

The City of Lakewood Comprehensive General Plan



Technical Background Report

November 1996

TECHNICAL BACKGROUND REPORT CITY OF LAKEWOOD GENERAL PLAN

November 1996

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**TECHNICAL BACKGROUND REPORT
CITY OF LAKEWOOD
GENERAL PLAN**

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1.0 INTRODUCTION

1.1 Purpose of the Technical Background Report

This Technical Background Report of the General Plan contains relevant data and information pertaining to the City's existing physical, environmental, economic, and demographic character. This city-specific information can be used by City's residents and its decision makers in the following ways:

- serve as the "data base" for the formation of the General Plan's goals, policies, and implementation programs;
- serve as an orientation document for residents and others; and
- provide staff with technical background data for staff reports and long term planning projects.

Beginning in 1990, Community Development Department staff and an in-house contract planner began the collection and data assimilation process for a comprehensive update to the City's existing General Plan. Public meetings were held and comments were solicited from residents, public agencies, and utility providers. In addition, City facilities and services were inventoried and census data was analyzed for input into the Report.

The following information and data is contained in the Report:

- Land Use
- Community Design
- Population, Housing, and Employment Characteristics
- Economic Development
- Circulation and Traffic
- Natural Resources
- Hazards
- Noise
- Recreation and Community Services

1.2 The General Plan

In accordance with Government Code Section 65300, each California city is required to prepare and adopt a "comprehensive, long-term general plan for the physical development of the city." The general plan expresses community development goals and embodies public policy relating to future land development, integration of land uses, identification of safety issues (e.g., seismic safety planning), preservation of open space, and public services planning.

Elements of the General Plan:

Pursuant to Government Code Section 65302, the general plan shall consist of the following seven mandated elements:

1. **Land Use** - designates the general location and distribution of land uses, including standards for population density and building intensity.
2. **Circulation** - focuses on the general location and extent of transportation facilities and public utilities. This element is closely correlated with the Land Use and Air Quality Elements.
3. **Housing** - addresses: existing and projected housing needs of all economic segments of this community; goals, policies, objectives and actions necessary to meet those needs; and adequate sites for housing. (This element is not part of the current revision. It was recently updated in accordance with State requirements.)
4. **Conservation** - addresses the conservation of all natural resources.
5. **Open Space** - contains plans and programs for the preservation and managed production of natural resources, outdoor recreation, and public health and safety.
6. **Noise** - identifies noise levels and potential mitigation measures associated with transportation facilities, industrial uses and other stationary sources. Includes noise impacts of land use and the preparation of a community noise exposure inventory.
7. **Safety** - establishes policies and programs to protect the public from fires and geological hazards, as well as appraisal of all potential seismic, geologic and other community hazards.

In addition to the above-listed elements, local agencies may address topics of local concern or interest in optional elements. Lakewood's general plan contains the following optional elements:

8. **Community Services Element** - establishes policies and programs for the provision and preservation of the City's recreation and community services programs;

9. **Air Quality** - establishes policies and programs to improve and protect air quality by creating a balance between subregional jobs and housing, reducing commute times and trips, and managing parking in a more efficient manner.

Internal Consistency:

Government Code Section 65300.5 requires, "...the general plan and elements and parts thereof (to be) integrated, and internally consistent and compatible...."

Each general plan element is required to be internally consistent and non-contradictory with any other general plan element. If a general plan is incomplete, or there are inconsistencies among the elements, efficient long-term planning is hampered.

State law also requires a city's general plan to be consistent with its adopted zoning ordinance. Conversely, zoning classifications, density ranges, permitted uses, and development standards must also coincide with information set forth in the general plan.

Regional Plans:

During the past decade, California's problems and their solutions have become regional in nature. Problems such as poor air quality, traffic congestion, and decreasing landfill capacity do not stop at municipal boundaries.

Federal, State, and regional mandates, which directly affect the City of Lakewood include:

The Congestion Management Program - California voters approved Proposition 111 on June 5, 1990. Prop. 111 authorized the imposition of a nine cent per gallon gas tax to fund statewide transportation improvements

Integrated Waste Management - The Integrated Waste Management Act (AB 939) of 1989 was passed by the legislature to address the state's increasing volume of generated solid waste, diminishing landfill capacity, and the potential adverse environmental impacts from land filling

Air Quality - To achieve both federal and state standards, regional agencies and the Southern California Association of Governments (SCAG) adopted a revised Air Quality Management Plan (AQMP). The AQMP contains 20-year emission goals and, among other things, requires cities and counties to adopt an air quality element in their general plans or provide other regulations.

At the local level, the Lakewood City Council adopted the City of Lakewood Water Resource Management Plan on March 13, 1990. The Plan set City's goals in regard to its water supply. Key elements in the Plan include policies and related activities for the preservation of local groundwater supplies.

General Plan Format:

The required contents of the general plan are specified in state law. However, Government Code Section 65301(a) provides that the general plan may be adopted in any format deemed appropriate by the legislative body.

Regardless of its format, a general plan must address all required topic areas to the extent they are locally relevant. Typically, the general plan's elements address issues, opportunities, goals, objectives, policies, and implementation programs. This information is contained in Volume II of the Lakewood General Plan. Pursuant to the State General Plan Guidelines (Government Code Section 65300, et seq.), applicable general plan terms include:

Needs - Needs are important unsettled community matters or problems that are identified in a community's general plan and dealt with by the plan's goals, objectives, policies, plan proposals, and implementation measures. There are local, regional, and state needs. An example of a local need is the maintenance and rehabilitation of existing single-family housing stock.

Opportunities - The potential benefit of opportunities should be identified early in the general plan revision process. Opportunities can have a major effect on the development and selection of the general plan's goals, objectives, policies, and proposals. A plausible example of an opportunity for the City of Lakewood is the light rail project currently under construction and adjacent to the City's municipal boundaries.

Goals - A goal is a direction setter. It is an ideal future end, condition, or state related to the public health, safety, or general welfare toward which planning and implementation measures are directed. A goal is a general expression of community values and, therefore, is abstract in nature.

Objective - An objective is a specific end, condition, or state that is an intermediate step toward attaining a goal. It may only pertain to one particular aspect of a goal or it may be one of several successive steps toward goal achievement. Consequently, there may be more than one objective for each goal.

Policy - A policy is a specific statement that guides decision making. It indicates a clear commitment of the local legislative body. A policy is based on a general plan's goals and objectives as well as the analysis of data. A policy is effectuated by implementation measures. Consequently, a realistic policy is one that is adopted by local legislators who are mindful of a general plan's implementation programs.

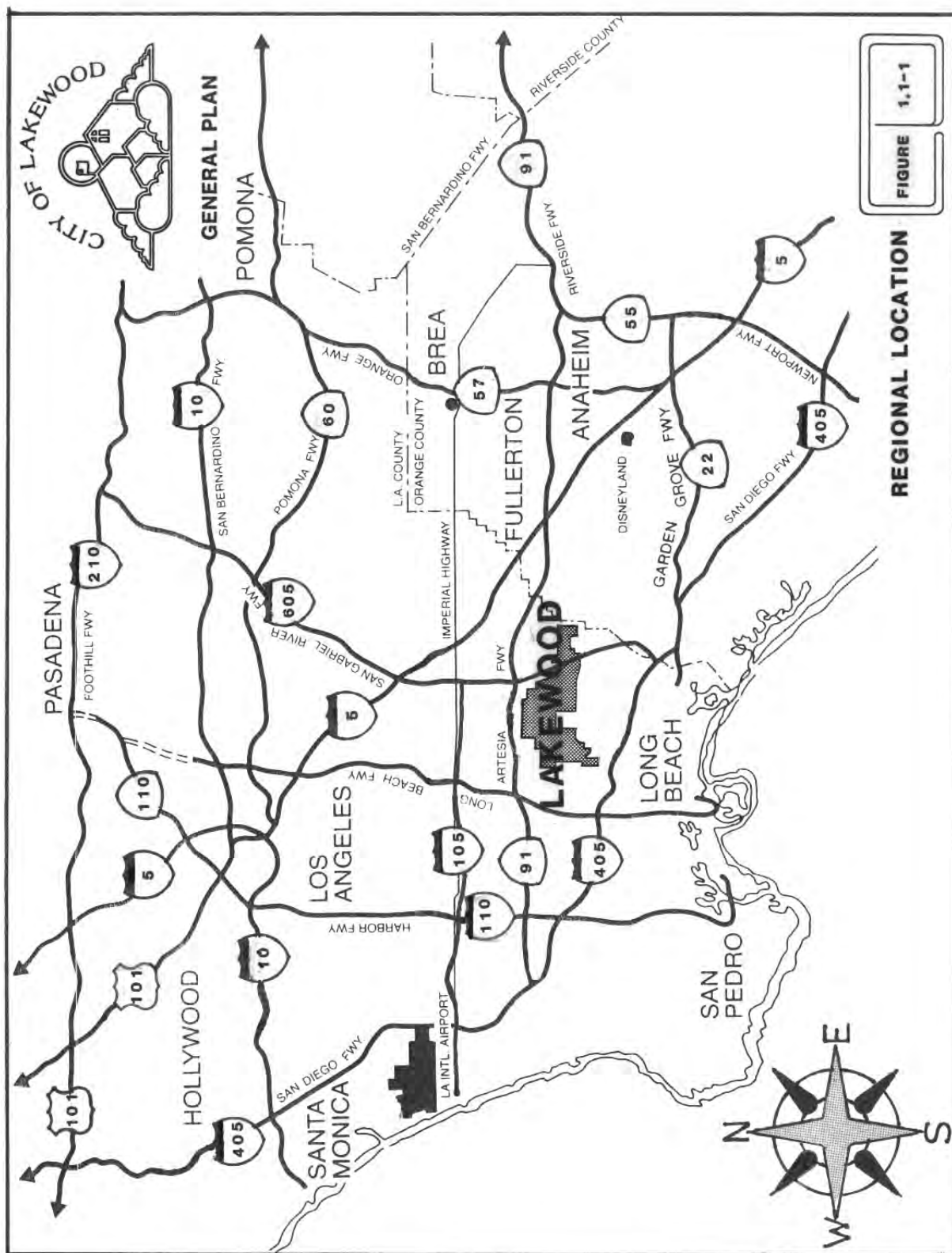
Implementation Measure - An implementation measure is an action, procedure, program, or technique that carries out a general plan policy.

1.3 Lakewood's Location and Regional Setting

The City of Lakewood is located in the greater Los Angeles metropolitan area, approximately 20 miles southeast of the Los Angeles civic center. Lakewood, a fully urbanized city, is contiguous to the jurisdictions of Bellflower and Cerritos on the north, Cypress on the east, Hawaiian Gardens and Long Beach on the south, and Long Beach on the west. Figures 1.1-1 and 1.1-2, respectively, illustrate Lakewood's regional location and street design.

The City of Lakewood's regional access is provided from several major and secondary arterials and Los Angeles' network of regional freeways. The north/south arterials, Cherry Avenue, Paramount Boulevard, Lakewood Boulevard, Bellflower Boulevard, and Pioneer Boulevard, eventually connect with interchanges on the Artesia (91) and San Diego (405) Freeways. East/west access to the San Gabriel River (605) Freeway is provided by South Street, Del Amo Boulevard, and Carson Street. Access to the Long Beach (710) Freeway is available directly from Del Amo Boulevard or from the intersection of Long Beach and Del Amo Boulevards.

The City of Lakewood's air travel needs are primarily served by three area airports: Los Angeles International Airport, Long Beach Airport, and John Wayne/Orange County Airport. Los Angeles International Airport provides air-carrier service to all points of the globe while the Long Beach and John Wayne/Orange County Airports provide less-extensive air-carrier, air-taxi, and air-charter services.



1.4 The City of Lakewood's Early Beginnings

The land encompassed by the City of Lakewood was inhabited by the Gabrielino Indians 200 years ago. In 1769, the first Spanish settlers arrived to the area by ship from the west coast of Mexico. The expedition eventually settled at the present site of the City of Los Angeles. They named the settlement Our Lady Queen of the Angels (*Nuestra Señora de la Reina de Los Angeles*). In 1781, as part of the Viceroy's efforts to colonize California, twelve families arrived to the Los Angeles area to settle permanently. As a result of this settlement, Felipe de Neve, the governor at the time, gave the community official status as the territory's second California pueblo.

When land routes from Mexico City through Sonora to California improved, the number of travelers coming into California increased. Those settling the land were given land grants under Spain's authority. This era marked the beginning of the California ranchos.

The area presently occupied by the City of Lakewood was part of the Rancho Los Cerritos Grant. The land was deeded by the King of Spain through the Viceroy in Mexico City to Manuel Nieto in 1794. In 1822, Mexico won its independence from Spain, and in 1835 Los Angeles became the Capital of California. In 1848, after the war between Mexico and the United States, California became part of the United States. During this time period, Juan Temple inherited and purchased the remainder of Los Cerritos Rancho from the heirs of Manuel Nieto.

In 1866, Juan Temple transferred the Los Cerritos land title to Benjamin Flint, Thomas Flint, and Llewellyn Bixby. In time, these individuals transferred title of portions of the Rancho Los Cerritos to various holding companies. In 1895, the entire Rancho came under the ownership of Bixby Investment Company who sold it to the Cerritos Sugar Company. In 1897, the Bixbys bought part of the Rancho back and sold 6,979 acres to William A. Clark in the same year. In 1904, a portion of the Los Cerritos Rancho was transferred to Clark's brother, who then registered it under the Montana Land Company.

In 1930, due to gradual purchases and divisions of land owned by the Montana Land Company, the area, which was to become the City of Lakewood, began to develop into a residential community. In 1932, Long Beach City College purchased 30 acres for a college site. Within three years, the college was operating. In 1933, the Montana Land Company constructed the Lakewood Country Club.

In 1934, Charles B. Hopper became the exclusive sales agent and subdivider for Montana Land Company. The first sales office was established on Carson Street where it intersects Lakewood Boulevard at the site of the present Long Beach Airport. Twenty-seven houses comprised Lakewood Village by January of 1936, and already a lively community life had begun. A Chamber of Commerce was organized in June 1937. In September 1937, the first Lakewood newspaper, the "Lakewood Village Citizen", began circulation. It was published jointly by the Chamber of Commerce, the P.T.A., and the Lakewood Village Church. The Lakewood Village area was later incorporated into the City of Long Beach.

In the early 1940's, after World War II began, the Los Angeles area received many large defense contracts. One of these recipients, Douglas Aircraft Company, built a 25 million dollar aircraft plant at the corner of Lakewood Boulevard and Carson Street. As a result, thousands of workers moved to the Lakewood area. Douglas Aircraft Company was then and continues to be the area's largest employer.

When World War II ended, Southern California's real estate and business boom was still running strong. Utilizing GI Bill of Rights loan provisions, developers began subdividing land and building homes in mass production. Building to specifications of both the Federal Housing Administration and the Veterans Administration, the builders offered long-term loans with low down payments. The availability of these affordable housing units attracted thousands of returning veterans and industry workers to the Los Angeles and Lakewood areas.

In 1939, the largest Lakewood-area developers, Louis H. Boyer, S. Mark Taper, and Ben Weingart, formed a small corporation. Through FHA guarantees, they secured loans to cover development costs and began building Lakewood-area housing tracts. Beginning in 1942, on 3,375 acres of farm land purchased from the Montana Land Company for \$8.8 million dollars, the majority of Lakewood (west of the San Gabriel River) was built. Here, with the assistance of urban planners and architects, they designed a community of 17,000 homes. This area encompasses the present day westerly portion of the City of Lakewood and some areas in the adjacent City of Long Beach (south of Carson Avenue). The majority of Lakewood's home building activity continued well into the 1950's. During the 1950's, Lakewood was one of the largest real estate projects built in southern California. By the late 1960's, most of Lakewood's current housing stock was built. Figure 1.1-3 shows Lakewood's housing tract boundaries and the approximate year the tracts were built.

The land encompassing the Lakewood area was historically used for sugar beet farming. However, with the real estate boom of the 1940's and 1950's, construction crews graded the land and paved streets as fast as the last crop could be harvested. In an assembly-line fashion new to the southern California area, small teams of workers moved down each side of Lakewood's streets with concrete mixing machinery. Power diggers were used for foundation trenches, pre-cut lumber arrived for each house, and conveyor belts were utilized to carry shingles to roofs. Lakewood homes were some of the first to be built with new automatic nailing machines and power door hanging machines. This mass construction of homes was followed by mass sales. Lakewood's homes sold well because of the development's attractive wide streets and concrete curbs, underground utilities, parks and recreation facilities, and other amenities.

The Lakewood Plan

On April 16, 1954, the City of Lakewood was incorporated. Immediately, numerous decisions were made by the newly-elected City Council. In particular, providing municipal services such as police, fire, sewer, water, and street maintenance was the primary task at hand. To accomplish these goals, Lakewood's decision-makers decided on an innovative technique called the "contract system for municipal services", which has since been entitled, "The Lakewood Plan."

By contracting with the County for many of its municipal services (e.g., building inspection responsibilities, street and sewer maintenance, and police protection), "The Lakewood Plan" saved--and continues to save--the City thousands of dollars in annual operating expenses. Other municipal services, such as fire and library services, are funded by special County assessment districts. By utilizing existing County service capabilities, staff, and equipment, the City obtains superior municipal services without the pitfalls and expense commonly associated with smaller City-owned and -operated services. Since its inception in 1954, "The Lakewood Plan" has served as a model for many cities throughout Los Angeles County and the State.

2.0 COMMUNITY DEVELOPMENT

2.1 Land Use and Zoning

2.1.1 Existing Land Use

Information pertaining to Lakewood's existing land uses was obtained from numerous sources. These sources include field investigations, business license records, aerial maps, Los Angeles County Assessor's records and maps, and U.S. Department of Commerce Bureau of Census data for 1990.

A Floor Area Ratio (F.A.R.) is also presented for the residential, commercial and manufacturing land use categories. Floor Area Ratio (F.A.R.) assesses on-site building intensity. As opposed to "lot coverage", a parcel's F.A.R. compares the relationship between the bulk and mass (total building square footage) of all on-site buildings and the total lot area. Floor Area Ratio (F.A.R.) is calculated by dividing the total floor area of all on-site structures by the total lot area. By determining a citywide average F.A.R. for each land use category, an intensity of development can be examined. In addition, F.A.R. information is helpful in determining the future development potential of vacant and under-utilized parcels.

The City of Lakewood encompasses 6,107.62 acres (9.5 square miles). Lakewood's land uses include: residential, commercial, industrial-manufacturing, warehousing, public/quasi-public uses (municipal services, parks, hospitals, schools and churches, rail road right-of-way, and a regional golf course) electrical transmission line easement right-of-ways, and streets. Table 2.1-I depicts citywide land uses by type and acreage for the years 1969 and 1992. Table 2.1-II depicts citywide land uses by zone with accompanying acreage for 1992. Figure 2.1-1, "Existing Land Use Patterns, 1992" displays Lakewood's physical land use patterns.

Lakewood's predominant land use is residential. Of the City's total land area (6108.32 acres, 9.5 square miles) in 1994, 51 percent (3114.82 acres) was occupied with residential land uses; 6.1 percent (375.57 acres) was devoted to commercial land uses; 1.5 percent (92.83 acres) was utilized for manufacturing/industrial land uses; 13.4 percent (818.42 acres) was occupied by public/quasi-public uses; 1.3 percent (79.11 acres) was used exclusively for power transmission lines (citywide, 158 acres were utilized for power transmission lines, but 79.39 acres of this land was also used for park and agricultural purposes); 1.4 percent (82.70 acres) was used for flood control right-of-way; and finally, 24.1 percent (1471.82 acres) was used for streets and freeways.

The City of Lakewood is essentially a built-out community with only .5 percent (32.33 acres) of its total area being vacant in 1994.

RESIDENTIAL

As Table 2.1-I indicates, a majority (51 percent) of the City's total land area is developed with residential land uses.

Table 2.1-III displays the composition of residential structures in the City by type. According to January 1990 Census data, there was a total of 26,795 residential units in Lakewood. This total dwelling figure includes 125 "other" dwelling units (boats, cars, SRO's, vans, etc.) not counted in previous Census years. As Table 2.1-III indicates, Lakewood gained 426 net units between 1980 and 1990. It should be noted this "total unit" gain is a "net" figure. During this time period, 40 single-family dwellings, one duplex, and 45 mobile homes (a total of 87 dwelling units) were demolished or removed from the City's housing inventory. Between 1980 and 1990, these 87 units were replaced and 426 units were added, for a total number of 513 newly-constructed units.

Due to changes in inventory methods by the Bureau of the Census, another 125 housing units in the "Other"¹ category were added to the City's housing inventory for 1990. Consequently, between 1980 and 1990, 551 "net" new housing units were added to the City's housing inventory.

¹ Total dwelling units counted in the 1990 Census included 125 "Other" types (cars, vans, boats) of dwelling units not previously counted in 1980. The 1990 Census counted a total of 26,795 housing units.

Table 2.1-I
Comparative Table: Existing Land Use 1969/1994

CITY OF LAKEWOOD EXISTING LAND USE	1969 ACRES	1969 % OF TOTAL AREA	LAND USE CHANGES (NET AC.)	1994 ACRES	1994% OF TOTAL AREA
AGRICULTURE	9.40	0.2%	+34.83(1)	44.23	0.7%
RESIDENTIAL	3082.00	50.7%	+32.82(2)	3114.82	51.0%
Single Family	2913.90	47.9%		2906.54	47.6%
Multiple Family	168.10	2.8%		200.38	3.3%
Mobile Home Park				7.90	0.1%
COMMERCIAL	329.40	5.4%	+46.17(3)	375.57	6.1%
General Commercial	63.90	1.1%	+109.06	172.96	2.8%
Lakewood Center Mall	265.50	4.4%		164.00	2.7%
Banks and Offices				38.61	0.6%
MANUFACTURING	98.40	1.6%	-5.57	92.83	1.5%
Manufacturing				78.96	1.3%
Warehousing				13.87	0.2%
PUBLIC/QUASI PUBLIC	663.90	10.9%	+154.52(4)	818.42	13.4%
Parks	85.50	1.4%	+118.95	204.45	3.3%
Regional Golf Course	171.30	2.8%		171.30	2.8%
Municipal Services	50.10	0.8%	-8.59	41.51	0.7%
Railroad Right-of-Way				44.64	0.7%
Hospitals				7.54	0.1%
Public Education Uses	309.10	5.1%	13.54	295.56	4.8%
Religious/Private Education	47.90	0.8%	+45	48.35	0.8%
ELECTRIC TRANSMISSION ROW	158.50	2.6%	-79.39(5)	79.11	1.3%
Used for Park Purposes			-35.16		
Used for Community Garden			-2.9		
Used for Commercial/Agricultural Uses		0.00%	-41.33		
FLOOD CONTROL ROW	33.80	0.6%	(6)	82.70	1.4%
STREETS & FREEWAYS	1465.00	24.1%	+6.82	1471.82	24.1%
New Street Area, Annex.#44			+6.82		
VACANT LAND	240.90	4.0%	-208.57	32.33	0.5%
TOTAL LAND AREA	6081.30	100.0%	+26.32	6108.32	100.0%

Source: 1969 Data: Land Use Inventory prepared for the 1990 General Plan, August, 1971.

1992 Data: Field Investigations conducted during 1991/92, building permit, and assessor files.

- (1) Agricultural uses in 1992 consisted of 44.23 acres: commercial nurseries (41.33 acres) and the Lakewood Community Gardens (2.9 acres). All of these agricultural uses are located within the SCE electric transmission right-of-way easement area.
- (2) Acreage for mobile home parks was not inventoried in 1969.
- (3) Acreage for the Lakewood Center Mall, banks and offices was not inventoried in 1969.
- (4) Acreage for railroad right-of-way and hospitals was not inventoried in 1969.
- (5) The actual acreage for electric transmission right-of-way has remained unchanged since 1969. However, 79.39 acres were used for agricultural and park purposes in 1969.
- (6) In 1969, flood control acreage inventoried did not include the San Gabriel River.

Table 2.1-II
Land Use by Zone and Acreage 1994
City of Lakewood

ZONE/ LAND USE DESIG.	Agic.	Single Family	Multi- Family	Mobile Homes	Neighbor- Hood Comm	Lakewood Center Mall	Banks/ Offices	Motels	Mfg.	Ware- Housing	Municipal Services	Hospitals	Public Schools (1)	Private Schools	Churches (2)	Parks	Golf Course	Streets/ Highways	Electric Transmis. ROW	F.C. Right Of-way	RailRoad Of-way	Vacant	Total
A																7.09						3.15	10.24
RA		24.5																					24.50
R1		2671.16									11.89		52.02	19.02	17.47						31.78	3.53	2806.87
R-1-7500		69.96											16.06										86.02
R-1-15000		37.78																				0.41	38.19
PDSF		58.59																					58.59
MFR		44.55	194.83								1.36				11.04							12.77	264.55
PD MF			3.45																				3.45
MHP				7.90																			7.90
C1					4.91		2.89				19.16	5.36			0.44							4.37	37.13
C3					61.80		5.61															3.40	70.81
C4			2.10		77.16	164.00	11.77	2.64			0.74	2.18			0.38							0.91	261.88
M1					19.19		8.74		13.35	3.18											2.30	0.00	46.76
M2					8.88		9.60		65.55	10.69											10.56	3.42	108.70
OS	44.23										8.36		227.48			197.36	171.30		79.11	82.70		0.37	810.91
Streets																		1471.82					1471.82
TOTAL	44.23	2906.54	200.38	7.90	171.94	164.00	38.61	2.64	78.90	13.87	41.51	7.54	295.56	19.02	29.33	204.45	171.30	1471.82	79.11	82.70	44.64	32.33	6108.32

(1) Data on public schools includes the rezoning of 14 school sites (ZC#87) encompassing 227.48 acres.

Source: City of Lakewood Community Development Department Field Investigations May-June, 1991 and January, 1995.

Refer to Table 2.1-1, Comparative Table Existing Land Use 1969/1994, for a summary of City-wide land use in acres.

Date: February 1995

SINGLE-FAMILY RESIDENTIAL LAND USE

During the 1940's and 1950's, builders constructed affordable single-family homes in Lakewood, which sold for nothing down and \$50 a month under the GI bill. It is reported that during this time, housing tracts were built as fast as the land could be harvested of its current crop. Between 1949 and 1951, it is estimated 17,000 homes were built in the Lakewood area.

Incorporated in 1954, Lakewood's founders established policies and regulations designed to protect and enhance the City's unique residential character. As a result, present day Lakewood residents continue to have convenient access to centrally-located schools, parks, shopping areas, and area freeways. Lakewood of the 1990's has maintained its long-held reputation as a "safe, clean, and well-planned" residential community.

According to 1990 Census data, there were 22,113 single-family residences in Lakewood. During 1992, construction began on the 184-unit Westgate single-family residential project. Overall, in 1992, there were 22,297 single-family dwelling units (including a built-out 184-unit Westgate project) on 2,906.54 acres. The average citywide density for single-family residential land uses in Lakewood in 1992 was seven dwelling units to the acre. Assuming each of these single-family dwelling units has 2.81 persons per household (according to the 1990 Census) approximately 62,654 persons (81.6 percent of the City's total population [73,557]) reside in single-family homes in Lakewood.

Single-Family Floor Area Ratio (F.A.R.) - In 1991, the City of Lakewood established a maximum .55:1.0 F.A.R. (Floor Area Ratio) standard for single-family residential land uses. ("Floor Area Ratio" is defined as the total floor area of the main building measured from the outer portion of the exterior walls used for living purposes divided by the lot area, with the exception that stairwells may be subtracted from said total floor area.)

Single-Family Lot Coverage - In 1991, the City of Lakewood established a maximum forty-five percent (45 percent) lot coverage standard for single-family land uses. ("Lot Coverage" is defined as the lot area covered by the first floor areas of the main building, and all accessory structures, excluding patios and porches under cover which are totally unobstructed on all sides except where enclosed by the walls of the main building.)

MULTIPLE-FAMILY RESIDENTIAL LAND USE

As Table 2.1-III indicates, during the past decade, the majority of new multiple-family units (311 units) were built in complexes containing five units or more. It should be noted that housing units in the "three or four unit" category had the highest rate of increase, 48.8 percent (103 units.)

Table 2.1-III

City of Lakewood
Dwelling Units Count: 1980-1990

Dwelling Unit Type	1980 Total Units and %	1990 Total Units # and %	1980-1990 # and % Chg Total Units (a)
Single-Family (Detached)	22,153 (84.5%)	22,113 (82.9%)	-40 (-.16%)
Single-Family (Attached)	499 (1.9%)	598 (2.2%)	+99 (+19.8%)
Duplex	99 (.4%)	97 (.4%)	-2 (-2%)
Multi-Family (3 - 4 units)	211 (.8%)	314 (1.2%)	+103 (+48.8%)
Multi-Family (5 or more units)	3,138 (12%)	3,449 (12.9%)	+311 (+9.9%)
Mobile Homes/ Trailers	144 (.5%)	99 (.4%)	-45 (-31.3%)
Subtotal	26,244	26,670	+426 (+1.6%)
Other (b)	---	125	+125
TOTAL (c)	26,244	26,795	+551 (+2.1%)

- (a) Data indicated is for total dwelling units.
- (b) Total dwelling units counted in the 1990 Census included 125 "Other" types (cars, vans, boats) of dwelling units not previously counted in 1980. The 1990 Census counted a total of 26,795 housing units. However, in order to facilitate an accurate comparison between 1980 and 1990, "Other" housing units are shown separately on this table.
- (c) The figure indicated for "Total Units" represents a net unit figure. Between 1980 and 1990, 40 single-family dwellings, one duplex, and 45 mobile homes were demolished or removed from the City's housing inventory. Between 1980 and 1990, these 87 units were replaced, in addition to the added construction of 426 net units, for a total number of 513 newly constructed units. Due to changes in inventory methods by the Bureau of the Census, another 125 housing units in the "Other" category were added to the City's housing stock for a total increase from 1980-1990 for 551 housing units.

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports.

Included in Lakewood's multiple-family housing stock are 280 senior units. In 1992, the City had two senior housing projects: Candlewood Park Apartments, 4051 Candlewood Street (80 units), and Heritage Park Apartments, 3200 South Street (200 units.)

According to 1990 Census data, there were 3,860 multiple-family dwelling units situated on 200.38 acres in the City of Lakewood. Based on Census data, the average density for Lakewood's multiple family units is 22 dwelling units to the acre. Using the 2.81 persons per household figure (1990 Census), approximately 10,846 persons (14.7 percent of the City's population) lived in multiple-family residences in Lakewood during 1990.

Section 2.1.2, entitled "M-F-R Study of Underutilized Parcels, Eastern Lakewood, June 1992", inventories and analyzes the City's remaining multiple-family residential build-out potential.

MOBILE HOME LAND USE

The third type of residential land use in Lakewood is the mobile home park. There are two mobile home parks in the City: Los Amigos Mobile Estates, 20806 Gridley Road (7.42 acres), and Spring Trailer Park, 11433 Carson Street (.48 acres). According to the 1990 Census, these two mobile home parks contain a total of 99 mobile home units.

The City's mobile home parks are situated in the mobile home park (MHP) zone. Mobile home parks are an integral part of the City's residential composition as they typically provide an important source of affordable housing for elderly, disabled, and low-income persons.

Since 1980, 45 mobile homes have been removed from the City's housing stock inventory.

According to the 1990 Census, there were a total of 99 mobile homes in the City of Lakewood. Based on 2.81 persons per household, it is estimated 278 persons (.4 percent of the total population) live in mobile homes in the City of Lakewood. It should be noted that in 1989 the City's count for mobile homes, located in mobile home parks, was 106.

OTHER RESIDENTIAL LAND USES

The 1990 Census counted 125 "Other" (boats, cars, SRO's, vans) dwelling units not previously counted in other Census years. Accordingly, these dwelling units were included as occupied housing units in 1990.

VACANCY CHARACTERISTICS

In 1980, of the City's 26,250 total housing units, 397 units were vacant, resulting in a 1.5 percent vacancy rate. In 1990, of the City's 26,795 total housing units, 693 units were vacant, resulting in 2.6 percent vacancy rate. In 1994, of the City's 27,136 total housing units, 757 units were vacant, resulting in 2.8 percent vacancy rate.

COMMERCIAL AND OFFICE USES

Commercial and office land uses comprise 375.57 acres or 6.1 percent of the City's total land area. Since 1969, the overall area devoted to commercial and office land use has increased by 46.17 acres. General commercial land uses in Lakewood are found in the following categories (also refer to Table 2.1-II, "Land Use by Zone and Acreage"):

- **General Retail** - appliance sale/repair, florist, pharmacy, theaters, bakeries, etc.
- **Personal Services** - ambulance service, dry cleaning, photography, self-serve laundry, shoe repair, etc.
- **Vehicle-Related Uses** - auto sales, car wash, gasoline sales, tire stores, etc.
- **Restaurant and Bar Uses** - bars, fast food and dining restaurants, take out and delivery
- **Regional Mall and vicinity** - the Lakewood Center Mall and Candlewood Shops, all of which contain a combination of all the existing citywide general commercial land uses
- **Motel and Hotel Uses**
- **Banks and Offices**

Commercial Floor Area Ratio (F.A.R.) - During 1992, a range of existing Floor Area Ratios (F.A.R.) were inventoried for Lakewood's commercial sites. Floor Area Ratio (F.A.R.) assesses on-site building intensity. Floor Area Ratio (F.A.R.) is calculated by dividing the total area of all on-site structures by the total lot area.

During 1994, the square footage of all commercial buildings in Lakewood was 11,484,362 square feet and the land area occupied by commercial land uses was 379.71 acres (16,540,603 square feet). During 1994, the citywide commercial F.A.R. for commercial land uses was .7:1.0. City zoning regulations pertaining to commercial building heights include a limitation of six stories in height.

Lakewood's street system is designed on a grid pattern consisting of collector streets that serve residential land uses, while commercial land uses are situated along major arterials and at commercial nodes (major intersections.) Many of these "commercial node" land uses are small retail shops, personal services (hair and nail salons), and office uses. Lakewood's major arterial corridors are Del Amo Boulevard, South Street, Woodruff Avenue, Bellflower Boulevard, Lakewood Boulevard, Candlewood Street, Paramount Boulevard, Norwalk Boulevard, Pioneer Boulevard, Carson Street and Centralia Street.

The City's regional shopping center, the Lakewood Center Mall, is a dominant commercial land use and community landmark. The Lakewood Mall and Candlewood Shops occupy 164 acres of the 372.18 acres currently developed for general retail land use. Future expansion of the Mall (within its existing boundaries), is expected to occur within the near future.

Financial institutions (banks) and professional office uses constitute .6 percent (38.61 acres) of the City's total land area. The City's predominant financial center is located adjacent to the Lakewood Center Mall along Lakewood Boulevard. Numerous bank and office uses are also situated throughout the City in existing commercial centers and along major street arterials.

In essence, the City of Lakewood's commercial areas are practically built out. Land use surveys conducted during August of 1992 and in January of 1995 indicate there were 7.04 acres (see Figure 2.1-3, "Vacant Land", 1994) of vacant commercially-zoned land in the City. The majority of this acreage is situated in the western portion of the City. Of this acreage, 4.68 acres is owned by the City.

Lakewood's Top Commercial Sales Tax Producers

Table 2.1-IV, "Commercial Land Use Inventory, 1995" displays a listing of the commercial land uses in the City, along with corresponding Standard Industrial Classification Codes (S.I.C.). The data was obtained from City business license records during February, 1995. As indicated in Table 2.1-IV, the majority of the City's commercial land uses, general retail, are situated in the C-3 and C-4 zones. The C-4 zone is the City's largest commercially-zoned area, consisting of 263.98 acres (164 acres are utilized by the Lakewood Center Mall and Candlewood Shops). From a fiscal perspective, the C-3 and C-4 zones contain the commercial land uses that comprise the City's "top sales producers":

Lakewood's Top 1993 Sales Producers

1. Department Store
2. Department Store
3. Department Store
4. Appliance Store
5. Department Store
6. Auto Dealership
7. Grocery Store
8. Department Store
9. Auto Dealership
10. Drug Store

Source: City of Lakewood, Two-Year Budget, 1994-1996.

Fiscally, the City of Lakewood relies heavily on sales tax revenues to pay for the cost of municipal services. According to the City's 1994-1996 Two-Year Budget, an estimated 20 percent of the City's 1993-1994 revenue was obtained from sales tax. Much of this revenue source is derived from Lakewood's top ten sales producing commercial land uses.

It is generally agreed that "softer" commercial land uses, such as personal services and office uses, are not big sales tax contributors, but they indirectly contribute to a healthy economic climate in the City. When situated in close proximity to the "commercial sales tax producers" (such as grocery stores, department stores, and restaurants), "softer" commercial land uses add to the desirability of a City's commercial centers. Once attracted to a center for convenience reasons, (e.g., dry cleaning services) or for personal services (e.g., hair salons or key making), shoppers often are encouraged to do shopping at the same location. Thus, additional sales tax is generated.

From a fiscal and land use perspective, it is advantageous for the City to preserve and enhance its vital commercial land uses (listed above). The key, however, is the continued maintenance of an efficient land use mix between the "soft" and "high retail sales tax producing" commercial land uses.

INDUSTRIAL AND MANUFACTURING LAND USES

As of February, 1995, 92.83 acres (1.5 percent) of the City of Lakewood was developed with industrial land uses. Of this amount, 78.96 acres are utilized by industrial land uses, while 13.87 acres are utilized by warehousing uses (uses which are primarily warehouses with little or no manufacturing performed on site). Since 1969, citywide industrial/manufacturing land uses have decreased by 5.57 acres. The City's industrial/manufacturing land uses are primarily situated in the southwestern portion of Lakewood, south of Carson Street.

Industrial/Manufacturing Floor Area Ratio (F.A.R.) - As previously explained, Floor Area Ratio (F.A.R.) assesses the relationship between the bulk and mass of on-site buildings and the total area of a site.

Based on an 1992 inventory, the F.A.R. for industrial properties was .2:1.0. It should be noted that many of the City's industrial sites are under utilized, as far as their development potential. It is estimated that full development of the City's industrial properties, in accordance with current zoning standards, would result in an industrial F.A.R. of .5:1.0 to .7:1.0.

Table 2.1-IV
Commercial Business Inventory, March, 1995
City of Lakewood

ZONE		C-1	C-3	C-4	M-1	M-2	O-S	Total
GENERAL RETAIL	S.I.C.							
1. Appliance Sales/Repair	5722		2	3				5
2. Bakery	5461		3	1				4
3. Bookstore	5942		1	5				6
4. Clothing Store	5600		5	44				49
5. Craft/Hobby	5945	1	6	2				9
6. Convenience Store	5330	2	5	2				9
7. Department Store	5310			4				4
8. Florist	5992		3	2	1			6
9. General Retail	5390	5	39	73	2	1		120
10. Grocery	5410		11	9				20
11. Jewelry	5944		3	14				17
12. Home Improvement/Paint	5200							0
13. Liquor Store	5921	1	14	3				18
14. Pharmacy	5910		3					3
15. Pet Store/Grooming	5999	1	8	5				14
16. Photo Developing/Trophies	5946		1	4				5
17. Recreation	7990		1	5	2	2		10
18. Shoe Store	5660		1	17				18
19. Sporting Goods	5941	1		6				7
20. Theaters	7830		1	3	1			5
21. Thrift Store	5930			3		1		4
22. Video Store	7840	2	6	7				15
Subtotal								348
PERSONAL SERVICES								
23. Ambulance Service	4119		2					2
24. Martial Arts/Dance Studio	7910	1	3	2				6
25. Dry Cleaning/Tailor	7210	2	13	9	1			25
26. Fitness Club	7991			1				1
27. Personal Care Salon	7290	4	35	25				64
28. Photography	7220	1		2				3
29. Rental Shops	7350		3			1		4
30. Schools/Tutors	8240		3	5				8
31. Self-Serve Laundromat	7215		3	1				4
32. Shoe Repair	7250		1	1				2
33. Weight Loss Center	8040		3	1				4
Subtotal								123
VEHICLE RELATED USES								
34. Auto Sales New/Used	5510			1		2		3
35. Car Wash	7542		4					4
36. Gasoline Sales	5540	1	12	9				22
37. Gasoline Sales w/ Other Services	5540							0
38. Gasoline Sales w/ Repair Services	5540			1				1
39. Repair Services	7530		1	1	1			3
40. Tire Store	7540		1	2				3
Subtotal								36
RESTAURANT AND BARS								
41. Bar	5813		10	2				12
42. Fast Food	5812	2	33	31	4			70
43. Restaurant/Dining	5812	2	29	25	1			57
44. Take Out and Delivery Only	5499		3	2				5
Subtotal								144
HOTELS AND MOTELS								
45. Motel	7011			4				4
Subtotal								4
BANKS AND OFFICE USES								
46. Bank/Lending Institution	6000	1	2	12				15
47. Employment Services	7361		5	2	1			8
48. General Offices	9999	23	37	23	4	8		95
49. Medical/Dental	8000	4	31	14	1			50
50. Real Estate	6500		7	6				13
Subtotal								181
TOTAL		54	354	394	19	15		836

Source: City Business License Inventory, Community Development Department, March, 1995.

Although industrial land uses in Lakewood have increased over the past two decades, industrial/manufacturing zoning has decreased. It is apparent from this situation that all displaced industrial development has readily been replaced during the past two decades to the point where there is less than one acre of developable, industrially-zoned land remaining in the City.

Existing industrial/manufacturing land uses in Lakewood include oil tank storage, heavy equipment storage, aircraft parts and vehicle storage for McDonnell Douglas, a metal plating company (Huck International) and equipment storage for the General Telephone Company. The City's manufacturing/industrial land uses are listed by zone and acreage in Table 2.1-II, "Land Use by Zone and Acreage 1994". The following Table 2.1-V is an inventory of these uses by type and zone. This data was obtained from business license records during 1995.

Table 2.1-V

**Manufacturing/Industrial Land Use Inventory, 1995
City of Lakewood**

Manufacturing/Industrial Land Uses by Zone	C-1	C-3	C-4	M-1	M-2	Totals
Manufacturing				1	7	8
Recycling Centers					1	1
Commercial Storage Facilities				1	2	3
Petroleum Tank Facilities					1	1
Warehouses					10	10
Totals				2	21	23

Source: City of Lakewood Business License records, February, 1995.

For the past two decades, new manufacturing/industrial development in Lakewood has been primarily of an office-park character as opposed to a heavy industrial nature. (In Table 2.1-II, "Land Use by Zone", these uses are categorized under office land uses.) Moreover, the City has experienced the development of many vacant industrial parcels along Industry Avenue and a transition away from industrial to residential land use in the South Street/Downey Avenue area.

PUBLIC AND QUASI-PUBLIC LAND USE

Of the City's total land area, 13.4 percent (818.42 acres) is devoted to public and quasi-public land use (See Table 2.1-I, Existing Land Use 1969/1994 and accompanying footnotes.) Since 1969, the acreage of this land use has increased by 154.52 acres. Public and quasi-public land uses include:

- **Parks** - Acreage: 204.45; Uses: city parks, the Lakewood Equestrian Center, tot lots, and pedestrian walkways (See Table 2.1-VI)

- **Water Wells and Facilities** - Acres: 26.46; Uses: main administrative and operations facility (Arbor Road) and water wells
- **Post Office** - Acres: 1.79
- **City Hall Complex** - Acres: 8.37; Uses: City Hall and annex building, Sycamore Plaza, and Library
- **Sheriffs Station** - Acres: 3.0;
- **Burns Community Center** - Acres: 1.79
- **Weingart Senior Center** - Acres: 1.36
- **Fire Stations** - Acres: .74
- **Regional Golf Course** - Acres: 171.30
- **Railroad and Utilities** - Acres: 44.64
- **Hospitals** - Acres: 5.44
- **Public Educational Uses** - Acres: 295.56; Uses: 20 public schools are situated in the City. (See Table 2.1-VII)
- **Religious/Private Education** - Acres: 48.35; Uses: churches and church-operated schools
- **Electric Transmission Right-of-Ways** - Acres: 79.11 (158.5 acres are actually utilized for this use. However, since 1969, 79.39 acres of land [under the power wires] have been utilized for agricultural, park, and community garden)
- **Flood Control Right-of-Ways** - Acres: 82.70; Uses: flood control right-of-ways (not easements)
- **Streets and Freeways** - Acres: 1471.82 acres

The majority of the public and quasi-public land in Lakewood is owned by the City with remaining public/quasi-public parcels owned by the City of Los Angeles Department of Water and Power, Southern California Edison, Southern California Water Company, the County of Los Angeles and various churches. City-owned land is held by three agencies: the City of Lakewood, the City of Lakewood Redevelopment Agency, and the City of Lakewood Water Utility Fund (water wells and facilities). Tables 2.1-VIII and 2.1-IX contain an inventory of all City-owned parcels and their acreage (the parcels are depicted by their corresponding number on Figure 2.1-2).

Table 2.1-VI

City of Lakewood Parks, 1992
City of Lakewood

<u>Park</u>	<u>Acreage</u>
Biscailuz Park	3.94
Bloomfield Park	13.53
Bolivar Park	9.9
Candleverde Park (a)	2.18
Cherry Cove Park	2.96
Del Valle Park	14.9
Lakewood Equestrian Center (b)	14.9
Mae Boyar Park	11.78
Mayfair Park	16.26
Monte Verde Park	4.75
Palms Park	15.97
Rynerson Park (c)	53.03
San Martin Park	9.96
Tot lot-Candlewood/Downey(Vacant)	1.45
Tot lot-Candlewood/Deeboyar(Vacant)	.18
Pedestrian Walkway (Between Pixie and Maybank, APN 7152-009-900)	.22
Parkway Panels (Landscaped medians with walkway areas. This area was added in 1973 as part of the Open Space Plan.)	<u>28.54</u>

Total Park Acreage **204.45 acres**

Source: "City-owned Land File", City of Lakewood Finance Department, August 1992.

- (a) Candleverde Park is a 2.18-acre park. 2.01 acres are leased from Southern California Edison and the City of Lakewood owns a .17-acre portion. All of the Candleverde Park (except for the City-owned portion) is located under the high-power lines at the southwest corner of Palo Verde and Candlewood.

- (b) The ownership pattern for the City of Lakewood Equestrian Center is as follows:
- | | |
|---|-------------|
| -area leased from Southern California Edison for stable
and pasture use: | 50.34 acres |
| -City-owned portion of the Equestrian Center | 9.56 acres |

Total area of the Lakewood Equestrian Center **14.9 acres**

- (c) Rynerson Park consists of several parcels under different ownerships:
- | | |
|--|-------------|
| -area leased from Southern California Edison
for park purposes: | 30.96 acres |
| -City-owned portion of Rynerson Park | 22.07 acres |

Total Rynerson Park Area **53.03 acres**

Table 2.1-VII**City of Lakewood Public Schools, 1994
City of Lakewood**

<u>SCHOOL</u>	<u>ADDRESS</u>	<u>ACRES</u>
Betsy Ross School (Child care Center)	5511 Whitewood Ave.	8.05
Aloha Elementary School	11737 E. 214th St.	9.85
Cleveland Elementary School	4760 Hackett Ave.	10.78
Stephen Foster Elementary School	5332 Bigelow St.	9.95
Samuel Gompers Elementary School	5206 Briercrest Ave.	10.23
Esther Lindstrom Elementary School	5900 Canehill Ave.	10.73
Oliver Wendell Holmes Elementary	5020 Barlin Ave.	10.42
James Whitcomb Riley Elementary	3319 Sandwood St.	11.11
Douglas MacArthur Elementary School	6011 Centralia St.	9.45
James Monroe Elementary School	4400 Ladoga Ave.	10.14
James Madison Elementary School	2801 Bomberly St.	10.16
Palms Elementary School	12445 207th St.	6.68
Ella Melbourne Elementary School	21314 Claretta Ave.	14.95
Craig Williams Elementary School	6144 Clark Ave	10.95
Willow Elementary School	11733 E. 205th St.	10.55
Hoover Jr. High	3501 E. Country Club Drive	16.03
Lakewood Senior High School	4400 Briercrest Ave.	32.34
Mayfair High School	6000 Woodruff Ave.	42.20
Artesia High School	12108 Del Amo Blvd.	41.07
Michelson Elementary School/Continuation High School	3717 Michelson Street	<u>9.92</u>

Total 1994 Acreage Utilized by Public School Uses**295.56**

Source: City of Lakewood, Community Development Department, 1994.

Table 2.1-VIII

City- and RDA-Owned Land, 1992
City of Lakewood

NUMBER	DESCRIPTION	ACRES
1.	Centralia Pedestrian Walk	.22
2.	Cherry Cove Park	2.96
3.	Candlewood Tot Lot (Deeboyar) (Vacant)	.18
4.	Biscailuz Park	3.94
5.	Tot Lot (Downey Ave.) (Vacant)	1.45
6.	Weingart Senior Center	1.36
7.	Civic Center Complex	
	a) Post Office	1.79
	b) Sheriff's Department	3.0
	c) City Hall complex (incl. Annex, Centre at Sycamore Plaza and Library)	8.37
8.	NE corner of Del Amo/Clark (vacant) (RDA)	4.01
9.	Mayfair Park and Burns Center	16.26
10.	San Martin Park	9.96
11.	Strip near Lindstrom School	.10
12.	City-owned high-power line ROW leased to LADPEW (S Of South St., N Of Del Amo)	9.97
13.	Candleverde Park	.06
14.	Shoe strip adjacent to San Gabriel River (N of Del Amo, S of Candlewood)	5.79
15.	Mae Boyer Park and Geo. Nye Library	11.78
16.	Nixon maintenance yard/Monte Verde Park	4.75
17.	(S of Del Amo, N of Centralia) west San Gabriel River property (APN 7060-001-903, 906, 907, 908, 909)	12.15
18.	Land strip, SW side of Studebaker (APN 7068-001-905)	.61
19.	(S of Centralia) East San Gabriel River property (AN 7060-002-905, 906, 907) (portions leased to SCE and L.A County Flood Control)	9.31
20.	Palms Park (incl. Weingart Library)	15.97
21.	Wilder Avenue property	.08
22.	Melbourne Park property (RDA)	2.25
23.	Bloomfield Park	13.53
24.	Interstate excess land	1.71
25.	Lakewood Equestrian Center (the total facility is 14.84 acres 5.34 of which is leased from SCE)	9.56
26.	Westerly side of San Gabriel River (S of Shadeway to Carson) (leased to SCE)	9.60
27.	Transmission ROW area (AN 7061-013-900) (Arbor Road)	.23
28.	Del Valle Park (incl. Youth center)	14.9
29.	5215 Lakewood Blvd	.74
30.	Bolivar Park	9.9
31.	3650 Cherry Ave (leased to Pacific Ford)	.95

Total acres: _____

187.44

Source: City of Lakewood, Department of Finance, "City- and RDA-owned Land Files", August 1992.

Table 2.1-IX**Water Utility Fund Lands, 1992
City of Lakewood**

WELL SITE	LOCATION	ACRES
A. Well #2	110' west of Clark & 30' south of the northerly city limits	(leased land)
B. Well #3	600' west of Clark and 30'south of northern city limits	(leased land)
C. Well #4	5812 Arbor (Lakewood Water Yard)	8.52
D. Well #6	21420 pioneer (Bloomfield Park)	(acreage incl. in Bloomfield Park)
E. Well #8	67' west of Woodruff & 54' south of Centralia	.18
F. Well #10	200' west of Woodruff & 400' south of Arbor	.11
G. Well #11 & 11A	5732 Sunfield	.24
H. Well #12	5301 Clark	(leased land)
I. Well #13	NE corner of Del Amo and Palo Verde	1.3
J. Well #14	4325 Woodruff	.12
K. Well #15	4852 N. Ocana	.11
L. Well #16	6451 Turnergrove	.22
M. Well #17	5438 N. Ocana	.14
N. Well #18	N of Ashworth & West of Bellflower	(leased land)
O. Well #22	SW corner of Downey and Candlewood	13.03
P. Well #23	NE corner of Candlewood & Fidler	.16
Q.	Future well site 6701 Denmead	.33
Total acres:		24.46

Source: City of Lakewood Water Resources Department, August 1992.

Vacant Land

Figure 2.1-3, "Vacant Land, 1994", depicts vacant parcels in the City of Lakewood. The vacant land data for 1994 was obtained from field surveys conducted in August of 1992 and in December of 1994. In addition, Table 2.1-X, "Vacant Land, 1994", also displays this vacant land data. Since 1969, the number of vacant acres in the City has decreased by 208.57 acres. In 1994, there were 32.33 acres of vacant land and the City was 99.5 percent built out at that time.

Agricultural Land

Since 1969, the acreage of agricultural uses in Lakewood increased by 34.83 net acres. As of 1994, a total of 44.23 acres were utilized for agricultural land uses, all of which are located within Southern California Edison's transmission right-of-way areas (under the high power lines). These agricultural uses consist of commercial plant nurseries (41.33 acres) and the Lakewood Community Gardens (2.9 acres).

Table 2.1-X**Vacant Land, 1994
City of Lakewood**

<u>NUMBER</u>	<u>ACRES</u>	<u>ZONING</u>	<u>LOCATION</u>
1)	1.78	C-3	Southeast corner of Candlewood & Paramount (2700 Candlewood Street)
2)	7.67	M-F-R	South St. 1 block west of Downey Ave. (Ex-Sully Miller Site and abandoned restaurant occupied the site - 3118 South Street)
3)	1.62	C-3	Southwest corner of South St. & Bellflower Blvd. (5450 South Street)
4)	.23	R-1	Pedestrian parkway at Pixie (City-owned)
5)	3.42	M-2	Industry Ave site (future McDonn.-Doug. parking lot - 3624 Industry)
6)	.43	C-1	Northeast corner of Levelside & Carson (3205 Carson)
7)	.41	R-1	15,000 sq. ft. Manor Drive lot (4415 Parkview Drive)
8)	.74	C-4	Lakewood Blvd. Lot (City-owned - 5201-15 Lakewood Blvd.)
9)	3.94	C-1	Northeast corner of Clark & Del Amo (RDA-owned - 4900 Clark Avenue)
10)	.17	C-4	Harvey Way Lot (5820 Harvey Way)
11)	.06	R-1	Southwest corner of Centralia Street & Studebaker
12)	3.24	R-1	Southeast corner of Centralia & 605
13)	.37	O-S	North of 216th St. adjacent to 605 Fwy (11609 216th)
14)	.20	M-F-R	215th Street Site (11530 215th)
15)	.46	M-F-R	216th Street Site (11409-15 216th)
16)	1.00	M-F-R	216th Street Site (11742 216th)
17)	.24	M-F-R	206th Street Site (So. Cal. Water Comp. owned - 11603 206th)
18)	.24	M-F-R	206th Street Site (11644 206th)
19)	.11	M-F-R	206th Street Site (11747 206th)
20)	.11	M-F-R	206th Street Site (20529 Pioneer)
21)	.68	M-F-R	Northwest corner of 208th & Pioneer (20717 Pioneer)
22)	1.71	M-F-R	Bloomfield Site (RDA-owned - 21319 Bloomfield)
23)	3.15	A	Southeast corner of Del Amo & 605 Fwy (Located under high power lines and currently occupied with vacant horse stalls. The adjacent C-4 zoned parcel is an under-utilized 4.25-acre site occupied with one home.)
24)	<u>.35</u>	<u>M-F-R</u>	<u>Elaine Ave. site (20723 Elaine)</u>
32.33 Total Vacant Acres in 1994			

- (a) For ID Location Number of the vacant parcel, refer to Figure 2.1-3, Vacant Land Data Map, 1994, City of Lakewood, Background Technical Document of the General Plan.

