# AIR QUALITY MANAGEMENT PLAN

III. RESOURCE MANAGEMENT

# 3. Air Quality Management Plan

## Introduction

As defined in the Southern California Association of Governments' (SCAG) Guidelines for the Development of Local Air Quality Elements (1990), the purpose of the air quality element is to: (1) address the problems of maximum air pollution levels that are more than twice the national clean air standard, (2) reduce the health and economic impacts of air pollution, (3) comply with the requirements of the 1991 Air Quality Management Plan (AQMP) for the South Coast Air Basin, (4) determine the best means of addressing those AQMP measures which provide a list of options for local government, (5) increase awareness of local responsibility for air quality and the vital role of local government in meeting the emission reduction goals of the AQMP, and (6) coordinate local efforts that impact air quality both locally and in the region.

## Overview

The City of Lawndale is located in the southwest region of Los Angeles County which is within the South Coast Air Basin (SCAB). The SCAB is a 6,600 square mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties.

## Authority

California Government Code Sections 65300 and 65302 required every city and county to prepare and adopt "a comprehensive, long-term general plan for the physical development" of the community. While not explicitly listed as one of the required elements, air quality is a recommended topic for inclusion in General Plans, either as a stand alone element or as part of of other elements (such as the conservation element or circulation element).

## Organization

This Air Quality Management Plan addresses five main issue areas: land use standards, transportation demand management, energy conservation, citizen education, and intergovernmental relationships. These issue areas are discussed below, along with existing air quality and meteorological conditions. Following this information is a discussion of specific air quality goals, policies and implementation programs

## Assessment

### Issue Area: Land Use Standards

Land use issues relate to air quality considerations in a number of ways. First, the distribution of housing, employment opportunities and services affects the number of vehicle trips, the distance vehicles travel, and the congestion of the traffic patterns in a given area. Secondly, population growth implies an increase in vehicular travel which directly increases air pollution emissions. Lastly, land use decisions affect the extent to which people sensitive to air pollution are exposed to air contaminants.

Vehicle miles travelled (VMT) in the region are projected to increase 68 percent from 1985 to 2010 without implementation of the AQMP and the Regional Mobility Plan (RMP). The average length (in miles) of a vehicle trip is projected to increase by 19 percent over the same time period if the plan is not implemented. The dispersed land use pattern common in Southern California tends to separate employment areas from residential areas, thus encouraging dependency on car travel. The objective of growth management is to reduce VMT by locating jobs and housing closer together such that work commute trips will be shorter. As the jobs/housing balance improves and the VMT are reduced, fuel will be saved, congestion will be eased, and traffic flow will improve. All of these effects will reduce air pollutant emissions and, thereby, improve air quality.

Certain residents, such as the very young, the elderly and those suffering from certain illnesses or disabilities, are particularly sensitive to the health effects of air pollution. These people are known as sensitive receptors. Some examples of land uses where significant numbers of sensitive receptors are often found are schools and day care centers, parks and recreational areas, medical facilities, and rest homes and convalescent care facilities. Land use conflicts can arise when sensitive receptors are located next to major sources of stationary or mobile air pollutant emissions.

### Issue Area: Transportation Demand Management

Transportation demand management (TDM) can reduce congestion and air pollutant emissions, resulting thereby in improvements to air quality. TDM programs reduce the number of vehicles on roadways using two sets of strategies. One set focuses on reducing trips related to work and the other is directed at non-work related trips. For example, TDM strategies for reducing trips related to work encourage individuals who now drive alone to form carpools, vanpools, or use mass transit. Non-work related trips can be reduced by such strategies as increasing the availability of mass transit to shopping centers, medical facilities, etc. or through the use of disincentives, such as limiting parking to discourage single-occupant vehicle travel.

**Issue Area: Energy Conservation**

In addition to the pollutant emissions associated with vehicles, energy consumption by residential and commercial furnaces, air conditioners, water heaters, etc. contributes to the South Coast's air quality problems. According to the 1991 AQMP, there are 3.3 million residential and commercial natural gas-fired water heaters in the South Coast Air Basin. These heaters emit nitrogen oxides ($NO_X$), which are a major constituent in smog formation. Even those homes and businesses that rely on electricity impact air quality, in that the demand for electricity requires an increase in power generation, which in turn produces air pollutants. Additionally, over half the homes in California are not properly weatherized according to a 1987 State Public Utilities Commission survey. Most residential and commercial buildings do not meet the conservation standards for new structures set by the California Energy Commission.

