

B. WATERSHED Description

The Arroyo Seco Watershed is located in northeast Los Angeles, between the San Gabriel Mountains and the Los Angeles River (Figure 1: Location Map). Lying partially within the watershed are the cities of Los Angeles, South Pasadena, Pasadena and La Cañada Flintridge, as well as the unincorporated area of Altadena (Figure 2: Arroyo Seco Watershed, Figure 3: Topographic Relief). Two of Los Angeles County's five Supervisorial Districts can be found in the watershed, as well as three U.S. Congressional Districts (Figure 4a: Elected Official Boundaries 1). For the State of California, the Arroyo Seco watershed intersects three Senate Districts and four Assembly Districts (Figure 4b: Elected Official Boundaries 2).

The southern tip of the watershed was a camp location of the first Spanish exploration, and the historic irrigation *zajeras* were located just across from the confluence. As one of the oldest parts of Los Angeles, the Arroyo Seco contains many cultural and historic attractions, as well as several Historic Preservation Overlay Zones. This area of Los Angeles is known world-wide for its concentration of Arts and Crafts heritage and many original Craftsman structures. The Historic Route 66 runs through the watershed; historically, travelers to Los Angeles entered through the Arroyo's gateway of Sycamores.

The Arroyo Seco Watershed is a sub-watershed of the Los Angeles River Watershed, which is a coastal watershed partly within the coastal zone. The Arroyo Seco stream runs in a deeply incised canyon that begins in the San Gabriel Mountains and drains into the Los Angeles River near downtown Los Angeles. Below Devil's Gate Dam, most of the stream has been channelized. Prior to channelization, stands of alder, willow, and sycamore lined a perennial, trout-filled stream. Most stream and riparian habitats are located above the dam. The removal of riparian vegetation has significantly impacted wildlife and plant diversity. Urban development and exotic plant species have all but replaced the once lush vegetation below the dam. Chaparral, which covers much of the land mass in the adjacent Angeles National Forest, has encroached significantly within the Arroyo Seco sub-watershed. The remaining lush riparian habitat, which now comprises only 15 percent of the total land mass within the watershed, contains over 705 species of plants and animals.

Approximately half of the Arroyo Seco's 22-mile length is contained within the Angeles National Forest. The arroyo's upper watershed drains 32 square miles of steep, mountainous terrain. The San Gabriel Mountains are among the most erodible mountains in the world, releasing large amounts of sediment into the arroyo every year. The vegetation of the upper watershed is characterized by Bigcone Spruce-Canyon Oak Forest, Southern Sycamore-Alder Riparian Woodlands, and Southern Mixed Chaparral. Above the dam, the arroyo travels through one of the last ecologically significant Alluvial Sage Scrub habitats in southern California. The Arroyo Seco stream is stocked with rainbow trout, although wild trout may also be present. The upper watershed supports the Raymond Basin Aquifer, a 40-square mile groundwater basin that provides half of the local water supply for the City of Pasadena and sustains a year-round flow of water in the arroyo.

Devil's Gate Dam and the National Aeronautics and Space Administration's (NASA) Jet Propulsion Laboratory (JPL) are located at the point where the arroyo emerges from

Angeles National Forest. The stream is mostly channelized from the dam to the confluence with the Los Angeles River, a distance of eleven miles. Near the confluence, the arroyo is flanked by Mount Washington and the Montecito Hills, which still support Southern California Black Walnut Woodlands.

Significant park and natural areas line the arroyo from Angles National Forest in the upper watershed to Elysian Park at the southern tip, across from the confluence with the Los Angeles River (Figure 5: Arroyo Seco Cultural & Open Space Map, Figure 6: Points of Interest). Parks in the watershed are operated by the Cities of Los Angeles, South Pasadena, and Pasadena, the Santa Monica Mountains Conservancy, and the US Forest Service. Numerous hiking, biking, and equestrian trails converge in the arroyo and lead to Angeles National Forest, which is one of the nation's most heavily used national forests. Ongoing regional bikeway planning efforts will eventually link the San Fernando Valley and the Arroyo Seco to the Pacific Ocean via new bikeways along the Los Angeles River.

Below the dam, the Arroyo Seco becomes a channelized urban stream, bordered by parks, golf courses, parking lots, residential areas, the Rose Bowl, limited industrial areas, and the Pasadena Freeway, also known as the Arroyo Seco Parkway. The arroyo passes through a variety of neighborhoods with a great mix of income, race, and ethnicity. Many of these neighborhoods have traditionally been under-served by parks and other public amenities.