Source: Department of Community Development and Finance files, 1994.

Date: December, 1994

SUMMARY: CITY OF LAKEWOOD LAND USE - POPULATION AND BUILDING INTENSITY ANALYSIS

Table 2.1-XI displays Lakewood's existing and projected building and population summaries. The City's build-out potential for existing vacant and under utilized single-family-zoned land is 211 additional single-family homes. This build-out potential includes the 184-unit Westgate residential project. Consequently, 211 new homes added to the City's existing inventory of 22,113 single-family homes would result in a total count of 22,324 single-family dwelling units. The estimated population increase from the remaining developable units in the City is 592 persons. Full development of vacant and underutilized multiple-family-zoned lands could yield 1,122 net dwelling units. The resulting population increase from this development (based on 2.81 persons per household) is estimated to be 3,152 persons.

The total number of potential (net) dwelling units (single-family and multiple-family) citywide is 1,333 units. The estimated total population increase from these potential units is 3,744 persons. If all of the residentially-zoned lands in Lakewood were fully developed, there would be 77,301 total persons. As table 2.1-XI indicates, the average intensity (F.A.R.) for existing commercial land uses in Lakewood is estimated at .7:1.0. In 1994, 375.57 acres were utilized for commercial use. Based on a .7:1.0 commercial FAR, the existing 8.68 acres of vacant, commercially-zoned land in 1994 could yield 378,101 square feet of additional commercial space at build out.

During 1992, the F.A.R. for existing industrial land uses in Lakewood was .2:1.0. In 1994, 92.83 acres of industrially-zoned land existed in Lakewood. Development of the existing 3.42 acres of vacant, industrially-zoned land in the City at a .2:1.0 F.A.R.² could result in 29,795 additional square feet of industrial building space. Based on the information contained in Table 2.1-XI, there is approximately 12,440,338 square feet of commercial and industrial land uses in the City. This figure includes a proposed 60,000 square foot grocery and a 102,200 square foot home improvement center, both to be built at the Lakewood Center Mall. As of January 1, 1994, the City's population was estimated at 75,286. This results in approximately 165 square feet of commercial and industrial land uses per capita. According to the United States Department of Energy, the national average is roughly 202 square feet per capita.

One explanation why the City's commercial/industrial square foot per capita ratio is lower than the national average is that residential land uses account for 51% of total land area in the City. Non-commercial and non-industrial land uses include street, schools and other public uses. Another reason is that existing commercial sites have not been developed to their full potential. The demand for commercial real estate is the most influential factor responsible for maximizing the intensity of commercial sites.

In conclusion, Lakewood is 99.5 percent built out and only 32.33 acres of vacant land existed in 1994. As a result, substantial increases in building and population intensities is not expected to occur in Lakewood's future. The City, however, should investigate methods by which it can optimize the commercial/industrial square foot per capita ratio. The data presented in Table 2.1-XI is a helpful policy tool in analyzing the land use implications resulting from the City's five percent remaining development potential for vacant and underutilized land.

¹ Lakewood's industrially-developed parcels are not fully utilized at .2:1.0 F.A.R, and it is expected that industrial properties fully developed in accordance with existing zoning standards would result in a .5:1.0 to .7.10 F.A.R.

Table 2.1-XI
Building and Population Intensity Summaries/
Land Use Implications
City of Lakewood
December, 1994

LAND USE CATEGORY AND MAXIMUM PERMITTED DENSITY OR INTENSITY	BUILDING INTENSITY	1994 CITYWIDE EXISTING BUILDING AND POPULATION INTENSITY		1994 CITYWIDE NET POTENTIAL BUILDING AND POPULATION INTENSITY			
	Average Density or Intensity (1)	Existing Developed Acres	Existing Dwelling Units or Square Feet of Buildings(2)	Existing Vacant Acreage(4)	Potential Net Dwelling Units or Net Square Feet of Buildings	Net Population Increase from Potential Dwelling Units (6)	TOTALS Population and Dwelling units (Existing and Potential)
Low Density Residential (0-8.7 du/ac)	7 du/ac	2905.54 acres	22,113	3.94 acres	211 units (incl. Westgate 184- unit project)	592 persons	592 persons 3,152 persons <u>73,557 persons (7)</u> 77,301 total persons 26,670 existing units(8) <u>1,333 potential units</u> 28,003 total units
Medium/High Density Residential (8.8-27 du/ac)	22 du/ac	200.38 acres	4,458	7.7 acres	1,122 units (includes units from underutilized parcels)	3,152 persons	
Mobile Home Park (0-12 du/ac)	12 du/ac	7.9 acres	99	0 acres	-	-	
Commercial	.7:1.0 FAR	372.18 acres	11,403,192 square feet	8.68 acres	264,671 sq. ft. (5)	-	11,403,192 exist.sq.ft. <u>264,671 potent.sq.ft.</u> 11,667,863 total sq.ft.
Manufacturing/Industrial	.2:1.0 FAR (3)	100.43 acres	874,946 square feet	3.42 acres	29,795 sq. ft. (5)	-	874,946 exist.sq.ft. <u>29,795 potent.sq.ft</u> 904,741 total sq.ft.

(1) "Average Density" was determined by dividing the total number of acres for each land use classification by the total number of dwelling units of that type.

"Intensity Factor" is the average (the largest to the smallest project) Floor Area Ratio (FAR) for all existing commercial, industrial, and community facility projects.

(2) The number of square feet for commercial, industrial, and community facilities was determined by multiplying the total number of acres for each land use classification by the average FAR for that classification.

(3) Existing industrially-developed properties are underutilized at .2:1.0 FAR, and full development, in accordance with existing zoning standards, is expected to result in a .5:1.0 to .7:1.0 FAR.

(4) The 3.94 acres noted does not include the 33.24-acre Westgate single-family development under construction in 1992.

(5) The potential number of square feet of commercial and industrial facilities was determined by multiplying the total number of vacant acres for each land use classification by the average FAR for that classification.

(6) Net population is based on 2.81 persons per household in accordance with the 1990 Census.

(7) In accordance with the 1990 Census, Lakewood's population was 73,557 persons in 1990.

(8) In accordance with the 1990 Census, the total number of single-family, multi-family, and mobile homes was 26,670 units. This number does not include the 125 "other" type units counted.

Source: 1990 Census; Los County Assessor records; Finance Department records; land use inventories, August, 1992 and February, 1995

2.1.2 M-F-R Study of Underutilized Parcels Eastern Lakewood Area, June 1992

In accordance with Government Code Section 65302(a), the purpose of the land use element is to designate "the proposed general distribution and general location and extent of uses of the land." In order to accomplish this requirement, a municipality must analyze the relationship between its population (existing and projected), and its ability to satisfy current and anticipated municipal service needs (sewer, water, traffic, law enforcement, etc.).

With only 32.33 vacant acres remaining, the City of Lakewood is practically built out. Of the City's vacant land, only 16.36 acres (51 percent) is zoned for residential use. Accordingly, Lakewood's future housing units will be built upon its underutilized M-F-R-zoned parcels. There is less than 4 acres of vacant single-family-zoned land, a majority of which is owned by the City of Lakewood (a 3.24-acre parcel located at the southeast corner of Centralia and the 605 Freeway).

In order to determine Lakewood's remaining build-out potential, during June 1992 City staff conducted a study of all the underutilized and vacant M-F-R-zoned parcels within the City of Lakewood. The purpose of the survey was twofold: to identify the areas where future multiple-family development will occur (parcels having development potential) and to determine the City's eventual build-out potential (and resulting population increase, based on persons per household).

Methodology

A June 1992, a field study of Lakewood's underutilized M-F-R-zoned parcels resulted in the following findings: Lakewood's remaining multiple-family residential build-out potential is situated in easterly Lakewood, and there are four areas, totaling 129.2 acres, which have vacant and developable parcels zoned for multiple-family residential development (these areas are identified as Study Areas 1-4, see Figure 2.1-4, "Key Map: Underutilized M-F-R Study Areas").

The existing number of on-site dwelling units by type was inventoried for the four study areas. This data was cross-checked with assessor files and citywide aerial maps. From these three data sources, "existing land use" data (number of on-site buildings and type) for the four study areas was determined and reported on Figures 2.1-5 through 2.1-12. From the existing land use data collected for the four study areas, a build-out potential for each parcel was calculated. The maximum number of potential dwelling units was calculated for each parcel using the following density standards (Section 9322.B.2., Lakewood Municipal Code):

<u>Lot Size</u>	<u>Lot Area Required For Each New Dwelling Unit</u>
Less than 12,500 sq.ft.	1,920 sq.ft.
12,500 to 24,999 sq.ft.	1,750 sq.ft.
25,000 sq.ft. and more	1,580 sq.ft.

The build-out potential for the four study areas was calculated on a "parcel-by-parcel basis" and no lot combinations were assumed in the process. Many of the lots in easterly Lakewood are narrow (25 to 50 feet in width) and lot combinations are often necessary to make a "buildable" project. Furthermore, when combined lots contain more than 12,500 and 25,000 square feet, Lakewood's zoning code permits higher on-site densities to be built.

In reality, lot combinations have been the "rule" rather than the "exception" in easterly Lakewood's past multiple-family developments. However, at this time it is not known how future lots will or will not be combined. Consequently, the build-out potentials calculated for each study area are probably less than what will actually occur, but these predictions are the most reasonable estimates at this time. A "maximum build-out" scenario (assuming the maximum number of lot combinations) was also calculated and is presented for informational purposes only.

It should be noted that the build-out potential presented for each study area consists of the number of new units gained plus any existing on-site units replaced as a result of development. The result is the total of potential on-site dwelling units.

STUDY AREA #1:

Study Area #1 contains 29.3 acres and has the following general boundaries: north, 215th Street; west, Lakewood Equestrian Center; south, Carson Street; and east, Pioneer Boulevard.

Study Area #1 - Existing Land Use: There are 77 existing lots and 509 dwelling units in Study Area #1. Of the Study Area's existing 509 existing dwelling units, 29 (5.7 percent) are single-family; 65 (12.8 percent) are contained in two- to four-unit multiple-family buildings; and 415 (81.5 percent) are contained in multiple-family buildings of five units or more. There is one vacant lot in Study Area #1 and one lot occupied with a church. The average existing lot size in Study Area #1 is .4 acres, or 17,424 square feet.

Please see Figure 2.1-5 for Study Area #1's existing land use information.

The following table summarizes the total existing dwelling units (by type) in Study Area #1:

Table 2.1-XII

**Total Existing Dwelling Units
Study Area #1
City of Lakewood**

	Single Family	Multiple Family (1) 2-4 5+		Total
Number of Existing Dwelling Units (%)	29 (5.7%)	65 (12.8%)	415 (81.5%)	509 (100%)

(1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.

Note: There is a total of 77 lots in Study Area #1. However, one lot is vacant and one lot is occupied with a church.

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

Date: June 1992

Study Area #1 - Potential Multiple-Family Units: As Figure 2.1-6 indicates, 25 (32.5 percent) of the 77 lots in Study Area #1 are currently built out (no new units can be added).

Of Study Area #1's existing underutilized lots, 29 lots contain single-family homes that could produce a total of 115 multiple-family dwelling units. An additional 101 units could be added to the area's existing 65 units contained in buildings of two to four units for a total of 166 units, and 31 additional units could be added to the study area's existing 415 multiple-family units contained in buildings of five or more units for a total of 446 units. The study area's one vacant lot and church lot could yield 34 additional units. Overall, 252 additional units (49.5 percent increase) could be added to Study Area #1's existing 509 units, for a total potential build-out of 761 units.

If all of the 509 existing lots in Study Area #1 were combined to achieve a maximum build-out density in accordance with Section 9332.B.2 of the Lakewood Municipal Code, then a total of 810 dwelling units could exist.

Table 2.1-XIII displays the build-out potential statistics for Study Area #1.

According to the 1990 Census, Lakewood had an average of 2.81 persons per household. Using the 2.81 persons per household figure, 252 additional dwelling units in Study Area #1 would add 708 new persons (49.5 percent increase) to the area's existing 1,430 persons, for a total population of 2,138 persons.

Table 2.1-XIII

Total Potential Multiple-Family Dwelling Units

Study Area #1

City of Lakewood

	Single Family	Multiple Family (1) 2-4 5+		Church/ Vacant	Totals
Number of Existing Dwelling Units	29	65	415	0	509
Estimated Number of Multiple Family Dwelling Units Gained (2)	86	101	31	34 (3)	252
Total Potential Multiple Family Dwelling Units (4)	115	166	446	34	761

- (1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.
- (2) "Estimated Number of Dwelling Units Gained" represents the number of new multiple-family dwelling units gained and does not include replacement dwelling units.
- (3) A total of 5 units can be gained on an existing lot occupied by a church and 29 units gained on an existing vacant lot.
- (4) "Total Potential Dwelling Units" represents the total number of dwelling units (replacement and new dwelling units). The number was determined by using existing lots only and assuming no lot combinations occur. However, if all lots are combined to achieve maximum density as allowed under Section 9332.B.2 of the Lakewood Municipal Code, a total of 810 units could exist within the study area.

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

June 1992

STUDY AREA #2:

Study Area #2 contains 52.7 acres and has the following general boundaries: north, East 205th Street; west, South Nectar Avenue; south, East Centralia Street; and east, Pioneer Boulevard.

Study Area #2 - Existing Land Use: There are 305 existing lots and 640 dwelling units in Study Area #2. Of the study area's existing 640 dwelling units, 136 (21.3 percent) are single family; 353 (55.1 percent) are contained in two- to four-unit multiple-family buildings; and 151 (23.6 percent) are contained in multiple-family buildings containing five units or more. There are four vacant lots in Study Area #2, one of which is undevelopable because it is a water well site. The average existing lot size in Study Area #2 is .2 acres, or 8,712 square feet.

Please see Figure 2.1-7 for Study Area #2's existing land use information.

The following table summarizes the total existing dwelling units (by type) in Study Area #2:

Table 2.1-XIV

**Total Existing Dwelling Units
Study Area #2
City of Lakewood**

	Single Family	Multiple Family (1) 2-4 5+		Total
Number of Existing Dwelling Units (%)	136 (21.3%)	353 (55.1%)	151 (23.6%)	640 (100%)

(1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.

Note: There is a total of 305 lots in Study Area #2. However, 4 lots are vacant (one of which is an undevelopable So. Cal. Water Company well site). 173 of the lots are properties containing 2 or more lots under common ownership which were never legally combined through the parcel map process. The lots are expected to be developed as shown on the map.

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

Date: June 1992

Study Area #2 - Potential Multiple Family Units: As Figure 2.1-8 indicates, only 58 (19 percent) of the 305 lots in Study Area #2 are currently built out (no new units can be added).

Of Study Area #2's existing underutilized lots, 136 (21.3 percent) lots contain single-family homes which could yield a total of 371 multiple-family dwelling units. An additional 137 could be added to the areas's existing 353 units contained in buildings of two to four units for a total of 490 multiple-family units; and, eight units could be added to the study areas's existing 151 multiple-family units contained in buildings of five or more units for a total of 159 multiple-family units. Thirty (30) units can be built on the three buildable vacant lots in Study Area #2. Overall, 410 additional units (64 percent increase) could be added to Study Area #2's existing 640 units, for a total build-out potential of 1,050 units.

Table 2.1-XV displays the build-out potential statistics for Study Area #2.

Based upon the 1990 Census figure of 2.81 persons per household, 410 additional dwelling units in Study Area #2 would add 1,152 (64 percent increase) new persons to the area's existing 1,798 persons, for a total population of 2,950.

Table 2.1-XV

Total Potential Multiple-Family Dwelling Units

Study Area #2

City of Lakewood

	Single Family	Multiple Family (1) 2-4 5+		Vacant	Totals
Number of Existing Dwelling Units	136	353	151	0	640
Estimated Number of Multiple Family Dwelling Units Gained (2)	235	137	8	30	410
Total Potential Multiple Family Dwelling Units (3)	371	490	159	30	1,050

- (1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.
- (2) "Estimated Number of Dwelling Units Gained" represents the number of new multiple-family dwelling units gained and does not include replacement dwelling units.
- (3) "Total Potential Dwelling Units" represents the total number of dwelling units (replacement and new dwelling units). The number was determined by using existing lots only and assuming no lot combinations occur. However, if all lots are combined to achieve maximum density as allowed under Section 9332.B.2 of the Lakewood Municipal Code, a total of 1,443 units could exist within the study area.

Note: To achieve a right-of-way width of 60 feet for all local streets and a 25-foot width for all alleys, a 5-foot street dedication has been subtracted from lots on both sides of Roseton, 206th, 207th, and 208th streets, and a 2.5-foot alley dedication has been subtracted from properties on Walcroft, 209th, Pioneer, and Centralia streets. This factor has been added in to determine maximum unit density.

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

Date: June 1992

STUDY AREA #3:

Study Area #3 contains 37.6 acres and has the following general boundaries: north, 206th Street; west, Pioneer Boulevard; south, 209th Street; and east, South Elaine Avenue.

Study Area #3 - Existing Land Use: There are 153 existing lots and 529 dwelling units in Study Area #3. Of the study area's existing 529 existing dwelling units, 65 (12.3 percent) are single family; 143 (27 percent) are contained in two- to four-unit multiple-family buildings; and 321 (60.7 percent) are contained in multiple-family buildings of five units or more. There are two vacant lots in Study Area #3, one is occupied with a church and the other is a water well site. The average existing lot size in Study Area #3 is .2 acres, or 8,712 square feet.

Please see Figure 2.1-9 for Study Area #3's existing land use information.

The following table summarizes the total existing dwelling units (by type) in Study Area #3:

Table 2.1-XVI

**Total Existing Dwelling Units
Study Area #3
City of Lakewood**

	Single Family	Multiple Family (1) 2-4 5+		Total
Number of Existing Dwelling Units (%)	65 (12.3%)	143 (27%)	321 (60.7%)	529 (100%)

(1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.

Note: There is a total of 153 lots in Study Area #3. However, 2 lots are vacant (one of which is an undevelopable So. Cal. Water Company well site), and one lot is occupied with a church.

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

Date: June 1992

Study Area #3 - Potential Multiple-Family Units: As Figure 2.1-10 indicates, 38 (24.8 percent) of the 153 lots in Study Area #3 are currently built out (no new units can be added).

Of Study Area #3's existing underutilized lots, 65 lots contain single-family homes that could produce a total of 203 multiple-family dwelling units. An additional 112 units could be added to the area's existing 143 units contained in buildings of two to four units for a total of 255 units; and, four additional units could be added to the study area's existing 321 multiple-family units contained in buildings of five or more units, for a total of 325 units. The study area's one vacant lot and church lot could yield 18 additional units. Overall, 272 additional units (51.4 percent increase) could be added to Study Area #3's existing 529 units, for a total potential build-out of 801 units.

If all of the 153 existing lots in Study Area #3 were combined to achieve a maximum build-out density in accordance with Section 9332.B.2 of the Lakewood Municipal Code, then a total of 1,029 dwelling units could exist. Table 2.1-17 displays the build-out potential statistics for Study Area #3. According to the 1990 Census, Lakewood had an average of 2.81 persons per household. Using the 2.81 persons per household figure, 272 additional dwelling units in Study Area #3 would add 764 new persons (51.4 percent increase) to the area's existing 1,486 persons, for a total population of 2,250 persons.

Table 2.1-XVII

**Total Potential Multiple-Family Dwelling Units
Study Area #3**

	Single Family	Multiple Family (1) 2-4 5+		Church/ Vacant	Totals
Number of Existing Dwelling Units	65	143	321	0	529
Estimated Number of Multiple Family Dwelling Units Gained (2)	138	112	4	18 (3)	272
Total Potential Multiple Family Dwelling Units (4)	203	255	325	18	801

- (1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.
- (2) "Estimated Number of Dwelling Units Gained" represents the number of new multiple-family dwelling units gained and does not include replacement dwelling units.
- (3) A total of 10 units can be gained on an existing lot occupied by a church, and 8 units gained on an existing vacant lot.
- (4) "Total Potential Dwelling Units" represents the total number of dwelling units (replacement and new dwelling units) and was determined by using existing lots only and assuming no lot combinations occur. However, if all lots are combined to achieve maximum density as allowed under Section 9332.B.2 of the Lakewood Municipal Code, a total of 1,029 units could exist within the study area.

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

Date: June 1992

STUDY AREA #4:

Study Area #4 contains 9.6 acres. Study Area #4 consists of two non-contiguous areas (please see Figure 2.1-11.)

Study Area #4 - Existing Land Use: There are 14 existing lots and 142 dwelling units in Study Area #4. Of the study area's existing 142 dwelling units, six (4.2 percent) are single family; two (1.4 percent) are contained in two- to four-unit multiple-family buildings; and 134 (94.4 percent) are contained in multiple-family buildings of five units or more. There is one vacant 2.25-acre parcel in Study Area #4 which is owned by the City of Lakewood. Tentatively, an affordable senior housing project is planned for this parcel. There is also one parcel in Study Area #4 which is occupied with a church. The average existing lot size in Study Area #4 is .7 acres, or 30,492 square feet. Please see Figure 2.1-11 for Study Area #4's existing land use characteristics.

The following table summarizes the total existing dwelling units (by type) in Study Area #4:

Table 2.1-XVIII

**Total Existing Dwelling Units
Study Area #4
City of Lakewood**

	Single Family	Multiple Family (1) 2-4 5+		Total
Number of Existing Dwelling Units (%)	6 (4.2%)	2 (1.4%)	134 (94.4%)	142 (100%)

(1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.

Note: There is a total of 14 lots in Study Area #4. However, one lot is a City-owned vacant parcel (2.25 acres), and one lot is occupied with a church (1.45 acres).

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

Date: June 1992

Study Area #4 - Potential Multiple-Family Units: As Figure 2.1-12 indicates, six (42.9 percent) of the 14 lots in Study Area #4 are currently built out (no new units can be added).

Of Study Area #4's existing underutilized lots, six lots contain single-family homes that could produce a total of 18 multiple-family dwelling units. No units can be added to the area's existing two units contained in buildings of two to four units, and no additional units could be added to the study area's existing 134 multiple-family units contained in buildings of five or more units. The study area's build-out potential exists with the one City-owned vacant parcel which could yield 62 units and the church lot which could yield 46 additional units for a total of 108 units. Overall, 120 additional units (84.5 percent increase) could be added to Study Area #4's existing 142 units, for a total potential and maximum build-out of 262 units.

Table 2.1-XIX displays the build-out potential statistics for Study Area #4.

According to the 1990 Census, Lakewood had an average of 2.81 persons per household. Using the 2.81 persons per household figure, 120 additional dwelling units in Study Area #4 would add 337 new persons (84.5 percent increase) to the area's existing 399 persons, for a total population of 736 persons.

Table 2.1-XIX

**Total Potential Multiple Family Dwelling Units
Study Area #4
City of Lakewood**

	Single Family	Multiple Family (1)		Church/ Vacant	Totals
		2-4	5+		
Number of Existing Dwelling Units	6	2	134	0	142
Estimated Number of Multiple Family Dwelling Units Gained (2)	12	0	0	108 (3)	120
Total Potential Multiple Family Dwelling Units (4)	18	2	134	108	262

- (1) Number of dwelling units indicated are located on properties containing 2-4 and 5+ dwelling units.
- (2) "Estimated Number of Dwelling Units Gained" represents the number of new multiple-family dwelling units gained and does not include replacement dwelling units.
- (3) A total of 46 units can be gained on an existing lot occupied by a church and 62 units gained on an existing City-owned vacant lot.
- (4) "Total Potential Dwelling Units" represents the total number of dwelling units (replacement and new dwelling units), and was determined by using existing lots only and assuming no lot combinations occur.

Source: Los Angeles County Assessor's records and maps and field investigations, March 1992.

Date: June 1992.

SUMMARY: M-F-R STUDY OF UNDERUTILIZED PARCELS - EASTERN LAKEWOOD, 1992

Table 2.1-XX presents a summary of the dwelling unit, population, and development potential for Study Areas #1 through #4. As the table indicates, a total of 1,054 new dwelling units could be built in the four study areas (a 59.7 percent increase). The maximum number of dwelling units was calculated in accordance with Section 9322.B.2 of the Lakewood Municipal Code and is based on the citywide average density for existing multiple-family projects of 22 dwelling units to the acre. Based upon 2.81 persons per household (1990 Census), construction of 1,054 additional dwelling units (in Study Areas #1 - #4) would add 2,961 persons to the area's existing population of 5,113 persons for a total potential population of 8,074 persons. This build-out scenario is a 57.9 percent increase over the area's existing population. Of the total 549 exiting lots in Study Areas #1 through #4, only 127 lots (23 percent) are built out (no new units can be added in accordance with Section 9322.B.2 of the Lakewood Municipal Code).

Study Areas #1 and #4, which have numerous large vacant and underutilized parcels, have a potential to yield 1,045 new dwelling units. The average lot size in Study Area #1 is 17,424 square feet and the average lot size in Study area #4 is 30,492 square feet. Study Areas #2 and #3 together could yield 1,916 new dwelling units. The average lot size in both Study Areas #2 and #3 is 8,712 square feet. Consequently, unlike the larger lots in Study Areas #1 and #4, projects in theses study areas would typically be less dense (five units and less).

From the data contained in the "M-F-R Study of Underutilized Parcels in Eastern Lakewood", the following highlights are noted:

- All of Lakewood's remaining multiple-family build-out potential (1,054 units) is situated in the eastern portion of the City. (This is a 27.3 percent increase over the total number of existing multiple-family dwelling units (3,860) in the City);
- The majority of the City of Lakewood's future population (2,961 persons) will be a result of multiple-family development in easterly Lakewood. (This is a 4 percent increase over the City's existing population [73,557].)
- What are the policy implications (if any) of a total build- out of easterly Lakewood? How will this situation affect services such as law enforcement, fire, parks and recreation, and utilities?
- Due to changing economic and demographic conditions since the 1990 Census, it is believed Lakewood's household size has become larger than the estimated 2.81 persons per household. In 1992, City staff estimated Lakewood's household size to be approximately 2.95 persons per household. Assuming this trend will continue, what are the implications of increased household size as it relates to future utility and community service planning?

Table 2.1-XX

**Summary of Total Dwelling Units/Population/Development Potential
Study Areas #1-#4
M-F-R Study of Underutilized Parcels
City of Lakewood
August 1992**

	TOTAL DWELLING UNITS, 1992 Existing and Potential			TOTAL POPULATION, 1992 (1)		
	1992 (Exist.)	Potential (Net)	TOTALS (% Chg)	1992 (Exist.)	Potential (Net)	TOTALS (% Chg)
STUDY AREA #1	509	252	761 (+49.5%)	1,430	708	2,138 (+49.5%)
STUDY AREA #2	640	410	1,050 (+64%)	1,798	1,152	2,950 (+64%)
STUDY AREA #3	529	272	801 (+51.4%)	1,486	764	2,250 (+51.4%)
STUDY AREA #4	142	120	262 (+84.5%)	399	337	736 (+84.5%)
TOTALS:	1,820	1,054	2,874 (+59.7%)	5,113	2,961	8,074 (+57.9%)

(1) Based on 2.81 persons per household in accordance with the 1990 Census

Source: Los Angeles County Assessor's maps and records; 1992 Census data, March 1992.

2.1.3 Existing Zoning

The City of Lakewood's Municipal Code was originally adopted on April 16, 1954. Contained in the Municipal Code is Article IX, "Planning and Zoning" which was adopted by City Council Ordinance No. 141 on January 28, 1958. This Article, which consists of Code Sections 9210 through 9516, contains provisions relating to subdivisions, zoning, development standards, and project review. Zoning is the division of a city into districts and the application of different regulations in each district. Zoning regulations are generally divided into two classes:

- (1) those which regulate the height and bulk of buildings within certain designated districts
-these regulations have to do with structural and architectural design of buildings; and

- (2) those which determine which uses can be situated in buildings or on to sites within certain designated districts.

In accordance with Article IX, the City of Lakewood has the following zoning districts:

R-1	Single-Family Residential
R-A	Single-Family Residential-Limited Agricultural
M-F-R	Multiple-Family Residential
MHP	Mobile Home Park
A	Agricultural
C-1	Neighborhood Commercial
C-3	Intermediate Commercial
C-4	General Commercial
M-1	Light Manufacturing
M-2	Heavy Manufacturing
O-S	Open Space
PD-SF	Single-Family Dwelling Unit Planned Development
PD-MF	Multiple-Family Dwelling Unit Planned Development

Existing zoning within the City is shown on Figure 2.1-13, "The Official Zoning Map of Lakewood."

RESIDENTIAL ZONING

Citywide zoning by acreage is depicted in Table 2.1-XXI, "Existing Zoning, 1969-1992." As this table indicates, in 1992 residentially-zoned land constitutes 53.7 percent (3,282.78 acres) of the City's total land area. Since 1969, numerous zoning actions have been adopted which have added and eliminated certain parcels from the R-1 zone. In particular, in 1973 two zoning actions reclassified over 700 acres of parks and schools from residential ones to the O-S (Open Space) zone. Since 1969, residentially-zoned land has decreased by 662.32 acres in Lakewood.

SINGLE-FAMILY RESIDENTIAL ZONE

As of August 1992, a total of 2,931.46 acres (47.7 percent) of the City was zoned for R-1 single-family residential use. The R-A, Single-Family Residential Limited Agriculture zone, contains 24.5 acres (.4 percent), 58.59 (1 percent) acres are zoned PD-SF, Planned Development Single Family, and 7.9 (1 percent) acres are zoned MHP, Mobile Home Park.

Table 2.1-II, "Existing Land Use by Zone and Acreage", indicates that 89 percent (2906.54 acres) of the land zoned for single-family residential use is developed with single-family land uses. The remaining land uses in the R-1 zone primarily are public schools (52.02 acres).

Table 2.1-XXI
Comparative Table: Existing Zoning 1969/1994
City of Lakewood

ZONING DISTRICT	1969 ACRES	1969 % OF TOTAL AREA	ZONING CHANGES (NET A.C.)	1994 ACRES	1994 % OF TOTAL AREA
RESIDENTIAL	3945.10	64.9%	-654.66 (1)	3290.44	53.9%
Single-Family Residential (R-1)	3643.40	59.9%	-711.94	2931.46	48.0%
R-1 7500					
R-1 15,000					
Single-Family Residential Limited Agriculture (R-A)	86.40	1.4%	-61.90	24.50	0.4%
Planned Development Single-Family (PDSF)			+58.59	58.59	1.0%
Multiple-Family Residential (MFR)	215.30	3.5%	+49.24	264.54	4.3%
Planned Development Multi-Family (PDMF)			+3.45	3.45	0.1%
Mobile Home Park (MHP)			+7.90	7.90	0.1%
AGRICULTURE	88.20	1.5%	-77.96	10.24	0.2%
Agriculture	88.20	1.5%	-77.96	10.24	0.2%
COMMERCIAL	379.50	6.2%	-11.31	368.19	6.0%
Neighborhood Commercial (C-1)	40.00	0.7%	-2.88	37.12	0.6%
Intermediate Commercial (C-3)	75.50	1.2%	-6.31	69.19	1.1%
General Commercial (C-4)	264.00	4.3%	-2.20	261.88	4.3%
MANUFACTURING	203.50	3.3%	-47.11	156.39	2.6%
Light Manufacturing (M-1)	74.80	1.2%	-27.11	47.69	0.8%
Heavy Manufacturing (M-2)	128.70	2.1%	-20.00	108.70	1.8%
OPEN SPACE	-	-	+810.54 (2)	810.54	810.54
Open Space (O-S)	-	-	-	810.54	810.54
CIRCULATION	1465.00	24.1%	(3)	1471.82	24.1%
Streets and Highways	1465.00	-	-	1471.82	24.1%
TOTAL LAND AREA	6081.30	100.0%	(4)	6107.62	100.0%

Source: 1990 City of Lakewood General Plan, August, 1971. 1994 Data is based on City Clerk's zone change files as of February, 1995.

- (1) Significant zoning actions affecting residential zoning includes:
 -Ord. 73-16 which rezoned certain R1, RA, MFR and A zoned parcels (493.32 acres to OS (Open Space).
 -Ord. 81-2 which rezoned 14 school sites (227.48 acres) from R-1 to OS.
 -Ord. 90-14 which rezoned a C-4 and M-1 sites to PDSF (33.24).
 -Ord. 94-2 which rezoned a M-1 site to MFR (7.66 acres).
- (2) The OS Zone, established in 1973, resulted in two major actions (Ord. 73-16 and 81-5) which resulted in the addition of 852.72 acres being added to the OS (Open Space) zone.
- (3) Annexation #44, Ponderosa Tract #42788, and Kima Court #35373 resulted in the addition of 6.82 acres of new streets being added to the City since April 25, 1969.
- (4) Since 1969, the total acreage of Lakewood increased by 26.32 acres. This was the result of Annexation #44 (completed 11-7-74) which consisted of 28.22 total acres, and "Detachment 1-86" (completed 12-10-86) which de-annexed a 1.9 acre from lands included in Annexation #44.

As previously discussed, the City of Lakewood is essentially built out with only 32.33 acres remaining in a vacant status in 1994. Of the remaining 3.91 vacant acres zoned R-1, 3.24 acres are owned by the City. This parcel, located at the southeast corner of Centralia and the San Gabriel River, has access problems that could preclude its development in the near future. The remaining R-1-zoned lots are small in-fill lots, which could be developed in the near future.

MULTIPLE-FAMILY RESIDENTIAL ZONE

Of the 264.54 acres zoned for multiple-family use (M-F-R and PD-MF), 200.38 acres (76 percent) are utilized for multiple-family land use. (See Table 2.1-II.) The remaining land uses in the City's multiple-family residential zone are permitted non-residential uses such as schools, parks, and public/quasi-public facilities.

As previously discussed, the City of Lakewood is practically a built out community. In accordance with past trends, the City's multiple-family build-out potential does not lie with its vacant land but with its underutilized parcels.

COMMERCIAL ZONES

Within the City of Lakewood, 6.2 percent (368.19 acres) of land is zoned for commercial land use. Since 1969, citywide commercially-zoned acreage has remained relatively stable, decreasing only 11.31 acres during this time period. The majority of this lost commercially-zoned land has been added to the multiple-family zone. The City of Lakewood has three commercial zones:

Neighborhood Commercial (C-1) - Permitted uses: (Zoning Code Section 9340, et seq.) appliance stores, office uses, restaurants (no liquor within 200 feet of a residence) and all general commercial uses. Maximum height: four stories or 65 feet, whichever is less.

Intermediate Commercial (C-3) - Permitted uses: (Zoning Code Section 9347, et seq.) all uses permitted in the C-1 zone. In addition, auto sales and repair, bars and cocktail lounges, hotels and motels, etc. Maximum height: six stories or 85 feet, whichever is less.

General Commercial (C-4) - Permitted use: (Zoning Code Section 9350, et seq.) all uses permitted in the C-1 and C-3 zones in addition to blueprinting, auto body and fender service, adult entertainment (with an approved conditional use permit), etc. Maximum height: ten times the buildable lot area.

Under current City of Lakewood zoning standards, less intense ("softer") C-1 commercial uses are permitted within the more intense C-3 zone. In turn, the permitted land uses from these two zones are permitted in the C-4 zone. It is not surprising to find that the majority of Lakewood's "high retail-producing" commercial land uses are located in the C-3 and C-4 zones (see Table 2.1-III) which encompass a majority (331.07 acres) of the City's commercially-zoned lands.

INDUSTRIAL AND MANUFACTURING ZONES

Land zoned for industrial and manufacturing uses constitutes 2.6 percent (156.39 acres) of citywide land. Over the past two decades, industrial and manufacturing-zoned acreage has declined by 47.11 acres. See Table 2.1-XXI, "Existing Zoning 1969/1992". As discussed previously, it is interesting to note that industrial and manufacturing land uses increased by 2.03 acres over the past two decades.

A loss of industrially-zoned land occurred recently when the 33.24-acre parcel (Westgate Residential Community) at the northwest corner of Candlewood and Downey was rezoned from M-1 (Light Manufacturing) to PD-SF (Single-Family Planned Development.) and when the Sully Miller site was zoned from M-1 to M-F-R (Multi-Family Residential).

Overall, the majority of the City's industrially-zoned land is located in the southeastern portion of the City. Industrial and manufacturing land uses have in the past and continue to play an important role in the City's overall land use composition. However, during the past two decades, the trend occurring in Lakewood has been toward the development of light industry (e.g., office/industrial parks).

The City of Lakewood has two industrial/manufacturing zones:

Light Manufacturing (M-1) - Permitted uses: (Zoning Code Section 9360, et seq.) all uses permitted in the C-4 zone and a host of light manufacturing uses. In addition, other uses include animal hospitals, auto body repairs, dog kennel, pest control and truck storage. Maximum building height: four stories or 55 feet, whichever is less.

Heavy Manufacturing (M-2) - Permitted uses: (Zoning Code Section 9368, et seq.) all uses permitted in the M-1 zone and heavy manufacturing uses such as manufacture of abrasives, hazardous waste management facilities (conditional use permit required), and lumber yards, etc. Maximum building height: same as M-1 zone, above.

OPEN-SPACE ZONE

Within the City of Lakewood, 13.5 percent (810.54 acres) of the City is zoned for open space use. The Open-Space (O-S) zone includes uses such as parks, regional golf course, transmission power lines, water department facilities, public buildings, flood control right-of-ways, public schools, and railroad right-of-ways.

The Open Space Zone was established in 1973 by City Council Ordinance No. 73-16 which rezoned over 800 acres of R-1, R-A, M-F-R, and A-zoned properties to the Open Space zone. All of the affected acreage had on-site public uses, such as schools, power utility line easements, and parks. Since the establishment of the O-S zone in 1973, various other zoning actions have been enacted to include other publicly-owned property into this zone.

2.1.4 General Plan

2.1.4.1 General Plan/Zoning Consistency

State law requires general law cities to maintain consistency between their General Plan and zoning ordinance. Since adopting its General Plan in 1970 and its first zoning ordinance in 1958, the City of Lakewood has regularly updated both documents to meet current state requirements. However, the 1990's brought with it a multitude of issues not previously considered in depth. These areas of concern include: congestion management, air quality, solid waste/recycling, and hazardous waste management. In addition, over the past two decades several inconsistent situations (between zoning, General Plan designation, or land use) have also developed. The locations of the subject parcels are listed in the "Inconsistency Study" contained in this section.

In addition to the requirement of maintaining consistency between the General Plan and zoning ordinance, cities are also required to keep harmony at the land use level on a parcel-by-parcel basis. In accordance with state law, each parcel of land has both a zoning classification and a General Plan land use designation.

Zoning classifies parcels by use such as residential, commercial, industrial, etc. Each zoning category (e.g., R-1, M-F-R, C-3) has specific permitted land uses, density requirements, required setbacks, parking requirements, minimum lot size standards, and height requirements. General Plan designations, unlike zoning, are not parcel-specific. For instance a General Plan designation will give a density range for a particular land use while zoning will set specific design requirements.

Figure 2.1-14 displays the General Plan Map. The land use designations for the City of Lakewood's General Plan are as follows:

RESIDENTIAL - Residential land in the City of Lakewood is divided into the two following General Plan land use designations:

- **Low Density** - One detached single-family residential unit per lot. Density varies from 0.1 to 8.7 units per acre.
- **Medium/High density** - Two or more residential units per lot; attached or detached. Density varies from 8.8 to 27 units per acre.

COMMERCIAL - Retail stores, shops, convenience stores, car dealerships, motels and hotels, professional and administrative offices, business and services. The building height for uses included in the commercial land use designation may range generally from one to six stories in height.

INDUSTRIAL - Industrial land in the City of Lakewood contains most land uses found in the commercial land use designation. In addition, more intense land uses are also found such as warehousing, wholesaling, storage facilities (open lot and enclosed) and manufacturing. The building height for uses included in the Industrial land use designation shall not exceed four stories or 55 feet in height.

PUBLIC AND QUASI-PUBLIC - Public and quasi-public land includes publicly owned, quasi-public and institutional facilities that provide educational, cultural, and functional (e.g, utilities and infrastructure) opportunities.

OPEN SPACE - Open Space land includes land that provides passive and active recreational areas and facilities as well as conservation resource areas, such as river beds and parks.

Zoning and General Plan Compatibility Matrix

Table 2.1-XXII, "Zoning and General Plan Compatibility Matrix," depicts the consistency relationship between the City of Lakewood's thirteen zoning districts and the General Plan's seven General Plan Land Use Designations (listed on the previous page).

The Matrix is used to determine the compatibility of a zoning district to a corresponding General Plan Land Use Designation. As stated before, State law requires cities to maintain consistency between their zoning classification and their General Plan.

It is interesting to note that although the City of Lakewood has a "Public/Quasi-Public" General Plan land use designation, it does not have a specific corresponding zoning district. Consequently, all public/quasi-public land uses within any City zone are consistent with the public/quasi-public General Plan land use designation. In this instance, the land uses are the Matrix's driving force.

Table 2.1-XXII
Zoning and General Plan Compatibility Matrix
City of Lakewood
1994

ZONING/ GENERAL PLAN DESIGNATION	RESIDENTIAL (1)			COMMERCIAL	INDUSTRIAL	PUB./QUASI PUB.	OPEN SPACE
	Single Family 0.1 – 8.7*	Multiple Family 8.8 – 27*	Mobile Home Park				
Residential							
R1 (2)	X					O	
RA	X					O	O
MFR		X				O	
MHP			X			O	
PDSF	X	X				O	
PDMFR		X				O	
Commercial							
C1				X	X	O	
C3				X	X	O	
C4				X	X	O	
Industrial							
M1					X	O	
M2					X	O	
Open Space							
OS	X					X	X
Agriculture							
A	X						X

“*” denotes units per acre

“X” denotes zones that are compatible with the noted General Plan designation

“O” denotes zones that may be found compatible with the General Plan Designation under certain circumstances

(1) The R1 zone includes the R1-7500 and R1-15000 zones.

Source: Community Development Department, Pamela P. Gerhts, Contract Planner, City of Lakewood, 1994.

2.1.4.2 General Plan Inconsistency Study

As part of the 1990-91 General Plan update program, an inventory of all parcels in the City was made. An analysis of each parcel's General Plan designation, zoning classification, and land use was made. As a result, several parcels were identified as having an inconsistency. The following list contains the identified parcels, their locations, and the identified inconsistency with remarks. (The parcels are depicted by their corresponding number on Figure 2.1-15, "Inconsistency Study".)

1. General Plan proposed park for the area located west of Paramount Boulevard and south of Greentop Street. This property is zoned R-1 (Single-Family Residential) and is occupied by approximately 40 single-family homes.

Remarks: Determination to be made for a General Plan amendment to "Single-Family Residential".

2. General Plan designated Single-Family Residential for area located southwest of the intersection of Downey Avenue and Candlewood Street. This property is zoned O-S (Open Space) and occupied by a water reservoir.

Remarks: Determination to be made for a General Plan amendment to "Public/Quasi-Public".

3. General Plan designated Single-Family Residential for area located on the west side of Hayter Avenue between Candlewood Street and Hardwick Street. This property is zoned M-F-R (Multiple-Family Residential) and is occupied by two churches.

Remarks: Determination to be made for a General Plan amendment to "Public/quasi-public".

4. General Plan designated proposed park for area located at Graywood Avenue and Hardwick Street. This property is zoned as C-4 (General Commercial).

Remarks: Determination to be made for use as a "Future Park".

5. General Plan designated proposed park for area located between Nipomo and Ostrom Avenues, north of Harvey Way. This proposed park is situated over approximately 40 single-family homes.

Remarks: Determination to be made for a General Plan amendment to "Single-Family Residential".

6. General Plan designated Single-Family Residential for area located on west side of Roseton Avenue, north of Centralia Street. This property is zoned (M-F-R) Multiple-Family Residential.

Remarks: Determination to be made for a General Plan amendment to "Multiple-Family Residential".

7. General Plan designated proposed park for area located between Pioneer Boulevard and Roseton Avenue, and 205th and 207th Streets. This proposed park is located over four residential blocks zoned Multiple-Family Residential.

Remarks: Determination to be made for a General Plan amendment to "Multiple-Family Residential".

8. General Plan designated Multiple-Family Residential for area east of Pioneer Boulevard and north of Centralia Street. This property is zoned and currently used as Single-Family Residential (approximately 44 single-family homes), however, 11944-11946 209th Street are multiple-family uses.

Remarks: Determination to be made for a General Plan amendment to "Single-Family Residential".

9. General Plan designated Multiple-Family Residential for area east of Norwalk Boulevard and south of Centralia Street. This property is zoned R-1 and is occupied by over 50 single-family homes.

Remarks: Determination to be made for General Plan amendment to "Single-Family Residential".

10. General Plan designated Public and Quasi-Public for the area located at the southeast corner of Downey Avenue and South Street. This property is zoned C-4 and land use is a gas station.

Remarks: Determination to be made for a General Plan amendment to "Commercial".

11. General Plan designated Multiple-Family Residential for the area south of Mayfair Park and east of Clark Avenue. This property's use is Public/Quasi-Public and is occupied by the Burns Community Center.

Remarks: Determination to be made for a General Plan amendment to "Public/Quasi Public".

12. General Plan designated Commercial for the area east of Oliva Avenue and south of Candlewood Street. The zone is C-4 (General Commercial). This property's use is Public/Quasi-Public and is occupied by the Weingart Senior Center.

Remarks: Determination to be made for a General Plan amendment to "Public/Quasi Public".

13. General Plan designated commercial for the area east of the northeast corner of Woodruff Avenue and South Street. This property is presently occupied by three apartment buildings, and is zoned C-4 (General Commercial).

Remarks: Determination to be made for a General Plan amendment to "Multiple-Family Residential".

14. Located at the northwest corner of Adenmoor Avenue and Rocket Street and northeast corner of Adenmoor Avenue and Rocket Street. Those parcels are presently zoned C-1 (Neighborhood Commercial) and designated on the General Plan as Multiple-Family Residential.

Remarks: Determination to be made for a General Plan amendment to "Commercial".

15. General Plan designated Multiple-Family Residential for the area located northeast of the intersection of South Street and Autry Avenue. The use is a real estate office.

Remarks: Determination to be made for a General Plan amendment and zone change to "Commercial".

16. General Plan proposed a future park for the area located in the northerly portion of the Lakewood Golf Course.

Remarks: Determination to be made for a General Plan amendment to "Open Space."

2.2 Community Design

2.2.1 Redevelopment

Part 1, Division 24, of the Health and Safety Code (California Redevelopment Law) enables cities, through the redevelopment process, to improve their local economies and eliminate blighted physical, social, and economic conditions. In accordance with State law, redevelopment activities must be confined to the project areas that are delineated in the adopted redevelopment plan. Properties within the project areas may qualify for property rehabilitation loans and public improvements. In some cases, redevelopment agencies work with numerous property owners to acquire and merge smaller parcels to form larger development sites. Health and Safety Code Section 33367(d)(4) requires redevelopment plans and any ensuing projects to be in conformance with the City's General Plan.

Redevelopment projects are financed primarily from "tax increment" revenues generated from the project area. These tax increments are obtained from property tax revenues that are "over and above" the original valuation of the project area's properties at the time the redevelopment plan was approved by the reviewing county and state agencies.

State law requires redevelopment agencies to set aside 20 percent of all project revenues for low and moderate income housing. The Agency can use the funds for many types of housing activities for low- and moderate-income persons within the city limits. A limited number of the sites within Lakewood's two redevelopment project areas permit housing. Consequently, housing set-aside funds will be spent in other areas in the City. Redevelopment-funded housing activities could include absorbing part of the costs to build senior citizen housing and rehabilitation loans or grants.

City of Lakewood Redevelopment Project Areas

The City of Lakewood has two redevelopment project areas. "Redevelopment Project Area No. 1", Town Center, was established with the adoption of the "Redevelopment Plan" by the City Council on November 28, 1972. Redevelopment Project Area No. 1, a commercial revitalization project of 255 acres, was the first to be undertaken by the Agency under the California "Community Redevelopment Law" (Sections 33000, et seq., of the California Health & Safety Code). The Dutch Village area, consisting of 37 acres, was added to Redevelopment Project Area No. 1 on July 18, 1974. The Town Center portion of Redevelopment Project Area No. 1 encompasses the Lakewood Center Mall (a regional shopping center) and includes the Civic Center (City administration building and community center complex), Candlewood Street, commercial areas on Lakewood Boulevard and multiple family housing units east of Hayter Avenue. The Dutch Village shopping area, located at Woodruff Avenue and South Street, was purchased in December 1985 by Hopkins Development Company. With the assistance of the Lakewood Redevelopment Agency, the property was redeveloped as "Lakewood Marketplace" with approximately 325,000 square feet of retail space.

Project Area No. 2, approved in 1989, is comprised of the 15 sub-areas listed in Table 2.2-I. The acreage for Project Area No.2 is 159.6 acres.

Figure 2.1-16 displays the subarea boundaries for Project Areas No. 1 and 2.

The Agency

The City of Lakewood's five-member City Council serves as the Lakewood Redevelopment Agency. The City, acting pursuant to the Redevelopment Law, activated the Agency by Ordinance No. 72-17 of the City adopted on October 24, 1972. Under the terms of this Ordinance, the City Council declared itself to be the governing body of the Agency. The Agency appoints an Executive Director to implement Agency policies and administer redevelopment activities. For the Lakewood Redevelopment Agency, the City Administrator is appointed to serve as Executive Director of the Agency. The City provides all staff services to the Agency through a cooperation agreement, including fiscal services, planning, engineering, legal assistance, property services, relocation and other functions necessary for project development. As City employees, staff assigned to Agency activities participate in all of the City's employee benefit programs. In addition, the Agency retains the services of independent consultants and advisors to assist in legal and financing aspects, property appraisal and acquisition, relocation, land use studies, and such other areas of competence deemed necessary by the Board.

All legislative powers of the Agency are vested in its five members. Under the law, the Agency is a separate public body and exercises governmental functions in executing duly adopted redevelopment projects. As such, the Agency has the authority to acquire, develop as a building site, administer and sell or lease property, and has the power of eminent domain, the right to accept financial assistance from any source, and the power to issue bonds, notes or other evidences of indebtedness, and to expend their proceeds. The Agency does not have the power to levy taxes.

The Agency can cause streets and highways to be laid out and graded, and pavements, sidewalks and public utilities to be constructed and installed and can develop as a building site any real property owned or acquired. With the exception of publicly- owned structures and facilities benefiting Redevelopment Project Area No. 1, the Agency cannot construct any buildings contemplated under the Redevelopment Plan, but must convey property in Redevelopment Project Area No. 1 by sale or lease, for private development in conformity with the Redevelopment Plan and within any time limit fixed by the Agency for the redevelopment to occur. The Agency may, out of any funds available to it for such purposes, pay for all or part of the value of land and the cost of buildings, facilities, structures or other improvements to be publicly owned and operated, to the extent that such improvements are of benefit to Redevelopment Project Area No. 1 and no other reasonable means of financing is available.

Lakewood Redevelopment Agency Accomplishments

Since establishing Redevelopment Project Areas No. 1 and 2, the City of Lakewood Redevelopment Agency, in conjunction with City staff, property owners, and technical experts, have successfully completed the following projects:

REDEVELOPMENT PROJECT AREA NO. 1:

The purpose and intent of the Agency with respect to redevelopment of Redevelopment Project Area No. 1 is to eliminate present--and to protect against future--conditions of economic dislocation, deterioration or disuse existing in Redevelopment Project Area No. 1; to improve and develop the Town Center as the focal point of the City, establishing new and improved street patterns, intersections and access ways, replanning and redeveloping off-street parking areas, pedestrian malls and related uses and providing for the maintenance thereof; to rehabilitate, reconstruct or modernize outmoded buildings of poor design; to provide community and public facilities and open space for culture and recreation as part of the Town Center, and to emphasize patronage and use of the Town Center, encouraging the private redevelopment, rehabilitation, reconstruction and modernization of the Town Center as a nucleus for business, commerce and residential, culture and recreation.

Recent development activity in Redevelopment Project Area No. 1 includes four projects:

1. Expansion of the Lakewood Center Mall
2. Renovation and expansion of the 27-year-old Lakewood Civic Center
3. Redevelopment of the Dutch Village retail center
4. Improvements at Mayfair Park

Lakewood Center Mall

The MaceRich Company (the "Company"), the owner and operator of the Lakewood Center Mall, is a privately held company and is the largest secured taxpayer in Redevelopment Project Area No. 1. The Company owns 19 malls throughout the United States and, depending upon which survey is referenced, the Company is either the fourteenth or the sixteenth largest owner/operator of shopping centers nationwide. In California, the Company is the second largest manager of retail businesses, calculated based on square footage. The Company has three corporate offices nationally, two in California and one in Texas. The Company's California regional offices are located in Antioch and Lakewood. Other regional offices are located in Colorado, Georgia, and Missouri.

The 2.4 million-square-foot Lakewood Center Mall was enclosed and expanded in 1977/78 by the MaceRich Company. Expansion continued in 1982 with the addition of a third wing to the covered Mall at a cost of \$2.5 million and in 1987 with the construction of a \$700,000 freestanding pavilion housing more than a dozen shops. In 1992 a theater complex underwent expansion and major exterior renovation was made to the mall. A home improvement center and a grocery store are expected to be built by 1996. The Agency's investments have included water and sewer line relocations, entrance landscaping and signage enhancements, and improvements to the major streets serving the shopping complex.

The Lakewood Center Mall retains a commanding position in Southern California retailing and ranks fourth in retail sales among all shopping centers in Southern California. The Company has owned and operated the Lakewood Center Mall since 1975. In 1990, there were approximately 220 tenants and the occupancy rate was 97 percent (calculated based on square footage).

