

About The Tujunga/Pacoima Watershed

The Tujunga/Pacoima Watershed is a special place. Covering over 225 square miles, it has both some of the most densely urban and undisturbed natural lands in Los Angeles. Its habitats range from conifer and hardwood forests, to rare alluvial fan scrub to the common asphalt jungle. Because it also includes dynamic streams and lands atop the San Fernando Valley aquifer, it has the potential – if managed differently – to provide us with a roadmap for a more sustainable future in Los Angeles.

The Tujunga/Pacoima is the largest subwatershed of the upper Los Angeles River Watershed. The 225-square mile area comprises both remote open space of the Angeles National Forest, and the highly urbanized lands of the cities of Los Angeles & San Fernando. The watershed has a very steep slope - the high elevations of the San Gabriel Mountains. (above 7100 ft.) in the upper watershed drop rapidly to the valley floor at an average rate of 41 ft/mile. Dozens of blue line streams feed the three main tributaries – the Big Tujunga, Little Tujunga, and Pacoima Washes. Since the mountains are geologically young and highly dynamic, its waterbodies are a “young” stream system. Big and Little Tujunga Wash come together in the Hansen Dam Reservoir. Below Hansen Dam, Pacoima Wash joins the channelized concrete box Tujunga Wash as it flows to its confluence with the Los Angeles River in Studio City.

Geomorphology

The mountains of the upper watershed are historically prone to episodic fires, common to the chaparral plant communities that dominate the southern slopes, with fire frequency intervals estimated between 20-100 years. A fire history computed for the watershed estimated that 95 percent of the watershed may have burned during the period 1878-1975. In the post-fire scenario, runoff and erosion increase significantly. Additionally, frequent activity along the numerous fault lines within the San Gabriel range can increase the amount of fractured bedrock available for sediment transport by large storms. Prior to the engineering and channelization of the regions rivers and streams, these washes formed a network of as many as five wide, alluvial channels across the eastern valley. What this meant to the history of the Valley in real terms was that nutrient-rich soils were being deposited across the valley, making it ideal for agriculture.

Water

Historically, the Tujunga Wash was a major contributor of groundwater supply. The Valley sits atop the San Fernando Groundwater Basin - a huge aquifer that has become depleted over the years as we have made the valley floor impervious. Rain that used to soak into the ground now runs off of concrete and asphalt and directly into the stormdrains, and our channellized washes and river.

Although Los Angeles averages only 15 inches of annual rainfall, the higher elevations of this watershed receive some of the most concentrated rainfall in the United States. The depleted basin currently provides nearly 15% of local drinking water supplies to Los

Angeles. Prior to the channelization of our river systems and the subsequent intense development, roughly 80% of stormwater percolated to groundwater. Current estimates are that around 8% percolates, the rest being lost to the ocean via the channelized river system carrying contaminants from urbanized land use. Approached from a watershed context, the Tujunga/Pacoima Watershed provides significant opportunities to maximize recharge, optimize reuse, improve water quality, and reduce reliance on imported water.

Habitat

Habitats include alluvial fan scrub, riparian woodland, willow thicket, mulefat scrub, coastal sage scrub, oak woodland and conifer woodland forests. These habitats currently provide critical cover, forage, nesting and breeding sites for many bird, mammal, reptile, amphibian and invertebrate species. The area supports several threatened and endangered species listed for Los Angeles County, including California Condor, spotted owl, Least Bell's Vireo, southern willow flycatcher, American peregrine falcon, arroyo toad, slender-horned spineflower, California red-legged frog, Santa Ana sucker, unarmored threespine stickleback, and arroyo chub.

Communities

The watershed includes the City of San Fernando as well as the communities of Pacoima, Arleta, Sylmar, Sunland, Tujunga, Panorama City, Van Nuys, North Hollywood, Valley Glen, Valley Village & Studio City within the City of Los Angeles. The watershed has a population of nearly 500,000, is roughly 62% Latino with 32% of the population under the age of 17 and 19% living in poverty.

Infrastructure

The watershed contains numerous facilities, including Big Tujunga & Hansen Dams; Pacoima & Tujunga Reservoirs; Hansen & Lopez Flood Control Basins; Tujunga Gallery, Tujunga, Pacoima, Hansen, Branford, Spreading Grounds; numerous small debris basins and sediment retention sites. In addition, four gravel mining operation areas and a power generating station occur within the watershed boundary. Transportation corridors include Interstates 5, 405 & 210, and Highways 170, 101, 118 and 14. Metrolink and Amtrak lines and the Metro Rapidway dedicated bus corridor cross the lower watershed. The Metrolink corridor is heavily industrialized.

Open Space

The upper watershed encompasses more than 100 square miles of the Angeles National Forest and a large regional recreation area behind Hansen Dam. The lower watershed is extremely park-poor but includes vacant lots that could support opportunities to provide much-needed open space to economically disadvantaged minority communities that have been adversely impacted by past resource management decisions. Along the easement adjacent to the box channel sections, good opportunities exist for green corridors that could include bike paths, walking areas, small pocket parks and stormwater retention

areas. In addition, with some minor modifications to Dam and Spreading Grounds operations, along with utilization of some measure of storage at one of the gravel pits, the possibility exists to remove the concrete armoring of the mainstem channels of Tujunga and Pacoima Washes, thereby restoring natural processes and functions while providing for habitat restoration all along both washes.