- Rare, Threatened, or Endangered Species

Reach 6

San Gabriel River: Firestone Boulevard to Estuary

- Municipal and Domestic Supply (P)
- Water Contact Recreation
- Non-contact Water Recreation
- Warm Freshwater Habitat (P)
- Wildlife Habitat (P)

Reach 7

San Gabriel River Estuary

- Industrial Service Supply
- Navigation
- Water Contact Recreation
- Non-contact Water Recreation
- Commercial and Sport Fishing
- Estuarine Habitat
- Marine Habitat
- Wildlife Habitat
- Rare, Threatened, or Endangered Species
- Migration of Aquatic Organisms
- Spawning, Reproduction, and/or Early Development
- Shellfish Harvesting (P)

IMPAIRED REACHES

The designation of "impaired reaches" identifies reaches that are officially recognized by the State of California as affected by specific pollutants, derived from unknown or nonpoint sources.

The Impaired Reaches map is based on the latest version of the 303(d) List (see map 2-12). The State Water Resources Control Board developed the 2002 Clean Water Act, Section 303(d) List of Water Quality Limited Segments, approving it on February 4, 2003. On July 25, 2003, USEPA gave final approval to California's 2002 Section 303(d) List of Water Quality Limited Segments. The list (see below for San Gabriel River list) includes all bodies of water statewide that do not meet water quality standards, even after known point sources of pollution have implemented pollution control technology. This list represents concentrations of nonpoint source pollutants that occur within major rivers, creeks and waterbodies within the state.

Together with local stakeholders, the Regional Board helps set Total Maximum Daily Loads or TMDLs, which describe maximum levels for specific water quality parameters for specific water bodies. TMDLs provide water quality improvement targets and priorities that local jurisdictions must use in addressing 303(d) listed pollutants. TMDLs outline pollutant removal or reduction objectives over a period of time.

The map of Impaired Reaches shows which waterbodies are impaired or polluted. The associated constituents or pollutants are listed below for each waterbody. Walnut, San Jose and Coyote Creeks are included here because they are major tributaries of the river even though they do not fall within the Master Plan project area.

- 303 (d) San Jose Creek (from confluence with Puente Creek to confluence with San Gabriel River): algae, coliform
- 303 (d) San Jose Creek (from top of main stem to confluence with Puente Creek): algae, coliform
- 303 (d) Walnut Creek (from Puddingstone Reservoir to confluence with Big Dalton Wash, excludes last stretch of Walnut Creek to the San Gabriel River confluence): pH, toxicity
- 303 (d) San Gabriel River (from Ramona Boulevard to Whittier Narrows Dam): toxicity
- 303 (d) San Gabriel River (from Whittier Narrows Dam down to Firestone Boulevard): coliform, copper, lead, zinc
- 303 (d) San Gabriel River (from Firestone Boulevard to the Estuary): abnormal fish histology, algae, coliform, toxicity
- 303 (d) San Gabriel River Estuary: abnormal fish histology
- 303 (d) Coyote Creek (entire stretch of main stem): abnormal fish histology, algae, coliform, toxicity, copper, lead, selenium, zinc

The San Gabriel River has four impaired reaches listed, as well as impaired tributaries that flow into the river *(Note: the reach designations used by the Regional Board differ from those used in this Master Plan document).* The impaired tributaries obviously bring in the listed impairments into the San Gabriel River system. The water reclamation plants that send recycled water into the river may dilute the quantities of certain pollutants to levels below 303(d) listing standards. The presence of "abnormal fish histology" in the lowest reach of the San Gabriel River may indicate the accumulation of toxins in fish found in these reaches, whether they are listed or not.

2.3.2 Cultural and Social Resources

Cultural and social resources are the intangible features of the river environment that define how people have lived and worked along and near the river through time. This includes the people, political jurisdictions and social and cultural institutions that exist in and around the Master Plan project area. This section includes:

POLITICAL JURISDICTIONS: the levels of government that overlay and intersect the natural boundaries of the river.

DEMOGRAPHICS: the composition and characteristics of the people who reside in and around the river corridor.

LAND USE AND ECONOMIC DEVELOPMENT: how people use the land adjacent to and near the river.

CULTURAL AND HISTORIC RESOURCES: the artifacts and imprints of past and present generations of inhabitants.

PUBLIC SAFETY INSTITUTIONS: the network of facilities in and near the river, such as fire stations, hospitals and police stations.

PUBLIC HEALTH AGENCIES: the jurisdictional and regulatory domains of public health agencies.

Political Jurisdictions

The San Gabriel River Corridor Master Plan project area is a complex mosaic of political jurisdictions and agency boundaries, making on-going coordination and joint planning an essential recommendation of this Master Plan. Jurisdictions include: the Angeles National Forest; two US Army Corps of Engineers-managed dam and recreation areas; ten Congressional districts; five California State Senate districts; nine State assembly districts; a State conservancy; several joint powers authorities including the new Watershed Conservation Authority; three Los Angeles County Supervisorial Districts; one Orange County Supervisorial District; 14 water supply agencies; three councils of governments (San Gabriel Valley COG, Gateway COG, Orange County COG); two counties (Los Angeles and Orange); 19 cities and a number of regulatory and other agency stakeholders. There are also a number of other stakeholder groups, including non-governmental organizations and a variety of recreational user groups.

In some cases, the San Gabriel River itself defines the jurisdictional boundaries of many public agencies.

CITIES

The river flows through or alongside 19 cities. This list is organized by reach although reach boundaries do not correspond exactly with those of the cities.

REACHES 1 AND 2: HEADWATERS AND SAN GABRIEL CANYON. These two reaches occur entirely within the boundaries of the Angeles National Forest and do not flow through a city.

REACH 3: UPPER SAN GABRIEL VALLEY. Azusa, Duarte, Arcadia, Irwindale.

REACH 4: LOWER SAN GABRIEL VALLEY. Baldwin Park, El Monte, South El Monte, City of Industry. This reach also includes the Los Angeles County unincorporated community of Bassett.

REACH 5: UPPER COASTAL PLAIN. Pico Rivera, Whittier, Santa Fe Springs, Norwalk.

REACH 6: LOWER COASTAL PLAIN. Downey, Bellflower, Cerritos, Lakewood.

REACH 7: ZONE OF TIDAL INFLUENCE. Long Beach, Seal Beach, Los Alamitos. This reach also includes the Orange County unincorporated community of Rossmoor.

LOS ANGELES COUNTY SUPERVISORIAL DISTRICTS

First Supervisorial District Supervisor Gloria Molina
Includes the northern half of the urbanized river corridor from Reach 3 to Reach 5 (Upper and Lower San Gabriel Valley, as well as portions of Upper Coastal Plain)

Fourth Supervisorial District Supervisor Don Knabe
Includes the southern half of the urbanized river corridor from Reach 5 through Reach 7. (portions of Upper Coastal Plain, Lower Coastal Plain, and Zone of Tidal Influence)

Fifth Supervisorial District Supervisor Michael D. Antonovich
Includes all of the reaches in the Angeles National Forest, Reach 1 and Reach 2 (Headwaters and San Gabriel Canyon)

ORANGE COUNTY SUPERVISORIAL DISTRICTS

Second Supervisorial District Supervisor James Silva
Includes the communities of Los Alamitos, Rossmoor and Seal Beach in the north coastal area of Orange County, located in the lower portions of Reach 6 and all of Reach 7.

CALIFORNIA STATE ASSEMBLY DISTRICTS

Assembly District 44 Assemblymember Carol Liu
Includes the western edge of Reach 3 to the north and west of Santa Fe Dam, primarily those portions of Reach 3 falling within the City of Duarte.

Assembly District 49 Assemblymember Judy Chu
Primarily the western half of Reach 4, from just below Santa Fe Dam to Whittier Narrows. The San Gabriel River defines the eastern boundary of this district.

Assembly District 50 Assemblymember Hector De La Torre
Includes the western half of Reach 6 (Lower Coastal Plain) as the river flows by the City of Bellflower.

Assembly District 54 Assemblymember Betty Karnette
Includes the lower half of Reach 6 as the river flows between Long Beach and Hawaiian Gardens, and the western half of Reach 7 as it flows by Long Beach to the coast.

Assembly District 55 Assemblymember Jenny Oropeza
Includes the western half of Reach 6 as the river flows by Lakewood. The San Gabriel River defines the eastern boundary of the district.

Assembly District 56 Assemblymember Rudy Bermudez
Includes the eastern half of Reach 5 as the river flows by unincorporated West Whittier and Santa Fe Springs, and bisects Lakewood. The river defines the western boundary of the district.

Assembly District 57 Assemblymember Ed Chavez
Includes Reach 3 (the Upper San Gabriel Valley cities of Azusa and Irwindale) and the eastern half of Reach 4, from just below Santa Fe Dam to Whittier Narrows. This includes Baldwin Park and unincorporated areas of Los Angeles County on the eastern bank. The river defines the western boundary of this district along the Reach 4 portion.

