RESOURCE MANAGEMENT ELEMENT

City of Lomita

General Plan Update

INTRODUCTION TO THE RESOURCE MANAGEMENT ELEMENT

The Resource Management Element of the Lomita General Plan includes the State's mandated open space and conservation elements. The Element focuses on those natural resources in Lomita which must be considered in future planning and development in the City.This Element identifies important local resources and the necessary preservation programs to prevent their destruction and exploitation and to ensure that conservation efforts are consistent and equitable.

Relationship to the General Plan

As indicated previously, this Element meets the State's requirements for a conservation element and an open space element. The Resource Management Element complies with regulations in *Sections 65302(d) and 65302(e) of the California Government Code* and the *State Mining and Reclamation Act* (SMARA). The Element identifies significant resources within the City and establishes policy for their conservation, management, or preservation.

The Resource Management Element also fulfills the requirements of *Section 65560 to 65570 of the California Government Code* regarding the preparation of an open space plan for the City. The Element contains a local open space plan for the comprehensive and long-range preservation and conservation of the City's remaining open space resources.

The Resource Management Element focuses on three key issue areas: cultural resources (historic and archaeological), ecological resources (plant and animal life), and natural resources (air, water, and geology). Open space and recreation issues are also brought together in this Element because areas preserved as open space are valuable resources for both outdoor recreation and scenic enjoyment.

The Resource Management Element is organized into the following sections:

- The *Introduction to the Resource Management Element* provides an overview of the Element's policy focus.
- The *Resource Management Element Policies* section indicates those policies and programs related to conservation, parks and open space issues and historic resources, along with supporting policies are listed in this section.
- The *Resource Management Plan* establishes the conservation plan of the City and identifies the implementing programs, and standards, for park maintenance and development.
- The *Background for Planning* section includes a discussion of existing conditions relative to natural and manmade resources, including soil, water, air and historic resources are summarized in this section. Open space, parks and recreational facilities are also discussed.

RESOURCE MANAGEMENT ELEMENT POLICIES

The Resource Management Element seeks to achieve the following goals through the implementation of the policies and programs contain herein:

- To preserve those resources and amenities that enhance Lomita's living and working environment;
- To promote the conservation of important natural resources to provide a more livable and sustainable community;
- To promote the maintenance and enhancement of recreational opportunities for those living and w1orking in the City; and

- To foster a better understanding of the City's history and heritage.

To accomplish the aforementioned goals, the following policies have been incorporated into this Element:

Resource Management Policy 1
Lomita will work to expand recreational open space areas and facilities to meet current and projected needs of Lomita residents.

Resource Management Policy 2
Lomita will strive to increase the size, acreage, and accessibility of local parks and school playgrounds.

Resource Management Policy 3
Lomita will continue to cooperate with other agencies to expand regional park facilities accessible to Lomita residents. Lomita will work with public transit providers to increase bus services to existing regional facilities.

Resource Management Policy 4
Lomita will continue to seek available funding (State, Federal, etc.) for the expansion of school playground areas in Lomita and the City will investigate strategies for the shared use of facilities. The City will also investigate the feasibility of development of these facilities as part of an independent school district.

Resource Management Policy 5
Lomita will encourage the use of innovative site planning techniques in the planning of new residential development in order to free inaccessible vacant land for use as passive and active open space.

Resource Management Policy 6
Lomita will strive to protect and enhance the lower density character of development in the community and preserve those environmental amenities found in Lomita.

Resource Management Policy 7
Lomita will allow moderate and high density land uses only in areas capable of supporting such uses, as indicated in the Lomita Land Use Plan.

Resource Management Policy 8
Lomita will promote the use of open space buffer areas to separate incompatible land uses which may also be designed to provide open space for recreational use.

Resource Management Policy 9
Lomita will continue to provide for large lots and keeping of animals in the City's agriculturally zoned residential areas, pursuant to the requirements of the City of Lomita General Plan.

Resource Management Policy 10
Lomita will maintain current restrictions on building height in order to protect the views from elevated areas in Lomita such as that which has been done in the residential areas. Height studies are to be performed when required, pursuant to the City's environmental review process.

Resource Management Policy 11
Lomita will promote the use of open space to conserve and enhance the health and safety of Lomita residents.

Resource Management Policy 12
Lomita will undertake an evaluation of non-producing oil wells to determine if they are officially abandoned in conformance with all applicable laws.

Resource Management Policy 13
Lomita will cooperate with the SCAQMD to further reduce smog pollution and will strive to mitigate major stationary sources of air pollution in the City

Resource Management Policy 14
Lomita will continue efforts to prevent any situation from developing outside Lomita's boundaries which could have an adverse effect upon the residents of Lomita or the environment (e.g. opposing any additional jet or commuter air traffic at Torrance Airport).

Resource Management Policy 15
Lomita will continue to oppose the construction of a freeway through any part of the City of Lomita.

Resource Management Policy 16
Lomita will strive to develop a more adequate water distribution system.

Resource Management Policy 17
Lomita will work towards the protection of stormwater quality in the City, in accordance with the NPDES.

RESOURCE MANAGEMENT PLAN

The Resource Management Plan for Lomita promotes the protection of the environment in the City. The plan provides a citywide approach to the utilization, conservation and management of the City's resources. The plan consists of programs for preservation of significant resources and standards for development in areas with identified resources. The plan also address parks, recreation facilities, and open space. Guidelines for overall development of recreation opportunities in the city and standards for park development are outlined in the plan.

Open Space Standards and Park Classification

The City will strive to work towards the following objective for parkland development:

- The City will strive to maintain a parkland standard of one-acre per 2,500 persons.
- The City will explore opportunities for the development of new parkland and open space areas within the City.
- The City will pursue the feasibility of joint use agreements with the Los Angeles Unified School District as a means to increase the recreational facilities available to City residents.

The National Recreation and Parks Association (NRPA) has developed a generic classification system for park facilities and corresponding standards applicable to each park type. This classification system is designed to apply to a broad range of communities and requires some modification to make park standards applicable to Lomita.

The NRPA standards classify parks according to their size, service area, and function. However, there may be some difficulty in making a direct link between the NRPA standards and activities that are presently available to the residents. For example, the acreage of a particular park may correspond with the recommended NRPA standards for a neighborhood park, but its actual function (as characterized by its usage) may correspond more closely with that of a community park. In these instances, it is more appropriate to place the park in a category that better describes the park's actual function.

Although the size of the Lomita Recreation Center fits within the neighborhood park category, the facility serves a larger service area radius and accommodates a variety of activities, thus functioning in some respects like a community park. Parks within the City are classified as either "mini parks" or "neighborhood parks".

Mini-Park
The NRPA standards for *mini parks* indicate that this type of park should serve the recreational needs of a specific group of persons such as small children or senior citizens. Mini parks should be located near to where the users live in close proximity to apartments, townhouse developments or senior housing projects. The service area of parks in this category should have a radius of one-quarter mile or less and an area of one acre or less. The mini-parks include Veterans Park, Metro Park, and the Annex at the Lomita Railroad Museum.

Neighborhood Parks
Neighborhood parks are designed for active recreational and athletic activities. These facilities should be centrally located in the neighborhoods where the users live. Access to these facilities should be designed to promote easy pedestrian access. According to NRPA, the service radius for these facilities is between one-quarter and one-half mile and generally serves up to 5,000 residents. Hathaway Park and Lomita Park are included in this category.

Park Needs Assessment

Using the standard of one acre per 2,500 residents above, the parkland in the City of Lomita exceeds these open space standards. The City will continue to maintain or exceed this standard.

Although additional recreation sites would augment existing deficiencies in park acreage,

Lomita is largely developed and limited land is available for the development of new and large parks. On the other hand, the distribution of parks in the City shows that the northwestern section of the City and the area south of Pacific Coast Highway are not adequately served by an existing park.

There may be opportunities for the development of recreational open space in the City over the life of this General Plan. Privately-owned land cannot be designated for public use in the General Plan unless the private land will be acquired. For this reason, a park overlay designation has been indicated in Exhibit 5-1 which indicates those areas of the City which may be considered good candidates for park development.

Areas which are considered possible candidates for park development include the following:

- An area in the vicinity of City Hall, which is presently vacant, has been identified as containing a sensitive habitat. This property is privately owned and is udergoing further evaluation at the requests of the Department of Fish and Game. The Fish and Wildlife Service has indicated this area would be a good candidate for preservation and restoration to preserve those habitats that are found within the property.

- The General Plan Advisory Committee, as part of this element's formulation, indicated there may be some opportunities for expanding Lomita Park. Most of the surrounding properties are privately owned and acquisition of these adjacent properties would be necessary to accommodate any expansion.

- The U. S. Navy maintains a large landholding in the southeastern portion of the City. Presently, a portion of this area is used for recreation though opportunities may exist for a portion of this property to be used for recreation and resource preservation. Recent surveys identified a Palos Verdes Blue butterfly colony on the fuel depot site. This species was previously thought to be extinct.

The potential acquisition of the aforementioned areas would enable the City to meet its open space objectives. In addition, the acquisitions would also serve as a means to preserve two of the few remaining sensitive habitats in the South Bay area.

Resource Management Programs

The following programs will be effective in the implementation of the policies contained in this Element.

