

Appendices



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Appendix A, SF-1 Relationship among Elements and Issues

Element or Topic	Land Use and Community Planning	Mobility	Urban Design	Economic Prosperity	Public Facilities, Services, and Safety	Recreation	Conservation	Historic Preservation	Noise	Housing ¹
<i>Mandatory Elements</i>										
Land Use	X		X	X						
Circulation		X			X					
Housing										X
Conservation							X	X		
Open Space						X	X			
Noise									X	
Safety					X					
<i>Optional Elements/Topics²</i>										
Community Planning	X									
Coastal Resources	X						X			
Environmental Justice	X									
Urban Design			X							
Transit Oriented Development	X	X	X							
Public Facilities					X					
Emergency Services					X					
Water					X		X			
Parks						X				
Sustainable Development							X			
Airports	X	X							X	
Prime Industrial Land	X			X						
Bio Diversity							X			
Cultural Resources								X		

1 The Housing Element is under a separate cover.

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Appendix A, SF-2 Strategic Framework Element Core Values

The following core values were developed with the guidance of the Strategic Framework Citizen Committee and through a multi-year dialogue with San Diegans in numerous community forums. They fall into three categories: our physical environment, our economy, our culture and society.

Our Physical Environment

We value:

- The natural environment.
- The City's extraordinary setting, defined by its open spaces, natural habitat and unique topography.
- A future that meets today's needs without compromising the ability of future generations to meet their needs.
- The conservation, preservation, and environmental quality of natural resources.
- Parks and public spaces, accessible by foot, transit, bicycle, and car, as areas for neighborhood, community and regional interaction and convenient recreation.
- The availability of public facilities, infrastructure, transit, information infrastructure, and services as essential to neighborhood quality and as necessary companions to density increases.
- A compact, efficient, and environmentally sensitive pattern of development.
- Walkable communities with tree-lined streets.
- A convenient, efficient, aesthetically pleasing, and multi-modal transportation system.

Our Economy

We value:

- The health, economic prosperity, and well-being of our citizens.
- A diverse economy to achieve a rising standard of living for all San Diegans.
- Mutually beneficial cultural and economic ties with Mexico and our neighbors in Latin America.
- Regional coordination to resolve regional growth issues, and regional collaboration to meet economic prosperity goals.



Our Culture and Society

We value:

- Social equity.
- Safe and secure neighborhoods.
- The physical, social and cultural diversity of our city and its neighborhoods.
- Housing affordability throughout the City and an overall diversity of housing types and costs.
- Schools as an integral part of our neighborhoods and equitable access to quality educational institutions.
- The City's multiplicity of arts, cultural, and historical assets.

Foundation for Planning

Federal and State Planning Laws

The following is a summary of state and federal laws that also influence development of local planning policies found in the City's General Plan.

Species Conservation

The Endangered Species Act of 1973 was enacted by the U.S. Senate and House of Representatives to provide for the conservation and protection of endangered and threatened species of fish, wildlife, plants, and their habitat. Subsequent to this enactment, the California Endangered Species Act was ratified, which generally parallels the main provisions of the federal act. Based on principles from both laws and the California Natural Community Conservation Planning Act, the Multiple Species Conservation Program (MSCP) was developed at the local level. It is a comprehensive, long-term habitat conservation planning program that covers approximately 900 square miles (582,243 acres) in southwestern San Diego County. It was developed cooperatively by participating jurisdictions/special districts in partnership with federal/state wildlife agencies, property owners, and representatives of the development industry and environmental groups.

Water Quality

The Clean Water Act, formerly known as the Federal Water Pollution Control Act of 1972, is intended to protect water quality. The Regional Water Quality Control Board (RWQCB) implements sections of the Clean Water Act and state laws through programs to prevent, reduce, or eliminate ground and surface water contamination. The RWQCB requires point source dischargers to obtain waste discharge permits. Under this permit, the City was



required to develop a Storm Water Pollution Prevention Program (SWPPP) which specifies year-round storm drain monitoring, pollution elimination programs, code compliance, reporting to the RWQCB, and public education.

Air Quality

The primary objective of the Clean Air Act is to establish federal standards for various pollutants from both stationary and mobile sources, and to provide for the regulation of polluting emissions via state implementation plans. The act stipulates requirements to prevent significant deterioration of air quality where air quality exceeds national standards, and to provide for improved air quality in areas which do not meet Federal standards. The General Plan's Mobility Element and Conservation Element contain policies designed to reduce greenhouse gas emissions as well as pollution resulting from motor vehicles.

Housing

State law requires preparation of a Housing Element every five years to set forth housing policies and to assess how successful the City has been in meeting the goals and objectives of the previous Housing Element. A key requirement is that the City show how many units of housing could potentially be developed on land that is zoned and designated for housing, and that is currently vacant or underdeveloped, during the element's five year period.

Redevelopment

Under the California Community Redevelopment Law (CRL), redevelopment is a tool created by state law to assist local governments in eliminating blight from a designated area, where blight consists of the physical and economic conditions within an area that cause a reduction of, or lack of, proper utilization of that area. Redevelopment can also assist with aspects of development, reconstruction and rehabilitation of residential, commercial, industrial and retail districts. Specific redevelopment related policies are found under the Economic Prosperity Element, and these policies are intended to help the City revitalize underutilized areas.

Airport Land Use Planning

State law's purpose regarding airport land use planning is to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports, to the extent that these areas are not already devoted to incompatible uses. Airport land use compatibility issues are further addressed under the Land Use and Community Planning Element to meet the purpose and intent of the law.

Coastal Resources



The California Legislature adopted the California Coastal Act (Coastal Act) in 1976 to “protect, maintain, and, where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources (Public Resources Code Section 30001.5) for the benefit of current and future residents and visitors.” The law applies to property within the Coastal Zone as delineated on a set of maps adopted by the legislature. The law establishes the Coastal Commission to regulate development in portions of the Coastal Zone and to work in partnership with local government, specifically 15 coastal counties and 58 cities, of which the City of San Diego is one, to manage the conservation and development of coastal resources through comprehensive planning and regulatory programs, and Local Coastal Programs (LCPs). An LCP is the Coastal Act term referring to certified land use plans and implementing ordinances.

In the City, Coastal Act policies are integrated into each of the community plans, as they are updated, to govern the land uses within the coastal zone and to provide protection to coastal resources as further specified under Chapter 3 of the Coastal Act. This is true of community plan areas located either wholly or partially within the coastal zone. Coastal resource policies are further addressed under the Land Use and Community Planning Element and the Conservation Element to meet the purpose and intent of the Coastal Act.

Annexations

A “Sphere of Influence” which is used to determine the most logical and efficient future boundaries for cities, is the physical boundary and service area that a city is expected to serve. The City of San Diego’s Sphere of Influence is to a large extent co-terminus with its jurisdictional boundaries.

Under the authority of the state, the Local Agency Formation Commission (LAFCO) reviews and approves jurisdictional boundary changes in order to ensure orderly development and efficient provision of urban services by a city or a special district for the benefit of area residents and property owners. The expansion of City boundaries can help discourage urban sprawl by providing organized and planned growth, the efficient delivery of urban services, such as police, fire, water and sanitation, and the preservation of open space. By discouraging sprawl, the City can limit the misuse of land resources and promote a more cost-efficient delivery of urban services.

The City will consider areas for annexation upon initiation by either the landowner or the City prior to initiating a request for LAFCO review and approval for sphere of influence amendment and annexation. Additionally, from time to time, the City in partnership with an adjacent city may determine that services could be provided more efficiently by the adjacent city to areas just inside our boundaries or more efficiently by the City to areas outside our boundaries. In those cases, there may be consideration of jurisdictional boundary adjustments after appropriate land use, fiscal and economic analyses are prepared. Annexation policies are further addressed under the Land Use and Community



Planning Element.



Appendix A, SF-3

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Appendix B, LU-1

Village Climate Goal Propensity Map Methodology

Introduction

The goal of this General Plan Refresh is to develop a data-driven planning process for the City of San Diego to maximize weekday daily alternative transport mode use (walk, micro-mobility, and transit). The final output map from this process highlights the receptive areas in the City of San Diego where future housing and retail development are recommended through the forecasting year of 2050.

The main benefit of this simplified planning process compared to traditional scenario planning based on the SANDAG travel demand model is the time savings of running the entire model in addition to the revisions required from SANDAG Service Bureau. Furthermore, scenario planning itself needs good thought and trial process to suggest reasonable scenarios for testing with the model and it is not guaranteed that the suggested scenarios contain the best possible scenario either. This methodology explains the developed data-driven planning process for the City of San Diego and includes three main steps of model estimation, application, and visualization. The last section explains the technical requirement to run the entire process.

Model Estimation

The input data for this project comes from various sources from the SANDAG 2021 Regional Plan including the SANDAG regional travel demand model inputs and outputs, Transit Priority Area (TPA) planned stops, and dwelling, retail, and mixed-use densities. The unit of analysis in this project is the SANDAG defined Master Geographic Reference Area (MGRA) which is the smallest zoning system of the SANDAG's travel demand model (ABM2+). The model has been estimated for the ABM2+ base year of 2016. The dependent variable of the model, which comes from the SANDAG ABM2+, is the share of trips at each MGRA that use alternative transport modes (non-auto modes including transit, walk, bike, and micro-mobility devices) called "non-auto propensity".

The variables that became significant in explaining non-auto propensity at each MGRA were dwelling unit density, retail employment density, mixed-use density, the competitiveness of transit services for work commute travel, closeness to TPA high-quality transit stops, and household vehicle ownership. The estimated coefficients for all the variables have positive signs except for vehicle ownership. In other words, increasing dwelling, retail, and mixed-use density will increase non-auto propensity while having a higher rate of average vehicle ownership decreases the non-auto propensity. The model goodness of fit was high at 0.72 and the least square linear regression has been used for model estimation.