Recycling paper, glass, and plastic materials also provides significant energy savings. From an air quality perspective, this means less $NO_X$ and other pollutants being emitted into the atmosphere. Recycling also reduces waste, controls litter, and conserves resources.

**Issue Area: Citizen Education**

Air pollution reduction measures proposed by the City or other regulatory agencies will only be effective if the general public is in support of them and is willing to make major life style changes. To obtain this support will require a comprehensive education policy informing citizens of the extent, causes, and consequences of the South Coast's air quality problems and acquainting them with options that they can personally implement.

**Issue Area: Intergovernmental Relations**

Because air quality problems in the South Coast Air Basin are largely regional in nature, a need exists for improved communication and coordination between the City of Lawndale and regional, state and federal agencies responsible for air quality planning and implementation.

## Background

**Climatology/ Meteorology**

The climate of Lawndale and all of the South Coast Air Basin is strongly influenced by the Pacific Ocean. One of the main determinants of the climatology is the location of the semi-permanent high pressure area in the north-eastern Pacific Ocean. With a Mediterranean-type climate, Lawndale is characterized by warm, dry summers and cool, wet winters with occasional rainy periods. The mean annual temperature is 63.9°F, and the average maximum and minimum temperatures are 74.2°F and 53.5°F, respectively. Precipitation averages 11 inches annually, and falls almost exclusively between November and April (National Oceanic and Atmospheric Administration, Sept. 1982).

California lies in the path of the prevailing northwesterly winds that predominate most of the year. During the late spring, summer, and early fall, descending warm air from the high pressure cell forms a stable temperature inversion over a cool coastal layer of air. When the high pressure cell migrates south with the onset of winter, the inversion is absent.

During the summer months, there is relatively good horizontal air movements because of the strong onshore air flow produced by the high pressure cell. Surface heating in the interior portions of the South Coast Air Basin creates a weak low-pressure center over these interior reaches that further intensifies the onshore

air flow during the afternoon and evening hours. In the fall and spring, however, the surface winds weaken. As a consequence, the capacity for the horizontal dispersion of pollutants is limited. Since this slow-moving surface air mass is held in place vertically by the high pressure cell in the northeastern Pacific region, air pollutant concentrations can build up. This situation can be reversed by the development of southeast winds, particularly known as Santa Ana winds, which transport additional pollutants out of the region.

## Ambient Air Quality

Air quality is affected by urban and industrial developments (stationary sources) and motor vehicles (mobile sources). Hence, increases in population and urbanization also affect air quality. Air quality at a given location is a function of several factors, including the amount and type of pollutants being emitted into the air, both locally and regionally, and the dispersion rates of pollutants within the region. The major factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions and the topographic and geographic features of the region.

Federal, state and local government agencies conduct many air quality monitoring programs in California. The California Air Resources Board (CARB) and the South Coast Air Quality Management District (SCAQMD) operate 32 ambient air quality monitoring stations throughout the South Coast Air Basin. The closest station to the City of Lawndale is the Hawthorne station. This station monitors ozone ($O_3$), nitrogen dioxide ($NO_2$), carbon monoxide (CO), sulfur dioxide ($SO_2$), total suspended particulate matter (TSP), particulat matter smaller than 10 microns ($PM_{10}$), winds, temperature, and humidity. Table 1 summarizes the concentrations of the major pollutants observed at the Hawthorne monitoring station over the past five years.

The entire South Coast Air Basin has not met state and federal standards for $O_3$, CO, $NO_x$ and $PM_{10}$. The following discussion describes the pollutant emission trends over the last five years (1985–1989) in the Lawndale area. CARB has not yet published the Summary of 1990 Air Quality data.