Assembly District 58 Assemblymember Ronald S. Calderon
Includes Whittier Narrows and Puente-Chino Hills (lower portion of Reach 4) and the western half of Reach 5 as the river flows by Pico Rivera and Downey. The river defines the eastern boundary of the district along the Reach 5 portion.

Assembly District 59 Assemblymember Dennis Mountjoy
Includes all of the river within Angeles National Forest, Reach 1 and Reach 2.

Assembly District 67 Assemblymember Tom Harman
Includes the eastern half of Reach 7, as the river flows by Los Alamitos, Rossmoor and Seal Beach.

CALIFORNIA STATE SENATE DISTRICTS

Senate District 24 Senator Gloria Romero
Includes Reach 3 (Upper San Gabriel Valley) and most of Reach 4 (Lower San Gabriel Valley), but stops short of Whittier Narrows.

Senate District 27 Senator Alan Lowenthal
Includes the western half of Reach 6, as the river flows by Downey and Bellflower, all of the lower portions of Reach 6 as the river flows between Lakewood and Cerritos, and primarily the western portion of Reach 7 as it flows by Long Beach to the coast.

Senate District 29 Senator Bob Margett
Includes the river as it flows through the Angeles National Forest, Reach 1 and Reach 2.

Senate District 30 Senator Martha M. Escutia
Includes the lowest portion of Reach 4 (South El Monte and Whittier Narrows); all of Reach 5 (Upper Coastal Plain) including Pico Rivera, Whittier, Santa Fe Springs and part of Downey, and the eastern half of Reach 6 as it flows by Norwalk.

Senate District 35 Senator John Campbell
Includes the eastern half of Reach 7 as the river flows by Rossmoor and Seal Beach.

U.S. CONGRESSIONAL DISTRICTS

Congressional District 26 Congressman David Dreier
Includes all of the San Gabriel River within the Angeles National Forest, Reach 1 and Reach 2.

Congressional District 32 Congresswoman Hilda Solis
Includes most of Reach 3 and Reach 4, as defined by the Cities of Azusa, Duarte, Irwindale, Baldwin Park, El Monte and South El Monte, and the Whittier Narrows. The river defines the southeastern boundary of this district, from north of the 10 Freeway to the mouth of the San Gabriel Canyon, the river flows through the center of this congressional district.

Congressional District 34 Congresswoman Lucille Roybal-Allard
Includes portions of Reach 5 and 6, as defined by the Cities of Downey and Bellflower. The river forms the eastern boundary of the district.

Congressional District 38 Congresswoman Grace Napolitano
Includes portions of Reach 4 (the eastern bank of the river/Avocado Heights, Puente Chino Hills), the western bank of Reach 5 (Pico Rivera), and the eastern bank of Reach 6 (Santa Fe Springs, and Norwalk).

Congressional District 39 Congresswoman Linda Sanchez
Includes much of Reach 6, as defined by the Cities of Lakewood, Cerritos and Hawaiian Gardens. In addition, a northern spur of the district includes the eastern bank of the river as defined by the community of West Whittier and the City of Whittier.

Congressional District 40 Congressman Edward Royce
Includes a small portion of Reach 7, as defined by Rossmoor and Los Alamitos in Orange County.

Congressional District 46 Congressman Dana Rohrabacher
Includes most of Reach 7, as defined by the cities of Long Beach and Seal Beach. It straddles both Los Angeles County and Orange County.

Demographics

Plans for parks and other projects along the river must take into account the diverse characteristics of the people and communities adjacent to the river, especially in regards to size and age distribution, race, culture and ethnicity, and other factors.

POPULATION SIZE AND AGE DISTRIBUTION

About 1.5 million people live near the river, including the populations of the cities and unincorporated areas. Population distribution varies: only a handful of people live fulltime in Reaches 1 and 2, within the boundaries of the Angeles National Forest. The majority lives within the San Gabriel Valley and the river's coastal plain as described below.

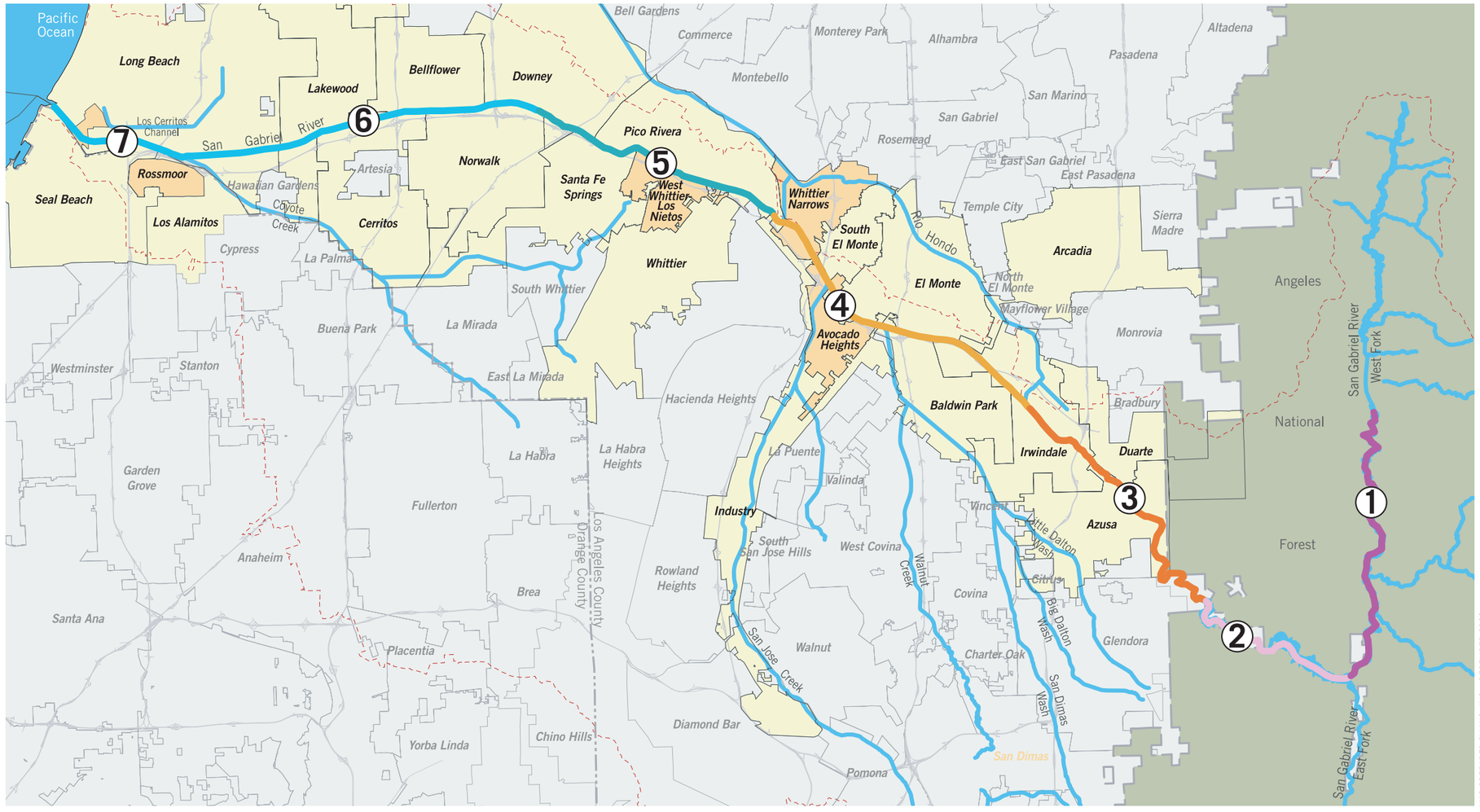
- Reach 3: 120,698 (Azusa, Duarte, Arcadia, Irwindale)
- Reach 4: 228,871 (Baldwin Park, El Monte, South El Monte, Industry, Avocado Heights CDP)
- Reach 5: 292,973 (Pico Rivera, Whittier, West Whitter-Los Nietos CDP, Santa Fe Springs, Norwalk)
- Reach 6: 311,034 (Downey, Bellflower, Cerritos, Lakewood)
- Reach 7: 495,977 (Long Beach, Seal Beach, Rossmoor CDP)

(Population figures are based on 2000 US Census data for the cities that adjoin the San Gabriel River. For unincorporated areas, the corresponding "census designated place [CDP]" is used.)

Reach 4 has the highest percentage of young people, with 37.5 percent of the population 19 years old or younger (see Table 2-1). The population in this reach is generally younger than the others, which all have similar age distributions.

Parks and recreation planners will need to take into account the age structure of the local communities that are to be served. Regardless of the specific age distributions of a river reach, engaging local community members in the planning process is the best way to gather information on the specific needs of each community.

Figure 2-75. Students visit the El Dorado Nature Center to learn firsthand about local creatures.