Lakewood Civic Center

The expansion and renovation of the Lakewood Civic Center, a \$16 million project, was completed in 1985. The entire net proceeds of a 1984 Bond issue were dedicated to this project, which expanded the Lakewood Sheriff's Station by 12,000 square feet, created additional parking, and updated computer and telecommunications facilities at City Hall. The Civic Center, originally built in 1958/59, was entirely remodeled and relandscaped. The Civic Center Way portion of the project covered a county flood control channel behind City buildings and greatly improved access to Sheriff and City Hall facilities.

The project's centerpiece, the 36,000-square-foot Centre at Sycamore Plaza, has made the City a prime destination for business meetings and conferences as well as weddings and receptions. Among those entities using the Centre are McDonnell Douglas Aircraft, which uses the Centre's sophisticated and audio-visual systems for advanced employee training; Vons Markets, the Los Angeles County Office of Education, General Telephone Company, Xerox Corporation, and Texaco Oil.

Dutch Village Redevelopment

The Dutch Village shopping center was revitalized by the Agency's participation in 1985. More than a decade of poor management had reduced the once popular center (at 37 acres, the second largest in the City) to a least favored shopping destination. In 1985, the last full year of operation, Dutch Village generated only \$10 million in gross sales--less than smaller convenience centers in the City.

Dutch Village was transformed into the Lakewood Marketplace with the Agency's participation, which included some \$2 million of relocation assistance for marginal businesses. Completed in December, 1987, the Lakewood Marketplace contains 325,000 square feet of gross leasable area. The complex was sold to an investment group in the summer of 1987 for \$32 million, including a \$1.2 million "participation" payment to the Agency. Anchor tenants on the 171,000-square-foot southeast corner are a Vons Pavilion "superstore," a Marshall's clothing store and a Thrifty drug store. Major tenants on the adjoining northwest corner are an Adray's appliance store and a Ross clothing store. Other stores in the Lakewood Marketplace development include established businesses relocated from Dutch Village and more than 20 new convenience and service outlets.

Mayfair Park Improvements

Mayfair Park was the City's first park facility. The Mayfair Park revitalization plan provided for the refurbishment of the entire park facility. A core element of the plan was covering the flood control channel, which bisected the park. The project was comprised of three phases. Phase I covered the flood control channel and Phase II constructed the 14,000-square-foot John Sanford Todd Center and provided for parking and landscaping. Phase III included restroom facilities, picnic facilities and new play areas, lighting for an athletic fields and refurbishment of bleachers. All phases have been completed at a cost of approximately \$6.4 million. Funding sources for the Mayfair Park improvements include \$2.4 million from the proceeds of the 1987 Bonds, State grants, and a \$1.2 million loan from the City to the Agency. Proceeds of the 1992 Series A Bonds in the amount of \$1.2 million will be used by the Agency to repay the loan from the City. Funding sources to complete Phase III included proceeds of the 1992 Series A Bonds and state and federal grants.

Table 2.2-I
Lakewood Redevelopment Project Area No. 2
Project Subareas, Locations and Acreages

Subarea Number	Subarea Name	Location	Acres
1	Cherry Avenue	East side of Cherry Avenue from Cover Street south to 36th Street, and Southeast corner of Cherry Avenue and 36th Street south to City boundary, and east to railroad right-of-way	33.0
2	Cal Bowl	Southwest corner of Carson Street and Paramount Boulevard to railroad right-of-way, and south to Kessler road	22.8
3	Paramount – Carson (Northwest)	Northwest corner of Carson Street and Paramount Boulevard	1.4
4	Paramount – Carson (Northeast)	Northeast corner of Carson Street and Paramount Boulevard	5.0
5	Downey – South	Southwest corner of Downey Avenue and South Street to rear line of residential parcels, and west to Obispo Avenue, and southwest corner of Obispo Avenue and South Street to City boundary and south to 55th Way	26.8
6	Tank Farm	West side of Obispo Avenue north of back line of residential parcels along Candlewood Street, to south line of residential parcels along Wolfe Street, east to Downey Avenue	33.1
7	Bellflower - South	Northwest corner of South Street and Adenmoor Avenue, and northeast corner of South Street and Adenmoor Avenue	2.5
8	Woodruff - Carson	Northwest corner of Carson Street and Woodruff Avenue, north to Harvey Way	14.3
9	Los Coyotes - Carson	Northwest corner of Carson Street and Los Coyotes Diagonal	2.6
10	Studebaker - Del Amo	Southeast corner of Del Amo Boulevard and Studebaker Road	8.0
11	Pioneer - Carson	Northwest corner of Pioneer Boulevard and Carson Street, west to U.S. Route 605 and north to 216th Street at mid-block parcels	3.4
12	Pioneer – Centralia (Northwest)	Northwest corner of Pioneer Boulevard and Centralia Street	1.4
13	Pioneer – Centralia (Northeast)	Northeast corner of Pioneer Boulevard and Centralia Street, north to 209th Street and east to alley; and northwest corner of Centralia Street west and north to alleys	0.6
14	Norwalk – Centralia (Northeast)	Northeast corner of Norwalk Boulevard and Centralia Street north to rear lines of residential parcels and east to rear lines of residential parcels	2.9
15	Norwalk – Centralia (Southeast)	Southeast corner of Norwalk Boulevard and Centralia Street	1.7
TOTAL			159.6

Source: Report to the City Council on the Lakewood Redevelopment Plan Project Area No. 2, April 1989

REDEVELOPMENT PROJECT AREA NO. 2:

On June 27, 1989, the City Council adopted Ordinance No. 89-2, establishing Redevelopment Project Area No. 2. This 160-acre project contains 15 noncontiguous commercial and industrial areas located throughout the City. Among these, the largest is a former tank farm site comprised of 33.1 acres and the smallest area is a strip-commercial property comprised of .6 of an acre.

Recent developments in Redevelopment Project Area No. 2 include:

1. Cherry Avenue Auto Dealers: A vacant "Long Beach BMW" site was replaced with a new car dealer, Browning Oldsmobile. The Agency acquired a vacant office building and leased that property to the adjacent Ford dealership for expansion. The office building was demolished and improvements to the property were made, thereby enhancing the "auto row" image of the three auto dealerships on Cherry Avenue.
2. Regency Centre Entertainment Complex: Known locally as "Cal Bowl," this development is located at the southwest corner of Carson Street and Paramount Boulevard. The bowling alley and its related retail space has been expanded to 186,958 square feet and is valued at \$4.4 million. The Regency Centre also includes a new eight-plex theater valued at \$3 million and two pad buildings containing a florist, real estate office, and a restaurant, valued at \$750,000. An ice skating rink located to the south of the theater is expected to open in late 1995.
3. Pacific Coast/A-M Homes: This project contains 184 single-family homes on a 33-acre parcel located at 5501 Downey Avenue. Model homes were completed and available for viewing in June, 1992. The entire project is anticipated to be completed by June, 1994. The homes range in price from \$289,500 to \$349,500. The value of all of the homes in the project is estimated to be \$59.4 million.
4. Smith's Food and Drug: Smith's Food and Drug is located at the southwest corner of South Street and Downey Avenue. A "super store," Smith's Food and Drug will provide groceries, food, drug and services such as dry cleaning, one hour photo, video rental and banking services. This 88,000-square-foot store is valued at almost \$6 million and is scheduled to open December, 1992.

2.2.2 "Lakewood Beautiful" Programs

Lakewood Beautiful

"Lakewood Beautiful", started in 1980, is a community program designed to recognize Lakewood residents who have achieved a measure of excellence in the exterior maintenance and landscaping of their homes. By singling out the homes of responsible and careful homeowners in each of the City's neighborhood areas, Lakewood Beautiful reinforces the spirit of neighborhood pride.

"Lakewood Beautiful" awards are issued for the following judging categories:

1. **Lakewood Classic** - describes an original Lakewood home whose structure has not been physically altered.
2. **Changing Faces** - Defines a home that has been superficially remodeled and/or has gone through some minor physical changes.
3. **New Look for Lakewood** - designates a home that has been completely remodeled and whose physical appearance has changed drastically from its original state.

In past events, the following concepts have been used as standards in judging nominated homes:

1. **Landscape** - effective use of materials, use of variety and color, good design and balance in relation to house, a well-maintained landscape.
2. **Structure** - paint and stucco work is of optimum quality; special, creative effects; use of texture and color; originality.
3. **Special Considerations** - appropriate scale of alteration in relation to the rest of the structure (Changing Faces); appropriate scale of alteration in relation to the building lot (New Look for Lakewood).

Lakewood Business Beautiful

"Lakewood Business Beautiful", started in 1982 by the City of Lakewood, honors those commercial, retail, and institutional buildings, which demonstrate exceptional achievement in the areas of design and beautification.

The goal of "Lakewood Business Beautiful" is to inspire others. Previous award categories are:

- ☐ New Look for Lakewood Award
- ☐ Institutional Building
- ☐ Small Shopping Center Award
- ☐ Restaurant Award
- ☐ Service Station Award
- ☐ Office Building Award
- ☐ Commercial Building Award
- ☐ Most Improved Business

The "Lakewood Business Beautiful Program" is operated under the general direction of the Lakewood Beautification Advisory Council, the Chamber of Commerce, and sponsored by the City of Lakewood.

Proactive City Design Improvement Programs

The City of Lakewood is devoted to protecting its most valuable assets: 1) its attractive and well-planned appearance, and 2) its residential neighborhoods. The following City-operated programs exist to ensure these goals are attained:

1. **Development Review Board** - The Development Review Board (DRB), composed of a board-certified architect, a landscape architect, and City planning staff members, is available free of charge to Lakewood property owners. The DRB, which serves as both a City advisory and approval body, assists commercial property owners and homeowners with new projects, remodels, room additions, and the technical (and simple) aspects of property improvement.

The primary goal of the DRB is to ensure that physical property improvement projects are designed and constructed in accordance with the City's high standards of quality.

2. **Design Assistance** - Staff planners and plan checkers are available during normal business hours to assist commercial property owners and homeowners with property-improvement questions.
3. **Loan Program and Rehab Assistance for Low- and Moderate-Income Homeowners** - A City Housing Specialist staff person is available to assist low- and moderate-income homeowners with the following housing programs:
 - a. **The Senior Citizen/Physically Handicapped Deferred Payment Loan Program** is available to low-income senior citizens (62 or older at time of application) or the physically handicapped (a physician's statement of inability to maintain gainful employment is required). This program is not available to absentee owners. This program provides loans for eligible improvements. This money is secured with a recorded lien agreement bearing no interest and is not due until house is sold or transferred.
 - b. **The Residential Deferred Payment Loan Program** is available to low-income non-senior owner occupiers of single-family homes. This program also provides loans for eligible improvements. The loan is secured with a non-interest bearing lien agreement and is not due until the property is sold or transferred.
 - c. **Fair Housing**. The City provides a Landlord-Tenant Information Program. There is staff available to answer most questions including rent increases, evictions, and housing discrimination.
4. **Bus Shelter Program** - In December 1990, the City Council approved a Citywide program for the installation of 114 bus shelters. These bus shelters serve the needs of users, while ensuring that well-designed and architectural compatible structures are placed at locations throughout the City.

5. **Utility Undergrounding** - This project provides for the undergrounding of utilities as recommended by the Planning Environment Commission in 1984, amended in 1990 and approved by the City Council.
6. **Continual Improvement, Renovation, and Construction of Municipal Buildings and Facilities** - In an effort to preserve and upgrade Lakewood's municipal buildings, facilities, and parks the City maintains an on-going maintenance and improvement program.

2.3 Population, Housing, and Employment Characteristics

2.3.1 Population and Household Characteristics

As of January 1, 1990, according to the U.S. Department of Commerce, Bureau of the Census, the City of Lakewood's population was 73,557. As Table 2.3-I illustrates, Lakewood's population decreased by 1,057 persons (-1.5%) between 1980 and 1990.

Table 2.3-I compares population trends for Lakewood and surrounding jurisdictions.

Table 2.3-I

**Population Trends:
Lakewood and Surrounding Jurisdictions
1980-1990**

JURISDICTION	1980	1990	Increase/ Decrease (%)
Bellflower	53,441	61,815	+15.7
Cerritos	53,020	53,240	+0.4
Cypress	40,391	42,655	+0.6
Lakewood	74,654	73,557	-1.5
Long Beach	361,334	429,433	+18.9
Los Angeles County	7,477,503	8,863,164	+18.5
Paramount	36,407	47,669	+31.0
Signal Hill	5,734	8,371	+46.0

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports.

The decline in Lakewood's population is a result of two main factors: its "built out" character and, most importantly, Lakewood's growing senior citizen population.

As in recent years, Lakewood's future population potential will be greatly influenced by a scarcity of vacant land. In 1994, Lakewood was 99.5 percent built out with only 27.26 acres of vacant land. Trends existing in the community, such as commercial redevelopment and the

recycling of underutilized residential lots for higher density use, have and will continue to contribute to the City's economic vitality. However, due to its vacant land shortage, it is not expected Lakewood will experience substantial population increases from future land development projects.

The factor most influential in Lakewood's decline in population during the past decade is its changing demographics. As Table 2.3-II indicates, between 1980 and 1990, the total number of Lakewood households increased by 1.3 percent (+349 households). However, the average household size decreased from 2.9 person per household in 1980 to 2.81 persons per household in 1990. This decrease in household size is directly related to an increase in the number of Lakewood's senior citizens (1) who typically have smaller households. Census data pertaining to Lakewood's "family (2)" trends is also significant. Between 1980 and 1990, the number of families in Lakewood decreased by 819 (-3.9 percent), while non-family households (single-person households) increased from 4,853 to 6,021 (+24.1 percent).

Table 2.3-II

**City of Lakewood
Household Characteristics
1980 and 1990**

HOUSEHOLD TYPE	1980	1990	# Change 1980-90	% Change 1980-90
Households ^(a) :	25,853	26,202	+349	+ .96%
Families	21,000	20,181	-819	- 3.9%
Non-Families:	4,853	6,021	+1,168	+ 24.1%
In Group Quarters	13	98	85	+ 654%
Average Household Size	2.89	2.81		

(a) Households counted in 1990 include "Other" dwellings (e.g., vans, cars, boats, etc.) not previously counted in 1980.
Source: U.S. Department of Commerce, Bureau of Census, 1980 and 1990 Census Reports.

(1) According to Census data, between 1980 and 1990 the number of Lakewood residents over 65 years old increased by 60%.

(2) According to Census definitions, "A Family consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption." "A Household includes all the persons who occupy a housing unit."

As the City's resident population continues to age, it is reasonable to expect the existing housing stock would be turned over to younger residents of child-bearing age. However, statewide economic conditions, occurring since 1989, have severely affected the housing market of Lakewood and surrounding cities. The relationship between the State's slowing housing market and its impact on Lakewood's population composition is discussed in detail in Section 2.3.4 ("Housing Price Trends") of this report.

Table 2.3-III projects Lakewood's population growth through the year 2010. In its "Regional Growth Management Plan (GMP)" of 1989, the Southern California Area Governments (SCAG) estimates the City's population will increase by 10,193 persons (12.2 percent) between 1990 and 2010. This projected growth rate is higher than City staff's estimate of 6,943 persons (9.4 percent) for the same time period. The projected growth rate for Los Angeles County for the same time period is 1,368,039 persons (17 percent).

Table 2.3-III

**City of Lakewood
Projected Population Growth: 1990-2010**

		Year 2010		% Change 1990-2010	
	1990 (a)	(b)	(c)	(a)	(b)
Lakewood	73,557	83,750	80,500	+12.2%	+9.4
Los Angeles County	8,863,164	10,231,203	---	+17.0%	---

Source: (a) U.S. Department of Commerce, Bureau of the Census, 1990 Census Report.

(b) SCAG 2010 Population Projections, Regional Growth Management Plan (GMP), 1988.

(c) Population projection indicated is the estimate given by the City of Lakewood Community Development Staff on the 8/12/92 GMP Worksheet for Year 2010 projections.

Census Tracts

For U.S. Department of Commerce, Bureau of the Census data collection purposes, the City is organized into seventeen Census tracts. This information is displayed on Figure 2.3-I.

2.3.2 Age Characteristics

Table 2.3-IV displays 1980 and 1990 Census data pertaining to Lakewood's age ranges, gender, and median age. This same Census information is displayed in Tables 2.3-V and 2.3-VI for Los Angeles County and the State of California, respectively.

For Lakewood, from 1980 to 1990, notable changes occurred in the "10-24 year old" and the "over 65 year old" age groups. Significant decreases in the "10-24 year old" age groups ranged from -23.9 percent to -32.9 percent. During the past decade, the City's "65-74 year old" age group significantly grew by 55 percent and its "75 and over" age group increased by 65 percent. Comparatively, during the same time period, at the County and State levels, increases in the number of persons in the "65 and over" age ranged from 13.7 percent to 35.5 percent, respectively.

Other notable Lakewood population trends occurred in the "25-34 year old" age group (+9 percent); the "35-44 year old" age group (+30.8 percent); the "45-54 year old" age group (-14.3 percent); and the "55-64 year old" age group (-22.7).

It is also interesting to note that Lakewood's "0-4 year old" age group only increased by 7.9 percent, while persons in this age group category in Los Angeles County and the State increased by 32.7 percent and 40.3 percent, respectively. Demographers believe the increase in the number of young persons, in the County and the State, is directly related to the State's growing Hispanic population, who typically have larger families. During 1990, Hispanic persons in California comprised 25.8 percent of the population as compared to 14.6 percent in Lakewood.

It is also significant to note that Lakewood's "5-9 year old" age group declined by -3.5 percent, while the County and State population numbers increased by 22.4 percent and 38.2 percent, respectively, in this age category.

Between 1980 and 1990, the number of Lakewood persons of the "Baby Boom" era (born between 1946 to 1964, ages 26 to 44 years old) increased by only 18 percent. (Due to Census data organization, it is necessary to use data for "age 25-44" for the "Baby Boom" age group.) Lakewood's growth in the number of its "Baby Boomers" is significantly lower than the percent of increase, between 1980 and 1990, for "Baby Boomers" in the County (+40.6 percent) and State (46.2 percent).

Compared to County and State demographic data, Lakewood's most evident population trend is the significant growth of persons over the age of 65 years, which increased by 60 percent.

During the past decade, the City's median age increased from 31.0 years in 1980 to 33.8 years in 1990. Comparatively, in 1980 the median age in Los Angeles County was 29.8 years, while in 1990 it increased to 30.7 years.

Table 2.3-IV

City of Lakewood
Age Composition: 1980 and 1990

Age Range	1980 # of Persons	1980 % of Population	1990 # of Persons	1990 % of Population	% Change 1980-90
0-4	4,941	6.6	5,331	7.3	+7.9
5-9	5,304	7.1	5,491	7.5	-3.5
10-14	5,989	8.0	4,555	6.2	-23.9
15-19	6,904	9.2	4,630	6.3	-32.9
20-24	6,283	8.4	4,464	6.1	-29.0
25-34	12,789	17.1	13,938	18.9	+ 9.0
35-44	8,973	12.0	11,733	16.0	+30.8
45-54	8,873	11.9	7,602	10.3	-14.3
55-64	8,959	12.0	6,923	9.4	-22.7
65-74	4,044	5.4	6,256	8.5	+55.0
75+	1,595	2.1	2,634	3.4	+65.0
TOTAL	74,654	100.0	73,557	100.0	-1.5
MALE	36,461	48.8	36,250	49.3	-6
FEMALE	38,193	51.2	37,307	50.7	-2.3
Median Age	31.0		33.8		

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports.

Table 2.3-V**Los Angeles County
Age Composition: 1980 and 1990**

Age Range	1980 # of Persons	1990 # of Persons	% Change 1980-90
0-4	554,795	736,285	+32.7%
5-9	529,286	647,729	+22.4%
10-14	563,954	585,318	+ 3.8%
15-19	657,097	638,079	- 2.9%
20-24	747,555	807,735	+ 8.8%
25-34	1,333,380	1,757,799	+31.4%
35-44	866,965	1,336,669	+54.2%
45-54	760,823	845,355	+11.1%
55-64	696,643	647,608	- 7.0%
65-74	446,263	507,453	+13.7%
75+	296,742	353,134	+19.0%
TOTAL	7,477,503	8,863,164	+18.5%
MALE	3,648,361	4,421,398	+21.2%
FEMALE	3,829,142	4,441,766	+16.0%
Median Age	29.8	30.7	+.9

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports.

Table 2.3-VI**State of California
Age Composition: 1980 and 1990**

Age Range	1980 # of Persons	1990 # of Persons	% Change 1980-90
0-4	1,708,400	2,397,715	+40.3%
5-9	1,609,348	2,223,982	+38.2%
10-14	1,796,019	1,977,343	+10.1%
15-19	2,130,465	2,053,148	- 3.6%
20-24	2,335,965	2,510,794	+ 7.5%
25-34	4,243,015	5,686,371	+34.0%
35-44	2,814,938	4,639,321	+64.8%
45-54	2,359,939	2,902,569	+23.0%
55-64	2,194,568	2,233,226	+ 1.8%
65-74	1,470,978	1,857,221	+26.3%
75+	943,272	1,278,331	+35.5%
TOTAL	23,667,902	29,760,021	+25.7%
MALE	11,666,485	14,897,627	+27.7%
FEMALE	12,001,417	14,862,394	+23.8%
Median Age	29.9	31.5	+ 1.6

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports.

2.3.3 Ethnic Characteristics

Table 2.3-VII depicts 1980 and 1990 Census data for citywide ethnic characteristics. During 1980, the City's ethnic proportions were: 81.8 percent "White"; 2 percent "Black"; .4 percent "American Indian, Eskimo, Aleut"; 3.3 percent "Asian Pacific"; 11.6 percent "Hispanic"; and .9 percent "Other". Persons of Hispanic origin can be of any race.

Between 1980 and 1990, changes occurred in each of the City's ethnic categories. According to the 1990 Census, Lakewood's ethnic proportions were: 72.3 percent "White"; 3.5 percent "Black"; .5 percent "American Indian, Eskimo, Aleut"; 9.0 percent "Asian Pacific"; 14.6 percent "Hispanic"; and .1 percent "Other." The most significant shifts in the City's ethnic composition occurred in the "Asian/Pacific Islander" (+167.4 percent), "Black" (+73 percent), "American Indian-Eskimo Aleut" (+30.65), and "Hispanic" (+24.7 percent) categories. Losses in population occurred in the "White" (-12.9 percent); and the "Other" (-87 percent) ethnic categories.

The changes observed in Lakewood's 1990 ethnic characteristics are consistent with trends occurring statewide. During the past decade California's population became more ethnically diverse. According to the book entitled, California Population Characteristics: What the Census Results Mean, 1991 Edition, California's ethnic minorities accounted for one-third of the State's population in 1980. By 1990, that share had risen to 42.8 percent, and by the year 2000, forecasters estimate 51 percent of the State's population will be of ethnic (non-White) origins. During the 1980s, nearly four of every five new State residents were of ethnic minority origins. As has been the case throughout the County and State (although to a much lesser degree) Lakewood's population has also become more ethnically diverse during the past decade; a trend which is expected to continue.

Table 2.3-VII
City of Lakewood and Los Angeles County
Ethnic Composition: 1980 - 1990

Race and Ethnicity	LOS ANGELES COUNTY		CITY OF LAKEWOOD				
	1980	1990	1980	1980	1990	1990	1980-1990
			Population	% Total	Population	% Total	Change
White	53%	41%	61,085	81.8%	53,176	72.3%	-7,909 (-12.9%)
Black	12%	11%	1,494	2.0%	2,586	3.5%	+1,092 (+73%)
American Indian- Eskimo Aleut	5%	3%	291	.4%	380	.5%	+89 (+30.6)
Asian/Pacific Islander	6%	10%	2,454	3.3%	6,562	9.0%	+4,108 (+167.4%)
Hispanic	28%	30%	8,630	11.6%	10,763	14.6%	+2,113 (+24.7%)
Other	1.1%	1.2%	700	.9%	90	.1%	-610 (-87%)
Total	7,477,503	8,863,164	74,654	100.0%	73,557	100.0%	-1097 (-1.5%)

Source: U.S. Department of Commerce, Bureau of Census, 1980 and 1990 Census Report.

2.3.4 Housing Sales and Price Trends

Table 2.3-VIII shows selected year-end median home price and sales data for 1988-1994 for Lakewood and Los Angeles County.

It should be noted that California real estate prices and construction activity "boomed" between 1984-1988 with the market "peaking" in 1988. Beginning in 1989, prices and construction activity steadily declined through 1990. Beginning in 1991, home prices and sales moderately improved, but construction activities remained at levels experienced during the 1982-83 recession.

Table 2.3-IX compares the annual 1988-1993 "affordability index" for homes in California and Los Angeles. During 1993, the affordability index for a detached home in Los Angeles was 37 percent, or 37 percent of the County's households could afford the median-priced home. Statewide, the affordability index was 40 percent. As Table 2.3-VIII indicates, Lakewood's median priced home was less than the County's median-priced home. Consequently, during 1993 Lakewood homes were more affordable than the median-priced County home.

Table 2.3-VIII

**City of Lakewood, Los Angeles County and State of California
Year-End Median Home Prices (a) and Number of Sales (b)
1988 through 1994**

Jurisdiction		Lakewood	Los Angeles County	State of California
1988 Year End Totals	Median Home Price	\$188,000 (d)	\$178,889	\$167,800
	# of sales / % change	119 (d) / -	67,510 / -	562,240 / -9.9
1989 Year End Totals	Median Home Price	\$204,000 (d)	\$214,831	\$195,640
	# of sales / % change	140 (d) / 8.5 (d)	79,425 (d) / 17.7 (d)	539,290 / -4.3
1990 Year End Totals	Median Home Price	\$199,250	\$212,130	\$193,360
	# of sales / % change	164 / 8.5 (d)	63,235 (d) / -25.6	452,100 / -16.2
1991 Year End Totals	Median Home Price	\$193,800	\$214,940	\$200,380
	# of sales / % change	272 / 6.0 (d)	60,960 (d) / -3.6	424,120 / -6.2
1992 Year End Totals	Median Home Price	\$189,430 (d)	\$213,050	\$197,360
	# of sales / % change	415 (d) / 6.6 (d)	55,230 (d) / -9.4	449,565 (d) / +.6
1993 Year End Totals	Median Home Price	\$173,500	\$197,920	\$188,970
	# of sales / % change	557 / 7.5 (d)	55,780 (d) / +1.0	453,725 (d) / +2.2
1994 Year End Totals	Median Home Price	\$168,500	\$187,720	\$185,050
	# of sales / % change	805 / +69.2%	66,660 (d) / +19.5	501,365 (d) / +10.5

(a) Data for the "median home price" and "number of sales" for 1988, 1989 and 1992 is not available for Lakewood.

(b) "Total # of Sales" is shown as a " percent of Change" as data for the actual number of sales was not available.

(c) All data shown on table is for single family homes only.

(d) Figure has been estimated using available data from this table.

Source: Los Cerritos Board of Realtors (Ms. Ann Kramer), and the California Association of Realtors (Mr. Kruger); February, 1992. Long Beach Board of Realtors; February, 1992 and February, 1994.

Census data for "Rents Received" for 1990 indicate that the median rent paid in Lakewood is \$735.00 per month, as compared to \$575.00 per month for the County. It is interesting to note that home ownership in Lakewood is more affordable than it is Countywide, while the reverse is true for renting in Lakewood.

Table 2.3-IX
Los Angeles and California*
Annual Housing Affordability Index

	1988	1989	1990	1991	1992	1993
California:						
Detached:	24%	17%	20%	26%	33%	40%
Condominiums:	39%	32%	33%	42%	48%	55%
Los Angeles	25%	14%	17%	22%	28%	37%

* "Affordability Index" is the percent of households who can afford to purchase the median-priced home in the jurisdiction indicated.

Source: Greater Long Beach Association of Realtors, February, 1995.

In 1988, the median-priced single family home in Los Angeles was \$178,889, and home sales were up 13.7 percent from the previous year. During the same year, the median-priced single family home in the State was \$167,800, with home sales up 9.9 percent from the previous year.

Beginning in 1989, the median-priced Los Angeles County home rose to \$214,831, but the number of homes sold were down 12.8 percent from the previous year. Similar activity was also experienced at the State level, with the median-priced home rising to \$195,640 and sales of homes Statewide down by 4.1 percent.

In 1990, according to the California Board of Realtors, the median-priced home in Lakewood was \$199,250, as compared to \$212,130 for the County, and \$193,360 for the State. In 1990, 164 homes were sold in Lakewood. Previous year's sales data is not available for Lakewood, however, during 1990, home sales were down -25.6 percent Countywide and -16.2 percent Statewide.

It should be noted that 1990 Census data, for median home values, differs from the California Board of Realtors' data shown on Table 2.3-VIII. According to Census data, in 1990, the median-priced home in Lakewood was \$215,600 and Countywide it was \$226,400.

In 1991, according to the California Board of Realtors, Lakewood's median-priced home declined to \$193,800. However, the number of Lakewood home sales were up by 65.8 percent (272 sales) from the previous year. The median-priced home at both the County and State levels rose during 1991, while home sales were slightly down from the previous year.

Between 1989 and 1990, homes in the Lakewood area were not "turned over" to growing families at the same rate experienced in earlier years. As a result, there were fewer numbers of families (and other households) moving to the City. As is evidenced on Table 2.3-VIII, Lakewood's home sales significantly improved during 1990. Lower home prices in 1989 "opened the door" for many families who possibly could not afford a home in Lakewood during the mid-1980s.

2.3.5 Housing Statistics

According to January 1990 Census data, there was a total of 26,795 units in Lakewood. This total dwelling figure includes 125 "other" dwelling units (boats, cars, SRO's, vans, etc.) not counted in previous Census years. As Table 2.3-X indicates, Lakewood gained 426 net units between 1980 and 1990. It should be noted this "total unit" gain is a "net" figure. During this time period, 40 single-family dwellings, one duplex, and 45 mobile homes (a total of 87 dwelling units) were demolished or removed from the City's housing inventory. Between 1980 and 1990, these 87 units were replaced, in addition to the added construction of 426 net units, for a total number of 513 newly constructed units.

Not including the loss of a 45-unit mobile home park, removal of 40 single family homes was the most obvious housing trend occurring during 1980-1990. In all the cases, these single family homes were replaced with higher density residential units. As Table 2.3-X indicates, the majority (311 units) of the City's new dwelling units were built in complexes containing 5 units or more. The next largest category of new dwelling units (99 units) was single family attached units. It should be noted that housing units in the "3 or 4 unit" category had the highest rate of increase, 48.8 percent (103 units.)

As indicated in Table 2.3-X, the predominant housing type in Lakewood continues to be the single family home (82.5 percent of all housing units, excluding the 125 "Other" type of units.) The predominance of single family residential land use has remained stable during the past decade in Lakewood with a minor .18 percent loss.

During 1990, Lakewood's overall vacancy rate was 2.6 percent, a 1.12 percent increase over the City's 1.48 percent vacancy rate in 1980 (see Table 2.3-XI). The increased number of vacant units in Lakewood in 1990 can be attributed to local, state, and nationwide economic conditions. In particular, recent employment cutbacks at McDonald Douglas Corporation, the area's largest local employer, has had negative impacts on Lakewood's local housing market and economy. However, when compared to the Countywide vacancy rate of 5.5 percent, Lakewood is faring better than many southland communities.

Table 2.3-X

City of Lakewood
Inventory of All Dwelling Units
1980-1990

Dwelling Unit Type	1980 Vacant Units (a)	1980 Total Units # and %	1990 Vacant Units	1990 Total Units # and %	1980-1990 # and % Chg Total Units (b)
1, detached	---	22,153 (84.4%)	365	22,113 (82.5%)	-40 (-.18%)
1, attached	---	499 (1.9%)	18	598 (2.2%)	+99 (+19.8%)
2	---	99 (.4%)	11	97 (.4%)	- 2 (-2%)
3 or 4	---	211 (.8%)	35	314 (1.2%)	+103 (+48.8%)
5 or more	---	3,138 (12%)	260	3,449 (12.9%)	+311 (+9.9%)
Mobile Homes/ Trailers	---	144 (.5%)	2	99 (.4%)	-45 (-31.3%)
Other (c)	---	---	2	125	
TOTAL (d)	391	26,244	691	26,795	+426 (+1.6)

(a) Vacant Unit Data is not available for 1980.

(b) Data indicated is for "Year Round, Occupied" dwelling units.

(c) Total dwelling units counted in the 1990 Census included 125 "Other" types (cars, vans, SRO's, boats) of dwelling units not previously counted in 1980. The 1990 Census counted a total of 26,102 housing units. However, in order to facilitate an accurate comparison between 1980 and 1990, "Other" housing units are show separately on this table.

(d) The figure indicated for "Total Units" represents a net unit figure. Between 1980 and 1990, 40 single family dwellings, one duplex, and 45 mobile homes were demolished or removed from the City's housing inventory. Between 1980 and 1990, these 87 units were replaced, in addition to the added construction of 426 net units, for a total number of 513 newly constructed units.

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports.

Table 2.3-XI

**City of Lakewood
Vacancy Rate
1980-1990**

Units	Vacancy Rate
1980 All Units	26,244
	1.48%
1990 All Units	26,795
	2.6%
1990 1, detached	365
	1.6%
1990 1, attached	18
	3.0%
1990 2	11
	11.3%
1990 3 or 4	35
	11.1%
1990 5 or more	260
	2.0%
1990 Mobile Homes/Trailers	99
	2.0%
1990 Other	2
	1.6%

Detailed "Vacant Unit" data is not available for the 1980 Census

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports.

Table 2.3-XI displays occupied dwelling unit tenure data for Census years 1980 and 1990. During the past decade, the owner-occupancy levels in Lakewood have remained relatively stable. In 1990, 72 percent (18,808 units) of the City's occupied housing units were owner-occupied as compared to a 74.2 percent owner-occupancy level in 1980. Single family homes have consistently had a high level of owner-occupants (84.7 percent in 1980 and 83.2 percent in 1990.) The slight 4-unit (.16 percent) decrease in the number of owner-occupied single family homes could have occurred due to several reasons:

1. The slight reduction in the number of single family residences. Typically they are older homes in the multiple family residential zoned areas, which are being demolished in order to construct multiple family complexes. These complexes are frequently apartment complexes as opposed to condominiums.
2. The investment in Lakewood's real estate market. People have bought single family homes as an investment and are using them as rental property.
3. The City's growing elderly population. In many of these cases, seniors have "willed" their homes to their offspring who in turn do not occupy the structure but use them for rental property.

Notable decreases in the occupancy status from "owner" to "renter" have occurred in all the other dwelling unit types except for "1, attached units" which experienced a 19.5 percent increase in owner occupied units since 1980.

Table 2.3-XII

City of Lakewood
Owner/Renter Ratios of Occupied Housing Units
1980 and 1990

Dwelling Unit Type (a)	1980(b)		1980 Total Occupied Units	1990 (c)		1990 Total Occupied Units
	Owner (#, %)	Renter (#, %)		Owner (#, %)	Renter (#, %)	
1, detached	18,557 (84.7%)	3,359 (15.3%)	21,916	18,068 (83.2%)	3,637 (16.8%)	21,705
1, attached	211 (44.6%)	262 (55.4%)	473	422 (66.5%)	213 (33.5%)	635
2	29 (29.3%)	70 (70.7%)	99	10 (13.3%)	65 (86.7%)	75
3 or 4	35 (16.6%)	176 (83.4%)	211	19 (7.6%)	230 (92.4%)	249
5 or more	245 (8.1%)	2,765 (91.9%)	3,010	142 (4.4%)	3,084 (95.4%)	3,226
Mobile homes/ Trailers	106 (73%)	38 (26.4)	144	102 (91.1%)	10 (8.9%)	112
Other (d)	—	—	—	45 (45%)	55 (55%)	100
TOTALS (e)	19,183 (74.2%)	6,670 (25.8%)	25,853	18,808 (72.0%)	7,294 (28%)	26,102

(a) Dwelling Unit type indicated is for occupied units only.

(b) Data shown was obtained from 1980 Census data and represents a breakdown of owner/renter tenure by dwelling unit type.

(c) Data shown was obtained from Southern California Association of Governments, 1990 Census of Population and Housing, Table H20/21/22 and represents a breakdown of owner/renter tenure by dwelling unit type.

(d) The "Other" category was added for the 1990 Census count. It includes occupied living quarters such as houseboats, railroad cars, campers, SRO's and vans.

(e) Total dwelling units counted in the 1990 Census included 123 "Other" types of dwelling units. The 1990 Census counted a total of 26,102 housing units.

Source: U.S. Department of Commerce, Bureau of the Census, 1980 and 1990 Census Reports. Figures are based on sample data.

2.3.6 Age and Condition of Housing Stock

Table 2.3-XII, which is based on 1990 Census data, displays the time periods (up to 1990) in which housing units were built in Lakewood. In accordance with the post World War II growth patterns occurring in Los Angeles County, a majority (58.3 percent) of the City's homes were built between 1950 and 1959. Accordingly, in 1990 74.4 percent of the City's total housing units were over 30 years old.

The majority of the City's housing stock is in good condition. However, it is accepted in the building industry that the need for structural rehabilitation occurs when buildings normally reach 30 years of age and older. This situation strongly suggests there will be an increased need for structural improvements for Lakewood's residential structures during the next decade.

As previously discussed and presented in Table 2.3-X, the predominant housing type added to Lakewood's housing stock during the past decade has been multiple family units. Between 1980 and 1990, 103 units were added in projects containing 3 or 4 units, and 311 units were added in projects containing 5 or more units. One project added 99 new attached single-family homes during 1980 and 1990.

Table 2.3-XII

City of Lakewood
Age of Housing Stock: 1990

Year Built	Number of Units	% of Total
1939 or earlier	249	.9%
1940 - 1949	4,077	15.2%
1950 - 1959	15,621	58.3%
1960 - 1969	3,644	13.6%
1970 - 1979	1,973	7.4%
1980 - 1984	501	1.9%
1985 - 1989	354	1.3%
1989 to March 1990	376	1.4%

Source: U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing.

2.3.7 Employment Trends

As of February 1992, Lakewood's civilian labor force was estimated at 47,000 by the California Employment Development Department. The labor force consists of those working and those wishing to work. According to State of California Employment Development Department figures, in February 1992, the unemployment rate for Los Angeles County was 9.9 percent, as compared to 7.4 percent during February 1991.

Table 2.3-XIV

**City of Lakewood
Industry of Employment, 1980 and 1990**

INDUSTRY	1980 NUMBER	1980 %	1990 NUMBER	1990 %	PERCENTAGE OF CHANGE
Agriculture,Forestry,Fishing,Mining	430	1.2	600	1.6	+ 28.3
Construction	2,164	5.8	2,158	5.8	- .03
Manufacturing	10,425	28.0	9,407	25.2	- 10.8
Transportation	1,876	5.0	1,879	5.0	+ .2
Communication & Public Utilities	1,214	3.3	1,286	3.4	+ 5.6
Wholesale Trade	2,228	6.0	2,265	6.1	+ 1.6
Retail Trade	6,243	16.8	5,880	15.7	- 6.2
Finance,Insurance, & Real Estate	1,828	4.9	2,409	6.5	+ 24.1
Business & Repair Services	1,754	4.7	1,865	5.0	+ 5.9
Personal, Entertainment & Recreation	1,212	3.3	1,399	3.7	+ 13.4
Professional & Related Services	6,463	17.2	6,921	18.5	+ 6.6
Public Administration	1,424	3.8	1,310	3.5	- 8.0
Total	37,211	100	37,379	100	+ .45

Source: U.S. Department of Commerce, 1980 and 1990 Census report.

As depicted in Table 2.3-XIV, 37,211 Lakewood residents were employed in 1980 and 37,379 in 1990. This employment level represents a participation rate of 50 percent in 1980, which is almost identical to the County participation rate of 49 percent during 1980. In 1990, 51 percent of Lakewood residents were employed.

Of the City's labor force in 1990, the largest industries of employment were: 25.2 percent employed in "Manufacturing", followed by 18.5 percent employed in "Professional & Related Services" and 15.7 percent in the "Retail Sales" trades. With the possible expansion of the Lakewood Center Mall in the next five years, increases in the number of persons employed in retail sales is expected to rise.

Table 2.3-XV displays the 1979-89 per capita income estimates for Lakewood. As indicated, the City's per capita income levels in 1979 and 1989 were slightly higher than the Countywide average and in the mid to high range as compared to surrounding jurisdictions.

Table 2.3-XV

**City of Lakewood
Estimated Per Capita Income
1980-1987**

JURISDICTION	1979 Per Capita Income (in \$s)	1989 Per Capita Income (in \$s)	Percentage of increase
Lakewood	8,510	17,446	10.5
Bellflower	7,694	14,304	8.6
Cerritos	9,003	18,966	11.1
Cypress	9,220	19,147	10.8
Long Beach	8,342	15,639	8.7
Los Angeles County	8,303	16,149	9.4
Paramount	5,294	9,429	7.8
Signal Hill	8,328	18,270	11.9

Source: U.S. Department of Commerce, 1980 and 1990 Census report.

Below is a table showing the level of education completed for Lakewood residents that are 25 years of age or older. Of these residents, 27.8% have received only a high school diploma and another 26.2% have attended college but did not receive a degree. Approximately 27% have received a college degree of one level or another. About 18.6% of Lakewood residents, 25 years of age or older, never received a high school diploma.

Table 2.3-XVI displays the highest level of education completed for Lakewood residents that are 25 years of age or older.

Table 2.3-XVI

**City of Lakewood
Highest Level of Education Completed
(Persons Age 25 and Over)**

	Total	Percent	Not of Hispanic Origin					Hispanic Origin
			White	Black	Asian/Pacific Islander	American Indian Eskimo or Aleut	Other Race	
Elementary School: 9th to 12th Grade	2,695	5.5%	1,755	69	26	378	467	931
No H.S. Diploma	6,448	13.1%	5,559	98	37	340	414	1,117
H.S. Diploma	13,652	27.8%	12,122	304	75	697	454	1,422
College:								
No Degree	12,839	26.2%	11,099	453	102	784	401	1,259
AS/AA Degree	4,777	9.7%	3,896	172	26	458	225	511
BS/BA Degree	6,343	12.9%	4,740	191	27	1,226	159	431
Graduate Degree	2,332	4.8%	1,811	130	16	350	25	211
Total:	49,086	100.0%	40,982	1,417	309	4,233	2,145	5,882

Source: U.S. Department of Commerce, 1990 Census Report.

2.4 Lakewood's Economic Profile

The following information highlights Lakewood's economic profile. Subjects covered include: the budgetary process, assessed valuation and tax collections, and the economic characteristics of residents and businesses. This information was obtained from two City of Lakewood Finance Department documents: the "Operating Budget Fiscal Years 1994-96" and the "Comprehensive Annual Financial Report, 1993-94." An additional resource was the *Legacy Capital Improvement Plan 1987-2000* (and subsequent updates).

2.4.1 The Budgetary Process

The City of Lakewood's fiscal year begins July 1st of each year and ends on June 30th of the following year. Since 1985, the City of Lakewood has operated on a two-year budget cycle. In even numbered years, the Operating Budget is adopted. In odd numbered years, *Legacy*, the capital improvement plan, is updated. Although the City Council adopts a two-year operating budget, each year is treated separately for accounting purposes. Each department head furnishes an estimate of expenditures for the department for the two ensuing fiscal years. In preparing the proposed budget, the City Administrator reviews the requests and holds conferences with respective department heads.

At least thirty days prior to the beginning of the fiscal year, the City Administrator submits the proposed budget to the City Council. After reviewing and making revisions, the City Council sets a date for the budget and publishes a notice ten days prior to the hearing date. During this ten-day review period, the proposed budget is available for public inspection at the City Clerk's office and local libraries.

At the conclusion of the public hearing, the City Council conducts a final review of the proposed budget and makes any revisions that it deems advisable. On or before June 30, an affirmative vote of at least a majority of the total members of the Council adopts the budget.

Once the City budget is adopted, various revenue and expenditure funds are appropriated. The City Council must approve any amendments to the appropriations through out the year. However, the City Administrator is authorized to transfer budget amounts between funds and functional categories. Unexpended and unencumbered appropriations at the end of the first year of the two-year cycle are carried forward as continuing appropriations into the second year. Appropriations for capital projects authorized but not constructed or completed during the year are carried forward as continuing appropriations.

Table 2.4-I displays a summary of general governmental revenues by source for Fiscal Years 1983-1994.

Table 2.4-I

**Schedule of Revenues by Source
Governmental Funds, Fiscal Years 1983-1994**

Fiscal Year	Taxes	Licenses and Permits	Fines and Forfeitures	Interest, Rents and Concessions	From Other Agencies	Current Service Charges	Other	Total
1983	6,785,055	242,721	474,081	1,212,858	3,938,936	2,237,383	492,938	15,383,972
1984	8,237,967	168,151	457,908	1,303,776	4,430,533	2,330,655	2,638,639	19,567,629
1985	9,153,010	197,350	476,188	1,468,756	5,398,111	2,616,571	442,152	19,752,138
1986	9,425,859	184,966	504,164	1,412,085	5,185,259	3,065,906	111,666	19,889,905
1987	1,046,480	260,791	562,483	1,506,079	5,147,276	3,487,086	429,643	21,856,838
1988	10,917,756	234,588	561,546	2,291,284	4,770,519	3,378,604	3,343,520	25,467,817
1989	12,163,393	369,121	601,488	2,954,750	5,219,702	4,080,767	1,154,754	26,570,975
1990	12,676,801	340,298	627,534	3,172,837	6,185,445	4,267,991	814,178	28,085,084
1991	12,116,075	264,060	586,418	2,889,582	5,221,696	4,419,317	847,258	26,344,406
1992	11,946,831	386,127	355,872	2,277,992	5,044,352	4,726,915	777,869	25,515,958
1993	15,335,874	552,401	287,644	2,368,843	5,529,090	4,863,384	833,609	29,770,845
1994	14,896,011	391,688	326,138	2,242,778	7,049,230	5,009,823	1,145,598	31,061,266

Source: Department of Finance, City of Lakewood

During these Fiscal Years, Lakewood's major sources of revenue include the following:

Source:	91/92	92/93	93/94
Sales tax	26%	22%	21%
Refuse Collection	11%	10%	10%
Motor Vehicle in-lieu fees	10%	9%	8%
Other current service charges	5%	4%	4%
Gas tax	5%	4%	4%
Property taxes	3%	3%	3%
Prop A/Transit revenues	3%	3%	2%
Prop C/Transportation funds	0%	4%	2%
Recreational fees	2%	2%	2%
Subtotal	65%	61%	56%
Utility taxes	0%	5%	6%
All others	35%	34%	38%
Total	100%	100%	100%

Source: Department of Finance, City of Lakewood

Table 2.4-II displays a summary of expenditures by function for all City funds for Fiscal Years 1983-94.

Table 2.4-II

**Schedule of Expenditures by Function
Governmental Funds
Fiscal Years 1983-1994**

Fiscal Year	General Government	Public Safety	Trans- portation	Community Development	Health and Sanitation	Culture and Leisure	Debt Service	Total
1983	2,655,821	3,833,527	1,801,563	1,814,186	1,428,369	2,313,937	-	13,847,403
1984	3,767,508	4,751,654	1,967,216	1,140,102	1,540,141	5,874,006	-	19,040,627
1985	3,918,806	5,584,967	4,248,000	1,158,691	1,610,308	7,607,461	705,638	24,833,871
1986	4,120,460	4,451,738	2,691,168	3,496,931	1,761,899	3,516,143	705,598	20,743,937
1987	3,868,204	4,601,589	2,970,927	2,619,762	1,915,372	2,896,081	704,101	19,576,036
1988	4,452,064	5,073,021	2,506,318	3,551,683	2,125,569	3,464,492	1,071,133	22,244,280
1989	3,863,844	5,405,189	3,713,475	6,995,207	2,148,782	3,701,487	1,720,070	27,548,054
1990	4,516,189	5,559,054	3,525,951	2,308,802	2,404,996	6,807,944	1,909,732	27,032,668
1991	4,531,242	5,335,855	4,156,903	2,787,213	2,635,426	6,543,138	1,912,581	27,902,358
1992	3,502,812	5,772,721	3,390,001	2,968,718	2,644,528	6,295,436	1,901,739	26,475,955
1993	15,335,874	552,401	287,644	2,368,843	5,529,090	4,863,384	833,609	29,770,845
1994	14,896,011	391,688	326,138	2,242,778	7,049,230	5,009,823	1,145,598	31,061,266

Source: Department of Finance, City of Lakewood

Lakewood's Department of Water Resources operates the City's water system, which has approximately 20,640 services. The Department provides water service to approximately 80 percent of the City. Over 2.7 million gallons of water were produced in 1993-94. Table 2.4-III displays a summary of revenues, expenses and production for Fiscal Years 1983-1994.

Table 2.4-III

**Water Utility
Summary of Revenues, Expenses, and Production
Fiscal Years 1983-1994**

Fiscal Year	Operating Revenues	Operating Expenses	Debt Service	Production in Million Gallons
1983	2,006,026	1,750,885	309,087	3,029
1984	2,372,411	2,037,771	306,653	3,183
1985	2,567,622	2,230,621	312,028	3,234
1986	2,596,778	2,446,244	312,714	3,275
1987	2,908,504	2,698,175	312,940	2,997
1988	3,036,992	2,783,526	313,252	3,257
1989	3,010,693	2,839,779	313,145	3,333
1990	3,574,240	2,896,075	312,628	3,276
1991	3,646,229	2,987,176	316,638	2,915
1992	3,725,702	3,100,646	315,112	2,572
1993	3,946,152	3,278,143	318,107	2,869
1994	4,008,477	3,692,318	123,220	2,928

Source: Department of Finance, City of Lakewood

2.4.2 Assessed Valuation and Tax Collections

The City's assessed valuation for revenue purposes increased by 4.5 percent in Fiscal Year 1993/94 over Fiscal Year 1992/93. Such assessed valuations include secured and unsecured properties assessed by the Los Angeles County Assessor and secured utility properties assessed by the State Board of Equalization. These assessed valuations are before deduction of State-reimbursed homeowners' and business inventory exemptions and exclude veterans, religious, charitable, and other nonrecoverable exemptions.

Table 2.4-IV displays a summary of assessed valuations, tax levies, and delinquencies in the City from Fiscal Years 1982/83 through 1993/94.

Table 2.4-IV

**City of Lakewood; Assessed Valuations, Tax Levies, and Delinquencies
Fiscal Years 1982/83 - 1993/94**

Fiscal Year	Net Assessed Value	Total Tax Levy	Delinquent Tax Collections	Percent Delinquent
1982/83	\$1,512,986,802	\$416,376	1,580	1.50%
1983/84	1,615,664,627	434,074	5,094	-
1984/85	1,745,930,156	478,010	7,954	-
1985/86	1,886,939,529	509,467	13,255	1.60
1986/87	2,039,491,406	553,655	14,944	2.80
1987/88	2,212,899,853	606,036	42,831	7.07
1988/89	2,319,289,669	674,138	47,147	6.99
1989/90	2,658,066,522	757,936	48,797	6.44
1990/91	2,771,851,757	801,621	52,135	6.50
1991/92	2,948,722,754	833,578	51,357	6.16
1992/93	3,143,125,309	1,020,351*	12,236	1.20
1993/94	3,285,646,228	1,034,532*	56,452	5.46

Source: Los Angeles County Assessor's Office
Department of Finance, City of Lakewood, 1995
*Adjusted for AB 1197, SB 697 and SB 2557

2.4.3 Economic Characteristics of Lakewood's Population

Effective Buying Income (EBI) is defined as all personal income, less personal tax and non-tax payments (EBI is commonly known as disposable income). During 1994, the estimated EBI of City residents totalled \$1,457,826,000, a net increase of \$317,535,000 over the 1986 EBI. Table 2.4-V displays a comparative summary of EBI for Fiscal Years 1986-1994 for the City of Lakewood, Los Angeles County, the State of California and the United States. The estimated 1994 EBI for the City of Lakewood was arrived at by calculating the average percentage rate of increase over the years and using the result as the rate of increase from 1993 to 1994. The 1994 EBI for Los Angeles County, the State of California and the United States was calculated the same way only the percentage rate was replaced by the difference between years.

Table 2.4-V

City of Lakewood, Los Angeles County, California
Effective Buying Income, 1986-1994
(in thousands)

Year	City of Lakewood	County of Los Angeles	State of California	United States
1986	1,140,291	114,134,025	380,811,129	2,981,720,801
1987	1,263,337	130,015,864	426,008,347	3,202,847,131
1988	1,237,276	129,522,222	426,174,001	3,064,005,977
1989	1,271,267	135,162,824	444,988,647	3,287,489,252
1990	1,359,442	138,244,091	477,784,771	3,499,365,237
1991	1,274,326	140,872,315	490,749,640	3,728,967,043
1992	1,327,941	145,060,644	509,152,677	3,916,947,023
1993	1,390,416	149,583,086	528,958,745	4,169,724,052
1994*	1,457,826	153,188,151	553,033,626	4,349,524,648

Source: Sales and Marketing Management, August 30 issues of 1983-1994.

* 1994 figures are estimates. See above text for methodology used.

Table 2.4-VI provides a comparative per-household income per grouping for 1991 through 1994. The table presents the distribution of Effective Buying Income (EBI) in the City of Lakewood, the County of Los Angeles the State of California and the United States. The table shows that Lakewood residents are more likely to have EBI's above \$35,000 than the other geographical categories. They are also less likely to have EBI's less than \$35,000, than the other geographical areas. The data for 1994 was estimated by finding the average rate of change from 1991 to 1992 and from 1992 to 1993. The average was than used to calculate the rate of change from 1993 to 1994.

