

LOS ANGELES RIVER

MASTER PLAN UPDATE

Steering Committee Meeting #5



10 April 2019

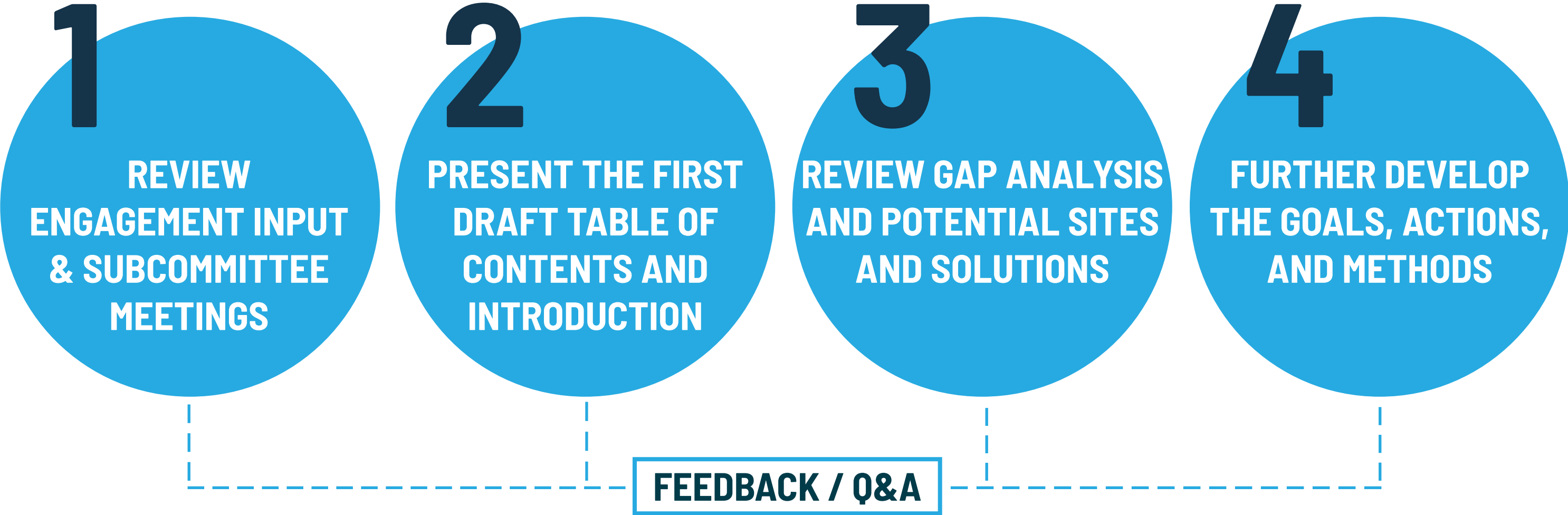


WELCOME



MEETING PURPOSE AND AGENDA

PURPOSE OF TODAY’S MEETING



MEETING AGENDA

WELCOME AND AGENDA OVERVIEW	COMMUNITY ENGAGEMENT UPDATE	SUBCOMMITTEE MEETINGS REPORT	WHAT'S IN THE PLAN	GOAL-DRIVEN FRAMEWORK	PUBLIC COMMENT	WRAP UP
<ul style="list-style-type: none">• River story• Roundtable Introductions• Meeting Purpose, Agenda, and Objectives• Welcome and Steering Committee Updates	<ul style="list-style-type: none">• Other Meetings• Review Round 1 and Preview Round 2• Studio City and West Valley Meetings• Community Partners Update• Upcoming Events• Discussion/Q&A	<ul style="list-style-type: none">• Subcommittee Hydrology Workshop• December Subcommittee Meetings• Discussion/Q&A	<ul style="list-style-type: none">• Table of Contents• Introduction• Role of the County• Vision• Discussion/Q&A	<ul style="list-style-type: none">• Locating Projects: Needs, Opportunities, and Cadence• Site Selection• Goal-Driven Design Framework: Kit of Parts• Policy• Discussion/Q&A	<ul style="list-style-type: none">• Verbal Comments• Comment Cards• Email Comments Anytime to LARiver@dpw.lacounty.gov	<ul style="list-style-type: none">• Important Upcoming Dates• June Agenda Overview• Community Outreach Events

INPUT, QUESTIONS, IDEAS?
Contact Genevieve Osmena at (626) 458-4322
or LARiver@dpw.lacounty.gov



STEERING COMMITTEE UPDATES

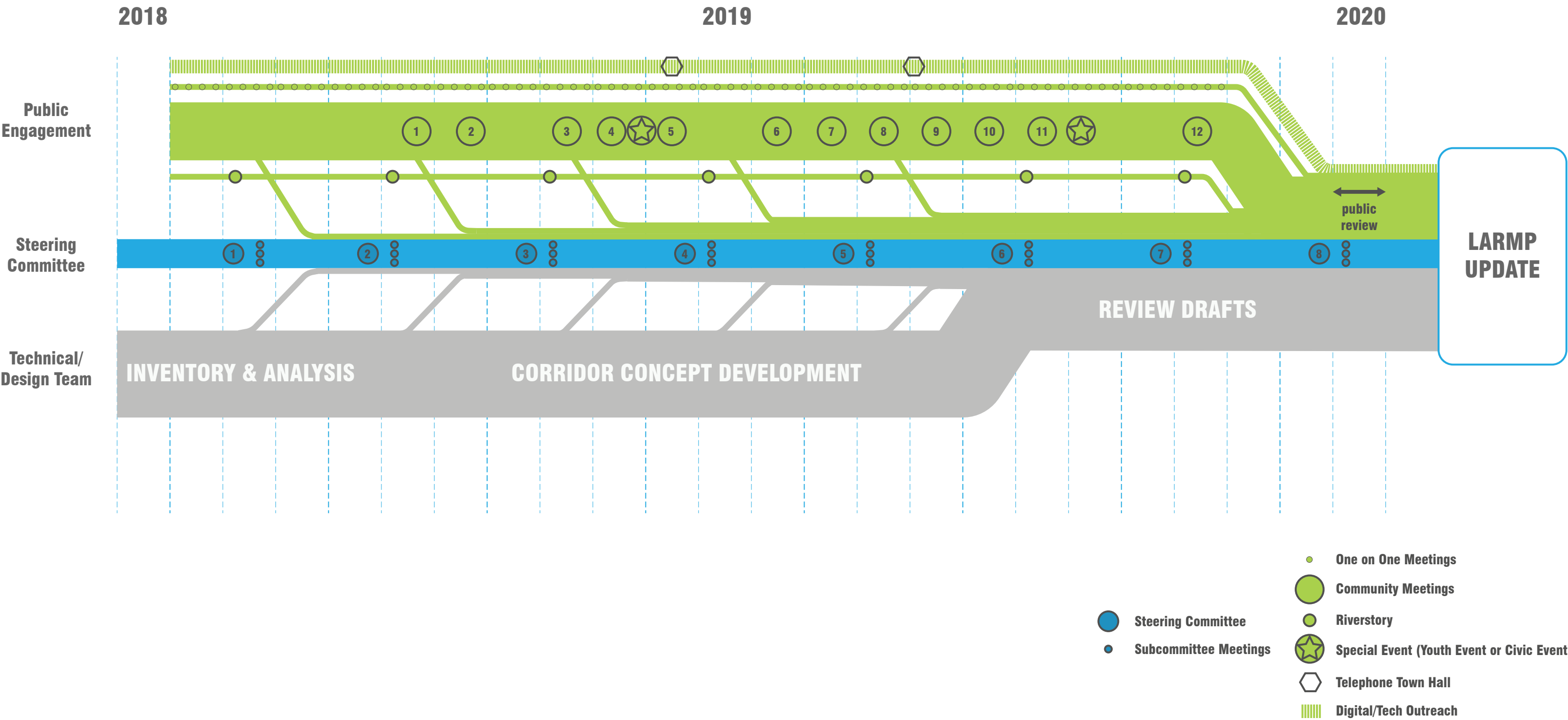
STEERING COMMITTEE CHARGE

To guide the Master Plan Update by providing input, ideas, comments, and feedback throughout the planning process, incorporating members' expertise, knowledge, and resources. The consultant team and Department of Public Works will consider the Steering Committee input when preparing the updated Master Plan, along with input from the broader community and stakeholder involvement process, technical and regulatory requirements, and other County needs and goals.

STEERING COMMITTEE MEMBER COMMITMENTS

- Contribute input based on knowledge and expertise in policy, technical, and community matters, while also considering planning from a holistic, river-wide perspective, seeking opportunities for a unified vision and continuity, balanced with recognition of the diversity in goals and needs in River communities.
- Partner with the project team in publicizing community engagement activities and generating involvement that represents the range and diversity of communities in the 51-mile Los Angeles River corridor, and attend community engagement activities on a regular basis.
- Consider community input and input from other stakeholders in Steering Committee meeting discussions.
- Participate at all meetings in-person or send an alternate for the entire two-year planning process.
- Review reference materials in advance of Steering Committee meetings.

LA RIVER MASTER PLAN SCHEDULE



STEERING COMMITTEE FRAMEWORK





Q & A AND DISCUSSION



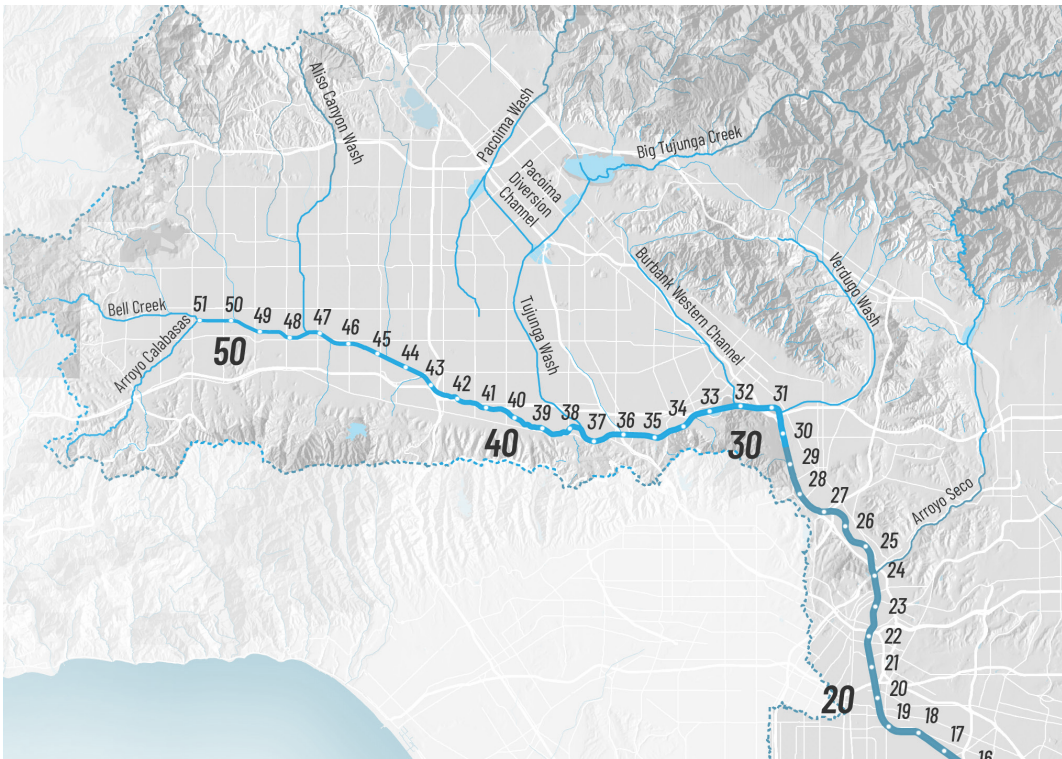
COMMUNITY ENGAGEMENT UPDATE

Source: USACE, Los Angeles District, E-1517 - NW of 7th St - 9-7-1927, <http://cespl.maps.arcgis.com/apps/MapSeries/index.html?appid=e15694dbf7c54f8c96285a0e74039e69>

MEETINGS WITH OTHER ORGANIZATIONS

UPPER LA RIVER AND TRIBUTARIES (AB466)

February 28, 2019



- Data compilation ongoing includes park need, land opportunities, and project database
- Site ID with prioritization planning consistent with Lower LA River Revitalization Project
- Gap Analysis and Project Criteria Development updates as well along tributaries

RIVER RANGERS (AB1558)

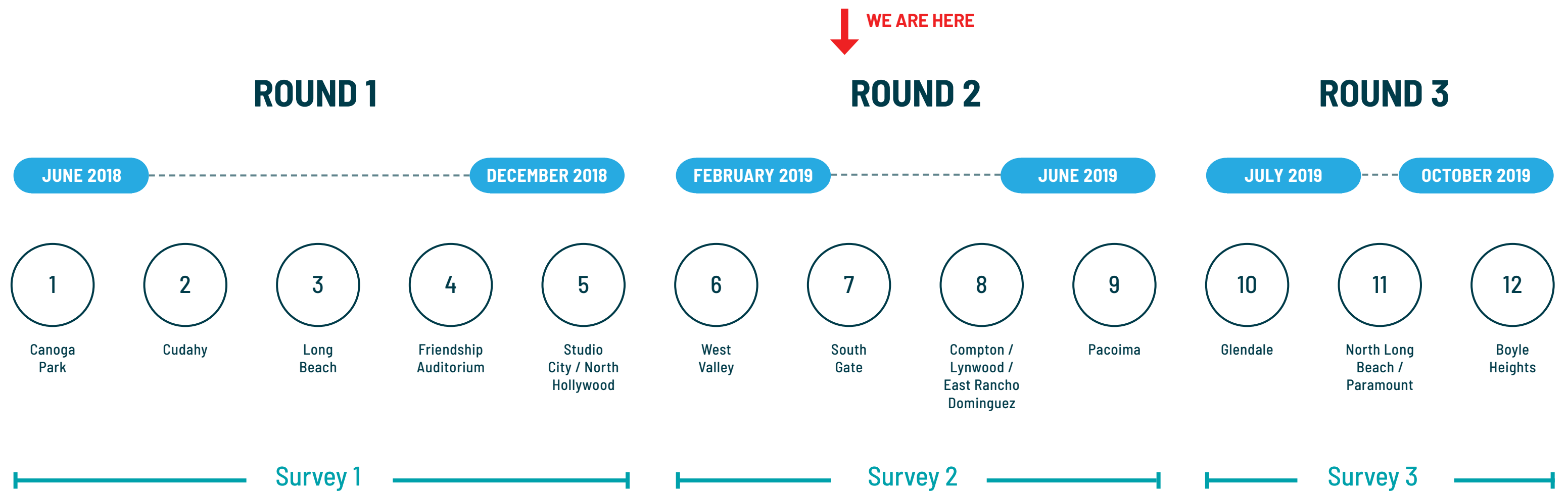


Source: Arroyo Seco Foundation, <https://www.arroyoseco.org/rangers.htm>

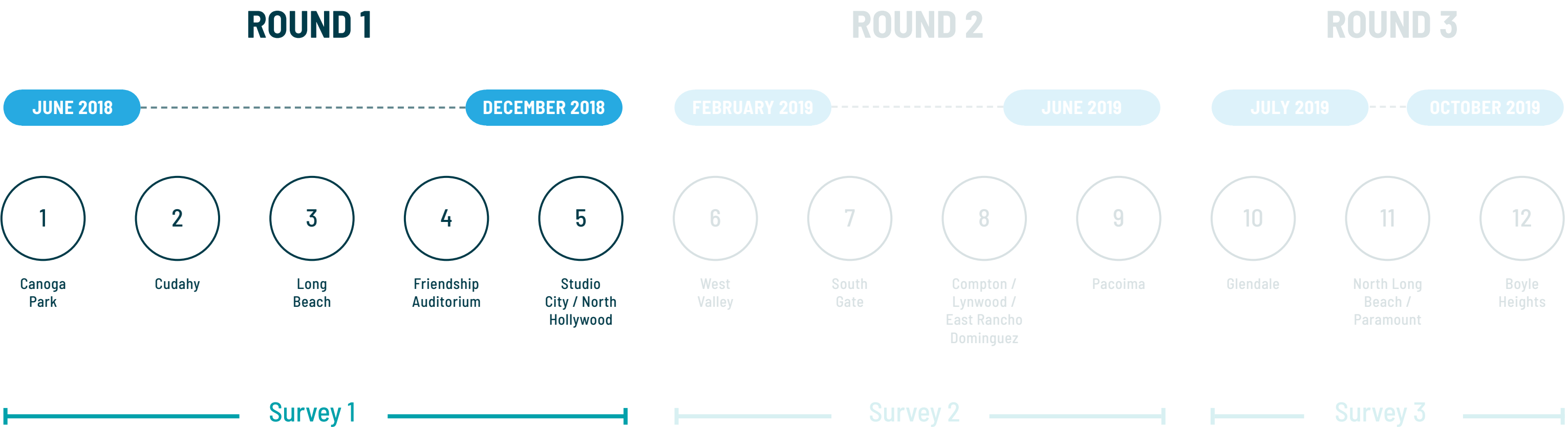
Program Goals:

- Maintenance and Resource Management
- Public Safety
- Recreation, Interpretation, and Educational Programs
- Outreach
- Administration

COMMUNITY ENGAGEMENT MEETINGS



COMMUNITY ENGAGEMENT MEETINGS



COMMUNITY MEETINGS



LONG BEACH

OCTOBER 24, 2018



FRIENDSHIP AUDITORIUM

NOVEMBER 13, 2018



STUDIO CITY

DECEMBER 13, 2018




SURVEYS

larivermasterplan.org

← → ↻ ⓘ Not secure | larivermasterplan.org

★



WE WANT TO HEAR FROM YOU!

