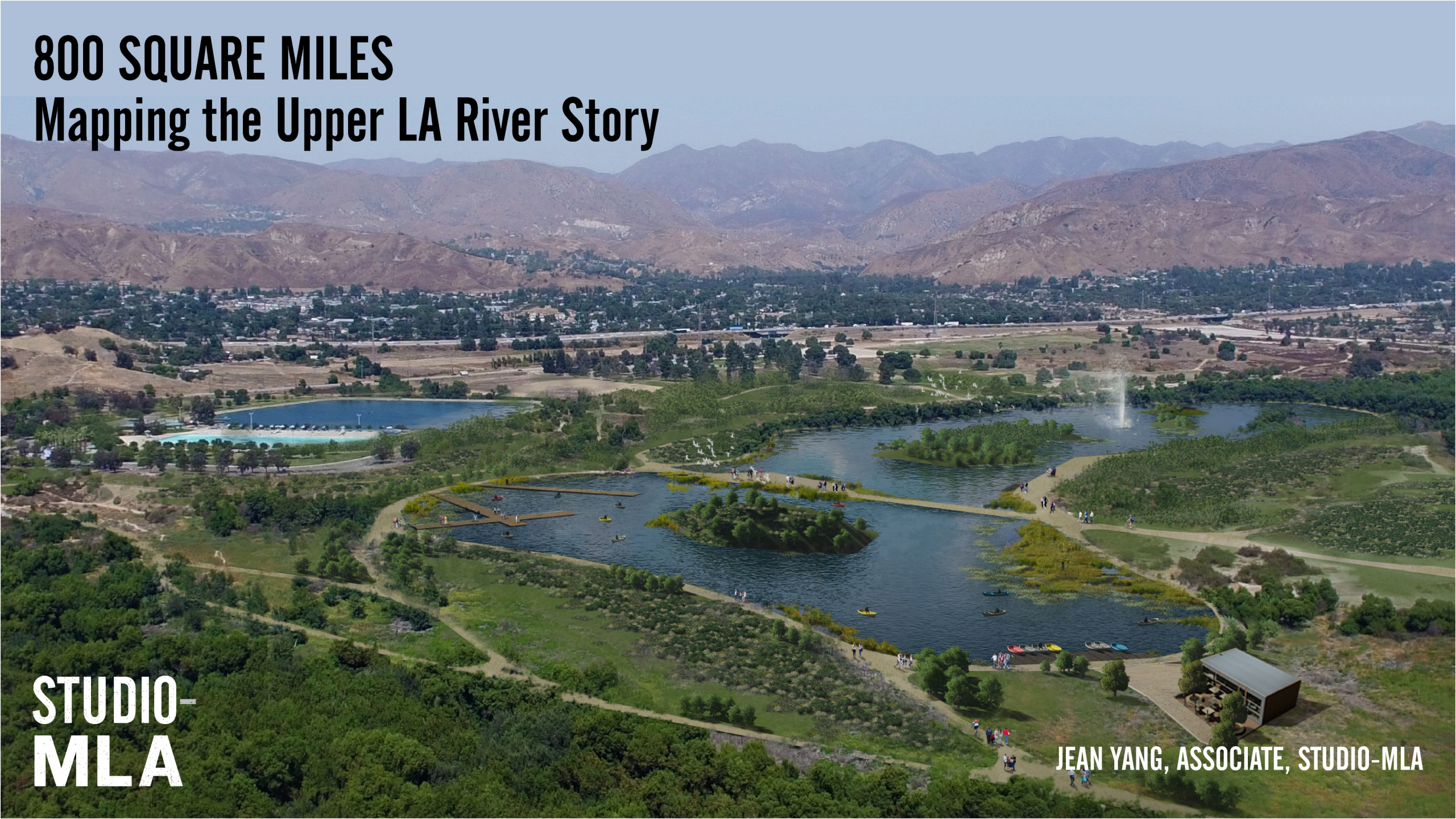
800 SQUARE MILES
Mapping the Upper LA River Story

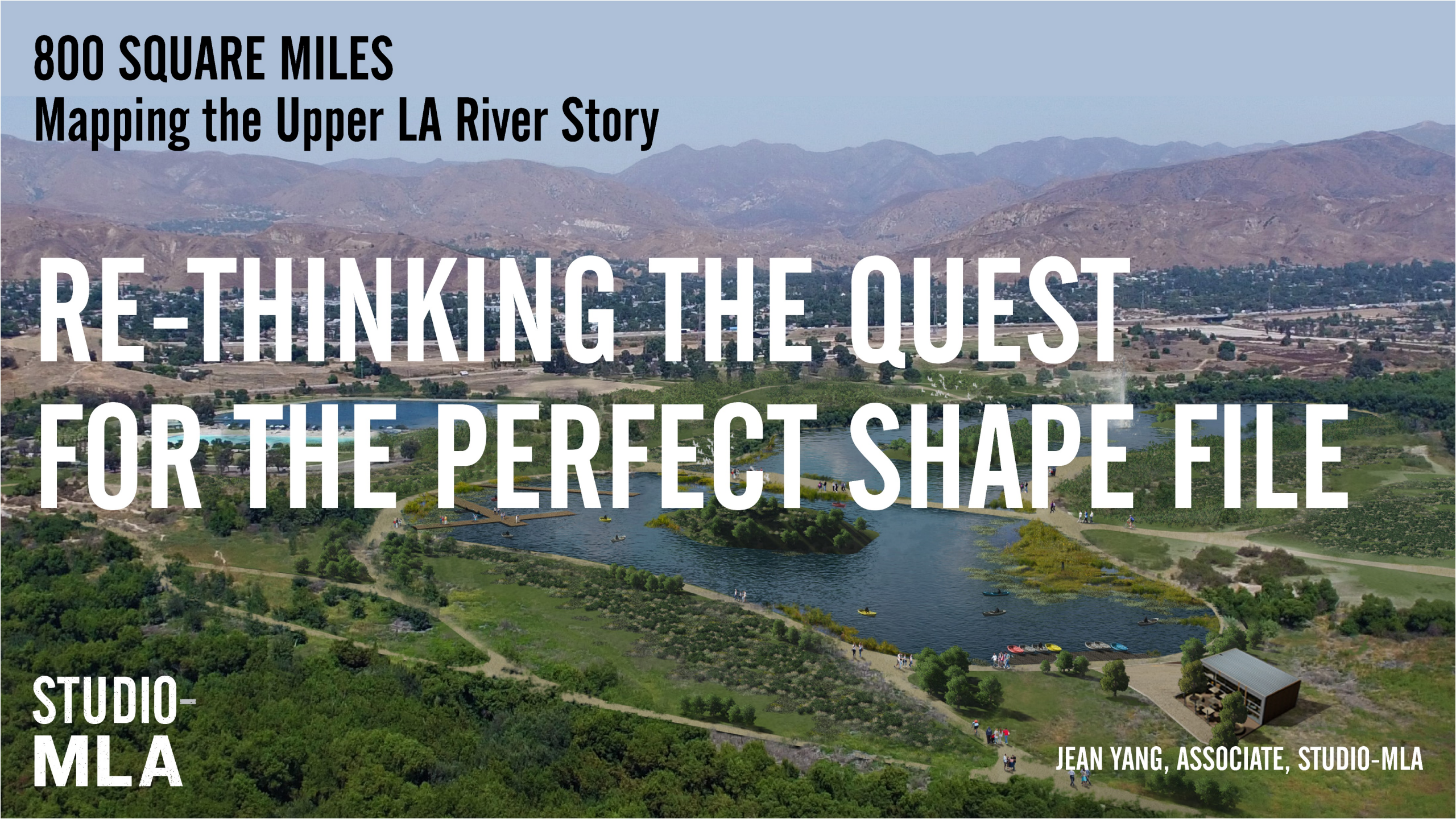


STUDIO-
MLA

JEAN YANG, ASSOCIATE, STUDIO-MLA

800 SQUARE MILES
Mapping the Upper LA River Story

RE-THINKING THE QUEST FOR THE PERFECT SHAPE FILE



STUDIO-MLA

JEAN YANG, ASSOCIATE, STUDIO-MLA

The New York Times

Opinion

Maps Don't Lie

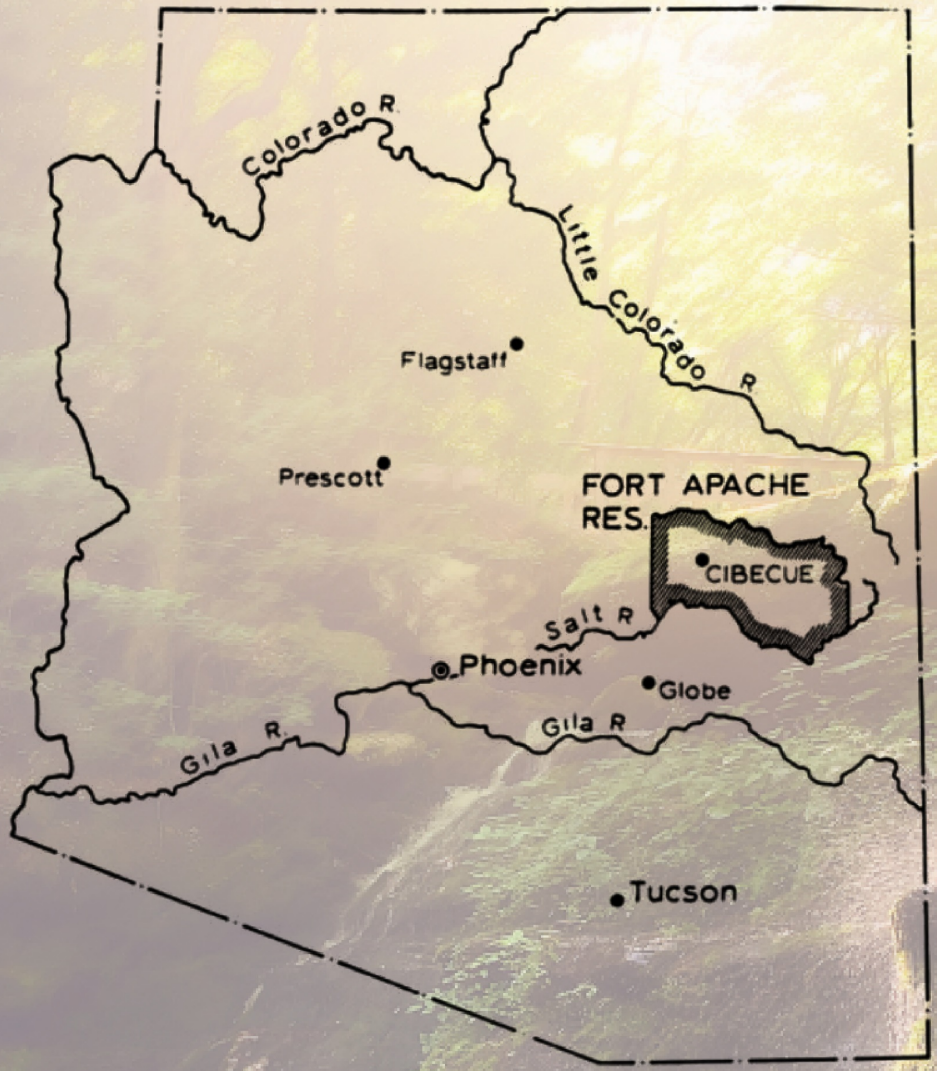
Unless someone goes out of his way to try to make one do so.

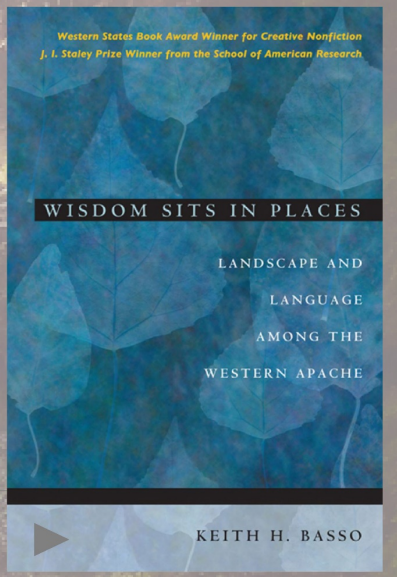
By Charles M. Blow
Opinion Columnist

Sept. 8, 2019

766

President Trump on Wednesday with a map of a previously projected path of Hurricane Dorian. Michael Reynolds/EPA, via Shutterstock


Colorado R.
Little Colorado R.
Flagstaff
Prescott
FORT APACHE
RES.
CIBECUE
Salt R
Phoenix
Globe
Gila R
Gila R
Tucson


Western States Book Award Winner for Creative Nonfiction
J. I. Staley Prize Winner from the School of American Research
WISDOM SITS IN PLACES
LANDSCAPE AND
LANGUAGE
AMONG THE
WESTERN APACHE
KEITH H. BASSO

Find a place you want to explore, then Click on a location to see its historical maps.

pacoima

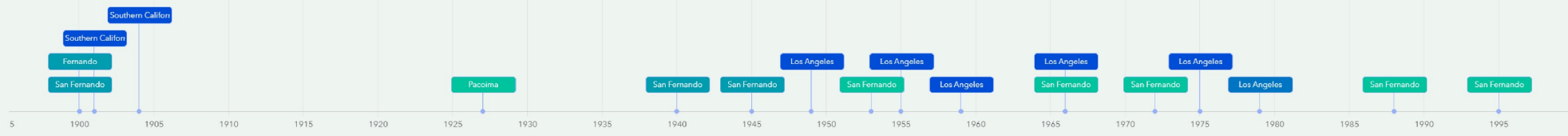
3 Compare maps using the transparency sliders, and Reorder maps by dragging them.