Table 2.4-VI

**City of Lakewood
Comparative Per-Household Buying Income
1991-1994**

1991 Buying Income	City of Lakewood	County of Los Angeles	State of California	United States
\$50,000 & over	42.7%	32.8%	33.3%	26.3%
\$35,000 to \$49,999	23.4	18.6	19.3	19.1
\$20,000 to \$34,999	18.6	22.8	23.0	24.8
\$10,000 to \$19,999	9.9	14.8	14.7	16.9
Under \$10,000	5.4	11.0	9.7	12.9
Total:	100.0%	100.0%	100.0%	100.0%

1992 Buying Income	City of Lakewood	County of Los Angeles	State of California	United States
\$50,000 & over	44.6%	34.1%	34.5%	28.3%
\$35,000 to \$49,999	22.3	18.3	19.2	18.9
\$20,000 to \$34,999	18.0	22.1	22.2	23.9
\$10,000 to \$19,999	9.8	14.6	14.4	16.4
Under \$10,000	5.3	10.9	9.7	12.5
Total:	100.0%	100.0%	100.0%	100.0%

1993 Buying Income	City of Lakewood	County of Los Angeles	State of California	United States
\$50,000 & over	48.0%	36.4%	36.8%	31.2%
\$35,000 to \$49,999	20.9	18.4	19.1	19.0
\$20,000 to \$34,999	16.9	20.8	20.9	22.5
\$10,000 to \$19,999	9.2	13.9	13.9	15.5
Under \$10,000	5.0	10.5	9.3	11.8
Total:	100.0%	100.0%	100.0%	100.0%

1994 Buying Income*	City of Lakewood	County of Los Angeles	State of California	United States
\$50,000 & over	50.7%	38.3%	38.6%	33.7%
\$35,000 to \$49,999	19.7	18.3	19.0	19.0
\$20,000 to \$34,999	16.1	19.8	19.8	21.4
\$10,000 to \$19,999	8.9	13.5	13.5	14.8
Under \$10,000	4.8	10.2	9.1	11.3
Total:	100.0%	100.0%	100.0%	100.0%

Source: Sales and Marketing Management, August 30 issues of 1992, 1993 and 1994.

* 1994 figures are estimates. See above text for methodology used.

Table 2.4-VII displays a summary of the taxable transactions for retail businesses in the City of Lakewood during Calendar Years 1987-1993. Taxable transactions for Calendar Year 1994 were not available from the California State Board of Equalization as of February, 1995.

Table 2.4-VII

City of Lakewood
Taxable Transactions by Type of Business
(In thousands)

	1987	1988	1989	1990	1991	1992	1993
RETAIL STORES							
Apparel Stores	\$50,223	\$72,952	\$87,839	\$92,711	\$83,464	\$82,747	\$73,121
General Merchandise	153,591	136,943	139,864	141,888	127,625	128,932	126,248
Drug Stores	11,778	12,230	12,934	13,223	13,572	15,148	13,715
Food Stores	3,581	39,414	42,704	43,645	47,236	51,170	41,079
Package Liquor	5,119	5,033	4,905	4,800	4,383	4,005	3,501
Eating & Drinking Places	69,256	81,740	82,642	86,813	82,044	80,662	77,872
Home							
Furnishing/Appliances	40,600	44,822	46,245	45,811	48,828	45,628	44,386
Building Materials	2,527	2,598	2,771	2,898	---	2,527	2,400
Auto Dealers & Supplies	73,307	91,000	92,327	65,967	43,710	40,845	48,783
Service Stations	38,253	38,302	38,967	42,711	38,669	42,582	46,238
Other Retail Stores	<u>58,038</u>	<u>66,222</u>	<u>72,353</u>	<u>78,561</u>	<u>79,462</u>	<u>63,322</u>	<u>60,525</u>
Subtotal	538,502	591,256	623,551	619,028	568,993	557,568	537,868
All Other Outlets	34,498	30,268	32,282	31,701	31,420	40,608	37,903
TOTAL ALL OUTLETS	\$573,000	\$621,524	\$655,833	\$650,729	\$600,413	\$598,176	\$575,771
% change from previous year	-	+8.5%	+5.5%	-8%	-7.7%	-.4%	-3.7%

Source: California State Board of Equalization

Wages and Employment

Approximately 3,676,600 persons were employed in Los Angeles County as nonagricultural wage and salary workers during 1994. Table 2.4-VIII is an eight-year summary of employment of nonagricultural wage and salary workers in Los Angeles County.

Table 2.4-VIII

Los Angeles County
Estimated Average Annual Employment by Industry
Nonagricultural Wage and Salary Workers, 1987-1994

	1987	1988	1989	1990	1991	1992	1993	1994*
Manufacturing	906,500	897,700	886,200	858,100	796,700	714,900	664,700	639,300
Retail and Wholesale Trade	915,200	933,600	961,400	957,100	890,700	848,000	820,000	806,100
Services	1,045,400	1,114,000	1,186,100	1,216,700	1,180,600	1,130,800	1,143,400	1,156,700
Government	496,600	505,600	521,800	539,800	539,800	539,400	531,400	531,400
Finance, Insurance and Real Estate	285,200	281,900	288,400	288,000	272,300	254,900	249,600	241,700
Transportation, Communication and Public Utilities	206,400	207,600	213,600	219,000	214,700	202,700	198,100	195,800
Construction	147,200	146,800	154,000	154,000	130,400	105,900	98,900	98,700
Mining	9,400	9,500	8,700	8,400	7,800	7,800	7,400	6,900
TOTAL	4,011,900	4,096,700	4,220,200	4,241,100	4,033,000	3,804,400	3,713,500	3,676,600
% change from previous year	-	+2.1%	+3.0%	+.5%	-4.9%	-5.7%	-2.4%	-0.99%

Source: State of California Employment Development Department, February, 1994

*1994 data is preliminary, and is subject to change.

The City's unemployment rate for 1994 was approximated at 5.6 percent. Table 2.4-IX illustrates comparable employment data for the past eight years.

Table 2.4-IX

**City of Lakewood
Employment, Unemployment, and Labor Force, 1987-1994**

	1987	1988	1989	1990	1991	1992	1993	1994
Employment	42,720	42,446	43,142	37,100	36,800	36,400	35,400	35,600
Unemployment	2,132	1,738	1,683	1,300	1,800	2,200	2,200	2,100
Civilian Labor force	44,852	44,184	44,825	38,400	38,600	38,600	37,600	37,700
Unemployment Rate	4.8	3.9	3.8	3.4	4.8	5.7	5.8	5.6
Los Angeles County Unemployment Rate	5.9	4.9	4.6	5.8	8.0	9.6	9.7	9.4
State of California Unemployment Rate	5.8	5.3	5.1	5.6	7.4	9.1	9.2	8.6

Source: State of California, Employment Development Department, 1994

Table 2.4-X below shows the percentage of workers in major industry groups for the City of Lakewood. Apparent from the information, services, and wholesale and retail trade comprise nearly two thirds of total employment in the City.

Table 2.4-X

**City of Lakewood
Percentage of Workers in Major Industry Groups, 1994***

Industry	Number of Workers, 1994	Percent of Workers, 1994
Manufacturing	797	4.7%
Services	3,408	20.1
Wholesale and Retail Trade	7,867	46.4
Finance, Insurance and Real Estate	865	5.1
Construction and Mining	237	1.4
Transportation, Communication and Utilities	271	1.6
Government	3,557	19.8
Non-classified	153	0.9
Total	16,954	100.0%

Source: State of California, Employment Development Department, 1994

*Figures have been estimated

Building Activity

The total valuation for building permits in the City of Lakewood exceeded 56.6 million in Fiscal Year 1993/94. Table 2.4-XI provides a summary of the number of building permits and the total valuation for the past twelve years.

Table 2.4-XI

**City of Lakewood
Building Permits
Fiscal Years 1983-1994**

Fiscal Year	Number of Residential Permits	Number of Commercial Permits	Total Number of Permits	Total Valuation
1982/83	1,221	289	1,510	\$25,738,954
1983/84	1,108	191	1,299	34,607,346
1984/85	1,255	235	1,490	20,921,292
1985/86	971	299	1,270	15,831,679
1986/87	1,135	366	1,501	29,776,493
1987/88	1,184	381	1,565	28,290,572
1988/89	1,343	343	1,686	38,270,101
1989/90	1,278	247	1,525	34,312,223
1990/91	1,281	192	1,473	23,320,388
1991/92	1,423	165	1,588	32,904,794
1992/93	1,375	221	1,596	56,634,281
1993/94	1,384	159	1,543	30,957,908

Source: Department of Community Development and Department of Finance, City of Lakewood, 1995

City of Lakewood's Top Employers

Table 2.4-XII displays a listing of Lakewood's top employers as of February, 1995

Table 2.4-XII

**Top Ten Employers in the City of Lakewood
(As of February, 1995)**

BUSINESS NAME	BUSINESS ADDRESS	# EMPLOYEES
Robinsons-May	98 Lakewood Center Mall	630
Lakewood Regional Medical Center	3700 South Street	603
American Association of Retired Persons	3200 Carson Street	320
J.C. Penney Company	67 Lakewood Center Mall	250
Huck International*	3969 Paramount Blvd.	237
Pacific Ford**	3600 Cherry Avenue	190
Pavillion's Grocery Store	5500 Woodruff Avenue	165
Montgomery Ward & Co., Inc.	141 Lakewood Center Mall	134
Mervyn's	172 Lakewood Center Mall	130
GTE California	3770 Industry Avenue	126

Source: City of Lakewood, February, 1995

*Formally known as Deutsch Fastener Corporation

**Includes Long Beach Lincoln-Mercury

3.0 INFRASTRUCTURE

3.1 Circulation and Traffic

3.1.1 Regional Setting

The City of Lakewood is located in the greater Los Angeles metropolitan area, approximately 20 miles southeast of the Los Angeles civic center. Lakewood is contiguous to the cities of Bellflower and Cerritos on the north, Cypress on the east, Hawaiian Gardens and Long Beach on the south, and Long Beach on the west. Figures 1.1-1 and 1.1-2, respectively, illustrate Lakewood's regional location and street design.

The City of Lakewood's regional access is provided from several major and secondary arterials and Los Angeles' network of regional freeways. The north-south arterials, Cherry Avenue, Paramount Boulevard, Lakewood Boulevard, Bellflower Boulevard, and Pioneer Boulevard connect with interchanges on the Artesia (91) and San Diego (405) Freeways, just beyond the city boundaries. East-west access to the San Gabriel River (605) Freeway is provided by South Street, Del Amo Boulevard, and Carson Street. Access to the Long Beach (710) Freeway is available directly from Del Amo Boulevard or from the intersection of Long Beach and Del Amo Boulevards.

The City of Lakewood's air travel needs are primarily served by three area airports: Los Angeles International Airport, Long Beach Airport, and John Wayne/Orange County Airport. Los Angeles International Airport provides air-carrier service to all points of the globe while the Long Beach and John Wayne/Orange County Airports provide less extensive air-carrier, air-taxi, and air-charter services.

3.1.2 Existing Traffic Conditions

City Arterials

In order to facilitate consistent transportation planning policies between local and regional planning agencies, municipalities' general plans should conform with county and state circulation plans. The "County of Los Angeles Plan of Highways", which is such a plan, has designations for all streets and highways throughout Los Angeles County. The four roadway designations used by the Plan, and throughout the traffic engineering profession, are as follows: "Major Highway", "Secondary Highway", "Collector Street", and "Local Street". These designations are based on such factors as intersection configurations, degree of access control, roadway grades, design geometries (horizontal and vertical alignments), sight distance, level of truck and bus traffic, and level of pedestrian and bicycle traffic.

The City of Lakewood's Circulation Element of the General Plan is in conformance with the County of Los Angeles Plan of Highways, except for one inconsistency. On the County of Los Angeles Master Plan of Highways, Candlewood Street is designated as a secondary highway, while Lakewood's Circulation Element designates Candlewood Street as a secondary highway west of Clark Avenue and as a collector street east of Clark Avenue. Due to the fact that Candlewood Street (east of Clark Avenue) is primarily a residential street, it has been City policy not to conform to the County's designation.

The City's current street classifications are depicted on Figure 3.1-1 and Table 3.1-I.

As of 1992, the City's standards for arterials (major and secondary highways), collector streets, and local streets were as follows:

**City of Lakewood
Right-of-Way and Roadway Widths
by Street Classification**

<u>Street Classification</u>	<u>Right of Way Width</u>	<u>Paved Roadway Width</u>	<u>Minimum Width for Streets Providing MFR* Access</u>
Arterials:			
Major Highway	100'	84'	84'
Secondary Highway	80'	64'	64'
Collector Street	60'	36'	40'
Local Street	60'	36'	40'

* Multiple Family Residential

Source: Lakewood City Council Resolution No. 88-63 amending the Circulation Element of the General Plan, July 26, 1988 and Section 9462 of the Lakewood Municipal Code.

Table 3.1-I

Arterial Classification Characteristics
City of Lakewood

Major and Secondary Highway	Classification	Standard for (ROW)/ Roadway Width	Existing Roadway Width*	No. of Lanes
<u>East-West Direction</u>				
Allington Street	Secondary	80'/64'	58'	2 ¹
South Street	Major	100'/84'	89'	4
Candlewood Street	Secondary	80'/64'	72'	4
west of Clark		100'/84'	82'	4 ²
Del Amo Boulevard	Major			
Centralia Street	Major	100'/84'	62'	4 ³
Studebaker to Pioneer		100'/84'	66'	4 ⁴
Carson Street	Major			
<u>North-South Direction</u>				
Cherry Avenue	Major	100'/84'	82'	4 ⁵
Paramount Boulevard	Major	100'/84'	60'	4
north of Carson				
Downey Avenue	Secondary	80'/64'	56'	4
north of Del Amo	State Hwy	100 +	100 +	6
Lakewood Boulevard	Secondary	80'/64'	56'	4
Clark Avenue	Major	100'/84'	87'	4
Bellflower Boulevard	Major	100'/84'	76'	4
Woodruff Avenue	Secondary	80'/64'	58'	4
Palo Verde Avenue	Major	100'/84'	80'	4
Studebaker Road	Major	100'/84'	81'	4
Pioneer Boulevard	Major	100'/84'	66'	4
Bloomfield Avenue	Major	100'/84'	64'	4
Norwalk Boulevard	Secondary	80'/64'		

Notes

- 1) 4 lanes Bellflower to east city limits
- 2) 6 lanes Clark Avenue to Lakewood Boulevard
- 3) 2 lanes over the 605 freeway
- 4) 6 lanes from the west city limit to Lakewood Boulevard
- 5) 6 lanes south of Del Amo Boulevard
- 6) 4 lanes Woodruff Avenue to Palo Verde Avenue

Table 3.1-I (continued)

Arterial Classification Characteristics*
City of Lakewood

Collector Streets	Classification	Standard for (ROW)/ Roadway Width	Existing Roadway Width*	No. of Lanes
<u>East-West Direction</u>				
Ashworth Street Lakewood to Woodruff	Collector	60'/36'	36'	2
Candlewood Street Clark to Palo Verde	"	"	28'	2
Hardwick Street Paramount to Lakewood	"	"	24'	2
Arbor Road	"	"	38'	2
Centralia Street west of Shadeway	"	"	24'	2
Cover Street	"	"	36'	2
207th Street west of Hawaiian	"	"	36'	2
Country Club Drive Clubhouse to Downey	"	"	34'	2
Turnergrove Drive South of Del Amo	"	"	34'	2
<u>North-South Direction</u>				
Obispo Avenue	Collector	60'/36'	36'	2
Downey Avenue south of Del Amo	"	"	34'	2
Clubhouse Drive Country Club to Carson	"	"	40'	2
Graywood Avenue South to Candlewood	"	"	40'	2-4
Shadeway Road south of Turnergrove	"	"	40'	2
Roseton Avenue north of 207th	"	"	36'	2
Hawaiian Avenue north of 207th	"	"	36'	2
Harvey Way Shadeway to Los	"	"	56'	2 ⁶
Coyotes Diagonal Paramount Boulevard south of Carson	"	"	60'	4
<u>Local Streets:</u> All others				

Source: Los Angeles County Road Dept., "Classification of Roadway Surfaces", May 1991.

* Reported paved roadway widths vary; widest paved roadway width is indicated.

Average Daily Traffic Volumes

During 1992, the City conducted 24-hour traffic volume counts for all major arterial and collector roadways. These volumes, which are referred to as Average Daily Traffic (ADT), are illustrated in Table 3.1-II.

The volumes, together with information regarding roadway widths and lane configurations, are used to determine the capacity utilization or Volume to Capacity (V/C) ratios for each roadway link. The V/C ratio represents the percent of roadway capacity utilized and is determined by dividing the current ADT by the theoretical roadway capacity.

Roadway capacity values include factors such as intersection configurations, degree of access control, roadway grades, design geometries (horizontal and vertical alignments), sight distance, level of truck and bus traffic, and level of pedestrian and bicycle traffic.

Using roadway capacity information, the corresponding Level of Service (LOS) is determined for each roadway link. The LOS is a measure used to describe the quality of traffic flow. Since LOS "D" is generally accepted as the minimum design level for urban areas, those links below LOS "D" are considered deficient based on current traffic demand. Since peak hour will always represent the worst case for LOS, each segment was analyzed during the peak hour and in the peak direction.

Intersection Turning-Movement Counts

During June and July 1989, both A.M. and P.M. peak period turning-movement counts were conducted at 24 signalized intersections. The counts were conducted at the identified intersections in order to assess the existing traffic conditions along the major arterial roadways. These turning movement counts have been adjusted using 24-hour traffic volumes collected in 1992.

The 24 intersections were chosen based on their 24-hour traffic volumes, together with consideration for gathering sufficient data to evaluate the traffic signal systems along each corridor. The peak-hour capacity utilization was calculated for each intersection, using the Intersection Capacity Utilization (ICU) method of analysis. In addition, the corresponding Level of Service (LOS) was determined for each intersection for each peak period. The results of the analysis are summarized in Table 3.1-III.

In accordance with Table 3.1-III, except for Del Amo at Studebaker, all intersections indicated operated at LOS "D" or better during the A.M. peak period. Seven intersections operated at LOS "E" or "F" during the P.M. peak period.

Table 3.1-II

Table 3.1-II

	Location	Limits	Peak Direction	Peak Hour Volume	Lanes	Capacity (veh/hr)	V/C	V/C >0.50	Peak Hour Level of Service	ADT
1	207th	Norwalk / Hawaiian	WB	160	1	1600	0.10		A	2,864
2	207th	Pioneer / Norwalk	EB	109	1	1600	0.07		A	2,174
3	207th	Roseton / Pioneer	EB	49	1	1600	0.03		A	756
4	Allington St	Bellflower / Woodruff	WB	315	2	3200	0.10		A	5,659
5	Allington St	Woodruff / Carpintero	WB	559	2	3200	0.17		A	10,238
6	Arbor Rd	Bellflower / Woodruff	EB	221	1	1600	0.14		A	3,702
7	Arbor Rd	Woodruff / Palo Verde	WB	112	1	1600	0.07		A	2,163
8	Arbor Rd	Palo Verde / Turnergrove	EB	59	1	1600	0.04		A	851
9	Arbor Rd	Paramount / Lakewood	EB	81	1	1600	0.05		A	1,554
10	Ashworth St	Lakewood / Clark	EB	181	1	1600	0.11		A	3,163
11	Ashworth St	Clark / Bellflower	WB	204	1	1600	0.13		A	3,849
12	Ashworth St	Bellflower / Woodruff	EB	101	1	1600	0.06		A	1,747
13	Ashworth St	Downey / Lakewood	SB	105	1	1600	0.07		A	1,989
14	Bellflower Bl	Del Amo / Candlewood	SB	756	2	3200	0.24		A	17,778
15	Bellflower Bl	South / Ashworth	NB	879	2	3200	0.27		A	20,163
16	Bellflower Bl	Candlewood / South	SB	858	2	3200	0.27		A	19,362
17	Bixby Rd	Cherry / Industry	SB	211	1	1600	0.13		A	3,236
18	Bloomfield Ave	Del Amo / Centralia	SB	758	2	3200	0.24		A	17,995
19	Bloomfield Ave	Centralia / Carson	SB	676	2	3200	0.21		A	14,065
20	Candlewood St	Paramount / UPRR	EB	927	2	3200	0.29		A	11,961
21	Candlewood St	Paramount / Downey	EB	991	2	3200	0.31		A	14,432
22	Candlewood St	Downey / Lakewood	EB	1017	2	3200	0.32		A	15,524
23	Candlewood St	Lakewood / Clark	EB	1069	2	3200	0.33		A	20,367
24	Candlewood St	Clark / Bellflower	EB	817	1	1600	0.51	<—	A	13,630
25	Candlewood St	Bellflower / Woodruff	EB	569	1	1600	0.36		A	8,629
26	Candlewood St	Woodruff / Palo Verde	EB	375	1	1600	0.23		A	5,243
27	Carson St	Paramount / Clubhouse	EB	1673	3	4800	0.35		A	29,874
28	Carson St	Clubhouse / Lakewood	EB	1622	3	4800	0.34		A	28,681
29	Carson St	UPRR / Paramount	EB	1579	2	3200	0.49		A	27,064
30	Carson St	San Gab. Rv / Pioneer	EB	2183	2	3200	0.68	<—	B	46,035
31	Centralia St	Bellflower / Woodruff	WB	246	2	3200	0.08		A	3,565
32	Centralia St	Woodruff / Palo Verde	WB	140	2	3200	0.04		A	2,279
33	Centralia St	Pioneer / Norwalk	EB	789	2	3200	0.25		A	14,768
34	Centralia St	Norwalk / Bloomfield	WB	818	2	3200	0.26		A	13,181
35	Centralia St	Pioneer / Studebaker	WB	509	1	1600	0.32		A	8,477
36	Centralia St	Palo Verde / Shadeway	EB	111	2	3200	0.03		A	1,946
37	Cherry Ave	N.C.L. / S.C.L.	NB	1158	2	3200	0.36		A	28,229
38	Clark Ave	Ashworth / South	SB	780	2	3200	0.24		A	16,417
39	Clark Ave	South / Candlewood	NB	853	2	3200	0.27		A	19,268
40	Clark Ave	Candlewood / Del Amo	NB	858	2	3200	0.27		A	19,965
41	Clubhouse Dr	Cntry Club / Carson	SB	139	1	1600	0.09		A	1,939
42	Country Club Dr	Downey / Clubhouse	EB	195	1	1600	0.12		A	2,411
43	Cover St	UPRR / Paramount	EB	721	2	3200	0.23		A	11,997
44	Cover St	Cherry / Industry	WB	84	2	3200	0.03		A	1,050
45	Del Amo Blvd	UPRR / Paramount	EB	1948	2	3200	0.61	<—	B	30,365
46	Del Amo Blvd	Paramount / Downey	WB	1798	2	3200	0.56	<—	A	31,450
47	Del Amo Blvd	Downey / Lakewood	EB	1779	2	3200	0.56	<—	A	31,976
48	Del Amo Blvd	Lakewood / Clark	WB	1725	3	4800	0.36		A	31,706
49	Del Amo Blvd	Clark / Bellflower	WB	1851	2	3200	0.58	<—	A	33,212
50	Del Amo Blvd	Bellflower / Woodruff	WB	1797	2	3200	0.56	<—	A	32,924

Table 3.1-II (continued)

Table 3.1-II (continued)

	Location	Limits	Peak Direction	Peak Hour Volume	Lanes	Capacity (veh/hr)	V/C	V/C >0.50	Peak Hour Level of Service	ADT
51	Del Amo Blvd	Woodruff / Palo Verde	WB	1761	2	3200	0.55	<—	A	31,364
52	Del Amo Blvd	Palo Verde / S.G. River	WB	1769	2	3200	0.55	<—	A	34,892
53	Del Amo Blvd	Studebaker / I-605	WB	1538	2	3200	0.48		A	29,605
54	Del Amo Blvd	I-605 / Pioneer	WB	1679	2	3200	0.52	<—	A	30,530
55	Del Amo Blvd	Pioneer / Norwalk	EB	1263	2	3200	0.39		A	23,824
56	Del Amo Blvd	Norwalk / Bloomfield	WB	1065	2	3200	0.33		A	19,503
57	Downey Ave	South / Candlewood	NB	671	2	3200	0.21		A	15,172
58	Downey Ave	Candlewood / Del Amo	NB	411	2	3200	0.13		A	9,321
59	Downey Ave	Del Amo / Cntry Club	NB	193	1	1600	0.12		A	2,486
60	Graywood Ave	South / Candlewood	NB	89	1	1600	0.06		A	1,639
61	Hardwick St	Paramount / Downey	EB	123	1	1600	0.08		A	2,230
62	Hardwick St	Downey / Lakewood	EB	181	1	1600	0.11		A	3,530
63	Harvey Way	Bellflower / Woodruff	EB	336	1	1600	0.21		A	6,511
64	Harvey Way	Woodruff / Palo Verde	EB	264	2	3200	0.08		A	4,596
65	Harvey Way	Palo Verde / Los Coyote	WB	96	1	1600	0.06		A	1,747
66	Hawaiian Ave	Del Amo / Centralia	SB	99	1	1600	0.06		A	1,352
67	Hedda St	Lakewood / Bellflower	EB	115	1	1600	0.07		A	1,700
68	Industry Ave	Cover / 36th	SB	855	1	1600	0.53	<—	A	10,555
69	Los Coyotes Diag	Carson / Harvey	SB	258	1	1600	0.16		A	5,449
70	Norwalk Blvd	Centralia / Del Amo	NB	745	2	3200	0.23		A	17,328
71	Obispo Ave	Del Amo / Arbor	SB	96	1	1600	0.06		A	1,912
72	Obispo Ave	Arbor / Carson	SB	76	1	1600	0.05		A	1,606
73	Obispo Ave	Candlewood / Del Amo	NB	95	1	1600	0.06		A	1,392
74	Palo Verde Ave	Carson / Centralia	NB	401	2	3200	0.13		A	7,925
75	Palo Verde Ave	Centralia / Del Amo	NB	393	2	3200	0.12		A	8,808
76	Palo Verde Ave	Del Amo / South	SB	520	2	3200	0.16		A	9,850
77	Palo Verde Ave	South / Allington	NB	558	2	3200	0.17		A	11,095
78	Paramount Blvd	Candlewood / Del Amo	SB	1078	2	3200	0.34		A	18,748
79	Paramount Blvd	Del Amo / Carson	NB	966	2	3200	0.30		A	17,405
80	Paramount Blvd	Carson / Cover	SB	973	2	3200	0.30		A	13,115
81	Pioneer Blvd	Los Coyotes / Del Amo	SB	744	2	3200	0.23		A	16,030
82	Pioneer Blvd	Del Amo / Centralia	SB	655	2	3200	0.20		A	14,279
83	Pioneer Blvd	Centralia / Carson	NB	739	2	3200	0.23		A	16,147
84	Roseton Ave	Del Amo / 207th St	EB	178	1	1600	0.11		A	3,822
85	Shadeway Rd	Turnergrove / Harvey	SB	89	1	1600	0.06		A	1,807
86	South St	Downey / Lakewood	EB	1497	2	3200	0.47		A	28,052
87	South St	Lakewood / Clark	EB	1343	2	3200	0.42		A	26,746
88	South St	Clark / Bellflower	EB	1480	2	3200	0.46		A	29,221
89	South St	Bellflower / Woodruff	EB	1410	2	3200	0.44		A	28,749
90	South St	Woodruff / Palo Verde	EB	1407	2	3200	0.44		A	30,265
91	South St	Palo Verde / SG River	EB	1368	2	3200	0.43		A	31,213
92	Studebaker Rd	Del Amo / Centralia	NB	674	2	3200	0.21		A	10,270
93	Turnergrove Dr	Palo Verde / Shadeway	WB	173	1	1600	0.11		A	3,155
94	Woodruff Ave	Ashworth / Allington	SB	1111	2	3200	0.35		A	21,879
95	Woodruff Ave	Allington / South	SB	1030	2	3200	0.32		A	20,311
96	Woodruff Ave	South / Del Amo	SB	813	2	3200	0.25		A	18,346
97	Woodruff Ave	Del Amo / Carson	SB	857	2	3200	0.27		A	19,251
98	Lakewood Blvd	Ashworth / South	NB	1264	2	3200	0.40		A	36,000
99	Lakewood Blvd	South / Candlewood	NB	1385	2	3200	0.43		A	33,000
100	Lakewood Blvd	Candlewood / Del Amo	NB	1292	2	3200	0.40		A	34,000

Table 3.1-III
Estimated Levels of Service
City of Lakewood

Intersection	1990				1992 (estimated)			
	AM		PM		AM		PM	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
South St. at Palo Verde Ave.	0.56	A	0.77	C	0.63	B	0.69	B
South St. at Canehill Ave.	0.48	A	0.61	A	0.55	A	0.52	A
South St. at Woodruff Ave.	0.75	C	0.95	E	0.71	C	0.81	D
South St. at Bellflower Bl.	0.67	B	0.91	E	0.73	C	0.84	D
South St. at Clark Ave.	0.76	C	1.04	F	0.70	C	0.99	E
Del Amo Bl. at Studebaker Rd..	0.83	D	0.88	D	0.95	E	0.79	C
Del Amo Bl. at Palo Verde Ave.	0.71	C	0.92	E	0.75	C	0.94	E
Del Amo Bl. at Woodruff Ave.	0.76	C	1.00	E	0.84	D	0.90	E
Del Amo Bl. at Bellflower Bl.	0.80	C	0.77	C	0.90	D	0.89	D
Del Amo Bl. at Clark Ave.	0.76	C	0.99	E	0.87	D	1.01	F
Del Amo Bl. at Graywood Ave.	0.60	A	0.87	D	0.69	B	0.96	E
Del Amo Bl. at Downey Ave.	0.84	D	0.78	C	0.82	D	0.78	C
Del Amo Bl. at Paramount Bl.	0.85	D	0.71	C	0.87	D	0.75	C
Paramount Bl. at Carson St.	0.56	A	0.73	C	0.59	A	0.77	C
Paramount Bl. at Candlewood St.	0.50	A	0.69	B	0.55	A	0.72	C
Clark Ave. at Hardwick St.	0.30	A	0.57	A	0.33	A	0.51	A
Clark Ave. at Candlewood St.	0.53	A	0.75	C	0.56	A	0.71	C
Clark Ave. at Hedda St.	0.32	A	0.51	A	0.35	A	0.48	A
Clark Ave. at Ashworth St.	0.42	A	0.48	A	0.45	A	0.46	A
Bellflower Bl. at Candlewood St.	0.68	B	1.11	F	0.61	B	1.05	F
Wooruff Ave. at Harvey Way	0.37	A	0.56	A	0.41	A	0.60	A
Lakewood Bl. at South St.	n/a	-	-	-	0.67	B	0.91	E
Lakewood Bl. at Candlewood St.	n/a	-	-	-	0.68	B	0.91	E
Lakewood Bl. at Del Amo Bl.	n/a	-	-	-	0.58	A	0.80	D

Source: City of Lakewood, Department of Public Works

Truck Routes

Figure 3.1-3 shows truck routes in Lakewood and in adjacent cities. The truck routes in Lakewood correspond with truck routes in adjacent cities, providing a continuous network of surface streets. The following streets are designed as unrestricted and through-passage truck routes. These streets are designed for use of vehicles in excess of 6,000 pounds within the City of Lakewood:

1. Bellflower Boulevard (north City limits to South Street)
2. Carson Street
3. Cherry Avenue
4. Lakewood Boulevard
5. Pioneer Boulevard
6. South Street
7. Woodruff (north City limits to South Street)

Source: City of Lakewood Municipal Code, Section 3264.

Traffic Signals

As part of the *Traffic Management Study for the City of Lakewood*, dated February 1990, prepared by Willdan Associates, a complete field inventory of all traffic signals within the City of Lakewood was prepared in May 1989. The inventory included a review of all existing signal equipment at 40 locations within the City. Figure 3.1-4 indicates existing City-maintained signal locations, as well as those maintained by other agencies.

The City's existing traffic signal system includes some coordinated traffic signal systems, including time-based coordination along Del Amo Boulevard and Pioneer Boulevard and hardwired interconnect on Candlewood Street. There are future plans for time-based coordination on Bellflower Boulevard.

The City currently has plans to upgrade and improve the traffic signals at several locations.

Number of Registered Vehicles

According to January, 1995 Department of Motor Vehicles (DMV) records, a total of 56,085 vehicles (operational and non-operational) were registered within the City of Lakewood. Of the total number of citywide registered vehicles, 46,342 vehicles were vehicles weighing under 3,000 pounds; 6,182 vehicles were vehicles weighing over 3,000 pounds; and, 3,561 vehicles were trailers. No count was specified for the number of recreational vehicles registered within the City. The total number of registered vehicles per person in Lakewood (based upon the 1990 population Census figure of 73,557 persons) is .76 vehicles. Based on the 1990 Census there are a total of 26,202 households in the City, so the approximate number of vehicles per household is 2.14.

3.1.3 Accidents

Figure 3.1-3 displays the major intersections in the City of Lakewood where, between January 1986 through December 1988, there were high accident rates. This information is also displayed in Table 3.1-IV. A mid-block accident analysis with calculated rates is summarized in Table 3.1-V.

The number of accidents for each million vehicles for citywide intersections varied from a low of 0.13 at Carson Street and Pioneer Boulevard, to a high of 1.02 at Del Amo Boulevard and Downey Avenue.

Accident rates along those major highway segments studied varied from 1.10 accidents per million vehicles, for Del Amo Boulevard from Palo Verde Avenue to Studebaker Road, to 3.22 accidents per million vehicles for Norwalk Boulevard between Del Amo Boulevard and Centralia. A detailed analysis of City accident rates is contained in the *Traffic Management Study For the City of Lakewood*, dated February 1990.

Table 3.1-IV

**Mid-Block Accident Concentrations
(Locations With Higher Than Expected Accident Rates)
City of Lakewood**

<u>Location</u>	<u>1988 Accident Rate*</u>	<u>Expected Accident Rate*</u>
<u>Norwalk Boulevard</u>		
Del Amo to Centralia	3.22	2.46
<u>Centralia Street</u>		
Pioneer to Norwalk	2.89	2.12
<u>Del Amo Boulevard</u>		
Cherry to Paramount	2.68	1.38
<u>South Street</u>		
Downey to Lakewood	2.85	2.12
Woodruff to Palo Verde	2.39	2.12
<u>Clark Avenue</u>		
Candlewood to Hardwick	2.34	2.12
<u>Woodruff Avenue</u>		
South to Candlewood	2.18	1.38
Candlewood to Del Amo	1.87	1.38

* Expressed in terms of Accidents per Million Vehicle Miles (A/MV).

Source: Traffic Management Study For the City of Lakewood, February 1990.

Table 3.1-V
1988 Mid-Block Accident Analysis
City of Lakewood

Mid-Block Segment	Total Length (Miles)	Total No. ADT	Total No. Accidents	Calculated Accident Rate (A/MVM)**	Expected Accident Rate (A/MVM)*
<u>Candlewood Street</u> Graywood to Clark	.256	23,600	5	2.27	2.46
<u>Carson Street</u> Paramount to Clubhouse	.281	29,800	5	1.64	2.12
<u>Centralia Street</u> Pioneer to Norwalk	.580	14,700	9	2.89	2.12
<u>Clark Avenue</u> Candlewood to Hardwick	.205	22,800	4	2.34	2.12
<u>Del Amo Boulevard</u> Cherry to Paramount	.443	32,300	14	2.68	1.38
Graywood to Clark	.247	31,200	6	2.13	2.12
Bellflower to Woodruff	.494	38,600	9	1.29	1.38
Palo Verde to Studebaker	.554	35,900	8	1.10	2.12
<u>Norwalk Boulevard</u> Del Amo to Centralia	.503	18,600	11	3.22	2.46
<u>Pioneer Boulevard</u> Centralia to Carson	.511	18,400	6	1.75	2.46
<u>South Street</u> Downey to Lakewood	.494	31,100	16	2.85	2.12
Bellflower to Woodruff	.494	31,200	8	1.42	2.12
Woodruff to Palo Verde	.502	32,100	14	2.39	2.12
<u>Woodruff Avenue</u> South to Candlewood	.332	22,700	6	2.18	1.38
Candlewood to Del Amo	.452	22,700	7	1.87	1.38

* Maximum Average Daily Traffic

** Accidents per Million Vehicle Miles

Source: Traffic Management Study for the City of Lakewood, February, 1990.

3.1.4 Bikeway Plan

The *Traffic Management Study for the City of Lakewood*, dated February 1990, prepared by Willdan Associates, included a field inventory of Lakewood's bikeway system. This inventory, conducted during the month of July 1989, compared Lakewood's existing bikeway system with the proposed (and adopted) City of Lakewood Bikeway Plan.

The existing bikeway system and the adopted Bikeway Plan are illustrated in Figures 3.1-4 and 3.1-5 respectively. The plans identify the three basic types of facilities: Class I (Bike Path), Class II (Bike Lane), and Class III (Bike Route).

Type of Facility

Characteristics of the three basic types of facilities are as follows:

Class I Bikeway (Bike Path) provides for bicycle travel on rights-of-way, separate from any street or highway. Bike paths are used to serve corridors not accessible by streets and highways or where wide rights-of-way exist. The most common applications for bike paths are along rivers, ocean fronts, canals, utility rights-of-way, on college campuses, or within and between parks.

Class II Bikeway (Bike Lane) provides a striped one-way travel lane on a street or highway. Bike lanes are common along streets where there is significant bike demand and adequate pavement width. They accommodate bicyclists through corridors where sufficient room exists for safe bicycling on street.

Class III Bikeway (Bike Route) provides shared use with pedestrians and motor vehicles. Bike routes provide continuity to other bicycle facilities (usually Class II) and guide bicyclists to preferred travel routes.

The existing bikeway system is, for the most part, consistent with the Citywide Bikeway Plan. Among the differences, the most noted is the exclusion of Candlewood Street, which is designated as a bike route on the Bikeway Plan, and portions of South Street, which are designated bike routes instead of bike lanes. The Bikeway Plan should be reevaluated periodically and recommendations for modifications should be made as necessary to accommodate changes in bicycling demands or patterns.

Bikeway Design Criteria

When selecting appropriate streets or rights-of-way for bike paths, bike lanes, or bike routes, certain design criteria should be met. The design criteria for bikeways is established in the State of California Highway Design Manual, Section 1003. The design criteria include requirements for minimum widths, clearance from obstructions, design speeds, and horizontal and vertical alignments. A complete description of the design criteria is included in the Appendix of the *Traffic Management Plan Prepared for the City of Lakewood*, dated February 1990.

3.1.5 Public Transportation

Public transportation in the City of Lakewood is provided by three public transit purveyors. Please refer to Figure 3.1-6 for bus stop locations and routes within the City of Lakewood.

Long Beach Transit District has routes traveling in north-south and east-west directions along several of Lakewood's main arterials. Long Beach Transit provides public transportation throughout the Long Beach area with bus connections to Orange, San Bernardino, and Ventura Counties, and points of destination throughout the greater Los Angeles Basin.

The Metropolitan Transportation Authority (MTA) has three routes traveling in north-south and east-west directions in portions of Lakewood. MTA bus service provides both direct and connecting public transportation service to points throughout Southern California.

Orange County Transportation Authority (OCTA) has one route traveling through the eastern portion of the City, bordering the City of Cerritos. OCTA buses provide public transportation service to Orange County and Long Beach area points of destination, with connecting service to MTA and Long Beach Transit District bus routes.

The "Dependable, Accessible, Senior and Handicapped Transportation" (DASH) is a free transportation service operated by the City of Lakewood. DASH travels within and outside the City's boundaries to serve its riders' destinations. Dial-a-Lift is a fee-for-service transit system provided for Lakewood residents by the Long Beach Transit System. Both of these transit services are available to senior and handicapped individuals.

The Metro Blue Line, which opened in 1990, extends from downtown Long Beach to downtown Los Angeles. At the present time, the nearest Blue Line Terminal to Lakewood is located in the vicinity of the Long Beach Freeway on Del Amo Boulevard. The terminal is serviced by all three previously-mentioned bus transportation providers. As of December 1994, the Blue Line provided transportation for an estimated 38,000 riders per week day.

The Norwalk/El Segundo Green Line, which will utilize the center of the I-105 Glen Anderson Freeway, is expected to be in operation by the summer of 1995. The Green Line is expected to carry a daily ridership of 12,000 in 1995 and 104,000 by the year 2000. Buses will also serve each Green Line station to better service the residents of surrounding communities.

Bus Shelters

One hundred (100) bus shelters will be located at various bus stops in the City of Lakewood and will benefit the City's residents by providing a clean, comfortable, and safe place to sit while waiting for a bus. The City of Lakewood will also benefit from the shelters by receiving advertising revenues of \$100,000 per year.

Shelters will be provided at bus stops near commercial centers, senior citizen facilities, and heavily-used bus stops. Bus shelters will also be provided at all major transfer points, near schools, and near senior citizen housing projects.

3.1.6 Ridership Trends

Table 3.1-VI displays transit service usage trends for the fiscal years 1985-94. As the Table indicates, overall the Lakewood ridership trends have remained constant for the past nine years.

Table 3.1-VI

**City of Lakewood
Annual Transit Ridership Trends
Fiscal Years 1985-1994**

Years/# of Riders:	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Dial-A-Lift	5,269	4,672	5,054	5,985	4,480	4,989	4,675	5,485	3,417
DASH	15,047	14,499	14,747	20,291	21,588	14,800	14,903	16,673	17,975
MTA*	221,650	215,450	206,770	269,080	222,890	221,472	222,912	221,472	210,528
OCTA**	78,430	55,800	Not Avail.	64,480	59,210	67,151	67,526	67,216	66,136
LB Transit	979,445	898,828	790,064	772,610	770,383	841,104	840,104	800,815	842,338
TOTALS:	1,299,841	1,189,249	1,016,635	1,132,446	1,078,551	1,149,516	1,150,120	1,111,661	1,140,394

Source: March, 1995, MTA, OCTA, Long Beach Transit, and the City of Lakewood.

* Lakewood ridership for fiscal years 1990/91 to 1993/94 are estimations based on MTA spot checks and extrapolated for 6 days a week for 48 weeks.

** Lakewood ridership for fiscal years 1990/91 to 1993/94 are estimated at 7% of total route ridership.

3.1.7 Streetscape

Street Trees

The City maintains 27,870 trees lining its public streets and located on its public facilities (in addition, there are 5,191 vacant tree sites awaiting tree planting). These trees provide visual evidence to the concern that has been demonstrated over the years for the City's environment. Unfortunately, many of these older trees have grown or will grow too large for their settings causing damage to sidewalks, curbs and gutters, driveway, and driveway aprons. Some large species require pruning of such a severe nature that their beauty is lost. Other species have not thrived in their Lakewood environment and are not healthy specimens. Many of the City's big trees are difficult to feed, prune, and spray and maintenance is becoming increasingly expensive.

In 1977, the City Council adopted an ordinance that called for the preparation and adoption of a Tree Removal Plan, which was subsequently developed in 1978, along with a Master Tree List and Tree Planting Plan. The last updating of the Tree Removal Plan in 1982 called for the removal and replacement of a maximum of 12,470 street and parkway trees over a ten-year span of time. The plan authorizes no more than ten percent of these trees to be removed in any one calendar year. Along with the Tree Removal Plan, when new development occurs within the City, the installation of street trees, to City specifications as to species and location, is required of the developer. The Master Tree List specifies the suitable species of tree to be planted in conjunction with new development and in the tree removal and replacement program.

Hardscape

As of February 1993, the City maintained approximately 400 miles of sidewalk, curb and gutter (hardscape). In conjunction with the Tree Removal Plan, the City adopted a Neighborhood Hardscape Strategy to repair or replace damaged hardscape. The City's hardscape repair strategy is divided into three basic plans:

1. For sidewalk damage that is one inch or less of displacement, the area will be ground down to eliminate the displacement. If the area has a one-inch or less rise without a displacement, the area will not be repaired. In both situations, the tree will most likely be preserved and a root barrier installed.
2. For sidewalk damage of over one inch in rise or displacement, the sidewalk will be repaired, the tree removed and replaced, and a root barrier installed. Whenever possible, existing sections of sidewalk will be reused by using the "set back" procedure.
3. All curb and gutter damage is repaired to the extent of allowing the water to drain.

In 1992, the City completed an inventory of all City trees and hardscape damage. The inventory revealed that there are 12,541 locations requiring some type of sidewalk repair and 4,220 requiring curb and gutter repair. Staff is currently working to develop a computer program that will prioritize the blocks according to the frequency and severity of the damage. This will allow staff to more objectively select work areas and plan work efforts.

Street Lights

Under contract to the City, Los Angeles County Department of Public Works maintains 5,388 street lights within the City, while an additional 1,300 street lights are maintained by Southern California Edison Company. All street lights are high-pressure sodium of various sizes. To improve the street light system, the City has undertaken plans to convert City-owned series circuits to multiple circuits. This involves replacing fixtures, lamps and ballasts, and replacing all wiring in existing conduits. Figure 3.1-7 displays the maintenance boundaries of Edison-owned and City-owned street lights.

3.2 Utilities

3.2.1 Water

On July 15, 1989 the City Council of the City of Lakewood adopted the "City of Lakewood Water Master Plan." The Master Plan includes an inventory of the City's existing water lines and identifies the need for new and replacement facilities (pipelines, wells, booster pumps, and reservoirs). In addition, the Water Master Plan led to the formation of the City's new Water Resources Department. The Department was formed to maintain high standards for local drinking water sources and to ensure quantities remain in supply.

Figure 3.2-1, depicts the City's existing water lines (10 inches and larger), well locations, and service area boundaries.

3.2.1.1 Water Supply

The City of Lakewood was incorporated in 1954. At that time, City residents received their water from Lakewood Power and Water Company, a privately-held company. In 1957, the City of Lakewood acquired a majority of the water operations west of the San Gabriel River. A very small portion of the City (immediately south of the City's northerly boundary, west of Palo Verde Avenue, and south of Allington Street) obtains its water from the Peerless Water Company. The area east of the San Gabriel River is serviced by the Southern California Water Company.

City of Lakewood Water Resources Department

Water lines within the City of Lakewood Water Resources' service area range in size from 4 inches to 27 inches in diameter. Several residential areas are served with undersized 4-inch steel water lines that fail to meet required fire flow standards by a few hundred gallons per minute. Within the next five years new and upgraded water lines will be installed to correct the water flow problems at many of these locations. The City is in the process of replacing 4-inch mains to 8-inch steel mains at a rate of approximately one mile per year. Over the next 45 years the remaining 68 miles of undersized steel and cast iron mains will be replaced.

As of January 31, 1995, the City of Lakewood's Water Resources Department had 19,983 service connections. Residential connections constitute a majority of the City's water service customers.

The following chart displays water use by type of account for the City of Lakewood's water system:

<u>Type of account</u>	<u>% of Water Use</u>
Residential	75%
Commercial/Industrial	16%
Municipal	4%
Other (Construction, meters, street sweeping)	0.3%
Unaccounted for Water	5%

Date: February 12, 1991

Source: City of Lakewood Water Resources Department

The City's water production and storage system consists of 16 well sites located throughout the City (see Figure 3.2-1). Booster stations and storage facilities are situated at three locations and Metropolitan Water District Connections are situated at two locations in the City. Citywide acreage devoted to well sites, storage, and administrative offices is 24.46 acres (see Section 2.1, Land Use, for further discussion on this topic.)

Prior to the drought, the average annual water production for the City of Lakewood was approximately 10,000 acre feet. However, due to drought conditions, which began in 1985, the City encouraged its residents to reduce total consumption through voluntary conservation. In FY 1991-92, consumption dropped to 7,631.26 a.f., the lowest level in over 15 years. Consumption has since increased each year. The following chart depicts the total consumption for the last nine years.

<u>Fiscal Year</u>	<u>Total Production</u>	<u>% Increase (Decrease)</u>
FY 1985/86	10,029.40 a.f.	---
FY 1986/87	10,051.92 a.f.	.2%
FY 1987/88	9,859.65 a.f.	(2%)
FY 1988/89	10,118.07 a.f.	3%
FY 1989/90	9,860.51 a.f.	(3%)
FY 1990/91	8,596.10 a.f.	(13%)
FY 1991/92	7,631.26 a.f.	(11%)
FY 1992/93	8,384.72 a.f.	9%
FY 1993/94	8,580.56 a.f.	2%

Date: January, 1995

Source: City of Lakewood Water Resources Department

As of January 1995, the City of Lakewood owned 8,963 acre feet of adjudicated water rights in the Central Groundwater Basin. The City operates 16 wells, which have supplied all the potable water demand for its consumers since FY 1991-92.

The following chart indicates the annual groundwater extractions by the City of Lakewood for the past nine years.

<u>Fiscal Year</u>	<u>Local Groundwater Extractions</u>	<u>% Increase (Decrease)</u>
FY 1985/86	9,927.70 a.f.	---
FY 1986/87	9,208.54 a.f.	(7%)
FY 1987/88	8,933.48 a.f.	(3%)
FY 1988/89	8,934.34 a.f.	0%
FY 1989/90	9,168.16 a.f.	3%
FY 1990/91	7,928.96 a.f.	(14%)
FY 1991/92	7,631.26 a.f.	(4%)
FY 1992/93	8,384.72 a.f.	9%
FY 1993/94	8,580.59 a.f.	2%

Date: January, 1995

Source: City of Lakewood Water Resources Department

Purchase Water Supply

The Metropolitan Water District of Southern California (MWD) supplies water to meet the water demand that exceeds the City's pumping allocation.. The City maintains two connections to the Metropolitan Water District's supply. The following indicates the amount of water purchased from MWD over the last nine years.

<u>Fiscal Year</u>	<u>Purchased from MWD</u>	<u>% Increase (Decrease)</u>
FY 1985-86	101.70 a.f.	---
FY 1986-87	843.38 a.f.	729%
FY 1987-88	926.17 a.f.	10%
FY 1988-89	1183.73 a.f.	28%
FY 1989-90	692.35 a.f.	(42%)
FY 1990-91	667.10 a.f.	(4%)
FY 1991-92	0.0 a.f.	100%
FY 1992-93	0.0 a.f.	---
FY 1993-94	0.0 a.f.	---

Date: July 1991

Source: City of Lakewood Water Resources Department

Reclaimed Water Supply

In August 1989, the City began purchasing reclaimed wastewater from the City of Cerritos. The City of Cerritos purchases reclaimed water from the Los Angeles County Sanitation District's treatment plant located on the northwest corner of Interstate 605 and the 91 Freeway Interchange.

In order to deliver reclaimed water to customers, the City constructed approximately six miles of pipeline. As of January, 1995, the system provided reclaimed water for irrigation of one commercial grower, five local schools (Saint Joseph High School, Foster Elementary School, Mayfair High School, Lindstrom Elementary School, and Lakewood High School), seven City facilities (including City Hall and the Arbor Yard), and 3.5 miles of parkway. During Fiscal Year 1993/94, the City purchased 446.89 acre feet of reclaimed wastewater. Shown below is the amount of reclaimed water purchased from the City of Cerritos over the past five years.

<u>Fiscal Year</u>	<u>Purchased from City of Cerritos</u>	<u>% Increase (Decrease)</u>
FY 1989-90	353.72 a.f.	---
FY 1990-91	346.87 a.f.	(2%)*
FY 1991-92	406.18 a.f.	15%
FY 1992-93	412.32 a.f.	1.5%
FY 1993-94	446.89 a.f.	8%

* Consumption reduced due to excessive rainfall in March, 1991.

Date: January, 1995

Source: City of Lakewood Water Resources Department

In 1993, two additional schools, Artesia High School and Palms Elementary School, and Palms Park were connected to the City of Cerritos' reclaimed wastewater system, which is operated by the Southern California Water Company. Until construction of additional phases of the reclaimed pipeline, the system demand is expected to remain constant at 440 a.f. annually. Currently, a second phase of the project is in the conceptual stage of development. Hoover Junior High School and Bolivar Park are expected to be connected to the reclaimed water system during this phase of construction.

Southern California Water Company

The Southern California Water Company began operation in 1940. The Company, whose corporate headquarters are located in San Dimas, is the second largest investor-owned water company and the fourth-largest domestic water supplier in California. Southern California Water Company owns and operates 40 water systems Statewide and has water service in 60 jurisdictions.

The Company provides water service to areas of Lakewood east of the San Gabriel River through its "Artesia Water System." The customer base in east Lakewood is primarily residential, followed by

commercial and then municipal. According to the Company's general manager, Mr. William McDonald, since November 1990, 30 percent of the water piped to east Lakewood has been from Metropolitan Water District sources with the remaining 70 percent coming from local groundwater sources.

Peerless Water Company

The Peerless Water Company was formed in 1940 by Mr. C. L. "Sam" Zastrow in Bellflower. The Company found its beginnings out of the need to serve the area's growing residential subdivisions. After the World War II construction boom, the Company expanded to serve newly-built tracts in Bellflower and Paramount. In the early 1960's, Peerless extended its service to a northern portion of Lakewood (see Figure 3.2-1). Currently, the Peerless Company serves 104 residential Lakewood customers. The portion of the system located in Lakewood consists of 4- to 6-inch water mains.

According to the Company's owner and general manager, Mr. William Zastrow, the majority of the water piped to Lakewood is obtained from local groundwater. However, Peerless' system has a backup connection to Metropolitan Water District water sources.

3.2.1.2 City of Lakewood Water Resource Management Strategic Plan

On March 13, 1990 the Lakewood City Council adopted the City of Lakewood Water Resource Management Strategic Plan. The Plan established the City's goals in regard to its water supply. Key elements in the City of Lakewood Water Resource Management Strategic Plan include policies and related activities for the preservation of local groundwater supplies.

The San Gabriel Valley is the site of the largest plume of groundwater contamination in the country. The United States Environmental Protection Agency (EPA) has spent over ten years studying the contamination of the San Gabriel Valley Groundwater Basin and has yet to take any significant action in the prevention of the migration of contaminated groundwater from the San Gabriel Valley to the Central Groundwater Basin.

As a result, the City of Lakewood felt an urgent need to address the issue of contaminant migration. On June 26, 1990 the Lakewood City Council adopted a resolution requesting a coalition of municipalities to stimulate cooperation between the Central Basin Municipal Water District and the Water Replenishment District of Southern California (WRD), formerly the Central and West Basin Water Replenishment District. The resolution urged regional water agencies and municipal governments to consider a detailed action plan to safeguard and protect the area's local water supply.

In 1990, the Southeast Water Coalition was formed to press the EPA for action in regard to the migration of contaminants from the San Gabriel Valley Groundwater Basin. In 1995, twelve of the 23 cities located in the Central Groundwater Basin and the WRD comprise the coalition. This policy board has effectively lobbied the EPA for projects to pinpoint contamination flow and study methods of remediation.

Water Conservation

In March 1990, it was apparent to Lakewood that California's four-year drought would have a local impact. In April 1990, the Metropolitan Water District Board of Directors adopted a resolution requesting a voluntary ten percent reduction in its service area.

In 1990, the MWD instituted a drought rebate program to encourage water conservation. Water retailers received a rebate for every acre-foot of water saved. The City's overall water conservation for the MWD drought rebate program during 1990 was 9 percent. With the exception of the City of Vernon, Lakewood residents conserved more water than any other of the 23 Central Basin cities.

By January 1991, MWD invoked a mandatory cutback in sales to retail water agencies. As a result, the City took a 50 percent reduction in water purchases. In addition to the drought, other factors affecting the City's water situation included dwindling surface storage in State Water Project supplies, the loss of water supply from the Colorado River, and the need to supply additional water to the City of Los Angeles Department of Water and Power (LADWP).