7. What is the highest you have seen the water level in the river?*

☐ Overtopping its banks/levees

☐ Less than half way up its banks/levees

☐ Up to the top of its banks/levees

☐ Within the low flow channel only

☐ More than half way up its banks/levees

☐ other:

8. In which of the following activities along the LA River have you [or a member of your household] participated within the last 12 months?*

☐ Biking

☐ Walking

☐ Horseback riding

☐ Skateboarding

☐ Fishing

☐ Water-based activities (e.g. kayaking)

☐ Community gathering/events

☐ Observed art performances

☐ Creative self-expression

☐ nature watching/citizen science

☐ river clean-up event

☐ none of these activities

9. How would you like to participate in the community process? Select all that apply.*

☐ Attend Community Meetings

☐ Participate in Telephone Town Halls

☐ Volunteer at Events

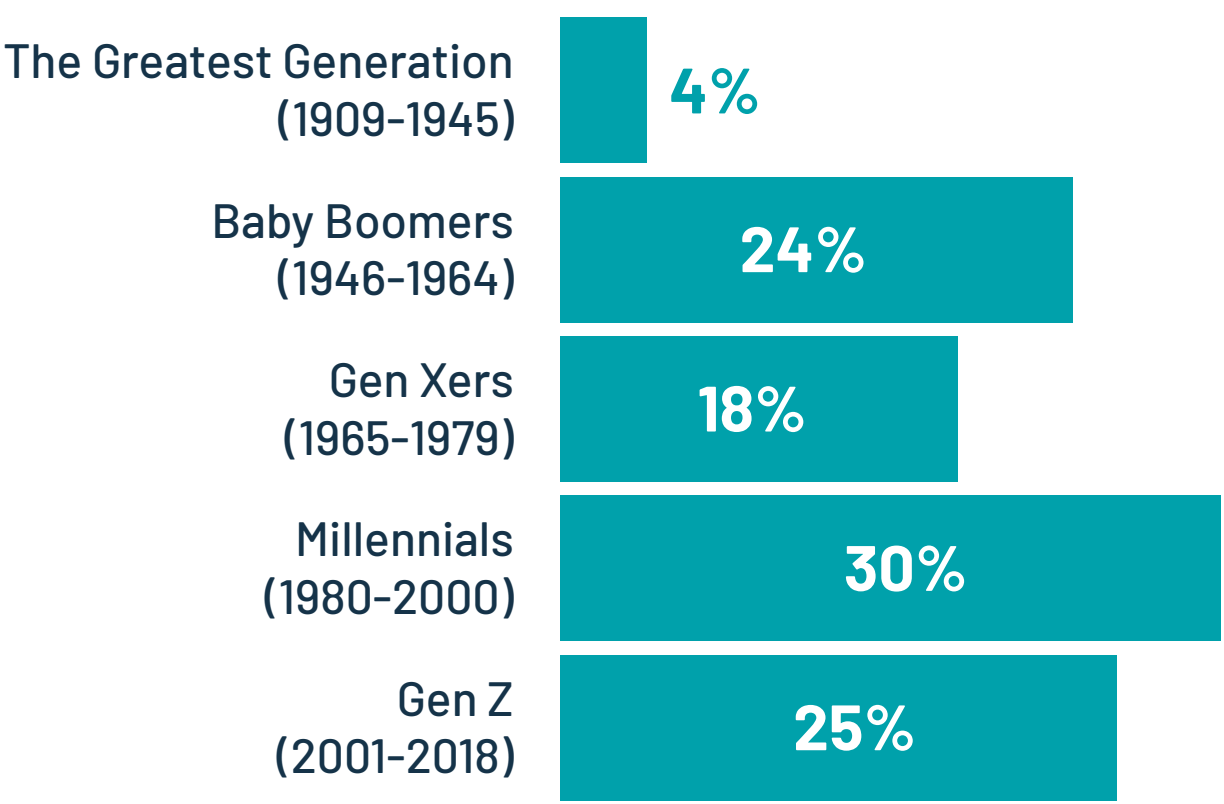
☐ Share information with my community

☐ Share your River Story

OVER 1,550 ENGAGED IN COMMUNITY MEETINGS & SURVEY

- 167** Community members attended the Canoga Park meeting
- 126** Community members attended the Cudahy meeting
- 129** Community members attended the Long Beach meeting
- 214** Community members attended the Friendship Auditorium meeting
- 104** Community members attended the Studio City meeting
- 500** Completed digital and in-person surveys as of January 29, 2019
- 332** Completed Youth Summit surveys

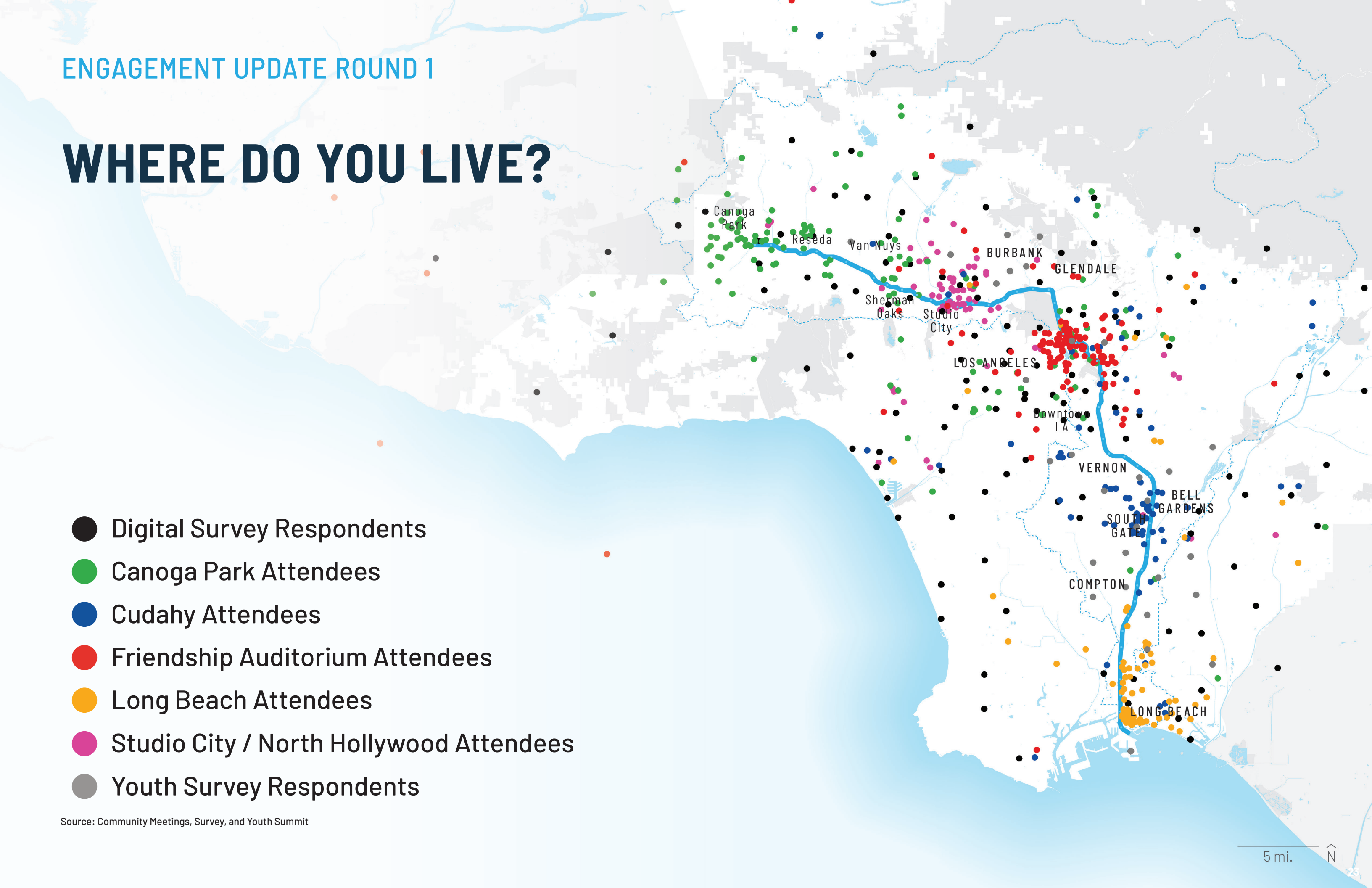
GENERATIONS REPRESENTED: (Total from Survey + Community Meetings + Youth Summit)



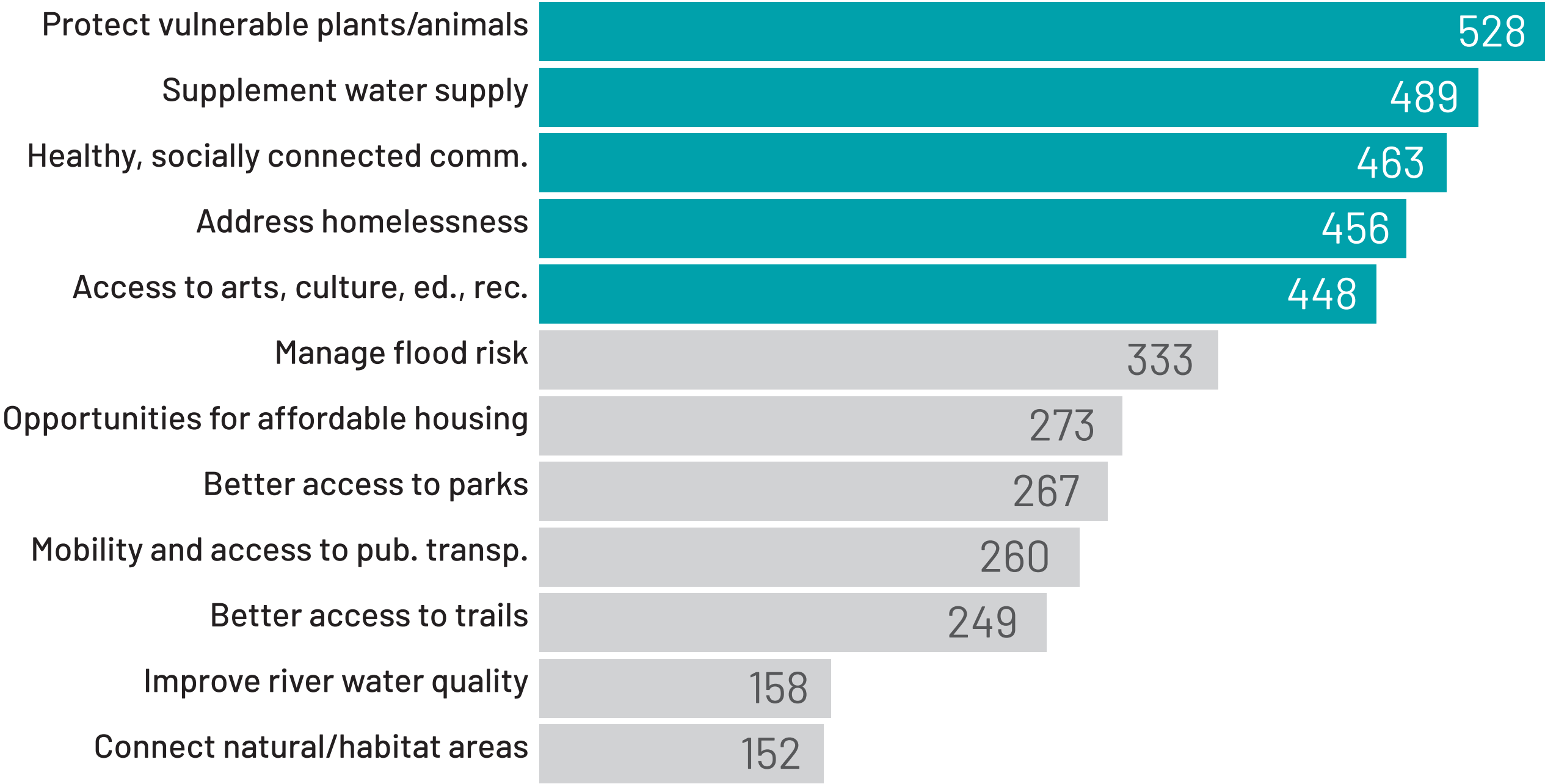
WHERE DO YOU LIVE?

- Digital Survey Respondents
- Canoga Park Attendees
- Cudahy Attendees
- Friendship Auditorium Attendees
- Long Beach Attendees
- Studio City / North Hollywood Attendees
- Youth Survey Respondents

Source: Community Meetings, Survey, and Youth Summit

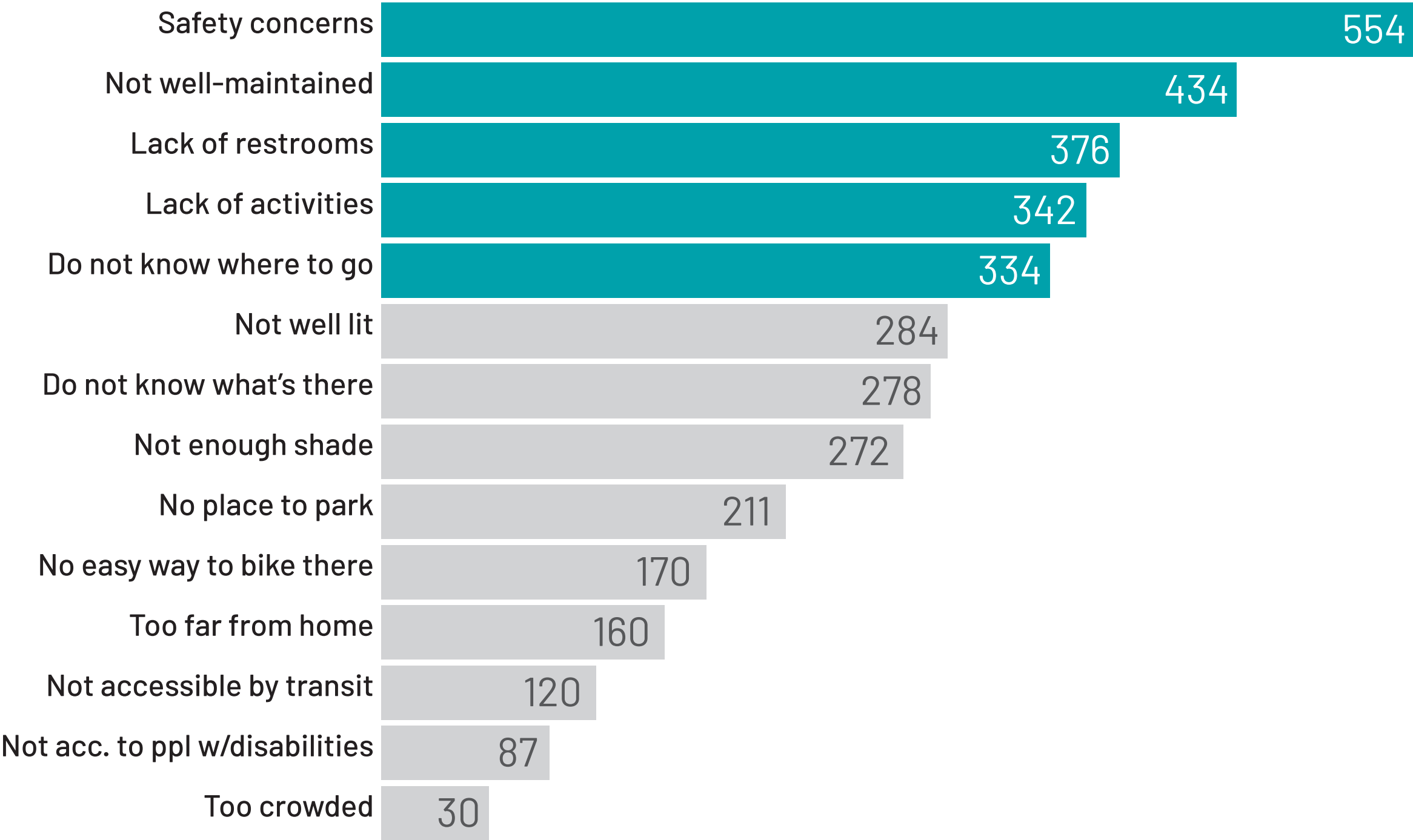


WHICH ISSUES ARE MOST IMPORTANT TO YOU?



