentrations. The nearest air monitoring stations to the City of Carson within SRA 4 is located in the north portion of the City of Long Beach. Air Quality Data from 1997 to 2001 for the North Long Beach Monitoring Station is provided in Table AQ-1, Local Air Quality Levels.

3.4 REGULATORY FRAMEWORK

3.4.1 FEDERAL CLEAN AIR ACT

The 1970 Clean Air Act (CAA) authorized the establishment of the NAAQS, and set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 made major changes in deadlines for attaining NAAQS and in the actions required of areas of the nation that exceeded these standards. Other changes to the 1990 Clean Air Act occurred in 1997. In 1997, after observing the numerous studies citing the adverse effects of ozone under the then existing standard, the EPA changed 1990 ozone standard to reflect a change in averaging times and levels that are considered more appropriate and stringent. Additionally, in 1997 the EPA changed the particulate matter criteria to provide for more stringent goals for fine air particles.⁵

3.4.2 CALIFORNIA CLEAN AIR ACT

The 1988 California Clean Air Act (CCAA) requires that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for ozone (O₃), carbon monoxide (CO), sulfur oxides (SO₂), and nitrogen oxides (NO₂) by the earliest practical date. The CCAA specifies that districts focus

⁴ Data from California Air Resources Board web-site www.arb.ca.gov/degis/adm/sld001.htm. Although the site shows 1999 data, it has been verified by RBF Consulting personnel with Ms. Marci Langstrom of the Planning and Technical Support Division of the California Air Resources Board that the 1999 attainment status is valid at the time of this writing.

⁵ www.epa.gov/oar/oaqps/peg-caa/pegcaa03.html as cited under heading "1997 Changes to the Clean Air Act".



**Table AQ-1
Local Air Quality Levels for Source Receptor Area 4¹**

Pollutant	California Standard	Federal Primary Standard	Year	Maximum ² Concentration	Days (Samples) State/Federal Std. Exceeded
Carbon Monoxide	20 ppm for 1 hour	35 ppm for 1 hour	1997	8.6	0/0
			1998	8.1	0/0
			1999	7.5	0/0
			2000	9.7	0/0
			2001	6.0	0/0
	9 ppm for 8 hour	9 ppm for 8 hour	1997	6.63	0/0
			1998	6.46	0/0
			1999	5.49	0/0
			2000	5.73	0/0
			2001	4.74	0/0
Ozone	0.09 ppm for 1 hour	0.12 ppm for 1 hour	1997	.095	1/0
			1998	.116	2/0
			1999	.131	2/1
			2000	.118	3/0
			2001	.091	1/0
Nitrogen Dioxide	0.25 ppm for 1 hour	0.053 ppm annual average	1997	.200	0/0
			1998	.160	0/0
			1999	.151	0/0
			2000	.140	0/0
			2001	.122	0/0
Sulfur Dioxide	0.25 ppm for 1 hour	0.14 ppm for 24 hours or 80 µg/m ³ (0.03 ppm) annual average	1997	.044	0/0
			1998	.083	0/0
			1999	.050	0/0
			2000	.047	0/0
			2001	.047	0/0
PM ₁₀ ^{3,4}	50 µg/m ³ for 24 hours	150 µg/m ³ for 24 hours	1997	87.0	10/0
			1998	69.0	6/0
			1999	79.0	13/0
			2000	105.0	13/0
			2001	74.0	11/0
PM _{2.5} ⁴	N/A	65 µg/m ³ for 24 hours	1997	N/M	N/A
			1998	N/M	N/A
			1999	66.9	N/A/1
			2000	74.5	N/A/3
			2001	72.9	N/A/1

ppm = parts per million PM₁₀ = particulate matter 10 microns in diameter or less
µg/m³ = micrograms per cubic meter PM_{2.5} = particulate matter 2.5 microns in diameter or less
N/M = not measured

NOTES: 1. Data is based on measurements taken at the North Long Beach monitoring station located at 3648 North Long Beach Boulevard, Long Beach, California.
2. Maximum concentration is measured over the same period as the California Standard.
3. PM₁₀ exceedances are based on state thresholds established prior to amendments adopted on June 20, 2002.
4. PM₁₀ and PM_{2.5} exceedances are derived from the number of samples exceeded, not days.