Air Quality Planning

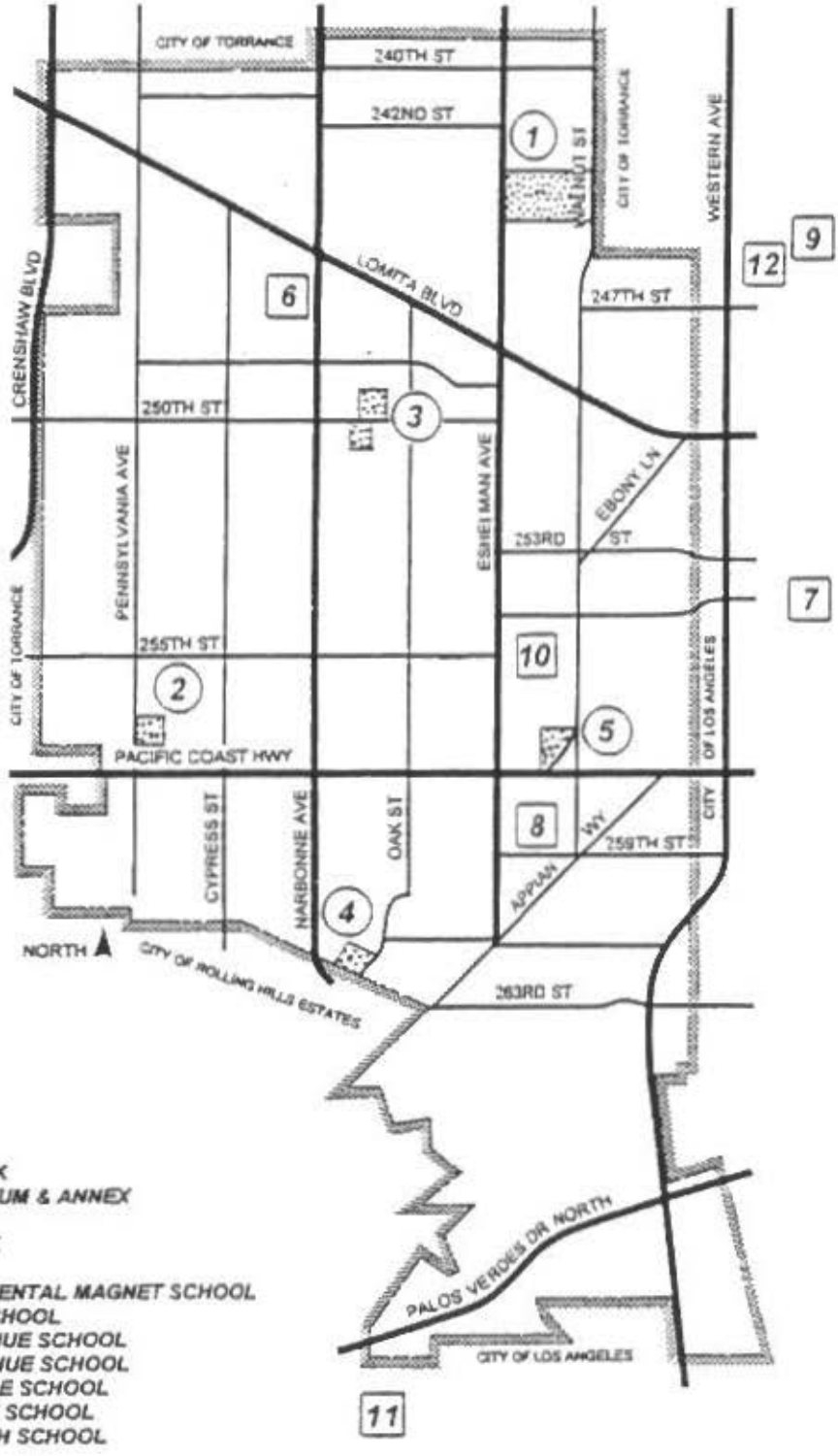
The City of Lomita will continue to participate in the regional planning efforts being undertaken by the South Coast Air Quality Management District(SCAQMD) and the Southern California Association of Governments (SCAG) to develop and implement strategies to improve regional air quality. The City of Lomita will continue to work with the SCAQMD and SCAG and the surrounding cities in improving air quality.

City Water Conservation

The City will continue to implement its Water Conservation Ordinance. In addition, the City will review the ordinance to ensure it promotes the use of xeriscape landscaping, water conserving materials, and devices that reflect current technology. The City shall review, and as appropriate, develop water conservation programs for public facilities (Civic Center, parks, maintenance yards, etc.). Water conservation measures and activities will continue.

Cultural Awareness

The City shall continue to implement programs for increasing cultural awareness in the community. The City will cooperate with local organizations (such as the local historical society, Chamber of Commerce, etc.) and individuals to acquire resource materials concerning the local history and culture. These materials may include books, photographs, artifacts, furniture, etc which may be displayed in the City Hall Lobby. The City will continue to support cultural resource conservation and preservation efforts in Lomita.



PARKS
1-LOMITA PARK
2-HATHAWAY PARK
3-RAILROAD MUSEUM & ANNEX
4-METRO PARK
5-VETERANS PARK

SCHOOLS
6-LOMITA FUNDAMENTAL MAGNET SCHOOL
7-HARBOR CITY SCHOOL
8-ESHELMAN AVENUE SCHOOL
9-PRESIDENT AVENUE SCHOOL
10-FLEMING MIDDLE SCHOOL
1-DODSON MIDDLE SCHOOL
12-NARBONNE HIGH SCHOOL

EXHIBIT 5-1
OPEN SPACE PLAN
Source: Blodgett/Baylosis Associates

Cultural Resource Management

This regulation requires that, should archaeological or paleontological resources be uncovered during excavation and grading activities, all work would cease until appropriate salvage measures are established. Appendix K of the CEQA Guidelines shall be followed for excavation monitoring and salvage work that may be necessary. The Conservation Element indicates those areas with a "high potential" for cultural sensitivity. Notification that resources have been encountered (notification may come from field monitors, construction crews, etc. Salvage will be undertaken pursuant to Appendix K requirements outlined in CEQA.

Design Guidelines and Review

The City shall continue to implement its current design review procedures. The purpose of the design review process is to ensure that building design, architecture, and site layouts are compatible with surrounding development. Procedures for design review will be prepared for the Lomita "downtown" area which includes the commercial district located in the vicinity of Narbonne Avenue and Lomita Boulevard. Materials will be prepared for public distribution will be prepared describing design guidelines and the design review process reviewed and revised as necessary.

Energy Conservation

The City shall continue to enforce the energy conservation standards in Title 24 of the California Administrative Code, the Uniform Building Code, and other state laws on energy conservation design, insulation and appliances. Energy needs shall be evaluated and conservation measures incorporated into new development in accordance with Appendix F of the State CEQA Guidelines. Other measures that would reduce energy consumption during construction and operation of the structures shall be encouraged. The City will continue to work with the Southern California Edison and the Southern California Gas to promote energy conservation.

Environmental Review

The City shall continue to evaluate the environmental impacts of new development and provide mitigation measures prior to development approval, as required by the California Environmental Quality Act (CEQA). Environmental review shall be provided for major projects and those that will have a potential to adversely impact the environment. Issue areas that will be addressed in the environmental analysis related to resource issues include: air quality, water and hydrology, plant life, animal life, natural resources, energy, aesthetics, recreation, and cultural resources. In compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of mitigation measures.

Historic Building Code

The City will investigate the feasibility of adopting alternate building code standards for historic structures, as authorized by the State Historical Building Code. The initial step will require City staff to amend the development code to include provisions for the maintenance, rehabilitation, and preservation of historic structures. Potential candidates include the old Lomita Theater, Lomita Lumber and the Famart Blacksmith Barn. Other historic resources described in Section 5.4 should be considered.

Joint Use Facilities

The City will continue to support existing joint agreements with the Los Angeles Unified School District and explore opportunities for expanding joint use agreements to include other schools. The City will continue joint use agreements with other special districts. The City's existing joint-use agreements will be continued where appropriate.

Parks Gift Catalogues Program

The City will assess the feasibility of preparing and distributing a gift catalogue for specific items that will be used for the Community's benefit. The catalogue will identify improvements that may be purchased for use in City Parks. The first step will require City Council authorization to City departments to determine how this program will be implemented. The Council will then consider staff's findings and will provide direction to the City's Parks and Recreation Department in how to proceed

Quimby Act Ordinance

The City will continue to implement its Park Development Fee ordinance as set forth the proposed adoption of provisions in the subdivision ordinance for the declaration of land for park use

pursuant to Section 66477 of the California Government Code. The Government Code permits local governments to exact land dedications, in-lieu fees, or a combination of both for park and recreation purposes as a condition of approving a final subdivision or parcel map.

Park Development & Renovation Program

The City will evaluate strategies to protect and renovate existing public open space from encroachment or conversion to other uses. Any new development will comply with the guidelines set forth by the American Disabilities Association (ADA). Potential improvements will be programed into the City's Capital Improvements Program. This program will also evaluate the feasibility of new park development in the City. Candidate sites for evaluation may include, but not be limited to, the expansion of Lomita Park, a new park in the vicinity of City Hall, and a park within the area presently occupied by the U.S. Navy fuel storage depot.

Adopt a Park/Park Watch (Program)

The City will analyze the feasibility of implementing an adopt-a-park program along with a "park watch" program. Individual neighborhoods will be encouraged to become involved with the operation, maintenance and safety of their parks through an expanded Neighborhood Watch Program. The first step of implementation will involve coordination with the Los Angeles County Sheriff's Department to expand the scope of the Neighborhood Watch Program to include the monitoring of local parks. The City will then establish a program by which individuals, organizations, and businesses can "adopt" a local City park. Qualifications for "park adoption" will be identified by the City Parks and Recreation Department Park. Individuals, organizations, and businesses, as part of their adoption, may agree to assist in park maintenance, financing of improvements, security, etc.