The drought conditions prompted the Lakewood City Council to address water conservation issues in several ways. On February 26, 1991, the Lakewood City Council adopted an ordinance amending the City of Lakewood Municipal Code, which established a procedure to implement water conservation measures; and, in the beginning of 1991, the City Council adopted a resolution declaring a Phase I Water Supply Emergency, which implemented mandatory conservation measures including an emergency water surcharge. In October 1991 the City Council revised the Water Conservation Ordinance and moved from mandatory water conservation measures to a voluntary conservation mode. The move back to voluntary was in response to overwhelming conservation efforts by the City's water customers.

In 1995, water supply shortfalls are being caused by political reactions to environmental issues rather than a lack of precipitation. Required releases of surface water supplies into the San Francisco Bay-Delta Estuary for environmental reasons, reduces the availability of supplies for urban and agricultural uses. Shortfalls in surface water allocations from northern California could impact the recharge of the Central Groundwater Basin. The City remains in voluntary conservation for this reason.

Additional pro-active conservation water measures taken by Lakewood include: publishing public-information water conservation articles; public instruction on water-saving methods and landscaping; staffing informational booths at community events; implementation of water-saving policies for residential and commercial customers; and the production of awarding-winning informational cable television programs.

3.2.1.3 Capital Improvements

City of Lakewood Water Resources Department

Over the past five years, the Department of Water Resources has implemented an aggressive capital improvements program. The Department has completed several major projects during this time; a computerized telemetry system, five miles of water mains and renovation of Well #23, which is located at the north end of Civic Center Way and the flood control channel. The City's capital improvements are scheduled in the City of Lakewood's "Legacy Capital Improvement Plan." Significant projects planned for or completed during the early 1990's include:

Funded New Projects

1. Renovation of Storage Facilities

The Department of water Resources operates three storage facilities, two tank farms and one partially buried reservoir. In FY 1994/95, a structural engineering firm conducted an analysis of both tank farms to determine each tank's structural integrity and vulnerability during a seismic episode. Plant #13 located at Palo Verde Avenue north of Del Amo Boulevard, and Plant #4 located at the Arbor Yard each have tanks that require rehabilitation. All tanks at both plants require painting. The City Council has budgeted funds for repairs in the FY 1994/95 budget. The project is expected to be completed in FY 1996/97.

2. Treatment Plant at Well #11 and Well #11-A

Wells #11 and #11-A are located at Sunfield Avenue, south of South street. These wells have a history of exceeding the maximum containment level for iron and manganese, both secondary or aesthetic standards set by the State Department of Health Services and the EPA. To address this problem, the City Council approved the installation of a wellhead treatment plant to filter these constituents from the drinking water supply. The facility is expected to be operational by January 1996.

3. Emergency Water Supply Inter-Connection

The Cities of Lakewood and Cerritos have entered into an agreement for the construction of an automated inter-connection between the two systems. The connection will open when either system experiences a significant drop in water pressure. This connection is being planned with the Southern California Water Company.

Funded Continuing Projects

1. Water Main Replacement

Several miles of steel water mains are still in service in the older parts of the City. The majority of leaks occur in the areas served by these World War II-era pipelines. These mains are also undersized and have inadequate fire flows and pressure. In addition to the remaining steel mains, 68 miles of undersized cast iron pipe exists within the distribution system. Upon completion of the steel mains, work is expected to begin on replacement of the undersized cast iron pipelines.

The project consists of the replacement of undersized steel water mains and installation of new services and fire hydrants cited in the Legacy. This project will increase fire fighting capabilities and reduce water quality complaints.

Unfunded Projects

1. Reclaimed Water System Expansion

The use of reclaimed wastewater for irrigation results in a direct gallon-for-gallon saving of drinking water.

The entire reclaimed water system expansion project consists of five phases--Phase I of which is complete. Future extension of reclaimed water lines, earmarked for fiscal years 1997-2000, is planned along various parkway strips throughout the City. Other connections are to include service to Lakewood Center Mall, other City facilities, and local schools which are located on the west side of Lakewood Boulevard (Bolivar Park and Hoover Junior High School.)

2. Water Well Development

Lakewood obtains 90 to 100 percent of its water supply from its drilled wells. The project, which consists of three phases, includes analysis of current production facilities and system operation to determine the need for additional well sites.

Southern California Water Company

According to the Southern California Water Company's "Artesia System-Southern Portion Master Design Report" dated November 14, 1991, recommended water main replacements (for the portion of the system serving Lakewood) to be completed during the next five years are categorized into the three following groups:

<u>Group</u>	<u>Description</u>	<u>Location</u>
1	Improve major fire flow deficiencies	Install 650 feet of 8" main in 205th St. and Alburtis.
2	Replace steel mains	Install 6,800 feet of new 8" mains along Centralia, 209th, and Arline, in the vicinity east of Pioneer and west of Norwalk.
3	Improve minor fire flow deficiencies	Install new 8" mains in several single-family residential areas currently served by 4" mains. Fire flow from these mains are typically about 800 gpm which is below current requirements.

Source: Southern California Water Company's "Artesia System-Southern Portion Master Design Report, dated February 14, 1991.

The Southern California Water Company also proposes major water system improvements, which are not located within the City of Lakewood but affect the operation of the Artesia Water System.

Peerless Water Company

According to Mr. William Zastrow, Owner and General Manager, within the next five years Peerless Water Company does not have plans for any new capital improvements to the portion of its water system located in Lakewood.

Mr. Zastrow stated that the water system serving the Lakewood area currently has manual connections to Metropolitan Water District supply sources. In the near future these manual connections, which are located in Bellflower, may be upgraded to an automatic version.

3.2.2 Sewer

Lakewood's wastewater is carried through City-owned and maintained pipes (typically 8 inches in diameter) to larger Sanitation-owned and maintained sewer trunk lines that eventually connect to treatment plant facilities.

County Sanitation District No. 3 serves the portion of the City located west of the San Gabriel River and County Sanitation District No. 19 serves the eastern portion of the City. The Sanitation Districts are part of the Joint Outfall Districts (JOD). The JOD, an integrated network of facilities known as the Joint Outfall System, consists of six treatment plants. Figure 3.2-2 and Table 3.2-I depict all of the County Sanitation District Trunk lines located in the City of Lakewood.

The wastewater generated from the City of Lakewood is processed at the Long Beach Water Reclamation Plant (WRP). The Long Beach WRP, located at 7400 E. Willow Street in the City of Long Beach, has been in operation since 1973. The City of Hawaiian Gardens, and portions of the Cities of Long Beach, Cerritos, and Artesia, are also serviced by the Long Beach WRP. The Long Beach WRP has a design capacity of 25 million gallons per day (mgd), and currently provides tertiary treatment for an average wastewater flow of 19 mgd. All sludge from the Long Beach WRP is processed at the Joint Water Pollution Control Plant (JWPCP) at 24501 S. Figueroa Street in the City of Carson. This JWPCP has been in operation since 1928.

The Sanitation District estimates that the City of Lakewood currently generates 7.5 (mgd) of wastewater. This estimate is calculated by multiplying an estimated population of 74,654 persons (1990 Census population figure), by the average generation factor for the JOD (101 gallons per day per capita), then adding the discharge from all developments within the City which are operating under Industrial Waste Permits (approximately 69,000 gallons per day). Table 3.2-I displays the size and location of the County Sanitation District trunk sewers located in the City of Lakewood.

3.2.3. Storm Drains

Storm drains in the City of Lakewood are maintained by the Los Angeles County Department of Public Works, Flood Control District. The flood control system in the City is part of the multi-jurisdictional regional flood control network which discharges storm water runoff into the San Gabriel and Moody Creek channels.

Construction and maintenance of the storm drain system is financed through the General Funds of participating cities, Benefit Assessment Fees, Gas Taxes and other developer/tax revenue. Historically, storm drains were financed through bond issues, but the most recent bond issue for storm drain improvements occurred in 1970. Most revenue today is gathered through Benefit Assessment fees which are set by the County Board of Supervisors and determined by the amount of storm water runoff estimated for each parcel. Approximately \$20 million of storm drain capital improvements are made each year Countywide. Many of the existing storm drains were constructed in the 1940's and 1950's when the majority of the City was developed.

The collection and disposal of rainfall runoff is one of the most difficult problems facing any city. Since storm water flows by gravity to storm drains and thence to flood control channels, the design of the storm drain system must take many factors into consideration. Some of these factors are the intensity and character of land use; the area, topography, and soil conditions of the watershed; the natural slope of the land; and the characteristics and intensity of the rainfall that can be expected. These factors have been considered in the development of the storm drain system that exists in Lakewood.

Lakewood is divided by the San Gabriel River and is bounded by Coyote Creek on the east. These two improvement drainage channels carry large amounts of runoff to the ocean during major storms. All of the existing drainage systems empty into these channels. Storm water is collected in a network of laterals which flow into the Los Cerritos storm drain in the west side and into the Artesia-Norwalk storm drain in the east, which in turn flows into the San Gabriel River and Coyote Creek, respectively.

For further information on Lakewood's drainage characteristics, please refer to Section 5.5, Flooding, which discusses pertinent Federal Emergency Management Agency's (FEMA) drainage criteria for Lakewood and surrounding jurisdictions.

Table 3.2-I

County Sanitation District No. 3 and No. 19 Trunk Sewers
City of Lakewood

District No. 3 - Trunk Sewers	Size	Location(s)
Lakewood, Sections 4 and 5	15"	Clark Ave. between Hedda St. and south to the City boundary.
Market Street	18"	Candlewood St. between Paramount Blvd. and the west City boundary.
North Long Beach Interceptor, Section 5	33"	Candlewood St. between the west City boundary and Deeboyer Ave. Deeboyer Ave. between Candlewood St. and Denmead St. Denmead St. between Deeboyer Ave. and Paramount Blvd.
North Long Beach Interceptor, Section 4	33"	Denmead St. between Paramount Blvd. and Obispo Ave. Obispo Ave. between Denmead St. and Hardwick St. Hardwick St. between Obispo Ave. and Downey Ave. Downey Ave. between Hardwick St. and Del Amo Blvd.
North Long Beach Interceptor, Section 3	33"	Del Amo Blvd. between Downey Ave. and Clark Ave.
Los Coyotes Diagonal	12" 15" 18"	Palo Verde Ave. between Hungerford St. and South St. South St. between Palo Verde Ave. and Carfax Ave. Carfax Ave. between South St. and Cardale St. A right-of-way between Cardale St. and Candlewood St. Carfax Ave. between Candlewood St. and Palo Verde Ave. Palo Verde Ave. between Carfax Ave. and Centralia St. Palo Verde Ave. between Centralia St. and Carson St.
Los Coyotes Diagonal Relief	15" 12" 15" 18"	Palo Verde Ave. between South St. and Cardale St. Palo Verde Ave. between Cardale St. and Del Amo Blvd. Palo Verde Ave. between Del Amo Blvd. and Centralia St. Palo Verde Ave. between Centralia St. and Carson St.
Joint Outfall "C", Unit 6E	24"	Gridley Rd./right-of-way between the NE City boundary and Centralia St. Across the San Gabriel River to Stevely Ave.
Joint Outfall "C", Unit 6D	24"	Los Coyotes Diagonal between Stevely Ave. and Carson St.
Joint Outfall "C", Unit 8D	27" 33"	Pioneer Blvd. between the south City boundary and 207th St. 207th St. between Pioneer Blvd. and Arline Ave. Arline Ave. between 207th St. and 209th St. 209th St. between Arline Ave. and Elaine Ave. Elaine Ave. between 209th St. and south to the City boundary.
Elaine Avenue	12"	Arline Ave., south of, and up to 209th St. 209th St. between Arline Ave. and Elaine Ave. Elaine Ave. between 209th St. and south to the City boundary.
Norwalk Boulevard	21"	Norwalk Blvd. between the City boundaries.
209th Street	10"	209th Street between Norwalk Blvd. and Elaine Ave.
District No. 19 Interceptor	24"	Hawaiian Ave. between Del Amo Blvd. and Centralia St. Centralia St. between Hawaiian Ave. and Claretta Ave. Claretta Ave. between Centralia Ave. and the City boundary.
East Artesia, Section 4	15"	207th St. between Hawaiian Ave. and Wardman Ave. Wardman Ave. between 207th and Lemming St. Lemming St. between Wardman Ave. and Bloomfield Ave.
East Artesia, Section 3	18"	Bloomfield Ave. between Lemming St. and 214th St. Lemming St. between Bloomfield Ave. and Wilder Ave. Wilder Ave. between Lemming St. and the south City boundary.
East Artesia, Section 2	21"	A right-of-way (even with 214th St.) between Bloomfield Ave. and the City boundary.

Source: Sanitation District No. 3 and 19, December 1991.

Table 3.2-II displays typical waste/sewage flow rates for various land uses as determined by the Los Angeles County Sanitation Districts.

Table 3.2-II

**Typical Waste/Sewage Flow Rates, 1992
Los Angeles County Sanitation District**

CATEGORY	UNIT OF USAGE	FLOW (GPD)
RESIDENTIAL		
Single Family Home	Parcel	260.00
Duplex	Parcel	312.00
Triplex	Parcel	468.00
Fourplex	Parcel	624.00
Condominiums	No. of Units	156.00
> or = Five Units	No. of Units	156.00
Mobile Home Parks	Spaces	156.00
COMMERCIAL AND INDUSTRIAL		
Hotels/Motels/Rm. Houses	Rooms	125.00
Stores	1000 Sq. Ft.	100.00
Financial Institution	1000 Sq. Ft.	100.00
Shopping Center	1000 Sq. Ft.	325.00
Supermarket	1000 Sq. Ft.	150.00
Office Building	1000 Sq. Ft.	200.00
Professional Building	1000 Sq. Ft.	300.00
Restaurant	1000 Sq. Ft.	1000.00
Indoor Theater	1000 Sq. Ft.	125.00
Car Wash - Tunnel Type	1000 Sq. Ft.	3700.00
Car Wash - Wand Type	1000 Sq. Ft.	700.00
Service Shop	1000 Sq. Ft.	100.00
Service Stations	1000 Sq. Ft.	100.00
Auto Sales/Repair	1000 Sq. Ft.	100.00
Wholesale Outlets	1000 Sq. Ft.	100.00
Animal Kennel	1000 Sq. Ft.	100.00
Nurseries/Greeneries	1000 Sq. Ft.	25.00
Warehousing	1000 Sq. Ft.	25.00
Open Storage	1000 Sq. Ft.	25.00
Dry Manufacturing	1000 Sq. Ft.	25.00
Lumber Yards	1000 Sq. Ft.	25.00
Drive-In Theater	1000 Sq. Ft.	20.00
Club	1000 Sq. Ft.	125.00
Night Club	1000 Sq. Ft.	350.00
Bowling/Skating	1000 Sq. Ft.	350.00
Auditorium, Amusement	1000 Sq. Ft.	100.00
Golf Courses, Camp & Park	1000 Sq. Ft.	55.00
RV Park	Spaces	3825.00
Laundromat	1000 Sq. Ft.	100.00
Mortuaries/Cemeteries	1000 Sq. Ft.	300.00
Health Spa w/o Showers	1000 Sq. Ft.	600.00
Health Spa w/showers	1000 Sq. Ft.	125.00
Homes for the Aged	Bed	10.00
Convention/Sport Center	Attendance	
INSTITUTIONAL		
Colleges/Universities	Student	20.00
Churches	1000 Sq. Ft.	50.00
Private Schools	1000 Sq. Ft.	200.00

Source: County Sanitation Districts of Los Angeles County, "Loadings
Capacity Units and Unit Rates" Sheet for July 1, 1991 -
June 30, 1992, Fred Cannizzaro, Engineer
Date: January 1992

3.2.4 Electric

The City of Lakewood receives electrical service from the Southern California Edison Company. Electrical infrastructure is located both above and below ground level within the City limits. In an effort to provide reliable service, Edison continuously upgrades and maintains its electrical system. Edison does not anticipate any significant electrical service problems within the City of Lakewood.

As of 1994, Edison served 28,911 metered customers within the City of Lakewood. The breakdown is as follows:

<u>Customer Class</u>	<u>1994 Meters</u>	<u>1990 Meters</u>	<u>1984 Meters</u>
Residential	27,179	26,956	25,945
Agricultural	1	1	3
Commercial	1,498	1,487	1,288
Industrial (Non-Temp)	27	33	44
Industrial (Temp)	10	10	14
Other Public Authority	196	180	169
TOTAL:	28,911	28,667	27,463

Source: Southern California Edison, 1994

Currently, Edison serves the City of Lakewood by a network of substations, which include:

- Hedda Substation, Lakewood
- Sommerset Substation, Bellflower
- Sunnyside Substation, Lakewood
- Bovine Substation, Cerritos
- Lakewood Substation, Long Beach
- Lucas Substation, Lakewood
- Eric Substation, Cerritos

These substations also serve the needs of neighboring communities as an integral part of Edison's electric grid system. The major substation serving Lakewood is the "Lakewood Substation" in Long Beach.

Electrical current flows from Southern California Edison generating facilities to the City of Lakewood for delivery to receiving stations or substations at 4,000 and 12,000 volts electrical potential. It is then transformed, in substations located in or close to the City, to the type of power required by the user, ranging from normal house current to industrial requirements.

In addition to Lakewood's local electrical distribution network, there are also high voltage electrical power transmission lines within the City that are operated by Los Angeles Department of Water and Power (LADWP) and Southern California Edison (SCE). These high voltage electrical easement areas traverse Lakewood at several locations and are depicted on Figure 3.2-3. The LADWP right-of-way containing a 2630 kilovolt transmission line extends from the west City boundary to just east of Eastbrook Avenue and north to Ashworth Street. This right-of-way then turns south and parallels Eastbrook to Ocana Avenue, at which point it runs southeast to the San Gabriel River just south of Monte Verde Park. From this point, it parallels the San Gabriel River along the west bank.

The SCE right-of-way parallels the LADWP right-of-way near Eastbrook Avenue to Ocana Avenue, where it also turns southeast, reaching the San Gabriel River almost due east of the intersection of Denmead Street and Stevely Avenue. This right-of-way contains two lines: one 66 kilovolts and the other 220 kilovolts. A set of four transmission lines also runs north and south along the east bank of the San Gabriel River. These lines include three 66-kilovolt lines and one 220-kilovolt line.

Rule 20-A Undergrounding of Utilities

The California Public Utilities Commission's (PUC) Decision No. 73078 provided that utility companies allocate funds on an annual basis for the purpose of replacing overhead wiring utilities with underground wiring. As a result, Southern California Edison (SCE) established Rule 20-A for the undergrounding of utilities.

The criteria used for determining undergrounding projects are as follows:

1. Such undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric facilities;
2. The street, road, or right-of-way is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic; and
3. The street, road, or right-of-way adjoins or passes through a civic area or public recreation areas or an area of unusual scenic interest to the general public.

These criteria serve as guidelines in the determination and prioritization of projects. The list of projects identified for Lakewood is the result of a culmination of efforts between Southern California Edison and City planning staff. This list, approved by the Planning Commission in 1984, amended in 1990 and approved by the City Council, ranks the projects according to highest priority.

SCE requires Lakewood (and any participating municipality) to adopt an ordinance creating an underground district in the area in which both the existing and new utilities are and will be located. According to SCE requirements, the length of time between City Council approval of an underground district and construction may take up to twenty-four months.

The City of Lakewood has eleven undergrounding districts and nine project areas which are proposed for utility undergrounding within the City's 1993-1998 Legacy budget time period. Table 3.2-III and Figure 3.2-4 display the information relating to the City's undergrounding projects.

Table 3.2-III

**Undergrounding Districts
City of Lakewood
February, 1995**

UNDERGROUNDING DISTRICT	DATE ADOPTED*	RESOLUTION NUMBER	LOCATION
#1	11-12-68	2050	Bellflower Boulevard (between Ashworth and South)
#2	4-10-73	77-33	Del Amo Boulevard (between Lakewood Blvd. and Clark)
#3	6-26-73	77-48	Lakewood Boulevard (between Del Amo and Candlewood)
#4	10-28-77	77-95	Del Amo Boulevard (between Fidler and Woodruff)
#5	12-19-78	78-101	Bellflower Boulevard (between South and Del Amo)
#6	6-14-83	83-59	Civic Center Area (east of Clark, south of Candlewood, north of Del Amo)
#7	5-01-91	91-09	South Street (Palo Verde to San Gabriel River)
#8	4-25-86	86-15	Vicinity of South and Woodruff
#9	11-24-87	87-100	Candlewood Avenue (west and east of Clark)
#10	11-24-87	87-100	Carson Street (vicinity of Paramount)
#11	2-12-91	90-78	Downey Avenue and Vicinity (south of South Street and north of Candlewood)
#12	Proposed per Legacy 1993-98		Woodruff Avenue (Allington to Del Amo)
#13	Proposed per Legacy 1993-98		Downey Avenue (between Candlewood and Del Amo)
#14	Proposed per Legacy 1993-98		South St. (between Ademoor and Palo Verde)
#15	Proposed per Legacy 1993-98		Pioneer Blvd. (Carson to north City limit)
#16	Proposed per Legacy 1993-98		Del Amo (between Roseton and Pioneer)
#17	Proposed per Legacy 1993-98		Woodruff Ave. (between Arbor and Centralia)
#18	Proposed per Legacy 1993-98		Centralia St. (Studebaker to east City limit)
#19	Proposed per Legacy 1993-98		Paramount Blvd. (between Candlewood and Carson)
#20	Proposed per Legacy 1993-98		Bloomfield Ave. (Del Amo to south City limit)

Source: City of Lakewood Department of Public Works files pertaining to undergrounding districts.

Date: January 1992.

3.2.5 Natural Gas

Natural gas service to the City is provided by Southern California Gas Company, Central Division.

The gas mains and services within the City of Lakewood range in age from those installed in the 1940's to present day installations. Lines currently in service are bare and wrapped steel with installations since 1973 of polyethylene plastic. Lakewood's natural gas supply network is shown on Figure 3.2-5.

Within the City of Lakewood, this organization maintains two major trans-city high pressure 30-inch gas lines. These lines, running east and west along Del Amo Boulevard and north and south along the east side of the San Gabriel River, are part of a large transmission network that supplies the Greater Los Angeles area. The distribution system consists of high and medium pressure lines, which form a grid pattern. Coverage within the City is complete. The company has no plans for replacement or expansion of their facilities other than normal maintenance.

Services and mains are replaced based upon an economic analysis, which considers factors such as current value and the ratio of cost of replacement to repair. This process allows for a continuous evaluation of the gas piping system and replacement as required. With this process, major upgrading or replacement is not done as such, but is a continuous and orderly process designed to maintain the quality of the facilities.

Replacement is normally done on a size for size basis with changes based on growth patterns. The gas company maintains a plan based on anticipated growth patterns. This allows changes of a minor nature as the gas lines are replaced, with the objective of not having to do a major upgrading unless totally unexpected circumstances should occur. All replacements use polyethylene plastic. The depreciable life for gas mains is 42 years, for services it is 28 years. According to Southern California Gas Company officials, no major maintenance or service problems exist within the City, nor are any anticipated in the future.

3.2.6 Solid Waste Management

Southeast Resource Recovery Facility (SERRF) Transformation Plant

The City of Lakewood contracts with BZ Disposal for its citywide solid waste disposal needs. According to the Lakewood Source Reduction and Recycling Element (SRRE) (revised January, 1995), during calendar year 1990, the City disposed of approximately 74,030 tons of residential, commercial, and industrial waste. About 93 percent of this waste is transferred to and processed at the Southeast Resource Recovery Facility (SERRF), a waste-to-energy plant built in Long Beach in 1988. The remainder of Lakewood's solid waste (about 7%) is disposed at the La Puente Hills Landfill.

The City, by contract, delivers waste to SERRF as part of the bond obligation used to underwrite construction of the facility. The technology used at SERRF is known as "mass burn", in which all refuse delivered to the facility is burned in controlled combustion. Developed by L&C Steinmuller Company of Germany, the facility reduces the volume of waste by 90 percent; 70 percent by weight. Fly and bottom ash are the principal byproducts of the process. Refuse combustion produces energy used to operate a turbine that turns a generator. The generator produces enough electricity to power approximately 35,000 homes.

According to SERRF representatives, the facility is equipped with the best available air emission control technology to minimize the formation and release of various air contaminants. Normal operation generates a daily level of emissions equivalent to the contamination generated by automobiles using about a half mile of the Santa Monica Freeway each day. The plant is fully permitted by the SCAQMD and meets all air quality standards.

SERRF normally processes about 1,500 tons of waste each day, generating about 450 tons of ash per day. The ash is considered as a hazardous waste and is currently treated and recycled as structural backfill and road-base aggregate at County landfills. This means that nearly all of Lakewood's refuse is diverted away from landfilling, leaving only the 7 percent of its refuse requiring disposal.

Solid Waste Diversion

In addition to the waste that is disposed, Lakewood generates other wastes that are diverted away from the transformation and disposal process. According to the SRRE, 8,092 tons of waste were reduced and/or recycled in some manner. When added to the disposal tonnage, the total amount of waste generated in 1990 amounted to 82,122 tons. By dividing the amount of waste diverted by the amount of waste generated, Lakewood's diversion rate in 1990 was estimated at 9.8 percent.

On January 1, 1995, the City estimated that it had a diversion rate of 18.4 percent, based on the amount of refuse disposed (66,824 tons). The diversion rate was calculated using the CIWMB's Base-year Adjustment Methodology (AB 2494 method), which adjusts the base year generation data using economic and population factors. The existing disposal tonnage was compared to the

base year, and the diversion rate was calculated assuming that the absence of disposal tonnage was attributable to diversion. Final diversion rates will not be available until 1996, after the County conducts its quarterly weighing program to measure disposal tonnage.

Solid Waste Diversion Plan (SRRE)

The reason for identifying the diversion rate is the State law mandating recycling (AB 939). Under this law, each local agency is required to demonstrate 25 percent diversion by January 1, 1995 and 50 percent by the year 2000. AB 939 was enacted because there would otherwise be too few landfills and landfill capacity to assure the adequate disposal capacity for all Californians through a 15 year planning period extending into the next century.

According to AB 939, each local agency was required to develop a written plan of action, documenting how the jurisdiction would achieve the mandated diversion by the compliance dates. Along with 21 other Southeast Los Angeles County cities, and the County of Los Angeles, Lakewood prepared its SRRE. This plan of action identifies the specific action the City will take to meet the mandates. Ultimately, the SRRE will become part of the Countywide Siting Element, a document identifying how solid waste disposal needs will be met for the next 15 years.

The SRRE describes the rationale for selection and implementation of all feasible source reduction, recycling and composting programs. The SRRE also identifies the amount of disposal capacity required for the next 15 years after implementation of the SRRE programs. At present, only 7 percent of Lakewood's waste needs disposal capacity.

At present, the City's SRRE is being considered by the CIWMB for final approval. It has been accepted by the County Local Task Force, and was previously reviewed by the CIWMB in its draft stage in 1992.

SRRE Programs

Existing and planned programs for source reduction, recycling and composting programs were identified in the SRRE. Continuation and implementation of these programs will enable the City to meet State criterion for making a "good faith effort" to comply with the law. Each of these areas is described below.

Source reduction. Existing source reduction activities include:

- repair and re-use of appliances, household items and furniture
- diaper services
- retreading and re-use of tires
- backyard composting
- grasscycling and xeriscaping

The City plans to implement the following source reduction activities:

- promote existing source reduction activities and their expansion
- add public information and education activities that act as incentives to reduce waste

Recycling. Existing recycling programs include the following:

- City hall paper recycling program
- network of drop-off and area buyback reverse vending machine centers
- business recycling
- salvage by scavengers, haulers, and generators
- cardboard recycling by major retailers
- horse manure recovery by Lakewood Stables
- multi-family recycling program
- commercial sector recycling program

The City plans to implement the following recycling activities:

- encourage the private sector to expand existing recycling
- encourage development of markets
- public education and awareness program

To date, the City has implemented a citywide newspaper collection network operated at most major grocery stores, initiated a multi-family collection program at approximately one half of the multi-family residential units in the City, and has started a commercial sector recycling program at the Lakewood Center Mall and other select locations. Also, the City has begun to purchase materials containing recycled content, including rubberized asphalt.

Composting.

No commercial composting exists in the City. There is a lack of established sites for composting of green wastes and other organic materials. New markets, however, are developing and could present a significant attraction to the City to separate and transfer green wastes to processing and utilization facilities. In the interim, the City will encourage private sector expansion of limited composting programs until such centralized, regional facilities come on-line in the medium term.

Other Programs.

The City established other programs such as special waste recycling, education and public awareness, and household hazardous waste management. Special wastes include difficult to handle materials such as tires, construction debris, white goods, and potentially hazardous materials. The City plans to continue private sector activities and promote these efforts to the public to increase participation.

Education and Public Information Component.

Based on the SRRE's generators and targeted materials, the City plans to conduct extensive public education and information dissemination among the commercial and residential sectors. These programs include brochures, speaker's bureau, newsletters, seminars and general outreach to all communities including the multi-family sector.

Household Hazardous Waste Element.

Household hazardous wastes (HHW) are any household discards that may threaten human health and the environment if disposed of improperly. Common HHW's include paints, thinners, solvents, motor oil, pesticides, and batteries. These materials should not be placed in the trash or in the sewer. For most HHW's, the City will participate in the County of Los Angeles' "round-ups". For used oil, the City has received grants to conduct used oil collection and recycling. Monies are used to publicize the program, and to encourage citizens to return their used oil to certified redemption centers (CRCs). The City currently has one CRC, and is planning to increase this number to ten sites.

3.2.7 Telecommunications

3.2.7.1 Cable Television

The November 29, 1982 franchise agreement between the City of Lakewood and Tribune Cable paved the way for Lakewood's improved cable service. On February 1, 1992, Jones InterCable transferred the ownership of its cable service to Colony Communications. The Lakewood Cable Network has the capacity for 124 channels (440 megahertz capability) which can utilize different frequencies for local public (commercial) education and governmental broadcasting. Colony Cable has a present capability to expand its frequency by 40 additional channels. Currently 13,125 Lakewood residents subscribe to Colony Cable.

3.2.7.2 Channel 31 - The Lakewood Cable Network

Channel 31, Lakewood's municipal governmental cable channel, is sponsored by the City of Lakewood and operated by the City's Cable Communications Department. Independent surveys show that over 60 percent of Lakewood's cable subscribers view Channel 31. To help keep subscribers informed, City staff produce over a hundred programs annually that inform, educate, entertain, and showcase topics specific to Lakewood. Channel 31's programs vary from each fiscal year depending on budgetary availability and program needs.

As of Fiscal Year 1990/1991, current Channel 31 series programs included: City Council Meeting Broadcasts; *Lakewood Living Magazine*, an award-winning program covering issues facing the City; *The Crime Stoppers*, co-produced with the L.A. County Sheriff's Department; *Community Digest*, Lakewood's video news magazine; *Game of the Week*; *FYI*, programs from outside producers on such topics as home safety, health care, garden tips and current issues; and many other regular and special program productions.

3.2.7.3 Fiber Optics Transmission

The City of Lakewood is included in the Long Beach Area fiber optic ring network. (See Figure 3.2-6) The network, operated by General Telephone and Electric (GTE) and Pacific Bell, has been constructed to provide high-grade, large-capacity digital services, which are virtually immune to catastrophic failure and are primarily planned for large business users. This self-healing network can detect a service-affecting fault and redirect traffic to facilities, which are intact and have capacity to carry the traffic being redirected.

These advantages make the fiber optics network attractive to high volume data users and to subscribers with high security requirements. Some of the customers within the Southern California basin include the Department of Defense; defense contractors; long distance telephone services such as AT&T, MCI, and Sprint; the entertainment industry; data centers for banking; major retailers; major manufacturers; and the transportation industry.

3.2.7.4 Telephone Service

Telephone Service is provided in the City by Pacific Telephone and Telegraph Company (PT&T) which serves the northwestern portion of the City, and the General Telephone Company of California which serves the balance of the Lakewood area. (See Figure 3.2-7)

GTE California Incorporated

The approximate number of miles of GTE telephone lines currently located in the City of Lakewood is estimated at more than 100,000 pair miles (telephone wires are grouped in pairs, and pair miles are calculated by multiplying the number of miles served by the number of pairs in the wires). In addition, there are approximately 451 fiber miles of fiber optic facilities in the City. As discussed above, fiber optics is used primarily for the transmission of telephone traffic between switching locations in the Los Angeles Metropolitan Area and for the provision of high-capacity digital data type services.

There are currently 24,323 residential and 2,284 business GTE lines in service in the City of Lakewood.

According to GTE officials, its telecommunications network is adequate to meet both current and future customer demands. Growth needs are determined by an econometric forecast, which is constantly updated and reviewed to reflect current and predicted economic and political conditions. In addition, GTE's planning process also ensures that modifications to the network infrastructure are made in anticipation of new customer services and changes in technology.

The City of Lakewood is provided with telephone service from four different GTE switching locations (Central Offices) which also serve several other cities and communities in the surrounding area. These machines are state-of-the-art computer controlled devices capable of providing a variety of customer services and features by simply programming the controlling computer. Also located nearby in the City of Long Beach is a major toll switching machine that

aggregates and routes customer traffic from the central offices to destinations in the Los Angeles Metropolitan Area as well as to Interexchange Carriers such as AT&T, MCI and Sprint, for routing to other destinations nationally and worldwide. The transmission systems that interconnect the switching devices are comprised of digital carrier systems that are carried over both copper and fiber optic cables.

Pacific Bell

Pacific Bell provides telecommunication service to residents and businesses in the northwestern portion of the City via the Paramount Central Office. This area is generally bounded on the south by Del Amo Boulevard, on the east (south of South Street) by Clark Avenue and (north of South Street) by Lakewood Boulevard, and on the west by the City's jurisdictional boundary.

Currently Pacific Bell has a business/residential mix of approximately 7,000 customers with residential customers accounting for approximately 60 percent of the service demand.

3.3 Petroleum Pipelines

Petroleum Pipeline Franchises

Several petroleum pipelines underlie the City of Lakewood, as shown on Figure 3.3-1. These lines are used to transport oil, gasoline, and crude oil. These petroleum pipelines area as follows:

1. Shell Oil Company 4-inch (10 centimeters) gasoline line, which follows Bellflower Boulevard traversing the City of Lakewood.
2. The Four Corners 16-inch (40 centimeters) crude oil line, which parallels a 30-inch high-pressure natural gas line (along Del Amo Boulevard) from the Los Angeles and Salt Lake Railroad to the eastern edge of the City.
3. Pipelines of various sizes follow Cherry Avenue, and up to six lines parallel the Union Pacific Railroad right-of-way. Oil, fuel oil, gasoline, and crude oil are carried in these 16 pipelines.
4. In addition, there is a Richfield 8-inch oil line and a 4-inch gasoline line following Lakewood Boulevard for the length of the City.

In addition to the above-listed petroleum pipeline facilities, there is a petroleum storage tank farm located within the City of Lakewood. The storage and pumping facility, Paramount Petroleum Tank Farm, was built prior to 1958 and is located on a 4.24-acre site at 2920 56th Way (near the southwest corner of Downey Avenue and South Street). The Tank Farm contains two 55,000-gallon storage tanks, which stage and store gas oil. The gas oil is shipped directly from the tanks through a 12-inch line to Paramount Petroleum's refinery located in the City of Paramount.

A discussion of the potential hazards from a rupture and explosion of the above-described lines is contained in Section 5.0, "Hazards", of this report.

3.4 Public Safety

3.4.1 Law Enforcement

Law enforcement in the City of Lakewood is provided by contractual agreement with the Los Angeles County Sheriff's Department. The Lakewood station, located at 5130 Clark Avenue, is staffed by 281 sworn personnel who provide general law, traffic enforcement, and detective services. An additional 54 employees provide support services, for a total of 335 employees. Parking enforcement is regulated through the City's Business License Division. In addition to Lakewood, the cities of Paramount, Bellflower, Artesia and Cerritos also contract with the Lakewood Sheriff's Station for law enforcement services.

The concept of contracting for services, such as law enforcement, was introduced as part of the "Lakewood Plan." This efficient and economical funding alternative is now utilized by cities statewide and by newly incorporated cities.

Lakewood's Law Enforcement and Crime Prevention Programs

The City of Lakewood has a full-time Crime Prevention Manager and an in-house Sheriff's Department Community Relations Officer available to answer law enforcement-related questions and to distribute information about the crime prevention programs operated by the Lakewood Sheriff's Station and the City of Lakewood. Although crime prevention programs may vary each fiscal year, according to need and budget availability, the City of Lakewood consistently strives to maintain an exceptional level of public outreach and informational programs.

Crime prevention and public-outreach programs operating during Calendar Year 1994 included the following:

Sheriff's Department Programs:

- Ride-A-Long
- Volunteers on Patrol Program
- Station Tours
- S.N.I.P. - Special Needs Identification Program
- Operation Kid Print
- S.A.N.E. - Substance Abuse Narcotics Education

City of Lakewood Programs

- Neighborhood Watch Program
- Graffiti Abatement
- Mall Patrol
- School Safety Program

In addition to the regular personnel based at the Lakewood Station, the Los Angeles Sheriff's Department also has a staff of experts and programs available for specialized law enforcement needs. These services include: the Operation Safe Streets Bureau (OSS), the Gang Enforcement Team (GET), the Station Narcotics Team, the K-9 Units, the Special Enforcement Bureau (S.E.B.), the S.A.N.E. Program (Substance Abuse Narcotics Education), the Emergency Services Detail/Mountain Rescue Team, and Bicycle Patrol.

Innovative City of Lakewood Sponsored and Administered Crime Prevention Programs

As of Calendar Year 1994, two innovative City of Lakewood sponsored and operated crime prevention programs were operating which warrant honorable mention. These programs are:

L.A.W. - Lakewood Auto Watch - The innovative L.A.W. program, started by the City of Lakewood in 1990, has served as a model for similar programs in other municipalities. Since its inception, the L.A.W. Program has won numerous awards, including the Governor's Crime Prevention Award.

This voluntary registration program uses a Department-issued decal, which the vehicle owner affixes to his/her windshield. The L.A.W. decal gives law enforcement officials automatic probable cause to stop and investigate the legitimacy of "L.A.W." vehicles being operated between the hours of 1:00 a.m. and 5:00 a.m.

Sky Knight - Sky Knight was started by the City of Lakewood in April 1966. Originally a prototype project, Sky Knight has become an established success in the aerial law-enforcement community.

This City-administered law enforcement service operates and maintains three Sweitzer 300C helicopters. Sky Knight's personnel include civilian pilots and a contracted Sheriff's Department observer deputy to patrol the cities served by the Lakewood Sheriff's Station. Sky Knight maintains both day and night patrols over Lakewood.

Field Operations Statistics

According to the Sheriff's Department, 1994 Calendar Year statistical data (see Table 3.4-I), Lakewood's crime rate for the eight major crime categories (Part I Offenses) was 66.21 offenses per 1,000 persons. (The eight major crime categories identified by the FBI for statistical evaluation are homicide, rape, robbery, assault, burglary, theft, grand theft auto, and arson.)

Table 3.4-I

**1994 Crime Rate Per 1,000 Population (1)
Lakewood Service Area**

CITY/AREA	Area In Square Miles	Population 1994	Part I Offenses 1994 (2)
Total Area	32.99	267,381	75.49
Unincorporated Area	1.30	1,997	25.63
Artesia	1.61	15,464	65.77
Bellflower	6.15	61,815	75.89
Cerritos	8.78	53,240	79.19
Hawaiian Gardens	0.96	13,639	82.19
LAKEWOOD	9.55	73,557	66.21
Paramount	4.64	47,669	88.51

(1) Data shown is for Calendar Year 1994 only.

(2) Part I Offenses include: criminal homicide, forcible rape, robbery, aggravated assault, larceny, theft, grand theft auto, and arson.

Source: L.A. County Sheriff's Department.

Table compiled by Pamela P. Gehrts, Contract City Planner, November, 1991, revised February, 1995

Compared to the 1994 Countywide Part I Offenses crime rate of 75.49 per 1,000 persons, Lakewood's rate for the same time period was 12 percent lower. In addition, Sheriff's Department statistics for the past ten years show that Lakewood has had one of the lowest crime rates of the cities served by the Lakewood Station. Interviews with Sheriff's Department staff indicate that Lakewood consistently experiences low crime rates in the area of violent crimes against persons.

3.4.2. Fire Protection

The City of Lakewood is part of the Consolidated Fire Protection District of Los Angeles County. The District, funded through tax revenue allocations, provides fire protection, paramedic rescue services, and other related services from fire stations strategically located within and around the City's geographical area.

The following three fire stations are located within the City's boundaries:

Station 45
4020 Candlewood Street
Lakewood, CA 90712
Business Phone: 634-1235

Station 94
6421 Turnergrove Drive
Lakewood, CA 90713
Business Phone: 429-9462

Station 122
2600 Greenmeadow Road
Lakewood, CA 90712
Business Phone: 421-7713

These facilities provide emergency requests through the "911" process, in addition to conducting commercial and residential inspections, tours, and public education services.

At the present time, fire grading needs in Lakewood are based on typical response times; land use and intensity; population density; type, size, and occupancy of building; availability of sprinkler systems; exposures; and other items that are considered part of the degree of combustibility of the building. This information, translated into fire flow requirements, is the amount of water needed to control a fire in a given location.

Generally speaking, most areas served by the City of Lakewood have adequate fire flows that meet Los Angeles County Fire Department Standards. However, there are some residential areas currently served by 4-inch water lines that fail to meet required fire flow standards by a few hundred gallons. In these cases, new and upgraded water lines will be installed within the next five years to remedy the situation. Detailed information on Lakewood's water system is contained in the "City of Lakewood Water Master Plan" dated July 1989. No other fire flow-related improvements are required at this time.

Water system fire protection requirements are specifically detailed in Section 7451.4, "Fire Flow Requirements", City of Lakewood Municipal Code. These requirements are determined by land use and project size. An overview of Lakewood's fire flow requirements are shown on the following table.

Table 3.4-II

**Fire Flow Requirements
City of Lakewood**

LAND USE	Fire Flow Required (GPM*)	Time**	Fire Hydrant Spacing
Single-Family Residential	1,000-1,250	2-4 hrs.	660 ft.
Multi-Family Residential	1,500-5,000	6-10 hrs.	300 ft.
Mobile Home Parks	500-1,500	4-6 hrs.	330-1,000 ft.
Commercial and Industrial	2,000-5,000	8-10 hrs.	300 ft.
Public Schools	2,000-3,000	8-10 hrs.	330 ft.

* Gallons Per Minute

** Duration requirement of flow

Source: Section 7451.5, "Fire Flow Requirements", City of Lakewood Municipal Code, December 1991.

According to Los Angeles County Fire Department staff, typical response times from any fire station facility in the City to an emergency situation ranges from two to four minutes. Combined with existing fire flows and response times, the City of Lakewood has an overall rating of Class 3, which is considered "Good" by the Insurance Service Office (ISO).

At the present time, there are no new fire stations planned for the City. Although not expected under current zoning, if building densities became higher in the future, then additional fire services would be required.

4.0 NATURAL RESOURCES

4.1 Lakewood's Natural Environment

4.1.1 Vegetation and Wildlife

The City of Lakewood contains biological resources typical of urban areas of Southern California. All significant original native chaparral and grassland vegetation have been removed from the area over the years. These and their associated wildlife have long since been replaced by ornamental plantings. Approximately 31 species of ornamental trees are used by the City of Lakewood in its Street Tree Program.

Only a few vacant parcels exist in the 9.5-square-mile City. These lots are utilized by animal species, which have adapted to highly disturbed areas. Typical species include squirrels, rabbits, some rodent species and domestic dogs and cats.

No plant or animal species considered sensitive, rare or endangered are known to exist in the City.

Lakewood - A "Tree City USA" Member

The City of Lakewood has earned recognition as a "Tree City USA" member for the past seven years. The "Tree City USA" program, sponsored by the National Arbor Day Foundation, is founded on the principle that trees are a vital and scarce natural resource, which warrant protection and recognition. "Tree City USA" member cities are required to meet three criteria. The City of Lakewood has complied with these requirements:

1. Preparation of a Comprehensive Tree Management Plan;
2. A Citywide program of maintenance which includes tree trimming, spraying pests, and fertilization of trees in streets, parks, and public places; and
3. A Tree Replacement Program which includes the replacement of aging and ailing trees and the cultivation of new trees.

The City of Lakewood maintains and updates an annual "Master Tree List and Tree Planting Plan." The Master Tree List contains an inventory of all trees situated along public right-of-ways and in public places in the City of Lakewood. In addition, the Tree List includes a tree planting plan for the replacement of residential street trees with desired species.

4.1.2 Water Resources

Lakewood is located within the Central Basin Pressure Area, a hydrologic unit within the Downey Plain. The surface relief within the City is 40 feet; the City Hall elevation is 50 feet above sea level. The area is generally flat and regionally slopes gently to the south. Water-bearing sediments in the Central Basin Pressure Area range in age from Recent to Pliocene and extend to a probable maximum depth of 2,200 feet northeast of the City. Recent alluvium covers most of the City and reaches a maximum thickness of 200 feet near Bellflower Boulevard. This alluvium contains sources of fresh water, which include the Semi-Perched aquifer, the Bellflower aquiclude, and the Gaspar aquifer.

The underlying Lakewood formation of late Pleistocene Age also is a water source for the City. It contains part of the Bellflower aquiclude and the Artesia, Exposition, Gage, and Gardena aquifers. The Gaspar, Artesia, and Exposition aquifers are in hydraulic continuity. The Gage and Gardena aquifers mark the base of the Lakewood formation and unconformably overlie the San Pedro formation. Five aquifers occur in the San Pedro: the Hollydale, Jefferson, Lynwood, Silverado, and Sunnyside. The latter, marking the base of the San Pedro formation, attains its maximum depth of about 1,700 feet just east of Lakewood. Pliocene sediments composed of siltstones and sandstones underlie the San Pedro formation. Fresh water occurs in the most highly permeable zones of this formation; otherwise, its waters are saline or brackish. These units are sources of fresh water making Lakewood independent, in part, of Colorado River water in times of emergency.

4.1.3 Climate and Air Quality

Regional Setting

The City of Lakewood is located in the South Coast Air Basin of California, a 6,600-square-mile area encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. Bounded by the Pacific Ocean to the west and the San Gabriel and San Jacinto mountains to the north and east, the South Coast Basin is an area of high air pollution potential.

Climate of the Basin

The climate of the larger Los Angeles area is generally classified as "mediterranean" in type; mild, sunny winters with occasional rain plus warm, dry summers. The strength and location of a semipermanent, subtropical high pressure cell over the eastern Pacific Ocean primarily controls the climate of the basin, along with the moderating effects of the nearby oceanic heat reservoir. But coastal mountain ranges lying along the north and east sides of the Los Angeles coastal basin act as a buffer against the extremes of summer heat and winter cold occurring in desert and plateau regions in the interior. Warm summers, mild winters, infrequent rainfall, moderate daytime onshore breezes, and moderate humidities characterize local climatic conditions.

The terrain features of the Basin make it possible for various microclimates to exist within the general area climate. The pattern of mountains and hills are primarily responsible for the wide variations of rainfall, temperatures, and localized winds that occur throughout the region. Temperature variations have an important influence on basin windflow, dispersion along mountain ridges, vertical mixing, and photochemistry. Due to the moderating marine influence that decreases with distance from the ocean, monthly and annual spreads between temperatures are greatest inland and smallest along the coastline. Precipitation is highly variable seasonally. Summers are often completely dry. There are frequent periods of four to five months with no rain. In the winter an occasional storm from the high latitudes sweeps across the coast bringing rain. Annual rainfall is lowest in the coastal plain and inland valleys, higher in the foothills, and highest in the mountains.

Microclimate of Lakewood

The microclimate regime of the basin, which influences Lakewood is primarily semi-marine. Although behind the fog belt generally, it is under the influence of the ocean most of the time. Annual average daytime temperatures range from 83.8 degrees Fahrenheit in the summer to 66 degrees in the winter. Winters are seldom cold, frost is rare, and temperatures generally never fall below 28 degrees Fahrenheit. Mornings in the spring and summer are often cloudy due to the presence of high fog, with clear and breezy afternoons. Summers in Lakewood are warmer with less fog than along the coast, but the entire area is reached by sea breezes and is seldom extremely hot. The City has lower winter temperatures than the coast. Humidities tend to be lower than close to the coast. Annual precipitation for Lakewood is 11.54 inches and occurs almost exclusively from late October to early April.

Winds across the project area are an important meteorological parameter since they control both the initial rate of dilution of locally generated air pollutant emissions as well as controlling their regional trajectory. Predominant wind patterns for the Lakewood area generally follow those of the Basin. During the day, effects of a sea breeze reach inland. During the night, surface radiation cools the air in the mountains and hills, and it flows into the valleys and meanders to the coast producing a gentle "land breeze".

In Lakewood, daytime winds normally occur from the south-southwest as onshore flow from the Pacific finds its way across the coast on either side of the Palos Verdes Peninsula. Average daytime maximum speeds are approximately 5.7 miles per hour (mph) in the summer, decreasing to 4.7 mph during winter. This directional flow is most dominant in summer and spring. Nighttime predominant wind patterns generally find an east-northeasterly flow setup from the general offshore flow enhanced by the regional mountain/valley drainage. This directional flow is also most dominant in fall and winter. Average nighttime maximum speeds in winter reach 2.5 mph and fall to a more gentle 1.7 mph in summer. This general flow for the area is interrupted by occasional winter storms and the Santa Ana winds, which can bring much stronger winds to the area in varying directions.

Meteorological Influences on Air Quality

Meteorological conditions such as light winds, shallow vertical mixing, and topographical features such as surrounding mountain ranges hinder the dispersal of air pollutants. The Basin is in an area of high air pollution potential because frequent temperature inversions tend to trap air pollutants in a limited atmospheric volume near the ground and hamper dispersion. In the month of January, for example, a surface inversion exists on 70 percent of the mornings. The average wind speed in the Basin is less than five miles per hour on 80 percent of the days during the summer smog season. This is a measure of daily stagnation.

During the summer's longer daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between nitrogen dioxide and volatile organic compounds which can result in ozone formation. Ozone is a colorless toxic gas, which irritates the lungs and damages materials and vegetation. To reach high levels of ozone requires adequate sunshine, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer. The most frequent ozone transport route is from source areas in coastal areas to receptor areas along the base of the San Gabriel and San Bernardino Mountains. On the rare days with offshore flows, ozone transport is more limited and highest concentrations occur in the western portion of the Basin.

In the winter, temperature inversions occur close to ground level during the night and early morning hours. At this time, the greatest pollution problems are from carbon monoxide and nitrogen oxides. High carbon monoxide concentrations occur on winter days with strong surface inversions and light winds. Carbon monoxide transport is extremely limited, and highest concentrations are associated with areas of highest traffic density.

High nitrogen dioxide levels usually occur during the autumn or winter on days with summer-like weather conditions. Although days are clear, sunlight is limited in duration and intensity, and photochemical reactions necessary to form ozone are incomplete.

Atmospheric particulates are made up of fine solids or liquids such as soot, dust, aerosols, fumes, and mists. A large portion of the total suspended particulate matter (TSP) in the atmosphere is finer than ten microns (PM₁₀). These small particulates cause the greatest health risk since they can more easily penetrate the defense of the human respiratory system. As with ozone, a substantial fraction of PM₁₀ (suspended particulates less than 10 microns in diameter) forms in the atmosphere as a result of chemical reactions. Peak concentrations of both ozone and PM₁₀ occur downwind of precursor emission sources.

Regional and Local Air Quality

The South Coast Air Quality Management District (SCAQMD) samples ambient air at 30 monitoring stations in the Basin. The closest station to Lakewood is located in Long Beach. The South Coast Air Basin currently does not comply with the Federal Clean Air Act standards for ambient air quality. As a result, the SCAQMD and SCAG adopted the Air Quality Management Plan (AQMP), dated July 1991.

The purpose of the AQMP is to establish a comprehensive air quality program that will bring the South Coast Air Basin into compliance with state and federal air quality standards. The Plan has recommended "control measures" which are aimed at reducing pollutants from specific sources. Several of the AQMP's control measures are assigned to local governments because they have the legal authority to carry them out through land use regulation. Some of the AQMP's actions call on local governments to adopt air quality policies into their General Plans or through implementing ordinances. Local governmental responsibilities include: parking management, telecommunications, alternative work weeks for employees, pedestrian and bicycle facilities/design, special event auto use restrictions, restricting unpaved areas, and growth management.

In the fall of 1991, the South East Los Angeles County (SELAC) Air Quality Consortium was established. The Consortium, which consists of 21 southeast Los Angeles County cities (including Lakewood), was formed to comply with the requirements of the AQMP. Through cooperative efforts, the Consortium can effectively deal with air quality problems and solutions on both a regional and city-specific basis. The Consortium's major task is the preparation of a "model" regional air quality element. The "model" regional air quality element will serve as the "foundation" technical and policy document from which the 21 participating cities will develop their own city-specific air quality elements of the General Plan.

Attainment Status

The Basin has not attained National and State standards for several pollutants, including: Ozone, a colorless toxic gas which irritates the lungs and damages materials and vegetation; Carbon monoxide, a colorless gas which interferes with the transfer of oxygen to the brain; and, Nitrogen dioxide, a reddish-brown gas which at high levels can cause breathing difficulties. Table 4.1-I displays a twelve-year summary (1981-93) for these three pollutants, as reported by the Long Beach monitoring station.

4.1.4 Topography

There is little topographic relief within the Lakewood area. The land west of the San Gabriel River generally slopes to the south-southeast toward the coast. In the western portion of the area, a natural saddle forms the location for a branch of the Los Cerritos storm drain. West of the City limits there is a local divide separating surface flow between the San Gabriel and Los Angeles River drainage areas.

The land decreases in altitude from an elevation of 60 feet at the north boundary to an elevation of 35 feet at the south boundary. The high point in the City is in the southwest corner at an elevation of 70 feet. The eastern portion of the City has a natural fall of only about five feet, north to south.

Approximate contours are shown on a topographic map, which has been compiled from U.S. Geological Survey Quadrangle Maps.

4.1.5 Energy and Conservation

Opportunities for energy conservation in residential development in Lakewood depends upon the retrofit of the Lakewood home built before energy conservation measures became mandatory. The Lakewood Building and Safety Department estimates that 75 percent of homes have been insulated after construction, with attic insulation being the most prevalent. All new construction is required to be completely insulated.

Lakewood's street orientation is predominately north and south, which is not the ideal orientation for solar energy systems. Since 1978, approximately 365 solar installations have been made to existing single-family homes. The California Solar Information Packet, prepared by the California Energy Commission, Solar Energy Office, has been made available to Lakewood residents through the Community Development Department.

