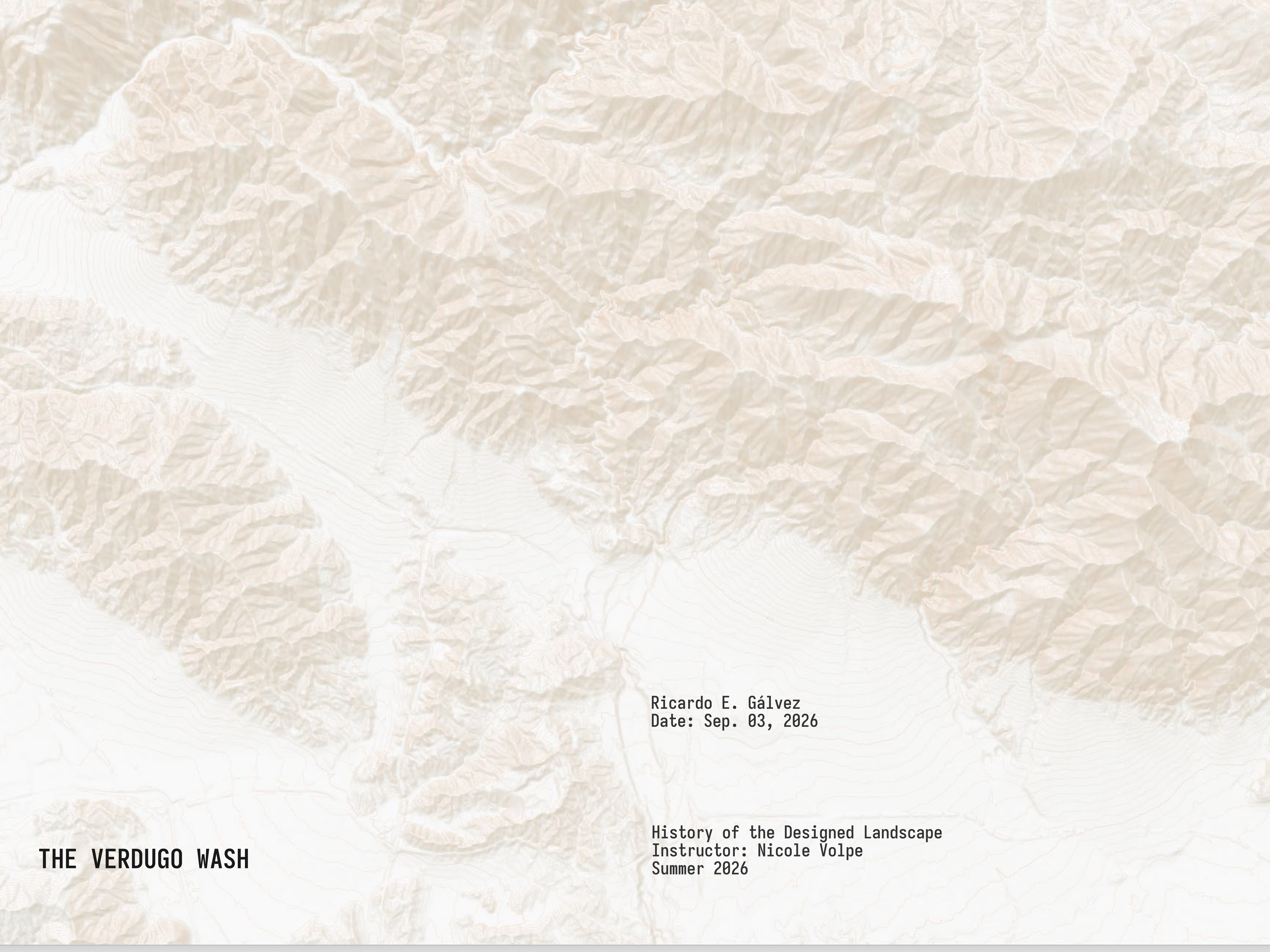




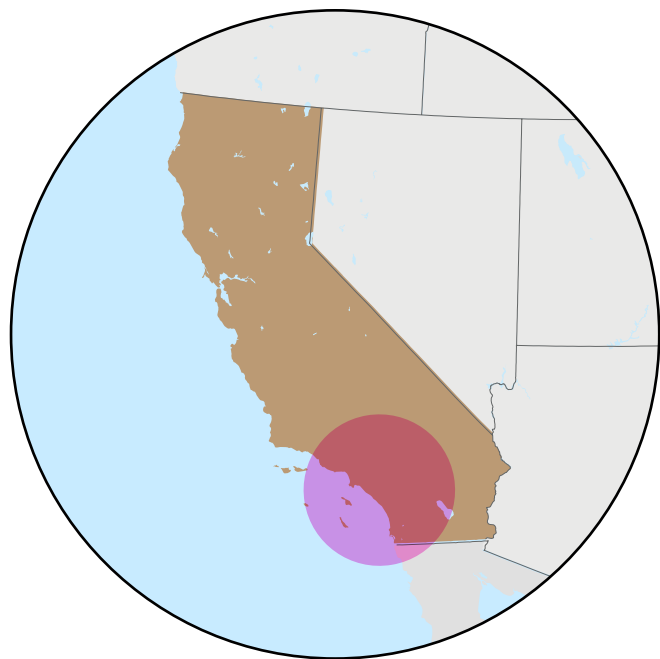
Ricardo E. Gálvez
Date: Sep. 03, 2026

THE VERDUGO WASH

History of the Designed Landscape
Instructor: Nicole Volpe
Summer 2026

INTRODUCTION

I live very close to the Verdugo Wash and cross one if not more of its bridges on a daily basis. This ties closely to my original topic of human-watershed relations, especially around perennial and human-made control structures (ditches, arroyos, acequias, canals, aqueducts, etc.). Humans have carved channels into the landscape to harness, control, or contain naturally flowing water for as long as we have recorded history—for better and for worse. The 9.4-mile Verdugo Creek, a major tributary to the LA River, is a local expression