Stormwater Pollution Prevention

The City will develop programs and measures designed to prevent pollutants from entering the storm drain system. These shall include measures to be imposed during construction activities, handouts for residential uses and best management practices (BMPs) for non-residential uses. The City shall also implement projects to maintain stormwater quality, such as street sweeping, catch basin grills, signs, etc.

BACKGROUND FOR PLANNING

Overview of the Planning Area

This section of the Resource Management Element identifies the resource (man-made and natural), open space, and recreation issues that need to be considered in future planning. Key issues which are addressed in this section include soil resources, mineral resources, groundwater resources, vegetation and wildlife, air quality, aesthetics, cultural (historical, archaeological, and paleontological) resources, open space and recreational facilities.

Most of these resources are typically non-renewable or limited and need to be preserved and managed in order for these resources to be available for future generations. This section of the Element identifies the City's natural and manmade resources, in an effort to provide focused attention and conscious efforts for their preservation and conservation.

Earth Resources

The City of Lomita is located on the gently rolling plain at the northeastern foot of the Palos Verdes Hills. The City is generally overlain with shallow deposits of alluvial materials. Ground elevations within the City range from 55 feet above mean sea level at the eastern section of Lomita to 134 feet above mean sea level at Pacific Coast Highway. At the southern section of the City, where the Palos Verdes Hills begin, the land is underlain by bedrock materials associated with the Palos Verdes Peninsula. Ground elevations within this area range from 100 to 310 feet above mean sea level.

The Soil Conservation District of the U.S. Department of Agriculture has classified soils in Lomita according to soil limitations and soil suitability. A soil association is a group of soils

that have the same profile, arrangement, sequence of layers, or other characteristics. The City of Lomita is overlain by four soil associations: Oceano Association; Ramona-Placentia Association, five percent to nine percent slopes; Ramona-Placentia Association, two percent to five percent slopes; and Diablo-Altamont Association.

The *Oceano Association* is generally found in undulating dune-like areas at elevations below 100 feet above mean sea level. Natural drainage is excessive and soil permeability is rapid. Oceano soils consist primarily of grayish-brown sand layers underlain by light brownish-gray sand subsoils. They have moderate to high potential for wind erosion. Inherent fertility is low. These soils are found on the northern end of Lomita.

The *Ramona-Placentia Association* is found on gently rolling terraces and consists of 80 percent Ramona soils, fifteen percent Placentia soils, and five percent Hanford soils.

Ramona soils are brown to reddish-brown, heavy loam or sandy loam on the surface, with dense clay loam or clay subsoils. Some areas have 60 percent by volumes of stones and cobbles. Placentia soils are brown to reddish-brown loam or sandy loam on the surface, with dense dark reddish-brown clay loam in the subsoils. Some subsoils consist mainly of gravel.

Natural drainage is moderately good and soil permeability is slow to very slow for the Ramona-Placentia Association. Erosion hazard is slight to moderate and inherent fertility is low to moderate. The Ramona-Placentia Association, five percent to nine percent slopes, is found on the southeast section of the City and the Ramona-Placentia Association, two percent to five percent slopes, is found on the eastern section of the City.

The *Diablo-Altamont Association* consists of 60 percent Diablo soils and 30 percent Altamont soils. This association is found on gently sloping to rolling foothills, as found in the southern section of Lomita. Diablo soils have dark gray, neutral, clay surface layers with dark grayish-brown clay subsoils. Outcrops of shale may be found in some places. Altamont soils are dark brown clay surface layers with brown clay subsoils.

The Diablo-Altamont Association is well-drained and soil permeability is slow. This association has a slight erosion hazard and inherent fertility is high. This soil association is present on the western section of Lomita.

Exhibit 5-2 shows the distribution of these soil associations and Table 5-1 summarizes the characteristics of each association. Shrink-swell potential refers to the soils ability to change volume with a change in moisture content. This characteristic is influenced by the amount of moisture in the soil and the amount and kind of clay present. Soil pressure refers to the soil's ability to withstand pressure created by foundations, equivalent to as much as 1,000 pounds per square foot. Runoff potential refers to the soil's infiltration rate when thoroughly wetted. Soils that have a high rate of water transmission would result in a low runoff potential.

Mineral Resources

Land in the City of Lomita was historically used for agricultural production and some oil drilling prior to the City's urbanization. Areas zoned for agricultural use (A-1) are developed with large rural residential lots with limited animals. No commercial agricultural production remains in the City.

Table 5-1
Soil Associations

Association	Shrink-Swell	Soil Pressure	Runoff
Oceano Association	Low	Severe*	Very slow
Ramona-Placentia Association, 2% to 5% slopes	High**	Moderate	Slow
Ramona-Placentia Association, 5% to 9% slopes	High	Moderate	Slow
Diablo-Altamont Association	High	Moderate	Medium

* less than 1,000 lbs/sf
** more than 30% clay
Source: Report and General Soil Map, Los Angeles County, 1969.

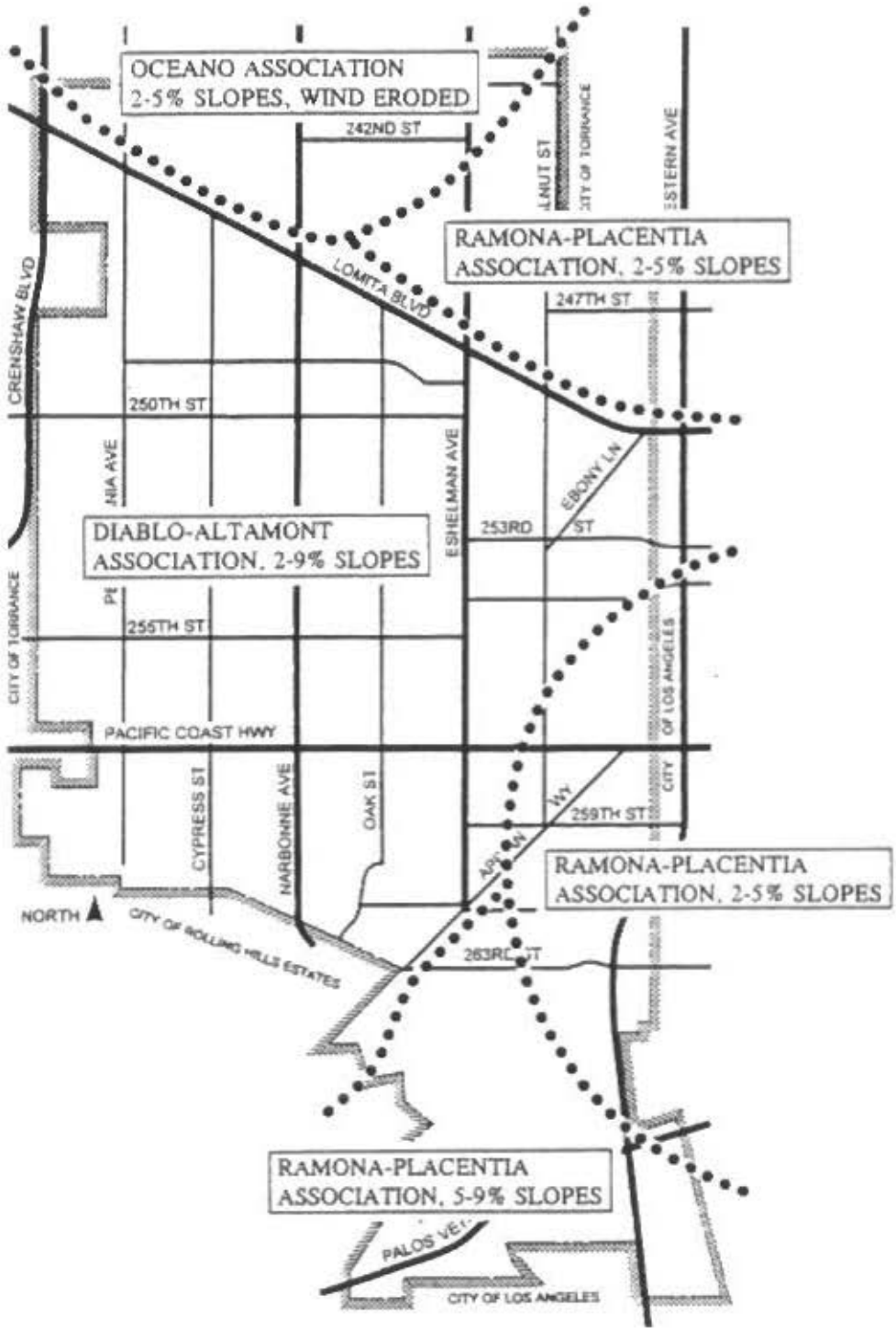


EXHIBIT 5-2
SOIL RESOURCES
Source: Blodgett/Baylosis Associates

The City of Lomita is known to have deposits of sand and gravel, feldspar and diatomite (as found at the Palos Verdes Hills) though these resources have not been actively extracted in the City.

Feldspar consists of aluminum silicate minerals containing potassium, sodium, or calcium. Feldspars constitute nearly 60 percent of igneous rocks and are found in granites, and beach sands. Grain size ranges from less than 1/4 inch to an inch or more. Feldspar is used for the production of glass and ceramics. Diatomite consists of fine-grained particles of an inert form of silica, similar to mineral opal. Diatomite is formed from fossils of diatoms (one-cell floating organisms). Each particle is flat and perforated, and loosely packed. Diatomite is used for filtration and as fillers, insulation, absorbents, abrasives, ceramics, pesticides, and other uses. Feldspar and diatomite are not found in commercial quantities that warrant extraction in Lomita.