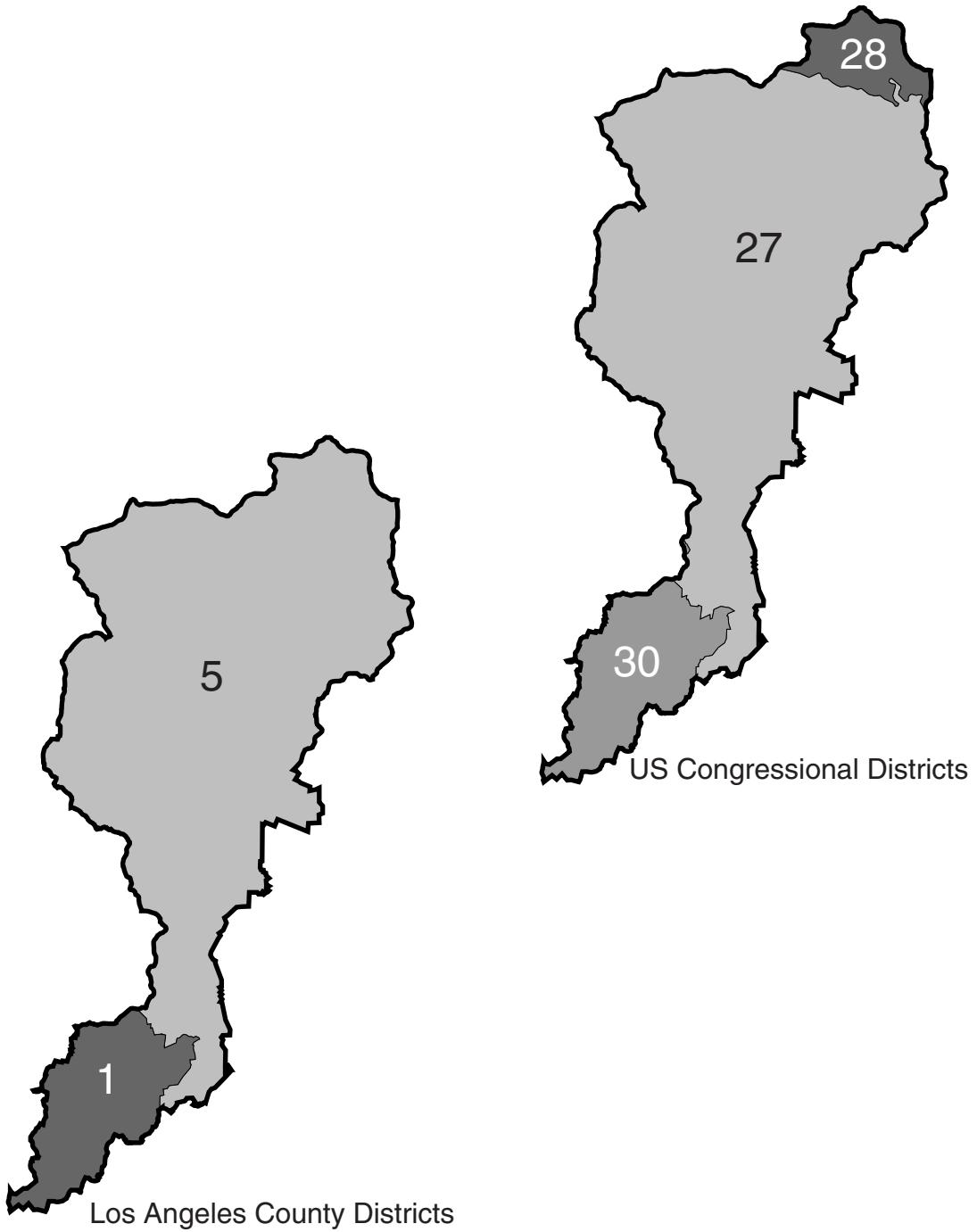
A sample of demographic information from the 1990 census shows the diversity of the watershed's residents. Median home values range from \$150,000 - \$500,000. Racially, some areas have over 75% Caucasian population, others a roughly 50/50 mix of Hispanic and Caucasian, and the Black population is concentrated in a third area. The Asian population is under 10% for the entire watershed. A quarter of the population is listed as Other for various areas of the watershed. No age group dominates any part of the watershed. Half of the residential areas have less than 3% of homes renter-occupied; the other half has up to 40% renter-occupied.