Sign in to save web maps to your ArcGIS Online account

San Fernando
1900
download map

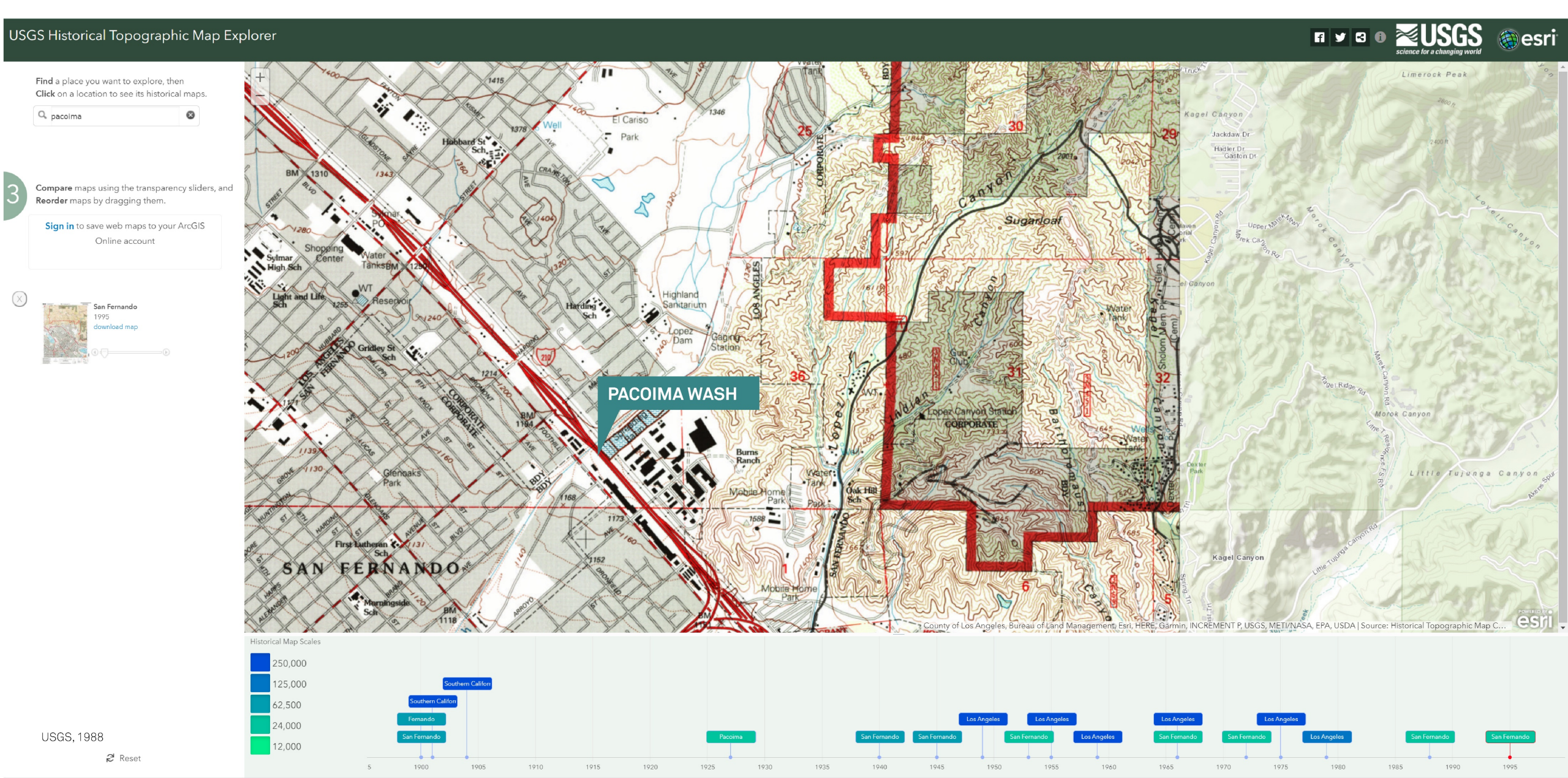
Historical Map Scales

- 250,000
- 125,000
- 62,500
- 24,000
- 12,000



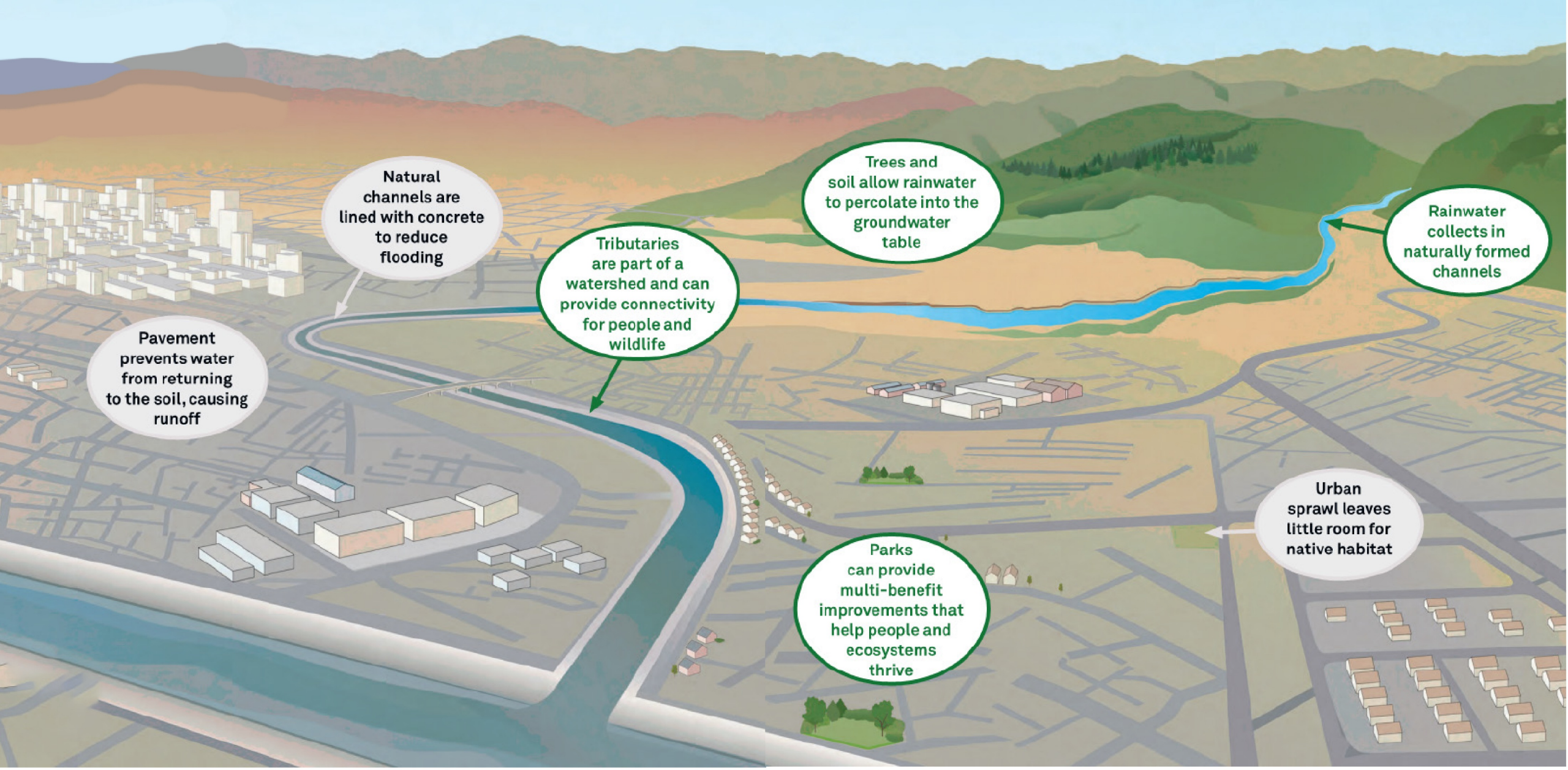
USGS, 1900

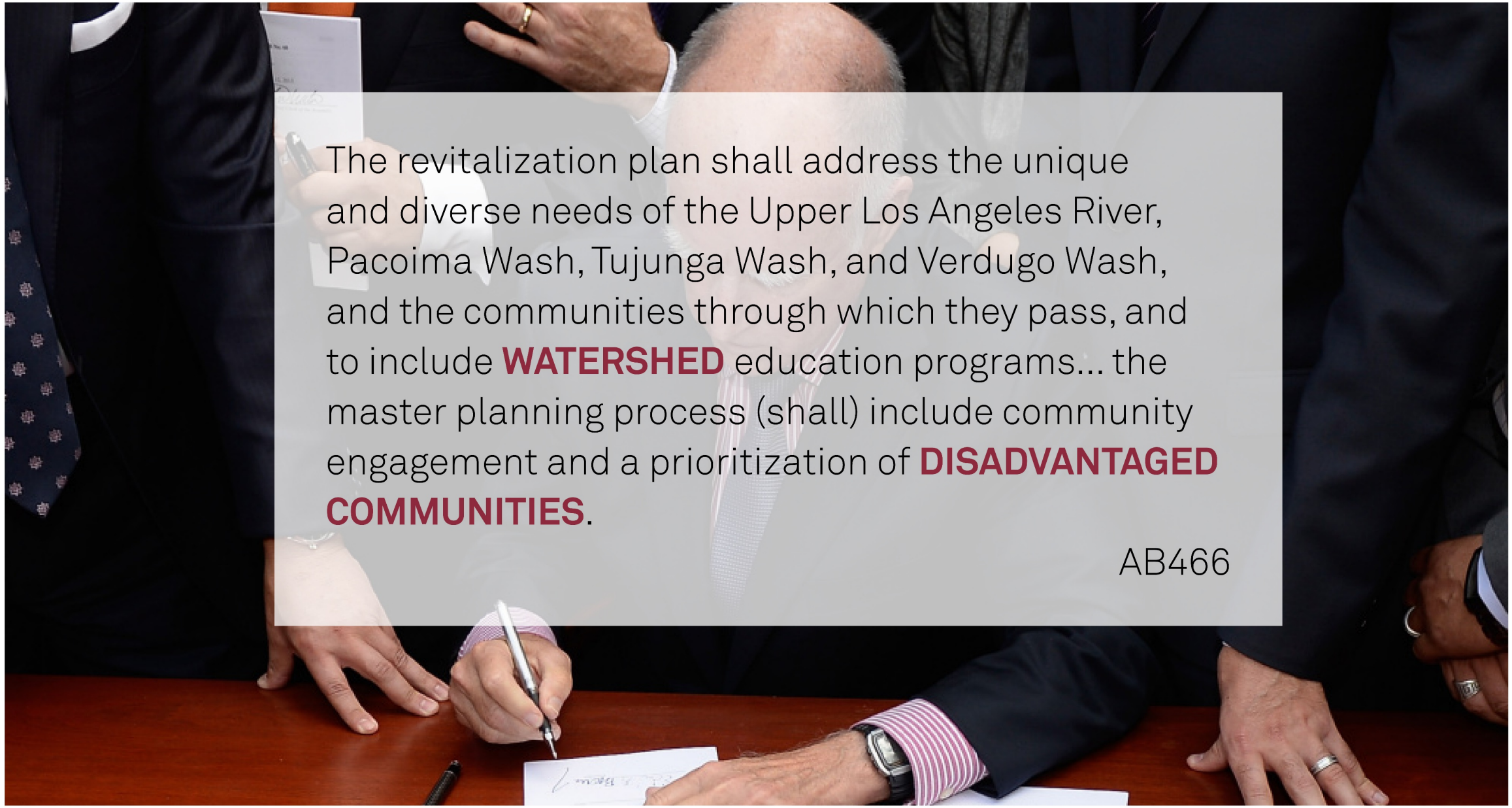
Reset



MAPS AS NARRATIVE ▶ THE TRIBUTARY STORY ▶ BASE MAP FRAMEWORK ▶ COMMUNITY PORTRAITS ▶ LAYERING DESIGN ▶ SUMMING IT UP

USGS, 1988


Natural channels are lined with concrete to reduce flooding
Trees and soil allow rainwater to percolate into the groundwater table
Rainwater collects in naturally formed channels
Tributaries are part of a watershed and can provide connectivity for people and wildlife
Pavement prevents water from returning to the soil, causing runoff
Urban sprawl leaves little room for native habitat
Parks can provide multi-benefit improvements that help people and ecosystems thrive



The revitalization plan shall address the unique and diverse needs of the Upper Los Angeles River, Pacoima Wash, Tujunga Wash, and Verdugo Wash, and the communities through which they pass, and to include **WATERSHED** education programs... the master planning process (shall) include community engagement and a prioritization of **DISADVANTAGED COMMUNITIES**.