of this ancient impulse. Both waterways are currently being reevaluated for restoration. Optimistic designs call for wetland restoration, public access, and ecosystem (re) creation. Detractors cite property values, vagrancy, and budget concerns. How stormwater is handled—by including or excluding runoff within the overly paved urban landscape—is relevant to our increasingly erratic climate. Understanding the relationship humans have had with the watershed over the past millennia is vital if we are to endure, let alone thrive during the next.



THE VERDUGO WASH

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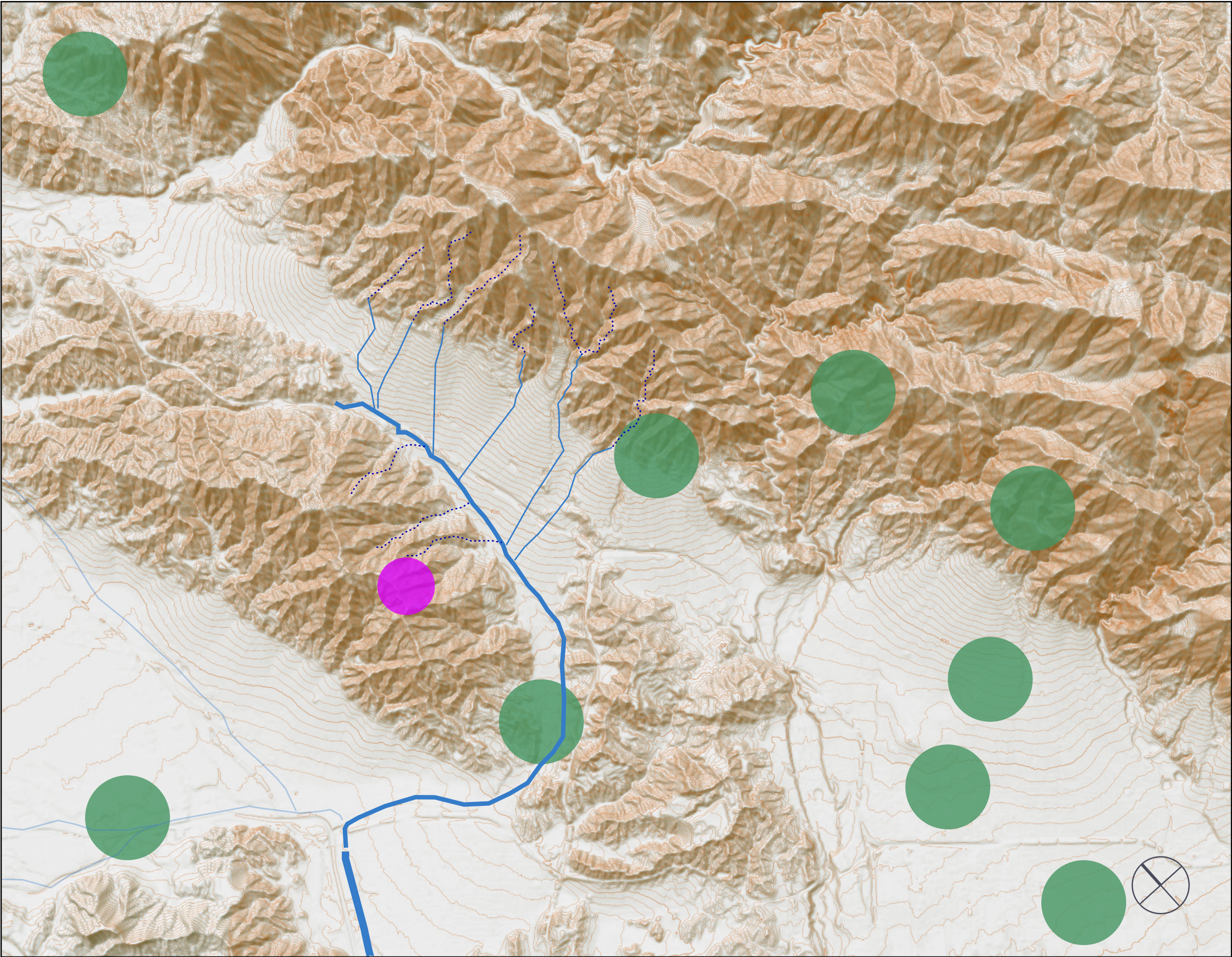
History of the Designed Landscape
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PAST