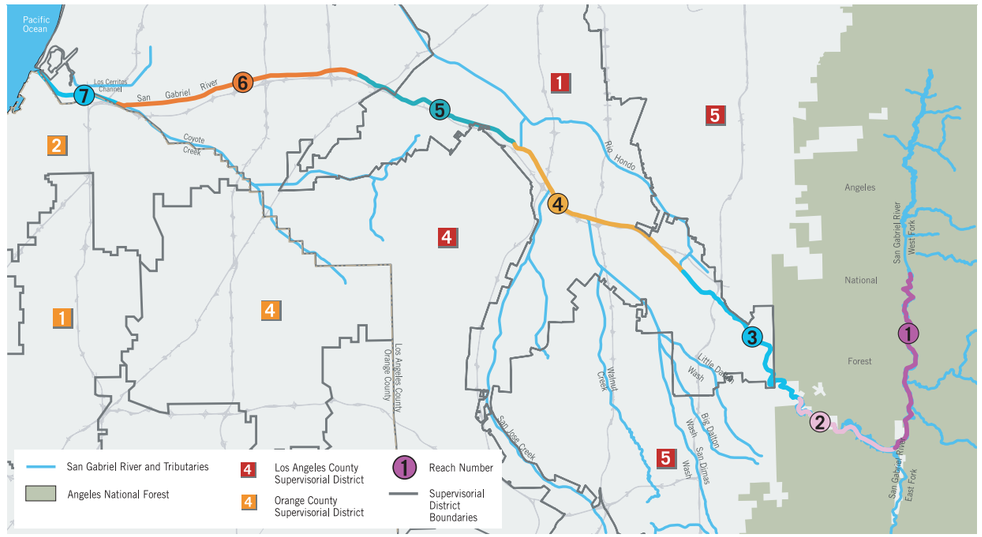
Source: County of Los Angeles Department of Public Works and Rivers and Mountains Conservancy

Cities and Unincorporated County Areas

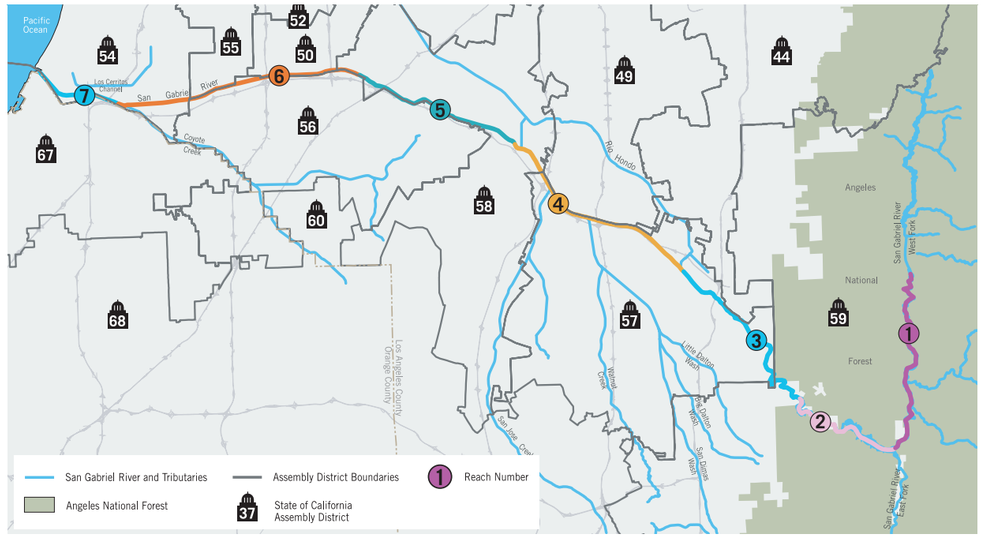
County of Los Angeles Department of Public Works

San Gabriel River Corridor Master Plan

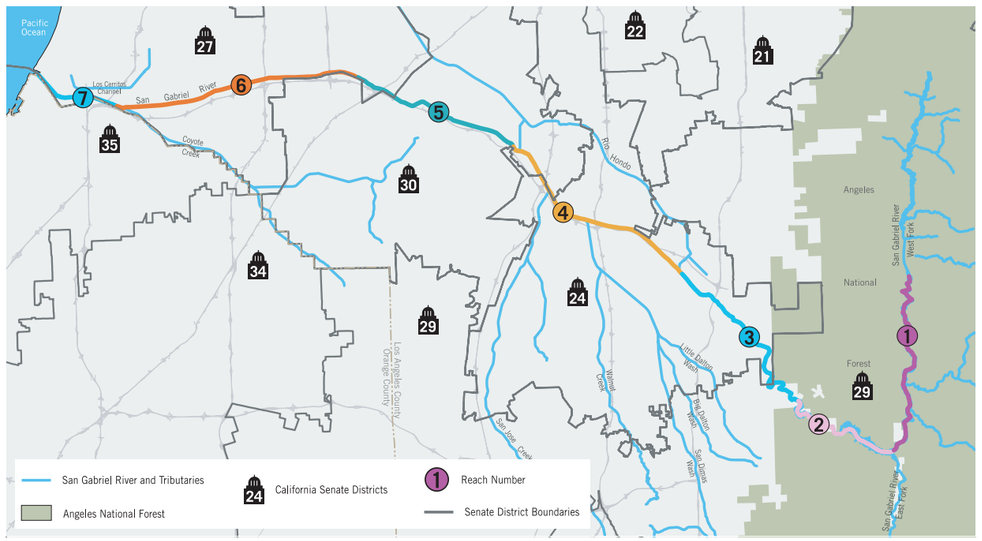
Map 2-13. Cities and unincorporated county areas in the San Gabriel River Corridor Master Plan project area.



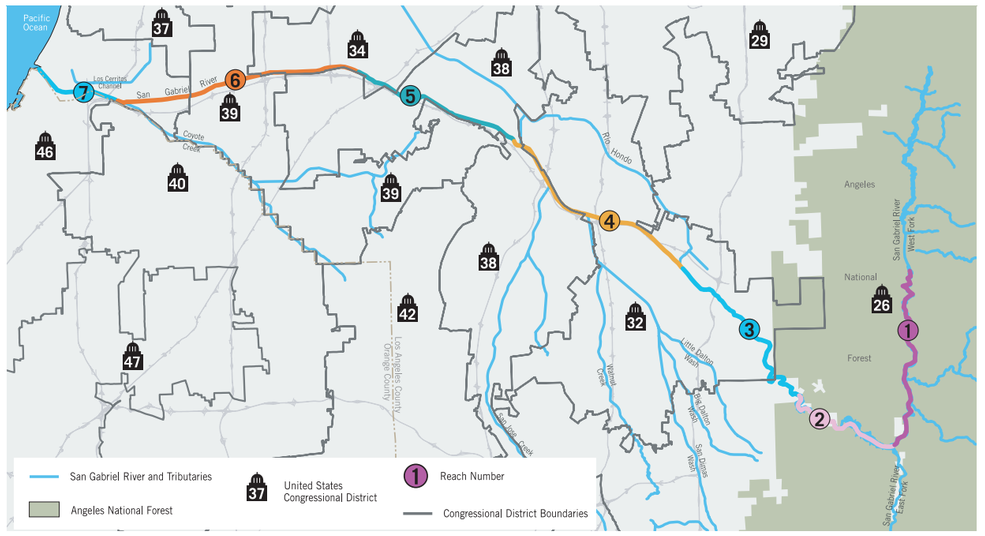
Los Angeles and Orange Counties Supervisorial Districts



State of California Assembly Districts



State of California Senate Districts



United States Congressional Districts

County of Los Angeles Department of Public Works
San Gabriel River Master Plan

MAP'S PREPARED BY MIG, INC.—DECEMBER 2003

Map 2-14. Political jurisdictions.

RACE AND ETHNICITY

Like most of Southern California, the area around the San Gabriel River is racially and ethnically diverse. However, these patterns vary along the river corridor (see Table 2-2). In every reach, except for the zone of tidal influence (Reach 7), those who identified themselves as Hispanic or Latino represent the largest component of the population. In the lower San Gabriel Valley and upper coastal plain, the Hispanic or Latino population is 75.9 percent and 68.7 percent respectively. Those identifying themselves as Asian in the 2000 Census also represent a large percentage of the river corridor's population. In the lower San Gabriel Valley, the Asian population is the second largest group. The largest percentage of Asian population occurs in the upper San Gabriel Valley.

COURTESY NORTH EAST TREES

Figure 2-76. A habitat restoration planting event at San Jose Creek attracted a diverse group of volunteers.