The San Pedro Sandstone is a Pleistocene marine deposit found in outcrops along the northern and northeastern edges of the Palos Verdes Hills. The San Pedro Sandstone consists of poorly consolidated, coarse and uncemented quartz and feldspathic sands, with some pebbly gravel. The San Pedro Sandstone is believed to have been deposited within a coldwater marine environment during maximum glaciation. Regional tectonic uplift of the Peninsula led to the elevation of these deposits hundreds of feet above sea level. Historic mining activities have occurred along this area within the City of Rolling Hills Estates. The surrounding area also contains San Pedro Sandstone, including the City of Lomita.

Under the Surface Mining and Reclamation Act (SMARA), the California Division of Mines and Geology (CDMG) has identified the presence of sand and gravel resources in the State and classified areas of regionally significant aggregate resources. The Chandler (Quarry) Landfill, within the City of Rolling Hills Estates and just south of Lomita, is classified by CDMG as Mineral Resource Zone 2, (MRZ-2 - an area containing significant mineral deposits or where there is a high probability of their existence). This area was previously mined for sand and gravel though now serves as a landfill. The Lomita area is designated as MRZ-3 (areas containing mineral deposits whose significance cannot be evaluated from available data). While the San Pedro Sandstone is found in Lomita, the lack of past or current mining activities in the Lomita area prevents their classification as MRZ-2. Exhibit 5-3 shows the classification of aggregate resources in Lomita and the surrounding area.

Oil Resources

The northern section of the City is underlain by the Torrance oil field which has been drilled since 1922. Records on oil production from the Torrance oil field show that there are 213 wells with an annual production of 823,000 barrels or 2.1 percent of the oil production in southern California region in 1995. The remaining reserves in the Torrance oil field are estimated at 26,579 million barrels as of December 1994. The Torrance oil field is located adjacent to the Wilmington oil field which produces approximately 55 percent of the oil in southern California. There were thirteen wells tapping the Torrance oil field within the City of Lomita, but twelve of these wells have been abandoned and plugged. A single well remains in operation at Stanhurst and Walnut Streets. The Gaffey oil field is located near the southwest corner of the City but does not currently produce any oil and has been abandoned.

Agricultural Land

The Lomita area was once an agricultural area and was known as the Celery Capital of the World in the early 1900's. These agricultural lands were replaced with oil wells and residential tracts in the mid-1920's. Agricultural uses in the City are now limited to large rural lots with limited animal husbandry activities. There are no lands in Lomita that are currently used for commercial agricultural production. Agricultural uses are also not currently considered viable due to the presence of nearby urban developments and the lack of large vacant tracts of land.

Groundwater Resources

Groundwater resources in Lomita consist of aquifers and aquicludes, as found in the Los Angeles groundwater basin within the Los Angeles coastal plain. The City of Lomita is located on the southern end of the Torrance plain which is underlain by water-bearing sediments that form a complex system of interlayered aquifers and aquicludes. The City is within the West Coast groundwater basin

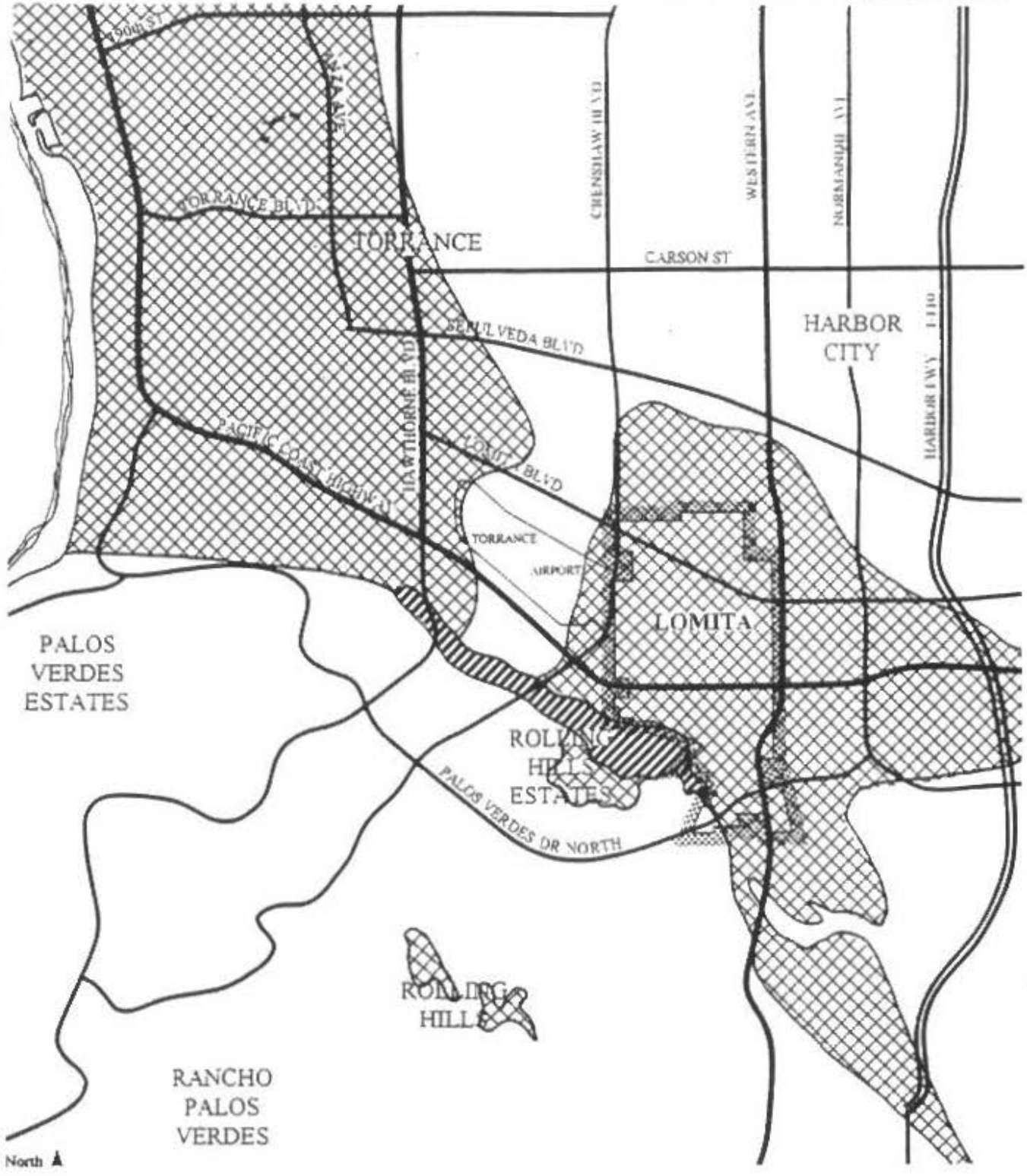


EXHIBIT 5-3
SIGNIFICANT AGGREGATE RESOURCES
Source: Blodgett/Baylosis Associates

which is bounded by the Newport-Inglewood fault zone on the northeast. Groundwater resources in the West Coast basin generally consist of an upper layer of shallow, unconfined and semi-perched water; a principal body of fresh water underneath, and a salt water layer under the freshwater resources. Water movement is generally from points of recharge (percolation areas, spreading grounds, streams) to points of discharge (groundwater wells, ocean, springs) because of differences in pressure between these points.

Aquifers underlying the Los Angeles coastal plain resulted from the historical development of the topography for more than 100 million years. The deposition of sand, gravel, silt, clay and rock has resulted in a highly complex geologic and groundwater structure. Water-bearing deposits are unconsolidated and semi-consolidated alluvial sediments from recent times (15,000 years ago). These deposits hold water and allow water to pass through, and are referred to as aquifers. Non-water-bearing deposits consist of consolidated rocks and ground layers which provide limited water. They form the boundaries between aquifers.

Most of the groundwater resources in the basin are found in recent (Holocene) and Pleistocene age deposits. These deposits are generally less consolidated and have been subject to less deformation by historic folding and faulting.

The Pleistocene period (up to 1,000,000 years ago) resulted in the deposition of several ground layers including Older Dune Sand, the Lakewood Formation and the San Pedro Formation. The Lakewood Formation includes terrace deposits, Palos Verdes sand and other unnamed deposits. It is generally characterized by variable particle size in the upper layer and a lower layer of gravel and coarse sands. Sand and gravel are interspersed by discontinuous lenses of sandy silt and clay.

The Lakewood Formation contains the Exposition, Gage, and Gardena aquifers and aquicludes (fine sand, silt and clay that transmit water slowly). The Exposition and Gardena aquifers are not found underneath the site. The Gage Aquifer lies approximately 100 feet below mean sea level near the City of Lomita and is approximately 75 to 100 feet thick. This aquifer has fine to medium sand, with varying amounts of coarse yellow sand, sandy silt, clay and gravel. The Gage Aquifer yields large amounts of water.

The San Pedro Formation contains deposits of lower Pleistocene age, containing San Pedro sand, Timms Point, silt and Lomita Marl. This formation contains five major aquifers with fine grained layers interbedded within. These aquifers include the Hollydale, Jefferson, Lynwood, Silverado and Sunnyside Aquifers. They are the principal aquifers used for domestic water in the Los Angeles area.

The Lynwood Aquifer is made up of yellow, brown, and red coarse gravel, sand, silt and clay. This aquifer has a thickness of 50 to 1,000 feet. The Lynwood aquifer is a major producer of water with a yield ranging from 200 to 2,100 gallons per minute. This aquifer is found approximately 275 feet below mean sea level in the City. The Lynwood Aquifer merges with the Silverado Aquifer to the west. The Silverado Aquifer has yellow to brown coarse to fine sands and gravel interbedded with yellow to brown silts and clays. This aquifer has a maximum thickness of 500 feet and is found approximately 425 feet below mean sea level in Lomita to a maximum depth of 1,200 feet below sea level. This aquifer has also been considerably offset by all faults in the region. The Silverado Aquifer is a major water producer with a maximum yield of 4,700 gallons per minute.

