

8. Air Quality Element

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8. Air Quality Element

Introduction

California Government Code Sections 65300 and 65302 require every city and county to draw up and adopt "a comprehensive, long-term general plan for the physical development" of the community. Seven general plan elements are required by law and may be adopted individually or as a single general plan. While air quality is not a required element, it is included as a suggested topic for conservation and circulation elements in the 1991 State General Plan Guidelines. Furthermore, Government Code Section 65303 authorizes cities and counties to adopt additional general plan elements which they judge to be necessary.

The Air Quality Element is a new element that has been prepared as part of the City of El Segundo 1992 General Plan. The Air Quality Element consists of five sections which address transportation, land use, particulate and building emissions, energy conservation, and governmental organization. Many of the goals and policies recommended in this Element are closely related to those included in the Circulation, Housing, and Land Use Elements of the General Plan.

The Air Quality Element goals, objectives, and policies contained herein are in part derived from the Air Quality Element Existing Conditions Report which documents existing conditions and identifies major issues addressed in this document.

Purpose of the Air Quality Element

The City of El Segundo has prepared this Element to: (1) address the problems of maximum air pollution levels, (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 (SCAB), (4) determine the best means of addressing the AQMP measures for local government, and (5) increase awareness of local community and governmental responsibility for air quality.

Summary of Existing Conditions Report

Extent of the Problem

The City of El Segundo is located at the western edge of the South Coast Air Basin (SCAB), which comprises all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. The Basin has the worst air quality problem in the nation, and despite many strict controls, it still does not meet federal air quality standards for four of the six criteria pollutants. In 1989, the Basin was the only area in the nation that failed to meet nitrogen dioxide standards. Carbon monoxide concentrations in the Basin are among the highest in the nation; ozone levels are the highest in the nation (approximately three times the federal standard); and particulate (PM10) concentrations are about 80 percent above federal standards. The Basin's air quality problem is further complicated by regional projections that show significant increases in population to the year 2007.

Poor air quality in the Basin has caused significant health and economic impacts. A 1989 report by the SCAQMD estimated that ozone causes SCAB residents to experience more than 120 million days of cough, more than 190 million days of eye irritation, and nearly 180 million days of sore throat yearly. These impacts, in combination with a number of other effects, annually cost an estimated \$9.4 billion when compared to the expected incidents set for particulates at federal standards. Impacts are particularly acute for sensitive receptors, such as children, senior citizens, and those with respiratory conditions.

Air pollution can be formed directly or indirectly from natural sources such as oil seeps, vegetation, or windblown dust, or it can result from automobile engine combustion, evaporation of organic liquids used in cleaning and coating processes, or through abrasion which occurs from tires on roadways. Air pollution control strategies are directed almost exclusively at man-made sources, because they are the easiest to control. Trends within the Basin over the last ten years show that a large segment of heavy manufacturing has left the area and is being replaced with smaller service industries and businesses related to Pacific Rim trading activities. Despite the exodus of heavy manufacturing and the substantial new controls which have reduced per capita emissions over the last 40 years, dramatic increases in population have increased the number of sources of air pollution; therefore, the potential for air quality improvements has been reduced.

Local Setting

Due to El Segundo's coastal location, it is protected from the worst of the Basin's air pollution problem. Daily onshore sea breezes bring clean air onshore and blow air pollutants inland. These onshore

winds are most active during the summer months when smog is typically at its highest level. Existing levels of ambient air quality and historical trends in air quality for the City of El Segundo are well documented by measurements taken at the SCAQMD's Hawthorne monitoring station. The beneficial effects of onshore breezes are substantiated by measurements taken at the Hawthorne station, where federal ozone standards have been exceeded only six days per year over the last five years versus 52 exceedances in downtown Los Angeles and 85 in the San Fernando Valley. Additionally, the number of first stage smog alerts recorded in the El Segundo area are fewer than those recorded throughout the majority of the South Coast Air Basin. However, despite the beneficial influences of onshore breezes, a number of factors still contribute to periods of poor air quality in the City. During winter months and at night, offshore winds are more frequent, shifting pollutants to coastal areas. Although air quality is generally better along the coast, polluted air and incomplete ventilation of the Basin still cause periodic smog alerts. Additionally, calm wind conditions can cause stagnation of pollutants near the source.

Major stationary sources of air pollutants in and adjacent to El Segundo include the Chevron Oil Refinery, Southern California Edison facilities, Los Angeles International Airport, the Hyperion Wastewater Treatment Plant, and the Scattergood Generating Station. Major mobile sources of air emissions include Los Angeles International Airport, Sepulveda Boulevard, and the I-405 Freeway.