A combination of factors makes the Arroyo Seco a strong potential stream restoration project in southern California. These factors include:

- the spectacular natural character of the Arroyo Seco with parks and open space along most of its course;
- public ownership of the land;
- successful demonstration projects;
- the potential for Southern Steelhead/Rainbow Trout and Arroyo Southwestern Toad habitat;
- substantial community and political support to naturalize the Arroyo Seco;
- the evolving attitude about flood and watershed management among the public agencies responsible for managing the area; and
- the presence of historic structures and strong cultural institutions along the Arroyo.

Flood management in the Arroyo Seco has changed dramatically in recent years. The rehabilitation of Devil's Gate Dam, completed by the Los Angeles County Department of Public Works (LACDPW) in 1998, has necessitated a new look at flood and stream management issues in the entire Arroyo Seco. A recent LACDPW study indicates that the concrete channel that divides the Arroyo is under-capacity in portions of the Arroyo. In addition, the channel is aging

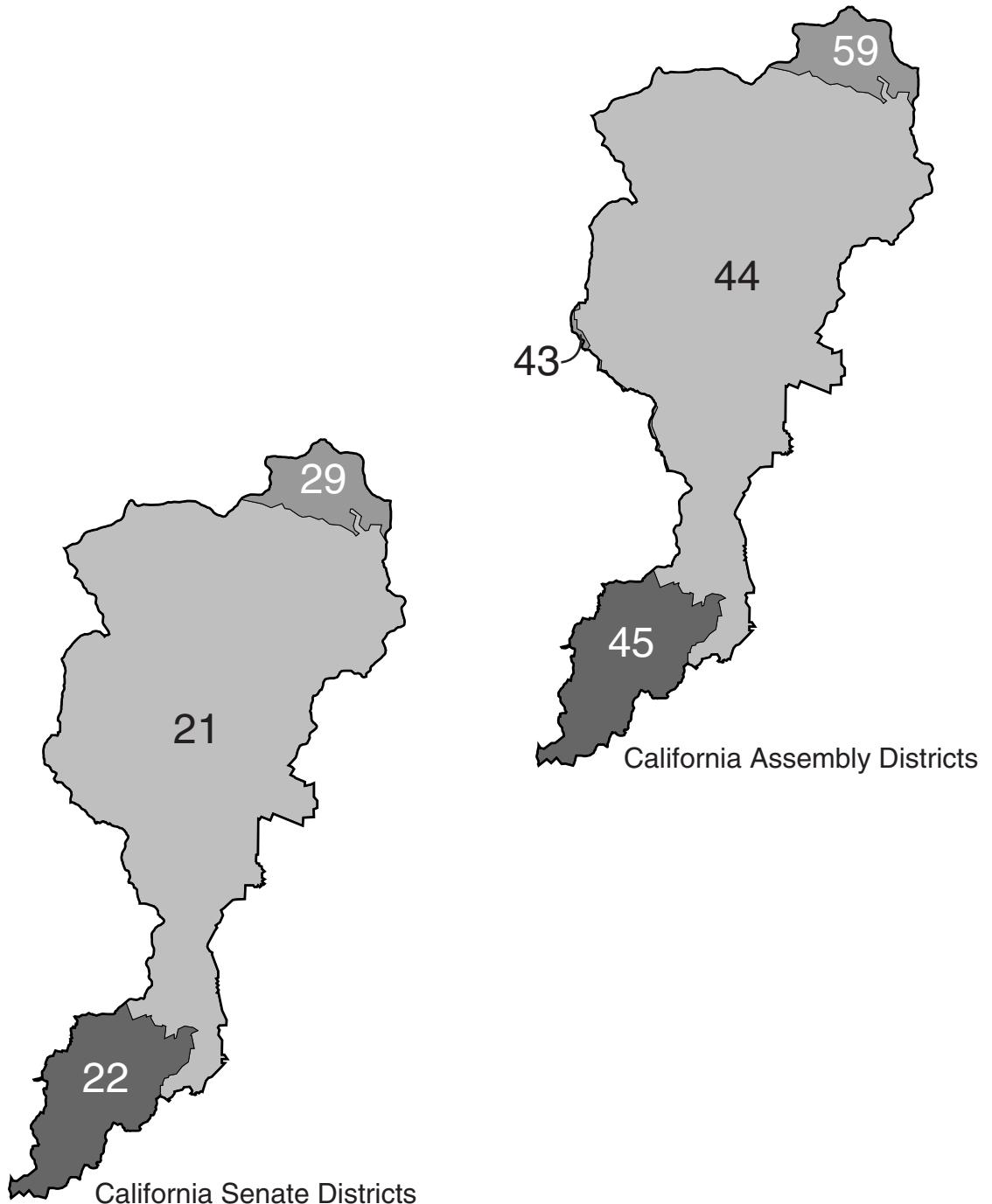
and has serious maintenance issues that need to be addressed. An example of this occurred in 1983 when the channel failed during a flood event. The costs and regulatory challenges of replacing the existing concrete channel would be enormous. With broad community support for a more naturalized stream and the creation of the Watershed Management Division as part of the LACDPW, there is great potential for a new, collaborative, more holistic approach to stream and watershed restoration.