Precolonial Period: Indigenous Peoples & Watershed Relationship
Long before Europeans arrived in the Western Hemisphere, the land now known as Glendale and the Verdugo Creek was home to two distinct indigenous groups. The Tongva people (also known as Kizh) lived in over 100 documented villages across roughly 4,000 square miles—from Palos Verdes to San Bernardino, Saddleback Mountain to the San Fernando Valley, including the Channel Islands. The Tataviam people maintained overlapping villages and hunting grounds in the same vicinity. Several Tongva sites are located in and around the Verdugo watershed: Hahamog’na (Hahamongna) in the upper Arroyo Seco area, whose name means “land of flowing waters, fruitful valley”; Wiqanga near La Crescenta, part of a network including Ashwaangna and Maungna; and Tujunga Canyon, named after the village of the same name. Tongva Peak, at 2,656 ft, sits at the top of the watershed. The indigenous peoples built settlements around perennial springs and atop bluffs overlooking streams—close to water but above flood zones. The Tongva are thought to have maintained channels by stewarding riparian plant communities that stabilize banks and filter water as it flows into larger drainages.



Colonial & Post-Colonial Transformation
In 1542 a Spanish expedition led by Juan Rodríguez Cabrillo made contact with the Tongva, or more likely Chumash peoples, at Santa Catalina. In 1769 Gaspar de Portolá encountered the Tongva in the region. By 1784, 36,000 acres had been granted to José María Verdugo. The Tongva, Chumash, and others were forcibly assimilated into the Spanish Mission system. Forced relocation, dispossession, and disease decimated the native populations, and by the early 20th century the indigenous nations of what is now Southern California had suffered catastrophic population collapse. Today descendants still maintain a presence in the region. In 2022, a 1-acre site was returned to the Tongva people through the Tongva Taraxt Paxaavxa Conservancy—their first toehold in Los Angeles County in two centuries.



● Tongva sites ● Tongva peak

1" = 8,000'

THE VERDUGO WASH

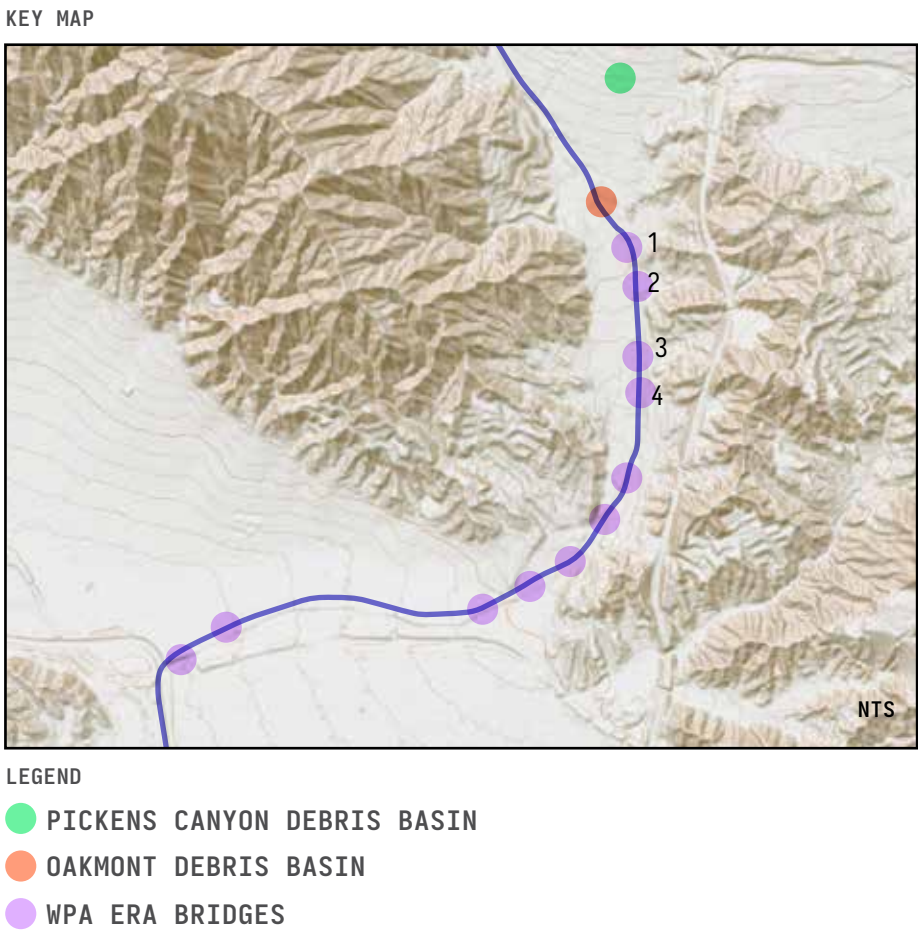
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Sep. 03, 2026

History of the Designed Landscape
Instructor: Nicole Volpe

WPA BRIDGES AND BASINS

Concrete Channel Construction & Flood Mitigation (1930s-1940s)

The Verdugo Wash and surrounding environs have seen catastrophic flooding. In the 1930s the first large-scale construction projects were initiated to channelize the creek from the foothills of the San Gabriel Mountains—present-day Tujunga, La Crescenta, Montrose, and La Cañada Flintridge. Six tributaries make confluence progressively south and westward, shedding altitude as the creek spills into the Oakmont spill basin (Verdugo Wash Debris Basin).