Air Quality Planning

The South Coast Air Quality Management Plan (AQMP) adopted in March 1989, was designed to achieve National Ambient Air Quality Standards in accordance with the Lewis Air Quality Act, and the Federal Clean Air Act. In September 1988, the California Clean Air Act (CCAA) was signed into law to establish a legal mandate to achieve health-based state air quality standards at the earliest practicable date. Since it became effective on January 1, 1989, the CCAA has become the centerpiece for the Basin's attainment planning efforts, as it is generally more stringent than the 1990 Federal Clean Air Act. The CCAA requires all non-attainment air basins in the state to develop new attainment plans to meet both federal and state air quality standards, and places a number of performance-related tests before each plan.

The 1991 AQMP responds to the new requirements of the CCAA, and builds on the 1989 AQMP. The 1991 AQMP was prepared and adopted by the South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) to provide a comprehensive program to lead the Basin into compliance with all federal and state air quality standards. Strategies

for controlling air pollutant emissions in the AQMP are grouped into three "tiers," based on their anticipated timing for implementation. Tier I consists of the implementation of best available current technology and management practices that can be adopted within the next five years. Tier II is based on anticipated advancements in current technology and vigorous regulatory action, and Tier III controls consist of development of new technology. In total, the tiers consist of 123 recommended control measures. The measures are intended to reduce air emissions by altering the following:

- Motor vehicle operation and inspection
- Transportation systems (including airports and ports)
- Land use and zoning decisions
- Travel
- Work scheduling
- Petroleum and gas production
- Commercial and industrial activities
- Stationary sources
- Residential and public activity
- Agricultural processes
- The use of off-road vehicles
- Surface coating and solvent use

In order to achieve the goals and objectives of the AQMP at the local level, all cities and counties in the Basin must adopt air quality elements or other elements or plans that fully address air quality, and they must help implement AQMP measures to achieve compliance with state and federal standards. Local responsibilities for achieving compliance with Federal and State Ambient Air Quality Standards primarily focus on measures that control "Indirect Sources" such as a facility, building, structure, installation, real property, road, or highway which attracts or may attract mobile sources of pollution. This term includes parking lots, parking garages, and other facilities subject to any measure for management of parking supply.

Regional Context

In the interest of addressing important regional issues and to ensure that Federal and State Ambient Air Quality Standards are met, this Air Quality Element has been prepared consistent with the AQMP to the maximum extent feasible.

The following goals, objectives, and policies provide for the attainment of local and regional goals for improving air quality. SCAG's Guidelines for the Development of Local Air Quality Elements have been followed to ensure conformance with the SCAQMP. In order to provide flexibility for the City in the implementation of clean air strategies, objectives, and policies in this Element may not be as specific, or may not state target dates as

provided in the Guidelines. Specific target dates for actions to be taken and for emission reduction attainment, are contained in the City's Air Quality Action Plan which serves as the implementing document for the goals, objectives, and policies included herein.

Goal AQ1: Person Work Trip Reduction for Private Employees

Objective AQ1-1 A 30 percent reduction in private employee work trips in new and existing development through the use of any combination of alternate work weeks and telecommuting strategies.

Policy AQ1-1.1

It is the policy of the City of El Segundo that the City encourage businesses to adopt alternative work schedules and prepare guidelines to assist local businesses in the implementation of alternative work schedule programs.

Policy AQ1-1.2

It is the policy of the City of El Segundo that businesses be encouraged to establish and maintain telecommuting or work-at-home programs to reduce employee work trips.

Policy AQ1-1.3

It is the policy of the City of El Segundo that Transportation System Management (TSM) plans provide a 30 percent reduction in vehicle ridership or the equivalent Average Vehicle Ridership (AVR) per commute vehicle.

Goal AQ2: Person Work Trip Reduction for Local Government Employees

Objective AQ2-1 A 30 percent reduction in local government employee work trips using any combination of alternative work weeks and telecommuting strategies.

Policy AQ2-1.1

It is the policy of the City of El Segundo that a study be conducted to implement alternative work schedules and work-at-home programs for City employees that will maximize the potential for increasing employee productivity.

Policy AQ2-1.2

It is the policy of the City of El Segundo that the City designate an Employee Transportation Coordinator to promote and institute

ridesharing and other programs to achieve a 30 percent reduction in vehicle ridership for City employees.

Goal AQ3: Vehicle Work Trip Reduction for Private Employees

Objective AQ3-1 Increase the proportion of work trips made by transit.