AB466

scale one

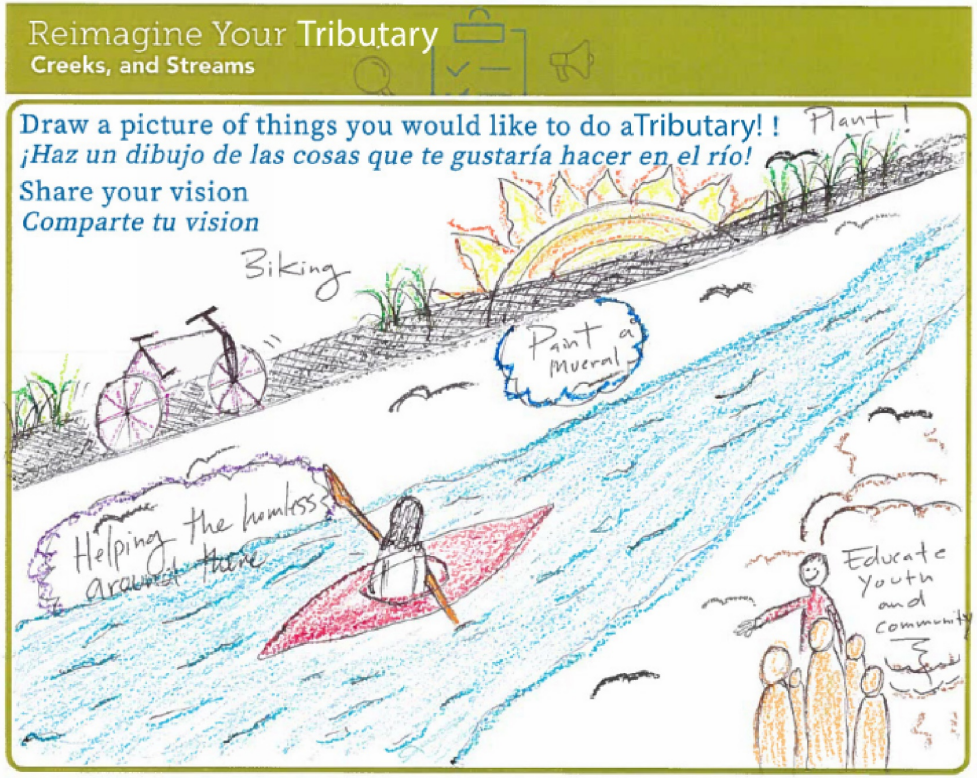
WATERSHED

scale two

COMMUNITY

scale three

I ♥ TRIBUTARIES



I have **tributary** dreams,
I dream of a waterway that is
Wide and Narrow,
Deep and shallow,
A waterway that can be whatever
It wants and needs and was born to be

Water that is clean and fresh,
Born of water from the sky,
Carried down the mountains,
And spreads itself out,
Replenishes the lands as it shares its life,
Giving soul as it makes it way to the sea

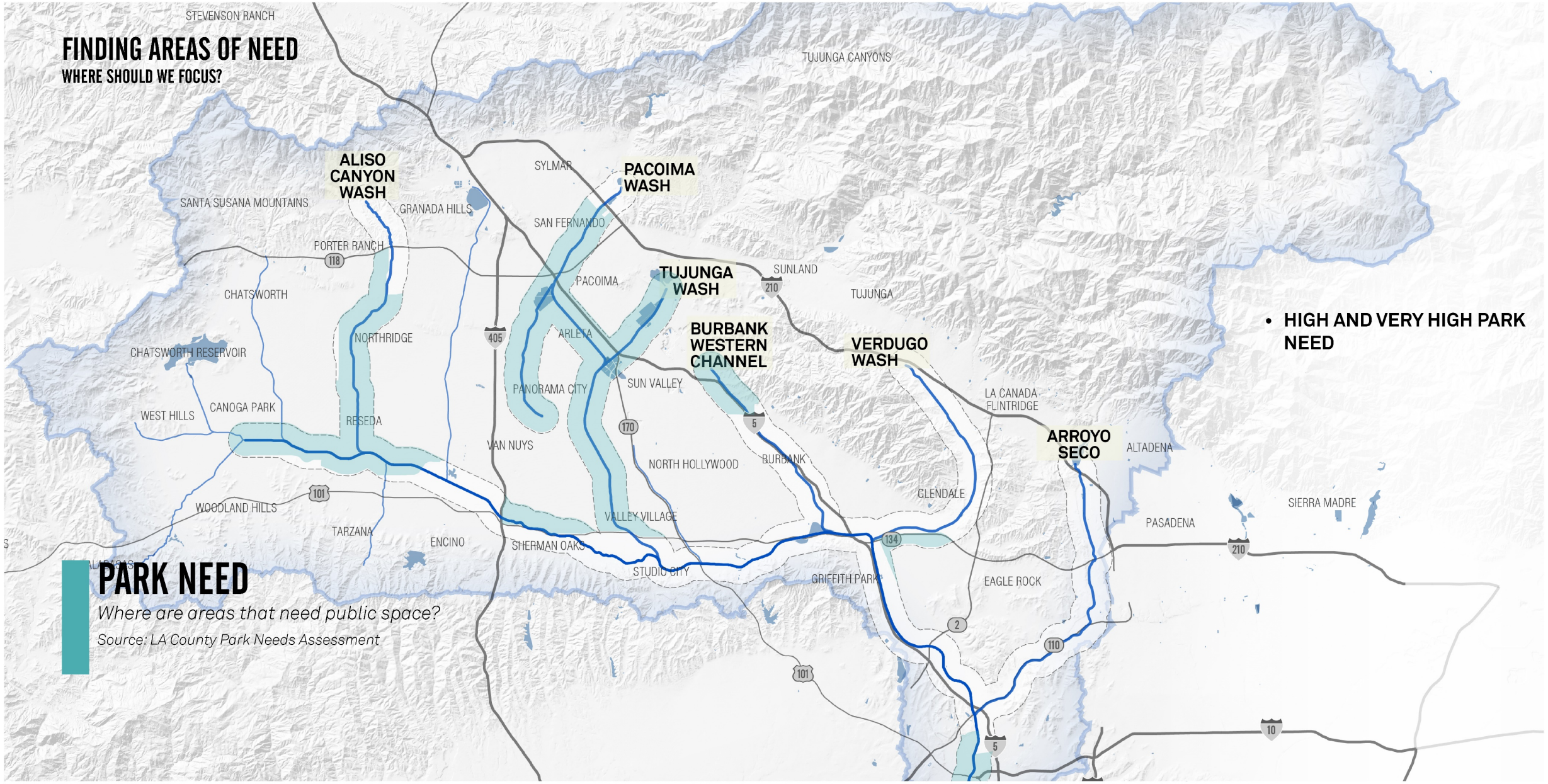
- Pacoima Resident
Written at a Community Meeting

Wonder - is not precisely Knowing
And not precisely Knowing not -

Emily Dickinson

FINDING AREAS OF NEED

WHERE SHOULD WE FOCUS?



- HIGH AND VERY HIGH PARK NEED

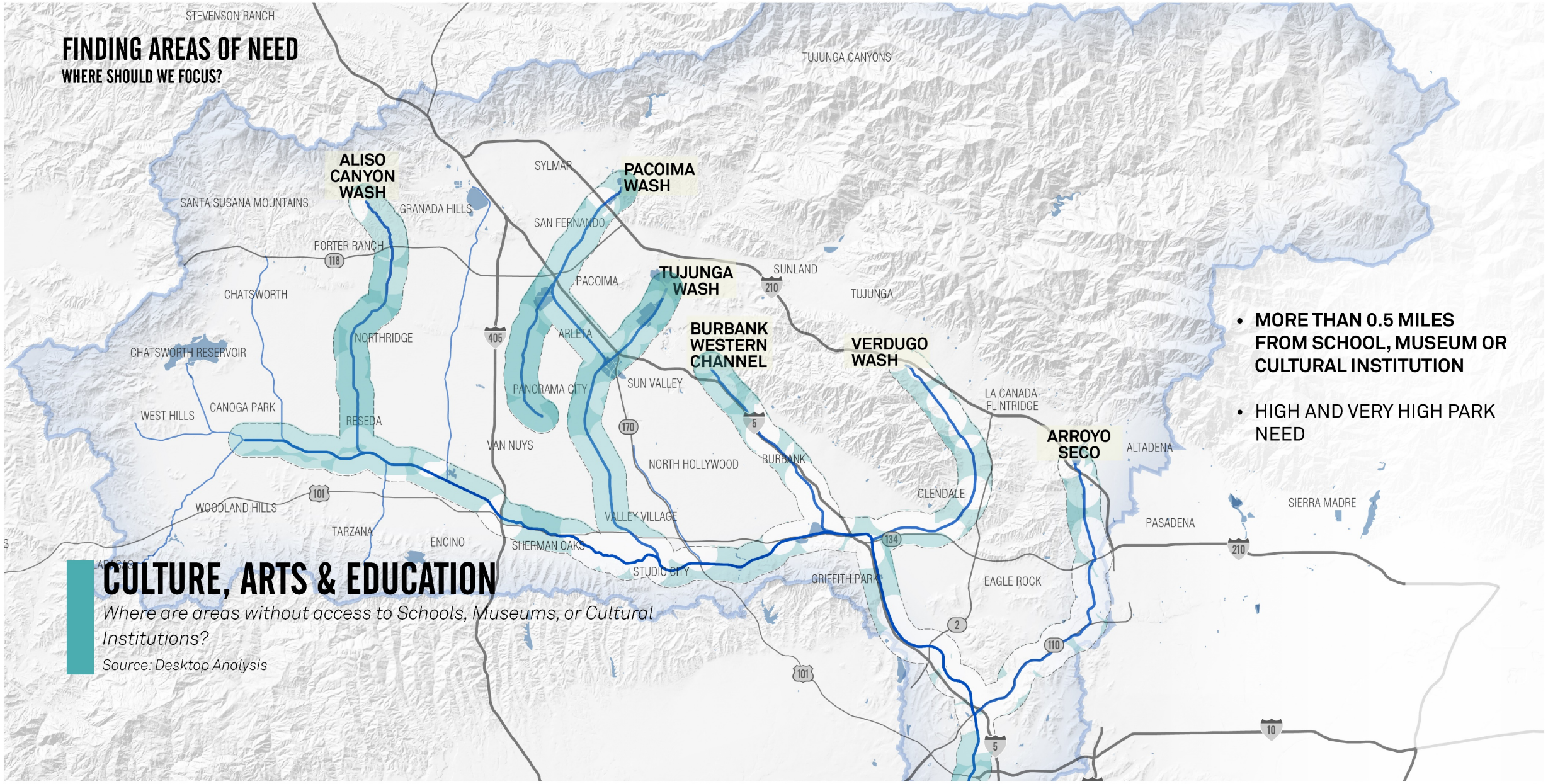
PARK NEED

Where are areas that need public space?

Source: LA County Park Needs Assessment

FINDING AREAS OF NEED

WHERE SHOULD WE FOCUS?