TABLE 2-1. POPULATION BY AGE GROUP AND RIVER REACH (%), 2000

	Reach 3 Upper San Gabriel Valley	Reach 4 Lower San Gabriel Valley	Reach 5 Upper Coastal Plain	Reach 6 Lower Coastal Plain	Reach 7 Zone of Tidal Influence
Under 5 years	6.9%	9.7%	8.2%	7.6%	8.0%
5 to 9 years	7.8%	10.3%	9.1%	8.4%	8.7%
10 to 14 years	7.7%	9.0%	8.4%	8.0%	7.6%
15 to 19 years	8.1%	8.5%	8.0%	7.5%	7.1%
20 to 29 years	14.0%	17.3%	14.7%	13.8%	15.9%
30 to 39 years	14.7%	15.8%	15.6%	15.5%	16.7%
40 to 49 years	15.0%	12.1%	13.3%	14.5%	13.7%
50 to 59 years	10.5%	7.8%	8.8%	10.9%	9.2%
60 to 69 years	6.7%	4.8%	6.0%	6.3%	5.3%
70 to 79 years	5.3%	3.2%	5.4%	5.0%	4.0%
80 to 89 years	2.7%	1.3%	2.2%	2.3%	2.7%
90 years and over	0.6%	0.2%	0.4%	0.3%	0.5%

SOURCE: US CENSUS BUREAU, 2000

TABLE 2-2. RACE AND ETHNICITY (%) BY RIVER REACH, 2000

	Reach 3 Upper San Gabriel Valley	Reach 4 Lower San Gabriel Valley	Reach 5 Upper Coastal Plain	Reach 6 Lower Coastal Plain	Reach 7 Zone of Tidal Influence
Hispanic or Latino	37.0%	76.1%	68.7%	37.6%	33.7%
White	32.4%	7.4%	21.4%	34.0%	36.7%
Black or African America	3.3%	0.8%	2.2%	7.1%	13.6%
American Indian and Alaska Native	0.3%	0.3%	0.4%	0.3%	0.4%
Asian	24.3%	14.5%	5.7%	17.9%	11.5%
Native Hawaiian and Other Pacific Islander	0.1%	0.1%	0.2%	0.4%	1.1%
Some Other Race	0.2%	0.1%	0.1%	0.2%	0.2%
Two or More Races	2.3%	0.8%	1.3%	2.5%	2.9%

SOURCE: US CENSUS BUREAU, 2000

Note: Individuals who reported themselves as Hispanic or Latino have been grouped regardless of race. All other groups listed include only those who identified themselves as non-Hispanic/Latino. All categories listed above reflect those used in the 2000 Census (US Census Bureau, 2000).

TABLE 2-3. LANGUAGES SPOKEN AT HOME BY RIVER REACH (%), 2000

	Reach 3 Upper San Gabriel Valley	Reach 4 Lower San Gabriel Valley	Reach 5 Upper Coastal Plain	Reach 6 Lower Coastal Plain	Reach 7 Zone of Tidal Influence
Speak only English	45.55%	20.43%	42.60%	50.98%	58.17%
Spanish or Spanish Creole	27.99%	64.89%	50.65%	29.94%	28.44%
Chinese	15.30%	7.06%	0.83%	2.97%	0.74%
Korean	1.79%	0.31%	0.96%	4.62%	0.31%
Mon-Khmer, Cambodian	0.07%	0.22%	0.23%	0.51%	3.75%
Vietnamese	0.43%	3.68%	0.42%	0.77%	1.00%
Tagalog	2.36%	1.98%	1.72%	4.05%	2.97%

Note: Includes people over 5 years of age and languages with more than one percent of population per reach reporting using that language at home. This information is derived from the 2000 Census question asking whether a person speaks a language other than English at home and if so, what is the language. It is important to note that many who indicated that languages other than English are spoken at home also speak English (US Census Bureau, 2000).

TABLE 2-4. HOUSEHOLD LANGUAGE BY LINGUISTIC ISOLATION AND RIVER REACH (%), 2000

	Reach 3 Upper San Gabriel Valley	Reach 4 Lower San Gabriel Valley	Reach 5 Upper Coastal Plain	Reach 6 Lower Coastal Plain	Reach 7 Zone of Tidal Influence
English	46.2%	16.9%	39.9%	51.0%	63.2%
Spanish	26.5%	66.2%	51.9%	29.3%	23.6%
Linguistically isolated	6.1%	19.8%	9.3%	5.7%	7.9%
Not linguistically isolated	20.4%	46.4%	42.6%	23.6%	15.7%
Other Indo-European	4.6%	1.0%	2.6%	4.4%	3.7%
Linguistically isolated	0.5%	0.2%	0.3%	0.6%	0.5%
Not linguistically isolated	4.1%	0.8%	2.2%	3.8%	3.1%
Asian and Pacific Island	21.8%	15.6%	5.3%	13.9%	9.0%
Linguistically isolated	7.9%	7.1%	1.3%	3.6%	2.3%
Not linguistically isolated	13.8%	8.5%	4.0%	10.3%	6.6%
Other languages	0.9%	0.2%	0.3%	1.4%	0.6%
Linguistically isolated	0.1%	0.1%	0.0%	0.2%	0.1%
Not linguistically isolated	0.8%	0.2%	0.3%	1.2%	0.5%
Total Households Linguistically Isolated:	14.7%	27.2%	11.0%	10.1%	10.8%

Note: Linguistic isolation is defined as a household in which no person 14 years old or over speaks English or speaks English "very well." In other words, a household in which all members 14 years old and over speak a non-English language and also speak English less than "very well" (have difficulty with English) is "linguistically isolated." All the members of a linguistically isolated household are tabulated as linguistically isolated, including members under 14 years old who may speak only English (US Census Bureau, 2000).

SOURCE: US CENSUS BUREAU, 2000

LANGUAGES

The communities of the San Gabriel River corridor are also linguistically diverse (see Table 2-3). Of the 39 language categories in the 2000 Census, only one category, Navajo, is not found within the river corridor. In Reaches 3, 4 and 5, the majority of respondents indicated that they speak a language other than English at home. The languages most widely spoken at home include English, Spanish and Chinese. The other prevalently used languages at home include Asian and Pacific Island languages such as Korean, Mon-Khmer or Cambodian, Vietnamese and Tagalong, the primary language of the Philippines.

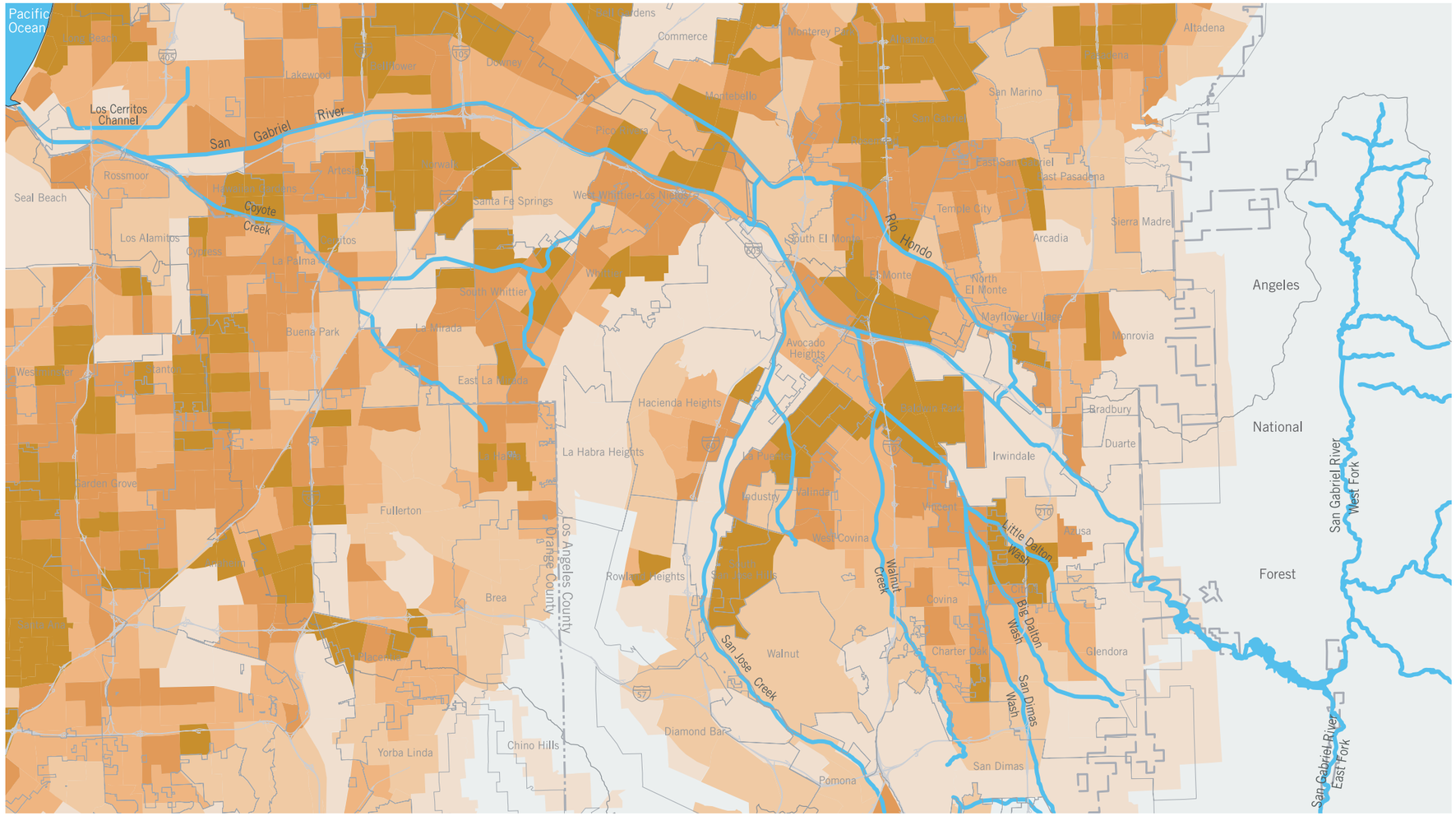
While many living in communities along the river corridor speak languages other than English at home, a subset of this population are also defined as "linguistically isolated" (see Table 2-4). This term, used by the US Census Bureau, describes households in which no one over 14 years of age speaks English or speaks English "very well." More than 10 percent of the population for each river reach is defined as being linguistically isolated, with Reaches 3 and 4 having the greatest occurrences at 14.7 percent and 27.2 percent respectively.