Aquifers beyond the Pleistocene age are not known because of limited well log data. They are also too deep to be economically tapped by groundwater wells. The storage capacity of the coastal plain is approximately 22 million acre-feet, with 6.5 million acre-feet of capacity within the West Coast basin alone.

The groundwater is estimated by the Los Angeles County Safety Element to be approximately 30 feet from the ground level at the City and the surrounding area. This indicates that the area is conducive to perched water conditions.

Surface Waters

The project site is located within the Dominguez watershed where storm waters drain into the Los Angeles Harbor. Machado Lake is located southeast of the City of Lomita. This lake serves as a flood retention basin for the surrounding area.

The lake was historically a shallow depression that filled up during rains and emptied into the seas.

Machado Lake has always been a low lying area and sea shell beds and salt-encrusted soils found at its banks suggest it was nearer the sea than it is today. The lake holds 210 acre-feet of water and covers approximately 42 acres. It has an average width of 150 feet, with a maximum width of 1,000 feet and a maximum length of 3,000 feet. Approximately 60 percent of the water comes from the Wilmington Drain which drains a 20-square-mile area north of the lake.

Waters at Machado Lake are highly dependent on rainfall and storm runoff that enter the lake through several county and city storm drains. The upper lake often has seven feet of water before it overflows into the lower lake where waters are two to three feet deep. The lower lake and wetland area is dry during summer and fall, but has water in the spring. Water is sometimes added to the upper lake during the dry season. From the lake, water flows seasonally into Los Angeles Harbor's West Basin through a one-mile underground aqueduct. The lake currently has problems with street runoff introducing extensive debris into the area; intensive public use which degrades the water environment; and area industries which generate soil, water and air pollutants.

Water quality at the lake is poor and is rich in dissolved nutrients from urban runoff and organic waste. High levels of phosphorus from fertilizer runoff has also stimulated algae growth, leading to the depletion of dissolved oxygen. The lack of oxygen leads to fish kills. The aeration system that was constructed in the 1980's is not in operation. Total dissolved solids is often high due to runoff from urban areas around the park. Trace organic materials, pesticides, and trace metals (copper and lead) have been detected in water and fish at the lake since 1983. Flooding and inundation is discussed in the Safety Element (Section 6).

Water Quality

As required, watershed and storm water management considerations (standards, programs, etc.) in accordance with the NPDES program have been included in the General Plan.

The City has adopted a Water Efficient Landscape Ordinance which requires water conservation practices in landscape irrigation for new public and private developments.

Vegetation and Wildlife

The City of Lomita is urbanized and plant life commonly consists of nonnative, introduced, exotic and ornamental species which are used for landscaping. Yard and parkway trees found in the City include eucalyptus, canary island pine, ficus, elm, olive, ash, sweet gum (liquidambar), and queen palm trees. Animal life in the City of Lomita includes sparrows, starlings, doves, blackbirds, sparrows, crows, lizards, snails, rats, opossums, raccoons, skunks, squirrels, insects, and other urban species.

The California Department of Fish and Game maintains a listing (State and Federal) of endangered, rare, threatened and sensitive plants and animals that warrant protection by the scientific community. The Natural Diversity Database summarizes past biological surveys which have identified sensitive species. Review of the database indicated that sensitive plant and animal species have been found within the City boundaries and the surrounding area. Table 5-2 summarizes the results of the database investigation and Exhibit 5-4 shows the location of sensitive species.

This database is not intended to replace the environmental review for individual projects nor does the database constitute official environmental review by the Department of Fish Game. Additional field surveys for individual projects may be warranted, especially if the project site is located in an area that has experienced little or no disturbance.

Table 5-2
Sensitive Species

1. State Ranking 2. Federal Ranking	Site Location	Presence
San Diego Horned Lizard (Phrynosoma Coronatum Blainvillei)		
1. S2.S3 2. Cand. 2	El Nido on friable, rocky or shallow sandy soils	Extirpated
1. State Ranking 2. Federal Ranking	Site Location	Presence
California Least Tern (Sterna Antillarum Browni)		
1. Endangered 2. Endangered	Terminal Island & Harbor Lake @ Harbor Park on marsh & swamp habitat	Presumed Extant
California Gnatcatcher (Polioptila Californica)		
1. S2 2. Threatened	Sunnyridge Road & Crest Rd, on low coastal sage scrub	Presumed Extant
Tri-colored Blackbird (Agelaius Tricolor)		
1. S2 2. Cand. 2	Harbor Lake near marshy areas with cattails and tules	Presumed Extant
Sandy Beach Tiger Beetle (Cicindela Hirticollis Gravida)		
1. S1 2. Cand. 2	Redondo Beach & Terminal Island, on clean, dry, light-colored sand	Extirpated
Monarch Butterfly (Danaus Plexippus)		
1. S3 2. None	Wilderness Park, in tree groves with nectar and water sources nearby	Presumed Extant
Palos Verdes Blue Butterfly (Glaucopsyche Lygdamus Palosverdesensis)		
1. S1 2. Endangered	Seacrest Rd/Crenshaw Blvd, Altamira and Portuguese canyons, San Pedro Hill, Navy Fuel Depot on locoweeds	Presumed Extant at DOD Fuel Depot
1. State Ranking 2. Federal Ranking	**Site Location**	**Presence**
Plants		
South Coast Saltscale (Atriplex Pacifica)		
1. S2.2 2. Cand. 2	San Pedro Hill on alkali soils	Presumed Extant
Parish's Brittlescale (Atriplex Parishii)		
1. S1.1 2. Cand. 2	Redondo Beach, on drying alkali flats with fine soils	Presumed Extant
Brand's Phacelia (Phacelia Stellaris)		
1 S1.1 2. None	Redondo Beach on open areas	Presumed Extant
Mexican Flannelbush (Fremontodendron Mexicanum)		
1. S2.1 2. Proposed Endangered	Via del Monte, 1 mile from ocean, along borders of creeks or dry canyons	Possible Extirpated

Ranking:
Cand. 2 = Candidate for Federal Listing, Category 2
S1= < 6 elements or < 1,000 individuals or < 2,000 acres
S1.1 = very threatened
S2= 6-20 elements; 1,000-3,000 individuals; 2,000-10 000 acres
S2.1 = very threatened
S2.2 = threatened
S3= 21-100 elements; 3,000-10,000 individuals or 10,000-50,000 acres
Uncertainty about the rank may be expressed as a range of values. S2.S3 means the rank is something between S2 and S3.