### Ozone

Ozone is a secondary pollutant formed by complex chemical reactions involving hydrocarbons, oxides of nitrogen, and sunlight. As shown on Table 1, federal $O_3$ standards were violated during 3 days in 1987, 5 days in 1988 and 3 days in 1989 at the Hawthorne monitoring station. In addition, state $O_3$ standards were violated 10 days in 1987, and 11 days in 1988 and 1989. Based on the 1991 Air Quality Management Plan (AQMP) to be adopted for the South Coast Air Basin (SCAQMD 1990), attainment of $O_3$ standards is expected to occur after the year 2010.

### Carbon Monoxide

Carbon monoxide is a gaseous pollutant that is primarily emitted by motor vehicles. For the 1-hour averaging time, the federal standard of 35 ppm has not been exceeded during the last 5 years; however, the state standard of 20 ppm has been exceeded 4 days or less per year. The federal and state standards of 9.0 ppm for an 8-hour concentration have been exceeded 13 and 30 days per year at the Hawthorne monitoring station.

As in most urban areas, high short-term concentrations of CO, known as "h spots," can be a problem in the South Coast Air Basin. Hot spots typically occur in areas of high motor vehicle use, such as in parking lots, at intersections, and

## Ambient Air Quality Summary
## Hawthorne Monitoring Station

Table 1

| Pollutant | Average Time | California Air Quality Standards | Federal Primary Standards | Maximum Concentrations (a) 1985 | 1986 | 1987 | 1988 | 1989 | Number of Days Exceeding Federal Standard (b) 1985 | 1986 | 1987 | 1988 | 1989 | Number of Days Exceeding State Standard (b) 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oxidants (Ozone) (c) | 1 hr | 0.09 ppm | 0.12 ppm | 0.11 | 0.19 | 0.20 | 0.22 | 0.19 | 0 | 8 | 3 | 5 | 3 | 2 | 19 | 10 | 11 | 11 |
| Carbon Monoxide | 1 hr | 20 ppm | 35 ppm | 26 | 21 | 22 | 23 | 23 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 4 | 2 |
| | 8 hrs | 9.0 ppm | 9 ppm | 21.3 | 15.0 | 14.1 | 15.9 | 16.4 | 13 | 23 | 22 | 30 | 28 | 13 | 23 | 22 | 30 | 28 |
| Nitrogen Dioxide | 1 hr | 0.25 ppm | N/A | 0.30 | 0.23 | 0.23 | 0.27 | 0.23 | N/A | N/A | N/A | N/A | N/A | 2 | 0 | 0 | 1 | 0 |
| | Annual | N/A | 0.053 ppm | 0.061 | 0.042 | 0.035 | 0.036 | 0.037 | 1 | 0 | 0 | 0 | 0 | N/A | N/A | N/A | N/A | N/A |
| Sulfur Dioxide | 1 hr | 0.25 ppm | N/A | 0.04 | 0.09 | 0.03 | 0.15 | 0.04 | N/A | N/A | N/A | N/A | N/A | 0 | 0 | 0 | 0 | 0 |
| | 24 hrs | 0.05 ppm | 0.14 ppm | 0.024 | 0.019 | 0.014 | 0.024 | 0.019 | 0 | 0 | 0 | 0 | 0 | N/A | N/A | N/A | N/A | N/A |
| | Annual | N/A | 0.03 ppm | 0.008 | 0.005 | 0.004 | 0.005 | 0.005 | 0 | 0 | 0 | 0 | 0 | N/A | N/A | N/A | N/A | N/A |
| Total Suspended Particulates (TSP) (d) | 24 hrs | N/A | 260 $\mu g/m^3$ | -- | 182 | 150 | 248 | 370 | -- | 0 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Annual | N/A | 75 $\mu g/m^3$ | -- | 69.5 | 76.5 | 79.7 | 79.6 | -- | 0 | 1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| $PM_{10}$ (e) | 24 hrs | 50$\mu g/m^3$ | 150 $\mu g/m^3$ | N/A | N/A | N/A | -- | 133 | N/A | N/A | N/A | -- | 0 | N/A | N/A | N/A | -- | 24 |
| | Annual | 30$\mu g/m^3$ | 50 $\mu g/m^3$ | N/A | N/A | N/A | -- | 44.9 | N/A | N/A | N/A | -- | 0 | N/A | N/A | N/A | -- | 1 |