Source: Data obtained from the California Air Resources Board ADAM Data Summaries Website, www.arb.ca.gov/adam/welcome.html.



particular attention on reducing the emissions from transportation and area-wide emission sources. The Act also gives districts new authority to regulate indirect sources. Each district plan is to achieve a five-percent annual reduction (averaged over consecutive three-year periods) in district-wide emissions of each non-attainment pollutant or its precursors. Any additional development within the region would impede the “no net” increase prohibition, in that further emissions reductions must be affected from all other airshed sources to fit any project development mobile source emissions increase.

A strict interpretation of the “no net” increase prohibition suggests that any general development within the region, no matter how large or small, would have a significant, project-specific air quality impact unless the development-related emissions are offset by concurrent emissions reduction elsewhere within the airshed. Any planning effort for air quality attainment would thus need to consider both State and Federal planning requirements.

1997 AQMP

The 1997 AQMP was prepared and adopted by the SCAQMD on November 15, 1996. The 1997 AQMP was adopted by the CARB on January 23, 1997. The 1997 Plan contains two tiers of control measures: short- and intermediate-term, and long-term. Short- and intermediate-term measures are scheduled to be adopted between 1997 and the year 2005. These measures rely on known technologies and other actions to be taken by several agencies that currently have the statutory authority to implement the measures. They are designed to satisfy the Federal CAA requirement of Reasonably Available Control Technology (RACT) and the CCAA requirement of Best Available Retrofit Control Technology (BARCT). There are 37 stationary source and 24 mobile source control measures in this group.

The most recent amendment to the 1997 AMQP is the 1999 Ozone State Implementation Plan (SIP) Revision. This revision was adopted by the SCAQMD in December 1999 and ratified by the EPA in April 2000. The provisions of the 1999 SIP Revision are intended to: 1) include new short-term control measures that implement and replace portions of the 1997 long-term measures, 2) expedite the implementation schedule of a portion of the short-term measures in the 1997 AQMP and 3) revise the adoption and implementation schedule for those 1997 AQMP control measures with lapsed adoption dates.

To ultimately achieve ambient air quality standards, further development and refinement of known low- and zero-emission control technologies, in addition to technological breakthroughs, would be necessary. Long-term measures rely on the advancement of technologies and control methods that can reasonably be expected to occur between 1994 and 2010.

The 1997 AQMP continues to include most of the control measures outlined in the previous 1994 Ozone Plan with minor exceptions, but postpones many marginal measures found to be less cost-effective, drops future indirect-source rules that are now deemed infeasible, and focuses the SCAQMD's efforts on about ten major emission-reduction rules. The SCAQMD will focus its efforts on seven major rules



to reduce volatile organic compounds (VOCs), a key ingredient in smog; and the Plan includes new market-based measures giving businesses greater flexibility in meeting emission-reduction requirements, such as intercredit trading and additional credits for mobile source emission reductions.

The 1997 AQMP shows that measures outlined in the 1994 Ozone Plan are sufficient to attain the Federal health standards for the two most difficult ingredients in smog, PM₁₀ and ground level O₃, by the years 2006 and 2010, respectively. The region already has met the three other Federal health standards for Pb, SO₂ and NO₂. To help reduce PM₁₀ pollution, the 1997 Plan outlines seven control measures for directly emitted particulates that will reduce emissions from agricultural areas, livestock waste, wood-working operations, construction, and restaurants. The measures will also help control dust from paved and unpaved roads, which accounts for two-thirds of the directly-emitted particulates.

1997 AQMP Control Strategies. The 1997 AQMP's off-road mobile source control measures are based on the EPA's proposed Federal Implementation Plan (FIP) for the SCAB. The FIP's proposed control measures are based on a combination of stringent emission standards, declining caps on emission levels and emission/user fees.