THE VERDUGO WASH

History of the Designed Landscape
Instructor: Nicole Volpe

Ricardo E. Gálvez
Sep. 03, 2026

WPA BRIDGES AND BASINS

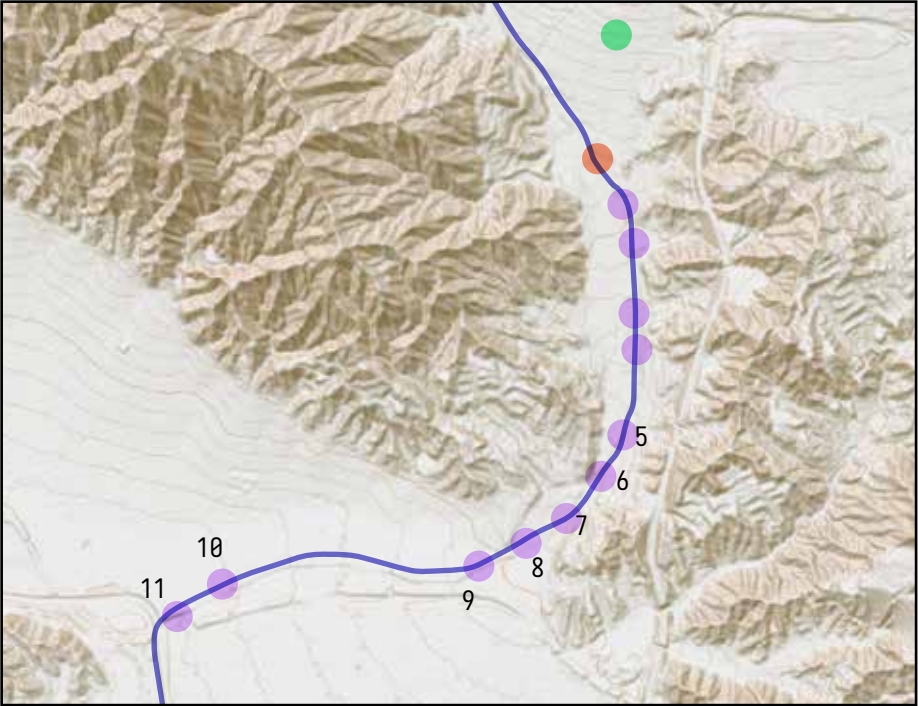
From there, the creek continues its remaining 5.8 miles through a golf course and under ten WPA-era bridges constructed between 1936 and 1941 before meeting the LA River near the 134 Freeway. Wildfires in 1933 denuded the San Gabriel Mountains of vegetation; a year later, heavy rains caused flooding and mudslides resulting in the death of 40 people along with massive downstream destruction. The catastrophe prompted state and federal funding for flood control projects. Construction began in 1935.