The City has encouraged energy conservation opportunities and will continue to do the same. This is especially evident when a developer files a tentative tract map. The City works closely with the developer encouraging solar orientation, consideration of solar envelopes, and the use of passive solar building techniques.

In March 1990, the City of Lakewood received its first indication that the four-year statewide drought was about to impact the community. In April 1990, the Metropolitan Water District Board of Directors adopted a resolution requesting a voluntary 10 percent reduction in its service area. This reduction was due to the drought, dwindling surface storage in State Water Project supplies, the loss of water supply from the Colorado River and the need to supply additional water to the City of Los Angeles Department of Water and Power (LADWP). Since 1990, the City has embarked on a proactive water conservation program (see Section 3.2.1.2, "City of Lakewood Water Management Strategic Plan").

Table 4.1-I

**Ambient Air Quality Monitoring Summary
1989-93
Long Beach Monitoring Station**

Long Beach Ambient Air Quality Monitoring Summary 1981-93 (Days Standards Were Exceeded, Average and Maximum Levels During the Year)													
Pollutant	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Ozone													
1-Hour > 0.09 ppm*	30	18	35	32	29	29	11	18	10	5	4	19	15
1-Hour > 0.12 ppm	13	6	16	13	11	10	4	7	3	0	0	6	1
1-Hour \$ 0.20 ppm	1	1	1	1	1	0	0	0	0	0	0	0	0
Annual Avg. Conc. (ppm)	.016	.013	.017	.017	.020	.018	.017	.020	.020	.014	.020	N/A	N/A
Annual Daily Hour Conc. (ppm)	.046	.039	.047	.051	.050	.049	.041	.047	.045	.035	.040	N/A	N/A
Annual Max. 1-Hour Conc. (ppm)	.23	.22	.30	.27	.23	.18	.17	.16	.16	.12	.11	.15	.14
Carbon Monoxide													
8-Hour \$ 9 ppm	3	6	7	4	6	5	1	2	2	1	1	0	0
Annual Max. 1-Hour Conc. (ppm)	13	14	14	14	19	13	13	13	13	11	14	10	9
Annual Max. 8-Hour Conc. (ppm)	11.3	11.6	12.1	10.3	15.7	10.3	9.4	10.29	10.1	9.1	9.3	8.1	6.9
Avg. Daily Max. Hr. Conc. (ppm)	N/A	4.15	4.26	4.20	3.82	4.23	3.74	3.47	3.47	3.8	3.4	N/A	N/A
Nitrogen Dioxide													
1-Hour \$ 0.25 ppm	13	4	3	5	4	1	1	1	1	1	2	0	0
Annual Avg. Conc. (ppm)	.063	.051	.046	.050	.050	.053	.043	.047	.043	.039	.041	.039	.038
Avg. Daily Max. Hr. Conc. (ppm)	.116	.094	.086	.087	.089	.093	.077	.082	.078	.074	.076	N/A	N/A
Annual Max. 1-Hour Conc. (ppm)	.37	.30	.37	.35	.35	.26	.26	.28	.27	.27	.28	.18	.20

Source: South Coast Air Quality Management District, Summary of 1981-1993 Data at Long Beach Monitoring Station

* Before 1989, State ozone standard was .10 parts per million (ppm)

4.1.6 Geographic Setting

The Los Angeles Basin is a relatively flat coastal plain partially bordered by the Santa Ana Mountains on the east, the San Joaquin Hills on the south, the Pacific Ocean on the west, and the San Gabriel and Santa Monica Mountain Ranges on the north. The coastal plain of the Basin ranges in elevation from sea level to 500 feet in the north, with hilltop elevations bordering the plains at 325 feet at Coyote Hills, to 2,125 feet in the Santa Monica Mountains, and up to 10,000 feet in the San Gabriel Mountains. Four streams draining into this coastal plain are the Los Angeles River, the Santa Ana River, the San Gabriel River, and the Rio Hondo River. In the course of geological time, all four rivers probably entered the ocean at various locations from the Santa Ana Gap on the south to Dominguez Gap on the north.

Lakewood is a metropolitan area of 9.5 square miles within a metropolitan county and, as such, its environment, both local and regional, is predominantly urban. Los Angeles County, at the heart of Southern California, is the largest urban complex on the Pacific Coast. Lakewood is located in the southern portion of the County, about 30 miles southeast of downtown Los Angeles and Los Angeles International Airport, and approximately 10 miles from the Port of Long Beach. The County is unique in many ways, perhaps most for the pace and scale of its urbanization and development. In less than a century, the County evolved from a ranch and agricultural community to a vast metropolis.

The City of Lakewood was on the map before it was even on the ground. Lakewood's unique large-scale, long-range planning brought it nationwide attention in 1950 when it was still largely farmland. Louis H. Boyer purchased 3,375 acres of farmland and laid out a community of 17,500 homes for 70,000 people. The project, which was the largest single-ownership development in the nation, used modern building techniques to build homes at a rapid rate. On some days as many as 100 new homes were started. About 10,000 homes were finished in the first two years.

4.1.7 Geology

The City of Lakewood is located in an area that is geologically Recent. The surface consists of deposits of unconsolidated silt, gravel and sand of fluvial and marine origin. Under this is a thick sequence of Quaternary and Tertiary sedimentary rocks deposited on a basement of metamorphic and crystalline rocks of pre-Tertiary age, sometimes referred to as the Catalina schist. In the broad syncline underlying this area, the depth of these sediments has been estimated at 15,000 to 20,000 feet.

These formations are of water-bearing character. The areas near the San Gabriel River have large deposits of sand and gravel, especially in the lower two-thirds of the formations; the remaining upper part is silt, clay, and fine sand. This water-bearing zone is 800 to 8,000 feet below sea level. This fresh water aquifer is contained between layers of silt and clay. The water-bearing sediments are largely of marine origin. They supply many industrial and municipal wells with individual yields of 1,000 gallons to as much as 4,000 gallons per minute.

Consolidated rock of Pliocene and Miocene age underlies the Quaternary deposits in nearly all the area. The Pliocene is comprised of the Pico formation above and the Repetto formation below it. The lower 600 to 1,000 feet of the upper division of the Pico formation includes several sand layers that are water-bearing, but of unknown productivity.

The middle and lower divisions of the Pico formation, the Repetto formation and the Miocene layers, are largely siltstone and shale with low permeability. Sand layers at this depth contain saline water, which varies from about 50 percent to 100 percent of the salinity of ocean water. These beds are far below the areas normally penetrated by water wells.

The broad synclinal depression beneath the coastal plain includes several local structural features whose axes are roughly parallel and trend to a northwest orientation. The most extensive of these is the Newport-Inglewood Fault Zone, a composite belt of anticlinal folds and echelon faults. Some of the warping and deformation has taken place comparatively recently, in late Pleistocene or Recent time.

The Norwalk Fault and the Cherry Hill Fault, both part of the Newport-Inglewood Fault Zone, are within two miles (3.2 kilometers) northeast and southwest of the City, respectively. The Los Alamitos Fault crosses a corner of the City to the northeast of the intersection of Bellflower Boulevard and Carson Street.

4.1.8 Soils

The soils of the Lakewood area, mostly alluvial in nature, were deposited by the San Gabriel River and its tributaries during the recent geologic past. Composition is generally clay and silt loams of various classifications. The soils are relatively impermeable, cause some subsurface drainage problems and show some heavy concentrations of alkali.

According to the City of Lakewood Seismic Safety Element, prepared by Earth Information Systems in 1975, there are four main soil associations in the City: Ramona-Placentia Soils, Chino Soils, Hanford Soils, and Foster Soils. See Figure 4.1-1 for the general location of these soil types. Soil-type information contained in the Lakewood Seismic Safety Element, and summarized in the following, is based upon soil-type interpretation for soils at a depth of five feet or less for the Lakewood area. The data is sufficiently accurate for planning purposes, but not for projects involving detailed soil map analyses. This information is summarized as follows:

Ramona-Placentia Association Soils:

The Ramona-Placentia Association soils are primarily located in the eastern portion (westerly of Lakewood Boulevard) of the City. These soils, along with the Chino Association soils, are known for their expansive characteristics, which in many cases, can result in differential settling of the soil.

Consequently, the City of Lakewood Building and Safety Department requires new construction in these areas of the City to have stronger foundations and other modifications. The Ramona-Placentia Association soils are as follows:

Ramona Loam: The surface soil consists of 12 to 24 inches of light-textured loam. The subsoil is a compact clay loam or clay. The subsoil may extend to a depth of six feet or more, is semicemented in places, closely approaching a hardpan. In such places it absorbs water slowly, especially after dry periods, but when once wet it softens considerably and retains moisture well.

Ramona Clay Loam: This soil-type exists to a depth of 8 to 24 inches and consists of light-textured clay loam. The soil is heavier in the more gently sloping or nearly level situations. It absorbs water slowly when dry, but once wet is permeable and quite retentive. The subsoil is heavy, compact clay loam or clay. The subsoil rests at four to six feet upon a variably textured substratum of loam or clay loam. The substratum usually is more permeable than the subsoil, but is generally quite compact. This type as a whole is higher in organic matter than the Ramona Loam, but there usually is not sufficient organic matter to prevent puddling and the formation of clods if the soil is handled when wet or is irrigated by flooding. This type occurs mainly on old alluvial fans and foot slopes. The dense subsoil retards the absorption of moisture, and much of the rainfall is lost in the run-off. The soil is refractory when dry, but when once wet it is permeable. It is quite retentive of moisture.

Altamont Clay Loam: This soil type consists of 12 to 18 inches of friable, micaceous clay loam, relatively high in silt. The subsoil has stratified layers of clay, silt, or fine sand, and the material is saturated at depths ranging from three to six feet. Both soil and subsoil are generally free from gravel or coarse, gritty material, and where well drained and free from alkali, are readily penetrated by roots.

Organic Soils: This peaty organic soil type is located in Bouton Lake. The lake floor was filled with compacted sandy loam when the Lakewood golf course was constructed. The present day Bouton Lake floor now has a thin layer of organic-rich soil, over a layer of compacted sandy silt. Below this is a thin layer of unknown depth of original organic-rich lake floor sediments.

Chino Association Soils:

The northwestern portion of Lakewood contains soils of the Chino Association. This soil-type, like the Ramona-Placentia Association soils, is known for its expansive qualities and some special construction requirements (e.g., stronger foundations, etc.) are required.

Chino Silt Loam: This soil-type consists of a friable, micaceous silt loam at a depth varying from one to six feet. Generally below 12 to 18 inches, the subsoil consists of strata of silt, clay, and fine sand. This soil-type contains a moderate to large amount of organic matter. Its silt content prevents cracking to a large extent. The soil absorbs and holds moisture well.

Hanford Association Soils:

The Hanford Association Soils are generally found in most of Lakewood ranging from Lakewood Boulevard to Pioneer Boulevard. These soils characteristics are described as follows:

Hanford Fine Sandy Loam: This soil-type consists of relatively light-textured, micaceous fine sandy loam, open and friable in structure, and containing only a moderate proportion of organic matter. The subsoil, generally encountered at 12 to 15 inches, consists of variably stratified deposits of sand, silt, and gravel, and has high infiltration capability. The texture of this type is subject to great variation near streamways. In such places, small patches or very narrow strips of sand, fine gravel, fine sand, or silt loam may be included. Gravelly substrata frequently occur. Several of the areas forming level to gently sloping flood plains of the rivers are very large. Nearly all of this type occurs in rather low positions and generally has a relatively shallow water table lying four to ten feet below the surface. A large proportion of this type contains alkali in harmful amounts.

Hanford Loam: This soil-type exists to a depth varying from 12 to 72 inches or more and consists of a friable, light-textured, micaceous loam over the flatter alluvial fans and flood plains. The material below 12 inches frequently consists of stratified beds of sand, silt, or gravel. The Hanford loam is generally low in organic matter. The soil and subsoil are open, and this type absorbs and retains moisture well, except where the subsoil and substratum are loose and porous. Tillage is not difficult at any time. There are no obstructions to deep root development except in low spots where a high water table occurs. Some of the lower-lying portions have a high water table. This is particularly true in the area to the east of the San Gabriel River, north of the City boundary, and south of 212th Street. Where this condition exists and some alkali has accumulated, the liberal use of organic matter and good tillage will remedy the situation.

Foster Association Soils:

Foster Association soils are primarily found in the easterly portion of the City. Foster soils are usually over 60 inches deep, are poorly drained, and have moderate subsoil permeability. They have gray or grayish-brown sandy loam surface layers underlain by similar substratum, which may be thinly stratified with variable textures. They are usually mottled and calcareous in the lower part. Some areas have a high water table, which restricts rooting depth. Foster soils have moderate fertility. These soils are used extensively for residential construction.

4.1.9 Residential Tracts With Reported Sulfate Ground Conditions

Beginning in the early 1960's, some homeowners in certain residential tracts in the Cities of Lakewood, La Palma, and Cypress reported the occurrence of cracks in garage slabs and driveways. (Refer to Figure 4.1-2.) By the mid-1980's, varying degrees of cracking and spalling of concrete slabs were widely reported at these locations. Other problems included corrosion of metal works, spalling of stucco walls, and cracks in foundations.

The problem, "sulfate attack", was eventually traced to several occurring soil and construction conditions unique to the identified locations: 1) structures built on concrete slab-on-grade foundations were affected, while homes built with raised wood floors were not; 2) sites located in areas of high ground water concentrations were affected; and 3) certain variables such as the use of imported soils or lime application during construction all contributed to the incidence of foundation deterioration and distress due to "sulfate attack".

In April 1990, the technical study entitled, *Residential Foundation Deterioration Study For the Cities of Lakewood, La Palma, and Cypress*, was conducted. (A copy of this report is on file in the City of Lakewood Community Development Department.) The investigation was mandated by Senate Bill 2016, Chapter 1438 of the Statutes of 1988. This Bill required the California Division of Mines and Geology of the State Department of Conservation to contract for the study that was to include: a review and summary of existing information, analysis of soil and groundwater conditions, construction practice and code requirements, and other geological/geotechnical contributing factors. The report includes conclusions as to the causes of the "sulfate attack" problem and recommendations for mitigation measures and legislative actions.

The three-city area studied is located in the central coastal plain of Southern California in the counties of Los Angeles and Orange. It covers an area of about 18 square miles with a total population of about 140,000. A review of available records and interviews with homeowners in the three-city area indicate that a total of 23 tracts built between 1961 and 1971 suffer from some level of distress.

The tract of Lakewood homes known to have incidence of foundation deterioration is Tract 28581 (generally bounded by Studebaker Road on the west, Chadwell Street on the south, Interstate 605 on the east, and Del Amo Boulevard on the north). Three other housing tracts in the City have had minor incidence of sulfate attack (less than 5 percent of the homes in the tracts). These tracts are as follows: Tract 26700 (bounded by Palo Verde Avenue on the west, Candlewood Street on the south, Knoxville Avenue on the east and Michelson Street on the north) and Tracts 24796 and 27981 (generally bounded by the San Gabriel River on the west, Stillman and 205th Streets on the south, Alburdis Avenue and Willow Elementary School on the east, and Del Amo Boulevard on the north).

After a review of reports and records covering 345 houses, control sites were selected for sampling and testing. A detailed analysis was performed in order to determine the chemical, petrographical and mineralogical characteristics of the soil, water, efflorescence and concrete cores. Analysis of the testing results indicate that the primary cause for the foundation deterioration is salt weathering, a term used to describe the physical process where pressure develops in the voids of porous concrete during salt crystallization. The salt-laden moisture is drawn up initially by capillary action from the shallow groundwater to the surface and later by osmotic action as the salt concentration increases underneath and within the pores of the slab. The predominant salt found was sodium sulfate. Phase transformation of this salt between its hydrous and anhydrous form exacerbates the deterioration process.

In some areas, soil deformation might have contributed to the initial cracks of the newly constructed slab. A cracked slab enhances evaporation and draws more moisture from below, thereby accelerating the deterioration process. In some cases, the soil underlying the slab may heave as the salts accumulate within the voids of the soil. This process is known as salt heave and can uplift and crack a slab, further accelerating the deterioration.

The current repair methods for "sulfate attack" range from cosmetic to extensive and can cost up to tens of thousands of dollars. The actual methods chosen should be based on site specific information. The most effective method is the complete removal of the affected slab, installation of a moisture barrier and slab replacement with reinforced sulfate resistant concrete. However, this method is also the most costly. For additional information, please refer to the previously-mentioned study entitled, *Residential Foundation Deterioration Study for the Cities of Lakewood, La Palma, and Cypress*.

5.0 HAZARDS

5.1 Fire, Utility, and Wind Carried Hazards

5.1.1 Fire Hazards

Brushfires

Much of the undeveloped areas of California, as well as those areas where there remains a substantial amount of natural ground cover, are subject to the yearly threat of brushfires. These fires annually destroy thousands of acres of valuable watershed. Lakewood, located well within the Los Angeles urban area, is not exposed to the dangers of brush or wildfires due to the fact that the City and surrounding area are nearly completely developed. The type of vegetation found in Lakewood indicates that there is no threat of a major brushfire occurring.

Structural Fires

Lakewood consists of 9.5 square miles. Within the City there are approximately 26,795 residential dwellings and an unknown number of commercial structures. The majority of the City's structures were built during the early 1950's. Land uses in the City vary from residential to commercial and industrial uses, with the largest category being single-family residential use at 51 percent of the total area. During 1994, the County of Los Angeles Fire Department reported the following 1994 year-end totals for all responses for the City of Lakewood:

Structural fires	40
Brush and grass fires with zero acres lost	19
Vehicle fires	56
Other fires	53
Hazardous materials incidents	98
EMS responses	2,697
Miscellaneous incidents	1,015
Total Responses	3,978
Average Total Monthly Responses	331.5
Total Property Losses Due to Fire	\$574,100

Residential Fires

The greatest number of fires within the City of Lakewood during 1994 were residential fires. While they accounted for no reported deaths, they did cause damage and disruption to those persons affected. Residential fires are usually confined to single dwellings or buildings. However, the danger is always present that adjacent structures may catch fire, particularly those that utilize untreated wood shingle roofs.

Multi-family residential structures pose a different type of problem for fire departments. For this reason, construction techniques and water service requirements are more restrictive than single-family residential construction. Lakewood has no older multi-occupancy structures of the variety that have historically caused protection problems due to open stairwells and combustible doors. There also are no multi-family structures greater than three stories in height posing rescue problems for the fire service.

Commercial Fires

Historically, fires in commercial buildings within Lakewood have not been a common occurrence. According to the Los Angeles County Fire Department, during 1994 only 15 percent of all fires in the City occurred in commercial buildings. Commercial fires differ from residential fires due to the varied type of construction and occupant load capacity. Of particular concern are high-rise buildings of more than three stories in height. Within Lakewood, there are five buildings that are more than three stories in height, three of which are fitted with fire sprinklers. The five-story Home Savings Building is not sprinklered, but is a Type I construction building. Type I construction is the most fire-resistant type of building construction.

However, high-rise structures in general pose special problems in terms of fire fighting. The building's height creates the problem of access to the upper stories. Because of this height, conventional ladder companies are unable to reach above the sixth floor to rescue trapped persons or fight the fire. Helicopters can be used to remove people from the rooftop, but the problem of reaching the fire remains unsolved. Normal elevator service is often disrupted, making the only means of access the stairwell. The problem of access can be helped by providing helicopter landing areas on the rooftop. Reaching the fire with personnel and equipment can be aided by using relay teams to carry the needed tools and water lines up the stairs. Also, containing the fire can be aided by installing automatic sprinkler systems that are activated on the start of a fire. Other safety devices that should be included in high rise structures are smoke detectors, air conditioning shut-off systems, enclosed stairways, and roof water supplies.

Industrial Fires

Unlike residential and commercial fires, industrial fires can pose special problems. The greatest danger results from materials that may be used in the manufacture of a product. These materials, often of a flammable nature, are stored in great quantities, creating potential fire hazards. Within Lakewood there is one company using titanium, a flammable metal, in its manufacturing process

while storing gasoline underground and hydrogen on the site. Also of concern are dangerous gasses and liquids. Lakewood's two hospitals use flammable liquids, radiological materials, and anesthetics, which are considered hazardous materials. During 1994, the Los Angeles County Fire Department reported no industrial fires.

Institutional Fires

Institutional fires include such uses as; churches, hospitals and schools. Special concerns for these types of uses include the safe evacuation for people at the site. During 1994, the Los Angeles County Fire Department reported only one institutional fire, that specific use being a church.

5.1.2 Utility Hazards

Lakewood, like all American cities, is laced with a network of overhead and underground utility lines that bring to its homes and businesses the conveniences of the Twentieth Century. But like most things mechanical, these systems are subject to mechanical failure. This failure could be caused by a number of factors, among them earthquakes, flood, weather conditions, or material fatigue. To anticipate their failure and to prepare for its occurrence, an understanding of the existing facilities must be attained. This understanding will assist in the prevention of major disasters by surveying the utility systems and plotting those areas of greatest potential danger.

The utility systems surveyed in Sections 3.0, "Infrastructure", and 5.0, "Hazards", are: natural gas lines, electrical power transmission lines, and petroleum pipelines. These systems are surveyed because of the nature of the material involved and their known potentiality for fire and explosion or imminent risk to life and property.

5.1.3 Natural Gas Hazards

All natural gas lines of 3-inch (8-centimeter) diameter or greater within the City of Lakewood are shown on Figure 3.2-4. Natural gas is supplied to Lakewood by the Southern California Gas Company. A large 30-inch (76-centimeter) high pressure line runs along Del Amo Boulevard for the length of the City. A second 30-inch high pressure line runs along the east side of the San Gabriel River south from Del Amo Boulevard into Long Beach.

Gas lines can fail due to a number of factors, among them earthquake shaking or faulting. Two gas lines are known to cross the Los Alamitos Fault, a 6-inch line in Marber Avenue, and an 8-inch line along Carson Street. A third and fourth line may cross the fault if the fault is found to extend further northward. These lines are the 30-inch line and the 4-inch line in Del Amo Boulevard.

Any gas line failure can result in the release of large quantities of natural gas to the atmosphere. It is also possible for this gas to become trapped and concentrated in pockets, such as in a house or within the tunnel under the Lakewood Shopping Center. Natural gas released into the atmosphere is

a highly flammable mixture and concentrations of this gas, as in buildings, also present a definite explosion hazard. If leaks were to be caused by an earthquake, there is also the possibility that water lines in the area of the leaks would also become unserviceable. The combination of extremely flammable natural gas and the loss of water pressure could present the Fire Department with a difficult situation.

5.1.4 Electrical Power Transmission Line Hazards

Lakewood is covered by a network of relatively low to intermediately-high voltage electrical distribution lines ranging from 66,000 volts to 480 or less. These distribution lines could fall for a number of reasons. Should this occur, the lines become a hazard to human life. Not only can downed electrical lines result in electrocution, but such a line in the vicinity of a rupture or leaking natural gas line can trigger a fire or explosion.

In addition to the distribution network, Lakewood also contains high voltage electrical power transmission lines as shown on Figure 3.2-3. These lines, operated by Los Angeles Department of Water and Power (LADWP) and Southern California Edison (SCE), serve to divide Lakewood into many areas. The LADWP right-of-way containing a 230 kilovolt transmission line extends from the western City boundary to just east of Eastbrook Avenue and to the north to Ashworth Street. This right-of-way then turns south and parallels Eastbrook to Ocana Avenue, at which point it runs southeast to the San Gabriel River just south of Monte Verde Park. From this point it parallels the San Gabriel River along the west bank.

The SCE right-of-way parallels the LADWP right-of-way near Eastbrook Avenue to Ocana Avenue, where it also turns southeast, reaching the San Gabriel River almost due east of the intersection of Denmead Street and Stevely Avenue. This right-of-way contains two lines, one 66 kilovolts and the other of 220 kilovolts. A set of four transmission lines also runs north and south along the east bank of the San Gabriel River. These lines include three 66 kilovolt lines and one 220 kilovolt line.

The hazards associated with high voltage transmission lines are similar to those of the distribution lines. In addition, these lines cross and parallel the San Gabriel River and the Los Cerritos storm drain. Chain link fences enclosing both the river and storm drain could become electrified if the high voltage lines should break and fall across the fences without the safety devices integrated in the lines cutting off the flow of electricity. The electrified fence would present a potential electrocution hazard to anyone touching the fence, even a considerable distance from the downed line. This risk has been lessened by the grounding of the fences along the right-of-way, thus posing less of a problem than expected.

The downed high voltage lines would also form barriers to the travel of emergency vehicles from one portion of the City to another if the lines should fall across City streets. Should this occur, fire and ambulance service to the eastern section of the community, east Lakewood, would be limited to

the Hawaiian Gardens Fire Station. Access would also be barred from this area to the two hospitals servicing the City. The evacuation plan should reflect these limitations.

5.1.5 Petroleum Pipeline Hazards

Several petroleum pipelines underlie the City of Lakewood, as shown on Figure 3.3-1. These lines are used to transport oil, gasoline, and crude oil. Major problems could occur along three of these lines. The first is the Shell Oil Company 4-inch (10-centimeter) gasoline line, which follows Bellflower Boulevard. This line crosses the known Los Alamitos Fault trace north of Carson Street and is, therefore, particularly vulnerable to rupture caused by earthquakes on this fault. Such a rupture would present a severe hazard due to the leaking gasoline. Rupture of this Shell Oil Company gasoline line combined with possible leakage from the natural gas line in Carson Street could make this intersection (Bellflower and Carson) a potential hazard. In the event of the need to evacuate Lakewood due to earthquake, this intersection should be avoided if at all possible.

The second problem area is along Del Amo Boulevard. Here the Four Corners 16-inch (40-centimeters) crude oil line parallels a 30-inch high pressure natural gas line from the Los Angeles and Salt Lake Railroad to the eastern edge of the City. A rupture and explosion along Del Amo could destroy both pipelines, trigger massive fires, and create widespread destruction. Even without fire or explosion, a major leakage from the 16-inch line could result in considerable damage and require extensive and expensive cleanup.

The third problem area is along the right-of-way of the Los Angeles and Salt Lake Railroad at Cherry Avenue. Ten pipelines of various sizes follow Cherry Avenue, and up to six lines parallel the railroad. Oil, fuel oil, gasoline, and crude oil are carried in these 16 pipelines. The volume of petroleum products carried in these pipelines presents possibilities for catastrophic fires and/or explosions.

In addition to these critical areas is the Atlantic-Richfield 8-inch oil line and 4-inch gasoline line following Lakewood Boulevard for the length of the City. These pipelines pass near the Lakewood Center Mall, a major activity center within the City, and rupture or leakage from these lines could endanger the Mall.

5.1.6 Wind-Carried Hazards

An additional hazard related to those hazards associated with fire is the hazard of wind-carried fumes. It is known that Lakewood is surrounded by industrial activities that handle materials that are potentially lethal should they be released into the atmosphere. To prepare for this possibility, it must be understood from which direction the chemical cloud can be expected to come. Although wind patterns may vary, the greatest threat comes from the areas west of Lakewood, particularly those chemical and petroleum plants associated with the harbor area. Plans should be developed to warn the citizenry of wind-carried fumes should a disaster occur. Appropriate procedures should also be adopted to combat wind-borne fumes and to lessen their impact upon the community.

Because of the nature of the problem and the lack of information about potential sources of dangerous fumes, the City should support efforts to mitigate the hazard on a regional scale through the Environmental Protection Agency of the Air Quality Control District.

5.2 Geologic Hazards

Lakewood is a community located within the southern part of the Los Angeles basin. The City's terrain is generally level with less than two percent variations in grade. Lakewood is bisected by a number of storm drains and the San Gabriel River Flood Control Channel. A summarized version of existing seismic and geologic conditions within the City of Lakewood is contained in Section 5.4, "Seismic Conditions", of this report. More detailed seismic information is contained in the *Seismic Safety Technical Document*, which was prepared for the City's 1975 Seismic Safety Element. The following describes the geologic hazards of slope instability, erosion, and subsidence.

5.2.1 Slope Instability

As far as Lakewood is concerned, the majority of the City is absent of significant relief and liquefiable soils, with the possible exceptions of the area just north of Carson Street between the San Gabriel Freeway and River and the Bouton Lake area. This condition minimizes the problem of landslides or slope instability to homeowners. The protected and concreted embankments of all flood control channels also reduce the hazard of slope instability and landslides throughout the City.

5.2.2 Subsidence

Subsidence is defined as the depression of a large area of land due to the volume reduction at depth. Lakewood does not have soil types where the probability of subsidence exists except in the immediate area of Bouton Lake.

5.2.3 Erosion

There are no areas of the City that are subject to erosion conditions due to the "flat" terrain and the low-flow velocity of drainage water.

5.3 Emergency Procedures

5.3.1 Road Widths

Emergency vehicle access is critical in situations of earthquake, fire and flood. For this reason, minimum road widths are necessary in order to ensure the passage of emergency vehicles where cars are parked on both sides of a narrow street. Lakewood has incorporated into its General Plan and Municipal Code minimum road widths for local, collector, and arterial streets. These are as follows:

Table 5.3-I

Recommended Right-of-Way and Roadway Widths by Street Classification

Street Classification	Right of Way	Roadway Width	Minimum Acceptable Roadway Width for Streets Providing Access to MFR* Property
Highway	100'	84'	84'
Secondary Highway	80'	64'	64'
Collector	60'	36'	40'
Local	60'	36'	40'

* Multi-family Residential

Source: Lakewood City Council Resolution No. 88-63 amending the Circulation Element of the General Plan, July 26, 1988 and Section 9462 of the Lakewood Municipal Code.

For purposes of access and public safety, the requirements of the City are considered to be adequate. It is not recommended that these requirements be varied, as a compromise in street width may result in undesirable safety situations. Any amendment to these requirements should be reviewed by the Fire Department before changes are made. There are existing streets within the City that do not meet the standards set by the Circulation Element and Municipal Code. Those streets posing the greatest access problems should be corrected.

5.3.2 Building Clearances

Building clearances and setbacks are enforced through the Zoning Ordinance section of the Lakewood Municipal Code. These requirements are as follows:

Table 5.3-II

Building Clearance Requirements (1) City of Lakewood

Zone	Front Yard	Side Yard	Rear Yard	Lot Coverage	Floor Area Ratio	Location of Buildings
			10 ft.* plus			

R-1	20 ft.	5 ft.	750 sq. ft.	45%	55%	
R-A	20 ft.	5 ft.	10 ft.* plus 750 sq. ft.	45%	55%	
MFR*	20 ft. plus	5 ft. plus	10 ft. plus			
A	20 ft.	5 ft.	10 ft.* plus 750 sq. ft.			
C-1	20 ft.**	None	20 ft.**			
C-3	**	None	**			
C-4	**	None	**			
M-1	**	None	**			50 ft. from R-zoned property
M-2	**	None	**			

Source: City of Lakewood Zoning Ordinance, June 1991.

(1) Building Code (UBC) requirements, pertaining to setbacks and type of construction, are more restrictive than zoning requirements.

* Yard setbacks depend on height of building.

** Front and rear yards are required to be 20 feet when abutting R-zoned property.

Building clearances are important in terms of containment of a fire to the original structure, thus limiting the possibility of the fire spreading to surrounding structures. These areas also provide adequate access to fire crews who need to be able to reach all areas of a building quickly and efficiently in order to rescue victims and extinguish the blaze.

5.3.3 Fire Flows

Water service is provided to Lakewood by three entities: the City of Lakewood Water Department, the Peerless Water Company (northern part), and Southern California Water Company (east Lakewood). Refer to Section 3.2.1, "Water", for further information. The majority of the City's residents and commercial customers are served by the City of Lakewood. Approximately 80 percent of the water required is pumped from 15 wells into storage facilities and distribution mains. The department also has two metered connections to the Metropolitan Water District's transmission system, which provides supplemental water to Lakewood.

Water lines within the City of Lakewood Water Resources' service area range in size from 4 inches to 27 inches in diameter. The majority of the water system is upgraded to meet current fire flow standards. However, several residential areas are served with 4-inch steel water lines that fail to meet required fire flow standards by a few hundred gallons. Within the next five years new and upgraded water lines will be installed to correct the water flow problems at these locations. The City is in the process of replacing 4-inch mains to 8-inch steel mains at a rate of 5,000 linear feet per year. Over the next 45 years the remaining 226,000 lineal feet of steel mains will be replaced.

The pumping and storage systems are well maintained. The City's Water Department currently has approximately 11 million gallons of storage capacity, which provides some reserve for peak use and fire flows. Pressure is maintained at about 65 pounds per square inch; chlorination is accomplished at each well site. The possibility exists that the storage tanks could fail during a seismic event and localized flooding could result. Methods of avoiding this should be explored.

Table 5.3-III

**City of Lakewood
Fire Flow Requirements**

LAND USE	Fire Flow Required (GPM*)	Time**	Fire Hydrant Spacing
Single-Family Residential	1,000 - 1,250	2 - 4 hrs.	660 ft.
Multi-Family Residential	1,500 - 5,000	6 - 10 hrs.	300 ft.
Mobile Home Parks	500 - 1,500	4 - 6 hrs.	330 - 1,000 ft.
Commercial and Industrial	2,000 - 5,000	8 - 10 hrs.	300 ft.
Public Schools	2,000 - 3,000	8 - 10 hrs.	330 ft.

* Gallons Per Minute

** Duration requirement of flow

Source: Section 7451.5, "Fire Flow Requirements", City of Lakewood Municipal Code, December 1991.
According to Los Angeles County Fire Department staff, typical response times from any fire station facility in the City to an emergency situation ranges from two to four minutes. Combined

with existing fire flows and response times, the City of Lakewood has an overall ISO rating of Class 3, which is considered "Good" by the Insurance Service Office.

5.3.4 Evacuation Routes and Centers

In a time of an emergency, it may become necessary to evacuate portions of the City to ensure the health and safety of the residents. Accordingly, the "City of Lakewood Multihazard Functional Plan for Emergency Operation" (on file in each City Department) was prepared to assist public officials with emergency coordination and administration during the event of a major earthquake, flood, toxic spill or other disaster.

Generally speaking, the evacuation routes within and out of the City of Lakewood would follow arterial and collector streets as much as possible. Primary routes to be used for evacuation connect to evacuation centers and allow for access to outside areas. Within Lakewood, arrangements have been made to use schools, particularly those with kitchen facilities, churches, and City park buildings as mass care centers. This information is depicted in Figure 5.3-1. Emergency Mass Care Facilities in the City of Lakewood, where supplies and shelter would be available during a disaster, are as follows:

Biscailuz Park - 2601 Dollar Street - Phone: 634-3348

Bloomfield Park - 21420 Pioneer Blvd - Phone: 865-1717

Bolivar Park - 3300 Del Amo Blvd - Phone: 431-3881

Del Valle Park - 5939 Henrilee - Phone: 429-0545

Lakewood Youth Center - 4658 Woodruff - Phone 429-7472

Mae Boyar Park - 6701 Del Amo Blvd. - Phone 925-6912

Mayfair Park - 5720 Clark Ave. - Phone 866-4776

San Martin Park - 5231 Ocana Ave. - Phone 867-1090

Doctors Hospital - 3700 South St. - Phone 531-2550

Additional medical services are available at hospitals in adjacent cities. These facilities are listed in Section 6.4, "Health Care", of this report.

5.4 Seismic Hazards

5.4.1 Seismic Safety Element of the City of Lakewood General Plan, Prepared March 17, 1975

The *Seismic Safety Element*, prepared for the City of Lakewood General Plan in 1975 by McDonnell Douglas Corporation's Earth Information Services, has served as the City's geotechnical informational document for over 15 years. The document remains a valuable seismic-safety planning tool and it is not the intent of this section to duplicate it. Rather, the purpose of this section is to summarize the significant and less technical excerpts contained in the Seismic Safety Element for use as background data. Individuals seeking more technical seismic-related information should consult the Seismic Safety Element prepared in 1975.

Since 1984, two significant State statutes have been enacted which have affected safety elements and seismic safety planning. These are:

In 1984, the Legislature adopted AB2038 (Ch.1009, Stats. 1984) which deleted the seismic safety element from the list of mandatory general plan elements and included it in the expanded list of issues to be addressed in the safety element.

In 1986, the Alquist-Priolo Special Study Zone Maps for the Newport-Inglewood Fault were revised as part of the California Department of Conservation's Division of Mines and Geology's long-range Fault Evaluation and Zoning Program. Although not located in the City of Lakewood, the Newport-Inglewood Fault is the nearest and most significant Alquist-Priolo Special Zone to Lakewood.

The Alquist-Priolo Special Studies Zones Act was enacted in 1972 to mitigate the hazard of surface fault rupture along active faults in California. The purpose of the Act is to avoid locating structures for human occupancy across traces of active faults.

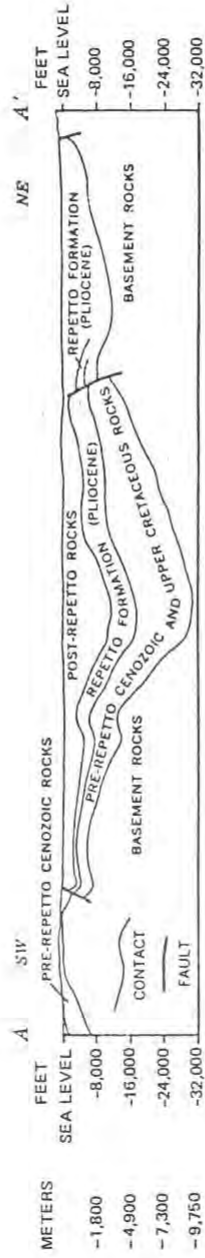
5.4.2 Geologic and Seismic Setting

Regional Stratigraphy

The pre-Repetto and upper Cretaceous rocks which accrue to 14,000 feet (4,300 meters) in thickness are shown in Figure 5.4-1. These include the Chico and Trabuco formations cut in some places by late Cretaceous quartz diorite intrusives. Presumed to overlie these in the Central basin are early Tertiary sands and siltstones - the Sespe and Vaqueros formations. The next formation above is the early to middle Miocene Topanga sandstone, shale and conglomerate interbedded with and below volcanic rocks (calcic andesite flows, tuffs and breccias). Above the Topanga are the middle to late Miocene rocks called Monterey, Modelo or Puente depending on where in the Los Angeles Basin you find them. It was during the deposition of these clay shales, siltstones, diatomites, and conglomerates that the creation and tectonic downwarping of the Central block occurred.



GENERAL PLAN



Source: Seismic Safety Element, City of Lakewood, March 1975.
Structure Section A-A Through the Los Angeles Basin

FIGURE 5.4-1

STRUCTURE SECTION
LOS ANGELES BASIN

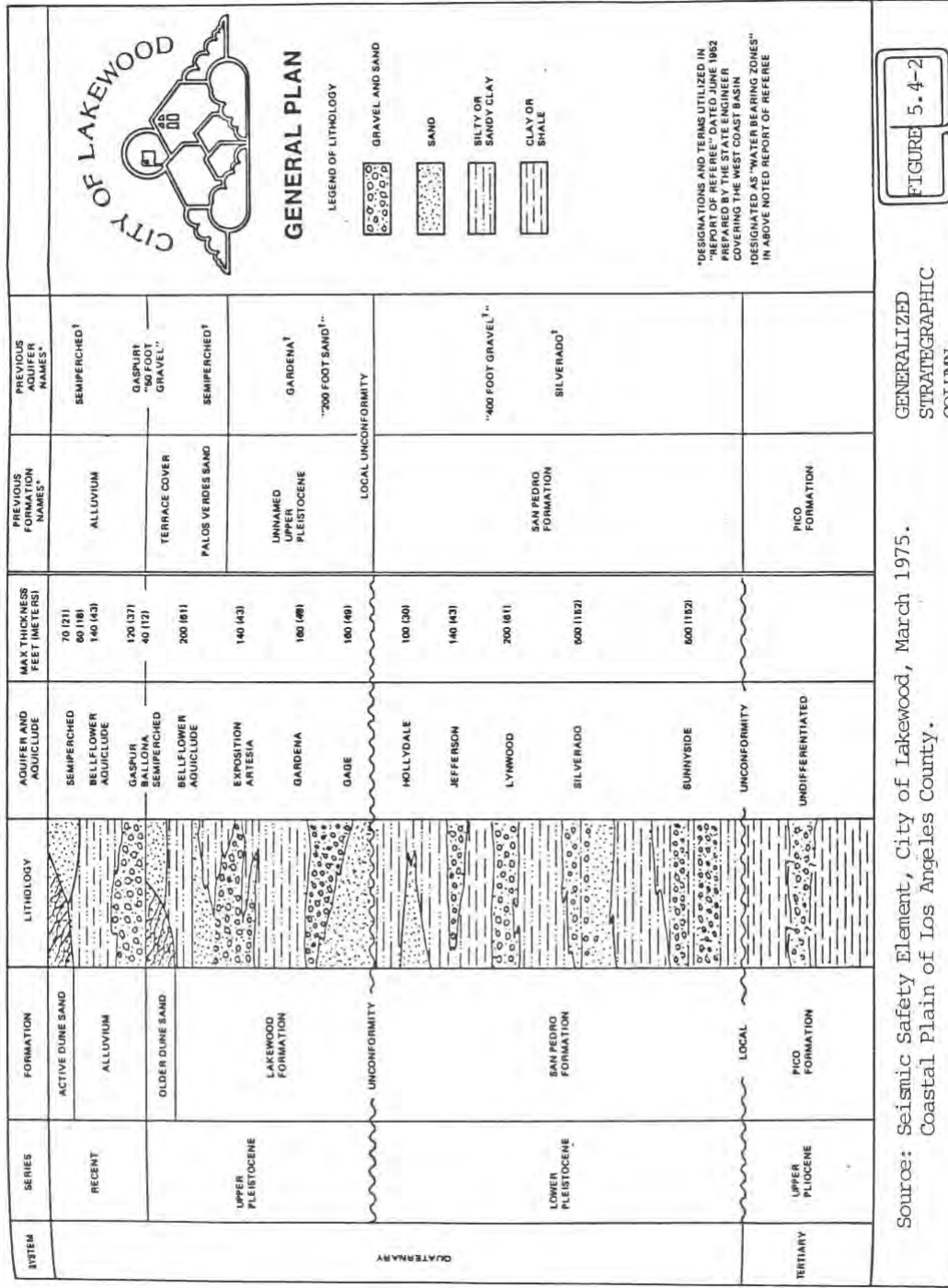
The Repetto formation shown in the cross section is of early Pliocene age and up to 6,000 feet (1,800 meters) thick. It is mostly a siltstone with layers of sandstone and conglomerate, locally containing fragmental marine shells.

The post-Repetto rocks include late Tertiary and Quaternary rocks reaching 12,000 feet (3,700 meters) in thickness. The late Pliocene Pico formation overlying the Repetto is over 2,000 feet (600 meters) thick. The upper part of the Pico formation consists of sands, silts and clays interbedded with marine gravels. The lower part is composed of greenish-gray micaceous siltstones and feldspathic sandstones interbedded with claystone and shale.

The next overlying group of sediment are very poorly consolidated and include those deposited in the Quaternary Period. The Quaternary deposits are divided into the Recent and Pleistocene series. Ground water extracted from wells is obtained primarily from aquifers in these rocks (with the exception of a few wells in the Lakewood area that perforate late Pliocene sediments). The lower Pleistocene formations include the San Pedro sands, which rests on the Pico siltstones. The upper Pleistocene in the Central basin includes the Lakewood formation which are essentially terrace deposits, typical of alluvial but predominantly floodplain river deposits. The late Pleistocene reaches 340 feet (100 meters) in thickness. The latest sediments are those of the Recent Epoch which date from the retreat of the last glacier about 11,000 years ago. These are mostly stream-deposited sandstones and siltstones and are shown on geological maps as alluvium and active dune sands. Many aquifers are found in these strata. A detailed stratigraphic column of post-Repetto rocks is shown in Figure 5.4-2.

Local Physiography and Geology

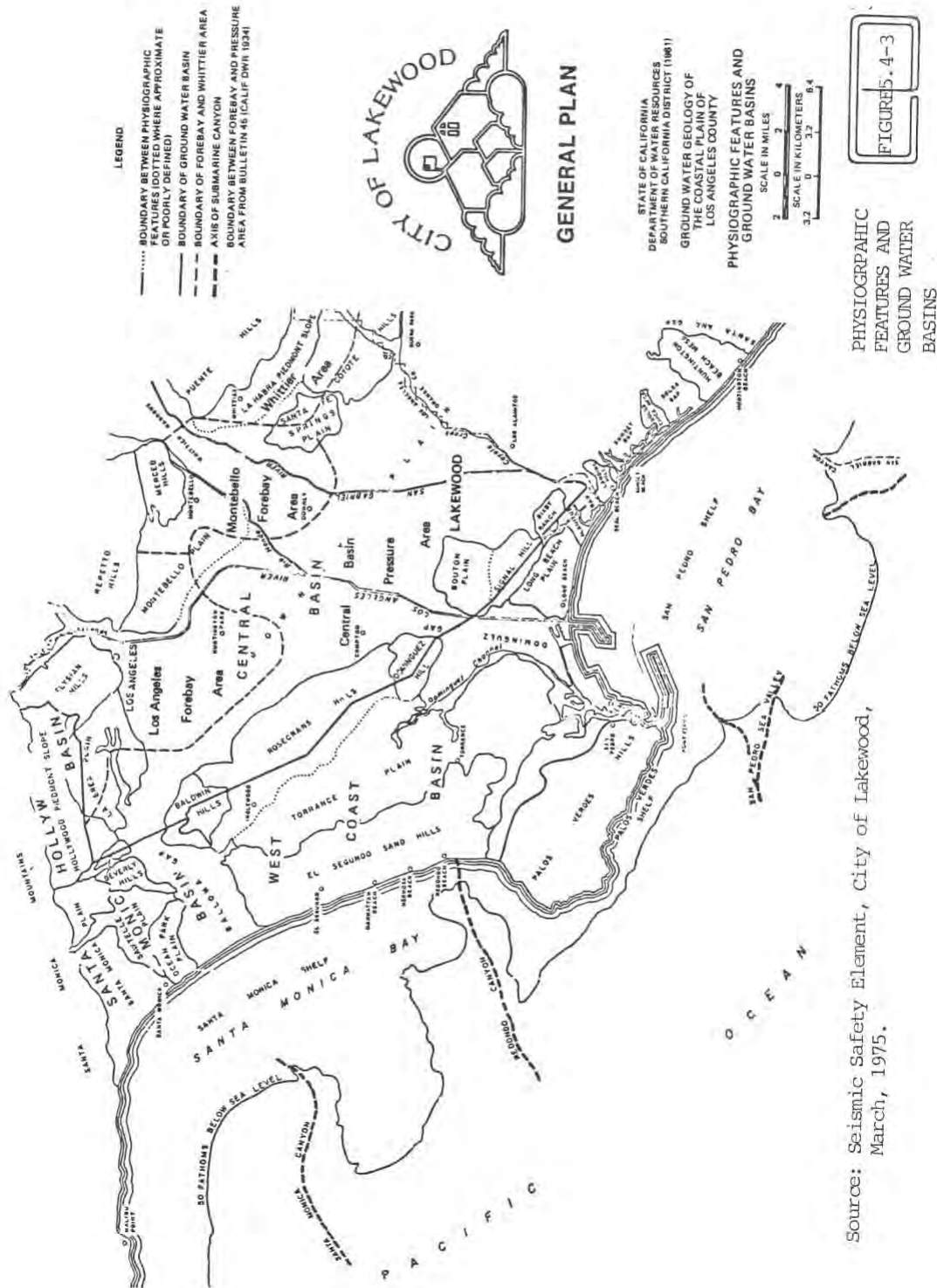
Lakewood is located within the Central Basin Pressure Area, a hydrologic unit within the Downey Plain (Figure 5.4-3). The surface relief within the City is 40 feet (12 meters); the City Hall parking lot elevation is 50 feet (15 meters) above sea level. The area is generally flat and regionally slopes gently to the south. Water-bearing sediments in the Central Basin Pressure area range in age from Recent to Pliocene and extend to a probably maximum depth of 2,200 feet (670 meters) northeast of the City. Recent alluvium covers most of the City of Lakewood (Figure 4.1-1, Soil Types) and reaches a maximum thickness of 200 feet (60 meters) near Bellflower. This alluvium is a source of fresh water and contains the Semi-perched aquifer, the Bellflower aquiclude, and the Gaspur aquifer. The underlying Lakewood formation of late Pleistocene age also is a water source for the City. It contains part of the Bellflower aquiclude and the Artesia, Exposition, Gage, and Gardena aquifers. The Gaspur, Artesia, and Exposition aquifers are in hydraulic continuity. The Gage and Gardena aquifers mark the base of the Lakewood formation and unconformably overlie the San Pedro formation. Five aquifers occur in the San Pedro: the Hollydale, Jefferson, Lynwood, Silverado and Sunnyside. The latter, marking the base of the San Pedro formation, attains its maximum depth of about 1,700 feet (518 meters) just east of Lakewood. Pliocene sediments composed of siltstones and sandstones underlie the San Pedro formation. Fresh water occurs in the most highly permeable zones of this formation; otherwise, its waters are saline or brackish.



Source: Seismic Safety Element, City of Lakewood, March 1975.
Coastal Plain of Los Angeles County.

GENERALIZED
STRATIGRAPHIC
COLUMN

FIGURE 5.4-2



Source: Seismic Safety Element, City of Lakewood, March, 1975.

Lakewood is located in a seismically active region. Figure 5.4-4 shows the locations of earthquake epicenters and active or potentially active faults in the vicinity of the site. As shown on Figure 5.4-4, the two known active or potentially active faults closest to Lakewood are the Los Alamitos fault and the Newport-Inglewood Zone of Deformation.

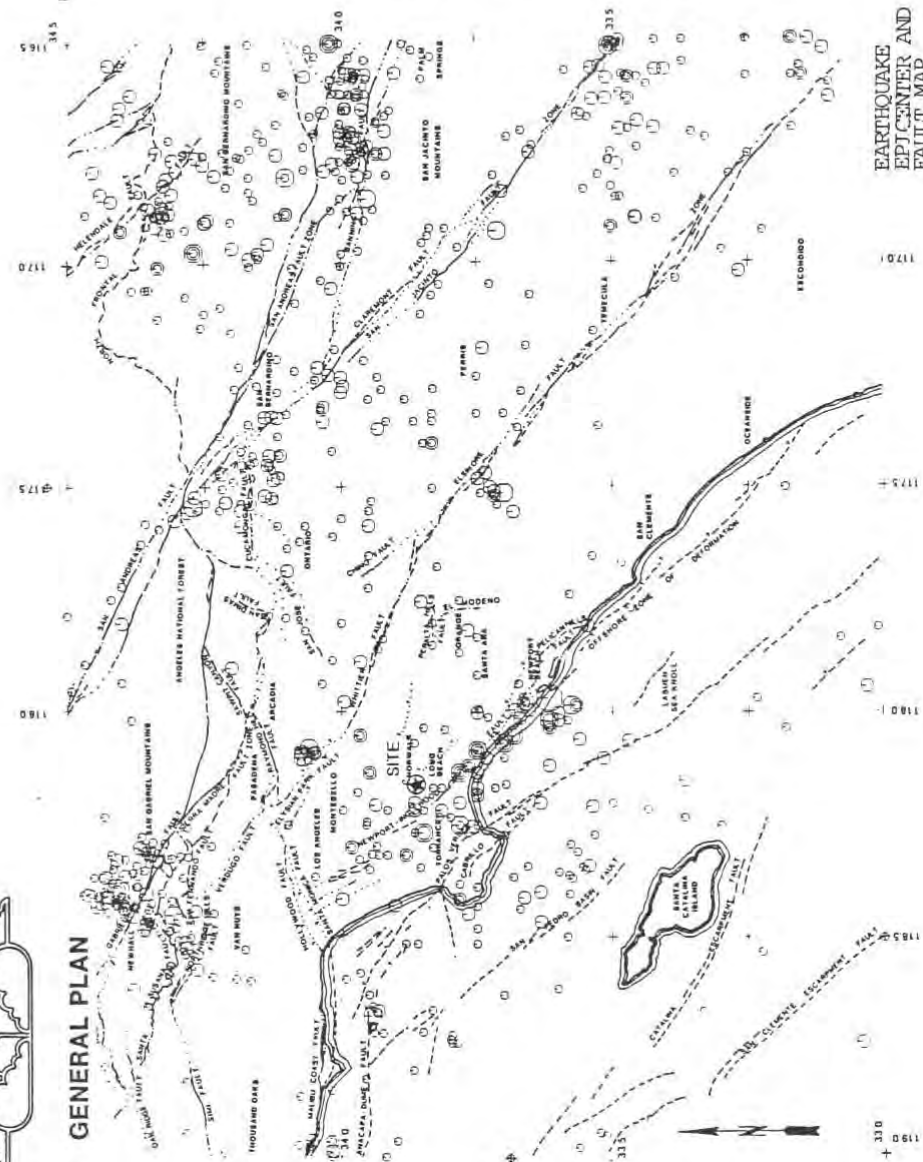
The inferred trace of Los Alamitos fault is known mainly from water well drillers' logs and water quality data (California Department of Water Resources, 1961) and microseismicity data (Hauksson, 1987). There is no reported surface expression of this fault. Based on the California Department of Water Resources (1961), evidence for movement along the fault appears to include vertical separation of aquifers, with those on the east of the fault having been displaced down relative to those on the west. Furthermore, the California Department of Water Resources (1961) suggests that aquifers of late Pleistocene and Recent age have not been displaced. Hauksson (1987) reports low levels of microseismicity along the trend of the fault and believes it may be related to strain accumulation of adjustment on the Newport-Inglewood Zone of Deformation following the 1933 Long Beach Earthquake.

The Newport-Inglewood Zone of Deformation is approximately three miles southwest of Lakewood and is expressed at the surface as a series of low, elongated hills extending from Newport Beach to Beverly Hills, including Signal and Dominguez Hills. The zone is a right-lateral wrench fault system consisting of a series of en-echelon fault segments and elongated, complexly-faulted domes or anticlines which are believed to be the expression of deep-seated faults within the basement rock (Yeats, 1973; Barrows, 1974). The overall length of the fault zone is approximately 44 miles (70 km.). The reported estimates of the total displacement across the zone vary; however, it is generally believed to be about 3,000 to 6,000 feet of right-lateral displacement since mid-Pliocene time, with a maximum of up to 10,000 feet since Miocene time (Woodward-Clyde, 1979). A highly variable, but significantly lesser amount of vertical displacement is also believed to have occurred during that time span. The average geologic slip rate of the fault has been estimated at 0.5 mm./year based on oil field data collected along the fault (Woodward-Clyde, 1979). Recent paleoseismic studies of the Rose Canyon fault system in San Diego (Rockwell, et al., 1991) suggest a slip rate of about 1.5 to 2.1 mm./year for that fault, and suggest that a similar slip rate may be appropriate for the Newport-Inglewood fault. While no surface rupture was reported, subsurface movement on the fault resulted in the 1933--magnitude 6.3--Long Beach earthquake, which caused significant damage in the City of Long Beach.