Model Application

The estimated model has been used in the model application step to maximize non-auto propensity and predict the most receptive locations to add residential units and retail development. In the residential and retail optimization step, a ranking score was given to each MGRA based on optimizing non-auto propensity in the estimated model. This ranking score was then aggregated with transit and mixed-use score to calculate the final prioritization score of MGRA for future residential and retail developments. The transit score was based on transit accessibility to job locations out of SANDAG ABM2+ as well as closeness to TPA Major Transit Stops (with higher weights for rail and BRT stops). The mixed-use score is calculated based on the following formula:

$$\text{Mix Score} = \frac{\text{Intersections} * (\text{DU Density} * F1) * (\text{Retail Employment Density} * F2)}{\text{Intersections} + (\text{DU Density} * F1) + (\text{Retail Employment Density} * F2)}$$

Where: $F1 = \text{Mean Intersections} / \text{Mean DU Density}$

$$F2 = \text{Mean Intersections} / \text{Mean Retail Employment Density}$$

Intersection Count in the mixed-density formulation explains urban form and walkability. The final combined prioritization score divided the MGRAs into 14 levels with a higher score indicating higher priority for future developments.

Locations where the City of San Diego does not control development or is not considering development during the Blueprint process, have been excluded from the model applications. These exclusion zones include Port of SD, airports and safety zone exclusions, cemeteries, military establishments, attractions, hiking trails, golf courses, conservation/non-development land, schools and universities, large medical facilities, government/public land, federal land, parks, and industrial establishments.

Visualization

While the scores were calculated at the MGRA level, the optimization results were mapped in a heatmap format using the Inverse Weighted Distance function in ArcGIS to enhance the visualization. The heatmap generation process considers the exclusion zones but the blending of values often shades them as a low score.

The final combined prioritization scores (14 levels) of MGRAs are visualized in figure 1. Level 1 to 3 are color-coded in yellow presenting the areas with very low recommendation for future developments. Starting from level 4 to level 6 where the green color pops up, the map highlights the areas with low-medium priority for developments. Levels 7 to 9, color-coded in blue, highlights areas with medium priority for development considering all the interacting factors. At level 10 (dark purple) to level 14 (light purple), the areas with the



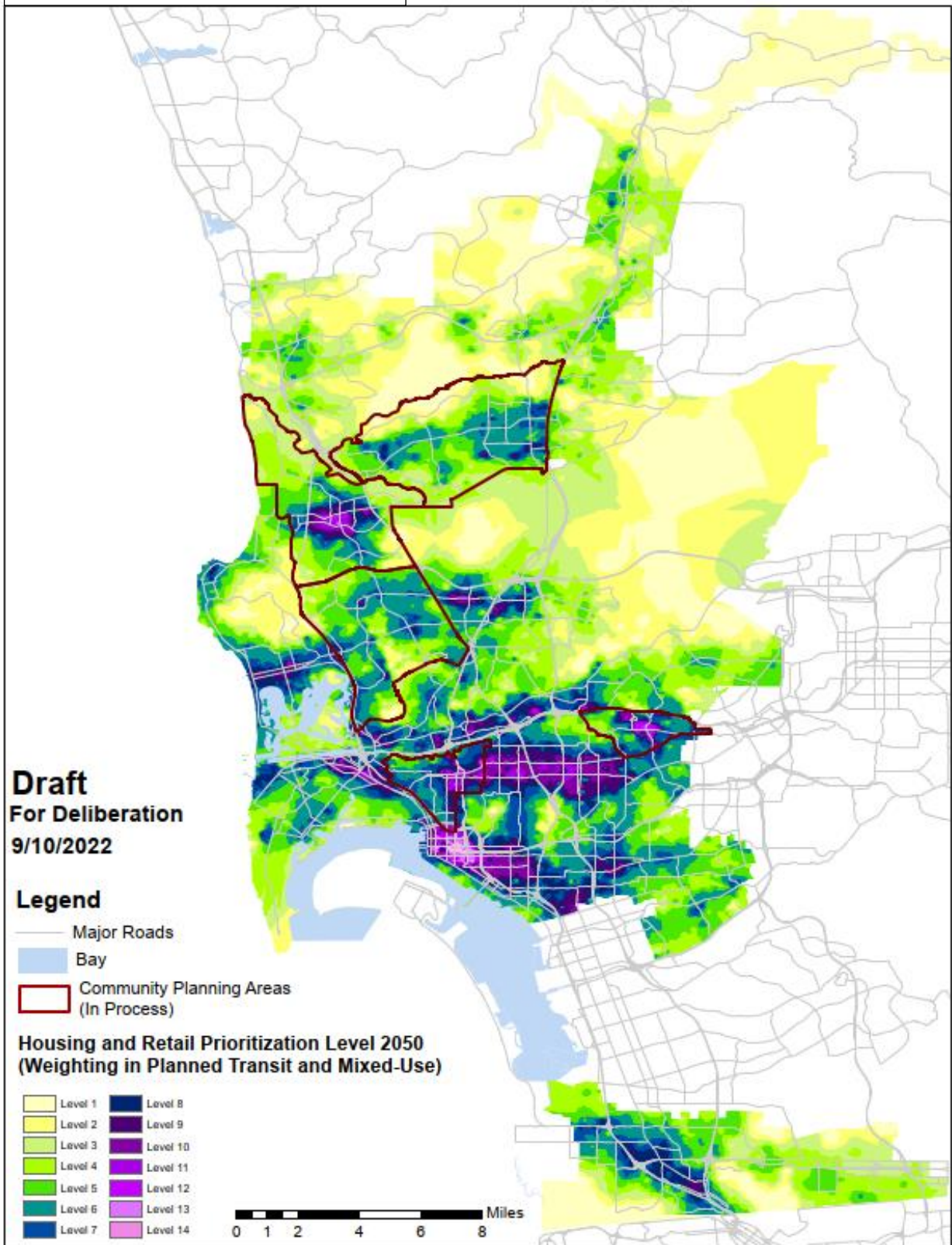
highest receptiveness for future developments to maximize non-auto propensity are illustrated. Areas with existing or predicted transit accessibility, mixed-use development, and walkability are very well highlighted with higher ranks in the map and future developments in these areas have the higher potential to maximize the use of alternative transportation modes and contribute to sustainability goal of the Blueprint plan.

Technical Requirements to Run the Blueprint Process

The model estimation and application steps have all been scripted in Python using Jupyter Notebook and stored in a GitHub repository. The script reads the ABM2+ outputs shared by SANDAG, implements some data cleaning and compilation steps to prepare the estimation and application variables into a feather file and then estimate the model. Using the same python scripting system, the model application step produces the optimized scores. Some input data, such as transit and mixed-use variables, have been calculate in QGIS and ArcGIS and imported into the Python script. The final map visualization (heat map) has been prepared in ArcGIS using their Spatial Analyst extension.



Figure 1: Draft Blueprint Map



Blueprint Draft Map (produced by WSP)



The Village Propensity map shows existing areas throughout the City that already exhibit village characteristics and areas that may have a propensity to develop as village areas in the future. These village characteristics include land uses features such as parks, fire stations, multifamily, mixed-use, commercial uses, and transportation features such as high frequency transit routes and stations/stops.

Over 20 types of land use and transportation features were incorporated into the model that was used to create the map. The color range shown on the map represents the degree of concentration of the village characteristics. Red represents the highest concentration or degree of village characteristics based, and blue represents the lowest concentration.

The village propensity model used a Geographic Information Systems (GIS) grid cell analysis to measure village potential throughout the City based on the identified features. The model was based on land use and transportation features that are likely to encourage and support walking or the use of transit as a primary transportation option since both are significant factors in the City's land use and mobility strategy. A key function of the model was its ability to analyze the distance between features, which enabled the model to determine where features reach a point of critical concentration. As part of the analysis, the features such as existing and planned land uses were converted to grid cells. Converting geographic location of the features to cells allowed each cell to be assigned its own unique numeric value. The value for each cell is based on the level of importance or weighting of the feature to encourage and support walking or the use of transit and the distance that particular cell is from the features.

Since distance is an important factor in encouraging or supporting pedestrian activity and transit use, the model also evaluated the distance of each feature from the other features. Cell values were weighted based on the distance of the cells from the feature, or its influence area. Cells that were within an influence area of 1/8 mile received a higher weight than cells that were within 1/4 mile of a characteristic.



Features

The following is a list of the features with weighting values used in the model:

**Appendix B, LU-1 TABLE 1
Village Propensity Model Features**

Features	Weight	Area of Influence	Multiplication Factor	Total Score*
<u>Transit Stations / Centers</u>	5	1/4 mile	x1	5
		1/8 mile	x2	10
<u>Transit Routes (15 minutes or less service)</u>	4	1/4 mile	x1	4
		1/8 mile	x2	8
<u>Elementary Schools (Public and Private)</u>	3	1/4 mile	x1	3
		1/8 mile	x2	6
<u>Middle Schools</u>	2	1/4 mile	x1	2
		1/8 mile	x2	4
<u>Universities and Colleges</u>	2	1/4 mile	x1	2
		1/8 mile	x2	4
<u>Institutional Facilities</u>	2	1/4 mile	x1	2
		1/8 mile	x2	4
<u>Parks</u>	1	1/4 mile	x1	1
		1/8 mile	x2	2
<u>High Schools</u>	1	1/4 mile	x1	1
		1/8 mile	x2	2
<u>Multifamily Residential</u> 11-15 Units per Acre	1	1/4 mile	x1	1
		1/8 mile	x2	2
16-30 Units per Acre	2	1/4 mile	x1	2
		1/8 mile	x2	4
31-45 Units per Acre	3	1/4 mile	x1	3
		1/8 mile	x2	6