5. LOWER CAÑADA
WPA Era Bridges



6. E. MOUNTAIN ST
WPA Era Bridges



LEGEND
● PICKENS CANYON DEBRIS BASIN
● OAKMONT DEBRIS BASIN
● WPA ERA BRIDGES



7. E. GLENOAKES BLVD.
WPA Era Bridges



9. N. KENILWORTH ST
WPA Era Bridges

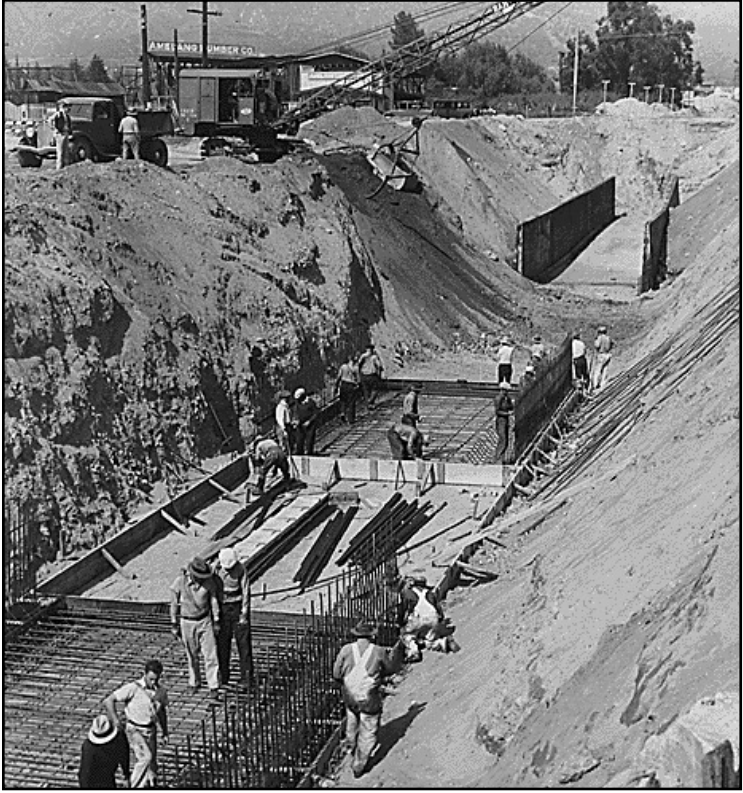


8. N. GENEVA ST