Since 1975, earthquakes of significant relevance in California are: 1975, Oroville; 1979, Imperial Valley; 1979, Coyote Lake; 1980, Livermore; 1980, Mammoth Lakes; 1980, off-shore Humboldt County; 1983, Coalinga; 1984, East San Jose; 1984, northwest Bishop; 1986, Palm Springs; 1986, Chalfant (Mono County); 1987, Whittier Narrows; 1987, Superstition Hills; 1989, Watsonville; 1989, San Francisco; June 1991, Landers (7.5) and Big Bear (6.6); and January 1994, Northridge (6.7).



GENERAL PLAN



LEGEND REPORTED EARTHQUAKE MAGNITUDES



Symbols Size Represent Designated Range of Richter Magnitude Symbols.

Epicenter and magnitude data from the Catalog of Earthquake Catalog for the period 1932 through 1987; only epicenters with magnitudes greater than 3.5 are shown.

Faults dashed where approximately located, dotted where concealed and queried where conjectural.

Fault locations modified from Geologic Map Series of California, 1977-1986, 1:250,000 Scale, CDMG.

Offshore faults modified from Geologic Map Series, California Continental Margin, 1986-1987, 1:250,000 Scale, USGS and CDMG.

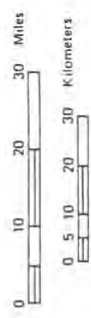


FIGURE 5.4-4

EARTHQUAKE EPICENTER AND FAULT MAP

5.4.3 Potential Geologic Hazards

In general, potential geologic and seismic hazards in Lakewood include: earthquake ground motions, ground rupture, slope instability, liquefaction and differential compaction, and seiches.

Ground Rupture

As previously discussed, the nearest known fault to the City of Lakewood is the Los Alamitos fault, whose location and trend is only approximately known. As shown on Figure 5.4-5, the Los Alamitos fault has been postulated in the vicinity of Carson Street and Bellflower Boulevard. As a result, additional data is needed to address the potential of an earthquake occurring from the Los Alamitos fault.

It has been found that in most earthquakes, ground shaking accounts for the greatest amount of damage and injury. As a recent example, over 99 percent of the damage caused by the 1987 Whittier Narrows earthquake was attributed to ground shaking effects. In a small percentage of earthquakes, ground rupture is responsible for a major amount of damage.

Slope Instability/Landslides:

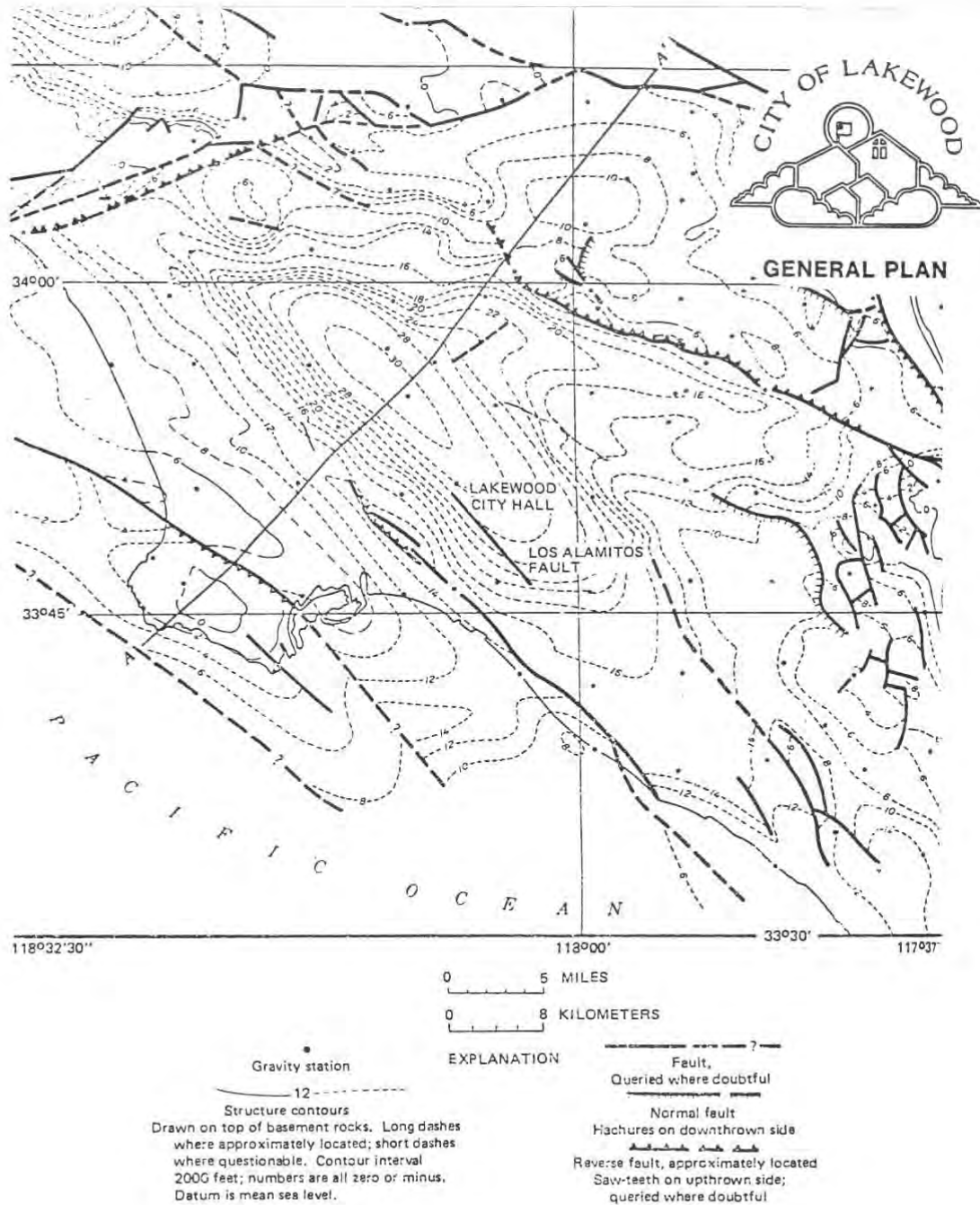
The area encompassed by the City of Lakewood is relatively flat. Consequently, slope instability and landslides are not considered hazards.

Liquefaction and Differential Compaction:

During an earthquake, the resulting ground shaking could compact loose deposits of cohesionless soils. If the soils are saturated, the compaction process could result in an increase in the pore water pressure in the soil. With the increased pore pressure, the water within the soil could tend to flow which may turn the soil deposit into "quicksand" due to loss of shear strength. Flow to the ground surface may be manifested by ground cracking and lurching. Lurching is inelastic deformation of the ground surface due to a loss of strength in underlying strata.

Where soil thickness is variable or where the subsoil conditions are erratic, differential compaction of soil layers may occur resulting in differential settlement of the ground surface. The results of laboratory tests and investigations of liquefaction sites indicate that uniformly graded (i.e., predominately one size such as beach sand) materials are more susceptible to liquefaction than well-graded materials. For uniformly graded soils, fine sands tend to liquefy more easily than do coarse sands, gravelly soils, silts, or clays.

In addition, loose shallow soil deposits could tend to liquefy more readily than denser deposits. It should be noted, intensity and duration of ground shaking plays an important role in liquefaction.



Source: Seismic Safety Element, City of Lakewood, March, 1975. Structure Contour Map of the basement rocks in the Los Angeles Basin

LOS ALAMITOS
FAULT
(Estimated
Location)

FIGURE 5.4-5

The longer the duration of strong shaking, the more likely liquefaction may occur. Since the intensity and duration of ground shaking are somewhat proportional to the earthquake magnitude, liquefaction is more likely for moderate to strong earthquakes. Finally, the deeper the water table, the lower the liquefaction potential.

In December, 1990, the County of Los Angeles produced an interpretive map describing the various levels of liquefaction potential and where liquefaction might possibly occur in the County. Figure 5.4-6 represents those areas in the City that have been identified as having liquefaction potential. There are two "zones" where liquefaction may occur; Liquefiable areas (indicated by a "L") and Potentially Liquefiable areas (indicated by a "PL"). Liquefaction is more likely to occur in the "L" zone than in the "PL" zone. Those areas of the City where it is unlikely for liquefaction to occur do not have their own designation on the map.

Seiches

A seiche, pronounced saysh, is a standing wave. Seiches are stationary oscillations of enclosed or partly enclosed bodies of liquid caused by landslides, sudden changes in wind pressure, tidal effects, or earthquakes. A seiche could occur in an oil tank as well as a water reservoir. Lakewood has numerous private and public swimming pools, sub-surface reservoirs, water and oil tanks, and a small lake that may be sensitive to earthquake-induced seiching. According to the 1975 Lakewood Seismic Safety Element, during a moderate (4.5) or greater earthquake, the potential for seiche damage to Lakewood structures is very likely. In particular, the underground reservoir (Plant 22) located at the intersection of Candlewood and Downey is one such structure susceptible to damage as a result of a moderate (4.5) seismic event.

The reservoir measures 160 feet by 140 feet and is 15 feet deep; there is a 1.5-foot slope toward the west. The water surface is about level with the ground and capped with a roof of reinforced concrete. The protective parapet is about 2.5 feet high; the reservoir capacity is 2.5 million gallons. A 2.5-foot wave generated in this reservoir could break the roof during a moderate (4.5) or stronger seismic event.

Other seiche problem areas include swimming pools and Bouton Lake. Hazards associated with these bodies of water are much less severe than for the Plant 22 site. According to the 1975 Lakewood Seismic Safety Element, the potential seiche hazards to Lakewood from an earthquake shaking from a Newport-Inglewood earthquake of magnitude 6.5 would be:

Major potential hazards:

- Underground reservoir, plant 22 SW of Downey and Candlewood Avenues
- City of Lakewood water tanks, Palo Verde Avenue and Arbor Road.

Minor potential hazards:

- Public swimming pools (Simon Bolivar, Mayfair Parks, etc.)
- Private swimming pools
- Bouton Lake

Dam Failure

Figure 5.4-7 is the Lakewood Inundation Map. According to the U.S. Army of Engineers (1), the northwest corner of the City could be inundated from Hansen Dam should it fail during an earthquake. Preliminary information pertaining to flooding resulting from failure of the Whittier-Narrows Dam indicates flooding of two to four feet throughout most of the City.

Seismic Design

New construction is designed for lateral forces imposed on structures by earthquakes or wind. Minimum design forces required by the Uniform Building Code have been determined based on historical measurement of the forces and the ability of different types of structures to withstand the forces. Structural systems are then designed based on the strength and other properties of the materials used for construction. The City of Lakewood reviews all construction for compliance with the Uniform Building Code. Large or unusual structures are required to be designed by licensed civil or structural engineers.

5.4.4 Utility Failure Hazards

Lakewood is traversed by a network of overhead and underground utility lines. These lines supply water, electricity, natural gas, telephone communications, and sanitary sewers throughout the City. All of these utility lines, and their associated pumps, substations, and valves are susceptible to damage and disruption from an earthquake. The following information summarizes the major components of Lakewood's utility network and the hazards they could potentially present during an earthquake.

Water Infrastructure

That portion of the City of Lakewood, which lies west of the San Gabriel River receives water from the City of Lakewood Water Department, with the Southern California Water Company providing water to the portion of the City east of the river. In addition, the Metropolitan Water District (MWD) has two major water lines within the City. Figure 3.2-1, displays all water lines of 10 inches in diameter, or greater, within the Lakewood corporate limits. None of the major water lines cross the Los Alamos Fault in the City. However, the MWD 48-inch (122 centimeter) line does cross the fault a short distance south of the City. Note that the northern terminus of the Los Alamos Fault is not known exactly. A 12-inch (30-centimeter) water line parallels Del Amo west of Clark, with 12-inch (30-centimeter) and 20-inch (51-centimeter) lines along Del Amo to the east of Clark. Also, 8-, 12-, and 20- inch (20-, 30-, and 51-centimeter) lines run along Clark.

(1) Final Environmental Impact Report, Redevelopment Project Area No. 2, Lakewood California, April 1989. Michael Brandman Associates.



FLOODING DUE TO DAM FAILURE

Most water lines within Lakewood are not in close proximity to any known faults. However, during an earthquake there may be damage to these lines. Water lines anywhere within Lakewood are subject to possible failure induced by earthquake shaking.

Damage to the water network will result in the loss of water to some homes and businesses. This loss will not only cut off the drinking water, it will also preclude operation of the sanitary facilities of the impacted buildings. Also, loss of water within an area of the City would hamper the Fire Department in fighting any fires, which may occur in the affected area.

Natural Gas

All natural gas lines of 3-inch (8-centimeter) diameter or greater within the City of Lakewood are shown on Figure 3.2-5. Natural gas is supplied to Lakewood by the Southern California Gas Company. A large 30-inch (76-centimeter) high pressure line runs along Del Amo Boulevard for the length of the City. A second 30-inch (76-centimeter) high pressure line runs along the east side of the San Gabriel River south from Del Amo Boulevard.

Two of the gas lines in the City may cross the Los Alamitos Fault. These are a 6-inch (15-centimeter) line along Marber Avenue, and the 8-inch (20-centimeter) line along Carson Street. Further, if the fault extends north of the indicated terminus, the fault will underlie the 30-inch (76-centimeter) line and a 4-inch (10-centimeter) line along Del Amo Boulevard.

As with water lines discussed above, gas lines can fail due to earthquake shaking. Any gas line failure can result in the release of large quantities of natural gas to the atmosphere. It is also possible for this gas to be trapped and concentrated in pockets, e.g., within a house or in the tunnel under the Lakewood Shopping Center. Natural gas released in the atmosphere is a highly flammable mixture, as evidenced by the major fire experienced by the Southern California Gas Company fire at their gas reservoir in the San Fernando Valley in January, 1975. Concentration of the gas, as in a building, also presents a definite explosion hazard. If the leak is caused by an earthquake, there is an associated possibility that water lines in the area will also fail. Combining a strong fire hazard because of leaking natural gas with loss of water presents the Fire Department with an extremely difficult situation.

Sanitary Sewers

Sanitary sewers of 8-inch (20-centimeter) diameter or greater are located on Figure 3.2-2. None of the lines shown crosses the known location of the Los Alamitos Fault. However, as with the other utilities, if the fault actually extends further north than indicated, then the large Lakewood trunk sewer along Clark Avenue would cross the fault just south of Del Amo Boulevard, within the City of Long Beach. This fault extension would also cross a 20-inch (53-centimeter) sewer along Del Amo to the west of Clark. These two major sanitary sewer lines are particularly vulnerable to earthquake damage. However, no sewer lines within Lakewood are entirely free of earthquake vulnerability since ground shaking can result in line rupture or leakage at any point in the City.

Electrical Power Transmission

Lakewood is covered by a network of electrical distribution lines which could fail due to earthquake-induced ground shaking. Although distribution lines are of relatively low voltage, downed lines are hazards to human life. Not only can these downed lines result in electrocution, but such a line in the vicinity of a ruptured or leaking natural gas line could trigger a fire or explosion.

In addition to the City's electrical distribution network, Lakewood also is traversed, in several locations, by high voltage electrical power transmission lines (see Figure 3.2-3.) None of these facilities cross the Los Alamos Fault. One Southern California Edison substation exists within Lakewood. This is near the Lakewood Water Department in the vicinity of Dunrobin Avenue and Arbor Road.

Petroleum Pipelines

Several petroleum pipelines underlie the City of Lakewood, as shown on Figure 3.3-1. These lines carry oil, gasoline, and crude oil. Three particular problems exist. The first is the Shell Oil Company's 4-inch (10-centimeter) gasoline line, which follows Bellflower Boulevard. This line crosses the Los Alamos Fault north of Carson Street and is, therefore, particularly vulnerable to rupture. Such a rupture would present a severe hazard due to the leaking gasoline. Note, also, the natural gas lines nearby, as discussed above. The gasoline line crosses an 8-inch (20-centimeter) natural gas line at Carson--clearly a hazardous intersection.

The second problem area is along Del Amo Boulevard. The Four Corners' 16-inch (40-centimeter) crude oil line parallels a 30-inch (76-centimeter) high pressure natural gas line along Del Amo from the Los Angeles and Salt Lake Railroad to the eastern edge of the City. A rupture and explosion along Del Amo could destroy both pipelines, trigger massive fires, and create widespread destruction. Even without fire or explosion, major leakage from the 16-inch (40-centimeter) line could result in considerable damage and require extensive and expensive clean-up.

Finally, the third problem area is located in the far western area of the City along Cherry Avenue and the parallel railroad right-of-way. Ten pipelines of various sizes follow Cherry Avenue, and up to six lines parallel the railroad. Oil, fuel oil, gasoline, and crude oil are carried in these 16 pipelines. The volume of petroleum products carried in these pipelines presents possibilities for catastrophic fires and/or explosions.

Atlantic-Richfield has an 8-inch (20-centimeter) oil line and a 4-inch (10-centimeter) gasoline line following Lakewood Boulevard for the width of the City. These pipelines pass near the Lakewood Center Mall and rupture of, or leakage from, these lines could endanger the Mall.

Structure Hazards (Unreinforced Masonry Buildings)

An evaluation of major structures in the City of Lakewood indicates that there are no unreinforced masonry buildings or any building, which might be deemed hazardous in terms of earthquake shaking. There are, however, several pre-1933 wood frame farm-style buildings existing in east Lakewood. As noted earlier, almost any structure will collapse if subjected to lateral accelerations of 0.44g or more.

5.4.5 Earthquake Preparedness

The City of Lakewood has taken ambitious steps to prepare for a disastrous earthquake and its aftermath.

The City's Disaster Plan is designed to coordinate emergency response and relief services from county, state, federal, and volunteer agencies (please see Section 5.3, "Emergency Procedures") of this report. In the event of an earthquake or other catastrophe, the City's first efforts will be maintenance of an adequate water supply for fire fighting and public health.

The City has emergency auxiliary water pumping capacity and reserve wells in the event the Water Department's 11.3 million gallons of stored water is lost.

All City service vehicles are equipped with two-way radios, and the three Sky Knight Helicopter patrol units would provide serial observation for disaster teams. The City's Disaster Plan calls for coordination of Fire Department units, the Sheriff's Department disaster teams, Red Cross relief efforts, and local, state, and federal agencies.

Noted publications in the area of seismic safety include:

How to Survive a Lakewood Earthquake, A Guide and Handbook for Home and Family Preparedness, by the City of Lakewood;

Planning Scenario For a Major Earthquake on the Newport-Inglewood Fault Zone, by the California Department of Conservation, Division of Mines and Geology, 1988.

Evaluating Earthquake Hazards in the Los Angeles Region - An Earth Science Perspective, U.S. geological Survey Professional Paper, 1360, United States Printing Office, Washington, 1985.

In addition, the City of Lakewood observes May of each year as "Earthquake Preparedness Month." During this time, various safety-related seminars, presentations, and information are available throughout the City. The City of Lakewood also offers "Earthquake Preparedness" classes as part of its Community Services schedule of classes.

5.5 Flooding

The City of Lakewood, located in the Los Angeles Basin, is surrounded by the Santa Monica Mountains, the San Gabriel Mountains, and the Santa Ana Mountains, as well as the Pacific Ocean. The Lakewood area is locally drained by the fully- channelized San Gabriel River, Los Angeles River, and Coyote Creek. The general terrain of the City is relatively flat with a grade variance of approximately ten (10) feet. (For information about storm drainage, see Section 3.2.3.)

Prior to 1992, the City of Lakewood was officially designated by the Federal Insurance Administration (FIA) as a "Zone C" community, or a city of minimal flood hazard. However, as a result of a 1987 Army Corps of Engineers study (the "Los Angeles County Drainage Area [LACDA] Study"), it was determined that 21 miles of the Los Angeles/Rio Hondo River channels were insufficient to offer protection against a 100-year flood. A 100-year flood is a major flood, which has a one percent chance of happening during any year in a century. Federal law requires areas susceptible to a 100-year flood to have channels, bridges, and other safeguards to contain such an event.

In particular, the Study found that 47 percent of Lakewood's land area could be impacted by floodwaters resulting from a breakdown of the Los Angeles River during a 100-year storm. The remaining area of the City, which has not been designated as flood prone, is identified as a "Zone C" under FIA standards. Figure 5.5-1 displays draft flood zone boundaries for the City of Lakewood as proposed by the Corps of Engineer's study.

The LACDA Study proposes 328 million dollars worth of improvements to the Los Angeles and Rio Hondo Rivers to mitigate identified flooding problems. In addition, new federal Flood Insurance Rate Maps (FIRM) will be prepared for Lakewood, along with a requirement that owners of designated flood-prone properties purchase flood insurance. Another result of the new FIRM's would include the institution of new building code criteria and restrictions for flood-prone properties.

During the latter part of 1991, cities in southeast Los Angeles County, concerned about the economic impact of the mandatory flood plain management regulations, formed the "LACDA Alliance." Cities in the Alliance include: Lakewood, Downey, Paramount, Pico Rivera, Bellflower, Carson, and Long Beach. The Alliance has worked jointly to obtain Congressional support for both the construction of Los Angeles and Rio Hondo Rivers improvements and relief from the FIRM requirements. The final outcome of the LACDA alliance efforts (e.g., revised Flood Insurance Rate Maps (FIRM), and new flood zone rules) is expected in 1995.

The LACDA Alliance's efforts thus far, have resulted in the establishment of an interim rule in October, 1994 to accompany and govern implementation of a new flood zone called Zone AR which will apply only to existing urbanized areas such as the LACDA area. This interim rule is a precursor to and will be replaced by a final rule just prior to the release of the "proof" flood insurance rate maps, which are due before the end of 1995.

The final rule for the Zone AR is anticipated to greatly modify existing regulations that would have virtually brought room additions to homes located in the flood zone to a halt, because of floor elevation requirements. In addition, the final rule will provide for a discounted rate on flood insurance. According to the interim rule for Zone AR, room additions to existing homes are now

permitted to maintain existing first floor elevations instead of having to raise them to be a foot above the base flood elevation, which in some cases would be two to four feet above the existing first floor elevations. The aforementioned interim rule also allows homeowners in the flood zone to purchase flood insurance for nearly half the normal cost, provided the insurance is purchased before the final maps are published by FEMA. Most likely, the final rule for Zone AR will be a slightly modified version of the interim rule.

In the case of LACDA, the new Zone AR and accompanying rule establishes a grace period of ten (10) years in which to make necessary improvements to the LACDA flood control system to eliminate the potential 100 year flood hazard. The Zone AR thereby acts as a temporary overlay flood zone for potential flood hazard areas, which ordinarily would receive an AE or AO flood zone designation but because the area is urbanized it qualifies for the temporary AR flood zone designation. If the required flood control improvements are not completed within the ten (10) year grace period the Zone AR is removed and the underlying flood zones of AE and/or AO take effect along with the more restrictive rules that govern those zones.

The LACDA improvement project is currently the subject of a Draft Master Environmental Impact Report (MEIR). The project is anticipated to take approximately five years to complete. Project improvements include: raising the access roads adjacent to the levees by up to four feet; constructing parapet walls along the tops of existing flood control channel levees; modifying traffic, railroad, utility, and pedestrian bridges; armoring the backside of the levees along some portions; widening the flood control channel at the confluence of the Rio Hondo Channel and the Los Angeles River; and, overlaying some existing grouted stone channel sides with concrete. The MEIR and authorization to construct the project is due to go to the Board of Supervisors in early 1995 with construction to begin before the end of the year. However, problems such as a failure to obtain federal funding or local opposition to the project could cause delays in project implementation.

5.5.1 Localized Drainage Problems

Two locations within the City of Lakewood have localized drainage problems. These locations are as follows:

East side of the San Gabriel River: Due to inadequate on-site building pad elevations, certain privately-owned parcels in the vicinity of 207th Street and Seine Avenue have experienced repeated flooding during winter rainstorms. The majority of these parcels contain on-site substandard development, which, when upgraded in the future, will be required to have raised building pads.

Cherry Cove Area: The Cherry Cove residential area, located westerly of Cherry Avenue and southerly of Candlewood Street, has experienced drainage problems over the years. Cherry Cove Park, which was built as part of the Cherry Cove residential area, was designed to serve as a public park and flood detention basin for the area. However, during winter rain storms unanticipated surface water runoff from Long Beach parcels located south of Del Amo Boulevard have over-taxed the Cherry Cove flood detention basin's ability to detain storm waters. The result has been ponding along streets and some overflow drainage onto private residential properties in the Cherry Cove residential area.

Implementation of the Los Angeles County Flood Control Project 130 Relief System (recently approved by the City of Lakewood) is expected to provide an overall drainage solution for the Cherry Cove residential area and the affected City of Long Beach parcels.

Lakewood is covered almost completely with impervious surfaces and runoff flows are not likely to increase with further development. The City's present storm drain system functions well; however, as mentioned, improvements are possible which would alleviate identified drainage problem areas.

5.6 Noise

5.6.1 Planning Law and Noise Element Guidelines

In accordance with Section 65302(f) of the California Government Code, each county and city is required to prepare a noise element as part of its general plan.

This section of the Background Technical Report contains technical information, which relates to the City of Lakewood's existing and projected noise environment. The information will be used in the Noise Element to provide guidance for comprehensive local programs to control and abate excessive noise and to protect residents from adverse noise impacts.

Section 65302(f) of the Government Code requires the noise element to include the following:

"A noise element, which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

1. Highways and freeways.
2. Primary arterials and major local streets.
3. Passenger and freight on-line railroad operations and ground rapid transit systems.
4. Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airports operation.
5. Other ground stationary noise sources identified by local agencies as contributing to the community noise environment."

The information in this section identifies and assesses the City of Lakewood's noise environment as required by the Government Code. This information includes:

Current and projected noise contours (lines that generally depict noise exposure) are provided for the San Gabriel Freeway (605) and primary arterials and major local streets in Lakewood;

Current noise contours and anticipated noise levels for the Long Beach Airport;

Existing noise contours and anticipated noise levels for the Union Pacific Railroad lines traversing the City of Lakewood along its westerly boundary;

Existing and anticipated noise levels for Lakewood's industrially-zoned area located in the south-westerly portion of the City. Included in this category is information

pertaining to noise impacts from McDonnell Douglas' jet testing in the adjacent City of Long Beach.

5.6.2 Noise Characteristics

Noise is often defined as unwanted sound. Sound is created when an object vibrates and radiates part of its energy as acoustic pressure or waves through the air, water or a solid. The ear receives these sound pressure waves and converts them to neurological impulses that are transmitted to the brain for interpretation. Sounds may be perceived as loud, soft, noisy, quiet, and high pitched.

There are two parameters that are used technically to describe simple sounds:

Amplitude - The amplitude of a sound is a measure of the pressure or force that a sound can exert. A sound is described as louder if it has a larger amplitude than another sound. The amplitude of sounds can be described either in measurable magnitude or in relative terms of loudness. Physically, sound pressure is measured and quantified in units of decibels (dB).

Frequency - The unit of frequency, Hertz (Hz), means cycles per second and refers to the number of times that the acoustic pressure (amplitude) peaks for each sound. High-pitched sounds are produced by a rapidly vibrating sound source and, conversely, low-pitched sounds are from a slowly vibrating source.

The human hearing system is not equally sensitive to sound at all frequencies and responds more dramatically to sounds with frequencies in the range of 20 Hz to 20,000 Hz. Twenty Hz or below 20 Hz are inaudible to humans.

The A-weighted decibel sound level scale has been developed to measure sound in a manner similar to the way human hearing system responds. The use of the A-weighted scale is often indicated by using the abbreviation "dB(A)" for expressing the units of the sound level quantities. Typical A-weighted sound levels measured for various sources are provided in Figure 5.6-1. Sound levels below 50 dB(A) are generally acceptable, whereas complaints are possible at 70 dB(A).

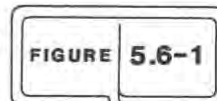


GENERAL PLAN

PUBLIC REACTION	NOISE LEVEL (dBA)	COMMON INDOOR NOISE LEVELS	COMMON OUTDOOR NOISE LEVELS
	110	Rock Band	
	100	Inside Subway Train	Jet Flyover at 1000 ft.
LOCAL COMMITTEE ACTIVITY WITH INFLUENTIAL OR LEGAL ACTION			Gas Lawn Mower at 3 ft.
LETTERS OF PROTEST	90	Food Blender at 3 ft.	Diesel Truck at 50 ft.
COMPLAINTS LIKELY	80	Garbage Disposal at 3 ft. Shouting at 3 ft.	Noisy Urban Daytime
COMPLAINTS POSSIBLE	70	Vacuum Cleaner at 10 ft. Normal Speech at 3 ft.	Gas Lawn Mower at 100 ft. Commercial Area
COMPLAINTS RARE	60	Large Business Office	Heavy Traffic at 300 ft.
	50	Dishwasher Next Room	Quiet Urban Daytime
ACCEPTANCE	40	Small Theater Conference Room (Background)	Quiet Urban Nighttime
	30	Library Bedroom at Night Concert Hall (Background)	Quiet Suburban Nighttime
	20	Broadcast and Recording Studio	Quiet Rural Nighttime
	10		
	0	Threshold of Hearing	

Source: Caltrans Noise Manual California State Dept. of Transportation, March 1980, pg. 1-1-4.

COMMUNITY NOISE LEVELS AND PUBLIC REACTION



Sound levels are reported in logarithmic units and they cannot be added arithmetically. Table 5.6-I displays a streamlined method for adding sound levels. For example, 60 dB(A) + 60 dB(A) added

logarithmically, on an energy basis, equals 63 dB(A), not 120 dB(A). Consequently, a doubling of sound energy produces 3 dB(A) change in the measured sound pressure level. Along the same lines, two sounds of 60 Db(A) and 70 dB(A) would add up to 70.4 dB(A). The previously discussed 3 dB(A) change represents a doubling of sound energy, but not a doubling in loudness. Loudness is subject to interpretation. Generally, a 3 dB(A) increase is not too noticeable, but a 5 to 10 dB(A) change is clearly noticeable. A sound must be nearly 10 dB(A) higher than another to be judged twice as loud.

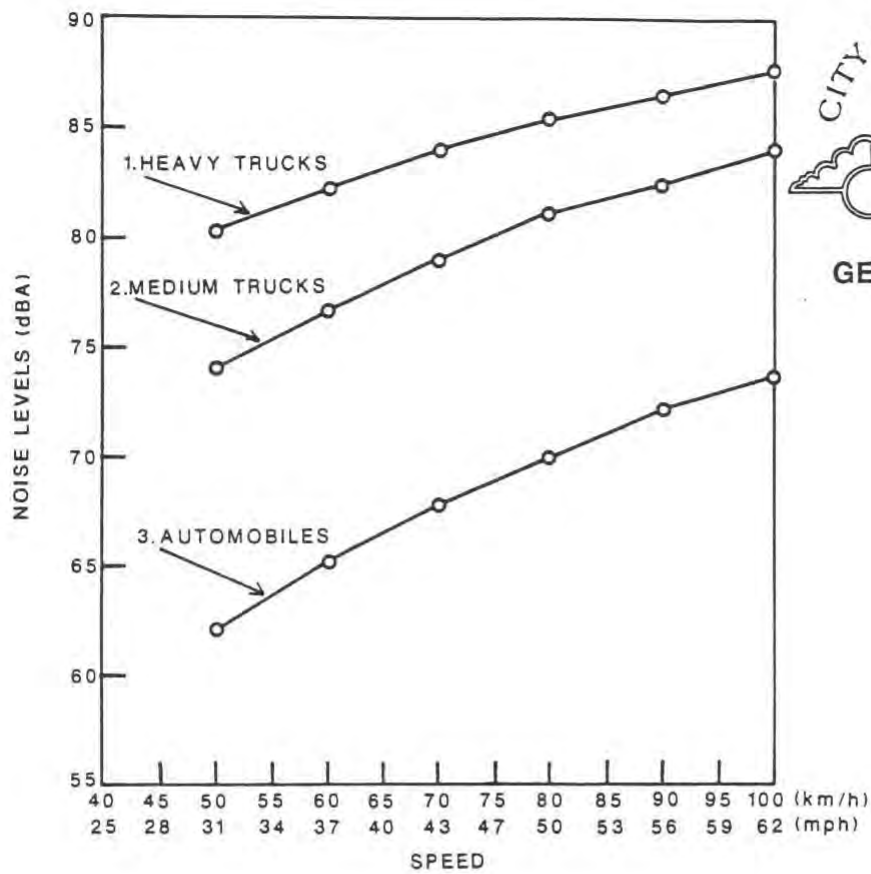
Table 5.6-I

Decibel Addition

<u>Higher Noise Level Minus Lower Noise Level</u>	<u>Decibels to be Added to Higher Noise Level</u>
0	3.0
1	2.5
2	2.1
3	1.8
4	1.5
5	1.2
6	1.0
7	0.8
8	0.6
9	0.5
10	0.4
12	0.3
14	0.2
16	0.1
greater than 16	0.0

The predominant noise source in the City of Lakewood is roadway traffic. Figure 5.6-2 displays the reference noise levels for heavy trucks, medium trucks and automobiles. Medium trucks are approximately 10 to 12 dB(A) louder than automobiles at all speeds. Heavy trucks are 4 to 6 dB(A) louder than medium trucks.

As the distance to a noise source increases, the sound level diminishes. Sound waves are attenuated by both air and ground absorption. If the sound originates from a point source, (such as an air conditioning unit) the rate at which the sound attenuates is 6 dB(A) per doubling of distance. Figure 5.6-3 depicts the decrease in sound level with distance.



GENERAL PLAN

1. AUTOMOBILES: ALL VEHICLES WITH TWO AXLES AND FOUR WHEELS .
2. MEDIUM TRUCKS: ALL VEHICLES WITH TWO AXLES AND SIX WHEELS .
3. HEAVY TRUCKS: ALL VEHICLES WITH THREE OR MORE AXLES.

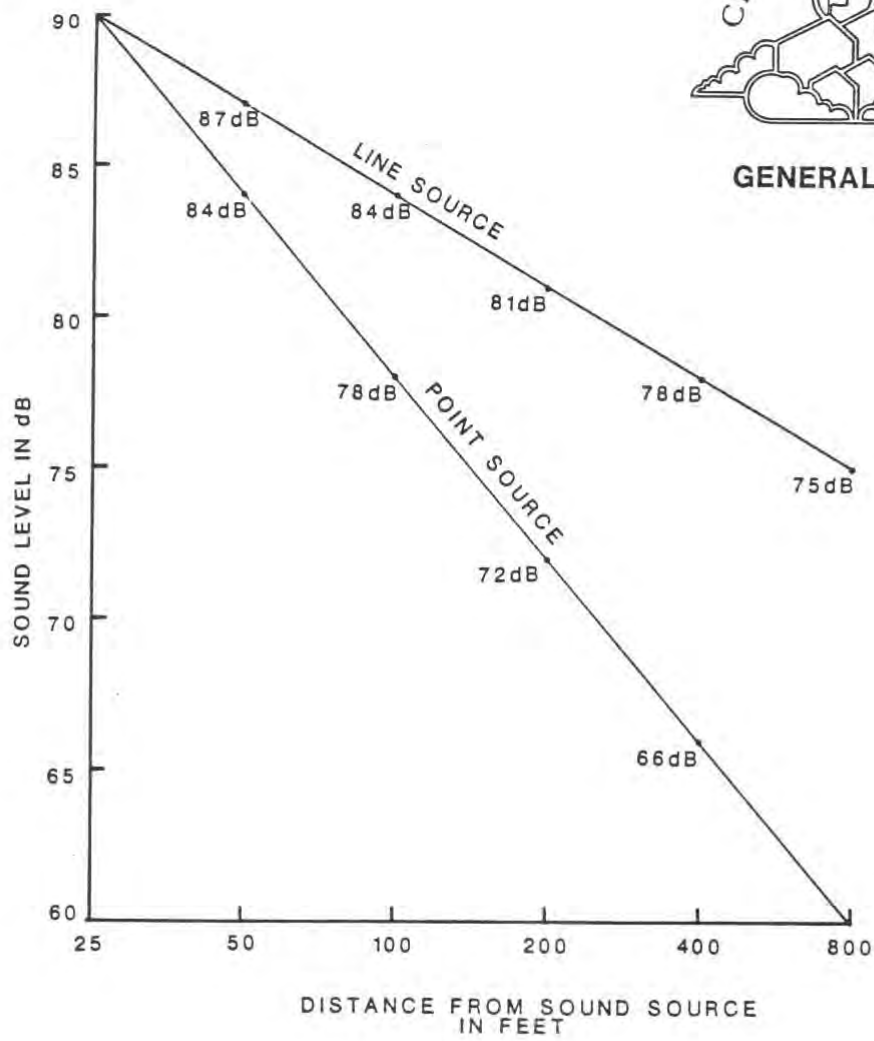
SOURCE: U.S. Dept. of Transportation, Federal Highway Admin.,
FHWA Highway Traffic Noise Prediction Model
(FHWA-RD-77-108), Dec., 1978.

REFERENCE NOISE LEVELS

FIGURE 5.6-2



GENERAL PLAN



**SOUND LEVEL DECREASE
WITH DISTANCE**

FIGURE 5.6-3

5.6.3 Noise Criteria

Some factors that affect a human's tendency to categorize a sound annoyance are:

Magnitude of the sound level source in relation to the background noise (i.e., ambient sound level).

Duration of the sound event.

Frequency of occurrence of events.

Time of day events occur.

The federal government has adopted numerous standards and recommended noise criteria to protect people in both the working and home environments. Federal government preempts local control of noise emissions from aircraft, railroads and interstate highways.

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, freeway noise affecting classrooms, noise insulation, airport noise, and occupational conditions. The State has also established land use compatibility guidelines for community noise environments. Community Noise Equivalent Level (CNEL) is the standard measure utilized for the guidelines.

In California, CNEL is used as a common measure for a variety of noise environments. A 60 dB CNEL level describes an area as having a time-average constant sound level of roughly 60 dB(A), even though the area would experience individual sound events higher and lower than 60 dB(A). The CNEL scale can be useful in comparing different noise environments. Also, it can help to determine the level in which a noise environment is adversely impacted. However, the CNEL scale has limitations because it averages the sound event levels over a 24-hour period and possibly obscures the periodic high noise levels of individual events and their possible adverse effects. In recognition of this limitation, the Environmental Protection Agency (EPA) has adopted maximum single-event noise impact levels for some sources, such as buses, garbage trucks and railroad equipment.

It should be noted that CNEL is not a measure but a computation of measured sound levels. Individuals or communities do not actually "hear" CNEL, but respond to the level of sound received from noise sources. People may integrate over long-term intervals their response to noise and make subjective judgments about the "quality" of the noise environment.

A review of the federal and state noise standards and guidelines as they relate to planning indicate that there should be concern at the following noise levels:

Greater or equal to 65 dB CNEL

Noise-sensitive land uses are normally unacceptable.

60 to 65 dB CNEL

Noise-sensitive land uses are conditionally acceptable if interior noise levels can be mitigated to acceptable noise levels.

5.6.4 Existing Noise Environment

The most pervasive noise in Lakewood comes from mobile noise sources, including motor vehicles, railroads, and aircraft. One major freeway, two through railroad lines, and one airport expose the City to significant noise impacts, particularly in those areas adjacent to the freeways, major streets, railroad lines, or the airport. The City is also exposed to noise emanating from sources such as industrial and commercial activities, construction activities, and human activities.

Noise affects all types of land uses and activities, although some are more sensitive to high noise levels than others. The noise sensitive land uses in the City generally include residential, convalescent and rest homes, hospitals, libraries, churches, and schools. As required under Section 65302.f of the Government Code, the impact of noise levels on these land uses is identified and analyzed in the following sections.

Noise Complaint Survey

A list of community noise complaints were compiled to document the existing noise environment. A total of 94 noise-related complaints were filed with the City during a two-year time period between 1991 and 1992. The complaints listed in Table 5.6-II represent the type and frequency of commonly-reported noise sources which adversely impact communities. Nearly all of the activities were reported from single family homeowners.

Table 5.6-II

<u>Noise Source</u>	<u># of Complaints</u>
Barking Dogs	54
Home Auto Repairs	8
Aircraft Noise	6
Commercial Parking Lot Cleaning	5
Commercial Deliveries	4
Commercial Mech. Eqmt.	3
Residential Mech. Eqmt.	3
School Activities	2
Construction Noise	2
Comm./Instit. Landscape Maint.	2
Motor Vehicle Residential	1
Motor Vehicle Commercial	1
Live Music Residential	1
Yard Maintenance Residential	1
<u>Auto Repair Commercial</u>	<u>1</u>
Total	94

Stationary Noise Sources

As indicated in the above noise complaint survey, stationary noise sources typically include industrial and mechanical equipment, construction, human activities, and animal noise. Other common sources of stationary sources of noise include the following:

Mechanical electric equipment (air conditioners, refrigeration units, swimming pool and spa pumps and filters, air compressors, generators, industrial plant machinery)

Various power tools (lawn mowers, leaf blowers, other gardening equipment)

Commercial and industrial activities (truck pickup and loading, car wash facilities, industrial operations)

Aircraft (Jet Engine) testing

Table 5.6-II confirms that the primary source of reported noise activity is from stationary, not mobile, noise sources. However, Ordinance No. 72-14 (adopted in 1972) establishes the maximum permissible noise level at 60 dB(A) for mechanical equipment in residentially-zoned properties. In addition, Ordinance No. 90-1 limits construction activities from 7 a.m. to 7 p.m. Monday through Saturday, and from 9 a.m. to 7 p.m. on Sunday. Up to the present time, these City Noise Ordinances have been enforced in response to noise complaints.

Aircraft Jet Testing

One of the types of complaints listed in Table 5.6-II pertains to aircraft noise. It was found that the noise was generated from the McDonnell Douglas aircraft plant bordering the southwest portion of the City. As a part of their operations, Douglas conducts testing of jet engines, which in turn has a significant effect on Lakewood neighborhoods. The location of the jet testing is shown on Figure 5.6-5.

To address the problem, in May of 1990 the City hired a consultant to research, document, and recommend actions to reduce aircraft jet testing noise intrusion. The study found that the number of runups and the duration of testing were unpredictable depending on the readiness of the aircraft and number of adjustments required to pass the testing requirements. Anywhere from one to four aircraft were estimated to be run-up within the City of Lakewood per week. Aircraft run-ups were scheduled between 7 a.m. and 9 p.m. weekdays and 9 a.m. to 9 p.m. weekends.

The noise study also included noise readings over a ten-week period. Measurements were conducted in an existing residential location on Brock Avenue just north of Carson Street. The readings found that the intrusion of aircraft run-up noise into the closest residential community averaged 10.6 dB(A) louder than background noise levels. A 10 dB(A) increase represents ten times the noise energy and is commonly considered to be perceived as twice the relative loudness.

To rectify the jet testing issue, the L.B. Airport is proposing to construct a new run-up facility at the center of the airport. A part of the facility includes an enclosure called a hush house which will restrict most of the run-up noise within the confines of the airport. The new run-up area should reduce the noise levels to residential areas by 7 to 8 dB(A). It should be noted, however, that the future of this project depends on the future of Douglas as Douglas would be a major financier for its construction. Recent cutbacks in aerospace contracts have significantly affected Douglas activities. Consequently, the hush house is not currently a priority for Douglas as current output of aircraft does not justify such an expenditure.

Noise Contours

The noise contours represent lines of equal noise exposure just as the lines on a topographic map indicate equal land elevation. Estimates of sound levels can be visualized by a depiction of noise contours. Obstacles such as land forms and man-made structures have very complex effects on sound transmission and on noise contours. Generally, such barriers between a source and receiver absorb and/or reflect noise, thereby creating a quieter environment. Where barriers or land forms do not interrupt the noise transmission path from source to receiver, the contours prove to be good estimates of the average noise level. In areas where barriers or land forms interrupt the sound transmission, the noise contours overestimate the extent to which a source intrudes into the community. Thus, it is virtually impossible for the Noise Element to develop specific contours for each roadway segment of the City including barrier noise attenuation. Therefore, where projects are proposed within noise impacted areas, an acoustical study should be submitted to determine the extent of noise and its impact on the project area.

Figures 5.6-4 through 5.6-6 contain both 60 and 65 dB CNEL contours for transportation (mobile) noise sources, including the San Gabriel River Freeway, major roadways, railways, and the Long Beach Airport.

Mobile Noise Sources

Mobile sources are transportation-related such as motor vehicles, railroad, and aircraft. Motor vehicle noise is characterized by a high frequency of events, short duration, and proximity to areas sensitive to noise exposure. Rail transit and aircraft operations frequently generate extremely high noise levels, which are disruptive to adjacent properties. Noise contour maps were produced showing the various levels of noise activity in the following categories:

a. Motor Vehicles

Sources of vehicular traffic noise include automobiles, buses, trucks, and motorcycles. Noise is generated by engines, exhaust systems, transmissions, fans, tires, and air movement. The contours depicted on Figure 5.6-4 represent the amount of traffic noise generated by each primary arterial and major local street within the City. Contours were developed based on the Noise Assessment Guideline procedures within the U.S. Department of Housing and Urban Development (HUD) noise guidebook. As stated in the HUD guidelines, the quantity of traffic noise is assessed by combining the average daily traffic (ADT) with average traffic speeds

produced by the vehicular traffic. Arterials used as truck routes (as described in Section 3.1.2) increased the amount of traffic and noise by an estimated 4 percent. The 60 and 65 dB(A) contours were then measured from the centerline of each street to a distance as indicated for each street in Table 5.6-III. Projected ADT levels and noise contours are not available.

Table 5.6-III

1992 Daily Traffic and dB CNEL Contours by Roadway

<u>STREET</u>	<u>LOCATION</u>	<u>ADT</u>	<u>CONTOUR DISTANCE</u>	
		<u>(Thousands)</u>	<u>60dB</u>	<u>65dB</u>
ALLINGTON ST	BELLFLOWER TO WOODRUFF	4.6	56	34
ALLINGTON ST	WOODRUFF TO CARPINTERO	11.0	120	56
ASHWORTH	LAKEWOOD TO CLARK	3.2	38	17
ASHWORTH	CLARK TO BELLFLOWER	4.0	50	25
ASHWORTH	BELLFLOWER TO WOODRUFF	2.5	35	15
BELLFLOWER BLVD	SOUTH TO ASHWORTH	21.1	220	100
BELLFLOWER BLVD	CANDLEWOOD TO SOUTH	20.1	200	95
BELLFLOWER BLVD	DEL AMO TO CANDLEWOOD	20.7	205	100
BELLFLOWER BLVD	CARSON TO DEL AMO	20.5	190	90
BLOOMFIELD AVE	CENTRALIA TO DEL AMO	15.0	175	80
BLOOMFIELD AVE	CARSON TO DEL AMO	14.4	163	75
CANDLEWOOD ST	PARAMOUNT TO UPRR	15.5	170	78
CANDLEWOOD ST	PARAMOUNT TO DOWNEY	16.2	175	80
CANDLEWOOD ST	LAKEWOOD TO DOWNEY	17.4	170	78
CANDLEWOOD ST	LAKEWOOD TO CLARK	23.6	155	73
CANDLEWOOD ST	CLARK TO BELLFLOWER	13.0	110	55
CANDLEWOOD ST	BELLFLOWER TO WOODRUFF	7.3	75	36
CANDLEWOOD ST	WOODRUFF TO PALO VERDE	4.0	58	28
CARSON ST	PARAMOUNT TO CLUB HOUSE	29.8	220	105
CARSON ST	CLUB HOUSE TO LAKEWOOD	30.1	225	110
CARSON ST	UPRR TO PARAMOUNT	27.1	220	105
CARSON ST	BELLFLOWER TO WOODRUFF	26.0	220	105
CARSON ST	WOODRUFF TO PALO VERDE	27.5	225	105
CARSON ST	PALO VERDE TO LOS COY	28.0	225	105
CARSON ST	LOS COYOTES TO SG RIVER	33.5	255	120
CARSON ST	SG RIVER TO PIONEER	40.8	305	148
CENTRALIA ST	BELLFLOWER TO WOODRUFF	3.8	46	22
CENTRALIA ST	PALO VERDE/WOODRUFF	2.6	37	17
CENTRALIA ST	PIONEER TO NORWALK	14.7	156	73
CENTRALIA ST	NORWALK TO BLOOMFIELD	13.0	140	68
CENTRALIA ST	PIONEER TO STUDEBAKER	8.5	110	53
CHERRY	WARDLOW TO CARSON	34.7	280	135
CHERRY	DEL AMO TO CANDLEWOOD	27.2	230	110
CLARK AVE	ASHWORTH TO SOUTH	18.7	180	85
CLARK AVE	SOUTH TO CANDLEWOOD	22.4	200	95
CLARK AVE	CANDLEWOOD TO DEL AMO	22.8	190	90
DEL AMO BLVD	PARAMOUNT TO DOWNEY	30.9	280	135
DEL AMO BLVD	UPRR TO PARAMOUNT	32.2	280	135
DEL AMO BLVD	LAKEWOOD TO CLARK	31.2	240	115

<u>STREET</u>	<u>LOCATION</u>	<u>ADT</u> <u>(Thousands)</u>	<u>CONTOUR DISTANCE</u>	
			<u>60dB</u>	<u>65dB</u>
DEL AMO BLVD	CLARK TO BELLFLOWER	35.4	305	150
DEL AMO BLVD	BELLFLOWER TO WOODRUFF	38.6	315	155
DEL AMO BLVD	WOODRUFF TO PALO VERDE	34.6	300	145
DEL AMO BLVD	PALO VERDE TO SG RIVER	35.9	305	150
DEL AMO BLVD	DOWNEY TO LAKEWOOD	31.3	270	130
DEL AMO BLVD	605 FWY TO PIONEER	29.5	250	120
DEL AMO BLVD	PIONEER TO NORWALK	23.4	220	105
DEL AMO BLVD	NORWALK TO BLOOMFIELD	19.5	200	95
DOWNEY AVE	CANDLEWOOD TO SOUTH	14.8	155	70
DOWNEY AVE	DEL AMO TO CANDLEWOOD	9.0	105	50
LAKEWOOD	CARSON TO DEL AMO	32.7	270	130
LAKEWOOD	DEL AMO TO CANDLEWOOD	33.5	260	125
LAKEWOOD	CANDLEWOOD TO SOUTH	33.9	260	125
LAKEWOOD	SOUTH TO ASHWORTH	35.2	270	130
NORWALK BLVD	CENTRALIA TO DEL AMO	18.6	180	85
PALO VERDE	CARSON TO CENTRALIA	8.0	90	42
PALO VERDE	CENTRALIA TO DEL AMO	8.9	96	46
PALO VERDE	SOUTH TO ALLINGTON	10.4	120	58
PALO VERDE	SOUTH TO DEL AMO	4.6	70	34
PARAMOUNT BLVD	DEL AMO TO CANDLEWOOD	20.2	180	85
PARAMOUNT BLVD	CARSON TO DEL AMO	18.5	200	95
PARAMOUNT BLVD	COVER TO CARSON	13.4	130	65
PIONEER BLVD	DEL AMO TO LOS COYOTES	15.0	163	75
PIONEER BLVD	CENTRALIA TO DEL AMO	21.9	200	95
PIONEER BLVD	CARSON TO CENTRALIA	18.4	180	85
SOUTH ST	LAKEWOOD TO CLARK	31.2	250	120
SOUTH ST	CLARK TO BELLFLOWER	35.4	290	145
SOUTH ST	BELLFLOWER TO WOODRUFF	38.6	305	150
SOUTH ST	WOODRUFF TO PALO VERDE	34.6	300	145
SOUTH ST	PALO VERDE TO SG RIVER	35.9	290	145
SOUTH ST	DOWNEY TO LAKEWOOD	30.9	250	120
SOUTH ST	PARAMOUNT TO DOWNEY	29.0	250	120
STUDEBAKER RD	DEL AMO TO CENTRALIA	10.3	127	60
WOODRUFF AVE	ALLINGTON TO ASHWORTH	22.0	205	95
WOODRUFF AVE	CARSON TO DEL AMO	22.5	205	95
WOODRUFF AVE	SOUTH TO DEL AMO	22.7	210	100
WOODRUFF AVE	SOUTH TO ALLINGTON	22.4	205	95

Source: Willdan Traffic Study, 1992

Noise contours for the San Gabriel River Freeway are illustrated on Figure 5.6-5. Contours were developed according to projected noise levels provided by the California Department of Transportation (Caltrans). Noise readings were taken by Caltrans in 1985, but since that time an 8- to 16-foot high noise attenuation wall was constructed on both sides of the freeway to mitigate the impact of the freeway traffic noise on adjacent residences. It was estimated that an average noise reduction of 10 dB(A) was attained after the construction of the wall. No noise readings were taken after the completion of the wall.

b. Railroads

Railroad noise is the result of the mechanical processes of the engine, the interaction of the wheels with the track, and use of the horn. The amount of noise generated is dependent upon the speed of the train and the number of cars.

Two Union Pacific Railroad Lines traverse the western portion of the City in a north/south direction. One line traverses the northwest corner of the City diagonally and runs an average of four times a day (one of which runs at night). Each train has two diesel locomotives and averages about forty railroad cars per run. The average speed is 20 miles per hour, the second line runs once a day in a north/south direction along the western portion of the City, has one diesel locomotive, and averages ten railroad cars per run. The average speed is ten miles per hour. Both lines run on bolted, not welded, tracks and have one whistle stop near the intersection of Candlewood Street and Cherry Avenue.

Noise contours for the City's two railroad lines are illustrated on Figure 5.6-6. Contours were developed based on the Noise Assessment Guideline procedures within the U.S. Department of Housing and Urban Development (HUD) noise guidebook. As stated in the HUD guidelines, the quantity of railroad noise is assessed by combining the number of trains during a 24-hour period, number of locomotives per train, amount of whistle stops per run, percentage of nighttime runs, number of railroad cars, average speed, and type of tracks (bolted or welded). It should be noted that the number of daily runs and railroad cars varies from day to day depending on economic demand.

c. Aircraft

The Long Beach Municipal Airport borders the southwest corner of the City of Lakewood. The airport operations from April 1, 1992 to June 30, 1992 are summarized in Table 5.6-IV. Overall, the airport has operated at a level of over 400,000 operations per year for the past decade, over 90 percent of which are general aviation (predominantly single-engine propeller aircraft). Pursuant to a Federal Court order, the City may allocate a maximum of 41 commercial/cargo flights per day. Currently the airport is operating approximately 20 commercial/cargo flights per day.