~~Appendix B, LU-1 TABLE 1~~
~~Village Propensity Model Features (continued)~~

Features	Weight	Area of Influence	Multiplication Factor	Total Score*
46-75 Units per Acre	4	1/4 mile	x1	4
		1/8 mile	x2	8
76-110 Units per Acre	5	1/4 mile	x1	5
		1/8 mile	x2	10
<u>Mixed-Use</u>				
11-15 Units per Acre	3	1/4 mile	x1	3
		1/8 mile	x2	6
16-30 Units per Acre	4	1/4 mile	x1	4
		1/8 mile	x2	8
31-45 Units per Acre	5	1/4 mile	x1	5
		1/8 mile	x2	10
46-75 Units per Acre	6	1/4 mile	x1	6
		1/8 mile	x2	12
76-110 Units per Acre	7	1/4 mile	x1	7
		1/8 mile	x2	14
<u>Downtown Mixed-Use/Residential</u>	8	1/4 mile	x1	8
		1/8 mile	x2	16
<u>Downtown Non-Residential</u>				
<u>Employment Emphasis Areas</u>	4	1/4 mile	x1	4
		1/8 mile	x2	8
<u>Visitor Related</u>	4	1/4 mile	x1	4
		1/8 mile	x2	8
<u>Hotel</u>				
<u>Hotel/Motel – Low Rise</u>	2	1/4 mile	x1	2
		1/8 mile	x2	4



Appendix B, LU-1 TABLE 1
Village Propensity Model Features (continued)

Features	Weight	Area-of Influence	Multiplication Factor	Total Score*
<u>Hotel/Motel – High Rise</u>	3			
		1/4 mile	x1	3
		1/8 mile	x2	6
Industrial				
<u>Heavy Industry, Warehouse</u>	1			
		1/4 mile	x1	1
		1/8 mile	x2	2
<u>Industrial Park, Light Industry</u>	2			
		1/4 mile	x1	2
		1/8 mile	x2	4
Office				
<u>Office – Low Rise, High Rise, Government</u>	3			
		1/4 mile	x1	3
		1/8 mile	x2	6
Retail				
<u>Regional, Specialty</u>	2			
		1/4 mile	x1	2
		1/8 mile	x2	4
<u>Community & Neighborhood</u>	3			
		1/4 mile	x1	3
		1/8 mile	x2	6

*Total Score = Weight x Multiplication Factor

Results

The model displayed geographically dispersed areas of potential high village propensity, or “hot spots,” throughout the City. The grid cells on the composite map represent the total value of all the individual layer grid cell values. Areas with the highest value, which are shown as red illustrate the “hot spots” for existing and planned areas that have, or could have, a propensity for village like characteristics. For example, an area within 1/8 mile radius that had planned multifamily residential near neighbor-serving retail and a park served by high-frequency transit would be shown as an area with a high propensity for village-like characteristics based on its concentration of village characteristics or features.



Overview of the Model Process

The following is a basic overview of the model process:

- The City was overlaid with a grid containing individual cells (75 by 75 feet).
- Each feature was mapped on the grid with concentric circles representing distance from each factor, referred to as an influence area (1/8-mile and 1/4-mile).
- Each cell that was intersected by an influence area received value based the value of the feature and on its distance from the characteristic.
- A series of grid maps was created for each feature using this same approach.
- A composite map of all the individual grid maps was created.
- The numeric values for each cell in the composite map represent the sum of the corresponding cells from the individual grid maps.
- Color values were assigned to the numeric values for each cell. (red—high values to blue—low values)

Areas that have planned single family residential, open space, and recreation, military, airports, prime industrial, and port tideland uses were not included.

The Village Propensity model was designed as an objective method of conceptually illustrating areas that have village characteristics. Actual village locations will be designated in community plans with the input from recognized community planning groups and the use of location-based criteria established under the policies section. Community plans will also house site-specific design guidelines to ensure the successful implementation of each site. Many community plans already identify sites suitable for mixed-use and provide extensive design and development policy guidance for development of those sites.

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Appendix B, LU-2

Community Plan Land and General Plan Land Use Designations

General Plan Land Use	Recommended Community Plan Designations	<u>Previous Existing</u> (2006) Community Plan Designations		
Park, Open Space and Recreation	<ul style="list-style-type: none"> • Open Space • Population-based Park • Natural Resource-based Park • Private/ Commercial Recreation 	<ul style="list-style-type: none"> • Active/Passive Park • Active Use Parks • Amenity Open Space • City-owned Open Space • Community Open Space • Community Park • Dedicated Park Lands • Equestrian /Recreation • Existing Commercial Recreation • Golf Course • Historic Park • MHPA 	<ul style="list-style-type: none"> • Mini-Park • Neighborhood/ Community Park • Neighborhood Park • Park • Park Institutional Park/Open Space • Parks and Pool • Private Commercial Recreation • Private Recreation • Public Park • Public Recreation 	<ul style="list-style-type: none"> • Recreational • Recreation Center • Recreation Commercial • Regional Park • School/Park • School Playground • School Recreation • Skate Park • Sport Complex • Sports Field • State Park • Village Green • Zoological Park
Agriculture	<ul style="list-style-type: none"> • Agriculture 	<ul style="list-style-type: none"> • Agriculture 	<ul style="list-style-type: none"> • Other Community Open Space/ Agriculture 	
Residential	<ul style="list-style-type: none"> • Residential -- Low <u>1Very Low</u> • Residential -- Low <u>2</u> • Residential -- Low <u>3Medium</u> • Residential -- Low <u>4Medium</u> • Residential -- Medium <u>1-High</u> • Residential -- Medium <u>2High</u> • Residential -- Medium <u>3Very High</u> • Residential -- Medium <u>4</u> • Residential -- High <u>1</u> • Residential -- High <u>2</u> 	<ul style="list-style-type: none"> • Cluster • Core Residential • Detached Residential • Duplex • Estate Residential • Exclusively Residential • Fraternity Area 	<ul style="list-style-type: none"> • Garden Low • High Residential • Higher Density Attached • Low-Medium Residential • Low Residential • Lower Density Attached • Medium-High Residential 	<ul style="list-style-type: none"> • Medium Residential • <u>Medium High Residential</u> • Mobile Home • Mobile Home Park • Moderate Income • Navy Housing • <u>Very Low Residential</u> • Very High Residential



	<ul style="list-style-type: none">• Residential - High 3• Residential - High 4			
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Appendix B, LU-2 Community Plan Land and General Plan Land Use Designations (continued)

General Plan Land Use	Recommended Community Plan Designations	<u>PreviousExisting</u> (2006) Community Plan Designations		
Commercial Employment, Retail, and Services	<ul style="list-style-type: none"> • Neighborhood Commercial • Community Commercial • Regional Commercial • Office Commercial • Visitor Commercial • Heavy Commercial 	<ul style="list-style-type: none"> • Border Commercial • Business Commercial • Commercial • Commercial Development • Commercial Fishing/Marine Related • Commercial Industrial • Commercial Limited • Commercial Recreation • Community Commercial • Community Shopping • Core Commercial • General Commercial 	<ul style="list-style-type: none"> • General Commercial w/Residential • General Commercial w/Limited Light Manufacturing • Hotel/Office • Hotel/Residential • Medical Offices – Hospital Related • Navy Commercial • Neighborhood Shopping • Neighborhood Commercial • Office Commercial • Professional Office 	<ul style="list-style-type: none"> • Regional Commercial • Resort Commercial • Resort Recreation • Specialized Commercial • Specialty Commercial • Student Oriented Commercial • Support Commercial • Tourist Commercial • Town Center • Transportation Commercial • Visitor Commercial
Industrial Employment	<ul style="list-style-type: none"> • Business Park • Business Park - Residential Permitted • Scientific Research • Light Industrial • Heavy Industrial 	<ul style="list-style-type: none"> • Business/ Industrial Park • Employment Center • Employment Center/Transit Center • Exclusively Industrial • Extractive Industry • General Industrial • Industrial 	<ul style="list-style-type: none"> • Industrial and Business Park • Industrial Business Park • Industrial: Natural Resources • Industrial Park • Industrial Parking • Light Industry • Light Industry Commercial Use 	<ul style="list-style-type: none"> • Light Manufacturing • Military Related Industry • Restricted Industrial • Sand and Gravel Open Space • Scientific Research • Storage



Appendix B, LU-2 Community Plan Land and General Plan Land Use Designations (continued)

General Plan Land Use	Recommended Community Plan Designations	Previous Existing (2006) Community Plan Designations		
Institutional and Public and Semi-Public Facilities	<ul style="list-style-type: none"> • Institutional (specific use to be denoted with an icon in community plan) 	<ul style="list-style-type: none"> • Airport • Cemetery • Civic • Community Centers • Community Facilities • County Facility • Cultural Center • Education/Institutional • Government Service 	<ul style="list-style-type: none"> • Hospital • Institutional/Utilities • Library • Military • Mission and School • Mixed Public Use • Multi-Use School Site • Neighborhood Facility 	<ul style="list-style-type: none"> • Police Station • Post Office • Public Facilities • Public/Quasi Public Use • Schools (Elementary, Junior, High) • Transit Center • Transportation Use • University Campus • Utilities
Multiple Use	<ul style="list-style-type: none"> • No recommended designation; see community plan for use recommendations • Urban Village • Community Village • Neighborhood Village 	<ul style="list-style-type: none"> • Commercial • Commercial/ Mixed-Use • Commercial/ PDO • Commercial/ Residential • Commercial/ Residential/Industrial • Core/Retail • Gaslamp Quarter 	<ul style="list-style-type: none"> • Hotel/Office • Hotel/Residential • Institutional • Light Industry/ Commercial • Local Mixed-use • Marina • Mixed-Use • Mixed-Use Core 	<ul style="list-style-type: none"> • Multiple Use • Office • Recreation Visitor/Marine • Residential/Office • Very-High Commercial • Village • Visitor Commercial

Appendix B, LU-2
Community Plan Land and General Plan Land Use Designations -

<u>Residential Density</u>	<u>2024 Residential Land Use Designations</u>	<u>2008 Previous Residential Land Use Designations</u>
<u>0-4 DU / AC</u>	<u>Residential – Low 1</u>	<u>Residential – Very-Low</u>
<u>5-9 DU / AC</u>	<u>Residential – Low 2</u>	<u>Residential – Low</u>
<u>10-14 DU / AC</u>	<u>Residential – Low 3</u>	<u>Residential – Low-Medium</u>
<u>15-29 DU / AC</u>	<u>Residential – Low 4</u>	<u>Residential – Medium</u>
<u>30-44 DU / AC</u>	<u>Residential – Medium 1</u>	<u>Residential – Medium-High</u>
<u>45-54 DU / AC</u>	<u>Residential – Medium 2</u>	<u>Residential – High</u>
<u>55-73 DU / AC</u>	<u>Residential – Medium 3</u>	<u>Residential – Very High</u>
<u>74-109 DU / AC</u>	<u>Residential – Medium 4</u>	<u>N/A</u>
<u>110-145 DU / AC</u>	<u>Residential – High 1</u>	<u>N/A</u>
<u>146-218 DU / AC</u>	<u>Residential – High 2</u>	<u>N/A</u>
<u>219-290 DU / AC</u>	<u>Residential – High 3</u>	<u>N/A</u>
<u>290+ DU / AC</u>	<u>Residential – High 4</u>	<u>N/A</u>

Residential Designations Crosswalk (2008 to 2024)

The Residential Designations Crosswalk should be used as a guide to determine the appropriate or corresponding residential land use designation between community plans updated between the 2008 General Plan Update and the 2024 General Plan Refresh.