Source: Department of Fish & Game, Natural Diversity Database, 1997

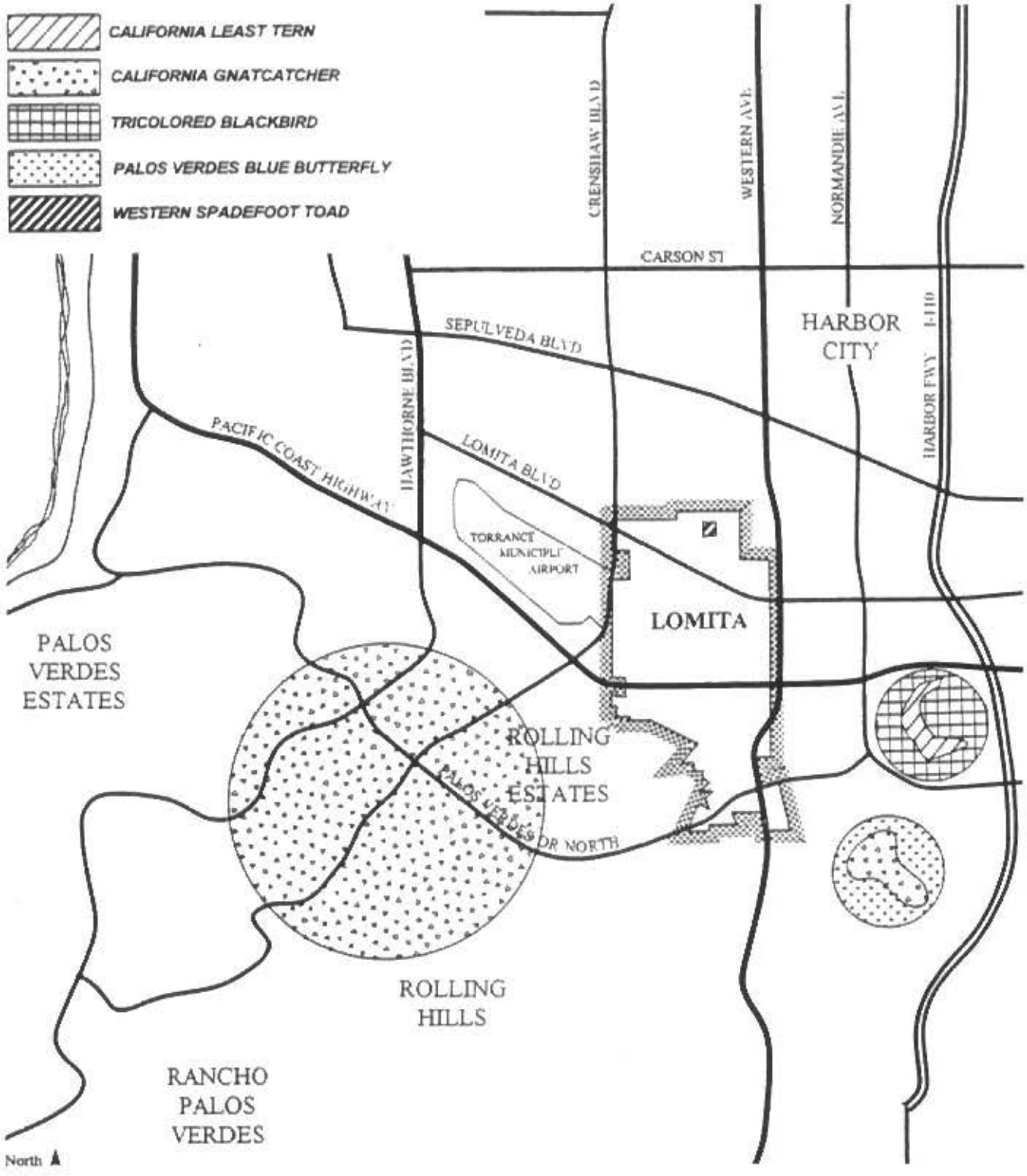


EXHIBIT 5-4
SENSITIVE SPECIES
Source: Blodgett/Baylosis Associates

The Palos Verdes Blue Butterfly is a small blue butterfly which is considered an Endangered Species by the U.S. Fish and Wildlife Service This butterfly was found in the Palos Verdes Peninsula from 1976 to 1986. During this time, road and housing construction, park development, off-road vehicle use, and weed abatement have led to the destruction of the remaining colonies in the area. The species was presumed to be extinct but the Fish and Wildlife Service hoped that the Palos Verdes Blue Butterfly will come alive after lying dormant for years, as some species of moths are known to do. In 1994, the Palos Verdes Butterfly was found at the U.S. Navy's fuel depot at Western Avenue and Palos Verdes Drive North. Some 200 butterflies or more are estimated to be inhabiting the tank site at this time.

While not yet included in the database, the Western Spadefoot Toad (Scaphiopus Hammondi) has been found at a seasonal pool in Lomita, between Narbonne and Eshelman Avenues on 242nd Street. The site is a vacant lot surrounded by urban development. In addition to the toad, a native species of salt grass (Distichlis spicata) was also found at the site. The pool contained plant species found in seasonal pools and may represent one of the last remnants of vernal pools historically found throughout the Los Angeles Basin.

The Western Spadefoot toad is a California Species of Special Concern since its presence in southern California is all but extinct. The Western Spadefoot toad may be found in vacant lots, backyards, and any open or fenced area with the potential for water pooling during the rainy season. The Western Spadefoot toad has also been found at Madrona Marsh. Potential relocation to Madrona Marsh should be considered to prevent adverse impacts to this sensitive species.

Subsequent surveys at the seasonal pool have led to the siting of the Fairy Shrimp (Brachinecta mackini). While this fairy shrimp is not a federally listed species, their presence may indicate other types of fairy shrimp (that are threatened or endangered species) are also present at the pool. Ongoing biological studies will be conducted at this site.

Air Quality

Meteorology

The City of Lomita is located in the southwestern portion of the South Coast Air Basin of California. The basin covers approximately 6,600 square miles, encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The air basin is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east.

The Los Angeles coastal plain has a Mediterranean climate, characterized by warm summers, mild winters, infrequent rainfall, moderate daytime onshore breezes, and moderate humidities. Variations in rainfall, temperatures, and localized winds occur throughout the Basin due to the presence of various mountains and hills inland and the Pacific Ocean on the west. Rain also varies seasonally. Summers are often dry and four to five months can pass with no rain. In the winter, occasional storms often bring rain. Winters are cold but frost is rare, as temperatures seldom fall below 28°F. The annual average daytime temperatures in Lomita range from 44 to 63° F in winter and from 60 to 85°F in summer, with temperatures sometimes reaching 100°F during the summer months. Annual rainfall in Lomita is 12 inches and occurs almost exclusively from late October to early April.

The City of Lomita is located approximately 3.0 miles from the Pacific Ocean and thus, enjoys the moderating influences of the coast. From ½ to ⅔ of all days in the year are clear in the City Sea breezes come from the west and have an average speed of 6.5 miles per hour. Seacoast fog and warm marine air from the open sea keep the climate comfortable throughout the summer days when temperatures are high. Spring days may be cloudy due to the presence of high fog, although summers are warmer than along the coast.

Local Air Quality

Air quality within the South Coast Air Basin has shown a gradual and steady improvement over past decades. This improvement in the region's overall air quality may be attributed to a number of factors, including improved emissions controls on automobiles, the elimination of many stationary

sources of air pollution, the improvement in stationary emissions controls, and the successful implementation of a range of measures designed to reduce both stationary and mobile emissions.

In 1995, ozone levels peaked at 0.26 parts per million (ppm), the lowest level since the SCAQMD was established. During 1995, there were only 14 *Stage I* episodes, also the lowest number since the early 1970's, when the California Air Resources Board established the program designed to alert the region about poor air quality. Nitrogen dioxide met the Federal clean air standards for the third year in a row, thus qualifying the Basin for "attainment status." Annual average PM_{10} levels are nearly 25 percent lower than a decade ago at the highest PM_{10} site in the metropolitan Riverside County area. In spite of these improvements, Southern California still experiences the worst air quality in the nation.

The 1997 Air Quality Management Plan (AQMP) builds upon previous planning efforts undertaken to improves the region's air quality. The Plan updates the demonstration of attainment for ozone and carbon monoxide and includes a maintenance plan for nitrogen oxide (NO_x). In addition, the Plan places an additional emphasis on the attainment of PM_{10} standards.

The South Coast Air Quality Management District (SCAQMD) is a regional agency charged with the regulation of pollutant emissions and the maintenance of local air quality standards. The SCAQMD samples ambient air at scattered monitoring stations in and around the Basin. Ambient air quality in the City of Lomita is characterized by readings taken at the closest SCAQMD pollutant monitoring station in the City of Hawthorne. Table 5-3 lists the air quality readings at the Hawthorne station from 1994 through 1996.

Table 5-3
Air Monitoring Station Readings

Pollutant	1994	1995	1996
Carbon Monoxide (CO)			
Max. 1-hr conc.(ppm)	14.0	11.0	13.0
Max. 8-hr conc.(ppm)	12.0	8.9	11.6
No. days federal std.	5	0	5
exceeded	8	0	0
No. days state std. exceeded			
Ozone (O_3)			
Max. 1-hr conc.(ppm)	0.11	0.12	0.13
No.days federal	0	0	1
std.exceeded	3	3	8
No. days state std.exceeded			
Nitrogen Dioxide (NO2)			
Max. 1-hr conc.(ppm)	0.22	0.18	0.15
No.days federal	0	0	0
std.exceeded	0	0	0
No.days state std.exceeded			
Sulfur Dioxide (SO2)			
Max. 1-hr conc.(ppm)	0.04	0.06	0.06
No.days federal	0	0	0
std.exceeded	0	0	0
No.days state std.exceeded			
Suspended Particulates(PM_{10})			
Max.24-hour conc.(ug/m^3)	81	136	107
% samples exceeding federal std.	0.0%	0.0%	0.0%
% samples exceeding state std	18.0%	13.8%	8.3%

ppm = parts per million
ug/m^3 = micrograms per cubic meter
Source: SCAQMD Air Quality Data, 1994 - 1996.

As shown, air quality in the Lomita area exceeds ambient air quality standards for carbon monoxide, ozone, and suspended particulates. Local sources of air pollution in Lomita consist mainly of vehicle trips to, through and from the City. As a residential community, most of the trips in the City are home-based trips. Commercial uses along major roadways generate largely work-based trips. Traffic on Pacific Coast Highway generates the majority of mobile source air pollution in the City. Stationary sources include equipment and appliances used in the commercial and industrial establishments in the City. While Lomita enjoys the good air quality provided by the wind breeze along the coast, adjacent oil refineries in the Carson-Wilmington area are a source of stationary emissions.

Wind flow patterns affect air quality by directing pollutants downwind of their sources. Local meteorological conditions (such as light winds and shallow vertical mixing) and topographical features (such as the surrounding Palos Verdes Hills)

create areas of high pollutant concentrations by hindering dispersal. Temperature inversions are created by a semi-permanent subtropical high pressure cell over the Pacific Ocean, by trapping cool air near the ground with warm air from the ocean. This hampers dispersion by trapping air pollutants in a limited atmospheric volume near the ground. During summer, sunshine provides the energy for photochemical reactions between nitrogen oxides and reactive organic compounds which form ozone. Because of the long time period required to form ozone in the atmosphere, ozone concentrations are largely determined by transport patterns.

With southerly and westerly winds occurring on most days in Lomita, the ozone transport route into the City is from sources to the west and south. In turn, ozone pollutants emitted in Lomita are most likely to contribute to ozone levels in areas east and northeast of the City, such as the surrounding South Bay cities.

In the winter, temperature inversions occur close to ground level during the night and early morning hours. Thus, carbon monoxide and nitrogen oxide concentrations are highest during these times. Carbon monoxide transport is also limited by light wind speeds. Since carbon monoxide is produced primarily from automobile exhaust, the highest concentrations are found in areas with heavy traffic, such as Pacific Coast Highway.

Under the prevailing wind conditions, emissions generated in the City of Lomita are dispersed to the east and northeast during the day, and slowly drift southwest or south at night. Local emissions contribute to regional ozone concentrations downwind, but can, under stagnant meteorological conditions, add to localized levels of ozone and other pollutants.

Parks and Recreational Facilities

Parks and recreational facilities in Lomita consist of public City parks, school playgrounds, private recreational facilities within the City, public and private parks within the neighboring cities and surrounding areas, and nearby beaches.

City Parks

Recreational facilities in the City of Lomita include four city parks and a multipurpose center. These facilities occupy approximately 9.4 acres. Table 5-4 lists these parks and their locations are shown in Exhibit 5-5.