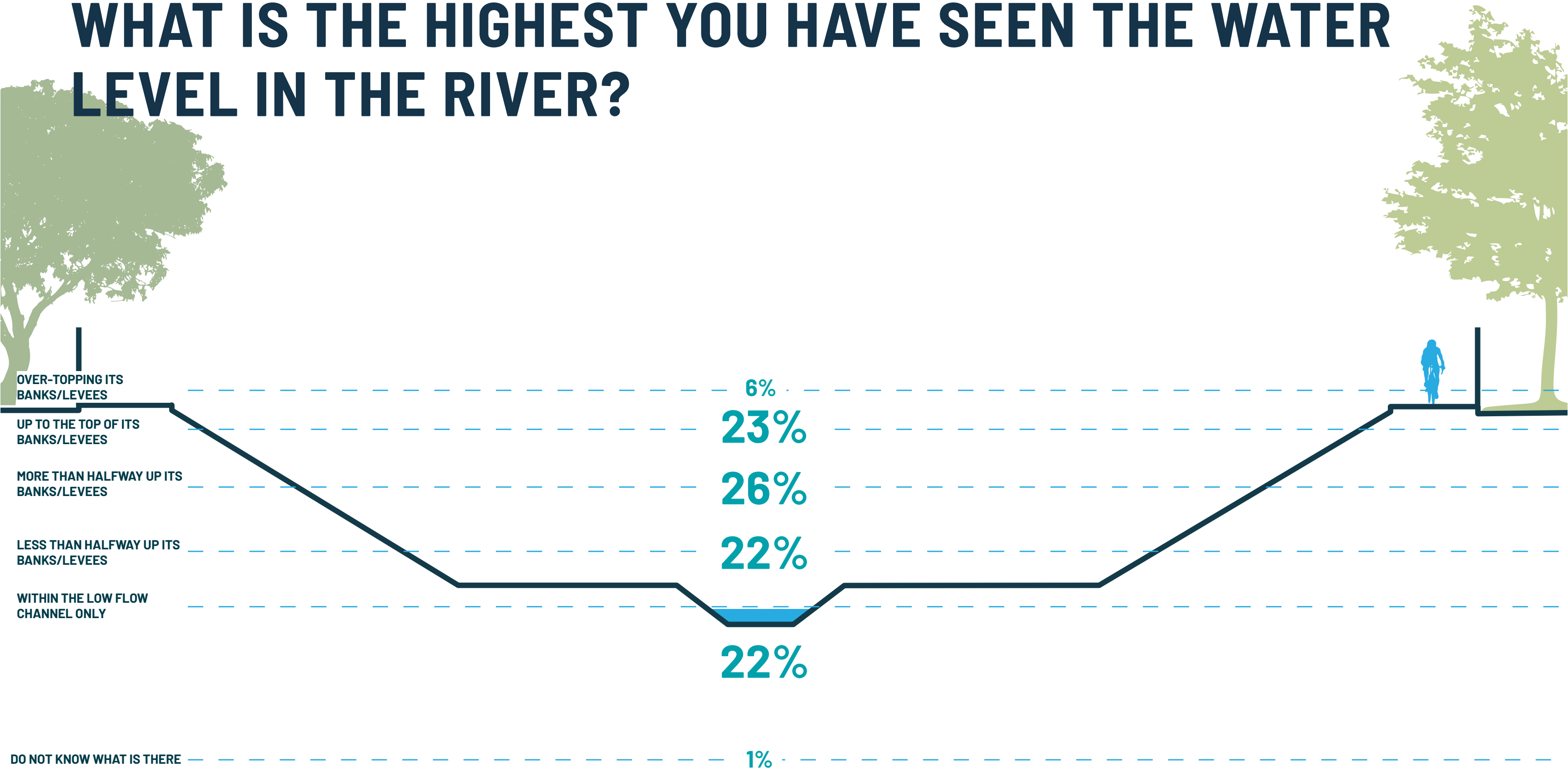
Source: Community Meetings, Survey, and Youth Summit

WHAT KEEPS YOU FROM VISITING THE LA RIVER?



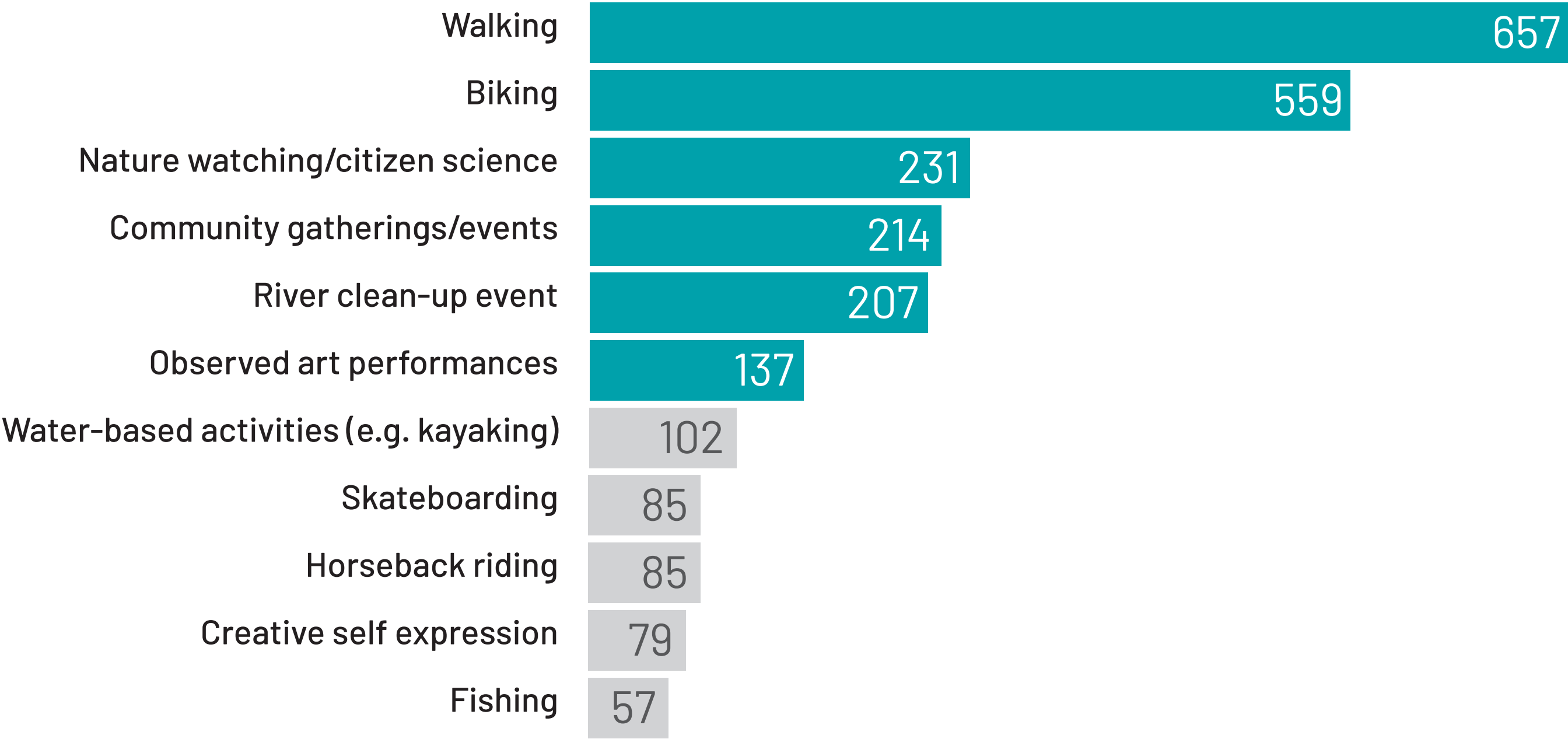
Source: Community Meetings, Survey, and Youth Summit

WHAT IS THE HIGHEST YOU HAVE SEEN THE WATER LEVEL IN THE RIVER?



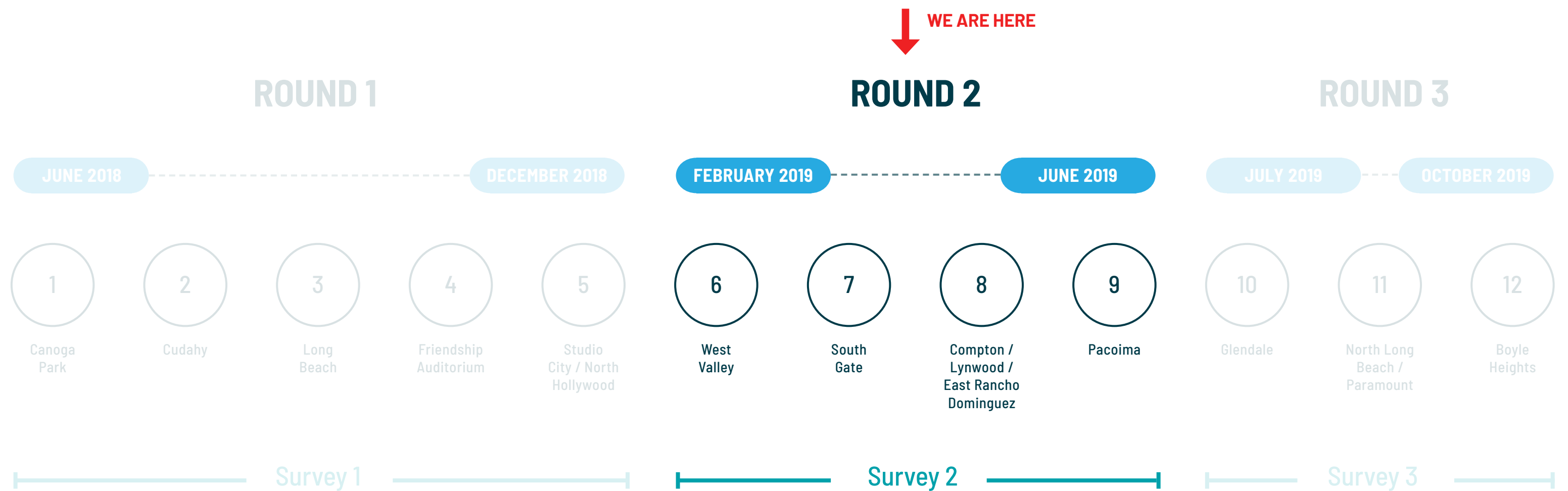
Source: Community Meetings, Survey, and Youth Summit

IN WHAT ACTIVITIES HAVE YOU PARTICIPATED ALONG THE LA RIVER?



Source: Community Meetings, Survey, and Youth Summit

COMMUNITY ENGAGEMENT MEETINGS



COMMUNITY MEETINGS



WEST VALLEY

FEBRUARY 13, 2019



SOUTH GATE

MARCH 28, 2019



Source: RiverLA

WHICH OF THE FOLLOWING IS MOST IMPORTANT TO YOU?

¿CUAL DE LAS SIGUIENTES ES LA MÁS IMPORTANTE PARA USTED?

HOW SUPPORTIVE ARE YOU OF SOME INCREASE IN TAXES TO FUND PROJECTS THAT WOULD ACHIEVE THE 3 GOALS FOR THE LA RIVER YOU IDENTIFIED AS MOST IMPORTANT TO YOU?

¿CUÁNTO APOYA USTED LA CONSIDERACIÓN DE ALGUN AUMENTO DE IMPUESTOS PARA FINANCIAR LOS TIPOS DE PROYECTOS NECESARIOS PARA LOGRAR LAS 3 METAS DEL RÍO DE LA SON MÁS IMPORTANTES PARA USTED?

VERY SUPPORTIVE BASTANTE APOYO	SOMEWHAT SUPPORTIVE ALGO DE APOYO	NOT SURE NO ESTOY SEGUR/A	NOT SUPPORTIVE NO LA APOYO
[Red dot]	[Yellow dot]	[Green dot]	[Blue dot]

STATION
ESTACIÓN
3

HOW SUPPORTIVE ARE YOU OF SOME INCREASE IN TAXES TO FUND PROJECTS THAT WOULD ACHIEVE THE 3 GOALS FOR THE LA RIVER YOU IDENTIFIED AS MOST IMPORTANT TO YOU?

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[Red dot]	[Yellow dot]	[Green dot]	[Blue dot]

STATION
ESTACIÓN
4

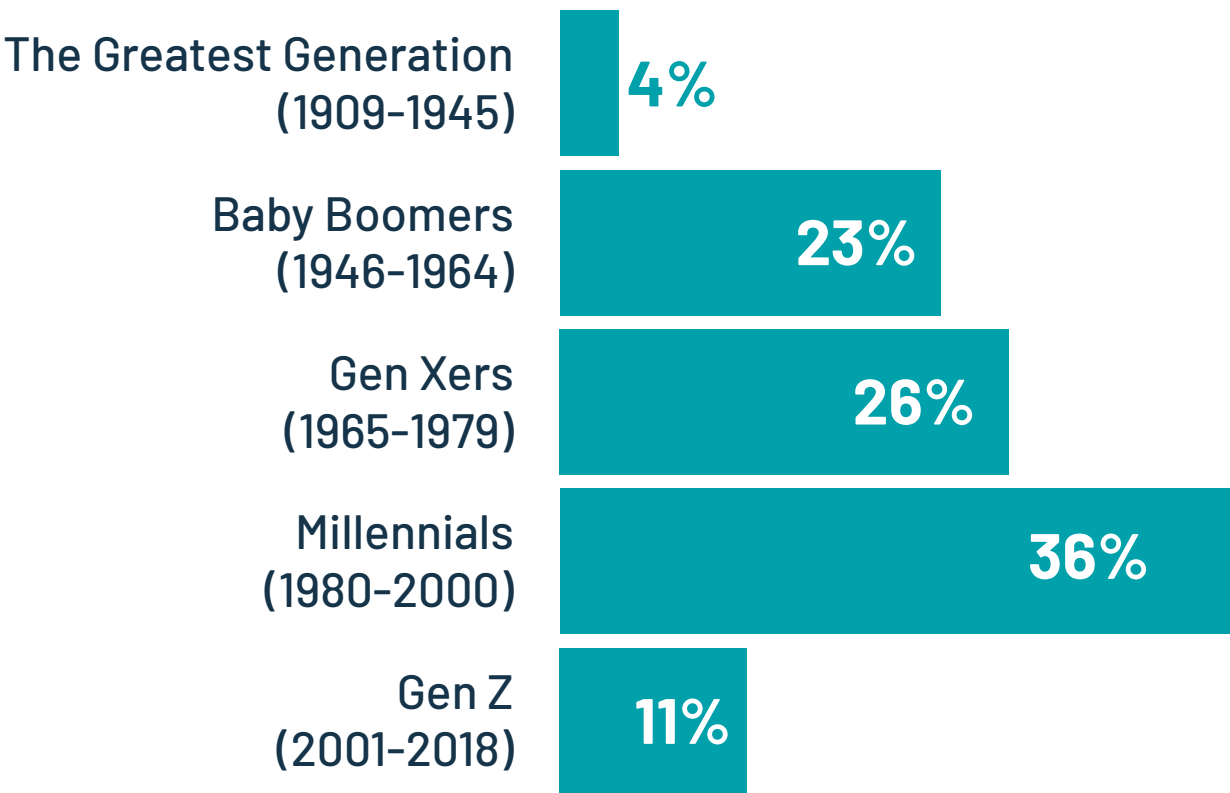
205 ENGAGED IN COMMUNITY MEETINGS & SURVEY

110 Community members attended the West Valley meeting

75 Community members attended the South Gate meeting

20 Completed digital and in-person surveys as of February 28, 2019

GENERATIONS REPRESENTED:

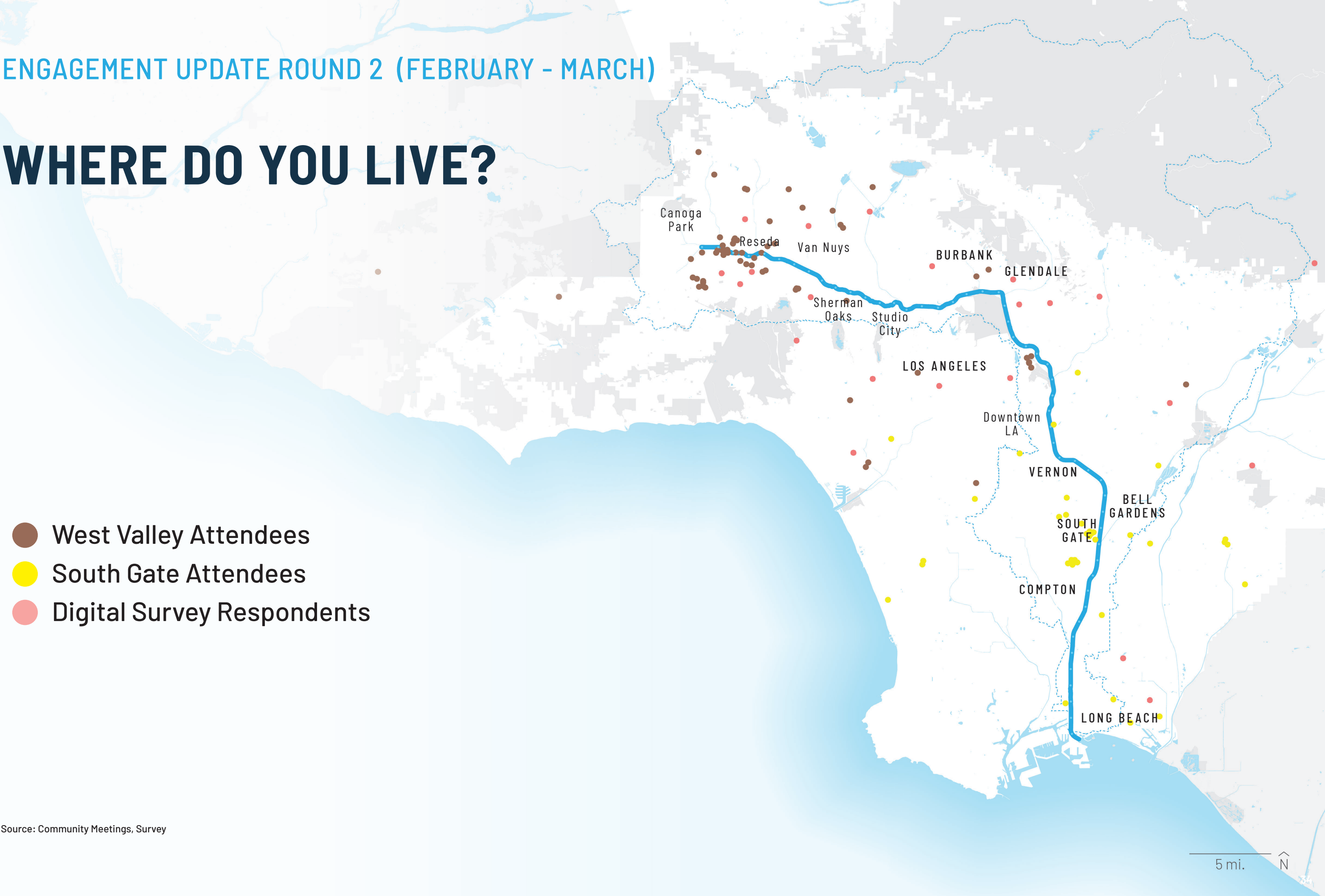


Source: Community Meetings, Survey

ENGAGEMENT UPDATE ROUND 2 (FEBRUARY - MARCH)

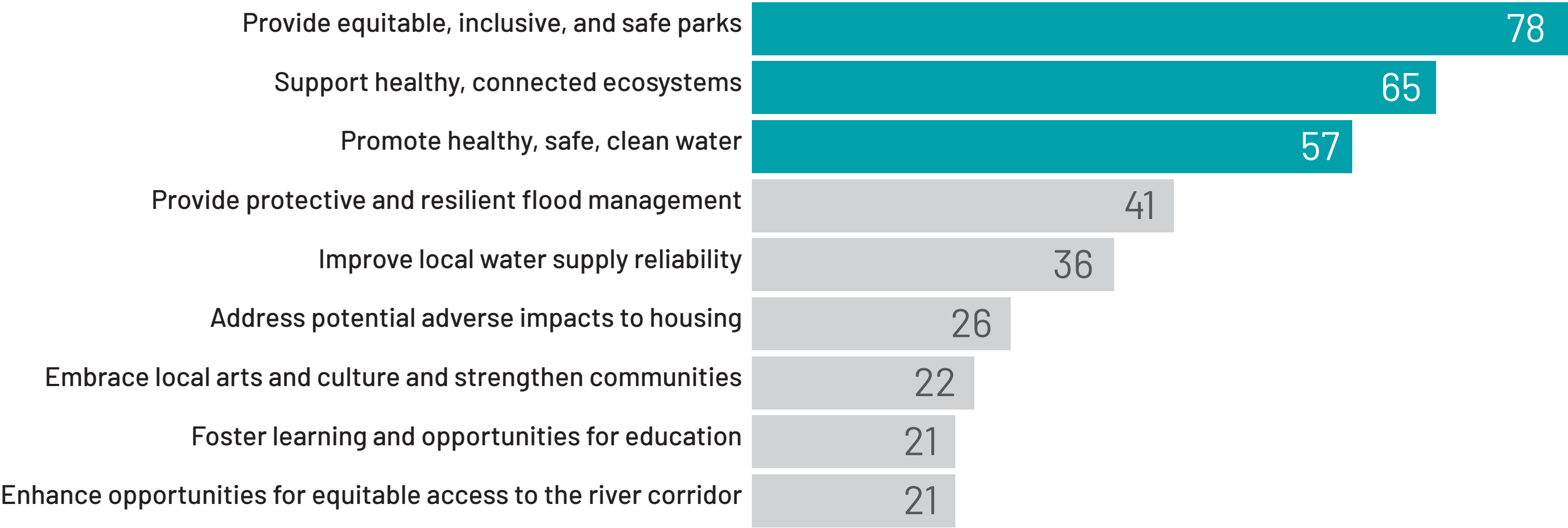
WHERE DO YOU LIVE?

- West Valley Attendees
- South Gate Attendees
- Digital Survey Respondents



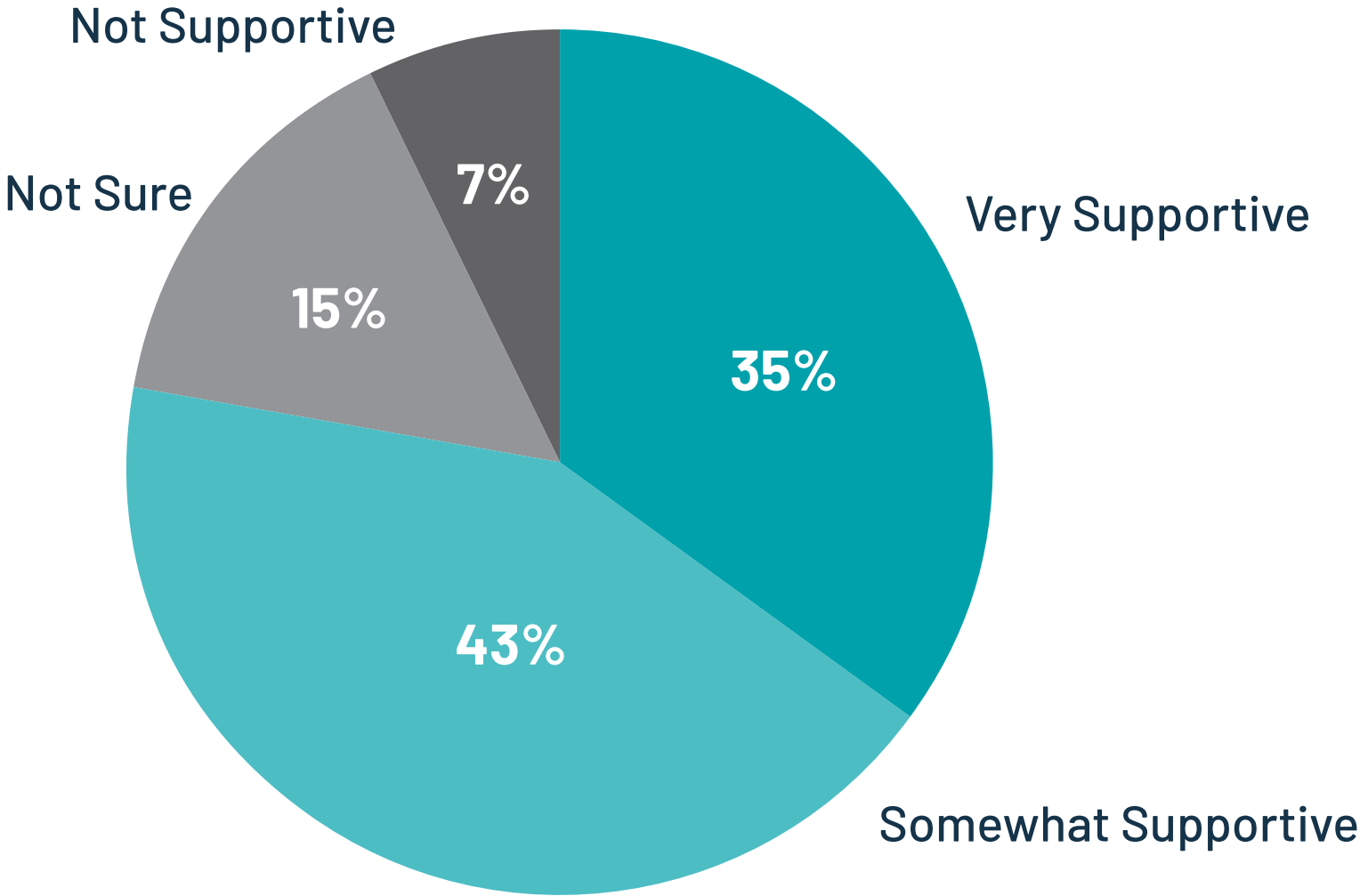
Source: Community Meetings, Survey

WHICH OF THE GOALS FOR THE LA RIVER ARE MOST IMPORTANT TO YOU?



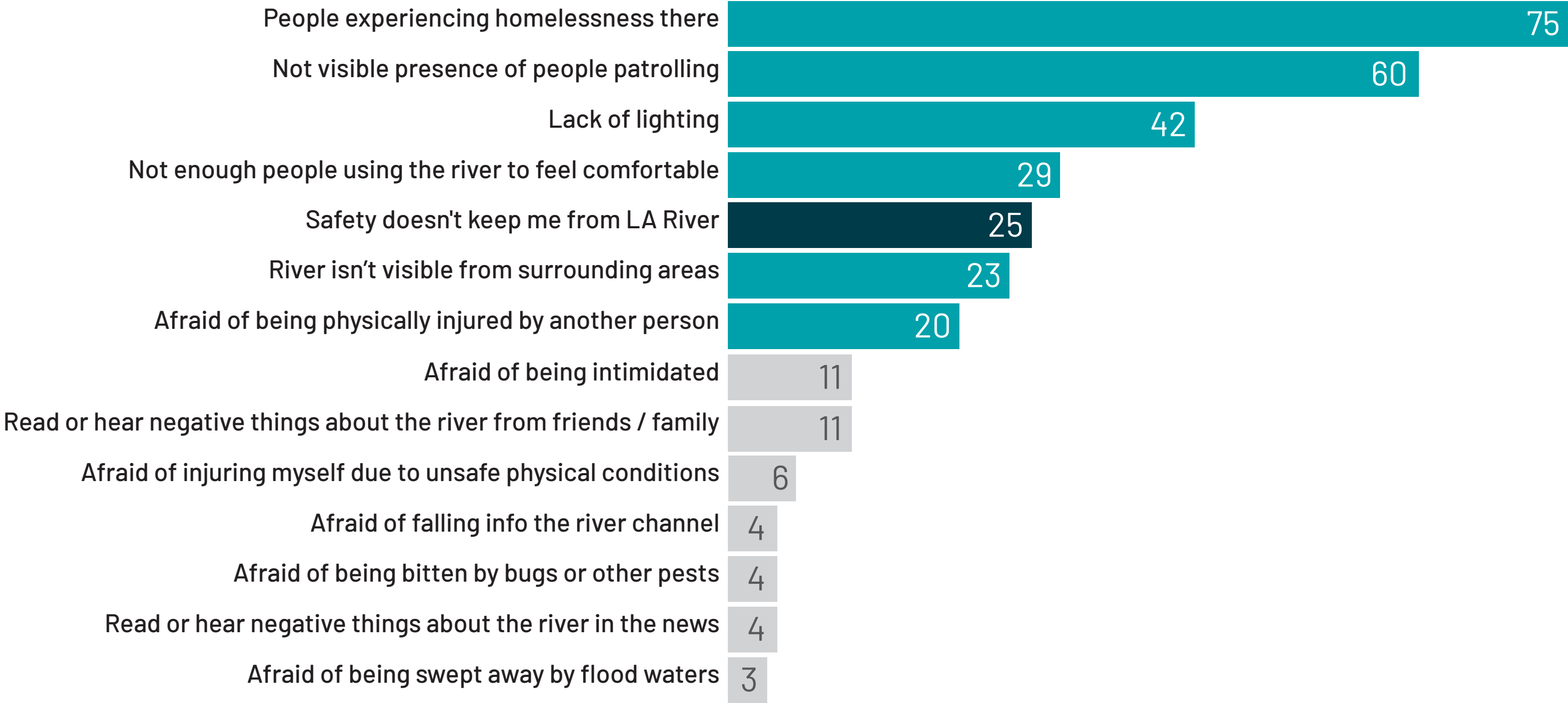
Source: Community Meetings, Survey

HOW SUPPORTIVE ARE YOU OF SOME INCREASE IN TAXES TO FUND PROJECTS THAT WOULD ACHIEVE THE 3 GOALS FOR THE LA RIVER YOU IDENTIFIED AS MOST IMPORTANT TO YOU?



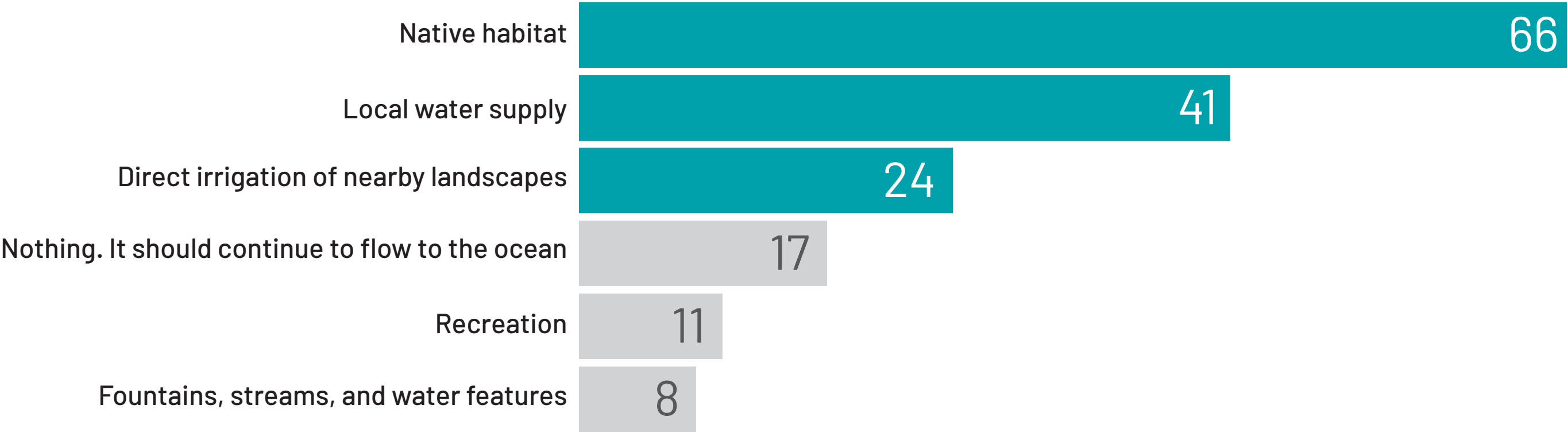
Source: Community Meetings, Survey

WHAT ABOUT SAFETY KEEPS YOU FROM VISITING THE LA RIVER?