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Appendix B, LU-3

Proposition A – The Managed Growth Initiative (1985)

Section 1. “No property shall be changed from the ‘future urbanizing’ land use designation in the Progress Guide and General Plan to any other land use designation, and the provisions restricting development in the Future Urbanizing Area shall not be amended except by majority vote of the people voting on the change or amendment at a citywide election thereon.”

Section 2. Definitions. “For purposes of this initiative measure, the following words and phrases shall have the following meanings:”

- a. “Progress Guide and General Plan shall mean the Progress Guide and General Plan of the City of San Diego, including text and maps, as the same existed on August 1, 1984.”
- b. “Change in Designation” or change from “Future Urbanizing” shall mean the removal of any area of land from the future urbanizing designation.
- c. “Amendment” or “amended” as used in Section 1 shall mean any proposal to amend the text or maps of the Progress Guide and General Plan affecting the future urbanizing designation as the same existed in the Progress Guide and General Plan on August 1, 1984, or the land subject to said designation on August 1, 1984, except amendments which are neutral or make the designation more restrictive in terms of permitting development.”

Section 3. Implementation. “The City Council, City Planning Commission, and City staff are hereby directed to take any and all actions necessary under this initiative measure, including but not limited to adoption and implementation on any amendments to the General Plan and zoning ordinance or citywide, reasonably necessary to carry out the intent and purpose of this initiative measure. Said actions shall be carried forthwith.”

Section 4. Guidelines. “The City Council may adopt reasonable guidelines to implement this initiative measure following notice and public hearing, provided that any such guidelines shall be consistent with the intent and purpose of this measure.”

Section 5. Exemptions for Certain Projects. “This measure shall not prevent completion of any project as to which a building permit has been issued pursuant to Section 91.04.03(a) of the San Diego Municipal Code prior to the effective date of this measure; provided, however, that the project shall cease to be exempt from the provisions of Section 91.02.0303(d) of the San Diego Municipal Code or if the said permit is suspended or revoked pursuant to Section 91.02.0303(e) of the San Diego Municipal Code.”

Section 6. Amendment of Repeal. “This measure may be amended or repealed only by a



majority of the voters voting at an election thereon.”

Section 7. Severability. “If any section, subsection, sentence, phrase, clause, or portion of this initiative is for any reason held to be invalid or unconstitutional by any Court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this initiative and each section, subsection, sentence, clause, phrase, part or portion thereof would have been adopted or passed irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases, parts of portions be declared invalid or unconstitutional.”



Appendix C, EP-1 Prime Industrial Land Criteria*

Designated Industrial

Is the land designated for industrial uses in the applicable community plan?

Restrictive Industrial Zoning

Is the land in an area where zones have been applied to restrict residential and commercial uses that were previously permitted in many older industrial areas? Since these areas are less likely to contain a significant amount of non-industrial uses, the feasibility of attracting new industrial development is increased.

Market Feasibility

In communities where at least 30 acres of fully entitled vacant land is available for sale, are land prices low enough so that new industrial development is still feasible?

Predominantly Developed or Developable with Industrial Uses

Has the majority of the developed portion of the industrial area been developed with heavy industrial, light industrial, research and development and other base sector uses? Does the area have the physical characteristics suitable for modern industrial development?

Free from Non-Industrial Encroachment

Is the industrial area generally free from residential uses and does it contain few institutional or “public assembly” uses or sensitive receptor land uses? Are less than 50 percent of existing uses commercial, or other non-industrial uses? Commercial uses are defined as institutional uses, retail sales, commercial services, offices, and vehicle and vehicular equipment sales and services.

Proximity to Resources of Extraordinary Value

Is the area in proximity to certain human resources and infrastructure investments to which access is fundamental to the type of use it would support? San Diego’s existing and probable future industrial companies basically fall into two groups:

1. High-technology businesses (bio-technology, business equipment and defense manufacturing) where site selection is driven by the need to have access to universities and science and engineering workers.
2. International trade, logistics, and ship building businesses where site selection is driven by access to physical resources such as harbor facilities and other ports-of-entry, such as



the border truck crossing and U.S. Customs facilities in Otay Mesa.

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Appendix C, EP-2 Collocation/Conversion Suitability Factors

Area Characteristics	The amount of office and commercial development in the area. The significance of encroachment of the non-industrial uses which has already occurred in the area. The area’s attractiveness to manufacturing, research and development, wholesale distribution, and warehousing uses, based on a variety of factors including: physical site characteristics, parcel size, parcel configuration, surrounding development patterns, transportation access, and long-term market trends.
Transit Availability	The area is located within one-third mile of existing or planned public transit. The project proponent’s ability to provide or subsidize transit services to the project, if public transit service is not planned or is inadequate.
Impact on Prime Industrial Lands	The location of the proposed project adjacent to prime industrial lands and the impact of the proposed project utilization of the prime industrial lands for industrial purposes.
Significance of Residential/ Employment Component	The significance of the proposed residential density to justify a change in land use. If residential is proposed on the same site, the amount of employment space on the site is to be retained.
Residential Support Facilities	The presence of public and commercial facilities generally associated with residential neighborhoods in close proximity to the area, such as recreational facilities, grocery stores, and schools.
Airport Land Use Compatibility	The location of the site in the airport influence area where incompatibilities may result due to adopted Airport Land Use Compatibility Plan policies, Air Installation Compatibility Use Zone Study recommendations, and restrictive use easements.
Public Health	The location of the site in an employment area where significant incompatibilities may result regarding truck traffic, odors, noise, safety, and other external environmental effects.
Public Facilities	The availability of facilities to serve the residential units. Provide public facilities on-site wherever feasible.
Separation of Uses	The adequacy of the separation between industrial and residential properties with regard to hazardous or toxic air contaminants or hazardous or toxic substances. Determine if there are any sources of toxic or hazardous air contaminants, or toxic or hazardous substances, within a quarter mile of the property between proposed residential or other sensitive receptor land uses and proposed properties where such contaminants or substances are located. If so, an adequate distance separation shall be determined on a case-by-case basis based on an approved study submitted by the applicant to the City and appropriate regulatory agencies. If no study is completed, provide a 1000-ft. minimum distance separation between property lines. Uses which are not sensitive receptor land uses, such as most commercial and business offices, retail uses, parking, open space, and public rights-of way can locate between the properties within the separation area.

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~~Appendix C, EP-3~~ ~~Guidelines for the Regional Center and~~ ~~Subregional Employment Areas~~

Downtown

Over the next twenty years, downtown should consolidate its position as the premier urban village in San Diego. This area is currently the governmental, legal, cultural, convention, and tourism center for San Diego County. The Centre City Redevelopment Area and adjacent Balboa Park contain most of the City's major cultural facilities including museums, symphony, opera and live theaters. The Gaslamp Quarter, Embarcadero and Balboa Park are among the leading entertainment and tourism draws in the region. In the past decade, downtown has also become the fastest growing residential area in the City.



Traditionally, downtown has also been the largest and most important employment center in the region. However, in the past few decades nearly all employment growth has occurred outside of downtown. Currently, only five to six percent of San Diego County jobs remain downtown. There are many reasons for this, including the competing demand to use downtown land for residential use and preference of employers to expand companies in the north City areas where most executive housing is located.

A key goal is to have downtown once again emerge as the most important, prestigious and fastest growing employment center in the City by encouraging intensification of employment uses. This is desirable because downtown is the hub of the region's transit system. A related goal is to expand the types of employment attracted to downtown to be much more diverse than the jobs which are currently located there. This would include more opportunities for private sector companies, particularly high technology uses to locate within the Center City.

The Downtown Community Plan allows employment uses throughout most areas of downtown, with three areas designated as employment required areas. Although non-employment uses would be allowed in these areas, a certain amount of employment must be included on each block in these areas. The largest employment required area includes the existing commercial office core along Broadway and C Streets extending north to Ash Street. Two smaller areas in the northeast and southeast corners of downtown are envisioned as employment areas that would encourage industries that need large floor plate spaces.



Subregional Employment Areas

The Mission Valley/Morena/Grantville Subregional Employment Area

During the last four decades, these three adjacent areas developed individually and independently but are now connected by the Interstate 8 Freeway. The construction of the freeway has resulted in communities that are ideal for commercial developments, such as office buildings, hotels, large retail establishments, auto dealerships, and a great variety of smaller retail and service-sector establishments. The Morena and Grantville areas originally developed with industrial uses, but most of the industrial uses have relocated to the northern part of the City because of their inability to compete effectively with commercial uses for land and buildings in these areas and the changing needs of modern industrial businesses for larger more efficient industrial buildings. Morena is part of the adopted North Bay Redevelopment Project Area and the Linda Vista Community Plan. Grantville is within a redevelopment study area in the Navajo Community Plan. Despite the fact that these two areas have been historically designated for industrial uses, they have become largely commercialized and no new industrial uses are likely to occur here. In Morena, a goal of the community plan is to maintain the job base of the area by retaining the existing industrial uses in the west and allowing a wide variety of commercial uses, including heavy commercial uses and specialty commercial districts, in the remaining areas. In both Morena and Grantville, residential uses are appropriate in targeted locations. The application of more refined community plan land use designations can assist in separating potentially incompatible uses.