In addition to City parks, school playgrounds are also available for public use after school hours. These schools provide open fields for baseball, soccer and football, basketball courts, tot lots, and other game courts for public use.

The City charges a park and recreation facilities tax for the acquisition, improvement, expansion and maintenance of public park, playground and/or recreation facilities. Every dwelling unit created by new construction, modification of existing structures, replacement or relocation is subject to a fee of $300.00 per unit. In addition, the Quimby Act allows cities to require the dedication of open space or parkland from new residential subdivision developments or to pay an in-lieu fee for the provision of recreational facilities to serve the project.

Table 5-4
City Parks

Park/Address	Acres	Facilities
Lomita Park/Recreation Ctr 24428 Eshelman Avenue	8.0	Gym, MPC, baseball diamond, tennis crts, tot lot wading pool, picnic area
Hathaway Park 25600 Pennsylvania Avenue	1.0	Basketball court, volleyball court & tot lot
Railroad Museum & Annex 2135 250th Street	0.2	Museum, picnic area
Veterans Memorial Park Walnut and 257th Street	0.1	Grass area
Metro Park 26339 Oak Street	0.1	Grass area
Schools		
Eshelman ES	2.7	
Lomita ES	2.4	
Fleming JHS	8.1	
Narbonne HS*	7.8	

* outside City
Source: City of Lomita General Plan, 1974.

The City of Lomita requires land dedication equivalent to 1.5 acres per 1,000 residents within a development of 50 parcels or more or an in-lieu fee equivalent to the land dedication cost for projects with less than 50 parcels.

Bikeways and Trails

A bike route (Class 1 bikeway) is a dedicated right-of-way for bicycles; typically fenced with access limited to designated points. A bike lane (Class 2 bikeway) is a restricted right-of-way for bicycles, often designated by a painted line and signs on the road. Vehicles only use this lane to make turns and to park. A bike route (Class 3 bikeway) is a vehicle travel lane on the roadway shared by bikes and motor vehicles and designated by signs only. This bikeway informs motorists of the preferred cycling route. A mountain bike trail is an off-road trail in rugged mountain terrain. This trail utilizes open, maintained fire roads. Mountain bike trails are used by bicyclists, hikers and equestrians. The regional bike trail through the Palos Verdes Peninsula runs through the southern section of Lomita at Palos Verdes Drive North. A bike route also runs along Pacific Coast Highway west of Lomita, but does not extend into the City. The bike lane on Lomita Boulevard runs from Hawthorne Boulevard to Crenshaw Boulevard, west of Lomita. Exhibit 4-6 shows the regional bikeway network in the City.

Adjacent Recreational Facilities

Aside from city parks and schools in Lomita, there are several nearby parks which are used by residents. These include the South Coast Botanical Garden at 26300 Crenshaw Boulevard, the Charles Wilson Community Park, the Madrona Marsh Nature Preserve, the Harbor Regional Park at Pacific Coast Highway and the SR-110 Freeway and other public parks in the surrounding areas. Facilities at nearby parks are listed in Table 5-5

Table 5-5
Regional Parks

Name	Size	Facilities
South Coast Botanical Garden	87 acres	Garden
Harbor Regional Park	230 acres	Lake, picnic areas, tot lot, open fields
Charles Wilson Park	42 acres	Pond, picnic areas, baseball diamond, open fields, tot lot, hockey rink, game courts
Madrona Marsh Nature Preserve	50 acres	Marshland and Sand dunes

Source: City of Lomita, 1998

Scenic Highways

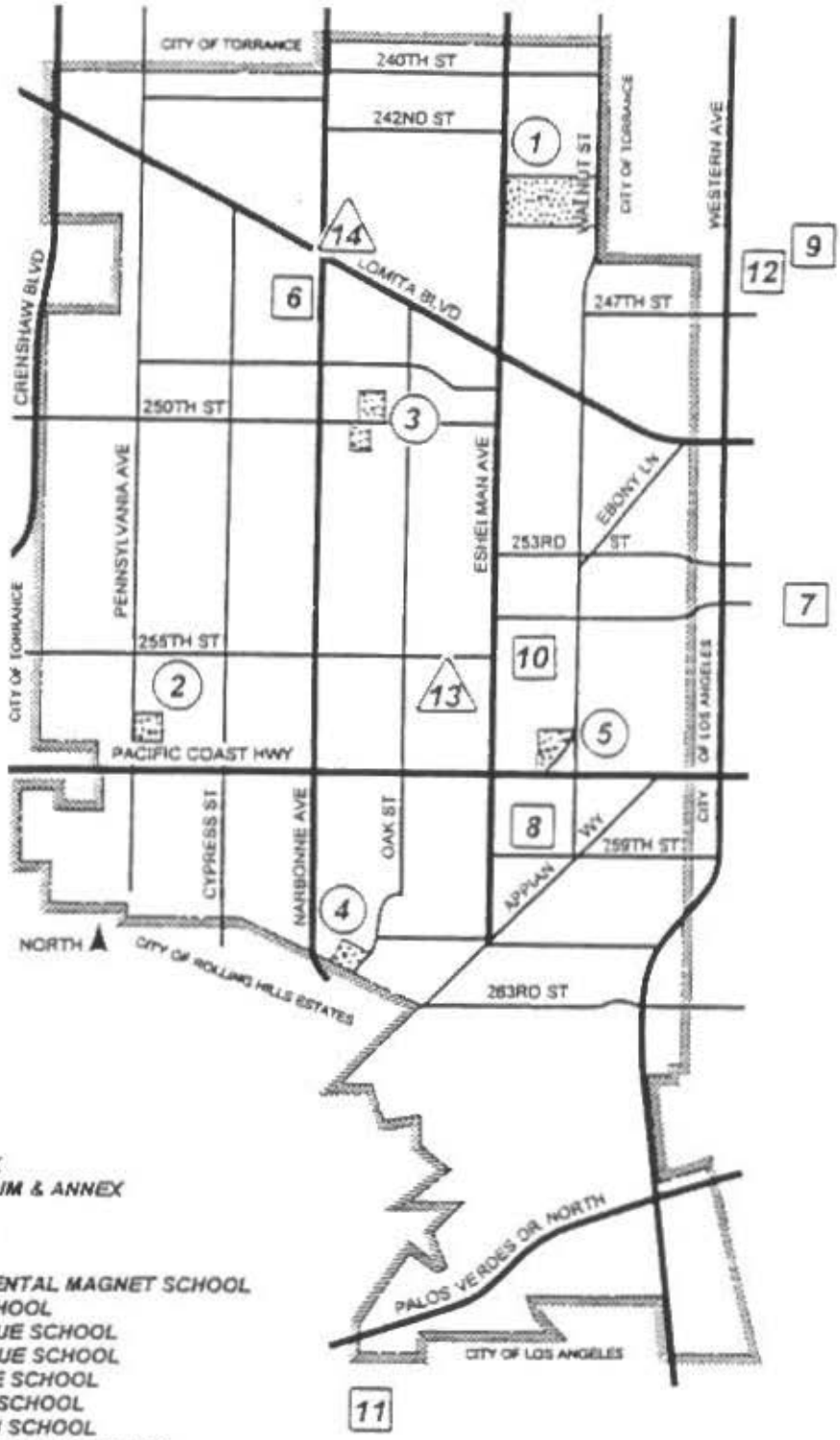
Pacific Coast Highway was formerly known as Wilmington and Redondo Road and is State Highway 1. Lomita Boulevard is a major highway, Western Avenue is a state highway and Eshelman and Narbonne Avenues are secondary highways. Crenshaw Boulevard is a major highway serving the Palos Verdes Peninsula. There are no state-designated scenic highways in Lomita or near the City.

The southern section of the City is located on the Palos Verdes Hills and offers potential scenic drives. The County of Los Angeles has designated Palos Verdes Drive North and Palos Verdes Drive East as second priority highways. The Palos Verdes Drive South and Palos Verdes Drive West are part of the Malibu to Long Beach scenic route under the County's system.

Palos Verdes Drive East, an extension of Narbonne Avenue south of Lomita, acts as an entrance to the Palos Verdes Drive South scenic highway but is not considered as a potential scenic highway. Palos Verdes Drive North adjacent and parallel to the City's southern boundary is not considered a scenic highway but serves as a gateway to the Peninsula Circle Scenic Corridor.

The City complements the scenic highways in the Peninsula by regulating land uses along this gateway system (Palos Verdes Drive North and Palos Verdes Drive East) through utility line under grounding, generous setbacks, and open space requirements along Narbonne Avenue and Palos Verdes Drive North. Also, outdoor advertising along these roadways are controlled.

The City's Zoning Ordinance regulates development on the residential lots south of Pacific Coast Highway through a height limit of 16 feet. Building heights or renovations that would exceed this limit are required to apply for a height variation permit to determine if the project will result in an obstruction of a significant view.



PARKS
1-LOMITA PARK
2-HATHAWAY PARK
3-RAILROAD MUSEUM & ANNEX
4-METRO PARK
5-VETERANS PARK

SCHOOLS
6-LOMITA FUNDAMENTAL MAGNET SCHOOL
7-HARBOR CITY SCHOOL
8-ESHELMAN AVENUE SCHOOL
9-PRESIDENT AVENUE SCHOOL
10-FLEMING MIDDLE SCHOOL
1-DODSON MIDDLE SCHOOL
12-NARBONNE HIGH SCHOOL
13-SAINT MARGARET MARY SCHOOL
14-CHABAD OF SOUTH BAY

EXHIBIT 5-5
PARKS IN THE CITY
Source: Blodgett/Baylosis Associates

Cultural Resources

Available geologic evidence shows that 15 million years ago, the Palos Verdes Peninsula and other low hills in the coastal plain were submerged beneath the Pacific Ocean. A rim of mountains progressively uplifted and through the years of geological uplift, erosion and deposition, the various hills emerged. During the process of repeated submersion and uplift, sediments of marine and land origin could be found at the same places. Incremental uplift of the land and continuous erosion by ocean waves created the present physiography of the coastal plain.