Table 5.6-IV

**Long Beach Municipal Airport Quarterly Operations April-June 1992
(Departures and Arrivals)**

<u>Category</u>	<u>Quarterly</u>	<u>Percentage</u>
General Aviation	111,108	96.7
Air Carrier	2,657	2.3
Military	594	.5
<u>Air Taxi</u>	<u>526</u>	<u>.5</u>
Total	114,885	100.0

Source: City of Long Beach Noise Abatement Office,
Quarterly Report, 1992

The airport has five runways. The use of Runway 30-12 causes the greatest noise impact to the City of Lakewood. Air carrier flights generate the highest levels of noise and are predominantly conducted on Runway 30-12. The noise contours shown on Figure 5.6-5 indicate that the areas of the City affected by 65 dB(A) or more are the industrial zoned properties east of Cherry Avenue and south of Carson Street and several apartment buildings west of Paramount Boulevard and north of Carson Street.

To address the noise impact on properties surrounding the airport, the City of Long Beach has adopted both noise abatement procedures and aircraft noise control regulations (Chapter 16.43 of the City of Long Beach Municipal Code). The applicable sections for the City of Lakewood include:

Runway 30-12 - no intersection departures allowed from 10 p.m. to 7 a.m.

Engine run-ups are allowed only between 7 a.m. and 9 p.m. Monday through Friday, and 9 a.m. and 9 p.m. weekends and holidays at airport approved locations

No formation takeoffs or landings are permitted

Touch and go, stop and go, and low approach operations are allowed on the east-west runways and north-south runways only between 7 a.m. and 7 p.m. Monday through Friday, and 8 a.m. and 3 p.m. weekends and holidays

Noise limits for Runway 30-12 shall be at or below the following noise levels as measured at the appropriate monitoring station:

Daytime (7 a.m. to 10 p.m.)

Takeoff: 102.5 dB (SENEL*)

Approach: 101.5 dB (SENEL)

Nighttime (10 p.m. to 7 a.m.)

Takeoff: 79.0 dB (SENEL)

Approach: 79.0 dB (SENEL)

* SENEL as defined by the California Noise Standards differs slightly from SEL. The integration of levels to obtain SENEL uses the signal in excess of a specified threshold, rather than the upper 10 dB. Generally this results in a slightly higher value.

To minimize the public's exposure to excessive noise and safety hazards related to airports, State Law now requires the creation of Airport Land Use Commissions (ALUC's). The purpose of the Commissions is to coordinate planning for the areas surrounding public use airports. In Los Angeles County the Regional Planning Commission has the responsibility for acting as the local ALUC and for coordinating the airport planning of public agencies within the County. The Los Angeles County Regional Planning Commission is the ALUC for the Long Beach Airport, and therefore, exercises a one mile sphere of influence over land use planning around this airport which includes parts of Lakewood.

The ALUC is required to adopt a Comprehensive Land Use Plan (CLUP), review and make recommendations concerning certain projects within the ALUC planning boundaries, and review and make recommendations on regulations of local agencies. The ALUC does not have zoning authority or the authority to apply land use regulations normally applied by local public agencies. ALUC review does not apply to existing incompatible land uses. It applies only to new development. Also, recommendations made by the ALUC are advisory to local jurisdictions, not mandatory. The ALUC's recommendations may be overruled by the local agency, with proper findings.

The County of Los Angeles Regional Planning Commission has adopted a CLUP for the airports within its jurisdiction, including the Long Beach Airport. The County's CLUP is consistent with Lakewood's General Plan Land Use Element, current Zoning, and existing land use. Future development must follow the noise and safety policies contained in the CLUP. However, CLUP policies are consistent with current zoning regulations for the affected area of Lakewood.

6.0 COMMUNITY SERVICES

6.1 Educational Facilities

Four public school districts serve City of Lakewood residents. These are ABC Unified, Bellflower Unified, Long Beach Unified, and Paramount Unified School Districts. Figure 6.1-1 depicts school district boundaries and public school sites within the City.

The following is a listing of the public schools, by school district:

ABC UNIFIED SCHOOL DISTRICT

Aloha Elementary	11737 E.214th Street
Artesia High School	12108 E.Del Amo Blvd.
Haskell Jr. High*	11525 Del Amo, Cerritos
Melbourne Elementary	21314 Claretta Avenue
Nixon Elementary*	19600 Jacob, Cerritos
Palms Elementary	12445 E. 207th Street
Willow Elementary	11733 E. 205th Street

BELLFLOWER UNIFIED SCHOOL DISTRICT

Foster Elementary	5223 Bigelow Street
Jefferson*	10027 E. Rose, Bellflower
Lindstrom Elementary	5900 Canehill Avenue
Williams Elementary	6144 Clark Avenue
Mayfair High	6000 Woodruff Avenue
Somerset High*	9242 E. Laurel, Bellflower

LONG BEACH UNIFIED SCHOOL DISTRICT

Bancroft Jr. High	5301 Centralia
Cleveland Elementary	4760 Hackett Avenue
Demille Jr. High*	7025 Parkcrest Avenue, L.B.
Gompers Elementary	5206 Briercrest Avenue
Holms Elementary	5020 Barlin Avenue
Hoover Jr.High	3501 E. Country Club
Jordan High*	6500 Atlantic, LB
Lakewood High	4400 Briercrest Avenue
MacArthur Elementary	6011 Centralia Road
Madison Elementary	2801 Bomberly Street
Twain Elementary*	5021 E. Centralia, L.B.
Millikan High*	2800 Snowden Avenue, L.B.
Monroe Elementary	4400 Ladoga Avenue
Riley Elementary	3319 Sandwood Street

PARAMOUNT UNIFIED SCHOOL DISTRICT

Collins Elementary*	6125 Coke Avenue, L.B.
Mokler Elementary*	8571 E. Flower, Paramount
Paramount High*	4429 S. Downey, Paramount
Michelson Elementary School/Continuation High School	3717 Michelson Street

*These schools are not located in Lakewood, but serve Lakewood students.

During February of 1995, a survey of existing private and public school enrollment and capacity figures was conducted by City staff. As Table 6.1-I indicates, there was remaining capacity in nearly two thirds of all public and private elementary, junior high and high schools serving Lakewood.

As Table 6.1-I indicates, there are schools in each of the four public school districts that are at or exceed capacity. In the ABC Unified School District, there are three schools that are at or above capacity. The information for Bellflower Unified School District indicates that the schools with a high number of Lakewood residents all exceed capacity. In the Long Beach Unified School District, Hoover Junior High, Jordan High, Lakewood High, and Millikan High were over their enrollment capacity. In the Paramount Unified School District, two of the schools exceed capacity, with five other schools that are at or above the 95% capacity level.

Of the private schools, slightly less than half are between 90% and 99% capacity, and almost one quarter are at or above capacity, as illustrated below:

Capacity:	< 49%	50-59%	60-69%	70-79%	80-89%	90-99%	100% +
# of schools	1	0	0	2	2	8	4
% of schools	5.9%	0%	0%	11.8%	11.8%	47.1%	23.5%

Based on surveys conducted by City staff, the existing enrollment for Lakewood residents in the listed private schools is 1,671, or approximately 16.8% of total enrollment.

Table 6.1-I

School Enrollment Statistics
City of Lakewood
March, 1995

ABC Unified School District	Grades Served	Existing Enrollment	Existing Capacity	(%) at Capacity	# of Lakewood Residents Attending	% of Lakewood Residents at School
Aloha Elementary	K-6	487	488	100 %	377	77.4
Artesia High	9-12	1,623	1,992	82	694	42.8
Elliott Elementary	K-6	424	528	80	12	2.8
Haskell Jr. High*	7-8	618	698	89	213	34.5
Melbourne Elem.	K-6	749	673	111	177	23.6
Nixon Elementary*	K-6	587	648	91	45	7.6
Palms Elementary	K-6	569	680	84	496	87.2
Willow Elementary	K-6	694	695	100	658	94.8
SUBTOTAL:		5,751	6,402	90	2,672	46.5
Bellflower Unified School District	Grades Served	Existing Enrollment	Existing Capacity	(%) at Capacity	# of Lakewood Residents Attending	% of Lakewood Residents at School
Foster Elementary	K-6	834	739	113	707	84.8
Jefferson Elem.*	K-6	775	772	100	86	11.1
Lindstrom Elem.	K-6	820	736	111	350	42.7
Williams Elem.	K-6	823	678	121	222	27.0
Mayfair High	7-12	2,199	1,958	112	1,038	47.2
Somerset High*	9-12	417	395	106	69	16.6
SUBTOTAL:		5,868	5,278	111	2,472	34.8

Table 6.1-I (continued)

**School Enrollment Statistics
City of Lakewood**

Long Beach Unified School District	Grades Served	Existing Enrollment	Existing Capacity	(%) at Capacity	# of Lakewood Residents Attending	% of Lakewood Residents at School
Bancroft Jr. High*	6-8	1,187	1,230	97%	469	39.5
Cleveland Elem.	K-5	696	900	77	408	58.6
DeMille Jr. High*	6-8	1,178	1,350	87	254	21.6
Gompers Elementary	K-5	860	1050	82	345	40.1
Holms Elementary	K-5	651	900	72	347	53.3
Hoover Jr. High	6-8	1,164	1,140	102	135	11.6
Jordan High*	9-12	3,020	3,000	101	30	.99
Lakewood High	9-12	3,891	3,780	103	1,345	34.6
MacArthur Elem.	K-5	801	960	83	364	45.4
Madison Elementary	K-5	586	870	67	258	44.0
Monroe Elementary	K-5	626	750	84	213	34.0
Millikan High*	9-12	3,800	3,600	106	43	1.1
Riley Elementary	K-5	736	990	74	246	33.4
Twain Elementary*	K-5	724	1080	67	146	20.2
SUBTOTAL:		19,920	21,600	92	4,603	23.1
Paramount Unified School District	Grades Served	Existing Enrollment	Existing Capacity	(%) at Capacity	# of Lakewood Residents Attending	% of Lakewood Residents at School
Collins Elementary*	K-5	755	820	92	49	6.5
Linclon Elementary	K-5	903	850	106	2	0.2
Lakewood Elem.	K-5	363	384	95	59	0.8
Mokler Elementary*	K-5	807	820	98	2	0.3
Alondra Intermed.	6-8	1,481	1,450	102	31	2.1
Paramount High*	9-12	3,015	3,100	97	25	0.8
Michelson Cont. School	9-12	230	240	96	3	1.3
SUBTOTAL:		7,554	7,664	99	115	1.5
TOTALS:		39,093	40,944	96	9,862	24.1

Table 6.1-I (continued)

**School Enrollment Statistics
City of Lakewood**

Lakewood Area Parochial Schools	Grades Served	Existing Enrollment	Existing Capacity	(%) at Capacity	# of Lakewood Residents Attending	% of Lakewood Residents at school
Bellflower Christian Schools	K-12	1,333	1,320	100.1%	91	6.8
Bethany Lutheran*	K-8	348	410	85	123	35.3
Brethren Christian*	7-12	899	900	99.9	100	11.1
First Baptist*	K-6	325	356	91	117	36.0
Grace Christian	K-6	441	450	98.0	22	4.9
Lady of Fatima*	K-9	325	324	100.1	15	4.6
St. Anthony*	9-12	413	1,700	24	387	93.7
St. Bernard*	K-8	277	324	86	36	12.9
St. Cornelius*	K-8	324	340	95	43	13.3
St. Cyprian*	K-8	298	315	95	172	57.8
St. Irenaeus*	K-8	612	620	99	31	5.1
St. John Bosco*	9-12	901	950	95	64	7.1
St. Joseph High	9-12	790	820	96	85	10.8
St. Maria Goretti	K-8	315	315	100	122	39.5
St. Timothy	K-5	117	160	73	51	43.6
St. Pancratius	K-8	312	324	96	184	58.9
Woodruff Christian*	K-6	240	330	73	28	11.7
TOTALS:		8,270	9,958	83	1,671	16.8

Source: City of Lakewood Community Development Department survey of Lakewood-area school enrollment and capacity statistics, March, 1995.

* These schools are not located in the City of Lakewood, but serve Lakewood students.

6.2 Parks and Recreation

On an annual basis, the City of Lakewood offers over 1,400 specialized recreation classes, including adult dance and fitness; adult special interest, arts and crafts; travel programs; teen and youth sports, dance and fitness programs; and preschool education programs. Additional programs include seasonal youth day camps, sports clinics, and field trip excursions for various age groups.

Information about Lakewood's leisure-time classes and park facilities is contained in the **Recreation & Community Services Catalog** and also highlighted in the following summary. In addition, specialized senior citizen program information is contained in Section 6.3, "Human Services".

6.2.1 Recreation and Leisure Activities

The following is a partial listing of the recreational and leisure activities available through the City of Lakewood:

Recreation Activities - The City's Recreation & Community Services Catalog contains a complete listing of special interest workshops, craft classes, exercise/fitness classes, dance classes, preschool and youth programs and much, much more. These programs are offered during the spring, summer, and fall/winter seasons.

Lakewood Youth Sports - The Lakewood Youth Sports Program has been a fundamental component of life in the community since 1956. Since then, Lakewood Youth Sports has evolved over the years, reacting to changes in the community and in society in general. The program grew and peaked during the 1960's, then participation declined in the late 1970's and 1980's. Since 1987, participation has been growing steadily, increasing each year. In 1994, 4,361 boys and girls played baseball, softball, T-ball, football and volleyball. Approximately 30 percent of program participants have been non-residents. During summer months, specialized camps and clinics offer an intensive, skill-building experience for young players.

Preschool Programs - Preschool education classes and parent-cooperative Tot Lots are the focus of the City's programs for the youngest members of the community.

Tot Lot is a parent-sponsored preschool program held at various Lakewood parks. Tot Lot offers morning play and basic learning programs for preschool-age children. In the year 1994, there were 278 children enrolled in this program, with 183 being Lakewood residents. The City held 140 pre-school programs and reached 2,100 children during those programs.

Aquatics Programs - Lakewood has public swimming pools at the newly renovated Mayfair Park and at Bolivar Park. Each facility offers recreational swimming in the summer months and specialized swimming instruction throughout the year. There are modest fees for recreational swimming and swimming instruction. Seven of Lakewood's parks have wading pools for the younger children.

Community Events - The department has a long-standing tradition of offering community-wide events. Over 75,000 residents annually enjoy the July 4th celebration, Pan American Fiesta, Halloween activities and summer concerts in the park.

Other City of Lakewood Recreational Programs include:

- Community Gardens
- After School and Holiday Programs at City Parks
- Special Summer Outings
- Summer Day Camp
- Special Family Fun Days
- Program for Disabled

6.2.2 Park Facilities

In addition to offering day use opportunities, Lakewood's 13 park facilities are available for family picnics, birthday parties, and community organizations. Park buildings and fields are available to residents on a minimal fee basis. Non-residents are able to rent the same facilities at an increased fee. In Table 6.2-I, a listing of City parks and their accompanying acreage is presented.

In 1994, the City processed 320 permits for the use of athletic fields. These permits represent 3,450 uses for 13,650 hours by youth and adult sports groups. Table 6.2-II is an inventory of all services available at City recreation facilities. Park buildings and meeting rooms were used as paid rental uses 560 times for 34,332 total attendance.

All Lakewood parks have a variety of facilities and many have barbecue grills and sinks, as well as activity rooms with tables, chairs, and other special event resources.

In addition to City parks, other Lakewood recreational facilities include:

Lakewood Golf Course - This 18-hole golf course is county-operated. On-site buildings include dining and banquet facilities and a tennis center. The Lakewood Golf Course is located at 3101 Carson Street.

Equestrian Center and Rynerson Park - Rynerson Park and the Lakewood Equestrian Center extend along the east side of the San Gabriel River with entrances on Studebaker Road and Carson Street. The Lakewood Equestrian Center offers riding lessons, horse boarding services, and family activities.

Table 6.2-I

**City of Lakewood
City Parks and Acreage**

NAME OF PARK	ACREAGE
Palms Park	15.97
Rynerson Park	53.03
Biscailuz Park	3.94
Bloomfield Park	13.53
Bolivar Park	9.98
Mayfair Park	16.26
San Martin Park	9.96
Del Valle Park	11.78
Mae Boyar Park	6.79
Cherry Cove Park	2.96
Monte Verde Park	4.75
Candle Verde Park	2.18
Lakewood Equestrian Center	14.90
Tot Lots, Pedestrian Walkways, Parkway Panels	30.39
ACREAGE TOTAL	204.45

Source: "City-owned Land File", City of Lakewood Finance Department, August 1991 (also see Section 2.1, Land Use).

Table 6.2-II

**Lakewood Recreation Facilities
Inventory of Services**

PARK NAME	MEETING ROOMS	PARK FACILITIES	OTHER AMENITIES	WHEELCHAIR ACCESS
Biscailuz Park 2601 Dollar Street 634-3348	(1) Activity Room 1,200 Sq.Ft. <u>Capacity:</u> Assembly - 170 Dining - 80	Ball Diamonds (2) non-lighted Preschool-Age Playground - Theme/Storybook School-Age Playground Lighted Picnic Shelter, (2) sinks, (4) barbecues Play Fields Lighted Multi-Purpose Game Court (2) (basketball, volleyball)		Yes
Bloomfield Park 21420 Pioneer Blvd. 865-1717	(1) Activity Room 1,820 Sq.Ft. <u>Capacity:</u> Assembly - 260 Dining - 120	Ball Diamonds (3) - (1) lighted Preschool Playground - Theme/Aeronautic School-Age Playground Wading Pool Lighted Picnic Shelter, capacity: 120, (12) barbecues, (2) sinks; Lighted Multi-Purpose Game Court (basketball, volleyball) Parking Lot - 76 spaces (2 handicapped) Play Fields 1 soccer field - senior size		Yes
Bolivar Park 3300 Del Amo Blvd. 421-3881	(1) Activity Room 1,034 Sq.Ft. <u>Capacity:</u> Assembly - 140 Dining - 65	Ball Diamonds (2) - lighted Preschool-Age Playground - Theme/Aquatic School-Age Playground Lighted Picnic Shelters (3) - capacity: 60 each Each shelter has: (2) barbecues, (2) sinks, (2) electrical outlets, (6) tables Lighted Multi-Purpose Game Courts (basketball, volleyball) Play Fields Swimming Pool (Summer only) Horseshoe Pits (2)		Yes

PARK NAME	MEETING ROOMS	PARK FACILITIES	OTHER AMENITIES	WHEELCHAIR ACCESS
Mae Boyar Park 6710 Del Amo Blvd. 925-6912	(1) Activity Room with fire-place 1,278 Sq.Ft. <u>Capacity:</u> Assembly - 180 Dining - 85	Ball Diamonds (2) lighted - #1 large diamond with mound, #2 has no mound Playground Area - Theme/Transportation Lighted Picnic Shelter, (4) barbecues, (2) sinks - capacity: 60 Play Fields Wading Pool Lighted Multi-Purpose Game Courts (2) (basketball, volleyball) Parking - 32 spaces, 2 handicapped		Yes
Burns Community Service Center 5510 Clark Avenue 925-7512	(2) Assembly Room 1,650 Sq. Ft. <u>Capacity:</u> Assembly - 230 Dining - 100 Kitchen - Serving Area Conference Room 310 Sq. Ft. <u>Capacity:</u> Assembly - 44			Yes
Del Valle Park 5939 Henrilee St. 429-0545	(1) Activity Room 1,034 Sq.Ft. <u>Capacity:</u> Assembly - 148 Dining - 69	Ball Diamonds (4) - (1) lighted, (1) grass, (2) clay Preschool Playground - Theme/Space Age School-Age Playground War Memorial Wading Pool Lighted Picnic Shelters (3) - capacity: 60 each Lighted Multi-Purpose Game Court (basketball, volleyball) Horseshoe Pits (2) (4) concrete pads each with (2) picnic tables and (1) barbecue grill		Yes

PARK NAME	MEETING ROOMS	PARK FACILITIES	OTHER AMENITIES	WHEELCHAIR ACCESS
Mayfair Park 5720 Clark Avenue 866-4776	(3) Swim Pavilion 1,764 Sq. Ft. <u>Capacity:</u> not available summer Assembly - 252 Dining - 118 Sierra Room 1,624 Sq. Ft. <u>Capacity:</u> Assembly - 232 Dining - 108 Activity Room 2,400 Sq. Ft. <u>Capacity:</u> Assembly - 343 Dining - 160	Ball Diamonds (5) - (2) lighted, main stadium with seating, dressing and shower facilities, 1,500 seating, (3) dirt infield, (2) grass infield Picnic Shelters (1) - capacity: 250, (6) sinks, (6) barbecues, (20) tables Play Areas - (3) Lighted Multi-Purpose Game Courts (basketball, volleyball), (1) Soccer field (Diamonds #5 & #6), (2) Lighted Tennis Courts (City-owned courts) Parking Lot (1) - 198 spaces, 4 handicapped Pool and Wading Pool - Open summer season only	Food Services Facilities: (2) Refrigerator between Sierra Room and Activity Room Freezer between Sierra room and Activity Room Warming Oven (1), 100 cup coffee urns (2) Microwave oven between Sierra Room and Activity Room Food Service Areas	Yes
Palms Park 12305 E. 207th St. 865-6414	(3) - Air Conditioned Assembly Room (3) sections 2,898 Sq.Ft. <u>Capacity:</u> Assembly - 400 Dining - 190	Ball Diamonds (2) Lighted Wading Pool Preschool-Age Playground School-Age Playground Play Fields Lighted Picnic Shelters (3) - capacity: 60 per shelter Each Shelter has: (4) barbecues, (2) sinks, (4) electrical outlets, (6) tables Lighted Multi-Purpose Game Courts (basketball, volleyball) Patio Adjacent to Building Parking Lot - 100 spaces, 2 handicapped		Yes
Rynerson Park 20711 Studebaker Rd		3 Picnic Pavilions - (2) capacity: 60, (1) capacity: 90 14 individual picnic areas with barbecues Outdoor Amphitheater Play Areas (3) Grass Volleyball Areas (5) Outdoor Fitness Center Little League Fields (3) 1/2 mile of bike, walking and jogging trails Access to regional bike trail		Yes

PARK NAME	MEETING ROOMS	PARK FACILITIES	OTHER AMENITIES	WHEELCHAIR ACCESS
San Martin Park 5231 Ocana Avenue 867-1090	(1) Activity Room 945 Sq.Ft. <u>Capacity:</u> Assembly - 135 Dining - 60	Ball Diamonds (3) - (2) Lighted Preschool-Age Playground - Theme/Cinderella School-Age Playground Play Fields Lighted Picnic Shelters (2) - capacity: 60 each Each having (2) barbecues, (2) electrical outlets Lighted Multi-Purpose Game Courts (basketball, volleyball) Wading Pool Horseshoe Pit (1)		Yes
Weingart Senior Center 5220 Oliva Avenue 630-6141	(3) Assembly Room 2,835 Sq.Ft. <u>Capacity:</u> Assembly - 390 Dining - 240 Arts & Crafts Room 750 Sq.Ft. <u>Capacity:</u> Assembly - 50 Activity Room 1,968 Sq.Ft. <u>Capacity:</u> Assembly - 280 Dining - 130		Kitchen Spa Billiard Room Card Room Parking Lot - 78 spaces, 9 handicapped	Yes
Youth Center 4658 Woodruff Ave. 429-7472	(2) Adjoining room with no divider West Room 1,995 Sq.Ft. - carpeted main room <u>Capacity:</u> Assembly - 285 Dining - 133 East Room 1,476 Sq. Ft. <u>Capacity:</u> Assembly - 210 Dining - 98			Yes

6.3 Human Services

The City of Lakewood is committed to the provision and enhancement of recreational, human, and public service programs, which serve its residents' diverse needs. The City is devoted to ensuring these programs are accessible to all persons regardless of sex, age, income status, and physical ability.

As discussed in Section 2.0, Lakewood's ethnic composition has become more diverse during the past decade. These changes will affect the type and level of human service programs the City provides into the 21st Century. According to Census data, Lakewood persons of white--not of hispanic--origin decreased from 81.8 percent in 1980 to 72.3 percent in 1990. Accordingly, City records indicate that the percentage of persons who contacted the City with human service program requests over the past ten years, and who identified themselves as anything other than non-hispanic white, has increased.

During the past decade, the need for child care has increased as more women entered the work force. Since 1980, nationwide, the number of women entering the work force increased by 20 percent. According to the 1990 Census, 60.3 percent of households with working women in Lakewood had children under six years of age; countywide this figure was 54.5 percent.

6.3.1 A Decade of Lakewood's Human Service Programs

The City of Lakewood is proud of its reputation as a leader in the design and implementation of innovative recreational and community service programs. At the heart of Lakewood's service philosophy is its goal to serve the recreational and human service program needs of all its residents. The City is committed to enhancing the quality and selection of its programs to ensure they meet the community's diverse needs.

The majority of Lakewood's human services are provided from the City's three community service centers: Palms Community Service Center, Burns Community Service Center, and Weingart Senior Center. The Burns Community Service Center is the City's "hub" for human service programming. In addition, this facility serves as the City's information and referral station for citizens seeking human service programs.

Human service programs directly operated by the City include the DASH Transportation Program and Information and Referral. Other programs, such as MAW (Mothers at Work), a child care service, the Senior Nutrition Program, Meals on Wheels, Dispute Resolution Service, Women in Community Service, Ombudsman, Disabled American Veterans, Su Casa, Family Service, and Consumer Credit Counseling Services, are operated by specialized service providers. The City supports these services by providing building space and volunteers. In several instances, the City contributes financial support and operating supplies.

THE BURNS COMMUNITY SERVICE CENTER

The William J. Burns Community Service Center is located at 5510 Clark Avenue adjacent to Mayfair Park.

The 10,151-square-foot Burns Community Service Center was built in 1976. The facility is currently staffed by two full-time staff people and ancillary staff who operate numerous contracted human service programs.

Human Services Programs provided at the Burns Community Service Center:

The following human services programs are provided at the Burns Community Service Center. Some of the programs are self-supporting, while a majority of the programs are supplemented by federal, local, and donated funding sources. In all cases, the City of Lakewood provides the necessary office space to help support their operation.

1. Consumer Credit Counseling. A non-profit community service agency providing credit counseling and money management service for individuals experiencing financial difficulties. The agency is part of a nationwide corporation providing this service. Sliding scale of fees.
2. Women in Community Service (WICS). An extended job-training program for women. A federally-funded manpower program which recruits, screens, and provides support services for women between the ages of 16 and 22 who are out of school and in need of vocational training.
3. Senior Nutrition Program. The senior nutrition program is administered by the Volunteers of America. The program offers hot noon meals to persons 60 years of age and over.
4. Mothers At Work (MAW). A non-profit California corporation providing child care for children 2-5 years of age. Services include training in language development as well as offering experiences in art, music, and movement. The City leases 2,500 square feet of space to MAW for this program. The agency provides full day (6 a.m.- 6 p.m.) child care. According to the 1990 census, 60.3 percent of household with working women in Lakewood had children under six years of age. The Center has been a very popular child care provider. As noted in Table 6.3-II, over half the students are Lakewood residents. Additionally, there has consistently been a waiting list of students.
5. Meals On Wheels. A non-profit community service program providing home-delivered meals daily, Monday through Friday, to disabled residents and the homebound elderly in the Greater Lakewood area. The Program's purpose is to allow disabled residents to stay in their homes and avoid early or unnecessary institutionalization. The service includes one hot and one cold meal plus beverages and is provided for \$4 per day. The meals are delivered by volunteers.

6. Over 60's Health Services Program. This Los Angeles County-sponsored health service program provides free medical screening and preventive health testing to persons over 60 years of age.
7. DASH (Dependable, Accessible, and Handicap Transportation). The City-owned DASH transportation provides free rides to resident seniors 60 years or older and qualified disabled individuals. Service is provided anywhere within the City and to limited destinations beyond City boundaries. The service operates 8 a.m.- 5 p.m. Monday through Saturday. Registration is accepted in person, by phone or by mail. In 1994, DASH Transit continues to meet transit needs of Lakewood residents. Of the 884 registered clients, 806 are disabled, 62 are wheelchair users and 790 are senior citizens. New clients register for the service on a daily basis. This program began in 1977 with a donated van and a group of dedicated volunteers. It soon outgrew volunteer capabilities, and City staff was hired as drivers. Proposition A legislation, passed in 1982, allowed the popular service to expand. By 1994, five vehicles were in daily operation.
8. Project Shepherd (year-round and December Holiday assistance programs). This year-round emergency assistance program offers food to persons in emergency situations. Forms of assistance include food staples, canned goods, and information and referral. In addition, Project Shepherd provides food baskets and toys to qualified families at Christmas. It is estimated that over 500 families are assisted each year.
9. Lakewood Organization of Volunteers (LOV). This organization is an umbrella agency designed to provide information to Lakewood's volunteers. In 1994, there were 1,416 volunteers providing 50,000 hours of service in a variety of leisure and human service programs. The office, located at the Burns Community Service Center, coordinates and disseminates information to LOV volunteers.
10. Dispute Resolution Services. A non-profit corporation of the Los Angeles County Bar Association providing assistance in handling disputes. Types of disputes handled include; Landlord/Tenant, Neighborhood, Consumer/Merchant, Employer/Employee, Small Claims, Family Law, Business and Domestic.

Trends And Statistics For The Burns Community Service Center:

User statistics reflect a continuing demand for human service programs. Over the last 10 years, home delivered meals increased by 16%, and requests for credit counseling increased by 133%. MAW has been a very popular child care provider. Over half of the students are Lakewood residents. Additionally, there has consistently been a waiting list of students. Ridership statistics for DASH reflect a 19% increase in the number of rides between Fiscal Years 83/84 and 93/94. This same period also reflects a 174% increase in rides for wheelchair users. The recent passage of the Americans with Disabilities act may increase demands for disabled residents. The increasing senior population, especially the frail, will further increase demands.

Table 6.3-I

**Burns Community Services Center
Partial listing of services and programs provided
1982-1994**

Year/Service*	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94
Consumer Credit Counseling	405	338	580	681	799	936	895	606	628	951	916	907
Family Service Counseling	4098	4865	5524	4709	4253	4010	4066	2916	1728	1042	---	---
Women in Community Service (WICs)	61	611	1000	276	111	34	61	116	138	137	210	201
Senior Nutrition	18545	23498	26891	25102	18269	18713	19827	18269	18485	17249	18250	18530
Meals on Wheels	14741	15817	16523	16972	17419	16303	19559	23858	25233	23963	19933	18313
Over 60	248	140	126	190	153	177	165	116	143	131	146	151

Source: Consolidated Youth Services Network file, 1982-94.

*Definitions of Units in Table 6.3-I:

Consumer Counseling: # of consultation

Family Service Counseling (program ended in April, 1992): # of consultations

Women in Community Service: # of persons served

Senior Nutrition (VOA): # of meals

Meals on Wheels: # of meals

Over 60: # of consultations

Table 6.3-II

**Burns Community Services Center
Mothers at Work (MAW) Statistics
1983-94**

Year	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94
Average # Students	75	86	75	71	76	77	79	77	79	78	78
Lkwd Residents %	43%	41%	39%	51%	54%	53%	64%	62%	55%	58%	46%
Non-Lkwd Residents %	57%	59%	61%	49%	46%	47%	36%	38%	45%	42%	54%
Average # Students on MAW waiting list	11	17	2	16	13	15	32	65	15	11	9
Lkwd Residents %	36%	39%	51%	44%	62%	62%	49%	48%	53%	53%	44%
Non-Lkwd Residents %	64%	61%	49%	56%	38%	38%	51%	52%	47%	47%	56%
Lease Fee per Month	950	1,000	1,050	1,100	1,100	1,100	1,300	1,375	1,450	1,525	1,600
Student Fee per Day (Potty-trained)	9.75	11.25	12	12	14	14	15	16	17	18	19
Student Fee per Day (Not Trained)	10.75	12.25	13	13	15	15	16	17	18	19	20

Source: Burns Community Service Center Files, March, 1995.

THE PALMS COMMUNITY SERVICE CENTER

The Palms Community Service Center is located at 12305 East 207th Street, at Palms Park. The 6,000-square-foot Palms Community Service Center was built in 1978. The 6,000-square-foot Palms Community Center was built in 1978. The facility is currently staffed by one full-time and part-time staff persons. In addition, ancillary staff operate contract-, volunteer-, and county-sponsored human services programs at the Center.

Human Services Programs Provided at the Palms Community Service Center:

The following human services programs are currently offered at the Palms Community Service Center. The programs are all supplemented by federal, local, and donated funding sources.

1. Prevention Program, Family Service of Long Beach. This agency provides a variety of programs for children. Their main program is the "Drug Prevention Program". This program is offered to ABC and Bellflower School District students in the fifth and sixth grades. The program focuses on increasing students' self-esteem and deals with issues such as communication, friendship, peer pressure and decision-making.
2. SU CASA, Family Crisis and Support Center. SU CASA provides services to victims of domestic violence. In 1979 the agency started a 24-hour hot line. The office at the Palms Center was opened in 1980, and in 1981 a shelter for battered women and their children was opened. The shelter serves as a temporary home for a maximum 30 days. While at the shelter, the women are required to participate in six hours of counseling a day. The counseling sessions include topics such as legal rights, child raising, nonviolent problem-solving, and job training.

All the services provided are free. The shelter is located in the City of Lakewood.

3. Project Shepherd (year-round and December Holiday assistance programs). This year-round emergency assistance program offers food to persons in emergency situations. Forms of assistance include food staples, canned goods, and information and referral.

In addition, Project Shepherd provides food baskets and toys to qualified families at Christmas.

Trends For The Palms Community Service Center:

User statistics reflect a continuing demand for Human Service programs. The Prevention Program of Family Service curriculum has been taught to increasing numbers of Lakewood students. Lakewood's overall design of human service delivery (direct provision by non-profit agencies) has allowed service fluctuation with minimal impact on the overall budget.

THE WEINGART SENIOR CENTER

The Weingart Senior Center is located at 5220 Oliva Avenue. Mr. Weingart began designing Lakewood, his "dream city", along with Louis Boyar in the early 1930's.

The 13,000-square-foot Weingart Senior Center was built in 1981. In 1988, with the assistance of the State Department of Aging and State Parks and Recreation funds, an additional 2,500 square feet was added. The facility is currently staffed by one full-time and part-time staff persons. In addition, support staff operate numerous contract-, volunteer-, and county-sponsored human services programs which are located at the Center. The Center blends recreation programs and human service programs in a facility designed for senior adults.

Human Services Programs Offered at the Weingart Senior Center:

The following human services programs are currently offered at the Weingart Senior Center. Some of the programs are self-supporting from the fees collected for the services provided, while the majority of the programs are supplemented by federal, local, or donated funding sources.

1. Senior Nutrition (VOA). The senior nutrition program is administered by the Volunteers of America. The program offers hot noon meals to persons 60 years of age and over.
2. Over 60's Health Service Program. This program is sponsored by the Los Angeles County Department of Health and it provides free medical screening and preventive health testing to persons over 60 years of age.
3. Medicare Advocacy. This agency provides free counseling on health care issues (assisting in filling out forms, answering questions about health insurance coverage, etc.) and Medicare related concerns.
4. Brown Bag Program. This program began in February 1990 and is operated by the Food Bank of Southern California. The program offers free weekly food bags to qualifying low-income seniors.
5. Ombudsman. Located at Weingart Senior Center since 1991, this agency's primary goal is to investigate abuses and provide advocacy for people in nursing homes. They also provide case management and referral information to nursing homes. Services are free.
6. Disabled American Veterans. Located at Weingart Center since 1991, this agency provides free advocacy and assistance on veterans' issues.

Recreation Programs Offered at the Weingart Senior Center:

In addition to the human service programs listed above, recreational programs, special events, and educational seminars are regularly scheduled. Free exercise classes are offered six mornings a week. Classes and activities such as cards, billiards, knitting, sculpture, dance and movies are popular. Educational seminars covering issues such as wills, health care and safety are scheduled each month. Special events such as dances, tournaments, craft and health fairs are also planned. Fees are charged to participants for some of these opportunities. Volunteer instructors and sponsorships are used to keep costs low or to offer selected programs for free.

Usage Trends For The Weingart Senior Center:

Efforts are made to anticipate need and program for change. Community trends are monitored. Census data is reviewed. Participants' comments are considered. A formal Senior Interest Survey is conducted periodically.

During 1991 the Community Services Department conducted a Senior Interest Survey. The survey's intention was to evaluate the effectiveness of existing senior programs and to assess future senior program needs. Previous surveys were conducted during 1965, 1982 and 1986.

Based on the data collected, the following conclusions were made in the 1991 Senior Interest Survey:

- The overall senior adult population in Lakewood will continue to escalate, and a marked increase in the number of seniors considered "frail and elderly" will occur.
- The overall increase in the senior population will increase demands for recreation and socialization activities for healthy seniors.
- The overall increase in the senior population, especially in the 80+ category, will place increased demands on the human service component. In-home support services (i.e., meal delivery, homemakers, skilled nursing) and demand response transportation will be especially taxed.

According to the 1990 Census, seniors in Lakewood age 55 and older constituted 21.5 percent of the City's population. This is up from 11.6 percent in 1970 and 19.5 percent in 1980. The 1990 Census also indicates 4.5 percent of Lakewood's seniors have incomes below the poverty level. However, 29 percent of the 378 seniors responding to the 1991 Senior Interest Survey had incomes below the poverty level. This indicates that poverty level seniors are high users of current services. This trend can be expected to continue.

Table 6.3-III

**Weingart Senior Center
Human Services/Programs Provided
1984-94**

Program/Year	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94
Senior Nutrition (1) Lakewood Residents (%)	38,706 65%	38,544 62%	34,263 67%	27,465 68%	35,156 66%	41,145 69%	37,679 72%	36,657 69%	36,783 74%	34,456 74%
Over 60 (2) Lakewood Residents (%)	1,165 65%	1,285 68%	1,262 70%	1,164 70%	1,129 70%	1,662 69%	1,267 81%	1,319 73%	662 72%	618 66%
Medicare Advocacy (3) Lakewood Residents (%)	- 20 66%	20 66%	180 65%	55 63%	30 63%	93 64%	115 62%	70 60%	48 58%	6 37%
Brown Bag Program (4) Lakewood Residents (%)	-	-	-	-	-	130 100%	160 99%	200 99%	200 100%	200 100%
Ombudsman (5) Lakewood Residents (%)	-	-	-	-	-	-	-	-	1,350 13%	618 17%
Disabled American Vets (6) Lakewood Residents (%)	-	-	-	-	-	-	-	-	666 33%	1,237 34%

1. Senior Nutrition - # of Meals Served
2. Over 60 - # of Consultations
3. Medicare Advocacy - # of Consultations
4. Brown Bag - # of People Registered
5. Ombudsman - # of Consultations
6. Disabled American Vets - # of Consultations

Source: Weingart Senior Center Files, 1984-94

6.3.2 Other Human Services Programs Supported and/or Operated by the City of Lakewood

The following human services programs are also supported or operated by the City of Lakewood:

1. Homemaker Service. This non-profit program is operated by the Family Service of Long Beach. The homemakers visit the homes of seniors and disabled and assist in housekeeping, laundry, shopping, and other domestic duties.

The City of Lakewood began contracting with the agency in 1977 and makes direct contributions to the program for each Lakewood resident served. Clients pay for the service on a sliding scale.

2. Community Family Guidance Center. This non-profit private organization provides low-cost evaluation and mental health treatment for seriously emotionally disturbed children, adolescents and their families. Fifty percent of the cases involves victims of child abuse. The agency's service includes in-home counseling, in-office therapy, parental classes, adult group counseling, and a school-based prevention program that is being used in seven Lakewood schools.

The Center receives funding from many sources, including the Los Angeles County Department on Mental Health, the California State Office of Child Abuse Prevention, and United Way. The program also receives direct funding from the City of Lakewood based on the number of Lakewood residents served.

3. Greater Lakewood Community Hospice. This program was started in 1985 and provides help and support to terminally ill patients and their families as they prepare for a relative's death. This program concentrates on the social and psychological aspects of the situation. Hospice helps with hospital discharge planning, arranges home health care, and assigns volunteers to provide emotional support to patients and their families.

The program is funded by the Cities of Lakewood, Cerritos, and Paramount as well as by private donations, some of which comes from Lakewood Regional Medical Center and McDonnell Douglas.

4. Substance Abuse and Narcotics Education (SANE). This program was started in 1989 and is operated by the Los Angeles County Sheriff's Department. The program is provided to all area schools and its purpose is to educate children about drug abuse. The City of Lakewood makes direct contributions to the program.

5. Be A Star. Since 1989, this newly started, City-operated gang prevention program has taught youngsters how to avoid gang membership and how to develop the self-esteem needed to resist gang recruitment.

6. Dial-A-Lift. This special transportation program is offered to disabled seniors and handicapped individuals. The service is operated by Long Beach Transit which contracts with the City of Lakewood. Unlike the free DASH transportation service, citizens pay for this service.

Table 6.3-IV

**Dial-A-Lift Ridership Trends
1985-1994**

YEAR:	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
# OF RIDES:	5,269	4,672	5,054	5,985	4,480	4,989	4,675	5,485	3,417

7. Recreational Therapy Program. This program, started in 1984, is a cooperative venture of the Cities of Lakewood, Cerritos and Bellflower. The program provides equal recreation and leisure opportunities for handicapped and disabled residents. Participants are age six or older.
8. Cerritos Corridor Juvenile Diversion. Juvenile Diversion is a cooperative effort by law enforcement and schools to "divert" youth who are exhibiting a pre-delinquent or delinquent behavior from entering the formal juvenile justice system. The program is an alternative to further legal proceedings. Juveniles are offered the opportunity to participate in a counseling program free of charge. The agency coordinating this program is "Consolidated Youth Services Network", a private, non-profit organization located in Paramount. This agency functions as an umbrella organization, which does all the fund-raising and then contracts out to community-based agencies. These agencies, which are staffed by family counselors, social workers, and psychologists, provide counseling and guidance for the youth in trouble (see Table 6.3-V for Client trends).

Table 6.3-V

Juvenile Diversion Program, 1982-1994

YEAR	TOTAL # OF CLIENTS	% OF LKWD RESIDENTS
1982	537	21 %
1983	440	20 %
1984	396	18 %
1985	366	17 %
1986	431	18 %
1987	605	12 %
1988	505	11 %
1989	489	10 %
1990	612	7 %
1991	478	11 %
1992	733	7 %
1993	487	8 %
1994	326	7 %

Source: Consolidated Youth Services Network file, 1982-94.

9. School Safety Program. Started in 1954, this program is operated by the City of Lakewood. The curriculum teaches the students about pedestrian and bike safety and stranger awareness. Approximately 10,000 students participate in the program every year.
10. Substance Abuse Facts And Education. This drug education program, started in 1989, is offered by the City of Lakewood to 4th through 6th grade students. Approximately 10,000 students participate in the program yearly.
11. Drug Diversion. This program has been provided by Family Service of Long Beach at Bloomfield Park in Lakewood since 1972. Participants have committed past drug-related crimes. The program consists of 20, three-hour sessions educating on a wide area of subjects, among which are drug facts, criminal law, stress, family relationships, and AIDS.
12. RSVP (Retired Senior Volunteer Program). This agency recruits and places people 60 years of age and older in a variety of volunteer positions in the community. The program receives limited support for reimbursement of volunteer mileage by the City.

13. Helpline Youth Counseling. This is a non-profit organization offering free counseling for teenagers only. The agency, which has its office in Norwalk, is supported by the City of Lakewood based on the number of counseling sessions received by Lakewood residents.

Table 6.3-VI

**Human Services Contract Expenditures
1982-1994**

Program	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94
Retired Senior Volunteers	2696	3181	2858	2952	2294	1902	2250	2297	2429	4000	721	407
Homemaker Services	13415	16582	14916	19911	20000	16194	13596	11524	14603	12848	12000	11070
Helpline Youth Counseling	6000	6000	10000	10000	10000	10000	10000	10000	9996	10000	10000	10000
Meals on Wheels	1265	1103	1433	2176	1753	1910	1842	1803	1975	2335	2550	4581
Lakewood Hospice	-	-	-	-	-	-	-	-	5000	5000	5000	5000
Dial-A-Lift	-	-	-	45000	48355	52200	65173	55711	66371	66000	83010	65400
Sane Deputy	-	-	-	-	-	-	29183	115778	124267	139714	137731	149309
Juvenile Diversion	-	6686	5572	6000	6686	6686	6686	6686	2320	2320	1880	1960
Recreation Therapy	-	-	-	15593	15352	16194	16609	15535	16298	17134	15032	15535
Community Family Guidance	4400	4959	4383	4200	4200	4200	4200	4200	4200	4200	4200	4200
Total Expenditures	27776	38511	39162	105832	108640	109286	149539	223534	247459	263551	272124	267462

Source: Consolidated Youth Services Network file, 1982-94.

6.4 HEALTH CARE

6.4.1 Health Care Services

Various health care alternatives are available to Lakewood residents. According to February, 1995 City business license records, there were 55 physicians, 23 dentists; 11 chiropractors; 4 psychologists; 8 optometrists; 6 dispensing opticians; 5 acupuncturists; 3 podiatrists, and 21 other entities registered in related medical professions in Lakewood. In addition, there was one drug and alcohol treatment center ("New Beginnings"); a diabetes and kidney treatment center; and one full- service hospital, Lakewood Regional Medical Center.

Other medical services available to Lakewood residents, through public and private providers, include out-patient County-sponsored elderly and low-income health care programs; specialized in-home medical care; and numerous private HMOs and medical specialists. In addition, due to Lakewood's geographic location, additional health care services and facilities throughout Southern California and the inland Empire are easily accessible.

The following is a partial list of government-sponsored health care services available to Lakewood residents:

1. Over 60's Health Clinic. This free preventative health clinic is offered by the Bellflower Health Department at the Weingart Senior Center and Burns Community Center. Services include health history analysis; blood pressure testing; hearing and vision screening; medication review; and blood, urine, and stool exams. Information is available by calling the Weingart or Burns Community Centers.
2. Immunization Clinics. Flu shot and pneumonia shot clinics are offered seasonally at the Weingart Senior Center.
3. Medicare. Health insurance programs are available through Social Security. Eligibility for this program varies, but usually begins at age 65. For information, or to apply, contact a local Social Security office.
4. MAP - Medicare Advocacy Project. This Lakewood-sponsored program provides trained volunteers to assist with medicare issues. Services include assistance with claim forms, explanation of services, information on supplemental insurance, and information on HMO's. Volunteers are available by appointment at the Weingart Senior Center.

5. Low Cost Health Care. Low Cost Health Care is provided at Comprehensive Care Centers, Public Health Centers and County Hospitals. Affordable health care facilities located in the vicinity of Lakewood are as follows:
- Comprehensive Care Center
1333 Chestnut, Long Beach
 - Bellflower Health Center
10005 E. Flower, Bellflower
 - Harbor-UCLA Medical Center
1000 W. Carson, Torrance
 - Rancho Los Amigos
7601 E. Imperial Hwy., Downey
6. Medi-Cal. Medi-Cal health care coverage is available to low-income California residents. To apply for Medi-Cal, individuals must contact their local county Social Services Department.

Numerous private hospitals and medical facilities are located in Lakewood and surrounding cities. The following is a partial listing of these medical service providers:

Full-Service Hospitals:

Woodruff Community Hospital
3800 Woodruff Avenue
Long Beach, CA

Bellwood General Hospital
10250 E. Artesia Blvd.
Bellflower, CA

Lakewood Regional Medical Center
3700 E. South Street
Lakewood, CA

Long Beach Community Hospital
1720 Termino Avenue
Long Beach, CA

Long Beach Memorial Medical Center
2801 Atlantic Avenue
Long Beach, CA

Medical Complexes:

Doctors Group
5822 Adenmoor Ave.
Lakewood, CA

Immediate Medical Care
5203 Lakewood Boulevard
Lakewood, CA

Kaiser Permanente Medical Care Program
Bellflower Medical Center
9400 E. Rosecrans Ave.
Bellflower, CA

Long Beach Medical Offices
3900 East Pacific Coast Highway
Long Beach, CA

Lakewood Family Medical Practice Associates
3300 South Street
Lakewood, CA

Lakewood Medical Center
3650 South Street
Lakewood, CA

Multi-Medical Clinic
5720 N. Bellflower Blvd.
Lakewood, CA

Drug and Alcohol Treatment Centers:

New Beginnings
Doctor's Hospital of Lakewood
5300 N. Clark Ave.
Lakewood, CA

APPENDIX A

PERSONS AND AGENCIES CONTACTED

City of Lakewood's History:

Mr. Don Waldie, Public Information Officer, City of Lakewood
Mr. Charles K. Ebner, Community Development Director, City of Lakewood

Economic Development:

Ms. Nancy Hicks, Director of Finance, City of Lakewood
Ms. Carol Moon, Senior Accountant, City of Lakewood

State of California, State Board of Equalization

Mr. Al Escobar, Business Tax Representative

State of California, Employment Development Department

Ms. Irene Bauske, Labor Market Information Division

Circulation and Traffic:

Mr. Carl Brooks, Director of Public Works, City of Lakewood

Utilities:

Water:

Mr. James Glancy, Director of Water Resources, City of Lakewood
Ms. Nancy Van der Linden, Administrative Assistant, Department of Water Resources,
City of Lakewood
Mr. William McDonald, Chief Engineer, Southern California Water Company
Mr. Joe Minneci, Assistant to the Chief Engineer, Southern California Water Company
Mr. William Zaslow, Peerless Water Company, Bellflower, California

Sewer:

Mr. Paul Prestia, Engineer, Los Angeles County Sanitation District
Mr. Calvin Ginn, Sewer Design Division Manager, Los Angeles County
Sanitation District

APPENDIX A, Continued

Storm Drainage:

Mr. Marvin Lowe, County of Los Angeles Public Works Department, City of Lakewood
Coordinator

Electric:

Ms. Eileen Tschernenko, Area Manager, Southern California Edison Company
Ms. Dianne Cooper, Southern California Edison

Natural Gas:

Ms. Mary Anne Cooper, Facilities Planner, Southern California Gas Company
Mr. Ray Prentis, Senior Planning Technician, Southern California Gas Company

Solid Waste:

Mr. Carl Brooks, Director of Public Works, City of Lakewood
Mr. Michael Huls, Consultant

Telecommunications:

Ms. Robin Koons, District Manager, GTE
Mr. Steve Garcia, Engineer, Pacific Bell

Public Safety:

Law Enforcement:

Captain John Anderson, Commander, Los Angeles County Sheriff's Department,
Lakewood Station
Ms. Sandi Ruyle, Executive Assistant and Sky Knight Coordinator, City of Lakewood
Deputy Dale DuBois, Los Angeles County Sheriff's Department, City of Lakewood
Information Officer
Ms. Carol Flynn, School Safety Coordinator, City of Lakewood

APPENDIX A, Continued

Fire:

Captains Steve Sherrill and Larry Miller, Los Angeles County Fire Department
Battalion Chief Joe Graham, Los Angeles County Fire Department

Schools:

Private Schools:

Our Lady of Fatima, Administrator
Woodruff Christian School, Administrator
St. Irenaeus School, Sister Columba Galvin
St. Maria Goretti School, Administrator
St. Cryprian School, Administrator
St. Bernard School, Ms. Kathy Parenteau
St. Timothy School, Ms. Joyce Brandt, Principal
St. Pancratius Elementary School, Mr. Joyce Vlaic
St. Cornelius School, Mr. Leonard Payette, Administrator
Bethany Lutheran School, Administrator
First Baptist Church School, Administrator
St. John Bosco High School, Administrator
St. Joseph's High School, Administrator
St. Anthony's High School, Administrator

Public Schools:

ABC Unified School District, Superintendent
Bellflower Unified School District, Mr. Gary Burgner, Deputy Superintendent
Long Beach Unified School District, Superintendent
Paramount Unified School District, Dr. Michelle Lawrence, Superintendent

Transportation:

Railroad:

Mr. Jerry Adams, Train Master, Union Pacific Railroad, Long Beach Division

APPENDIX A, Continued

Airport:

Ms. Tracey L. Jameson, Noise Control Specialist, Long Beach Municipal Airport,
Airport Bureau

Long Beach Transit

Ms. Evelyn Freeman

Los Angeles County Transportation Authority

Mr. Ashok Kumar
Mr. Michael Siegert

Orange County Transportation Authority

Ms. Lorette Yanagihara, Office Specialist III

California Department of Motor Vehicles

Ms. Chris Terwillger, Information Services Division

Geotechnical

Mr. Robert Martin, Department of Environmental Review Projects, Division of Mines and
Geology

Parks and Recreation:

Mr. Dave Rodda, Director of Recreation and Community Services, City of Lakewood
Mrs. Joan Harvey, Assistant Director of Recreation and Community Services, City of
Lakewood
Mr. Dave Allen, Community Services Manager, Recreation and Community Services, City of
Lakewood

APPENDIX A, Continued

Human Services:

Mr. Dave Allen, Community Services Manager, Recreation and Community Services, City of Lakewood
Mr. Richard "Andy" Anderson, Director, Cerritos Corridor Juvenile Diversion
Mr. John Buck, Supervisor, Palms Community Service Center, City of Lakewood
Ms. Phyllis Clark, Supervisor, Burns Community Service Center, City of Lakewood
Mr. Charles K. Ebner, Director of Community Development, City of Lakewood
Ms. Barbara Fillipone, Assistant Director, Family Guidance Center
Ms. Carol Flynn, School Safety Coordinator, City of Lakewood
Ms. Marcia Jacobs, Drug Counselor, Family Service of Long Beach
Mr. John Knapp, President, Second Harvest Food Bank of Greater South Bay
Ms. Kathryn Lai, Program Director, Prevention Program, Family Service of Long Beach
Mr. Tom Lederer, Community Services Manager, City of Lakewood
Ms. Carol Moon, Senior Accountant, Finance Department, City of Lakewood
Ms. Mary N. Richey, Executive Director, Su Casa Family Crisis and Support Center
Mr. Dave Rodda, Director of Recreation and Community Services, City of Lakewood
Mr. Don Waldie, Public Information Officer, City of Lakewood
Ms. Marie Williams, Director, Disabled Resource Centers
Mr. David Marshall, United Way of Greater Los Angeles
Ms. Gerri Denning, Consolidated Youth Services Network

APPENDIX B

REFERENCES CONSULTED

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Survey of Buying Power, Sales and Marketing Management Magazine, August 30, 1991, 1992, 1993