- **MORE THAN 0.5 MILES FROM SCHOOL, MUSEUM OR CULTURAL INSTITUTION**
- HIGH AND VERY HIGH PARK NEED

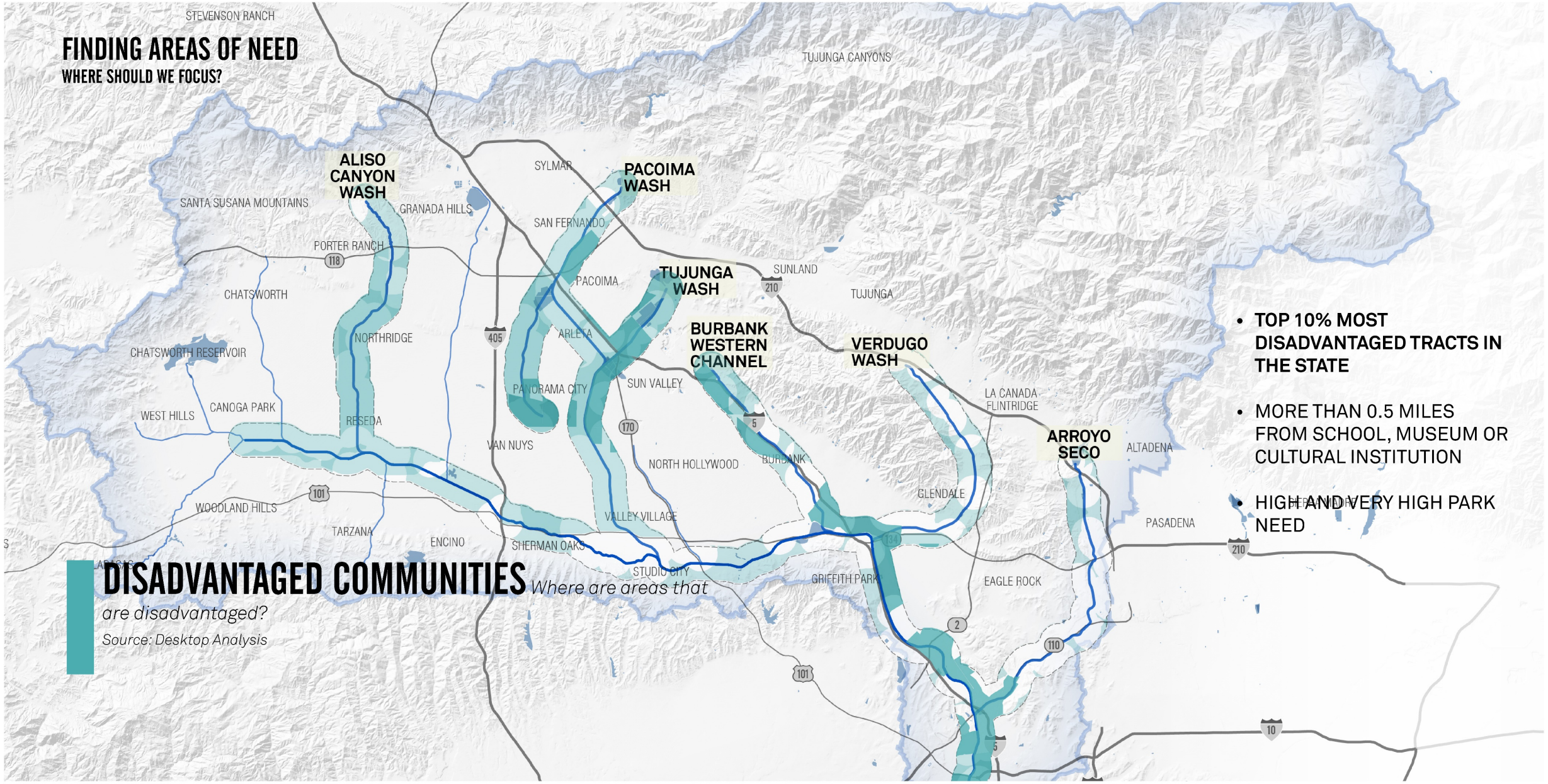
CULTURE, ARTS & EDUCATION

Where are areas without access to Schools, Museums, or Cultural Institutions?

Source: Desktop Analysis

FINDING AREAS OF NEED

WHERE SHOULD WE FOCUS?



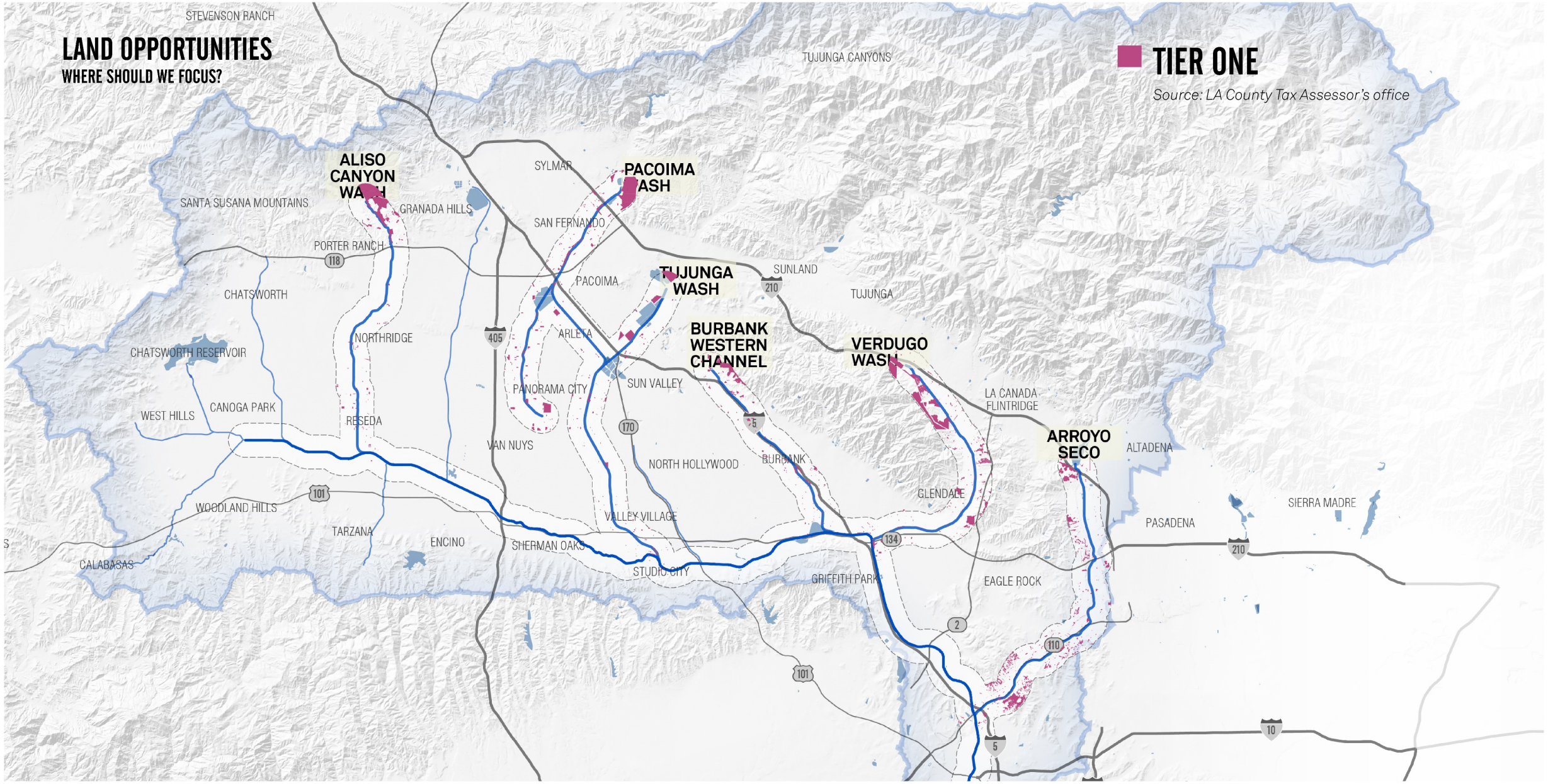
- **TOP 10% MOST DISADVANTAGED TRACTS IN THE STATE**
- MORE THAN 0.5 MILES FROM SCHOOL, MUSEUM OR CULTURAL INSTITUTION
- HIGH AND VERY HIGH PARK NEED

DISADVANTAGED COMMUNITIES *Where are areas that are disadvantaged?*

Source: Desktop Analysis

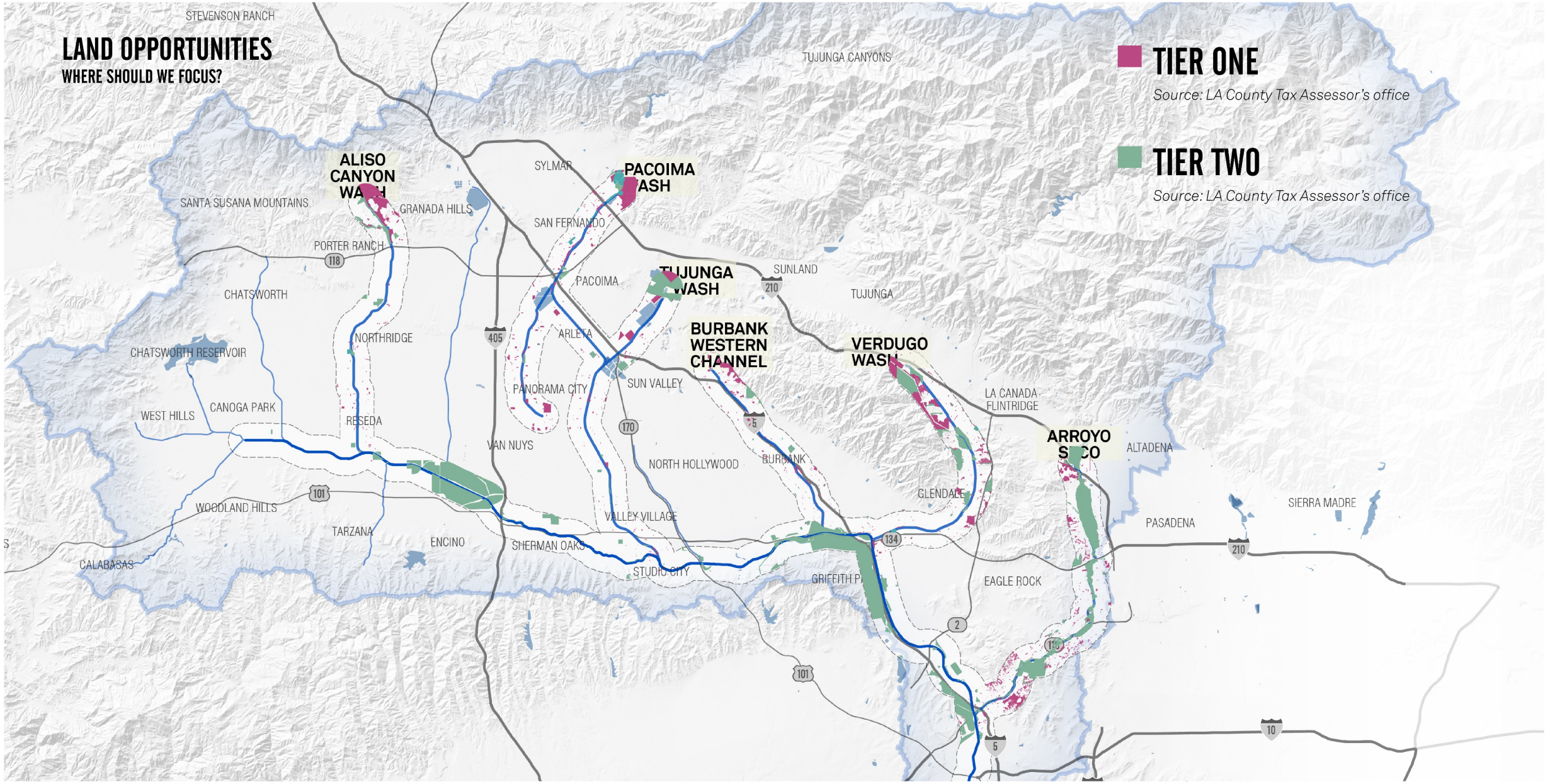
LAND OPPORTUNITIES

WHERE SHOULD WE FOCUS?