3.5 SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than are the general population. Sensitive populations (sensitive receptors) who are in proximity to localized sources of toxins and carbon monoxide are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Refer to Exhibit N-1, Sensitive Receptor Location Map, and Table N-5, Noise Sensitive Receptors, in the Noise Element for the location of sensitive receptors in the City.

3.6 TOXIC AIR CONTAMINANTS

In addition to the criteria pollutants previously discussed, toxic air contaminants (TACs) are another group of pollutants of concern in Southern California. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset conditions. Health effects of TACs include cancer, birth defects, neurological damage and death.

The SCAQMD implements TAC controls through Federal, State and local programs. Federally, TACs are regulated by EPA under Title III of the CAA. At the State level, the CARB has designated the Federal hazardous air pollutants as TACs, under the authority of AB 1807. The Air Toxic Hot Spots Information and



Assessment Act (AB 2588) requires inventories and public notices for facilities that emit TACs. Senate Bill 1731 amended AB 2588 to require facilities with “significant risks” to prepare a risk reduction plan (reflected in SCAQMD Rule 1402). SCAQMD also regulates source-specific TACs.

Diesel exhaust is a growing concern in the Basin area and throughout California. The CARB in 1998 identified diesel engine particulate matter as a TAC. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Many of these toxic compounds adhere to the particles, and because diesel particles are very small, they penetrate deeply into the lungs. Diesel engine particulate matter has been identified as a human carcinogen. Mobile sources (including trucks, buses, automobiles, trains, ships and farm equipment) are by far the largest source of diesel emissions. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections. The cancer risk from exposure to diesel exhaust may be much higher than the risk associated with any other toxic air pollutant routinely measured in the region.⁶

Prior to the listing of diesel exhaust as a TAC, California had already adopted various regulations that would reduce diesel emissions. These regulations include new standards for diesel fuel, emission standards for new diesel trucks, buses, autos, and utility equipment, and inspection and maintenance requirements for health duty vehicles. Following the listing of diesel engine particulate matter as a TAC, the ARB is evaluating what additional regulatory action is needed to reduce public exposure. The ARB does not plan on banning diesel fuel or engines, but may consider additional requirements for diesel fuel and engines, as well as other measures to reduce public exposure.

Other air quality issues of concern in the SCAB include nuisance impacts of odors and dust. Objectionable odors may be associated with a variety of pollutants. Common sources of odors include wastewater treatment plants, landfills, composting facilities, refineries, and chemical plants. Similarly, nuisance dust may be generated by a variety of sources including quarries, agriculture, grading and construction. Odors rarely have direct health impacts, but they can be unpleasant and can lead to anger and concern over possible health effects among the public. Each year, the SCAQMD receives thousands of citizen complaints about objectionable odors. Dust emissions can contribute to increased ambient concentrations of PM₁₀, particularly when dust settles on roadways where it can be pulverized and re-suspended by traffic. Dust emissions also contribute to reduced visibility and soiling of exposed surfaces.

⁶ BAAQMD CEQA Guidelines, *Assessing the Air Quality Impacts of Projects and Plans*, Bay Area Air Quality Management District, Revised December 1999, page 6.



4.0 PLANNING ISSUES, GOALS, POLICIES AND IMPLEMENTATION

The acronyms listed below are used for the implementation measures:

RA/D: Responsible Agency/Division
FS: Funding Source
TF: Time Frame

ISSUE: DUST GENERATION

Generation of dust not only creates a nuisance, but those temporary and permanent uses which generate substantial amounts of dust can impact the health of residents.

Goal: AQ-1: Reduced particulate emissions from paved and unpaved surfaces and during building construction.

Policies: AQ-1.1 Continue to enforce ordinances which address dust generation and mandate the use of dust control measures to minimize this nuisance.

AQ-1.2 Promote the landscaping of undeveloped and abandoned properties to prevent soil erosion and reduce dust generation.

AQ-1.3 Adopt incentives, regulations, and/or procedures to minimize particulate emissions.