Marine fossils have been found 10 to 30 feet below the ground surface in the coastal plain. At the same time, fresh water fossils have also been found near Dominguez Creek. Other land mammals have been uncovered in scattered areas of the coastal plain. This indicates that there have been significant changes in water levels within the area near the San Pedro Bay, as well as large portions of the coastal plain. The City of Lomita and surrounding areas may have been submerged in water through different periods of time in the last million years. Sea shells were found at a ravine near the banks of Machado Lake, 1.5 miles southeast of Lomita, and date back 100,000 years. This provides further evidence that the area was once part of an ocean beach or tidal wetland.

The evolution of man in California can be traced back to the emigration from the Great Basin of the Shoshonean family, relatives of the Hopi Indians. The Shoshonean people began migrating to California about 500 B.C.. Gradually over a thousand years, these people began to form different tribes with unique political, social and religious practices.

San Pedro Bay is known to have been inhabited by the tribes of the Gabrieliño or Canaliño Indians. The Gabrieliños were peaceful Indians who lived as seafarers, fishermen and traders. They lived in circular huts constructed of tule or grass. Their political structure may be described as a limited monarchy. Families or clans lived together in a village and the village chief was the leader of the dominant clan. Religious and social practices were strictly observed.

Several indian villages are believed to have occupied the Los Angeles coastal plain. Most village sites were near to a supply of water and safe from winter floods. These villages are known as the Suangna (place of rushes), Masaungna (located near lake), Xuxungna, Kingkingna, Tsauvingna, Harasngna, Ataviangna, and Munikangna. An Indian village of the Suangna Indians existed as late as the 1850's in the Lomita area.

In 1784, the Palos Verdes and San Pedro areas became the 75,000 acre Rancho San Pedro, which was granted to Juan Jose Dominguez for army services rendered to Mexico. The Sepulvedas were allowed to graze livestock on the hilly areas in the early 1800's. The Sepulveda and Dominguez families fought over the land and in 1834, the property was divided with the Sepulvedas getting the Palos Verdes area and the Dominguez's getting the rest of the ranch (Rancho San Pedro).

With the drought from 1862 to 1864, delinquent taxes from ranch owners led to further partitioning of the land. By 1882, the City now occupied by Lomita was owned by Nathaniel Narbonne and Mr. Weston.

The City of Lomita looked like "little hills" from the Palos Verdes Hills and was thus, named the "Lomita" Subdivision by the W.I. Hollingsworth Company in 1907. Then, the Lomita Subdivision consisted of seven square miles of residential tracts. Lots sold for $200 per lot, with larger parcels costing $400 to $600 an acre. Four wells provided water service to the area. Streets were named from various states and trees and fruits. In 1908, a small school was constructed. A general store with a post office and other businesses soon followed. In 1909, churches were built and in 1920, the Bank of Lomita was formed. The City was then known as the Celery Capital of the World.

In 1923, oil was discovered while drilling for water and an oil boom in the area led to the conversion of 5,000 acres into oil drilling land. Lots originally valued at $330 to $400 sold for $35,000. Rapid growth occurred in Lomita with the boom and egg ranches, fruit orchards and agricultural uses formed the community. Lomita became the center for the surrounding agricultural and mineral extraction areas in the South Bay area.

Over time, portions of the Lomita Subdivision annexed to adjacent cities. After 57 annexations of 155 parcels on all sides of the Lomita Subdivision, by 1963, only 1.87 square miles of the original Lomita Subdivision remained. The Committee for Incorporation then formed a petition and in 1964, the residents voted for incorporation Lomita became the 76th City in the County. The City was a general law city with a Council-Adminstrator form of government. No property taxes were imposed and most of the services were contracted from the County of Los Angeles. The City annexed land to the southeast is now covers 1.97 square miles.

Paleontological Resources

Sedimentary rock units may be expected to produce fossils. These potential fossil-bearing formations include the Miocene-age Monterey or Repetto Formation (9 to 12 million years ago), Late Pliocene Fernando Formation (2.5 to 5 million years ago), Pleistocene Palos Verdes Sand and other surficial Quaternary sediments. The Monterey or Repetto Formation is comprised of marine sediments and is moderately fossil ferrous. Fossils of whales, fishes, dolphins, sea lions, and sea mammals have been found in this formation in the Torrance and Redondo Beach areas. The Topanga Formation which underlies the Monterey Formation is also known to produce the same fossils.

The Fernando Formation is a marine sedimentary deposit and is moderately fossil ferrous. Quaternary deposits have produced a variety of vertebrate fossils. Fossils of whales, birds, bisons, camels, sharks, bony fishes, horses and other marine and terrestrial vertebrates have been found in these deposits in the Torrance area.

The San Pedro Sandstone, which underlies most of Lomita, is regionally known to contain marine invertebrate and vertebrate fossils. Terrestrial and marine vertebrates and birds have been found in this formation in the Newport area.

Since the majority of the City is developed, it is unlikely that archaeological and paleontological resources have remained undisturbed in Lomita. Although, future redevelopment activities may lead to more extensive excavation which could lead to the discovery of paleontological resources in Lomita.

Archaeological Resources

Records from UCLA's Archaeological Information Center show that there are numerous prehistoric sites near Lomita. Table 5.6 lists important sites and site surveys undertaken near Lomita. Information on other investigations are unavailable, thus, have been left out of the table.

The prehistoric sites near Lomita contain a variety of artifacts such as leaf-shaped point, crude leaf-shaped biface, flaked artifacts, mortar fragment, pestle fragment with pitted grooves and asphaltum, biface fragments, metate fragments, chert cores, hammer stones, abalone shell with ground respiratory holes, and broken base of lanceolate shaped point.

Some sites are believed to have once been the site of an Indian village and burial ground covering several acres. A large number of mortars, pestles, points, metates, mano stones, chipping waste, fragments of human bones, olivella beads, sandstone bowls, and cog stones were unearthed during excavation and mining activities. Construction in the surrounding areas may have disturbed the burial grounds and artifacts.

Historic Resources

There are no historic sites or structures in the City of Lomita which have been designated in the National Register of Historic Places or the California Historical Landmarks List. The City of Lomita has one locally historic structure: the Lomita Railroad Museum.

The Lomita Museum, formerly known as the Martin Lewis Railroad Museum, is located at 2135 250th Street at Woodward Avenue. This museum was donated by Mrs. Irene Lewis in memory of her late husband and the museum contains a replica of a turn of the century railroad station and an old steam engine, tender and caboose. Miniature steam locomotives made by Mrs. Lewis' company (Little Engines) are also on display.

Structures of potential significance include Lomita Elementary School (administration building), the Old Fire House, and a number of older commercial buildings in the downtown area. In addition, a number of structures in the City are more than 50 years old and may be historically significant. These include older residential and commercial

structures throughout the City. The Office of Historic Preservation maintains a listing of potential historic structures in its Historic Property Data File.

Table 5-6
Archaeological Surveys

Site Name and Address	Acres	Archaeological Site
Harbor Lake Restoration Projec Area, LA County	13	CA-LAN-119, LAN-120, LAN-123, LAN-124, LAN-125, LAN-126, LAN-151
Knoll Hill Development	–	isolates
Shell Oil Inter-Refinery Pipelines Project, Carson	4	CA-LAN-98
Chandler Quarry	–	CA-LAN 110, Indian burial ground
Stabilization Unit 91, LA Refinery, Wilmington	3	CA-LAN-2135H
Redistillation & Topping Plant, Unocal Unit No. 67, Wilmington	–	CA-LAN-2135H
Wilmington, City of LA	–	CA-LAN-2208/H
U.S. Navy Fuel Depot	30	F, CA-LAN-118
Community of Wilmington (Torrance Quad), City of LA	5	CA-LAN-2208/H
Wilmington, City of LA	3	CA-LAN-2208/H
Joint Water Pollution Control Plant, Los Angeles County	150	None
2460 Frampton, Harbor City	2	None
Stonewood Gardens Urban West Dev't, San Pedro	130	Paleontologic sites
1041-1043 W 252nd Street, Harbor City	–	None
Tent. Tract #25210, LA City	35	CA-LAN-774, LAN-775
Tent. Tract #32596,San Pedro	24	CA-LAN-286
NE Corner of Channel St & Park Western Dr, San Pedro	–	CA-LAN-284
Rolling Hills Country Club, Montecillo area, Palos Verdes Reservoir	–	Indian village
Hyperion Water Pollution Control Facilities, LA County	150	CA-ORA-761, ORA-762, ORA-244b
Joint Water Pollution Control Plan Expansion, Wilmington	–	None
Suang-Na Village Park	50	isolated flakes
Proposed Container Terminal, Berths 121-126, Port of LA	–	CA-LAN-149, LAN-150, LAN-285 (destroyed)
Rolling Hills Estates Park	–	Shell midden, stone artifacts
Two Areas, Port of LA	170	None
Tent. Tract #30490	2	
Lot 12, Blk 127, Tract #3555	5	None
Gaffey Street Project Site, LA	15	CA-LAN-118
Two Naval Family Housing Sites, U.S. Naval Station at Long Beach	73	Isolated Historic Material (Pre 1914)

Source: UCLA Archaeology Information Center, 1997