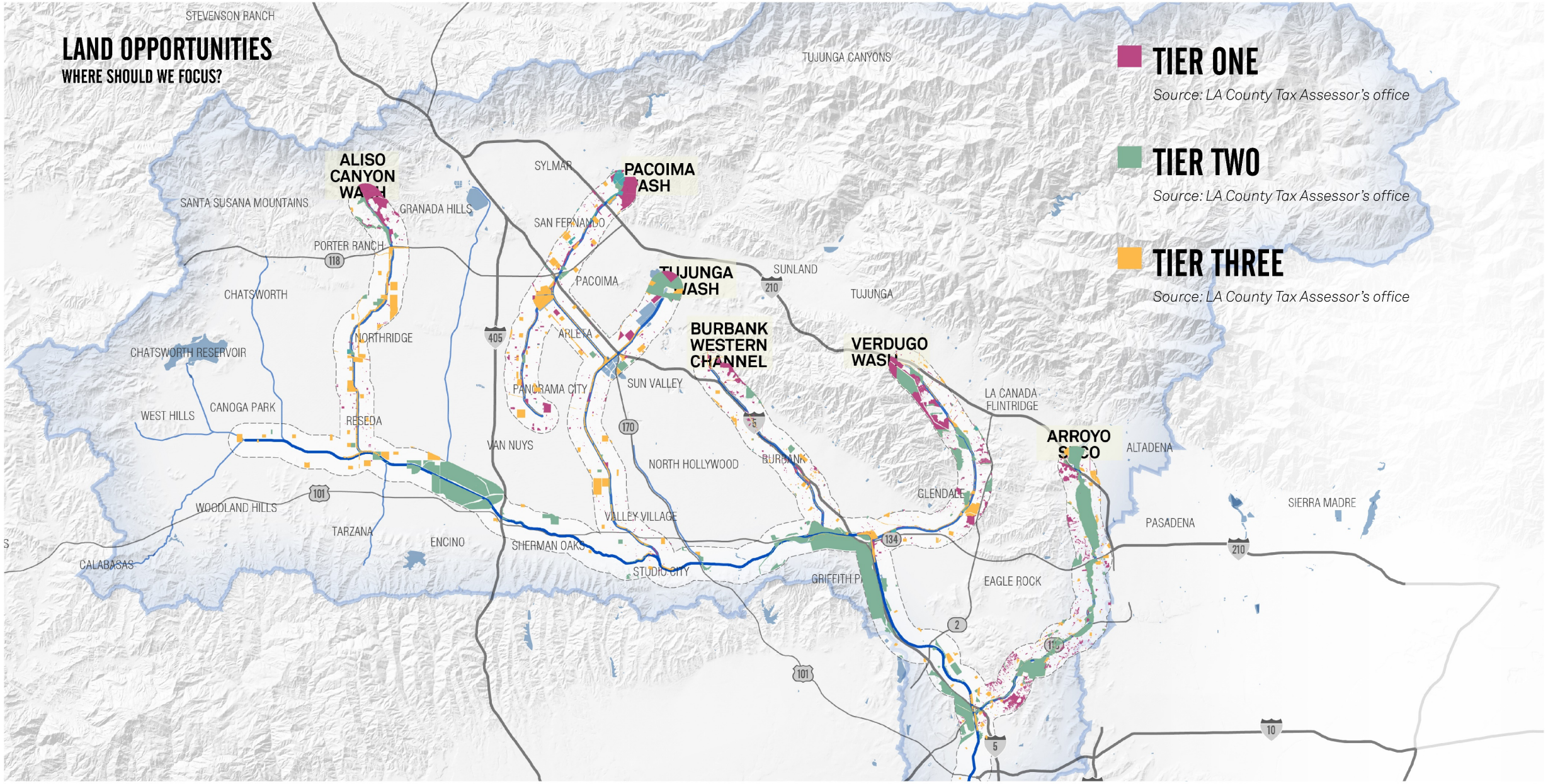
LAND OPPORTUNITIES

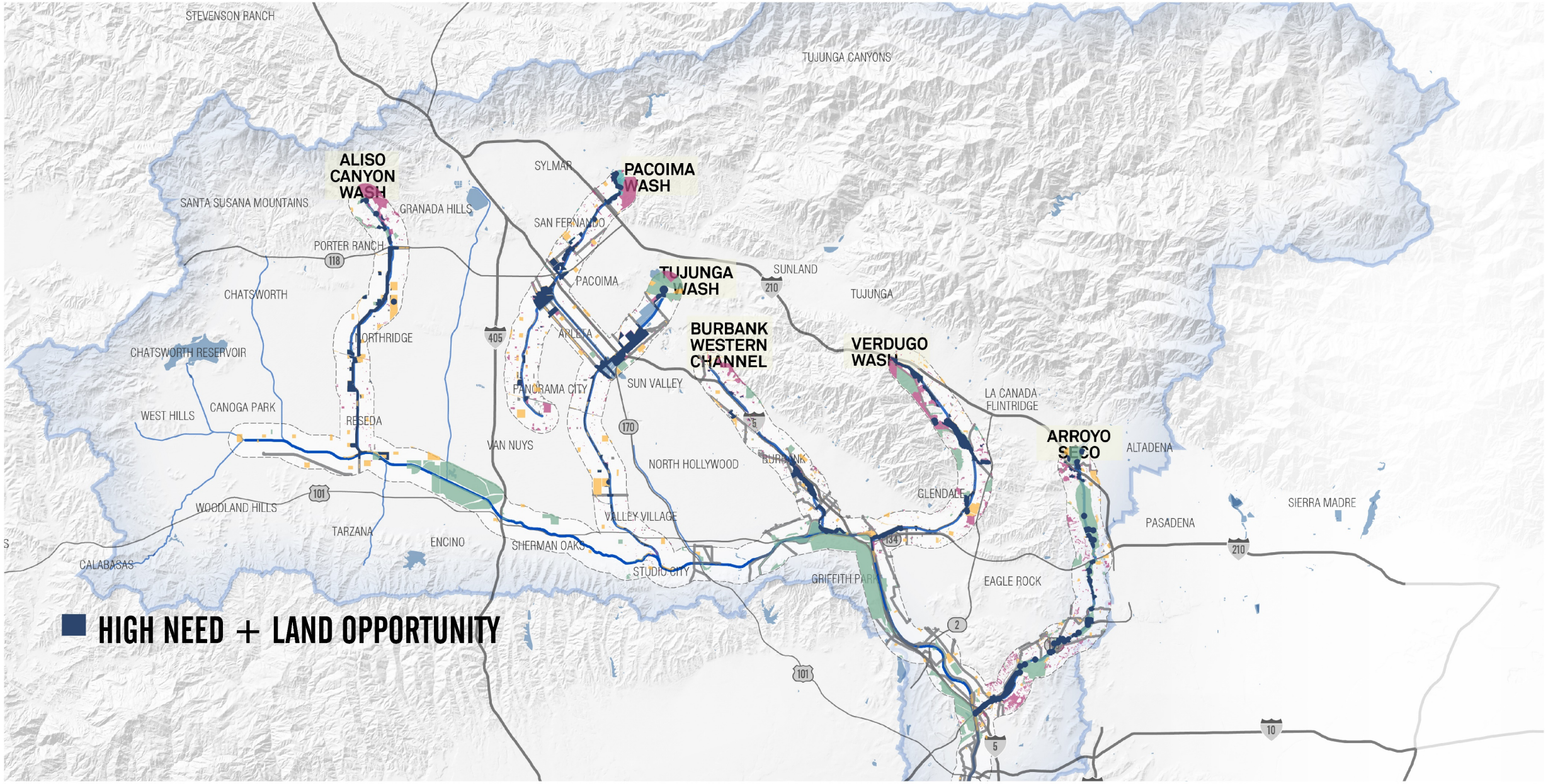
WHERE SHOULD WE FOCUS?



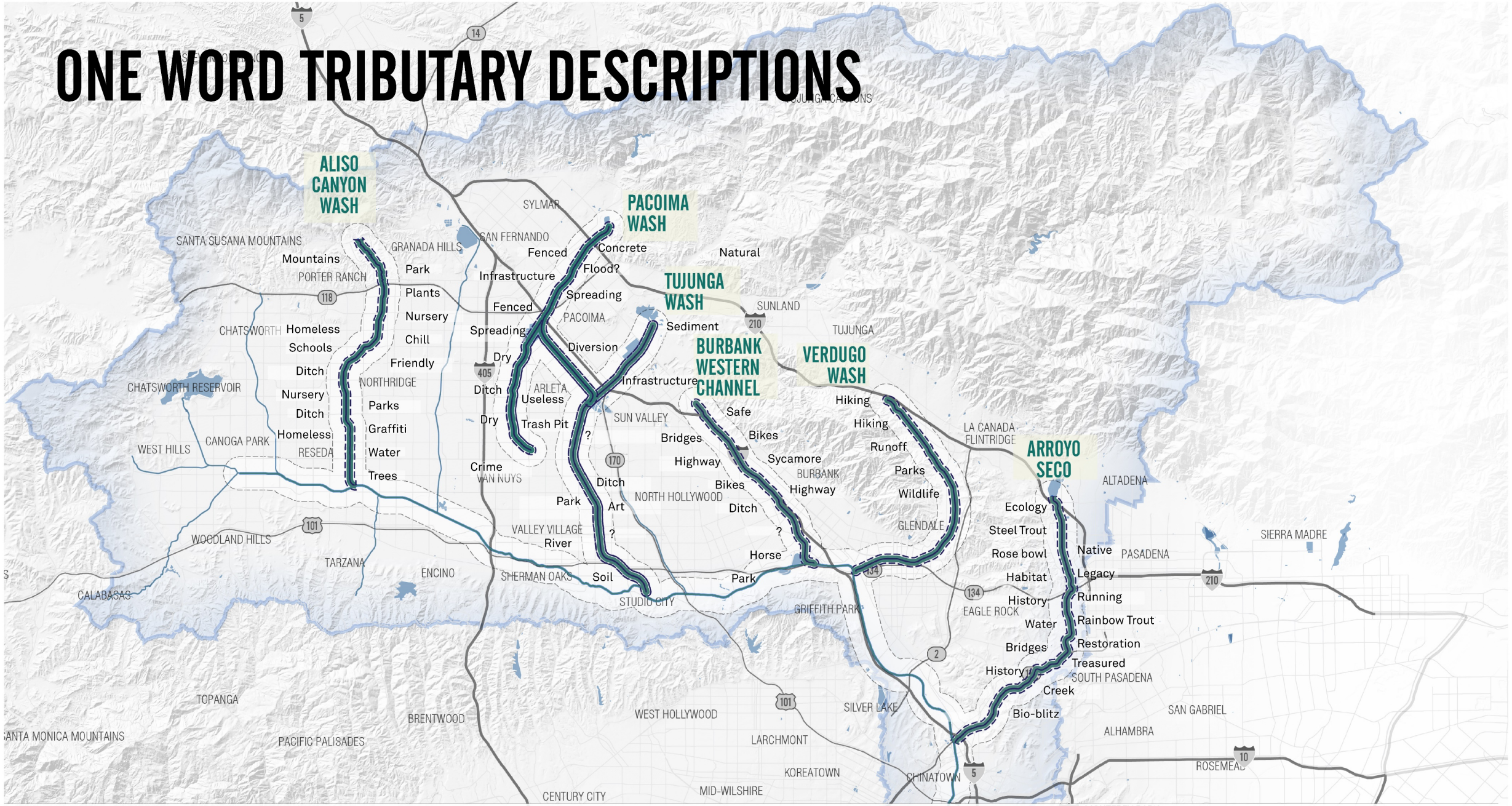
LAND OPPORTUNITIES

WHERE SHOULD WE FOCUS?

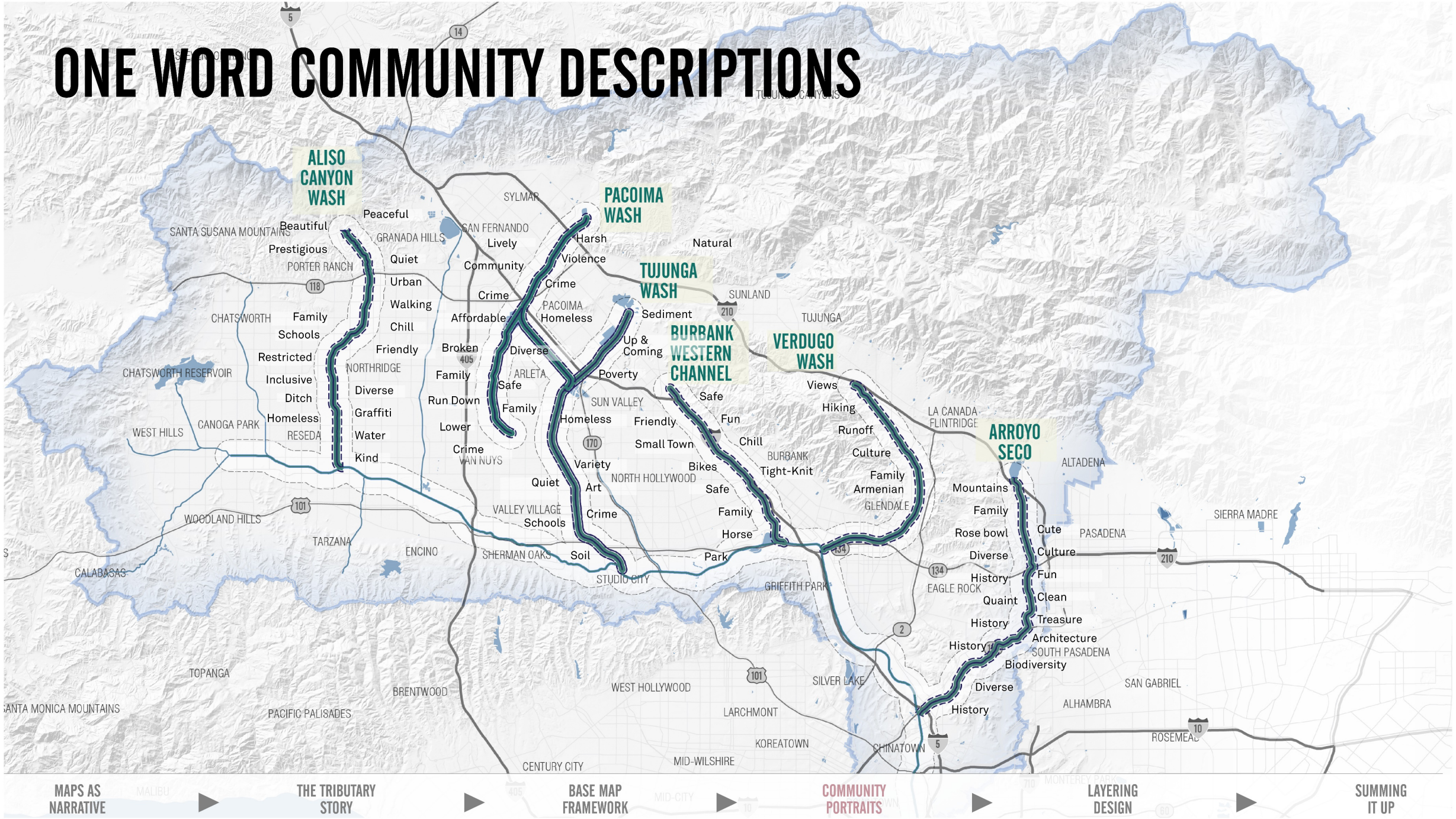



ALISO CANYON WASH
PACOIMA WASH
TUJUNGA WASH
BURBANK WESTERN CHANNEL
VERDUGO WASH
ARROYO SECO
HIGH NEED + LAND OPPORTUNITY
STEVENSON RANCH
TUJUNGA CANYONS
SANTA SUSANA MOUNTAINS
GRANADA HILLS
SYLMAR
SAN FERNANDO
PORTER RANCH
PACOIMA
SUNLAND
TUJUNGA
CHATSWORTH
NORTHRIDGE
ARLETA
CHATSWORTH RESERVOIR
PANORAMA CITY
SUN VALLEY
LA CANADA FLINTRIDGE
WEST HILLS
CANOGA PARK
RESEDA
VAN NUYS
NORTH HOLLYWOOD
BURBANK
ALTADENA
GLENDALE
WOODLAND HILLS
VALLEY VILLAGE
SIERRA MADRE
PASADENA
TARZANA
ENCINO
SHERMAN OAKS
CALABASAS
STUDIO CITY
GRIFFITH PARK
EAGLE ROCK
118
405
210
170
101
134
2
5
10