POPULATION DENSITY

Population density is the number of people living within a particular area, measured by the number of people per square mile of area. In 2000, the densest communities included Baldwin Park, El Monte, Norwalk and Bellflower, each of which had an average of over 11,000 people per square mile (see Table 2-5).

The Population Density Map (Map 2-18) is based on data from the 1990 Census (2000 Census data was not available when the map was created). The patterns show areas of very low to very high density along the river. Five categories of population density were developed to create this snapshot, showing the distribution of where people live along the San Gabriel River:

- Very Low: 0–2,400 people per square mile
- Low: 2,401–4,800 people per square mile
- Medium: 4,801–7,200 people per square mile
- High: 7,201–9,600 people per square mile
- Very High: > 9,600 people per square mile



Map 2-18. Population density.

TABLE 2-5. POPULATION DENSITY, 2000

	Total population	Land Area (sq. mi.)	Density (people/sq. mi.)
REACH 3: UPPER SAN GABRIEL VALLEY			
Azusa	44,712	8.9	5,023.8
Duarte	21,486	6.68	3,216.5
Arcadia	53,054	11.11	4,775.3
Irwindale	1,446	9.46	1,52.9
Baldwin Park	75,837	6.8	11,152.5
REACH 4: LOWER SAN GABRIEL VALLEY			
El Monte	115,965	9.69	11,967.5
South El Monte	21,144	2.89	7,316.3
Industry	777	11.89	65.3
Avocado Heights CDP	15,148	2.82	5,371.6
REACH 5: UPPER COASTAL PLAIN			
Whittier	83,680	14.63	5,719.8
Pico Rivera	63,428	8.3	7641.9
West Whittier-Los Nietos CDP	25,129	2.51	10,011.6
Santa Fe Springs	17,438	8.86	1,968.2
Norwalk	103,298	8.74	11,819.0
REACH 6: LOWER COASTAL PLAIN			
Downey	107,323	12.59	8,524.5
Bellflower	72,878	6.15	11,850.1
Cerritos	51,488	8.89	5,791.7
REACH 7: ZONE OF TIDAL INFLUENCE			
Lakewood	79,345	9.5	8,352.1
Long Beach	461,522	65.87	7,006.6
Los Alamitos	11,536	4.0	2884.0
Rossmoor	10,298	1.45	7,102.1
Seal Beach	24,157	11.51	2,098.8

SOURCE: US CENSUS BUREAU, 2000

Altogether, 13 high-density areas are linked with the river: Duarte, two areas in Baldwin Park, El Monte-South El Monte, West Whittier-Los Nietos, Pico Rivera, Norwalk, Bellflower, Lakewood, Lakewood-Cerritos, Long Beach, and Seal Beach (Leisure World).

The most heavily populated areas are in the northern and central areas, Reaches 4 and 5, including the communities of Baldwin Park, El Monte, and Pico Rivera, which lie adjacent to or within a half-mile of the river.

There are other very heavily populated areas in the lower third of the river, within one mile of the river but not adjacent to it: Norwalk-northwest Cerritos, Lakewood-Hawaiian Gardens, and the coast of Long Beach, west of the river mouth.

Reaches 1 and 2

There is very low population density in these two reaches which encompass the wilderness areas of the Angeles National Forest.

Reach 3

This reach also has very low population density, especially in areas adjacent to the river. The area is on the edge of the Angeles National Forest, encompassing both publicly managed and privately owned open space areas. A substantial portion of the area is devoted to industrial land use activities, especially gravel quarries. There are pockets of high population density in the nearby communities of Azusa and Duarte.

Reach 4

The very highest population densities along the river are located in this reach. This includes both Baldwin Park and El Monte, which have population densities greater than 9,600 people per square mile. The very high-density communities of El Monte are directly adjacent to the river, on its west bank. The residential portions of Irwindale and parts of South El Monte directly adjacent to the river have high population densities.

Figure 2-77. This aerial photo shows dense housing along the river in Reach 5.

As the river proceeds further south toward Whittier Narrows, the population densities begin to decrease.

This reach also includes significant areas of very low density, mostly in Irwindale, because of industrial land uses, such as gravel quarry operations that lie adjacent to the river. Portions of these very low-density areas act as a barrier, as they lie between the river and the very high-density communities of Baldwin Park. The Puente-Chino Hills, east of the river at Whittier Narrows, is mostly open space and as a result falls into the very low density category.

Reach 5—Upper Coastal Plain

The reach also has river-adjacent communities with very high-densities, particularly in the City of Pico Rivera. Across the river from Pico Rivera, are the relatively high-density communities of West Whittier-Los Nietos.

Reach 6—Lower Coastal Plain

Reach 6 has many low- to medium-density communities adjacent to the river, most notably Cerritos and parts of Bellflower and Lakewood. Other high-density communities include parts of Norwalk, Lakewood, and Long Beach. There are no very high-density communities adjacent to the river, but densities do increase farther away from the river, for example, in Bellflower, large areas of Norwalk, and Hawaiian Gardens.

A large triangular patch of very low population density at the confluence with Coyote Creek is due to the El Dorado Regional Park.

Reach 7—Zone of Tidal Influence

Communities in this reach are mostly low- to medium-density, with one significant area of very low density, just before densities increase again at the coast.

TABLE 2-6. HOUSEHOLD INCOME BY RIVER REACH (%), 1999

	Reach 3 Upper San Gabriel Valley	Reach 4 Lower San Gabriel Valley	Reach 5 Upper Coastal Plain	Reach 6 Lower Coastal Plain	Reach 7 Zone of Tidal Influence
Less than $10,000	7.9%	9.3%	7.1%	6.4%	12.0%
$10,000 to $24,999	15.6%	22.9%	17.1%	16.1%	21.4%
$25,000 to $34,999	12.0%	15.3%	12.2%	10.8%	12.8%
$35,000 to $44,999	11.1%	12.8%	12.3%	10.9%	10.4%
$45,000 to $59,999	13.5%	14.4%	16.2%	14.1%	11.7%
$60,000 to $74,999	11.1%	9.3%	12.0%	12.4%	9.2%
$75,000 to $99,999	11.7%	8.6%	11.9%	14.0%	9.4%
$100,000 to $124,999	6.9%	3.8%	5.7%	7.4%	5.5%
$125,000 to $149,999	3.7%	1.8%	2.3%	3.5%	2.8%
$150,000 to $199,999	3.4%	0.9%	1.9%	2.8%	2.6%
$200,000 or more	3.2%	0.8%	1.4%	1.6%	2.4%
Median Household Income 1999	$47,759	$41,372	$45,466	$54,068	$55,269
Per Capita Income 1999	$18,651	$11,291	$15,481	$20,381	$30,757

SOURCE: U.S. CENSUS BUREAU, 2000

INCOME

Income levels of households also vary along the river corridor (see Table 2-6). The median household income for 1999 along the corridor varied from $41,372 to $55,269 by river reach. When calculated on a per capita basis, the breadth of annual income for the surveyed year is even broader, ranging from $11,291 to $30,757.

Lower income areas may have less access to open space and recreation resources, relying more on close-to-home resources. This information can be useful in prioritizing areas for investing in open space and recreation.

Land Use and Economic Development

The Land Use Map (see Map 2-19) provides an overview of how people currently use land adjacent to and near the San Gabriel River. This land use map was derived from data developed by the Southern California Association of Governments (SCAG). It divides land uses into five primary land use categories:

- **COMMERCIAL.** This include areas with office buildings, retail stores, restaurants, offices, personal services, hotels and motels, storage and public parking facilities.
- **INDUSTRIAL AND TRANSPORTATION.** This includes light and heavy industrial, mining areas and wholesale and warehousing, and major transportation facilities such as airports, freeways, roads, railways and harbor facilities, as well as all communication and utility facilities.
- **OPEN SPACE.** This includes golf courses, local and regional parks, cemeteries, wildlife preserves, beaches, vacant undeveloped lands, and all agricultural lands.
- **PUBLIC FACILITIES AND INSTITUTIONS.** This includes government offices and other public service facilities, major health care facilities, religious facilities, public and private educational facilities and military installations.
- **RESIDENTIAL.** This includes all single-family as well as multi-family residential, mobile homes and trailer parks and mixed residential areas.