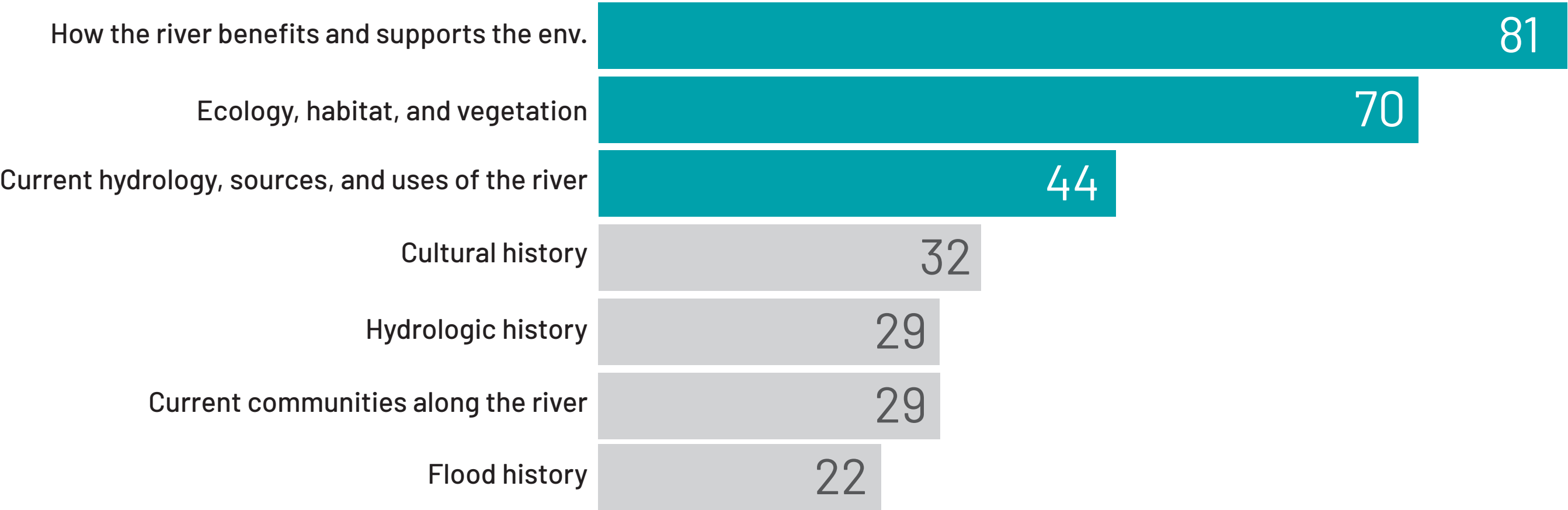
Source: Community Meetings, Survey

WHEN IT'S NOT RAINING, THERE IS STILL FLOW IN THE LA RIVER. WHAT DO YOU THINK IS A BETTER USE FOR THIS WATER INSTEAD OF LETTING IT FLOW TO THE OCEAN?



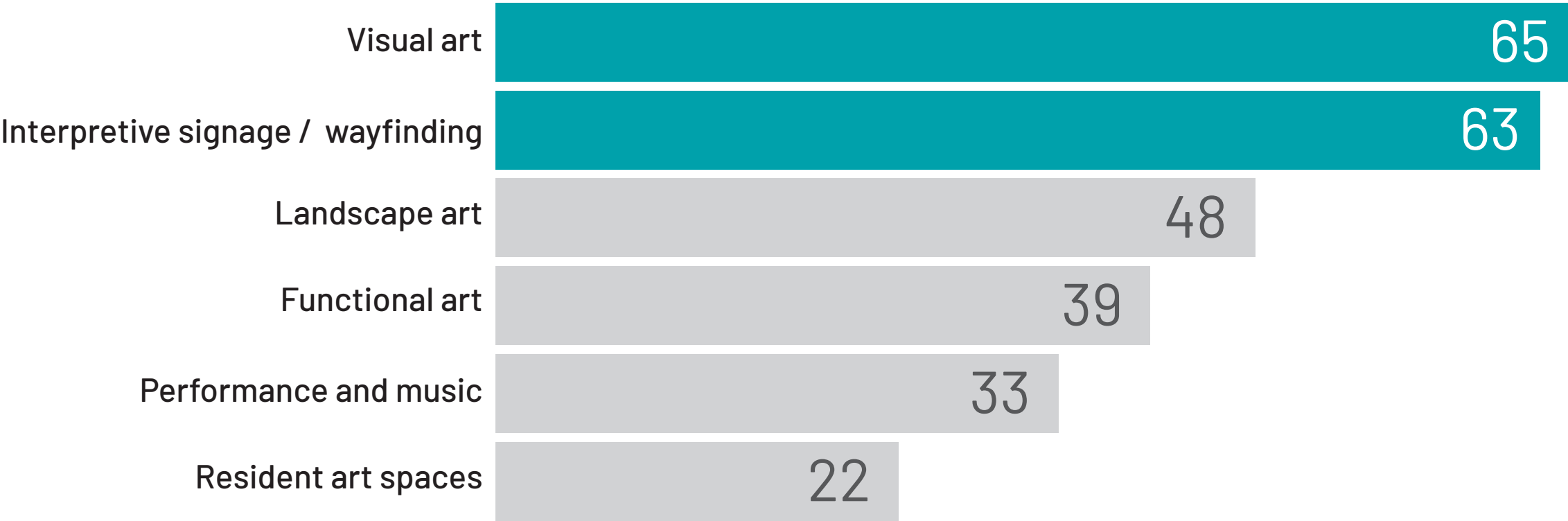
Source: Community Meetings, Survey

WHAT DO YOU THINK IS MOST IMPORTANT FOR PEOPLE TO LEARN ABOUT THE LA RIVER?



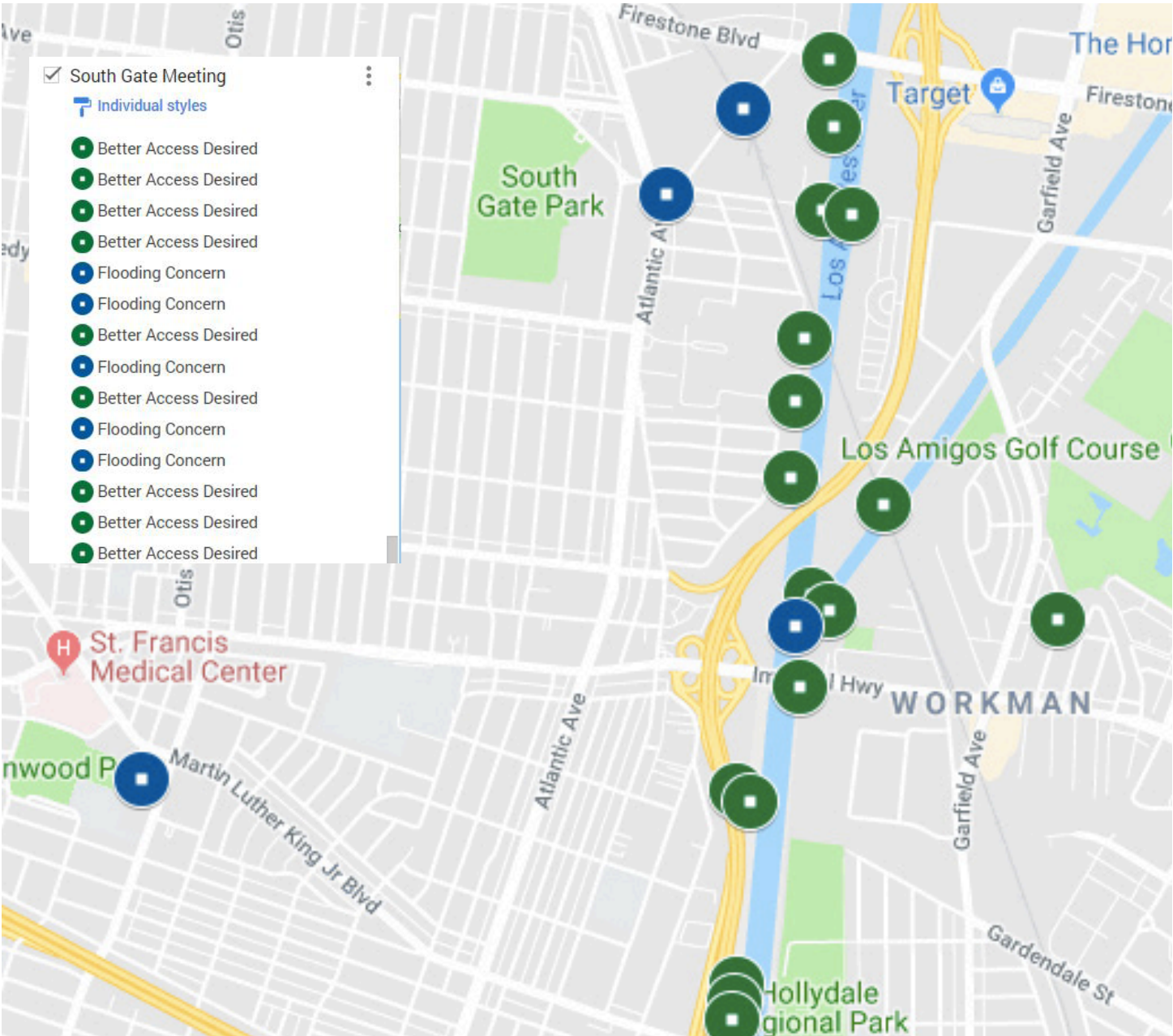
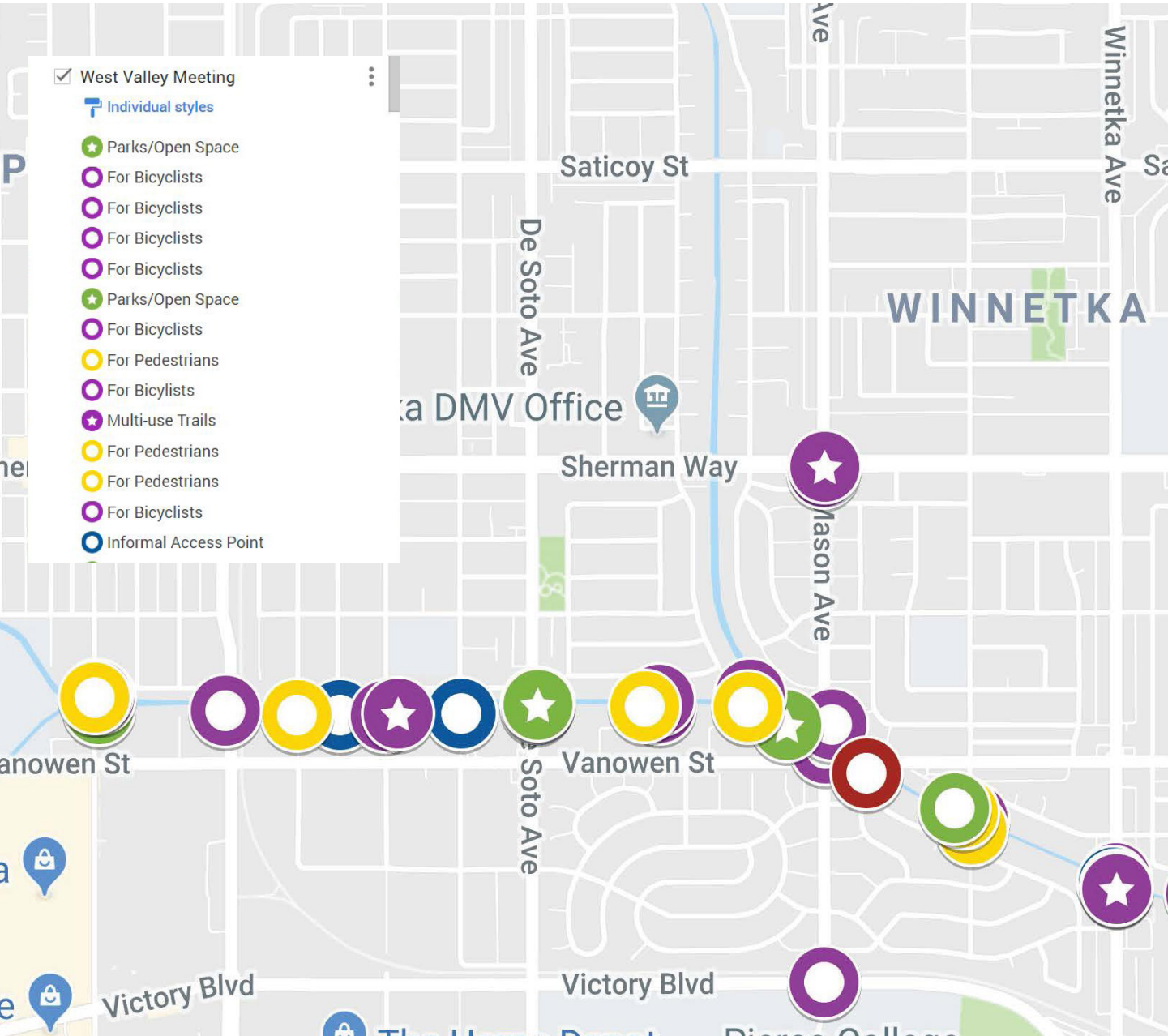
Source: Community Meetings, Survey

WHAT TYPES OF ART WOULD YOU LIKE TO SEE OR PARTICIPATE IN ALONG THE LA RIVER?



Source: Community Meetings, Survey

YOUR STRETCH OF THE RIVER



Source: West Valley Community Meeting responses

TELEPHONE TOWN HALLS

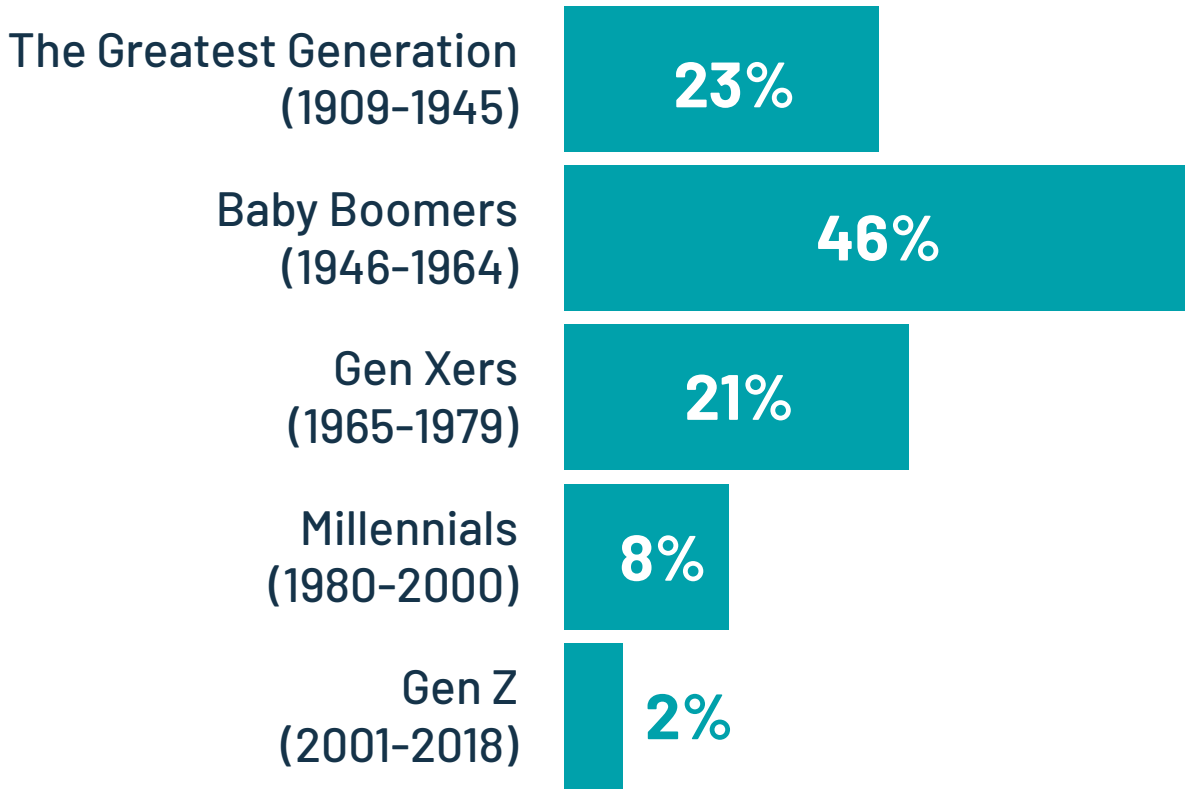
MARCH 12, 2019

Long Beach to Downtown LA

MARCH 13, 2019

Downtown LA to Canoga Park

DEMOGRAPHICS



542 Number of participants on the line at one time

5,592 Total number of participants

36,946 Households called within a half mile of the river

TELEPHONE TOWN HALLS

QUESTIONS ANSWERED LIVE!

- Have you taken into account native plants and trees?
- How will the homeless be accommodated?
- Is it possible to save some of the run-off for a drought?
- What measures are being taken to ensure safety of areas near the flood zone?
- How far is the LA River going to expand?
- What does the master plan include?
- Can we capture more trash before it gets to the river?
- When are they going to get rid of barrels that should never have been installed?
- What provisions are being made to bring back the wildlife, like the Valley Bullfrog?
- Are they going to plant milkweed along the river to help sustain the monarch butterfly?
- How much is this going to cost and who will be paying for it?
- Are there any plans to capture runoff?
- What are the options for habitat/adaptation if reclaimed water is used by residents?