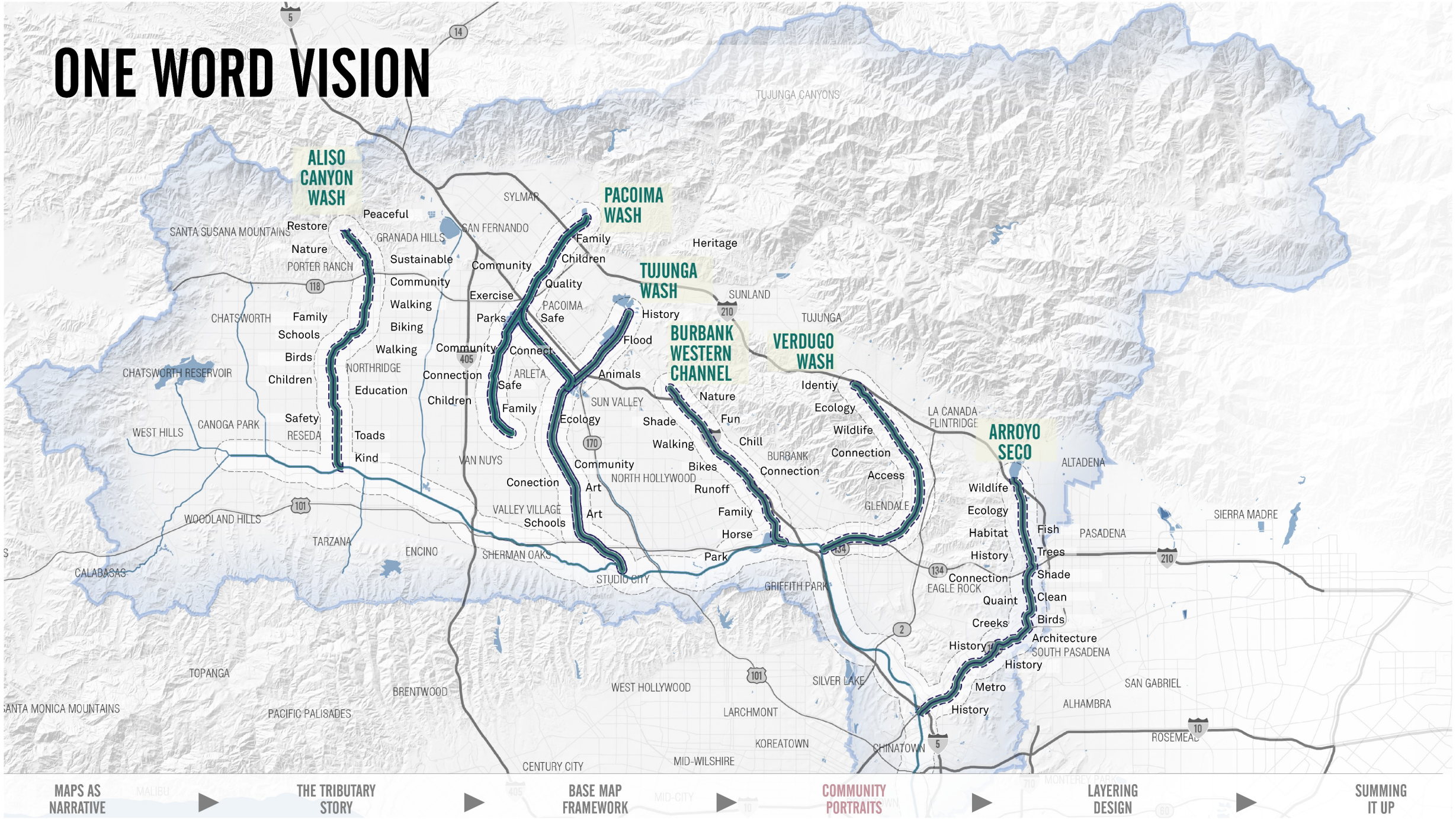
ONE WORD TRIBUTARY DESCRIPTIONS



ONE WORD COMMUNITY DESCRIPTIONS



ONE WORD VISION



MAPS AS NARRATIVE ▶ THE TRIBUTARY STORY ▶ BASE MAP FRAMEWORK ▶ COMMUNITY PORTRAITS ▶ LAYERING DESIGN ▶ SUMMING IT UP

TRIBUTARY

FENCED INFRASTRUCTURE CONCRETE

MOUNTAINS 1200 ACRES SEA 40K ACRES DRAINAGE

COMMUNITY

LIVELY CRIME AFFORDABLE

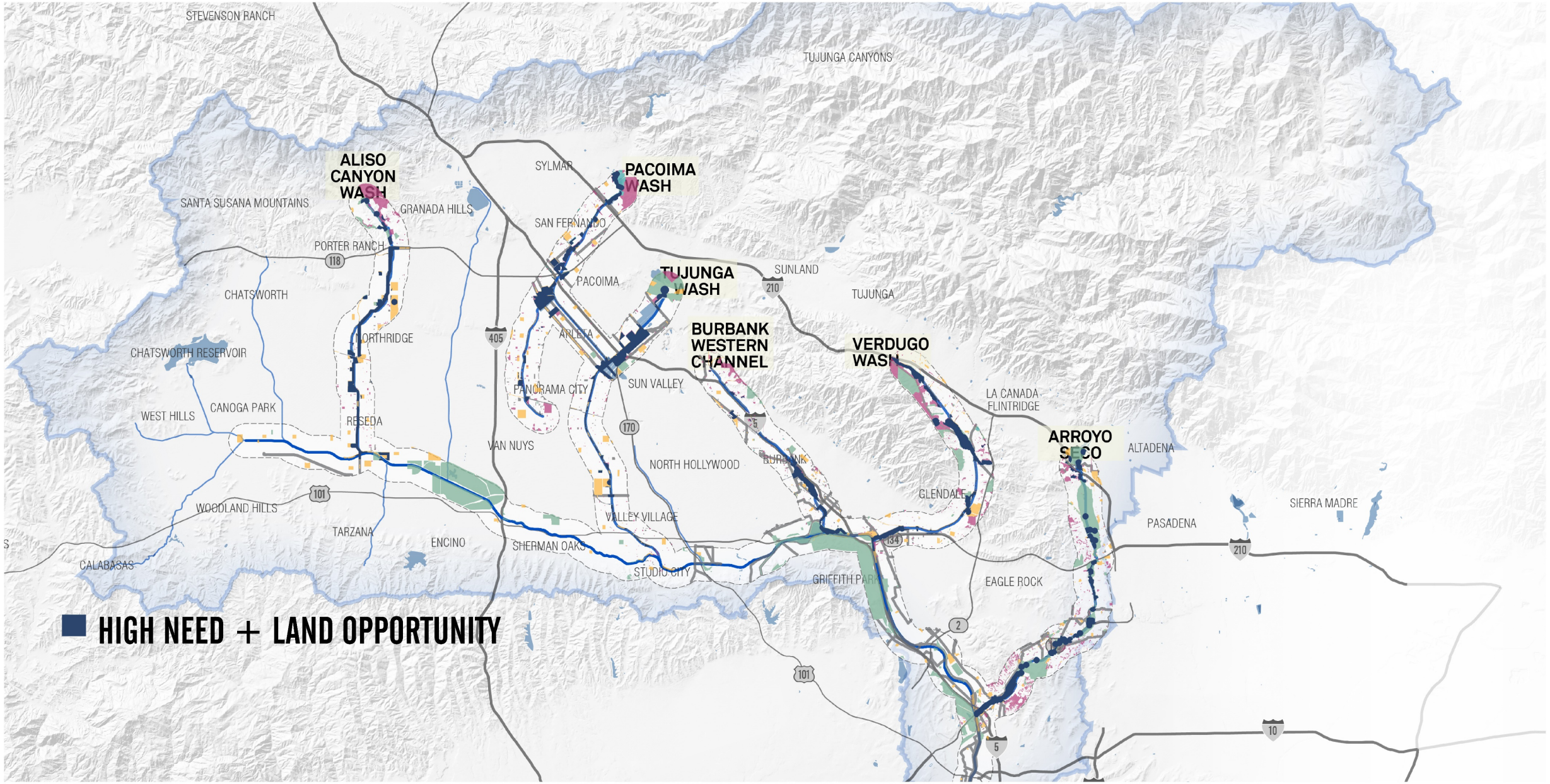
36 PEOPLE /ACRE 12 SCHOOL S

VISION

QUALITY CHILDREN FAMILY

12 % AREA IS VACANT

Nothern Pacoima
Snapshot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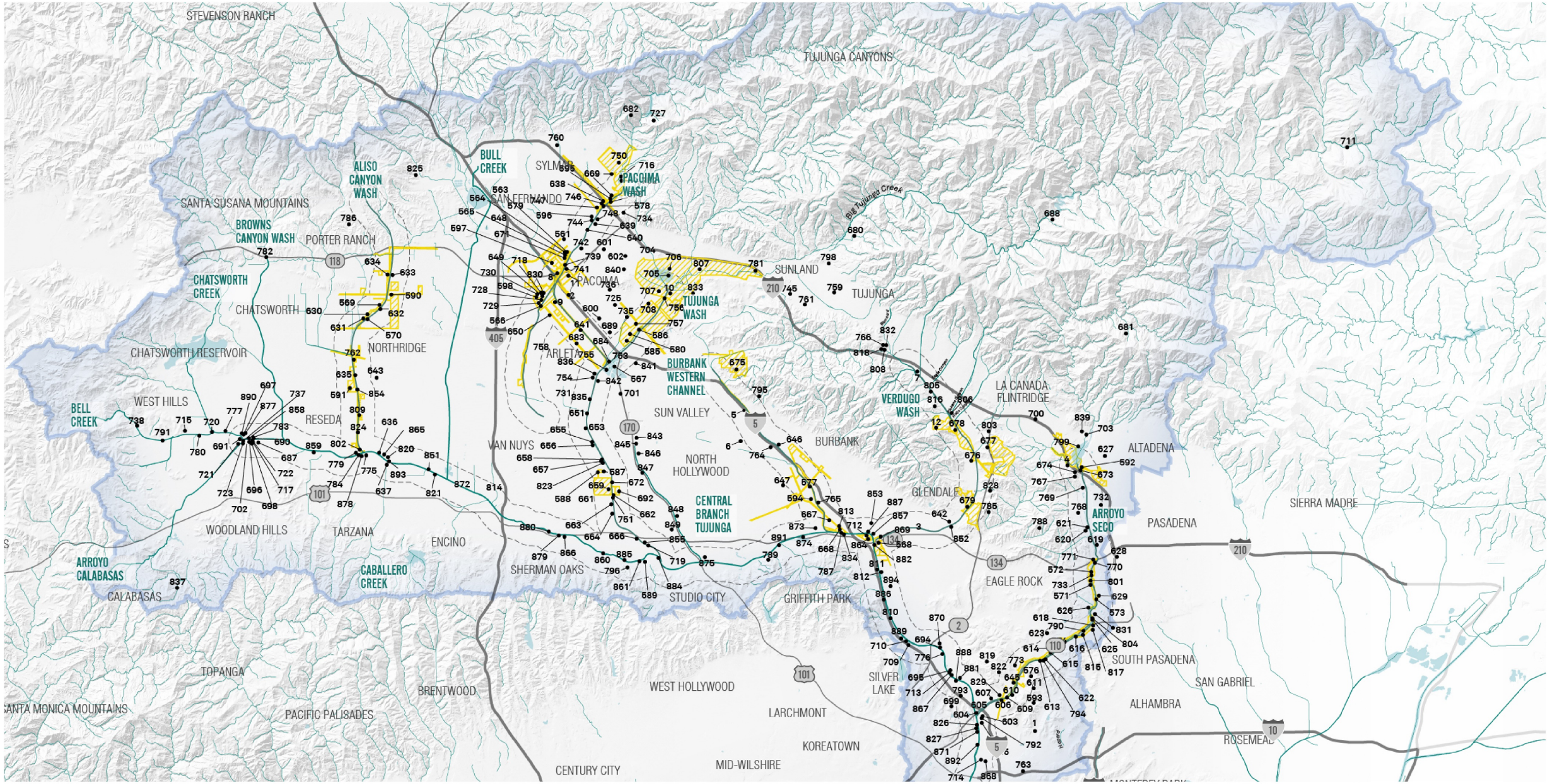