Implementation Measures:

AQ-IM-1.1 Investigate further amending of existing requirements for grading permits and erosion, siltation and dust control procedures. *(Implements AQ-1.1)*

RA/D: Planning, Building & Safety, SCAQMD
FS: AB1566 funds, General Funds
TF: 2004-05

AQ-IM-1.2 Investigate the feasibility of requiring planting of undeveloped and abandoned properties. *(Implements AQ-1.2)*

RA/D: Planning, Code Enforcement
FS: General Fund
TF: 2005-06

AQ-IM-1.3 Amend contracting requirements for any new street cleaning equipment to require, to the maximum extent



feasible, the most efficient fine particle removal.
(Implements AQ-1.3)

RA/D: Public Works
FS: General Fund
TF: 2005-06

AQ-IM-1.4 Study the feasibility of requiring the use of less impactive leaf blowers, such as equipment that will collect particulates rather than blow them around. *(Implements AQ-1.3)*

RA/D: Public Works, Planning
FS: General Fund
TF: 2005-06



ISSUE: REGIONAL AIR QUALITY

Stricter enforcement of emission reduction rules; educating the public on pollution control measures; and promoting the use of alternate fuel vehicles will assist in the improvement of air quality in the region.

Goal: AQ-2: Air quality which meets State and Federal standards.

Policies: AQ-2.1 Coordinate with other agencies in the region, particularly SCAQMD and SCAG, to implement provisions of the regions' AQMP, as amended.

AQ-2.2 Utilize incentives, regulations and implement the Transportation Demand Management requirements in cooperation with other jurisdictions to eliminate vehicle trips which would otherwise be made and to reduce vehicle miles traveled for automobile trips which still need to be made.

AQ-2.3 Cooperate and participate in regional air quality management plans, programs and enforcement measures.

AQ-2.4 Continue to work to relieve congestion on major arterials and thereby reduce emissions.

AQ-2.5 Continue to improve existing sidewalks, bicycle trails, and parkways, and require sidewalk and bicycle trail improvements and parkways for new developments.

AQ-2.6 Encourage in-fill development near activity centers and along transportation routes.



AQ-2.7 Reduce air pollutant emissions by mitigating air quality impacts associated with development projects to the greatest extent possible.

Implementation Measures:

AQ-IM-2.1 Continue to participate, where possible, in committees involved in the development and implementation of air quality implementation plans. *(Implements AQ-2.1)*

RA/D: City Council, City Manager, Planning, Public Safety
FS: AB1566, General Fund
TF: Ongoing

AQ-IM-2.2 Continue to encourage and assist employers in developing and implementing work trip reduction plans, employee ride sharing, modified work schedules, preferential carpool and vanpool parking, or any other trip reduction approach that is consistent with the AQMP for the South Coast Air Basin. *(Implements AQ-2.2 and 2.3)*

RA/D: Planning, SCAQMD
FS: SB1566, General Fund
TF: Ongoing

AQ-IM-2.3 Continue City employee work trip reduction programs and use of alternative fuel vehicles. *(Implements AQ-2.2 and 2.3)*

RA/D: Transportation
FS: General Fund
TF: Ongoing

AQ-IM-2.4 Encourage those companies that ship or receive high volumes of goods by commercial truck to limit operations to non-peak hours. *(Implements AQ-2.4)*

RA/D: Planning
FS: General Funds, impact fees
TF: 2003-04+

AQ-IM-2.5 Encourage those companies with high truck volumes to use the Alameda Corridor. *(Implements AQ-2.4)*

RA/D: Planning
FS: General Funds, impact fees
TF: 2003-04+



AQ-IM-2.6 Require new developments to provide pedestrian and bicycle trails access to nearby shopping and employment centers, thereby encouraging alternate modes of transportation and reducing vehicle miles traveled. *(Implements AQ-2.5)*

RA/D: Planning, Public Works
FS: Development processing fees, General Funds
TF: Ongoing

AQ-IM-2.7 Encourage infill projects to provide convenience to existing facilities and minimize trip generation. *(Implements AQ-2.6)*

RA/D: Planning, Redevelopment
FS: Development processing fees, General Funds
TF: Ongoing

AQ-IM-2.8 Prepare potential air quality mitigation measures and thresholds of significance for use in environmental documentation. *(Implements AQ-2.7)*

RA/D: Planning
FS: General Funds
TF: 2003-04

Goal: AQ-3: Increased use of alternate fuel vehicles.