WPA Era Bridges



10. CONCORD ST.
WPA Era Bridges

EAGLE-SHIELDS CHANNEL
WPA Era Channelization 1936



EAGLE-SHIELDS CHANNEL
WPA Era Channelization 1936



VERDUGO WASH AT GLENOAKES
WPA Era Channelization 1936

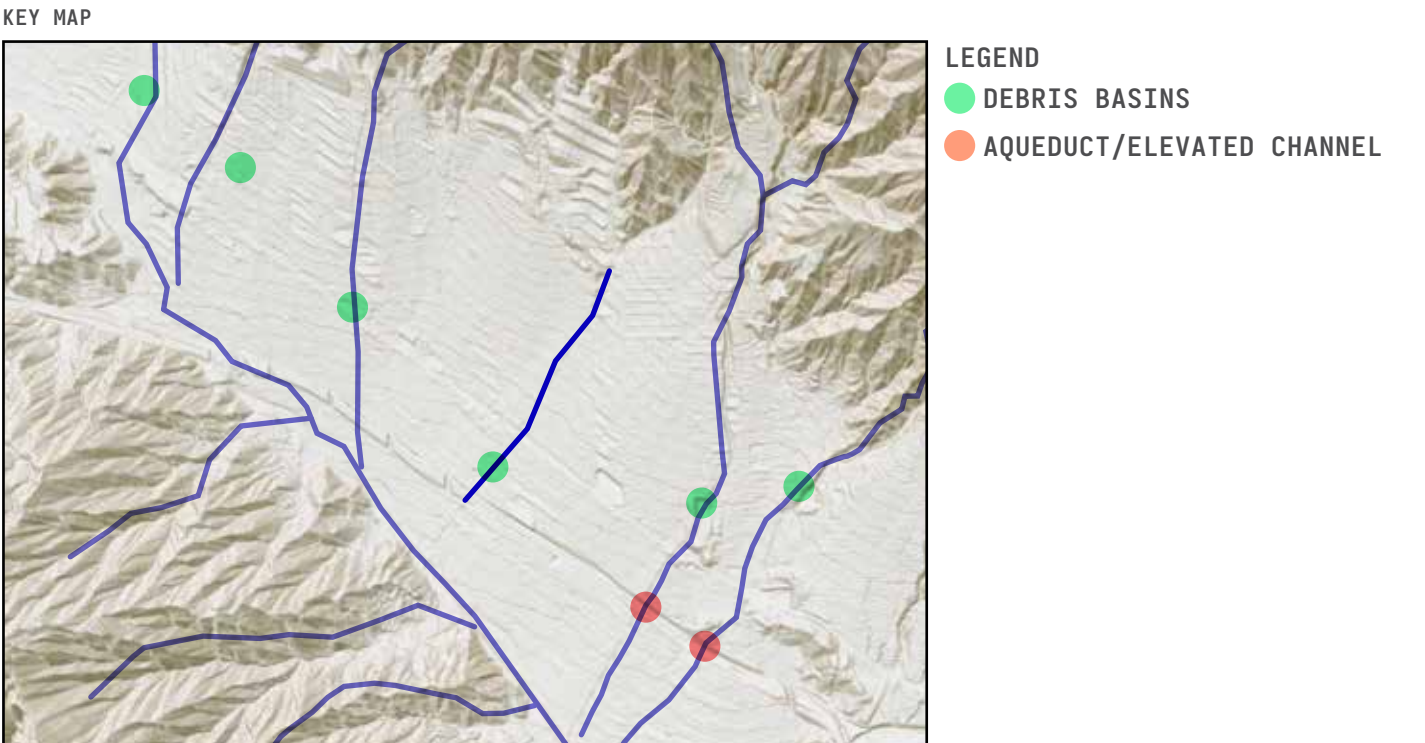
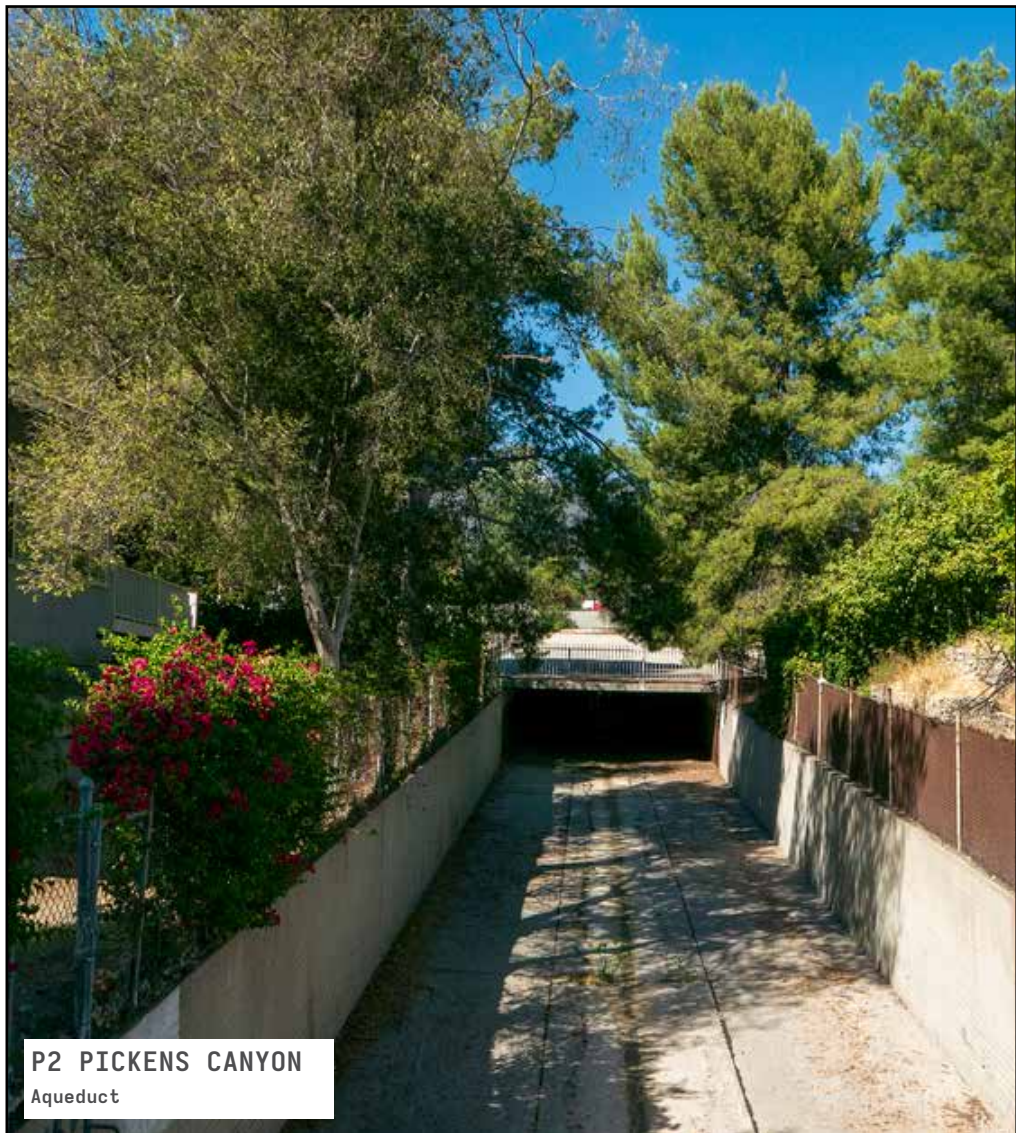