STEVENSON RANCH
TUJUNGA CANYONS
SANTA SUSANA MOUNTAINS
ALISO CANYON WASH
BULL CREEK
PACOIMA WASH
BROWNS CANYON WASH
PORTER RANCH
SAN FERNANDO
SYLMAR
CHATSWORTH CREEK
CHATSWORTH
CHATSWORTH RESERVOIR
NORTHRIDGE
PACOIMA
SUNLAND
TUJUNGA
TUJUNGA WASH
BURBANK WESTERN CHANNEL
ARLETA
SUN VALLEY
BURBANK
VERDUGO WASH
LA CANADA FLINTRIDGE
BELL CREEK
WEST HILLS
RESEDA
VAN NUYS
NORTH HOLLYWOOD
GLENDALE
ALTADENA
SIERRA MADRE
CENTRAL BRANCH TUJUNGA
ARROYO SECO
PASADENA
WOODLAND HILLS
TARZANA
ENCINO
SHERMAN OAKS
STUDIO CITY
GRIFFITH PARK
EAGLE ROCK
ARROYO CALABASAS
CABALLERO CREEK
CALABASAS
TOPANGA
BRENTWOOD
WEST HOLLYWOOD
SILVER LAKE
SOUTH PASADENA
SAN GABRIEL
ALHAMBRA
PACIFIC PALISADES
LARCHMONT
KOREATOWN
MID-WILSHIRE
CENTURY CITY
ROSEMEAD
Big Tujunga Creek

HERITAGE SQUARE (ON THE ARROYO SECO)

EXISTING CONDITIONS (LOOKING NORTH)

TRIBUTARY

ECOLOGY HABITAT BRIDGES

HISTORIC STREAMS 800 ACRES SEA 30K ACRES DRAINAGE

COMMUNITY

HISTORY LUMMIS PARKS

23 PEOPLE /ACRE 12 SCHOOLS METRO STATION

VISION

HISTORY CONNECTION RESTORATION

5.6 % AREA IS VACANT

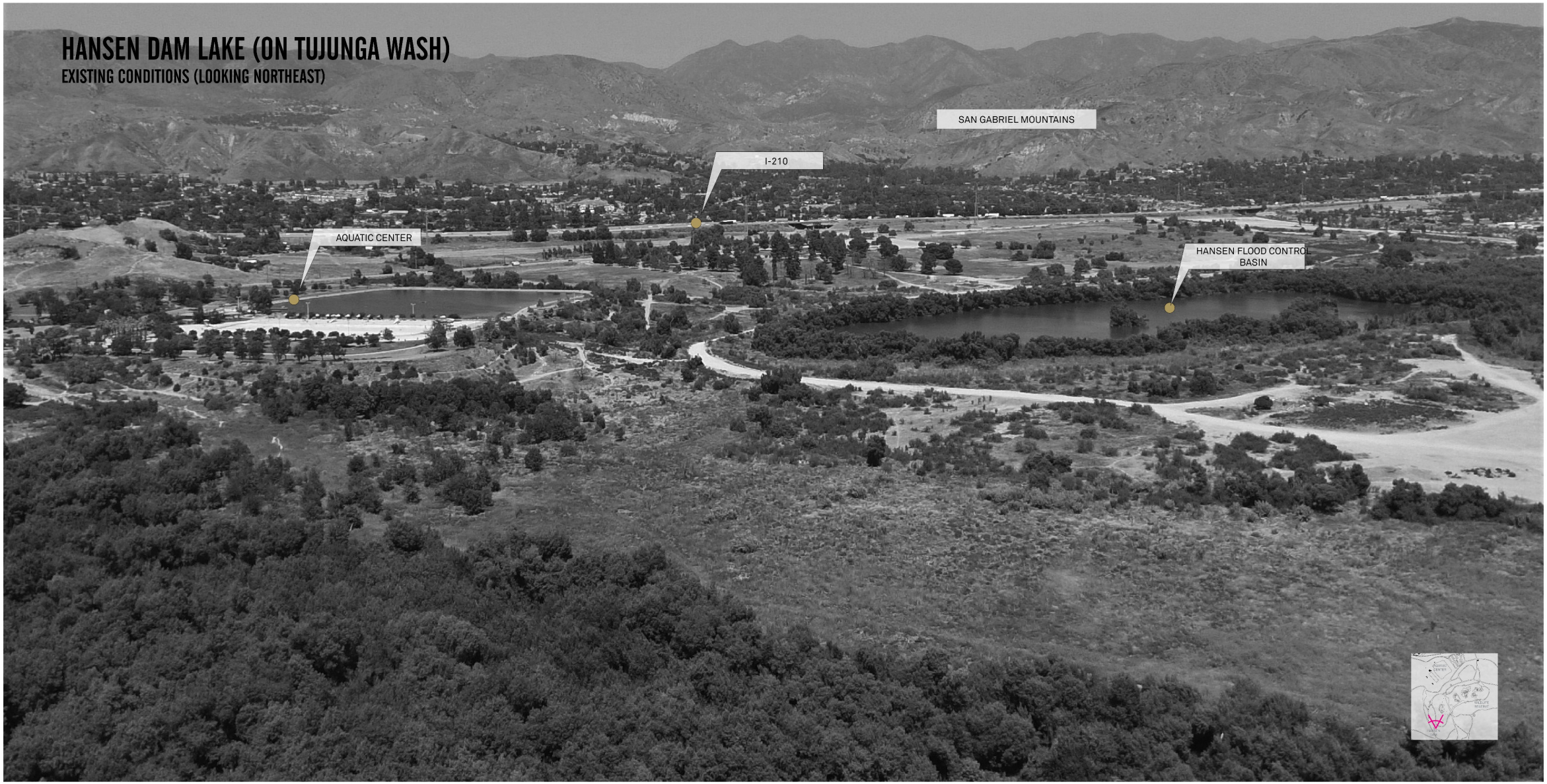
Heritage Square
Snapshot

HERITAGE SQUARE (ON THE ARROYO SECO)

DESIGN CONCEPT (LOOKING NORTH)

HANSEN DAM LAKE (ON TUJUNGA WASH)

EXISTING CONDITIONS (LOOKING NORTHEAST)



TRIBUTARY

SEDIMENT HOLIDAY LAKE ECOLOGY

HISTORIC LAKE 14 ACRES SEA 11K ACRES DRAINAGE

COMMUNITY

COMMUNITY SAFETY NATURE

38 PEOPLE /ACRE SCIENCE MUSUEM REGIONAL PARK

VISION

HOLIDAY LAKE ECOLOGY RESTORATION

6.1% AREA IS VACANT

Snapshot of southern edge of Arroyo Seco

HANSEN DAM LAKE (ON TUJUNGA WASH)

DESIGN CONCEPT (LOOKING NORTHEAST)

HANSEN DAM SPREADING GROUNDS (ON THE TUJUNGA WASH)

EXISTING CONDITIONS (LOOKING NORTHEAST)

TRIBUTARY

UPSTREAM FILTRATION RECHARGE

RETIRED MINE 13 ACRES SEA 50% AREA IS IMPERVIOUS

COMMUNITY

COMMUNITY SAFETY NATURE

38 PEOPLE /ACRE , 1.65 ACRES OF PARK PER PERSON

VISION

OPEN SPACE BIRDS TURTLE

80% AREA IS VACANT

Snapshot of southern edge of Arroyo Seco

HANSEN DAM SPREADING GROUNDS (ON THE TUJUNGA WASH)

EXISTING CONDITIONS (LOOKING NORTHEAST)

HANSEN DAM PARK
PACOIMA SPREADING GROUNDS
WILBUR DEBRIS BASIN
TUJUNGA SPREADING GROUNDS
VERDUGO ECOLOGICAL LINK
ALISO SOUTHERN CONNECTORS
TUJUNGA GREENBELT EXTENSION
SEPULVEDA BASIN
BURBANK MULTI-USE
ARROYO NATURALIZATION
HERITAGE SQUARE
STEVENSON RANCH
TUJUNGA CANYONS
PACOIMA
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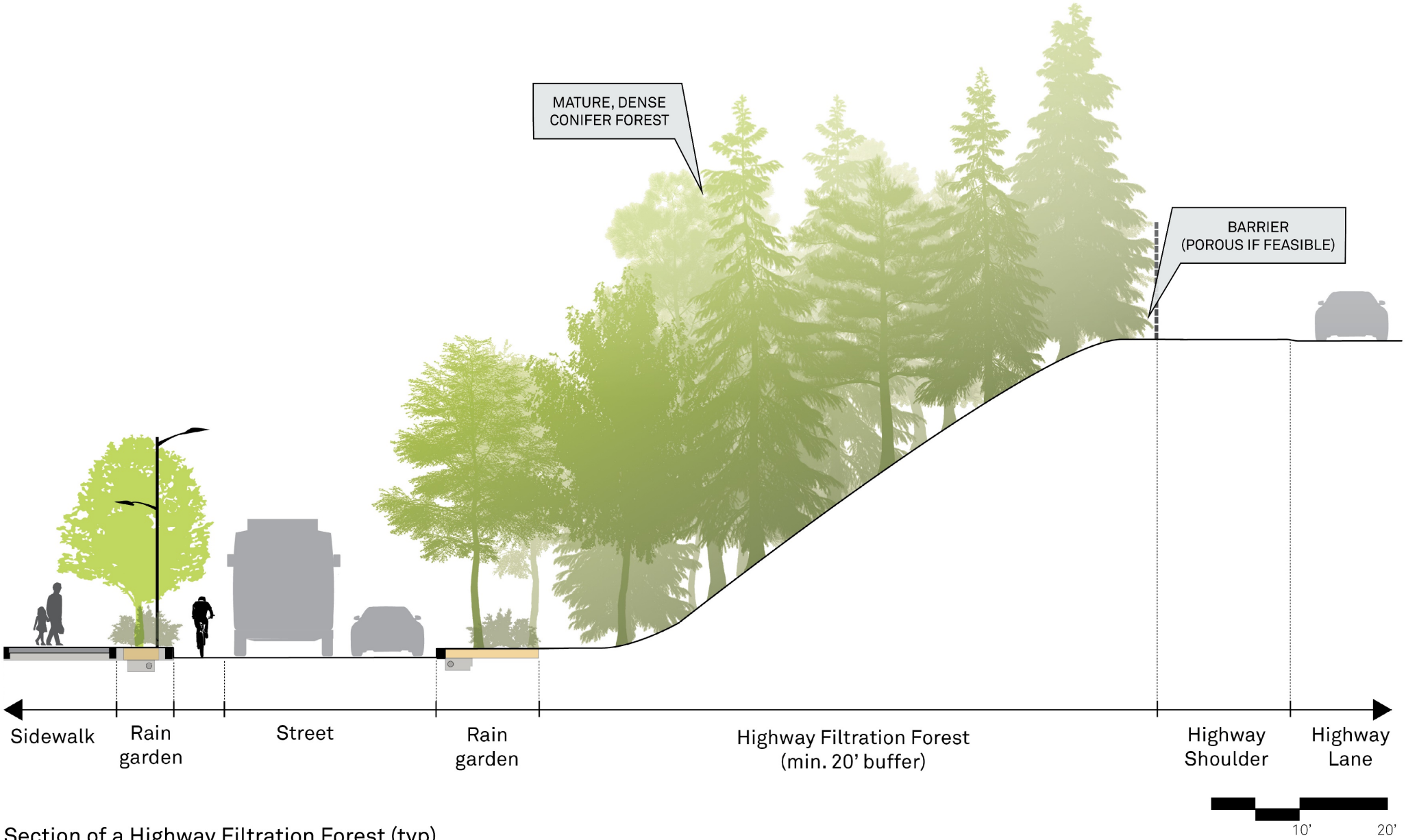
CHINATOWN
ROSEMEAD
CENTURY CITY
MID-WILSHIRE
MALIBU
MID-CITY
DOWNTOWN



Section of a Highway Filtration Forest (typ)

BENEFITS PER ACRE

*For each of the 199.8 acres of **Highway Filtration Forest** opportunities identified we may expect the following benefits per acre*

WATER

- **0.6 acres** — New or Enhanced Permeable Paving
- **17,932 gallons** — Additional Stormwater Capture from planting