There is a sharp divergence of land use patterns between the Angeles National Forest (Reaches 1 and 2) and in the urbanized areas (Reaches 3 to 7). Reaches 1 and 2 are predominantly open space. There are a variety of land uses in the urbanized areas—residential dominates and open space is relatively sparse. The most significant open space within the urbanized areas are in the Santa Fe Dam Recreation Area, Whittier Narrows, and El Dorado Regional Park in Long Beach.

Industrial areas are concentrated mostly in the northern half of the corridor (Reaches 3 and 4), and toward the southern end of the river as it approaches the ocean (Reach 7). Public facilities and institutions are scattered fairly evenly along the urbanized river corridor. Commercial land uses are largely limited to areas near freeway intersections and along other major east-west corridors intersecting the river.

REACHES 1 AND 2. Exclusively open space (Angeles National Forest).

REACH 3. The most heavily industrialized reach, but with significant amounts of residential (cities of Azusa and Duarte) and open space (Santa Fe Dam Recreation Area).

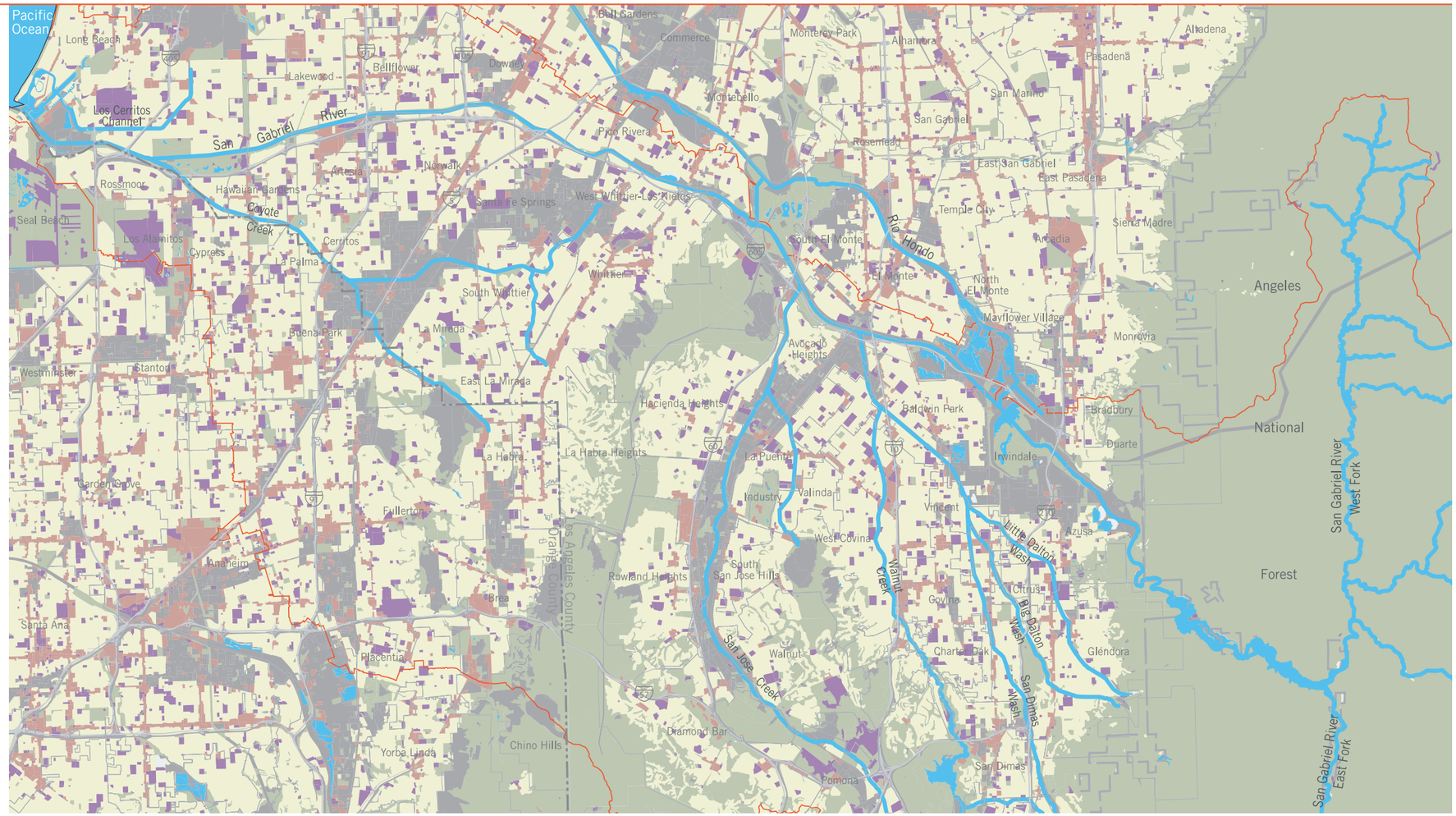
REACH 4. Heavily industrialized, but mostly residential in the middle and lower portions, ending with the most significant open space area outside the national forest (Whittier Narrows).

REACHES 5 AND 6. Primarily residential with some open space.

REACH 7. Primarily residential with some industrial.

Most of the lands adjacent to the San Gabriel River are privately owned residential and industrial land. Southern California Edison (SCE) utility easements and fee-owned properties make up a significant proportion of the privately owned lands.

Public land includes the 605 Freeway, owned and operated by Caltrans, which runs parallel to the river through much of the urbanized area. Other public lands are open spaces and parks, mainly in the upper half of the river (Angeles National Forest, Santa Fe Dam Recreation Area and Whittier Narrows). The lower half of the river has few public lands along the river, except for significant parklands along the Long Beach/Seal Beach segment. Most of the open space is publicly owned, but there are some exceptions, especially in the foothills.



Source: County of Los Angeles Department of Public Works and Rivers and Mountains Conservancy

MAP PREPARED BY MIG, INC.—DECEMBER 2003

Existing Land Use (Generalized)

County of Los Angeles Department of Public Works

San Gabriel River Corridor Master Plan

Map 2-19. Existing land use (generalized).

Cultural and Historic Resources

The river region is rich in cultural and historic sites, telling the story of the settlement and development of Southern California.

The RMC created a GIS database of known landmarks within and near the river corridor, based on research documents and its December 2002 survey of local cities. The map created from this database (see Map 2-20) organizes these cultural and historic landmarks into the following four categories:

RMC PROJECTS: cultural and historical projects currently funded by the RMC.

NATIONAL HISTORICAL LANDMARKS: the nation's official list of cultural resources.

COURTESY NORTH EAST TREES

Figure 2-78. The Juan Bautista de Anza National Historic Trail crosses the San Gabriel River in the Whittier Narrows area.

Figure 2-79. The West San Gabriel River Parkway Nature Trail is a new local park in Lakewood.

CALIFORNIA STATE HISTORICAL LANDMARKS: properties of historical importance in California.

CITY LANDMARKS: This map reveals all known landmarks identified by cities that responded to the RMC survey. Although there are many cultural and historic landmarks in the San Gabriel Valley and southeastern Los Angeles County, only a few are within easy walking distance to the river (one-half mile). They are listed below by reach:

REACHES 1 AND 2

No cultural or historic landmarks have currently been identified in these two upper reaches.

REACH 3: UPPER SAN GABRIEL VALLEY

CITY LANDMARKS: Puente Largo Railroad Bridge/Duarte Historical Society (Duarte) and Historic Route 66.

REACH 4

NATIONAL DESIGNATIONS: Juan Bautista de Anza National Historic Trail.

CITY LANDMARKS: Walnut Creek Nature Center (Baldwin Park), Whittier Narrows Nature Center.

REACH 5

CALIFORNIA STATE HISTORICAL LANDMARK AND RMC PROJECT: Casa de Governor Pio Pico and Pio Pico State Park (6003 Pioneer Boulevard, Whittier). A historic adobe home built by Pio Pico, the last Mexican governor of California before the American takeover in 1846.

REACH 6: LOWER COASTAL PLAIN

CITY LANDMARKS: Horse Country (Bellflower), Caruther's Park House (Bellflower), Nye Library (Lakewood), Mae Boyer Park (Lakewood), Monte Verde Park (Lakewood), Rynerson Park (Lakewood), West San Gabriel River Open Space Area (Lakewood) and Lakewood Equestrian Center (Lakewood).