Source: South Coast Air Quality Management District and California Air Resources Board, 1985, 1986, 1987, 1988, 1989

Notes:

(a) Maximum concentration units for ozone, carbon monoxide, nitrogen dioxide, and sulfur dioxide are in parts per million (ppm). Concentration unit for total suspended particulates (TSP) and $PM_{10}$ are in micrograms per cubic meter ($\mu g/m^3$).
(b) For annual standards, a value of 1 indicates the standard has been exceeded.
(c) California standard for ozone was 0.10 ppm for the year 1985-1988. The standard was changed to 0.09 ppm in 1989.
(d) In July 1987, the federal standards for TSP were replaced by standards for fine particulate matter less than 10 microns (PM-10).
(e) $PM_{10}$ monitoring equipment was installed sometime during 1988 and started monitoring in 1989.

along freeways. Since CO build-up typically occurs at locations where traffic is congested, CO concentrations are often correlated with levels of service at intersections. Significant concentrations of CO sometimes occur (depending on temperature, wind speed, and other variables) where an intersection's level of service (LOS) is D or worse.

### Other Pollutants

Three other pollutants are monitored continuously at the Hawthorne station: $NO_2$, $SO_2$, and two suspended particulate matters (TSP and $PM_{10}$). The first two pollutants occur mainly as a result of fuel combustion in both stationary and mobile sources. Particulate matter can result from natural causes (wind erosion) or from human activities, such as vehicles traveling on unpaved roads. The National Ambient Air Quality Standard (NAAQS) for $NO_2$ has been exceeded only once with SCAB since 1985, and the levels of $SO_2$ have been well below the NAAQS and California AAQS for many years. The annual federal standard for TSP was not exceeded during the years 1985 through 1988. However, the CARB and the EPA have both recognized that TSP, especially large diameter, inert soil particles, are not a good indicator of potential health effects of airborne dust exposure. Therefore, in July 1987, the federal standards for TSP were replaced by new standards for $PM_{10}$. The state standard for $PM_{10}$ was exceeded 24 days during the year 1989.

## Goals and Policies

Just as no one community is responsible for the pervasive air quality problems in the South Coast Air Basin, no single community can adopt policies that will ensure compliance with state and federal air quality standards. Nonetheless, it will be the cumulative efforts of local and regional governments, along with the support of the general population that will be necessary if the air quality goals described below are to be met.

### Efficient Land Use: Goal 1

Promote good air quality and mobility in an environment of continued population growth, while providing for a healthy economic base. The City will work towards reducing vehicle miles traveled (VMT) through an improved jobs/housing balance and a more efficient urban land use plan.

### Policies

**Policy 1a**
Coordination in Job Development: Cooperate with federal, state, regional and other local jurisdictions to reduce VMT and, consequently air emissions, through creation of jobs in the local area.

**Policy 1b**
Attain growth management performance goals and/or VMT reduction consistent with the SCAG's Growth Management Plan.

**Policy 1c**
Improve the jobs/housing balance by encouraging the development and expansion of small businesses.

**Policy 1d**
Assist businesses coming into the area by participating in regional education and job training programs that prepare local residents to fill the jobs these businesses crear

Policy 1e
Establish an economic development program designed to enhance employment opportunities in the City.

Policy 1f
Support new mixed-use land use patterns which encourage neighborhood self-sufficiency and containment and discourage automobile dependency.

Policy 1g
Adopt land use policies that encourage the siting of facilities where significant sensitive receptors are likely to be present in areas that are removed from major intersections or traffic corridors and major pollution emitting sources.

**Reduce Vehicle Trips And VMT: Goal 2**

Reduce reliance on single-occupant vehicles and reduce the number of non-work and commuting trips.

**Policies**

Policy 2a
Because vehicle trips contribute to poor air quality, the City of Lawndale will implement a transportation demand management (TDM) program to reduce the number of trips.

Policy 2b
Require trip reduction plans as required under the thresholds established in the AQMP for its employees, new businesses, special events centers and temporary outdoor events. These plans will incorporate the following measures: alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education, and preferential parking.

Policy 2c
Assist employers wishing to establish transportation management associations.