COMMUNITY PARTNERS

- Resource Conservation District of the Santa Monica Mountains
- Pacoima Beautiful
- Fernandños Tataviam Band of Mission Indians
- Gabrieliños/Tonga Band of Mission Indians
- Anahuak
- From Lot to Spot
- East Yard Communities for Environmental Justice
- Friends of the LA River
- Las Fotos Project
- Weaving the River

ENGAGEMENT UPDATE

LAS FOTOS FLOW EXHIBIT



UPCOMING COMMUNITY PARTNER EVENTS

- Resource Conservation District Clean Up Day at Sepulveda Basin – April 13, 2019
- Native Voices Symposium – June 1, 2019
- Pacoima Beautiful Summer Institute and Community Event – July 1, 2019
- SELA Arts Fest (Exhibitors) – July 27, 2019
- Tabling Events and Pop-ups



Sepulveda Basin Wildlife Reserve Community Event & Clean-Up



Join the Resource Conservation District (RCD) of the Santa Monica Mountains in their efforts to keep the waterways safe for wildlife.

This event is made possible by our partnership with the L.A. River Master Plan effort.



The County of Los Angeles is updating its L.A. River Master Plan. It is a comprehensive approach covering all 51 miles of the River. The effort was launched to update the original 1996 master plan, synthesizing more recent ideas for portions of the River and bringing a comprehensive vision to the transformation of the LA River. To do this, LA County is partnering with community organizations throughout the region to incorporate your needs, concerns, hopes, and the vision for the entire Los Angeles River.

Free Event! **April 13, 2019** **Free Event!**
8:30am - 1:00pm

Sepulveda Basin Wildlife Reserve
6100 Woodley Ave., Van Nuys, CA 91406

Creek Clean-Up | 8:30am - 12:00pm
Start the day helping the San Fernando Valley Audubon by cleaning up Haskell Creek, where it runs through the Sepulveda Basin Wildlife Reserve.
Older children welcome but must be accompanied by adult.

Community Event | 10:30am - 1:00pm
Lots of hands-on experiences!
—All ages welcome!—
Join RCD Educators to learn more about the L.A. River and Sepulveda Basin.

- Take a guided hike to the dam
- Check out live plankton in microscopes
- Use binoculars to view the birds
- Test the water quality of the lake
- Visit booths to learn more about enjoying the L.A. River



Meet at the amphitheater. Stay right of the Japanese Garden and continue all the way to the end of Wildlife Way.

Wear sturdy shoes!
Please come ready to get muddy and possibly wet during clean-up!

RSVP or questions: rcdsmm.edu@gmail.com

LA RIVER NATIVE COMMUNITY DISCUSSION



Panelists



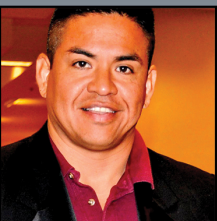
Julia Bogany
Cultural Affairs
Gabrieleno Tongva Band
of Mission Indians



Pamela Villasenor
Executive Advisor,
Fernandeno Tataviam
Band of Mission Indians



Desiree Renee Martinez
Tongva (Gabrielino)



Joseph A. Quintana
Development Director,
United American
Indian Involvement



Jorge "Boch" Boche
Head Dancer Kalpulli
Teotlalli Tepeyollotl
Instructor of Pre-
Cauhtemoc (Mesoamerica)
indigenous cultures

Moderator



Clementine Bordeaux
Commissioner, LA City/
County Native American
Commission

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The LA River Master Plan recognizes and acknowledges the first people of this ancestral and unceded territory that the river runs through. With respect to their elders, past and present, we recognize that the Gabrieleño Tongva, Fernandeno Tataviam and Ventureño Chumash who are still here and are committed to lifting up their stories and culture.

The Autry Museum
4700 Western Heritage Way
Los Angeles, CA 90027

Saturday, June 1, 2019
11 am to 2 pm
RVSP: <http://goo.gl/xSuACF>





LA RIVER MASTER PLAN COMMUNITY MEETING

COMPTON



JOIN US FOR A MEETING WHERE YOU'LL:

- Share your thoughts on the future of the LA River
- Hear the vision of the LA River Master Plan
- Receive updates on river-related issues

Date: Wednesday, April 24, 2019
Time: 6 - 8 pm
Location: East Rancho Dominguez Park
15116 S. Atlantic Ave.
Compton, CA 90221

This event is free and open to the public. Refreshments will be provided.

For information, visit LARiverMasterPlan.Org for email updates and event recaps.

LARiverMasterplan.org

Q & A AND DISCUSSION



AB466 / UPPER LA RIVER & TRIBUTARIES WORKING GROUP



Q & A AND DISCUSSION



SUBCOMMITTEE MEETINGS REPORT

SPECIAL SUBCOMMITTEE WORKSHOP ON HYDROLOGY + HYDRAULICS

March 20, 2018

Los Angeles River
Center and Gardens

*Thank you Rivers and
Mountains Conservancy*



CONTEXT - RECENT STORM (FEB 2, 2019)

ABC News 7, Rain Swollen Los Angeles River Roars in Glendale:
<https://abc7.com/weather/video-rain-swollen-los-angeles-river-roars-in-glendale/5118212/>

IDEAS TO...

REDUCE FLOWS
TO THE CHANNEL

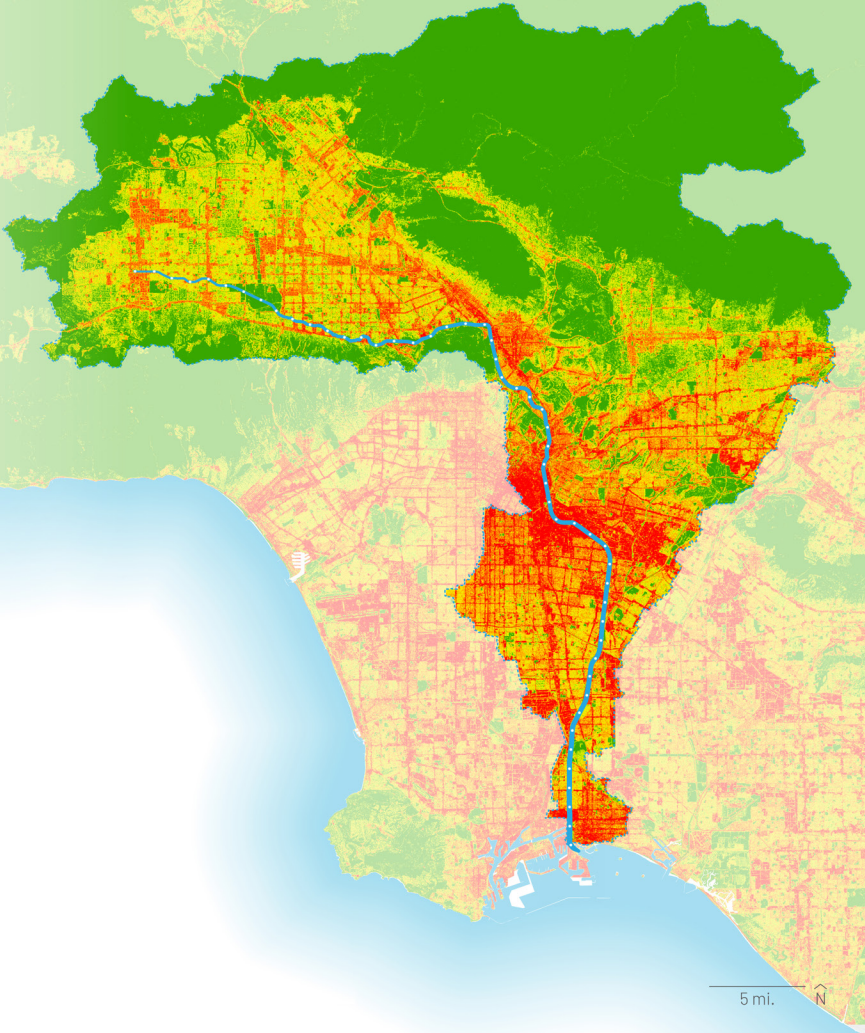
- Low Impact Development
- Best Management Practices
- Distributed Storage
- Increase Sepulveda and Hansen Flood Control Basins
- Additional Flood Control Basins

INCREASE
CHANNEL CAPACITY

- Increase Channel Width
- Increase Levee Height
- Bypass Tunnel
- Sediment Removal/Vegetation Conversion
- Concrete

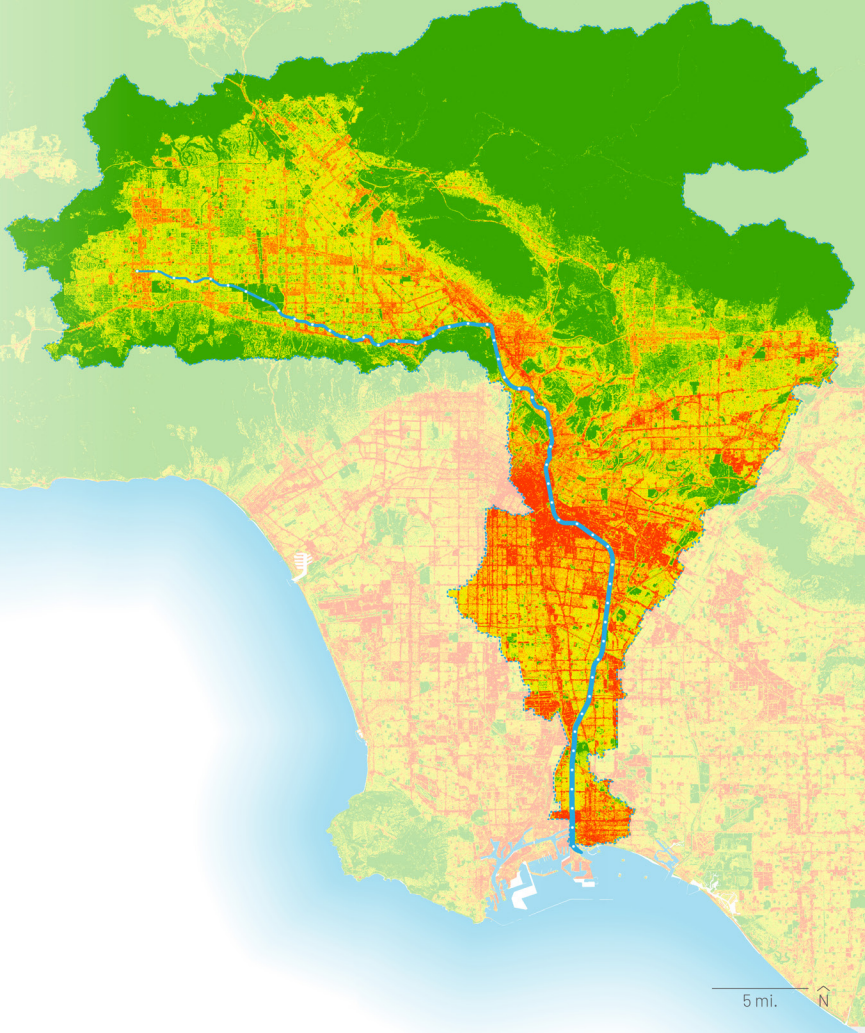
**IMPERVIOUS SURFACE
BASELINE**

0% Impervious
100% Impervious
Baseline Condition



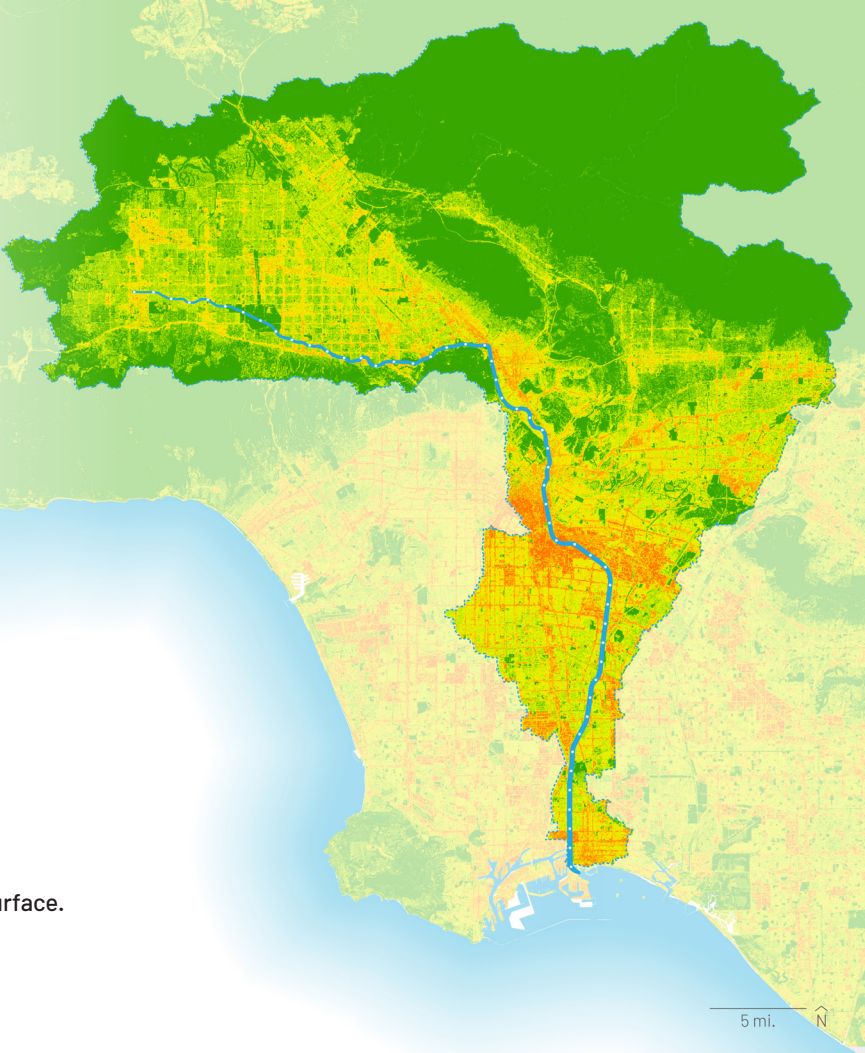
**IMPERVIOUS SURFACE
10% REDUCTION**

0% Impervious
100% Impervious
Volume Reduction: 1,866 AF
Fraction of 2037 Goals: 36%



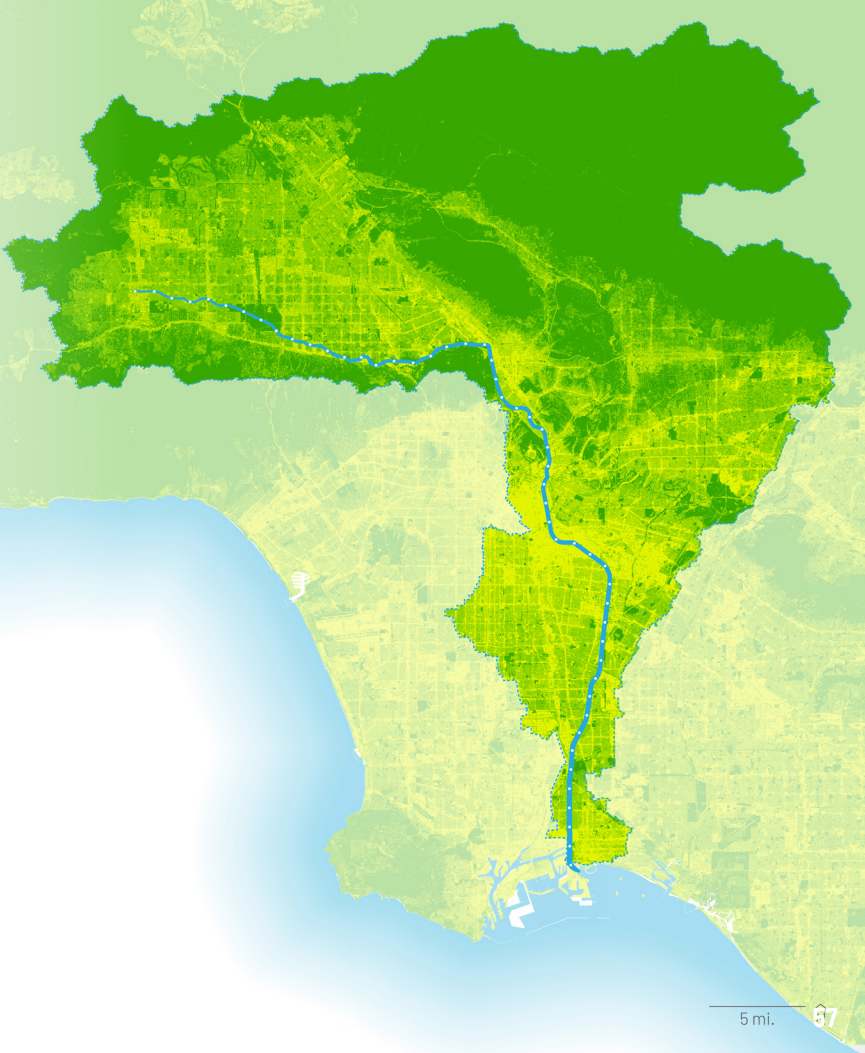
**IMPERVIOUS SURFACE
28% REDUCTION**

0% Impervious
100% Impervious
Volume Reduction: 5,186 AF
Fraction of 2037 Goals: 100%