Policies: AQ-3.1 Continue to promote the use of alternative clean fueled vehicles for personal and business use. To this end, consider the use of electric, fuel cell or other non-polluting fuels for Carson Circuit buses and other City vehicles.

AQ-3.2 Continue to promote ridership on the Carson Circuit and Los Angeles County Metropolitan Transportation Authority (MTA) bus and metro rail lines.

Implementation Measures:

AQ-IM-3.1 Continue and expand the use of City-owned alternative fueled vehicles. *(Implements AQ-3.1)*

RA/D: Public Works
FS: Gas Tax, AB1566
TF: Ongoing



AQ-IM-3.2 Prepare a feasibility study of the use of electric or other alternative fueled vehicles for Carson Circuit buses. *(Implements AQ-3.1)*

RA/D: Public Works
FS: AB1566
TF: 2004-05

AQ-IM-3.3 Develop a cooperative program to further increase transit ridership. *(Implements AQ-3.2)*

RA/D: Transportation Services
FS: AB 1566
TF: 2004-05



ISSUE: COMMUNITY AWARENESS AND EMERGENCY RESPONSE ACTIONS

The City should coordinate with industries and regional agencies to respond to incidents involving air quality impacts.

Goal: AQ-4: Increased community awareness and participation in efforts to reduce air pollution and enhance air quality.

Policies: AQ-4.1 Work with the City’s Public Information Office to increase public awareness regarding air quality, implementation issues, reporting and enforcement.

AQ-4.2 Promote and encourage ride sharing activities within the community, including such programs as preferential parking, park-and-ride lots, alternative work week/flexible working hours and telecommuting, as well as other trip reduction strategies.

Implementation Measures:

AQ-IM-4.1 Publicize the SCAQMD complaint telephone number.

RA/D: Transportation Services, Public Information
FS: General Fund
TF: 2003-04

AQ-IM-4.2 Continue to implement City programs and encourage other employers’ programs to promote ride sharing, alternative work week schedules, and telecommuting. *(Implements AQ-4.2)*



RA/D: Transportation
FS: AB 1566, General Fund
TF: Ongoing

AQ-IM-4.3 Coordinate with transportation agencies to establish additional park-and-ride facilities for work and non-work trip reduction. *(Implements AQ-4.2)*

RA/D: Transportation, Planning
FS: State funds, grants
TF: Ongoing



ISSUE: POLLUTING INDUSTRIES

There are a number of industries/facilities in Carson which contribute to air pollution in the South Bay region.

Goal: AQ-5: Reduce emissions related to industry to enhance air quality.

Policies: AQ-5.1 Through the City’s Planning processes, reduce air pollutant emissions by mitigating air quality impacts associated with facilities/industries in Carson, to the greatest extent possible

AQ-5.2 Continue to work with industries and regulatory agencies to monitor, regulate, and provide quick response and communication with the community in the event of an emergency impacting air quality.

AQ-5.3 Discourage PM¹⁰ producers and other polluting industries from locating in the City.

AQ-5.4 Work with the SCAQMD to better monitor emissions.

Implementation Measures:

AQ-IM-5.1 Prepare potential air quality mitigation measures and thresholds of significance for use in environmental documentation. *(Implements AQ-5.1)*

RA/D: Planning
FS: Development Processing fees, General Funds
TF: 2003-04

AQ-IM-5.2 Reinforce cooperative agreements and informal arrangements to maintain a high level of responsiveness to air quality emergencies. *(Implements AQ-5.2)*



RA/D: Public Safety, Fire, Sheriff, SCAQMD
FS: General Fund
TF: Ongoing

AQ-IM-5.3 Request that the SCAQMD locate a monitoring station in Carson.

RA/D: Public Safety, Planning
FS: General Fund
TF: Ongoing

AQ-IM-5.4 Cooperate with the SCAQMD by reporting emissions violations.

RA/D: Public Safety
FS: General Fund
TF: Ongoing