REACH 7: ZONE OF TIDAL INFLUENCE

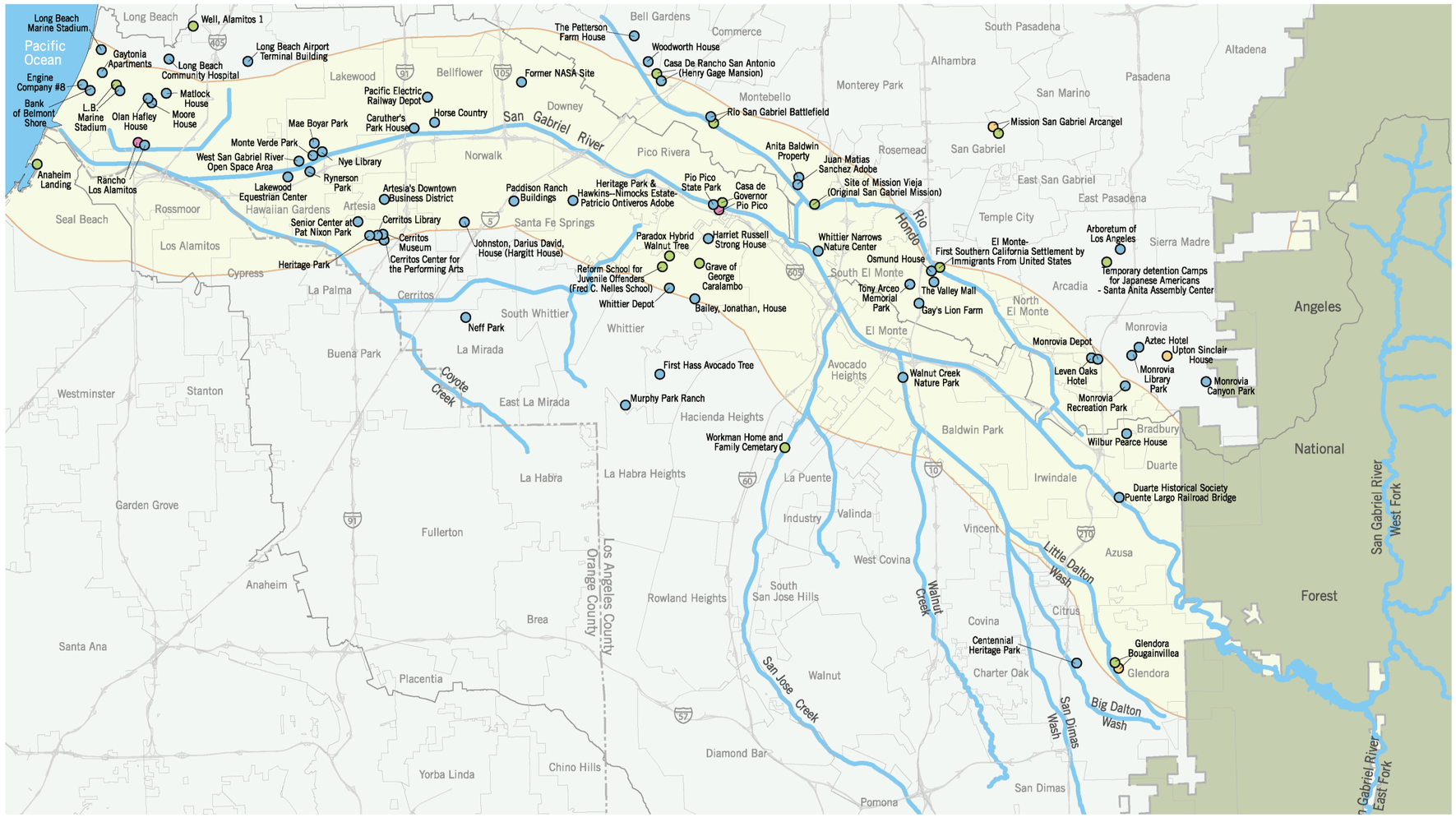
CITY LANDMARK/RMC PROJECT: Rancho Los Alamitos (6400 Bixby Hill Road, Long Beach). A historic18-room adobe ranch house that had its origins in a land grant from the King of Spain, dating from the late 1800s.

ADDITIONAL OBSERVATIONS

There are no National Historical Landmarks within walking distance of the river. However, three sites do appear on the map due to their significance and relative proximity: Mission San Gabriel Arcangel (San Gabriel), Upton Sinclair House (Monrovia) and Glendora Bougainvillaea (Glendora).

The Casa de Governor Pio Pico in Whittier/Pico Rivera is the only California State Historic Landmark on the river. However, two additional sites are located within one mile of the river: Site of Mission Vieja (Whittier Narrows), the original site of San Gabriel Mission on the Rio Hondo, and Anaheim Landing (Seal Beach). There are 10 other state sites within five miles of the river.

Other designated city landmarks within three to five miles of the river are also depicted on the map in the Cities of Bradbury, Glendora, Monrovia, Arcadia, El Monte, Montebello, Bell Gardens, Santa Fe Springs, Whittier and Cerritos.



Map 2-20. Cultural and historic resources.

The RMC will update the database as new data is acquired. It is anticipated that many more city landmarks will appear once surveys are completed.

Public Safety and Hospital Facilities

Public safety is of paramount importance in both current and future uses of the river, and is partially dependent on where public safety facilities are located in relation to the river. Facilities on the map (see Map 2-21) include fire stations, hospitals and police stations. The location of these public safety facilities can be used to assess whether the geographic service areas of fire, police, and other emergency personnel offer sufficient coverage of the river.

The mapping shows that very few public safety facilities are currently located within one-half mile of the river. However, the number of public safety facilities increases significantly at a distance of at least one-mile from the river.

The following is a list by reach of all public safety facilities located within one-half mile of the San Gabriel River:

REACH 1: HEADWATERS

No public safety facilities are located in this reach.

REACH 2: SAN GABRIEL CANYON

Fire Stations

- Rincon Ranger Station (on West Fork)
- County of Los Angeles Fire Dept Camp 19 (on East Fork within one mile of Main San Gabriel River channel)
- East Fork Fire Station

REACH 3: UPPER SAN GABRIEL VALLEY

Fire Stations

- Fire Station (Azusa)

Hospitals

- City of Hope National Medical Center (1500 E. Duarte Road, Duarte; three-quarter mile west of the river)

REACH 4—LOWER SAN GABRIEL VALLEY

No public safety facilities exist within one-half mile of the river.

REACH 5: UPPER COASTAL PLAIN

Fire Stations

- County of Los Angeles Fire Station #40 (4864 S. Durfee, Pico Rivera)
- Fire Station (Florence Avenue, Downey; three-quarter mile from the river)

Police Stations

- County of Los Angeles Sheriffs Station (Passons Boulevard, Pico Rivera)
- California Highway Patrol (Davenrich Street, Santa Fe Springs)
- Police Station (Jersey Avenue/Telegraph Road, Santa Fe Springs)

REACH 6: LOWER COASTAL PLAIN

Fire Stations

- Fire Station (Lakewood)
- Fire Station (Wardlow Road, El Dorado Regional Park, Long Beach)

Hospitals

- Coast Plaza Doctors Hospital (13100 Studebaker Road, Norwalk; three-quarter mile from the river)
- Bellwood General Hospital (10250 E. Artesia Boulevard, Bellflower; just beyond one-half mile of the river)

REACH 7: ZONE OF TIDAL INFLUENCE

Fire Stations

- Fire Station (Long Beach Marina, Long Beach)
- Fire Station (8th Street/Central Avenue, Seal Beach)

Facilities located within one-half mile from the river (a reasonable walking distance from the river) are described below.

FIRE STATIONS

There are nine fire stations close to the river: two in the Angeles National Forest, one each in Azusa, Pico Rivera, Downey, Lakewood, two in Long Beach, and one in Seal Beach. There are six additional fire stations one mile from the river. In general, the fire stations are evenly distributed in the region, approximately 2–3 miles apart.

HOSPITALS

There are three hospitals close to the river, one each in Duarte, Norwalk and Bellflower. There are nine hospitals about one mile from the river on either side, making hospital coverage somewhat evenly distributed.

POLICE STATIONS

There are three police stations, one in Pico Rivera and two near each other in Santa Fe Springs, all in Reach 6. Above Pico Rivera there are no police stations near the river. The nearest ones are approximately two miles from the river, and are located in Azusa, Irwindale and Baldwin Park.