**IMPERVIOUS SURFACE
50% REDUCTION**

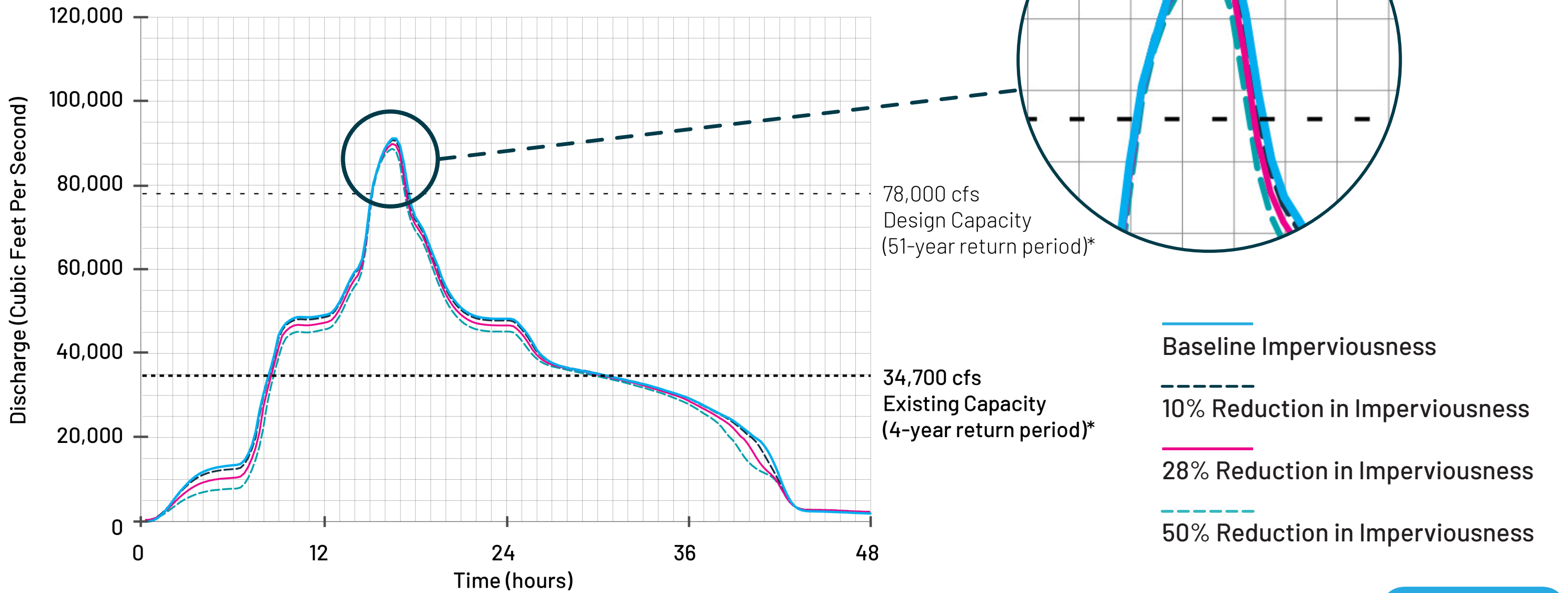
0% Impervious
100% Impervious
Volume Reduction: 9,331 AF
Fraction of 2037 Goals: 180%



Source: LA County GIS Data Portal NLCD 2011 Impervious Surface.

HYDROLOGIC MODELING WITH VARYING LEVELS OF LID

Hydrograph: Glendale Narrows, River Mile 29



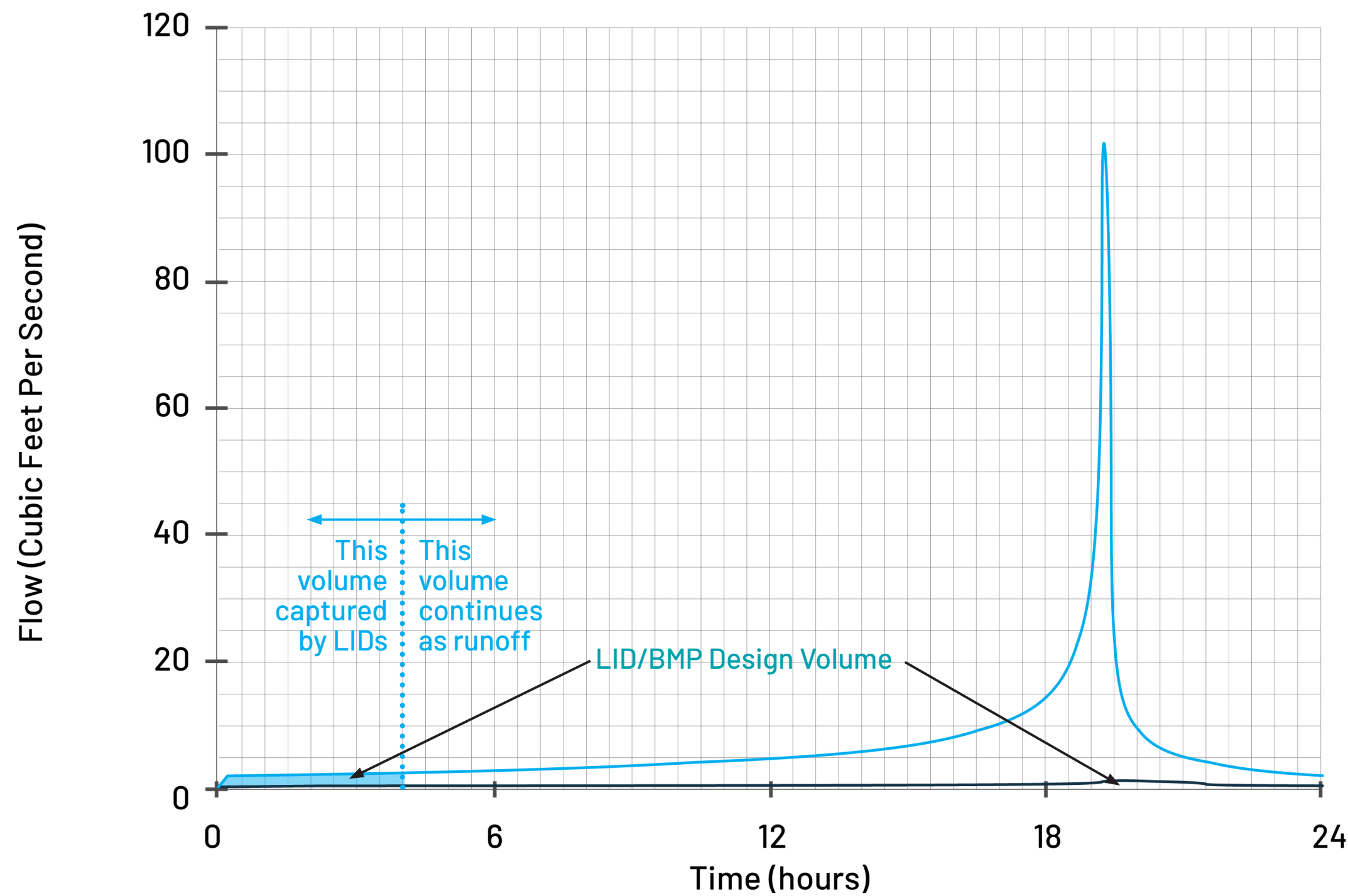
Source: Geosyntec, OLIN

* flow rates and return periods from Table 17 of HH Appendix E (USACE, 2015)

HEC-HMS

HYDROLOGIC MODELING

Hydrograph: Sub Area 1



- E.g. 40 acre parcel
- LIDs/BMP “filled up” within first 4 hours of a storm
- Significant benefit to water quality and water conservation
- Provides urban green space
- Minimal ability to impact peak flow rate
- Minimal impact to reducing stormwater volume in channel during large storm events.

100-Year Storm

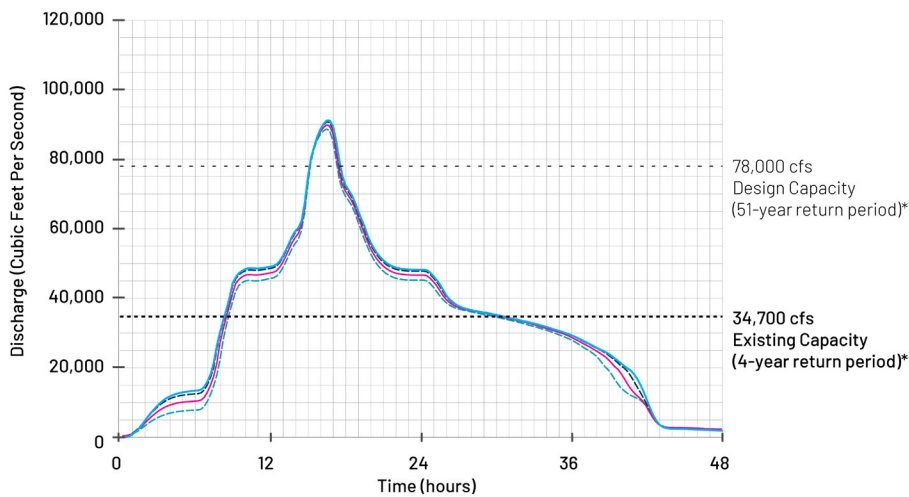
85th Percentile Storm LID Design Requirement

Source: <http://dpw.lacounty.gov/wrd/publication/Engineering/hydrology/HydroCalc.zip>

ALTERNATIVES STUDIED

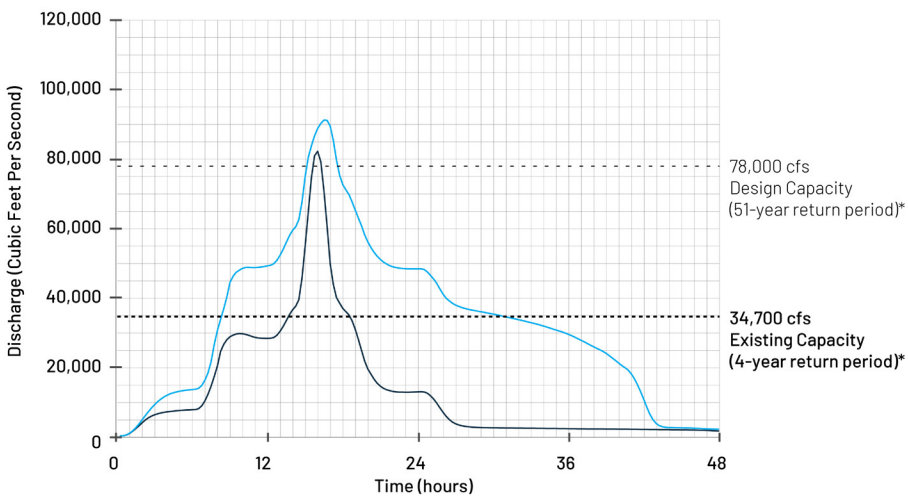
NARROWS 100-YEAR STORM

Hydrograph: Glendale Narrows, River Mile 29



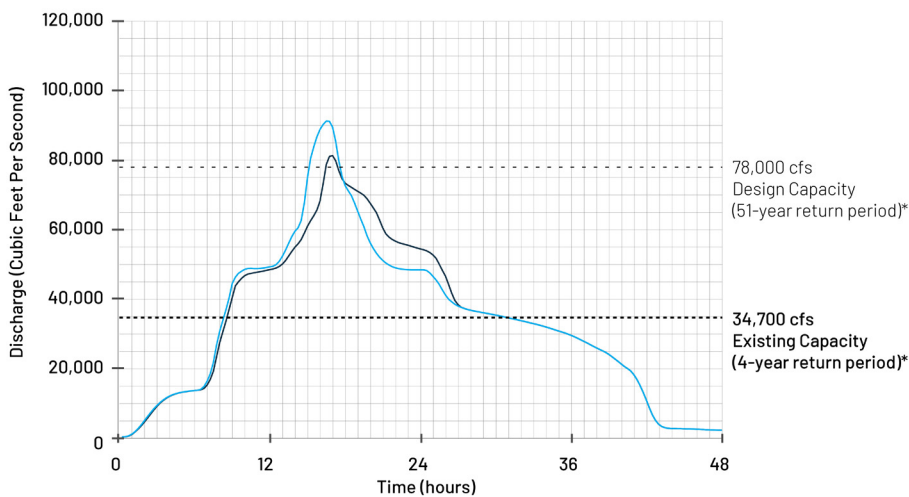
NARROWS 100-YEAR STORM WITH LARGER BASINS

Hydrograph: Glendale Narrows, River Mile 29



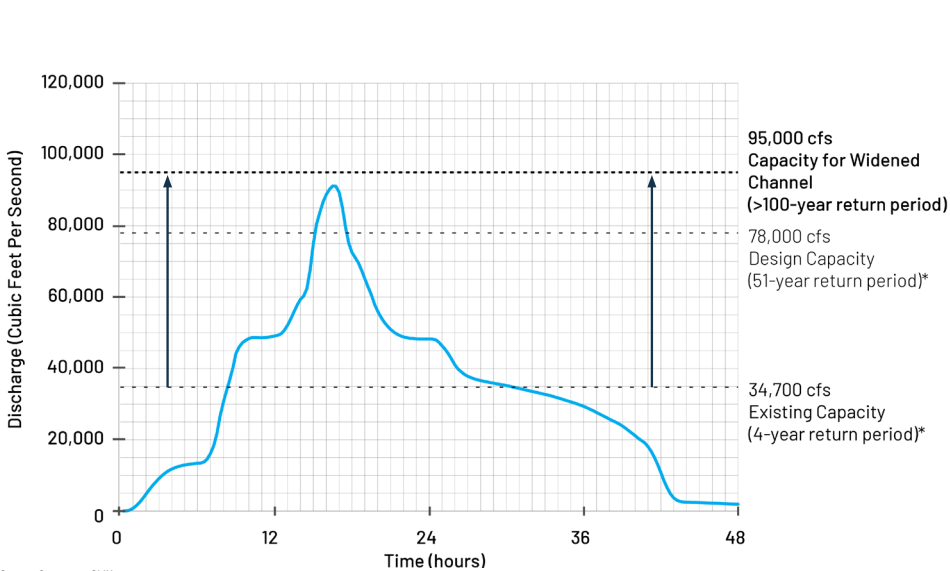
NARROWS 100-YEAR STORM WITH EXTRA BASINS

Hydrograph: Glendale Narrows, River Mile 29



100-YEAR STORM WITH A WIDER CHANNEL

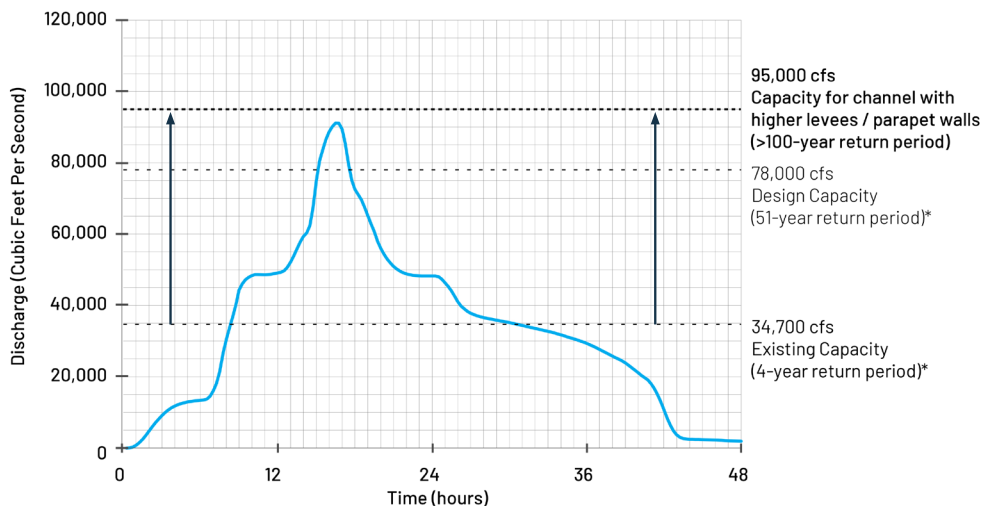
Hydrograph: Glendale Narrows, River Mile 29