Mission Valley developed later and is just now approaching full buildout. This community has only three small pockets of industrially designated land. One, Mission Valley Heights, has been developed predominantly as an office park with retail uses. The second has been developed as a major gasoline distribution terminal, and the third constitutes the *San Diego Union-Tribune* newspaper publishing plant. Future growth in Mission Valley is dependent on improvements to the existing transportation infrastructure. However, the predominant role of Mission Valley as a regional commercial employment center will continue since commercial uses have increased and intensified. In addition, medium- to high-density multifamily residential uses are encouraged as guided by the Mission Valley Community Plan.

Over the next several years, some infill development proposals may be likely, along with expansion proposals from existing developments. Future employment uses in Mission Valley should be in the form of office development rather than additional regional commercial uses. The addition of a mixture of employment and residential uses will maximize the value of recent transportation infrastructure improvements, most notably the Mission Valley Trolley Line.



The University/Sorrento Mesa Subregional Employment Area

University City has developed easterly of the University of California at San Diego (UCSD) and around the regional shopping mall known as University Towne Centre. The northern area is characterized by large low-rise industrial and mid-rise office structures in well-planned industrial parks with substantial landscaping and curvilinear streets. These industrial parks were developed to complement the academic scientific research at UCSD by creating a campus-like atmosphere conducive to the application of scientific research to high technology product development. Residential uses are separated from the Eastgate Technology Park and Campus Point Industrial Park by open space buffer areas.

The southerly area has been developed with a balanced mixture of mid- and high-rise office buildings, multifamily housing, hospitals and institutions, retail, and hospitality uses. This area is currently served by transit. Future plans call for major transit improvements in this area by including a trolley or rapid transit line that will provide connections to transit bus routes. In areas immediately north and south of La Jolla Village Drive, the efficient location of high-density employment office uses adjacent to medium and high-density multifamily developments with retail services, enhances the potential for pedestrian-oriented village development.

Sorrento Mesa and Sorrento Valley are two industrial areas which, when taken together, constitute the City's largest and most diverse concentration of high technology industrial parks. These are key areas to the City's economic growth. The two areas are linked by Sorrento Valley Road, but each developed separately under different conditions and during different time periods. Sorrento Valley was largely built out during the late 1960s and 1970s as a series of industrial parks with low-rise, primarily single-story, smaller industrial buildings. These buildings originally housed smaller general industrial and service-sector businesses before the onset of high technology growth. By contrast, Sorrento Mesa was developed mostly in the 1980s and 1990s specifically by and for high technology businesses. Therefore the buildings are much newer, larger and have the requisite features for high technology industrial uses. While both areas are inter-related economically and geographically adjacent to each other, Sorrento Valley is part of the Torrey Pines Community, and Sorrento Mesa is part of the Mira Mesa Community. Sorrento Valley is primarily industrial and is geographically separated from nearby residential areas by Peñasquitos Lagoon. Sorrento Mesa is also entirely industrial except for the Wateridge housing project in the western part of this industrial sub-area. Community plan updates for both the Torrey Pines and Mira Mesa communities should apply the appropriate industrial land use designations to preserve existing and encourage new high technology uses in these two areas.

The employment-generating industrial areas of Sorrento Valley and Sorrento Mesa are balanced by a larger area of single-family and low to medium-density multifamily residential units to the east and north. Empirical evidence indicates that a substantial portion of the industrial employees in these areas live in the nearby residential portion of Mira Mesa, and in neighboring residential communities such as Carmel Valley and Rancho Peñasquitos. Some encroachment into these industrial areas by commercial office uses has



~~already occurred due to permissive light industrial zoning and a strong regional office market. The retention of the Industrial Park land use designation to preserve this area for high technology manufacturing, research and development, and secondary uses will protect the area from further encroachment by non-industrial uses, (including residential uses), and preserve the ability of existing industrial users to expand. In addition, the intensity of development permitted under existing regulations provides for more intense industrial manufacturing uses over the next several years as new technological advances are implemented.~~

Midway Pacific Highway Subregional Employment Area

~~The industrial areas of the Midway Pacific Highway Community are among the oldest in San Diego. The existing structures lack the size and features necessary for modern industrial operations and therefore are not attractive for most high technology or base sector users. Permissive industrial zoning has also allowed the area to become dominated by large institutional uses and large retail establishments. This has led to high land prices and significant traffic congestion, the combination of which undermines the area's attractiveness to new warehouse or distribution-type industrial users who might have otherwise redeveloped the area because of its proximity to the airport.~~

~~The eastern portion of the community is well-served by existing transit infrastructure which contributes to the area's suitability for redevelopment with mixed uses, multifamily residential, office, and retail uses. Lot consolidation, structured parking, and pedestrian-oriented developments will permit better land utilization with higher densities, and lower traffic congestion than currently exists. High land prices, proximity to major institutional uses and tourist attractions can clearly make such reuse economically feasible.~~

~~Therefore, in this area, the redevelopment of land containing uses that are no longer economically viable should be encouraged where public infrastructure is available. These alternative land uses should include medium- to high-density residential uses, mixed-use villages and new office development (such as software and web development, telecommunications, engineering and other functions).~~

Kearny Mesa Subregional Employment Area

~~The Kearny Mesa industrial area was built out mostly during the 1960s and 1970s for a wide range of commercial and industrial uses with a similarly diverse range of structure sizes and types. Many portions of the community have largely developed as non-industrial commercial, institutional, or office uses much like the industrially designated areas in the Interstate 8 and Interstate 5 freeway corridors. The redevelopment of the former General Dynamics site has led to the development of new multifamily housing in the center of Kearny Mesa.~~

~~Many areas within Kearny Mesa that have been developed with retail establishments have~~



already been re-designated for commercial uses. However, other areas, particularly in the western portion of the community and south of Aero Drive, still have an industrial designation. Encroachment by non-industrial uses has rendered many areas unsuitable for base sector industrial uses. This is because the structures are unsuitable for industrial uses, or the competition from non-industrial uses has driven the land costs so high that industrial use has become infeasible. In the long term, consideration should be given to additional office employment uses in these areas and multifamily residential uses, particularly along the commercial transit corridors. Certain other areas such as those to the north and east of Montgomery Field, have remained primarily industrial, characterized by both light and heavy manufacturing operations and large-scale distribution centers. They are an important source of employment for the surrounding communities and an essential part of the City's overall economic base. Industrial land use designations that strictly limit encroachment of non-industrial uses in these areas should be applied.

Otay Mesa Subregional Employment Area

All of the industrial development in Otay Mesa has taken place during the last two decades. Otay Mesa is unique among the City's industrial areas because of its geographic separation from most of the City and location along the Mexican border. This proximity to Mexico, plus the broad flat topography, makes it ideal as a location for distribution centers operated by logistics companies and other firms doing business in Mexico. Although low land prices have led to the development of industrial structures for firms not doing business in Mexico, a significant number of the industrial establishments in this area provide critical support to over 700 production-sharing companies located in Baja California. The vast majority of the industrial plants here are set up to perform the final assembly, testing, packaging, labeling, and distribution of products, such as consumer electronics, automotive, furniture and medical supplies, which are produced in whole, or in part, immediately south of the border. More recently, some non-Mexico-related manufacturers and distributors have begun relocating to Otay Mesa from other parts of Southern California due to the availability of large contiguous parcels, land costs and industrial lease rates. Most structures in this area are modern single-story concrete "tilt-up" industrial buildings with large floor plates, tall clear heights, and loading docks.

Most of the land in Otay Mesa has been designated for industrial uses and utilizes special zoning to provide for purely industrial uses, with discrete areas reserved to support commercial services and limited retail uses. A land use designation permitting heavy industrial uses should be applied in portions of the community to prevent encroachment by non-industrial uses. Adequate separation should also be provided if residential uses are located in close proximity. Support of infrastructure development and preservation of areas for primarily industrial uses that support manufacturing and international trade activities are essential to provide middle-income job opportunities and contribute to the growth of the City's overall economic base.

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Appendix D, CE-1 Natural Resource-Based Plans and Policies

- *Open Space/Landform Preservation:* Natural Resource Management Plans, Park Master Plans, Multiple Species Conservation Program.
- *Biological Diversity:* Natural Resource Management Plans, Park Master Plans, Multiple Species Conservation Program and related documents (e.g., Vernal Pool [Habitat Conservation Management Plan](#)).
- *Energy:* Regional plans such as Energy 2030: the San Diego Regional Energy Strategy, [and SANDAG's Regional Comprehensive Plan](#), [\(the Regional Transportation Plan\)](#); [Municipal plans such as the City of San Diego Climate Action Plan, the Municipal Energy Strategy and the City of San Diego Municipal Energy Implementation Plan.](#)
- *Landscapes/Viewsheds:* Natural Resource Management Plans, Park Master Plans, [City of San Diego Climate Action Plan](#), Multiple Species Conservation Program and related documents (e.g., Vernal Pool Management Plan), Community Forest Initiative.
- *Mineral Resources:* State Mining and Reclamation Act (SMARA) and related mining closure plans.
- *Recycling/Waste Reduction:* The Source Reduction and Recycling Element (AB 939), the Household Hazardous Waste Element, the Non-Disposal Facility Element, the Siting Element, [City of San Diego Climate Action Plan, the Zero Waste Plan and the Organics Waste Recycling Program \(SB 1383\).](#)
- *Air Quality:* San Diego County Air Pollution Control District Regional Air Quality Standards (RAQS) [and City of San Diego Climate Action Plan.](#)
- *Water Resources:* ~~City's Water Conservation Program Strategic Plan for Water Supply (Strategic Plan), Long-Range Water Resources Plan (Long-Range Plan),~~ Urban Water Management Plan, [Pure Water San Diego Water Reuse Study](#), [Regional Water Facilities Master Plan](#), [Integrated Regional Water Management Program](#), [Integrated Watershed Planning](#), [Water Shortage Contingency Plan](#), Think Blue Education.
- *Historic Resources:* State Historic Preservation Office (SHPO) standards, Planning Historic database.
- *Urban Runoff:* The [Urban Jurisdictional Runoff Management Plan](#), ~~the Strategic Plan for Water Supply~~, [Port of San Diego Stormwater Management Program](#), [San Diego Bay Water Quality Improvement Plan \(WQIP\)](#), [The County of San Diego Watershed Protection Program \(WPP\)](#), [Watershed Urban Runoff Management Plans \(WURMP\).](#)

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Appendix E, HP-1 San Diego History

City of San Diego

SAN DIEGO HISTORY

The history of a region provides the context for the evaluation and management of historical resources. The history of San Diego can be divided into four prehistoric periods, one ethnohistoric period and three historic periods. These periods are discussed below as summarized in Rosen (1994) and Van Wormer (1995). For a detailed discussion of San Diego's history, see for example, the *Historic Properties Background Study for the City of San Diego Clean Water Program* (Brian F. Mooney Associates n.d.).