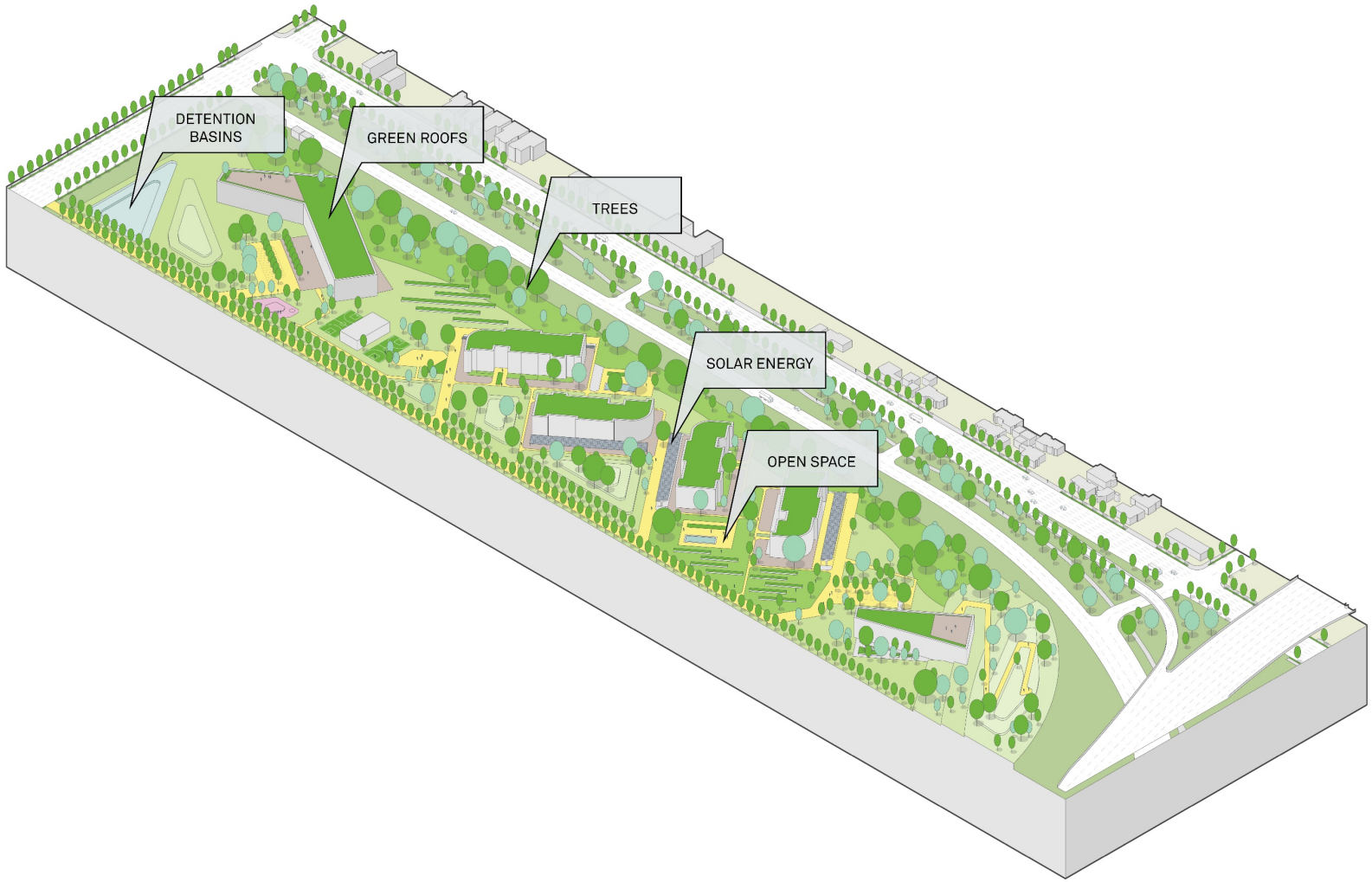
AIR

- **51 trees**
- **56.8 tons** — Carbon Sequestration from Planting and Trees
- **1.3 tons** — Additional Carbon Avoided
- **44.9 pounds** — Additional Pollutant Removal

HABITAT

- **0.2 acres** — New/Enhanced Ecological Habitat
- **0.59 acres** — New / Enhanced Tree Canopy

HOUSING



BENEFITS PER ACRE

*For each of the 131 acres of **Housing** opportunities identified we may expect the following benefits per acre*

WATER

0.5 acres
New or Enhanced Permeable Paving

3,500 gallons
Additional Stormwater Capture from planting

AIR

10 trees

10.2 tons
Carbon Sequestration from Planting and Trees

0.3 tons
Additional Carbon Avoided

8.8 pounds
Additional Pollutant Removal

HABITAT

0.1 acres
New/Enhanced Ecological Habitat

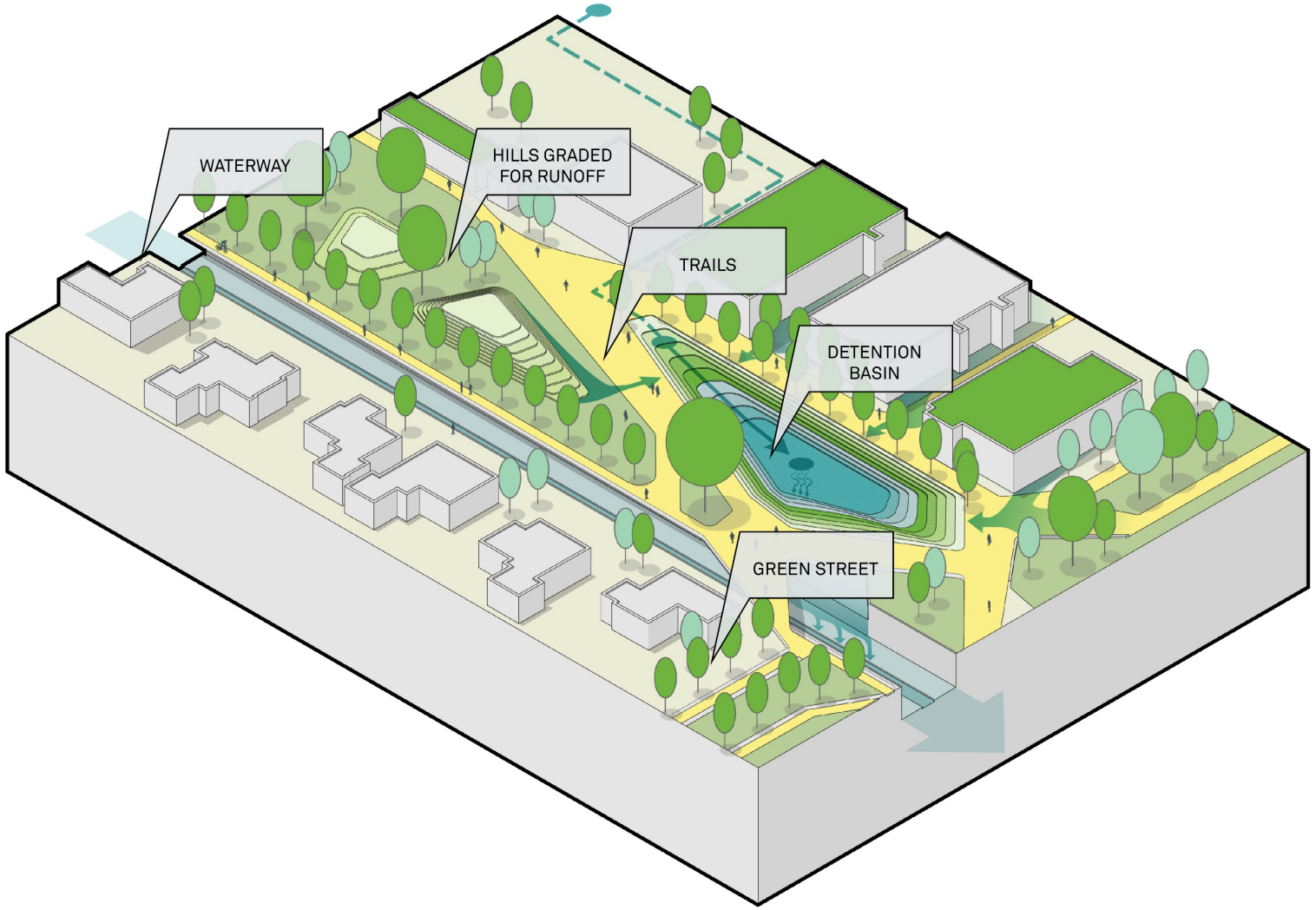
0.11 acres
New / Enhanced Tree Canopy

COMMUNITY

0.1 acres
New / Enhanced Open Space

0.2 miles
Community Connections

STORMWATER BASINS



BENEFITS PER ACRE

*For each of the 1,185 acres of **Stormwater Basin** opportunities identified we may expect the following benefits per acre*

WATER

- **0.7 acres** — New or Enhanced Permeable Paving
- **8,755 gallons** — Additional Stormwater Capture from planting
- **74,946 gallons** — Additional Stormwater Capture from infiltration

AIR

- **25 trees**
- **27.7 tons** — Carbon Sequestration from Planting and Trees
- **0.7 tons** — Additional Carbon Avoided
- **21.9 pounds** — Additional Pollutant Removal

HABITAT

- **0.5 acres** — New/Enhanced Ecological Habitat
- **0. acres** — New / Enhanced Tree Canopy

COMMUNITY

- **0.3 acres** — New / Enhanced Open Space
- **0.1 miles** — Community Connections

UPDATED SUSTAINABILITY METRICS

THE PLAN WILL PROVIDE

17.5 SQUARE MILES
OF NEW + ENHANCED SPACES

EQUIVALENT TO
3 GRIFFITH PARKS

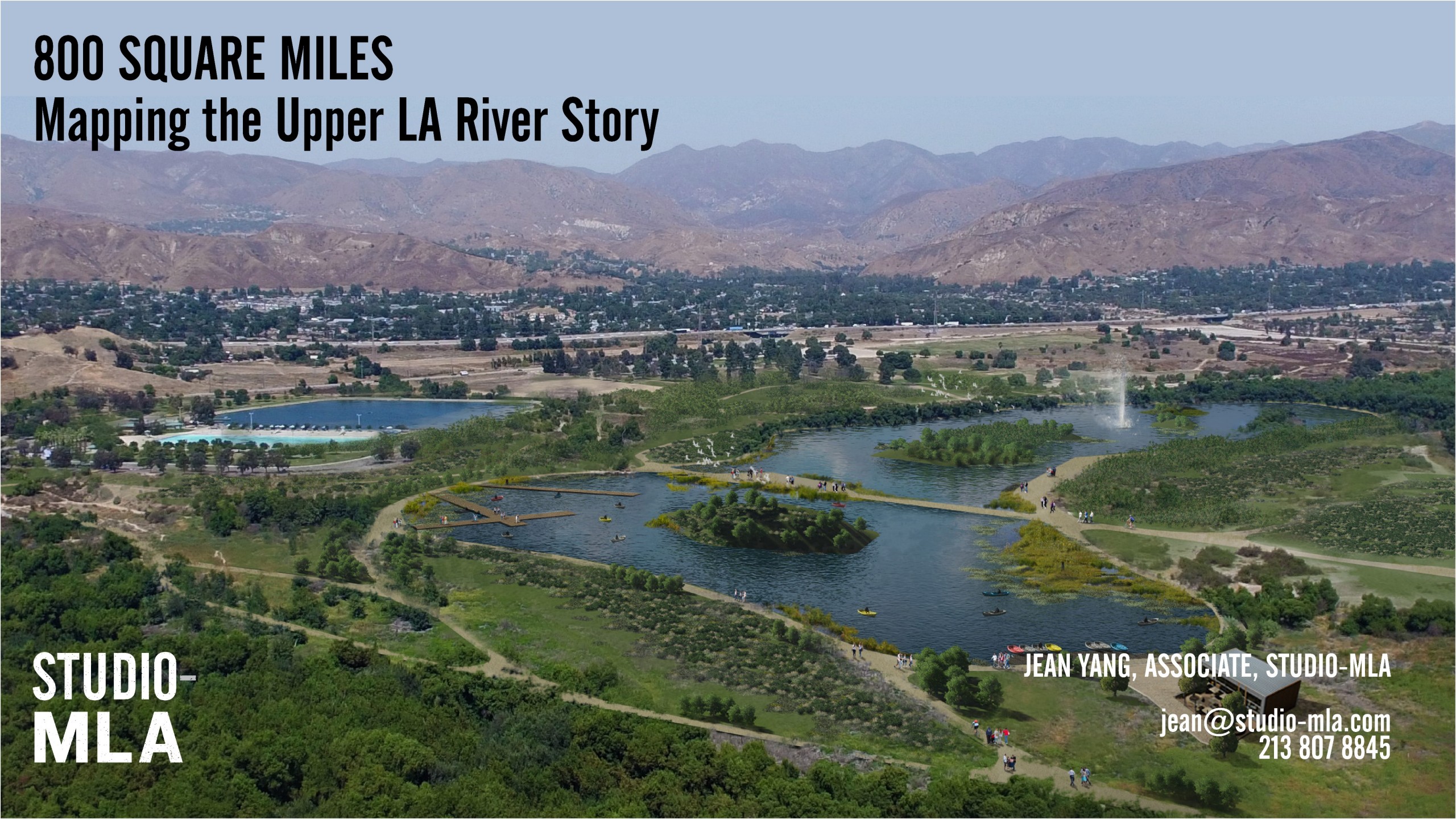
1.5 MILLION PEOPLE
WITH ACCESS TO NEW + ENHANCED SPACES

EQUIVALENT TO
THE POPULATION OF SAN DIEGO

625k DISADVANTAGED COMMUNITIES
WITH ACCESS TO NEW + ENHANCED SPACES

EQUIVALENT TO
THE POPULATION OF DETROIT

800 SQUARE MILES
Mapping the Upper LA River Story



STUDIO-
MLA

JEAN YANG, ASSOCIATE, STUDIO-MLA

jean@studio-mla.com
213 807 8845