Policy AQ3-1.1

It is the policy of the City of El Segundo that the City continue to require employers in existing congested areas of the City and developers of large new developments to adopt Transportation System Management (TSM) plans and provide incentives for the provision of transit support facilities.

Policy AQ3-1.2

It is the policy of the City of El Segundo that it continue to require developer TSM plans to encourage trip reduction programs and development of transit and ridesharing facilities over highway capacity expansion in order to achieve and maintain mobility and air quality.

Policy AQ3-1.3

It is the policy of the City of El Segundo to cooperate with efforts to expand bus, rail, and other forms of transit within the Los Angeles region.

Goal AQ4: Reduce Motorized Transportation

Objective AQ4-1 Promote non-motorized transportation.

Policy AQ4-1.1

It is the policy of the City of El Segundo that the City actively encourage the development and maintenance of a high quality network of pedestrian and bicycle routes, linked to key locations, in order to promote non-motorized transportation.

Goal AQ5: Vehicle Work and Non-Work Trip Reduction

Objective AQ5-1 Improve transit systems serving the City and implement parking control methods to reduce work and non-work trips.

Policy AQ5-1.1

It is the policy of the City of El Segundo that the City discourage the use of single-occupant vehicles in congested areas of the City by changing or modifying the availability and cost of parking.

Policy AQ5-1.2

It is the policy of the City of El Segundo that the City actively encourage the enhancement of transit performance and availability and establish developer fees to offset the costs of transit improvements required as a result of new developments.

Goal AQ6: Reduction in Peak-period Truck Travel and Number and Severity of Truck-involved Accidents

Objective AQ6-1 Pass the necessary ordinances and memorandums of understanding to divert truck traffic during peak traffic periods.

Policy AQ6-1.1

It is the policy of the City of El Segundo that commercial truck emissions be reduced by restricting delivery schedules to off-peak traffic periods, and by creating alternate routes that would increase the efficiency of the City's roadway system.

Goal AQ7: Reduce Vehicle Emissions Through Traffic Flow Improvements

Objective AQ7-1 Set annual objectives for the continued improvement of interconnected traffic signal control systems or appropriate non-interconnected synchronization methods on all streets where traffic volume and delay time is significant.

Policy AQ7-1.1

It is the policy of the City of El Segundo that a high priority be given to improve the flow of traffic through synchronization of signalized intersections, as this is among the most cost-effective means of reducing congestion, conserving energy, and improving air quality.

Objective AQ7-2 Set annual objectives for improved channelization at high-volume intersections identified with assistance from Southern California Association of Governments (SCAG).

Policy AQ7-2.1

It is the policy of the City of El Segundo to improve channelization at high-volume intersections identified with assistance from SCAG.

Goal AQ8: Reduction in Tailpipe Emissions from Local Government Vehicle Fleets

Objective AQ8-1 Support legislation which would improve vehicle/transportation

technology and the conversion of vehicles by fleet operators to the use of "clean fuel."

Policy AQ8-1.1

It is the policy of the City of El Segundo that the City support legislation for the use and ownership of clean fuel vehicles.

Policy AQ8-1.2

It is the policy of the City of El Segundo that the City support legislation for research, development, and demonstration of clean fuel vehicles in both fleet service and passenger use.

Policy AQ8-1.3

It is the policy of the City of El Segundo that the City invest in clean fuel systems on new City fleet vehicles.

Goal AQ9: Reduction in Length of Vehicle Trips

Objective AQ9-1 Improve the City's jobs/housing relationship to achieve a reduction in the average length of commute-trips by the year 2010, as designated by SCAG.

Policy AQ9-1.1

It is the policy of the City of El Segundo that the City promote a better balance of jobs and housing within the City by considering housing proposals within areas of the City designated for Smoky Hollow Mixed-Use.

Policy AQ9-1.2

It is the policy of the City of El Segundo that the City participate in subregional efforts with other cities or agencies to develop mutually beneficial approaches to improving the balance of jobs and housing.

Policy AQ9-1.3

It is the policy of the City of El Segundo that the City actively encourage the establishment of a shuttle bus system to transport employees and El Segundo residents between the east and west sides of the City.

Goal AQ10: Reduction in Particulate Emissions from Paved and Unpaved Roads, Parking Lots, and Road and Building Construction

Objective AQ10-1 Control particulate emissions by paving roads and parking lots or by adopting alternative methods to control particulates.