PREHISTORIC PERIODS

Systematic archaeological studies in San Diego County began with the work of Malcolm J. Rogers of the San Diego Museum of Man in the 1920s and 1930s. Rogers (1929, 1945, 1966) developed a three part chronologic sequence of prehistoric cultures for the region which was subsequently built upon by Claude Warren (1967, 1968). More recent studies have sought to further refine (Cárdenas 1986, 1987; Moratto 1984; Moriarty 1966, 1967; True 1970, 1980, 1986; True and Beemer 1982; True and Pankey 1985; Waugh 1986) or criticize (Bull 1983, 1987; Gallegos 1987) this sequence. The prehistory of the region is divided into four major periods: Early Man, Paleo-Indian, Early Archaic and Late Prehistoric.

EARLY MAN PERIOD (BEFORE 8500 BC)

No firm archaeological evidence for the occupation of San Diego County before 10,500 years ago has been discovered. The myths and history that is repeated by the local Native American groups now and at the time of earlier ethnographic research indicate both their presence here since the time of creation and, in some cases, migration from other areas. There are some researchers who advocate an occupation of southern California prior to the Wisconsin Glaciation, around 80,000 to 100,000 years ago (Carter 1957, 1980; Minshall 1976). Local proposed Early Man sites include the Texas Street, Buchanan Canyon and Brown sites, as well as Mission Valley (San Diego River Valley), Del Mar and La Jolla (Bada et al. 1974; Carter 1957, 1980; Minshall 1976, 1983, 1989; Moriarty and Minshall 1972; Reeves 1985; Reeves et al. 1986). However, two problems have precluded general acceptance of these claims. First, artifacts recovered from several of the localities have been rejected by many archaeologists as natural products rather than cultural artifacts. Second, the techniques used for assigning early dates to the sites have been considered unsatisfactory (Moratto 1984; Taylor et al. 1985).



Careful scientific investigation of any possible Early Man archaeological remains in this region would be assigned a high research priority. Such a priority would reflect both the substantial popular interest in the issue and the general anthropological importance which any confirmation of a very early human presence in the western hemisphere would have. Anecdotal reports have surfaced over the years that Early Man deposits have been found in the lower levels of later sites in Mission Valley. However, no reports or analyses have been produced supporting these claims.

PALEO-INDIAN PERIOD (8500-6000 BC)

The earliest generally-accepted archaeological culture of present-day San Diego County is the Paleo-Indian culture of the San Dieguito Complex. This complex is usually assigned to the Paleo-Indian Stage and dated to about 10,500 years ago. It would therefore appear to be contemporary with the better-known Fluted Point Tradition of the High Plains and elsewhere and the Western Pluvial Lakes Tradition of the Desert West. The San Dieguito Complex, is believed to represent a nomadic hunting culture by some investigators of the complex (Davis et al. 1969; Moriarty 1969; Rogers 1929, 1966; Warren 1966, 1967) characterized by the use of a variety of scrapers, choppers, bifaces, large projectile points and crescentics, a scarcity or absence of milling implements, and a preference for fine-grained volcanic rock over metaquartzite.

Careful scientific investigation of San Dieguito Complex sites in the region would also be assigned a high research priority. Major research questions relating to the Paleo-Indian Period include confirmation of the presence of the Fluted Point Tradition in San Diego County (Davis and Shutler 1969); better chronological definition of the San Dieguito Complex; determination of whether the San Dieguito assemblages do in fact reflect an early occupation, rather than the remains from a specialized activity set belonging to an Early Archaic Period culture; clarification of the relationship of the San Dieguito Complex, if it represents a separate culture, to the subsequent Early Archaic Period cultures; determination of the subsistence and settlement systems which were associated with the San Dieguito Complex; and clarification of the relationship of the San Dieguito Complex to similar remains in the Mojave Desert, in northwestern and central California, in southern Arizona and in Baja California. The San Dieguito Complex was originally defined in an area centering on the San Dieguito River valley, north of San Diego (Rogers 1929).

EARLY ARCHAIC PERIOD (6000 BC-AD 0)

As a result of climatic shifts and a major change in subsistence strategies, a new cultural pattern assignable to the Archaic Stage is thought by many archaeologists to have replaced the San Dieguito culture before 6000 BC. This new pattern, the Encinitas Tradition, is represented in San Diego County by the La Jolla and Pauma complexes. The coastal La Jolla Complex is characterized as a gathering culture which subsisted largely on shellfish and plant foods from the abundant littoral resources of the area. The La Jolla Complex is best



known for its stone-on-stone grinding tools (mano and metate), relatively crude cobble-based flaked lithic technology and flexed human burials. Inland Pauma Complex sites have been assigned to this period on the basis of extensive stone-on-stone grinding tools, Elko Series projectile points and the absence of remains diagnostic of later cultures.

Among the research questions focusing on this period are the delineation of change or the demonstration of extreme continuity within the La Jolla and Pauma complexes; determination of whether coastal La Jolla sites represent permanent occupation areas or brief seasonal camps; the relationship of coastal and inland Archaic cultures; the scope and character of Archaic Period long-range exchange systems; the role of natural changes or culturally-induced stresses in altering subsistence strategies; and the termination of the Archaic Period in a cultural transformation, in an ethnic replacement or in an occupational hiatus in western San Diego County.

LATE PREHISTORIC PERIOD (AD 0-1769)

The Late Prehistoric Period in San Diego County is represented by two distinct cultural patterns, the Yuman Tradition from the Colorado Desert region and the Shoshonean Tradition from the north. These cultural patterns are represented locally by the Cuyamaca Complex from the mountains of southern San Diego County and the San Luis Rey Complex of northern San Diego County. The people of the Cuyamaca and San Luis Rey complexes are ancestral to the ethnohistoric Kumeyaay (Diegueño) and Luiseño, respectively. Prehistorically, the Kumeyaay were a hunting and gathering culture that adapted to a wide range of ecological zones from the coast to the Peninsular Range. A shift in grinding technology reflected by the addition of the pestle and mortar to the mano and metate, signifying an increased emphasis on acorns as a primary food staple, as well as the introduction of the bow and arrow (i.e., small Cottonwood Triangular and Desert Side-notched projectile points), obsidian from the Obsidian Butte source in Imperial County and human cremation serve to differentiate Late Prehistoric populations from earlier peoples. Pottery is also characteristic of the Cuyamaca Complex, but is absent from the San Luis Rey Complex until relatively late (post AD 1500).

Explanatory models applied to Late Prehistoric sites have drawn most heavily on the ethnographic record. Notable research opportunities for archaeological sites belonging to the Late Prehistoric period include refining chronology, examining the repercussions from environmental changes which were occurring in the deserts to the east, clarifying patterns of inter- and intra- regional exchange, testing the hypothesis of pre-contact horticultural/agricultural practices west of the desert, and testing ethnographic models for the Late Prehistoric settlement system. Hector (1984) focused on the Late Prehistoric Period to examine the use of special activity areas within large sites typical of this period. At issue was whether activities such as tool making, pottery manufacturing and dining were conducted in specific areas within the site, or whether each family unit re-created these activity areas throughout the site. Her findings indicated that no specialized areas



existed within Late Prehistoric sites, and furthermore that tools made during this period served a variety of functions.

Late Prehistoric sites appear to be proportionately much less common than Archaic sites in the coastal plains subregion of southwestern San Diego County (Christenson 1990:134-135; Robbins-Wade 1990). These sites tend to be located on low alluvial terraces or at the mouths of coastal lagoons and drainages. Of particular interest is the observation that sites located in the mountains appear to be associated with the Late Prehistoric Period. This suggests that resource exploitation broadened during that time, as populations grew and became more sedentary.

ETHNOHISTORIC PERIOD

The founding of Mission San Diego de Alcalá in 1769 by Father Junípero Serra and Mission San Luis Rey de Francia in 1798 by Father Lasuén brought about profound changes in the lives of the Yuman-speaking Kumeyaay (Diegueño) and Shoshonean-speaking Luiseño of San Diego County. The coastal Kumeyaay and Luiseño were quickly brought into their respective missions or died from introduced diseases. Ethnographic work, therefore, has concentrated on the mountain and desert peoples who were able to retain some of their aboriginal culture. As a result, ethnographic accounts of the coastal Kumeyaay and Luiseño are few. Today the descendants of the Kumeyaay bands are divided among 12 reservations in the south county; the descendants of the Luiseño bands among five reservations in the north county.

The Kumeyaay are generally considered to be a hunting-gathering society characterized by central-based nomadism. While a large variety of terrestrial and marine food sources were exploited, emphasis was placed on acorn procurement and processing as well as the capture of rabbit and deer. Shipek (1963, 1989b) has strongly suggested that the Kumeyaay, or at least some bands of the Kumeyaay, were practicing proto-agriculture at the time of Spanish contact. While the evidence is problematic, the Kumeyaay were certainly adept land and resource managers with a history of intensive plant husbandry.