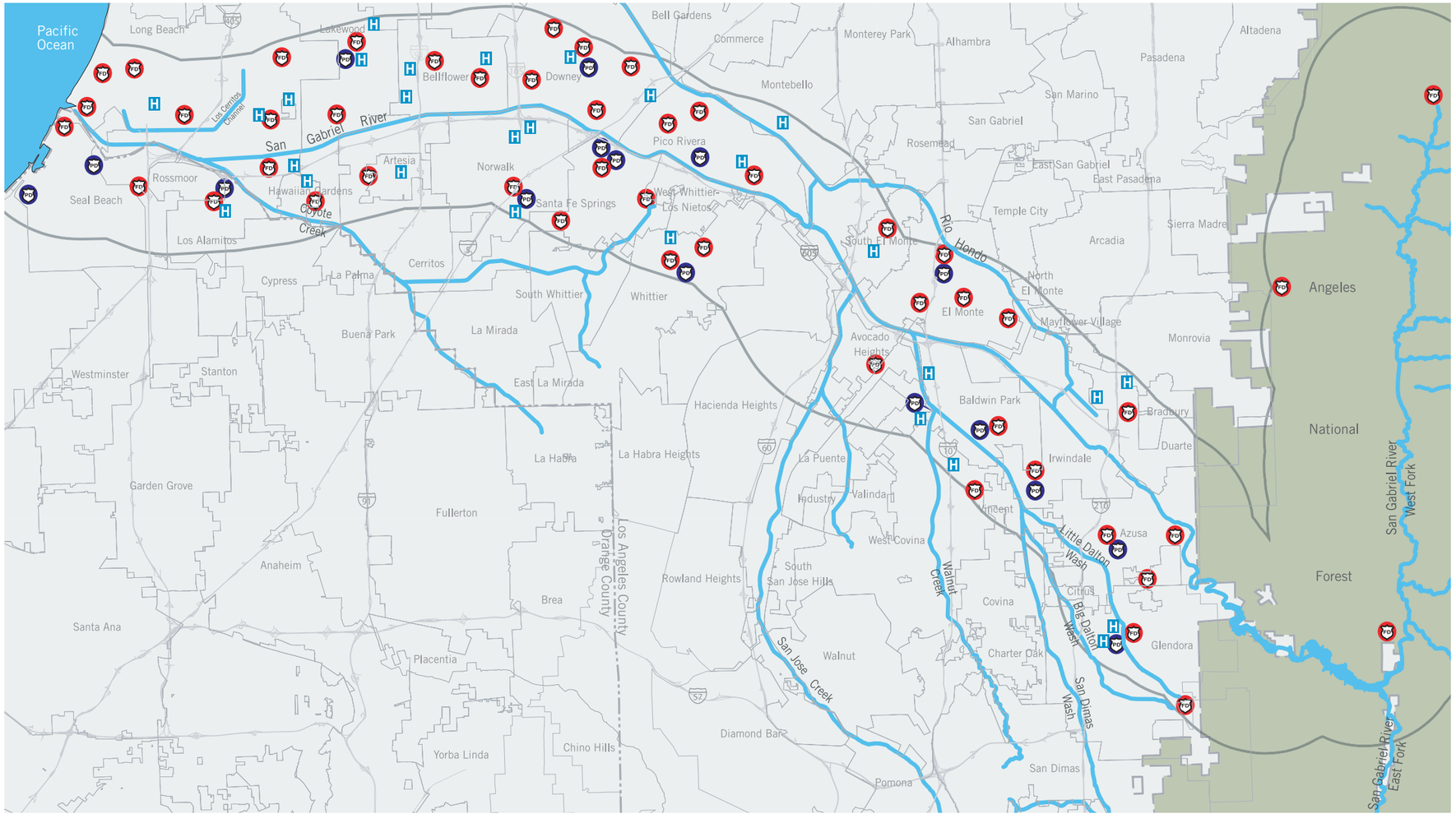
Reach 4 between Santa Fe Dam Recreation Area and Whittier Narrows has no public safety facilities within one-half mile of the river.

The presence of public safety facilities near the river suggests that public safety can be monitored and maintained with increased use of the river. Better signage to these facilities and regular patrols by uniformed officers and trained citizen watch groups can further increase both the real and perceived safety of the river.

Public Health Agencies

Public health issues relating to vector control are part of the river's context and must be considered. A vector is "any animal capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury, including, but not limited to, mosquitoes, flies, other insects, ticks, mites, and rats, but not including any domestic animal," according to California's Health and Safety Code. Wetlands have been breeding grounds for vectors such as mosquitoes in the past. In the early 1900s, public concern about malaria outbreaks led to the implementation of malaria control programs. This led to vector abatement and control legislation in 1915, including the Mosquito Abatement Act. Now, a variety of public agencies are responsible for protecting the residents of Los Angeles County from human disease-causing vectors.

The Infectious Diseases Branch of the California Department of Health Services protects and promotes the health of Californians through the surveillance, investigation, prevention and control of communicable diseases. It also monitors and addresses disease occurrences that have an impact on all local health jurisdictions in the State, and that may affect public health policy on a national and international level. The seven regional offices of the Vector-Borne Disease Section of the branch provide technical consultation and assistance to local vector control agencies to

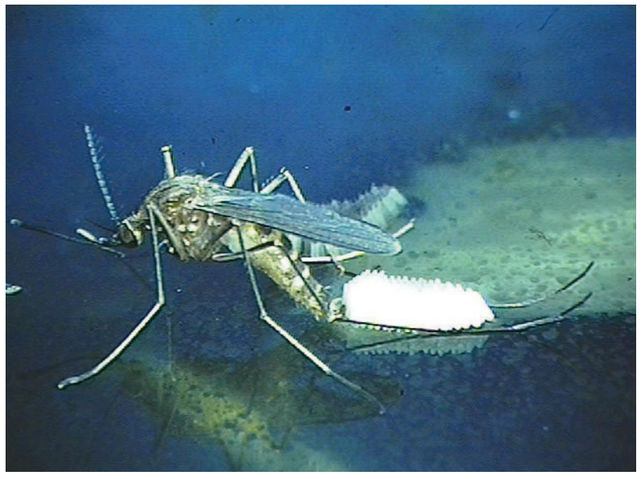


Map 2-21. Public safety and hospital facilities.

prevent and control vector-borne diseases such as Hanta virus, plague, malaria, tick-borne diseases and arboviral encephalitis.

Mosquito and vector control districts (MVCDs) also play a significant role in public health. These districts are authorized through the Mosquito Abatement and Vector Control District Law (§2000 of California Health and Safety Code), which created special districts to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors. MVCDs are encouraged to cooperate with other public agencies to protect the public health, safety and welfare. Their authority includes provisions for recovering costs, including penalties, associated with necessary abatement actions to protect public health. There are five independent MVCDs in Los Angeles County, four of which overlap the San Gabriel River corridor and the cities that line the river. These include:

THE GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT: A special district serving 1,300 square miles of Los Angeles County. The district's mission is to: reduce populations of vectors to below nuisance levels (mosquitoes, midges, black flies and Africanized Honey Bees); prevent human infection associated with mosquito-transmitted disease; guard against human infection associated with other vector-transmitted diseases; and prevent the loss of property values and commercial enterprise as the result of vector occurrence and activity. Jurisdictions in the master plan area that are served by this District include Bellflower, Cerritos, Downey, Lakewood, part of Long Beach, portions of Los Angeles County, Norwalk, Pico Rivera, Santa Fe Springs, South El Monte, and Whittier.



COURTESY CENTER FOR DISEASE CONTROL, US DEPARTMENT OF HEALTH AND HUMAN SERVICES

Figure 2-80. A female mosquito lays her eggs in "rafts."

THE SAN GABRIEL VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT: A special district that serves communities in the San Gabriel Valley. The District was founded in 1989 to protect residents from mosquito-borne disease through public education, surveillance, and control of mosquitoes. As the District evolved, additional programs were added. In 1997, the Board of Trustees approved a full vector surveillance and control program. Communities in the master plan area that are served by this district include Arcadia, Azusa, Duarte, El Monte, Industry, and Irwindale.

THE CITY OF LONG BEACH DEPARTMENT OF HEALTH AND HUMAN SERVICES/ VECTOR CONTROL PROGRAM: Protects public health and safety by providing vector control services and education to the citizens of Long Beach. These services include control and elimination of insects and rodents that can transmit diseases and education on how to control them. Portions of the City of Long Beach are also served by the Greater Los Angeles County Vector Control District and the Compton Creek Mosquito Abatement District.

THE COUNTY OF ORANGE VECTOR CONTROL DISTRICT: Formed in 1947 to serve all of Orange County, including communities adjoining the San Gabriel River such as Seal Beach and the unincorporated community of Rossmoor.

THE COUNTY OF LOS ANGELES DEPARTMENT OF HEALTH: Maintains a Vector Management Program within the Department of Health, consisting of three units: Vector-Borne Disease Surveillance, Entomology and Vector Control. The objectives of the Vector-Borne Disease Surveillance Unit are to reduce the risks of exposure to the pathogens of vector-borne disease through early detection and abatement of the factors that enhance the transmission of disease to humans. Routine surveillance of such diseases as sylvatic plague, murine typhus, Lyme borreliosis, the various Hanta viruses and arena viruses is conducted. Vector Control is responsible for rodent abatement activities and licensed animal keeper premises inspection and enforcement throughout Los Angeles County (except for the Mountain & Rural Program and District Environmental Services-Antelope Valley Districts). The unit continues to survey and manage the rodent populations within the Los Angeles metropolitan area as part of its response to the historic Downtown Project.

It is critical that mosquito and vector control agencies be consulted during planning and design of river corridor projects, particularly if the project might result in new vector breeding and disease transmission. Wetland and open space projects that are well designed for mosquito and vector control can mitigate potential social and financial impacts. Many innovative approaches to designing and managing constructed wetlands for vector abatement are available.