Policy 2c
Assist local merchants to encourage their customers to shift from single occupancy vehicles to transit, carpools, bicycles, or foot.

**Improve Transportation Management: Goal 3**

Participate in the efficient management of transportation facilities and improvements to transportation system infrastructure, using cost-effective system management and innovative demand-management techniques.

**Policy**

Policy 3a
Transit improvements and facility development (such as the proposed light rail transit system, park-and-ride lots, bus turnouts, off-site parking, facilities for bicycles and pedestrians, and day care siting near public transit facilities) will accompany the City's TDM measures.

**Increase Energy Efficiency: Goal 4**

Increase energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuel, and the implementation of conservation measures.

**olicies**

Policy 4a
Reduce energy consumption and shift to non-polluting sources of energy in its buildings and operations, and will encourage similar energy conservation techniques throughout the city.

Policy 4b
As part of the process in selecting contractors to provide outside services, the City of Lawndale will evaluate the energy and waste reduction programs of the prospective bidders. Those bidders with active conservation programs (including use of alternative fuel vehicles) will receive additional points in the rating scheme.

Policy 4c
Adopt the California Energy Commission's guidelines on "best practice" and "best technology" for new buildings (expected to be initiated in 1992).

Policy 4d
Ensure that new facilities use appliances that comply with current South Coast Air Quality Management District emission standards.

Policy 4e
Encourage the protection of solar access for both existing and new property owners for the use of solar collectors. Also, the City of Lawndale will encourage the state and federal government to enact taxation laws advocating the use of solar energy, and other equivalent technologies.

Policy 4f
Support regional waste recycling programs to help reduce the amount of solid waste disposal in landfills or transformation facilities. The City will also institute recycling programs at city facilities and encourage their implementation in all city operations.

**Increase Citizen Education: Goal 5**

Raise citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

**Policy**

Policy 5a
Cooperate with other governmental agencies, utility districts, sanitation districts, etc. in providing the public with information regarding methods available for reducing VMT and work trips, energy conservation, recycling and other air pollution reducing programs.

**Promote Interagency Communications: Goal 6**

Because air pollution sources in the South Coast Air Basin are so wide-spread, it is critical that solutions be coordinated among the responsible local, regional, county, and state governments.

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Policy 6a
Implement air quality policies in cooperation with the Environmental Protection Agency (EPA), the South Coast Air Quality Management District (SCAQMD) a the Southern California Association of Governments (SCAG). Also, the City will

participate in the development and update of the regional air quality management plans required under federal and state law.

## Implementation Programs

### 1. Efficient Land Use

**1.1 Inter-regional Agreements**
Pursue inter-regional agreements required for the attainment of jobs/housing balance targets for Tier II (1994-1999) of the Regional Air Quality Management Plan.

**1.2 VMT Targets**
The City shall incorporate procedures to attain VMT reduction targets through jobs/housing balance at the subregional level (Santa Monica Bay or Long Beach/Downey area).

**1.3 Growth Management Plans**
Implement a growth management plan to reduce vehicle miles travelled through jobs/housing balance and mixed development land uses. The City will implement the growth management plan to attain subregional performance goals (defined by SCAG) through development of the General Plan, adoption of measures and ordinances by January 1992, and through issuance of development permits.

**1.4 Growth Consistency**
The City shall ensure that all proposed projects comply with regional and local growth management and air quality plans.

**1.5 Subregional Strategy**
The City's subregional growth management strategy (included in the growth management plan) shall involve the reassessment of performance goals and re-evaluation of the implementation measures and actions. This analysis will take place before January 1, 1994.

**1.6 Locations of Growth**
Encourage growth to occur in and around activity centers, transportation node corridors, underutilized infrastructure systems, and areas needing redevelopment.

**1.7 Business Development**
In an effort to improve both jobs/housing balance and air quality, adopt policies that encourage new small businesses to locate in Lawndale and existing firms to expand their operations. Assess the feasibility of providing incentives such as technical assistance and fast track permit processing to encourage business development within the city.

**1.8 Reduce Particulate Matter**
The City shall prepare ordinances requiring drought-resistant vegetation or surfacing material be applied to unpaved areas adjacent to paved City streets.