Kumeyaay houses varied greatly according to locality, need, choice and raw materials. Formal homes were built only in the winter as they took some time to build and were not really necessary in the summer. Summer camps needed only a windbreak and were usually located under convenient trees, a cave fronted with rocks or an arbor built for protection from the sun. During the summer, the Kumeyaay moved from place to place, camping wherever they were. In the winter they constructed small elliptically shaped huts of poles covered with brush or bark. The floor of the house was usually sunk about two feet into the earth. In the foothills and mountains *hiwat* brush or deer broom was applied in bundles tied on with strands of yucca. In cold weather the brush was covered with earth



to help keep the heat inside. Bundles of brush were tied together to make a door just large enough to crawl through.

Most activities, such as cooking and eating, took place outside the house. The cooking arbor was a lean-to type structure or four posts with brush over the top. Village owned structures were ceremonial and were the center of many activities. Sweathouses were built and used by the Kumeyaay men. They were built around four posts set in a square near a river or stream and usually had a dug-out floor. The sweathouse was also used sometimes as a place for treating illnesses.

As with most hunting-gathering societies, Kumeyaay social organization was formed in terms of kinship. The Kumeyaay had a patrilineal type of band organization (descent through the male line) with band exogamy (marriage outside of one's band) and patrilocal marital residence (married couple integrates into the male's band). The band is often considered as synonymous with a village or rancheria, which is a political entity.

Almstedt (1980:45) has suggested that the term rancheria should be applied to both a social and geographical unit, as well as to the particular population and territory held in common by a native group or band. She also stressed that the territory for a rancheria might comprise a 30 square mile area. Many households would constitute a village or rancheria and several villages were part of a larger social system usually referred to as a consanguineal kin group called a *cimuL*. The members of the *cimuL* did not intermarry because of their presumed common ancestry, but they maintained close relations and often shared territory and resources (Luomala 1963:287-289).

Territorial divisions among Kumeyaay residential communities were normally set by the circuit of moves between villages by *cimuLs* in search of food. As Spier (1923:307) noted, the entire territory was not occupied at one time, but rather the communities moved between resources in such a manner that in the course of a year all of the recognized settlements may have been occupied. While a *cimuL* could own, or more correctly control, a tract of land with proscribed rights, no one from another *cimuL* was denied access to the resources of nature (Luomala 1963:285; Spier 1923:306); since no individual owned the resources, they were to be shared.

The Kumeyaay practiced many forms of spiritualism with the assistance of shamans and *cimuL* leaders. Spiritual leaders were neither elected to, nor inherited their position, but achieved status because they knew all the songs involved in ceremonies (Shipek 1991) and had an inclination toward the supernatural. This could include visions, unusual powers or other signs of communication with the worlds beyond. Important Kumeyaay ceremonies included male and female puberty rites, the fire ceremony, the whirling dance, the eclipse ceremony, the eagle dance, the cremation ceremony and the yearly mourning ceremony (Spier 1923:311-326).



Important areas of research for the Ethnohistoric Period include identifying the location of Kumeyaay settlements at the time of historic contact and during the following 50 years of the Spanish Period; delineating the effects of contact on Kumeyaay settlement/ subsistence patterns; investigating the extent to which the Kumeyaay accepted or adopted new technologies or material goods from the intrusive Spanish culture; and examining the changes to Kumeyaay religious practices as a result of contact.

HISTORIC PERIODS

San Diego history can be divided into three periods: the Spanish, Mexican and American periods.

SPANISH PERIOD (AD 1769-1822)

In spite of Juan Cabrillo's earlier landfall on Point Loma in 1542, the Spanish colonization of Alta California did not begin until 1769. Concerns over Russian and English interests in California motivated the Spanish government to send an expedition of soldiers, settlers and missionaries to occupy and secure the northwestern borderlands of New Spain. This was to be accomplished through the establishment and cooperative inter-relationship of three institutions: the Presidio, Mission and Pueblo. In 1769 a land expedition led by Gaspár de Portola reached San Diego Bay, where they met those who had survived the trip by sea on the San Antonio and the San Carlos. Initially camp was made on the shore of the bay in the area that is now downtown San Diego. Lack of water at this location, however, led to moving the camp on May 14, 1769, to a small hill closer to the San Diego River and near the Kumeyaay village of Cosoy. Father Junípero Serra arrived in July of the same year to find the Presidio serving mostly as a hospital. The Spanish built a primitive mission and presidio structure on the hill near the river. The first chapel was built of wooden stakes and had a roof made of tule reeds. Brush huts and temporary shelters were also built.

Bad feelings soon developed between the native Kumeyaay and the soldiers, resulting in construction of a stockade whose wall was made from sticks and reeds. By 1772 the stockade included barracks for the soldiers, a storehouse for supplies, a house for the missionaries and the chapel, which had been improved. The log and brush huts were gradually replaced with buildings made of adobe bricks. Flat earthen roofs were eventually replaced by pitched roofs with rounded roof tiles. Clay floors were eventually lined with fired brick.

In August 1774, the Spanish missionaries moved the Mission San Diego de Alcalá to its present location six miles up the San Diego River valley (modern Mission Valley) near the



Kumeyaay village of Nipaguay. Begun as a thatched *jacal* chapel and compound built of willow poles, logs and tules, the new Mission was sacked and burned in the Kumeyaay uprising of November 5, 1775. The first adobe chapel was completed in October 1776, and the present church was begun the following year. A succession of building programs through 1813 resulted in the final rectilinear plan that included the church, bell tower, sacristy, courtyard, residential complex, workshops, corrals, gardens and cemetery (Neuerburg 1986). Orchards, reservoirs and other agricultural installations were built to the south on the lower San Diego River alluvial terrace and were irrigated by a dam and aqueduct system.

In 1798 the Spanish constructed the Mission San Luis Rey de Francia in northern San Diego County. They also established three smaller mission outposts (*asistencias*) at Santa Ysabel, Pala and Las Flores (Smythe 1908; Englehardt 1920; Pourade 1961). The mission system had a great effect on all Native American groups from the coast to the inland areas and was a dominant force in San Diego County.

Life for the new settlers at the San Diego Presidio was isolated and difficult. The arid desert climate and aggressive Native American population made life hard for the Spanish settlers. They raised cattle and sheep, gathered fish and seafood and did some subsistence farming in the San Diego River Valley to generate enough food to keep the fledgling community of a few hundred Spaniards and hundreds of Native American neophytes alive. The situation for Spanish Period San Diegans' was complicated by the Spanish government's insistence on making trade with foreign ships illegal. Although some smuggling of goods into San Diego was done, the amounts were likely small (Smythe 1908:81-99; Williams 1994).

Significant research topics for the Spanish Period involve the chronology and ecological impact caused by the introduction of Old World plants and the spread of New World domesticates in southern California; the differences and similarities in the lifeways, access to resources and responses to change between different Spanish institutions; the effect of Spanish colonization on the Kumeyaay population; and the effect of changing colonial economic policies and the frontier economic system on patterns of purchase, consumption and discard.

MEXICAN PERIOD (AD 1822-1846)

In 1822 the political situation changed. Mexico won its independence from Spain and San Diego became part of the Mexican Republic. The Mexican Government opened California to foreign ships, and a healthy trade soon developed, exchanging the fine California cattle hides for the manufactured goods of Europe and the eastern United States. Several of these American trading companies erected rough sawn wood-plank sheds at La Playa on the bay



side of Point Loma. The merchants used these "hide-houses" for storing the hides before transport to the east coast (Robinson 1846:12; Smythe 1908:102). As the hide trade grew, so did the need for more grazing lands. Thus the Mexican government began issuing private land grants in the early 1820s, creating the rancho system of large agricultural estates. Much of the land came from the Spanish missions, which the Mexican government secularized in 1833. The mission system, however, had begun to decline when the Mission Indians became eligible for Mexican citizenship and refused to work in the mission fields. The ranchos dominated California life until the American takeover in 1846 (Smythe 1908:101-106; Robinson 1948, Killea 1966, Pourade 1963). The Mexican Period brought about the continued displacement and acculturation of the native populations.

Another change in Mexican San Diego was the decline of the presidio and the rise of the civilian pueblo. The establishment of Pueblos in California under the Spanish government met with only moderate success and none of the missions obtained their ultimate goal, which was to convert to a Pueblo. Pueblos did, however, begin to form, somewhat spontaneously, near the California Presidios. As early as 1791, presidio commandants in California were given the authority to grant small house lots and garden plots to soldiers and their families (Richman 1911:346). Sometime after 1800, soldiers from the San Diego Presidio began to move themselves and their families from the presidio buildings to the tableland down the hill near the San Diego River. Historian William Smythe noted that Don Blas Aguilar, who was born in 1811, remembered at least 15 such grants below Presidio Hill by 1821 (Smythe 1908:99). Of these 15 grants, only five within the boundaries of what would become Old Town had houses in 1821. These included the retired commandant Francisco Ruiz adobe (now known as the Carrillo Adobe), another building later owned by Henry Fitch on Calhoun Street, the Ybanes and Serrano houses on Juan Street near Washington Street, and a small adobe house on the main plaza owned by Juan Jose Maria Marron (*San Diego Union* 6-15-1873:3). By 1827, as many as 30 homes existed around the central plaza and in 1835, Mexico granted San Diego official pueblo (town) status. At this time the town had a population of nearly 500 residents, later reaching a peak of roughly 600 (Killea 1966:9-35). By 1835 the presidio, once the center of life in Spanish San Diego, had been abandoned and lay in ruins. Mission San Diego de Alcalá fared little better. In 1842, 100 Indians lived under the care of the friars and only a few main buildings were habitable (Pourade 1963:11-12, 17-18). The town and the ship landing area (La Playa) were now the centers of activity in Mexican San Diego.