Policy AQ10-1.1

It is the policy of the City of El Segundo that an ordinance be adopted requiring the paving or use of alternative particulate control methods on roads with low levels of vehicle traffic and on dirt roads and parking lots located on industrialized properties such as Chevron and Edison.

Policy AQ10-1.2

It is the policy of the City of El Segundo to adopt incentives, regulations, and/or procedures to prohibit the use of building materials and methods which generate excessive pollutants.

Policy AQ10-1.3

It is the policy of the City of El Segundo that all new development projects meet or exceed requirements of the South Coast Air Quality Management District for reducing PM10 standards.

Goal AQ11: Reduce Emissions Associated with Government Energy Consumption

Objective AQ11-1 Reduce energy use by City government facilities with an emphasis on peak demand reduction as stated by SCAG.

Policy AQ11-1.1

It is the policy of the City of El Segundo that a study be prepared to initiate implementation of a program for retrofitting City buildings with a full range of energy conservation measures.

Goal AQ12: Reduction in Residential, Commercial, and Industrial Energy Consumption

Objective AQ12-1 Enact the recommendations of the AQMP Energy Working Group for commercial and residential buildings and adopt ordinances to mitigate air quality impacts from water and pool heating systems.

Policy AQ12-1.1

It is the policy of the City of El Segundo that an ordinance be adopted requiring all new swimming pool water heater systems to utilize solar, electric, or low NOx gas-fired water heaters, and/or pool covers.

Policy AQ12-1.2

It is the policy of the City of El Segundo that the City encourage the incorporation of energy conservation features in the design of new projects and the installation of conservation devices in existing developments.

Policy AQ12-1.3

It is the policy of the City of El Segundo to provide incentives and/or regulations to reduce emissions from residential and commercial water heating.

Policy AQ12-1.4

It is the policy of the City of El Segundo that new construction not preclude the use of solar energy systems by uses and buildings on adjacent properties and consider enactment of a comprehensive solar access ordinance.

Goal AQ13: Increase Recycling of Solid Waste and Use of Recycled Materials by Glass and Paper Manufacturers

Objective AQ13-1 Reduce the amount of solid waste by 25 percent by 1994, and 50 percent by 2000.

Policy AQ13-1.1

It is the policy of the City of El Segundo that the City continue to implement the programs proposed in the City's Solid Waste Management Plan, concurrent with California Assembly Bill 939, to achieve a 25 percent reduction in residential solid waste requiring disposal by 1995, and a 50 percent reduction by the year 2000.

Goal AQ14: Prevent Exposure of People, Animals, and Other Living Organisms to Toxic Air Pollutants

Objective AQ14-1 Restrict emissions of toxic air contaminants in and around the City and insure that sources which impact the City comply with all federal, state, regional, and local regulations.

Policy AQ14-1.1

It is the policy of the City of El Segundo to protect residents and others from exposure to toxic air pollutants by identifying major sources of toxic contaminants in and around the City and insuring that the sources comply with all federal, state, regional, and local regulations.

Policy AQ14-1.2

It is the policy of the City of El Segundo to draft and implement ordinances, where deemed appropriate by the City Council in its discretion, which go beyond the AQMP and SCAQMD regulations to restrict emissions of toxic air contaminants from sources of toxic air pollutants which impact the City of El Segundo.

Goal AQ15: Prevent Exposure of People, Animals, and Other Living Organisms to Unhealthy Levels of Air Pollution

Objective AQ15-1 Reduce unsafe levels of air pollutants impacting the City.

Policy AQ15-1.1

It is the policy of the City of El Segundo to protect the residents of the City and others from exposure to unsafe levels of air pollution, including but not limited to, pollutants such as volatile organic compounds, particulates, oxides of nitrogen, oxides of sulphur, lead, ozone, and carbon monoxide, by taking all appropriate air pollution control measures to reduce unsafe levels of air pollutants impacting the City.

Policy AQ15-1.2

It is the policy of the City of El Segundo to coordinate with the SCAQMD to ensure that all elements of the AQMP regarding reduction of all air pollutant emissions are being met and are being enforced.

Policy AQ15-1.3

It is the policy of the City of El Segundo to draft and implement ordinances where deemed appropriate by the City Council in its discretion, which go beyond the AQMP and SCAQMD regulations to reduce emission of and exposure to air pollutants which impact the City of El Segundo.

Policy AQ15-1.4

It is the policy of the City of El Segundo to continue working with the City of Los Angeles to eliminate odor problems from the Hyperion Treatment Plant; this will include the continuation of the Mitigation Monitoring Implementation Plan.

9. Noise Element

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