**1.9 Sensitive Receptors**
Adopt ordinances that ensure that new facilities in which sensitive receptors are located (i.e., schools, child care centers, playgrounds, retirement homes

and convalescent homes) are sited away from significant sources of air pollution.

**2. Reduce Vehicle Trips And VMT**

2.1 City Employees
For local city employees, the City shall adopt and submit to SCAG a program to reduce employee work trips by 30 percent by 2010 using any combination of alternative work schedules, flextime, and telecommuting strategies. Determine what impediments to work options exist and what alternatives that would be used to eliminate them.

2.2 Reduce Work Trips
The City shall support SCAG programs to reduce private employee work trips in new and existing facilities, using either alternative work schedules, work-at-home programs, telecommuting, or non-motorized transportation.

2.3 Shopping
By 1992 study (in concert with other nearby municipalities), the feasibility of requiring local cable television operators to determine in conjunction with local licensed businesses the feasibility of developing centralized ordering and home delivery services in order to reduce shopping trips for common household goods.

2.4 Home Occupations
Review home occupation regulations and modify, if necessary, to eliminate any unnecessary restrictions on reasonable home occupations and telecommuting.

2.5 Trip Reduction Plans
The City shall adopt ordinances/regulations to require facilities and buildings with 100 or more employees to submit trip reduction plans to SCAG.

2.6 Additional Trip Reduction Requirements
If, by July 1, 1995 trip reduction goals have not been met, the City shall expand the SCAQMD's Regulation XV to cover businesses or employers with 25 to 99 employees, including multi-tenant buildings with 25 or more employees.

2.7 Bicycle Routes
By January 1, 1994, the City shall include in the General Plan bicycle routes that will support the employer and non-work trip reduction plans.

2.8 Bicycle Parking Spaces
By January 1, 1993, the City shall enact ordinances requiring that parking spaces for bicycles be provided in new and existing commercial and industrial developments.

2.9 City Employee's Parking
The City shall implement a comprehensive city employee parking program and will periodically review parking rates to ensure that they reflect market value.

### 2.10 Public Parking

The City shall adopt ordinances by January 1, 1992 that will discourage vehicle trips by limiting parking. The following programs will be considered for adoption:

- Increase daytime parking fees
- Establish a surcharge on parking for single occupant vehicles and/or discounts for multi-occupant vehicles.
- Eliminate peak-period on-street parking
- Eliminate 100% employer-subsidized parking
- Require employer-sponsored preferential parking for ridesharers for employers of 100+ employees (short-term) and 25+ employees (long term).
- Establish residential parking permit programs in all areas adjacent to congested commercial activity centers.
- Strengthen parking enforcement operations
- Establish a cap on total number of parking spaces in a zone and maximum number of parking spaces per square foot of particular use.

### 2.11 Non-Work Trip Reductions

The City shall adopt a non-work trip reduction ordinance by July 1, 1992 to require major retail centers to offer customers mode-shift travel incentives to single occupant vehicles and provide facilities for non-motorized transportation needs.

### 2.12 Auto Use Restrictions

The City shall adopt an ordinance specifying appropriate auto use restrictions for major new developments and pedestrian malls and the coordination of these facilities with existing and planned park-n-ride lots, rail service, and bus lines.

### 2.13 Restrict Vehicle Access

To the extent feasible, the City shall adopt an ordinance by January 1, 1994 which restricts vehicle at major activity centers to shuttles, mass transit, and non-motorized modes, and closes streets as needed. The criteria for street closure should consist of heavy peak-period congestion and lack of parking, combined with existing or potentially heavy pedestrian activity. Auto-restricted areas must be adequately served by transit/shuttle/park-n-ride.

### 2.14 Incentives

Develop legislative proposals to sponsor and/or support legislation that would provide tax credits, emission credits, or other benefits for employers who implement the use of van pools and/or sponsor work day use of clean fuel vehicles.

2.15 Truck Deliveries
In concert with other nearby municipalities, adopt an ordinance or Memorandum of Understanding (MOU) that establishes apprpriate measures to reduce the operation of heavy-duty trucks during the hours of heaviest commuting.