Arroyo Seco Watershed
Restoration Feasibility Study
Elected Official Boundaries
1:200,000



Figure 4a



Arroyo Seco Watershed
Restoration Feasibility Study
Elected Official Boundaries
1:200,000



Figure 4b

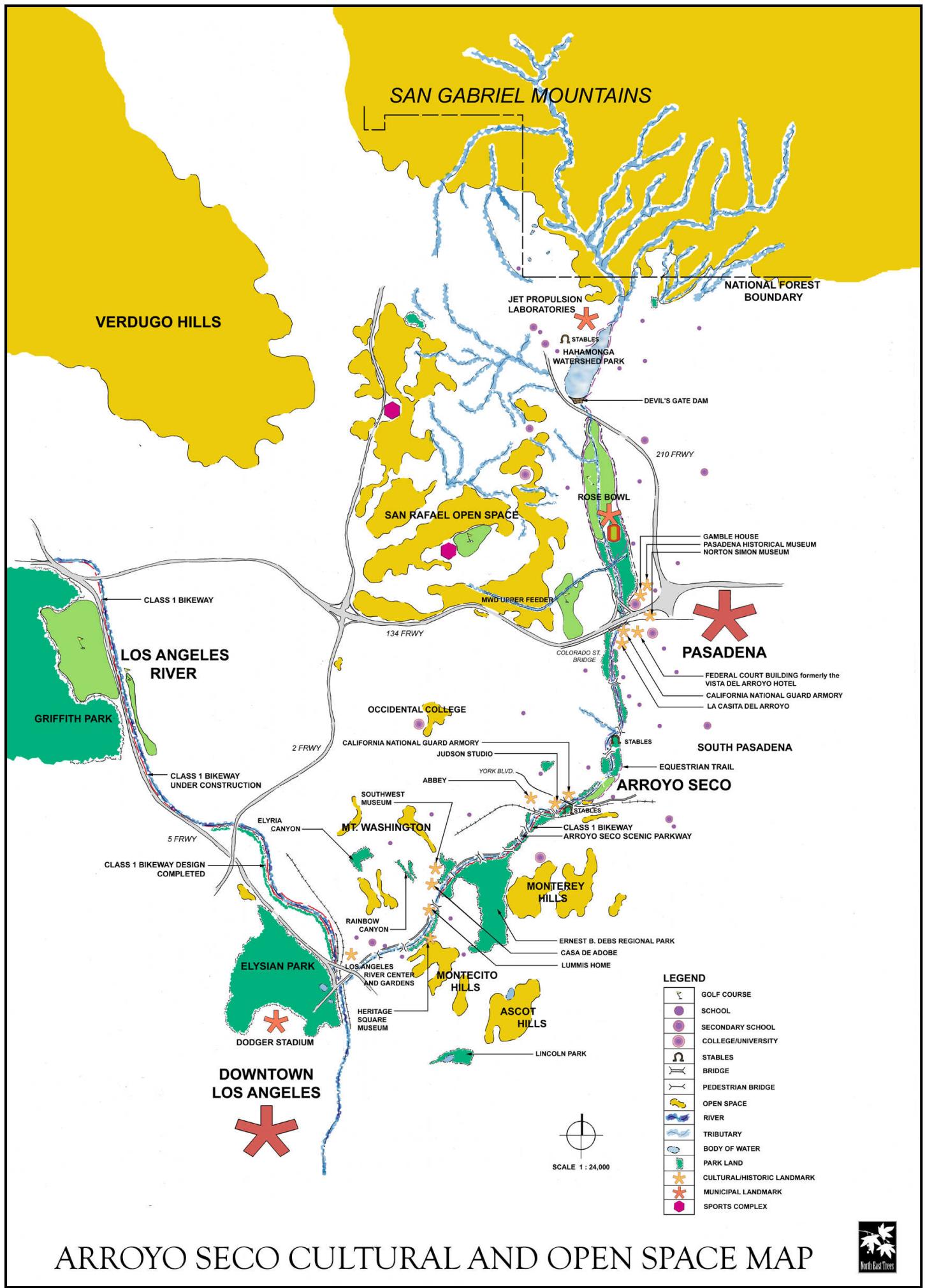


Figure 5

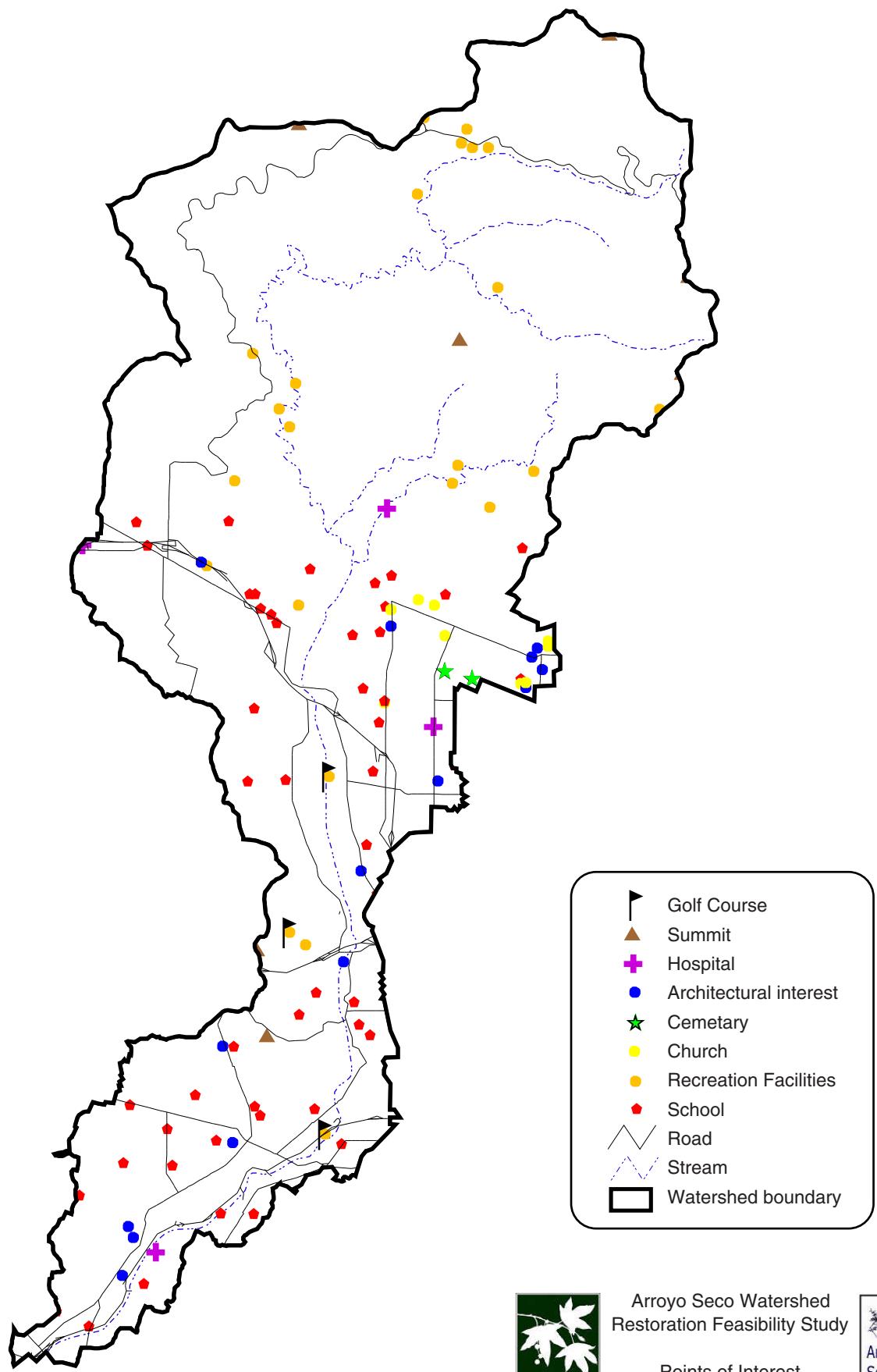


Figure 6



Arroyo Seco Watershed
Restoration Feasibility Study

Points of Interest
1:100,000