VERDUGO WASH AT GLENOAKES
WPA Era Channelization 1936



PRESENT: FLOOD BASINS AND AQUEDUCTS

The wash is typically a low-volume waterway, with dry-weather flows on the order of 10-15 cubic feet per second. During major storms, peak discharges have reached 1,000 cfs on nine occasions since 1935, with a maximum recorded peak of 1,850 cfs during the 1968-69 floods. During dry weather, this trickle flows down a smooth, impenetrable track, slick with algae, inexorably to the Pacific Ocean. Whether this is a waste or a price worth paying to prevent devastating flooding depends on who you ask. There are those who argue that more water needs to infiltrate back into the water table to prevent both forest fires and dangerous flooding—a worthy discussion beyond the scope of this project.

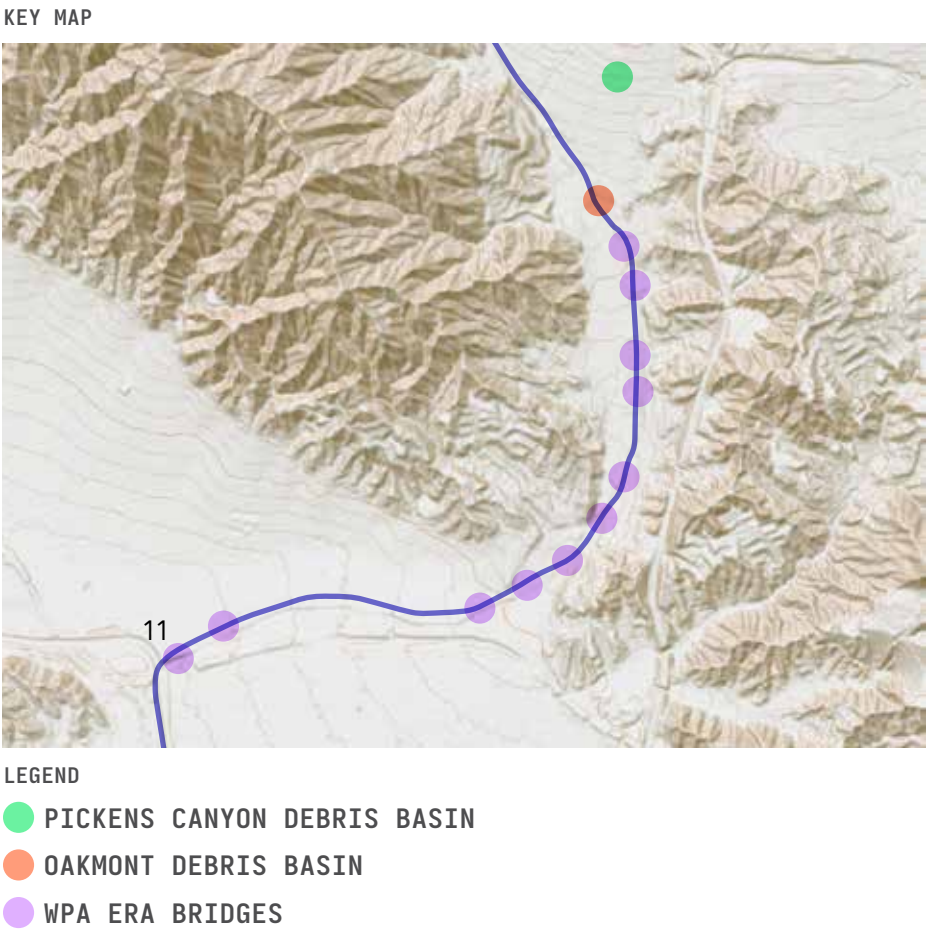


THE VERDUGO WASH

Ricardo E. Gálvez
Sep. 03, 2026

History of the Designed Landscape
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PRESENT: VERDUGO CREEK / LA RIVER CONFLUENCE



A Micro-Forest

I drive past the confluence of the LA River and the Verdugo Wash often — which is to say, I drive over it, on the overpasses and bridges. Upon closer inspection, actually getting out of my car, I was struck by how verdant and dense the area is. The upper reaches of the LA River, such as the Glendale Narrows just upstream of the confluence itself, are soft-bottomed; a high water table and natural artesian springs make it impossible for concrete to cure there. So while the riparian forest and vegetation in those reaches grow on an earthen bed, the micro-forest above the confluence, in the Verdugo Wash itself, is growing on top of a hard bottom. It is not hard to imagine how years of sediment buildup allowed plants to take hold. Combine that with budgetary cutbacks and the politics of neglect, and we are gifted a small patch of dense green space — a tiny swath of habitat and phytoremediation.

Restoration Efforts

There have been a number of projects initiated by various municipalities. Many seem promising and forward thinking. A detailed survey of the numerous design efforts is beyond the scope of this project. In short, there are many very interesting master plans, RFPs, and proposals made available by the City of Glendale, the City of Los Angeles, and LA County. Please see the notes section for more information.

THE VERDUGO WASH

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STREAM BED PROFILES

LEGEND

.....
Natural stream bed/no intervention

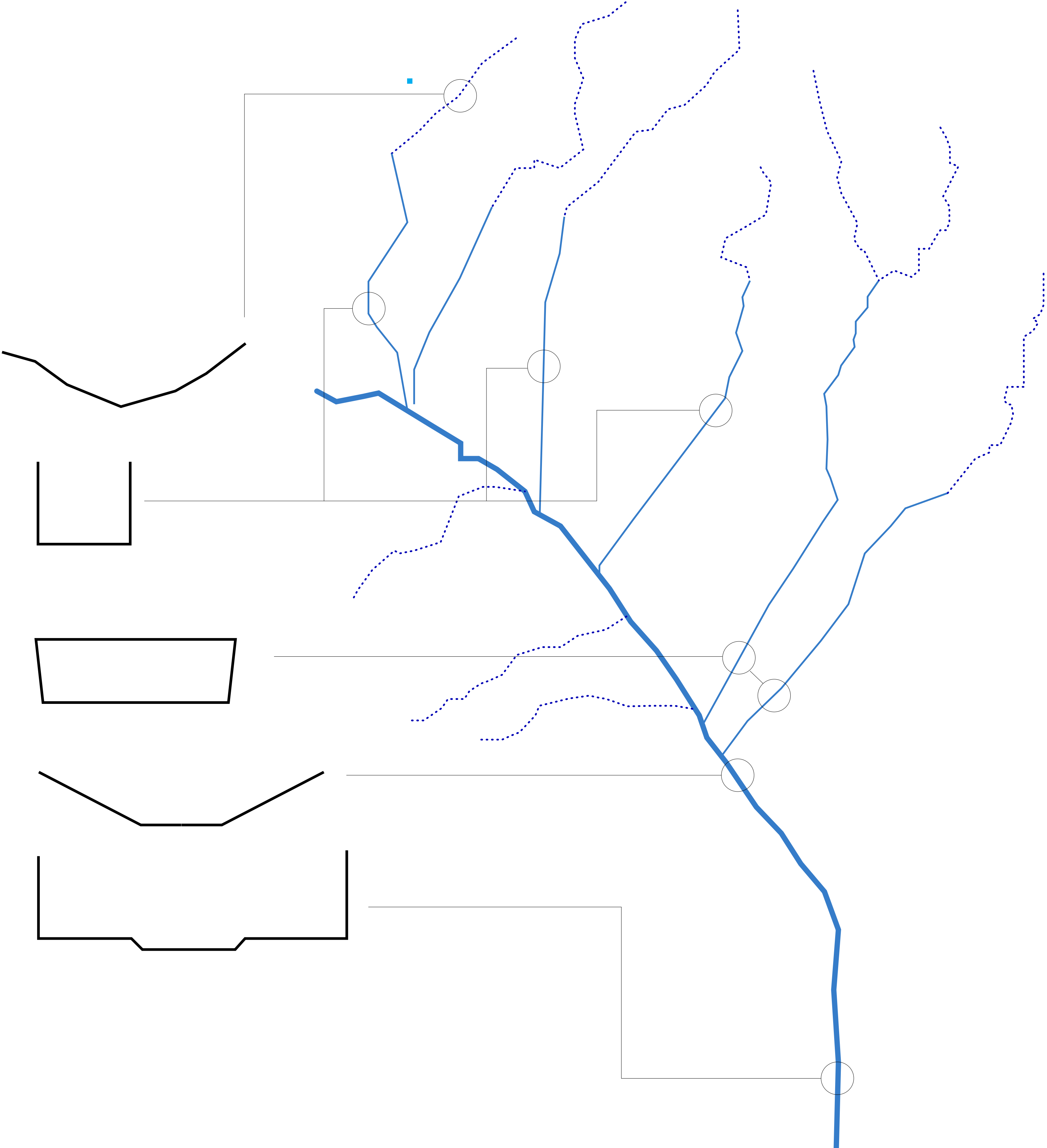
—————
Channelized stream bed/ deep and narrow