**3. Improve Transportation Management**

3.1 Traffic Flow Improvements
The City shall implement either Automated Traffic Surveillance and Control and similar interconnected traffic signal control systems or appropriate non-interconnected synchronization methods on all streets where traffic volume and delay time is significant. Annual monitoring reports on the number of intersections modified shall be submitted to SCAG.

3.2 Government Vehicle Fleets
By 1994, the City shall commit to a phased-in replacement of the local government fleet by electric vehicles: 10% by the year 2000, 20% by the year 2010. Annual monitoring reports on progress made toward the objective will be submitted to SCAG.

3.3 Mass Transit
The City shall support the extension of light rail, trolley and other mass transit services. The City shall also influence rail transit alignment and bus station locations for maximum commuter access to shopping centers and work districts and to minimize local air pollutant impacts at seriously congested intersections..

3.4 Construction Traffic Control
The City shall restrict construction to off-peak hours to improve traffic flow and reduce vehicle delays, and shall provide city traffic officers to manage traffic flow during major construction projects.

**4. Increase Energy Efficiency**

4.1 Solid Waste Reduction
The City shall adopt an ordinance consistent with California Assembly Bill 939 to meet the 1995 targeted goal of a 25% reduction of residential solid waste requiring disposal and a 50% reduction by the year 2000.

4.2 Minimize Disposable Packaging
Support state legislation to tax product packaging at a rate that reflects the total cost associated with collecting and disposing of the material as waste. Exemption from the tax would be provided for packaging that meets minimum criteria for recycled content and/or recyclability.

4.3 Reduce Energy Use in City Facilities
The City shall reduce overall energy use in city facilities by 8% by 1994, 15% by 2000, and 30% by 2010, with a particular emphasis on peak demand reduction. The City facilities and equipment that utilize energy shall incorporate the most energy efficient design consistent with a reasonable rate of return and the recognition of the environmental benefits from energy conservation.

4.4 Reduce Public Energy Consumption
The City shall enact the AQMP Energy Working Group's recommendation. reduce the energy consumption for residential and commercial buildings by 4.5% by 1994 and 30% by 2010. In order to achieve the 2010 conservation

goals, the City shall encourage the incorporation of energy conservation features in the design of all new construction and the installation of conservation devices in existing developments.

4.5 **Support Tax Credit Legislation**
Continue to seek state and federal legislation for tax credits for implementation of energy conservation measures and for passage of a state energy efficiency revenue bond program for the City of Lawndale.

4.6 **Encourage Solar Power Development**
In order to promote the use of solar power, City will adopt ordinances that protect solar exposure for residences and commercial businesses, and will investigate the feasibility of attracting a solar energy demonstration project at a city facility.

4.7 **Minimize Use of Polluting Building Materials**
Through zoning regulations or modifications to the Building code, the City shall encourage the use of building materials and methods that minimize the emissions of Reactive Organic Gases, particulates, and ozone layer-depleting chemicals.

4.8 **Contractor Efficiency**
As part of bid submittals by contractors for city services, require information on measures the contractor has implemented both locally and region-wide to reduce and minimize air pollution.

4.9 **Street Lights Efficiency**
Investigate the feasibility of a phase-in of more efficient street lights.

**5. Increase Citizen Education**

5.1 **Reduce Traffic**
In concert with other municipalities and agencies, develop an education campaign to reduce non-community trips during rush hours and to urge commuters to take advantage of ridesharing and mass transit options.

5.2 **Reduce Other Air Pollution Sources**
In concert with other municipalities and agencies, develop an education campaign to inform citizens of the benefits of other air pollution-reducing programs, such as recycling and energy conservation.

**6. Promote Interagency Communications**

6.1 **Information Gathering**
Establish contacts with SCAQMD, SCAG, CARB and other local, state, and national agencies for the purpose of obtaining information on specific policies that can be implemented city-wide to reduce and minimize air pollution. The goal will be to make use of experience and expertise at these agencies in order to better evaluate realistic policies and options.

6.2 **Coordination**
Coordinate with SCAQMD, SCAG, CARB and other local, state, and national agencies in efforts to plan and implement clean air strategies for the South Coast Air Basin.

### 6.3 Consistency with Plans

The City shall ensure that all proposed projects comply with the Regional Growth Management and Air Quality Plans.