Adobe bricks were used as the primary building material of houses during the Mexican Period because wood was scarce and dirt and labor were plentiful. The technique had been brought to the New World from Spain, where it had been introduced by the Moors in the Eighth Century. Adobe bricks were made of a mixture of clay, water, sticks, weeds, small rocks and sand. The sticks, weeds and small rocks held the bricks together and the sand gave the clay something to stick to. The mixture was poured into a wooden form measuring about 4 inches by 11 inches by 22 inches and allowed to dry. A one-room,



single-story adobe required between 2,500 and 5,000 bricks. Walls were laid on the ground or built over foundations of cobblestone from the riverbed. To make walls the adobe bricks were stacked and held together with a thick layer of mortar (mud mixed with sand). Walls were usually three feet thick and provided excellent insulation from the winter cold and summer heat. To protect the adobe bricks from washing away in the rain, a white lime plaster or mud slurry was applied to the walls by hand and smoothed with a rock plaster smoother. The lime for the lime plaster was made by burning seashells in a fire. The lime was then mixed with sand and water. Once the plaster had dried, it formed a hard shell that protected the adobe bricks. The roof was usually made of carrizo cane bound with rawhide strips. Floors were usually of hard packed dirt, although tile was also used.

The new Pueblo of San Diego did not prosper as did some other California towns during the Mexican Period. In 1834 the Mexican government secularized the San Diego and San Luis Rey missions. The secularization in San Diego County had the adverse effect of triggering increased Native American hostilities against the Californios during the late 1830s. The attacks on outlying ranchos, along with unstable political and economic factors helped San Diego's population decline to around 150 permanent residents by 1840. San Diego's official Pueblo status was removed by 1838, and it was made a subprefecture of the Los Angeles Pueblo. When the Americans took over after 1846, the situation had stabilized somewhat, and the population had increased to roughly 350 non-Native American residents (Killea 1966:24-32; Hughes 1975:6-7).

Two important areas of research for the Mexican Period are the effect of the Mexican rancho system on the Kumeyaay population and the effect of changing colonial economic policies and the frontier economic system on patterns of purchase, consumption and discard.

AMERICAN PERIOD (AD 1846-PRESENT)

When United States military forces occupied San Diego in July 1846, the town's residents split on their course of action. Many of the town's leaders sided with the Americans, while other prominent families opposed the United States invasion. A group of Californios under Andres Pico, the brother of the Governor Pio Pico, harassed the occupying forces in Los Angeles and San Diego during 1846. In December 1846, Pico's Californios engaged U.S. Army forces under General Stephen Kearney at the Battle of San Pasqual and inflicted many casualties. However, the Californio resistance was defeated in two small battles near Los Angeles and effectively ended by January 1847 (Harlow 1982; Pourade 1963).

The Americans raised the United States flag in San Diego in 1846, and assumed formal control with the Treaty of Guadalupe-Hidalgo in 1848. In the quarter of a century following



1848, they transformed the Hispanic community into a thoroughly Anglo-American one. They introduced Anglo culture and society, American political institutions and especially American entrepreneurial commerce. By 1872, they even relocated the center of the City and community to a new location that was more accessible to the bay and to commerce (Newland 1992:8). Expansion of trade brought an increase in the availability of building materials. Wood buildings gradually replaced adobe structures. Some of the earliest buildings to be erected in the American Period were "Pre-fab" houses which were built on the east coast of the United States and shipped in sections around Cape Horn and reassembled in San Diego.

In 1850, the Americanization of San Diego began to develop rapidly. On February 18, 1850, the California State Legislature formally organized San Diego County. The first elections were held at San Diego and La Playa on April 1, 1850 for county officers. San Diego grew slowly during the next decade. San Diegans attempted to develop the town's interests through a transcontinental railroad plan and the development of a new town closer to the bay. The failure of these plans, added to a severe drought which crippled ranching and the onset of the Civil War, left San Diego as a remote frontier town. The troubles led to an actual drop in the town's population from 650 in 1850, to 539 in 1860 (Garcia 1975:77). Not until land speculator and developer Alonzo Horton arrived in 1867 did San Diego begin to develop fully into an active American town (MacPhail 1979).

Alonzo Horton's development of a New San Diego (modern downtown) in 1867 began to swing the community focus away from Old Town. After the county seat was moved in 1871 and a fire destroyed a major portion of the business block in April 1872, Old Town rapidly declined in importance.

American Period resources can be categorized into remains of the frontier era, rural farmsteads and urban environments, with different research questions applicable to each category. Important research topics for the frontier era include studying the changing function of former Mexican ranchos between 1850 and 1940, and investigating the effect on lifestyles of the change from Hispanic to Anglo-American domination of the pueblo of San Diego. Research domains for rural farmsteads include the definition of a common rural culture, comparing the definition of wealth and consumer preferences of successful rural farm families versus middle and upper-middle class urban dwellers, definition of the evolution and adaptation of rural vernacular architecture, and identification of the functions of external areas on farmsteads. Research questions for urban environments include definition of an urban subsistence pattern; definition of ethnic group maintenance and patterns of assimilation for identifiable ethnic groups; identification of specific adaptations to boom and bust cycles; definition of a common culture for working, middle and upper-middle class urban residents; identification of adaptations to building techniques, architectural styles, technological change and market fluctuations through analysis of



industrial sites; and investigation of military sites to relate changes in armament technology and fortification expansion or reduction to changing priorities of national defense.

ARCHITECTURE

The built environment, including structures and landscapes, is a vital source of historical evidence on past lifeways, work, ideas, cultural values and adaptations. The built environment is neither a product of random events, nor a static phenomena. The rearrangement of structural features and land use are part of the way in which people organize their lives. Landscapes are lands that have been shaped and modified by human actions and conscious design to provide housing, accommodate production systems, develop communication and transportation networks, designate social inequalities and express aesthetics (Rubertone 1989).

Vernacular architectural studies have demonstrated that pioneer farmers and urban dwellers used folk styles to meet specific needs. Analyses of these house types illustrate adaptation by households as a result of changing needs, lifestyle and economic status. Studies of structural forms at military complexes have documented changes in technology and national defense priorities, and industrial site studies have documented technological innovation and adaptation. The spatial relationships of buildings and spaces, and changes in those relationships through time, also reflect cultural values and adaptive strategies (Carlson 1990; Stewart-Abernathy 1986).

San Diego's built environment spans over 200 years of architectural history. The real urbanization of the City as it is today began in 1869 when Alonzo Horton moved the center of commerce and government from Old Town (Old San Diego) to New Town (downtown). Development spread from downtown based on a variety of factors, including the availability of potable water and transportation corridors. Factors such as views, and access to public facilities affected land values, which in turn affected the character of neighborhoods that developed.

During the Victorian Era of the late 1800s and early 1900s, the areas of Golden Hill, Uptown, Banker's Hill and Sherman Heights were developed. Examples of the Victorian Era architectural styles remain in those communities, as well as in Little Italy.

Little Italy developed in the same time period. The earliest development of the Little Italy area was by Chinese and Japanese fishermen, who occupied stilt homes along the bay. After the 1905 earthquake in San Francisco, many Portuguese and Italian fishermen moved from San Francisco into the area; it was close to the water and the distance from downtown made land more affordable.



Barrio Logan began as a residential area, but because of proximity to rail freight and shipping freight docks, the area became more mixed with conversion to industrial uses. This area was more suitable to the industrial uses because land values were not as high: topographically the area is more level and not as interesting in terms of views as the areas north of downtown. Various ethnic groups settled in the area because their land ownership was available to them.

San Ysidro began to be developed at about the same time, the turn of the century. The early settlers were followers of the Littlelanders movement. There, the pattern of development was lots designed to accommodate small plots of land for each homeowner to farm as part of a farming-residential cooperative community. Nearby Otay Mesa-Nestor began to be developed by farmers of Germanic and Swiss background. Some of the prime citrus groves in California were in the Otay Mesa-Nestor area; in addition, there were grape growers of Italian heritage who settled in the Otay River Valley and tributary canyons and produced wine for commercial purposes.

At the time downtown was being built, there began to be summer cottage/retreat development in what are now the Beach communities and La Jolla area. The early structure in these areas was not of substantial construction; it was primarily temporary vacation housing.

Development spread to the Greater North Park and Mission Hills areas during the early 1900s. The neighborhoods were built as small lots, a single lot at a time; there was not large tract housing development of those neighborhoods. It provided affordable housing away from the downtown area, and development expanded as transportation improved.

There was farming and ranching in Mission Valley until the middle portion of the 20th century when the uses were converted to commercial and residential. There were dairy farms and chicken ranches adjacent to the San Diego River where now there are motels, restaurants, office complexes and regional shopping malls.

There was little development north of the San Diego River until Linda Vista was developed as military housing in the 1940s. The federal government improved public facilities and extended water and sewer pipelines to the area. From Linda Vista, development spread north of Mission Valley to the Clairemont Mesa and Kearny Mesa areas. Development in these communities was mixed-use and residential on moderate size lots.

San Diego State University was established in the 1920s; development of the state college area began then and the development of the Navajo community was an outgrowth from the college area and from the west.



Tierrasanta, previously owned by the U.S. Navy, was developed in the 1970s. It was one of the first planned unit developments with segregation of uses. Tierrasanta and many of the communities that have developed since, such as Rancho Peñasquitos and Rancho Bernardo, represent the typical development pattern in San Diego in the last 25 to 30 years: uses are well segregated with commercial uses located along the main thoroughfares, and the residential uses are located in between. Industrial uses are located in planned industrial parks.

Examples of every major period and style remain, although few areas retain neighborhood-level architectural integrity due to several major building booms when older structures were demolished prior to preservation movements and stricter regulations regarding historic structures. Among the recognized styles in San Diego are Spanish Colonial, Pre-Railroad New England, National Vernacular, Victorian Italianate, Stick, Queen Anne, Colonial Revival, Neoclassical, Shingle, Folk Victorian, Mission, Craftsman, Monterey Revival, Italian Renaissance, Spanish Eclectic, Egyptian Revival, Tudor Revival, Modernistic and International (McAlester and McAlester 1990).

Research interests related to the built environment include San Diego's railroad and maritime history, development in relationship to the automobile, the role of recreation in the development of specific industries, as well as the design and implementation of major regional planning and landscaping projects, the role of international fairs on architecture, landscape architecture and City building; the development of industrial and military technologies between the two world wars; the relationship between climate, terrain, native plant material and local gardening and horticultural practices, planning and subdivision practices from the turn of the century to the present day and the post-war period of suburbanization.



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