—————

Aquaduct/Overpass channel

Channelized stream bed/trapezoidal

Channelized stream bed/ deep and wide, incised bed



THE VERDUGO WASH

CLOSING

The Tongva or Kizh, along with the Chumash and Tataviam peoples, had a fundamentally different relationship to the land and waters of this region than the European colonists and settlers. For better and for worse, that impact is still being borne out today. The goal of this project is to gain understanding of how larger watersheds are critical to our habitat. Human hands have shaped a massive watershed where I live, and it is up to human hands to shepherd it into the future.



APPENDIX

For context, I am including my original essay.

The Intro:

As a young, enthusiastic skateboarder growing up in the 80s and 90s, my hometown of Albuquerque, New Mexico, offered plenty of places to skate—most of them prohibited in one way or another. Without access to backyard ramps or empty swimming pools, my friends and I often found ourselves in the ubiquitous concrete arroyos, racing down the long slope from the Sandia Mountains on the east side of town to the Rio Grande.

The Place:

These concrete-lined arroyos (ditches) vary widely in shape and size—from unusable, box-like canals to smooth, evenly transitioned slopes with the perfect downhill pitch. One of the most popular is Indian School Ditch, more formally known as the Embudo Arroyo (though nobody calls it that). The upper, most skateable section runs a little over a quarter mile and has smooth transitions from side to side. With walls and a flat bottom that are roughly equal in width (about 10 feet) in a half-hexagon cross-section, it’s somewhat different from the classic half-pipe (think an elongated U) found in many skate parks and backyard ramps.

This ditch is especially well suited to skateboarding because an asphalt bike path runs along the south embankment, which, to a skateboarder, only increases its appeal. At strategic intervals, parking blocks add another dimension of possibility. I spent countless hours here with friends or alone, starting at the top and “snaking” my way down, then hiking back up again and again—chasing the perfect run and always having fun.

The Connection:

My father grew up on a farm and ranch in southern Colorado, literally a stone’s throw from New Mexico. I spent many summers there with him and my uncle, helping irrigate alfalfa fields from acequias fed by the Rio Costilla, which originates in the nearby Sangre de Cristo Mountains. I have fond memories of those summers with my sister and cousins, floating down the ditches on tractor-tire inner tubes.

New Mexico’s acequias—a kind of irrigation ditch or canal—are antecedents of the modern concrete arroyo. While they differ in use (acequias as critical agricultural infrastructure and heritage; arroyos as dry creeks or washes), both are channels shaped by water and settlement. Before urbanization, these washes would flood during bouts of heavy rain but remain dry for much of the year. As Albuquerque grew, many washes were lined with concrete, allowing for more “controlled” floodwater flow. During the July–August monsoon season, the arroyos can be dangerous, as flash floods are common; the rest of the year, they’re dry as a bone and make for excellent skateboarding. Historically, acequias and arroyos were unlined, but in many cases they are now concrete-lined.

The unintended confluence of ancient irrigation practices and modern civilian infrastructure created a world-famous, uniquely rebellious opportunity for teenagers to fly.



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THE VERDUGO WASH

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Apendix

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THE VERDUGO WASH

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