ALTERNATIVES STUDIED

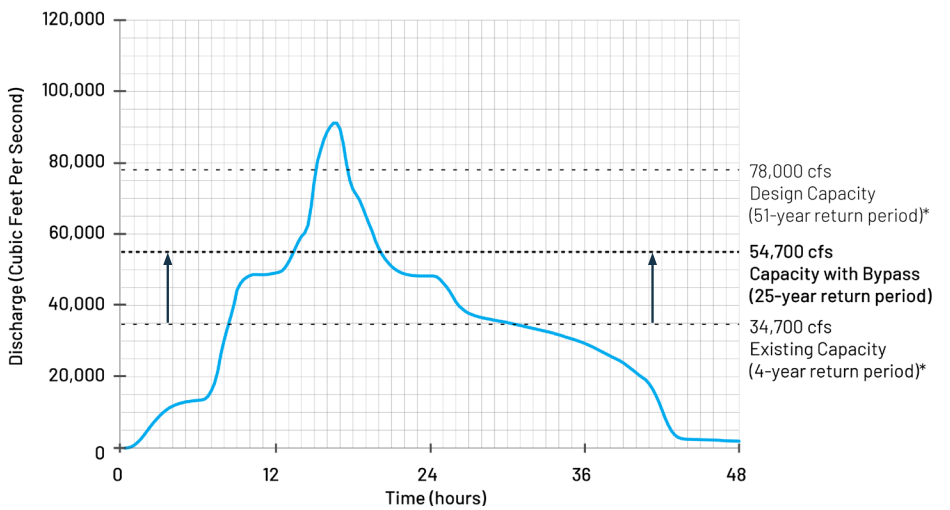
100-YEAR STORM WITH HIGHER LEVEES / PARAPET WALLS

Hydrograph: Glendale Narrows, River Mile 29



100-YEAR STORM WITH BYPASS TUNNEL

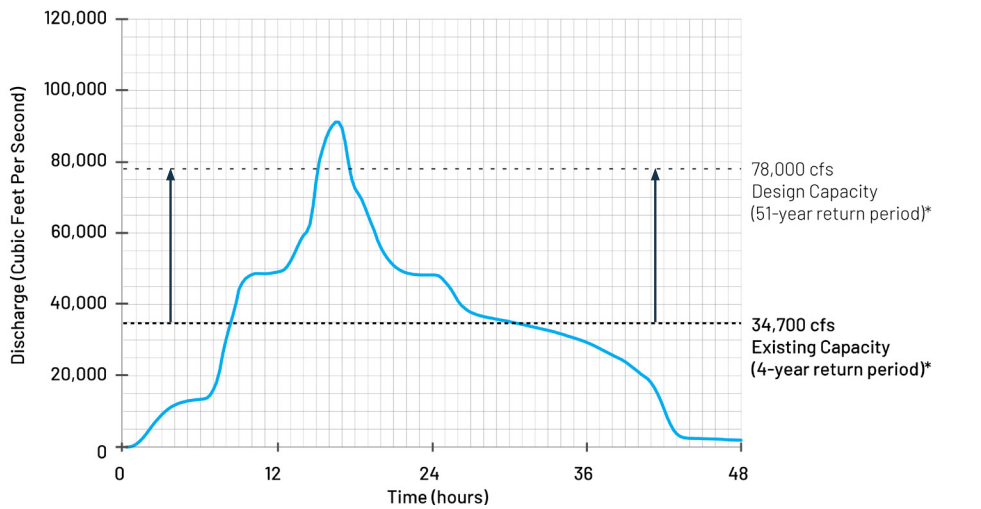
Hydrograph: Glendale Narrows, River Mile 29



100-YEAR STORM WITH REFURBISHMENT

To increase channel capacity: remove invasives, remove sediment, maintain channel, replace exotic with native grasses.

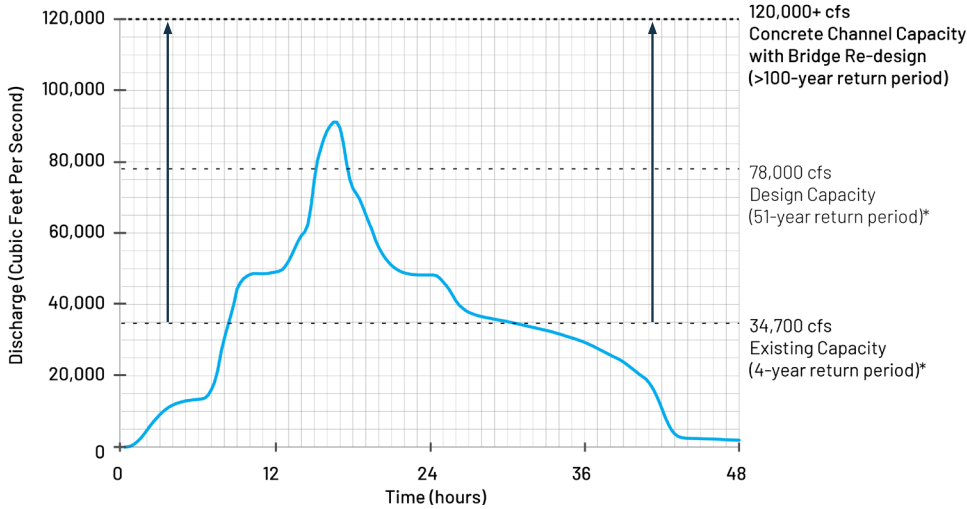
Hydrograph: Glendale Narrows, River Mile 29



100-YEAR STORM WITH CONCRETE BOTTOM

To increase channel capacity: Harden the channel bottom to reduce friction.

Hydrograph: Glendale Narrows, River Mile 29



HOW THE IDEAS RELATE TO THE GOALS

REDUCE FLOWS TO THE CHANNEL

- Low Impact Development [3, 8, 9]
- Best Management Practices [3, 8, 9]
- Distributed Storage [8, 9]
- Increase Sepulveda and Hansen Flood Control Basins [1]
- Additional Flood Control Basins [1]

INCREASE CHANNEL CAPACITY

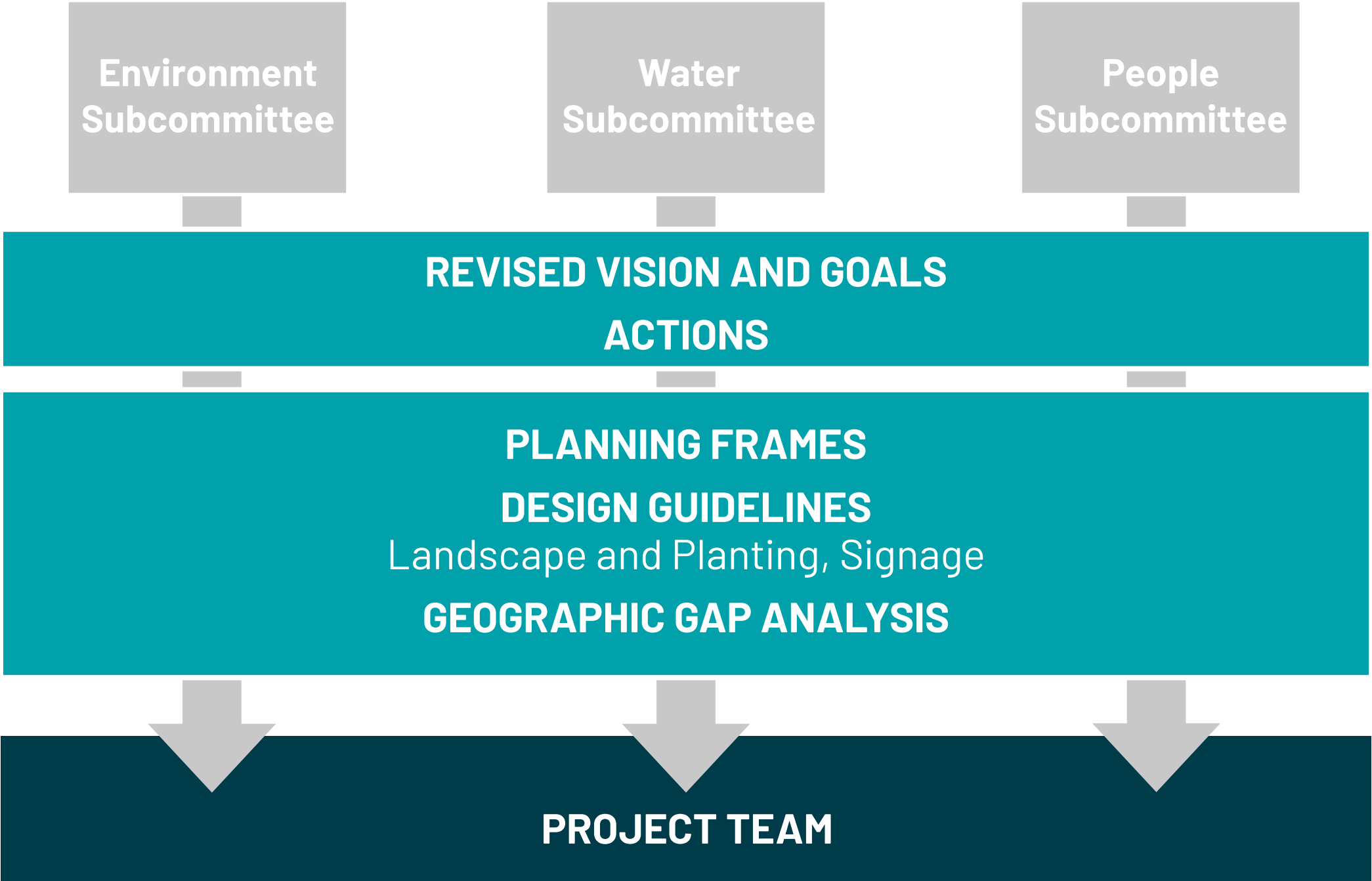
- Increase Channel Width [1, 2, 3]
- Increase Levee Height [1]
- Bypass Tunnel [1, 2, 3, 8]
- Sediment Removal/
Vegetation Conversion [1, 2, 3, 9]
- Concrete [1]

SUBCOMMITTEE MEETINGS #4

December 17, 2018

Los Angeles River
Center and Gardens

*Thank you Rivers and
Mountains Conservancy*



The background image shows a residential area with several palm trees and a multi-story apartment building. In the foreground, there is a concrete drainage channel or culvert. The entire image is overlaid with a semi-transparent blue filter. The text "Q & A AND DISCUSSION" is centered in the middle of the image in a large, white, sans-serif font.

Q & A AND DISCUSSION

Source: OLIN



WHAT'S IN THE PLAN

Source: OLIN

WHAT'S IN THE PLAN

ANALYSIS & INPUT

- Existing Conditions
- Community Engagement

RECOMMENDATIONS

- Goals
- Design Framework

IMPLEMENTATION

- Operations & Maintenance
- Funding

INTRODUCTION

- **Building on other plans**
- **Watershed and community approach to a corridor plan**
- **Resiliency**
- **Governance & multi-jurisdictional collaboration**

THE ROLE OF THE COUNTY AND COORDINATION

Similar to the 1996 LA River Master Plan, the 2020 Plan will be used to guide LA County decision making for LA River projects and facilities owned, operated, funded, and/or maintained by the County. Other agencies and municipalities are encouraged to adopt the LA River Master Plan for their jurisdictions and communities and partner with LA County in making the Reimagined River a reality.

VISION

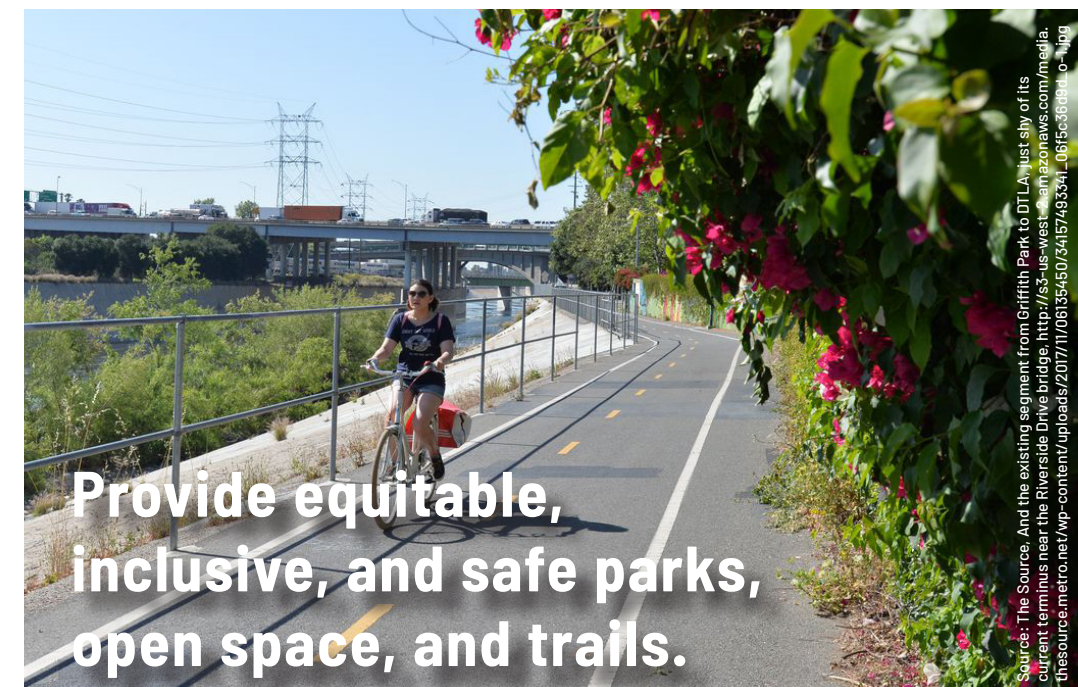
The Reimagined River

Fifty-one miles of connected open space that includes clean water, native habitat, parks, multiuse trails, art, and cultural resources to improve health, equity, access, mobility, and economic opportunity for the diverse communities of LA County, while providing flood risk management.

GOAL-DRIVEN FRAMEWORK



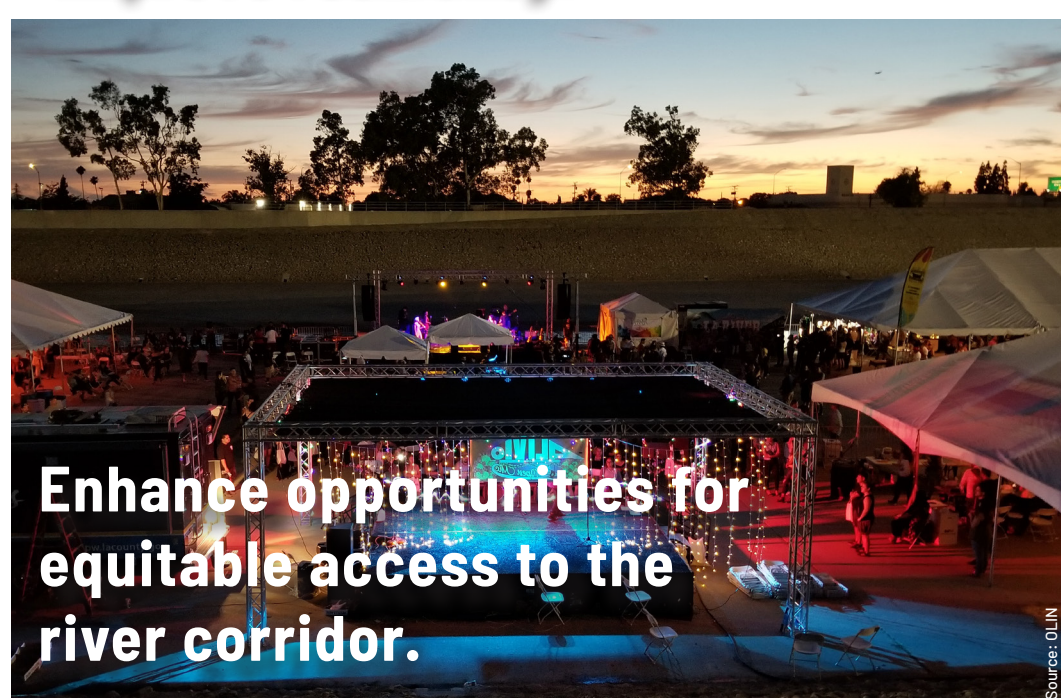
Reduce flood risk and improve resiliency.



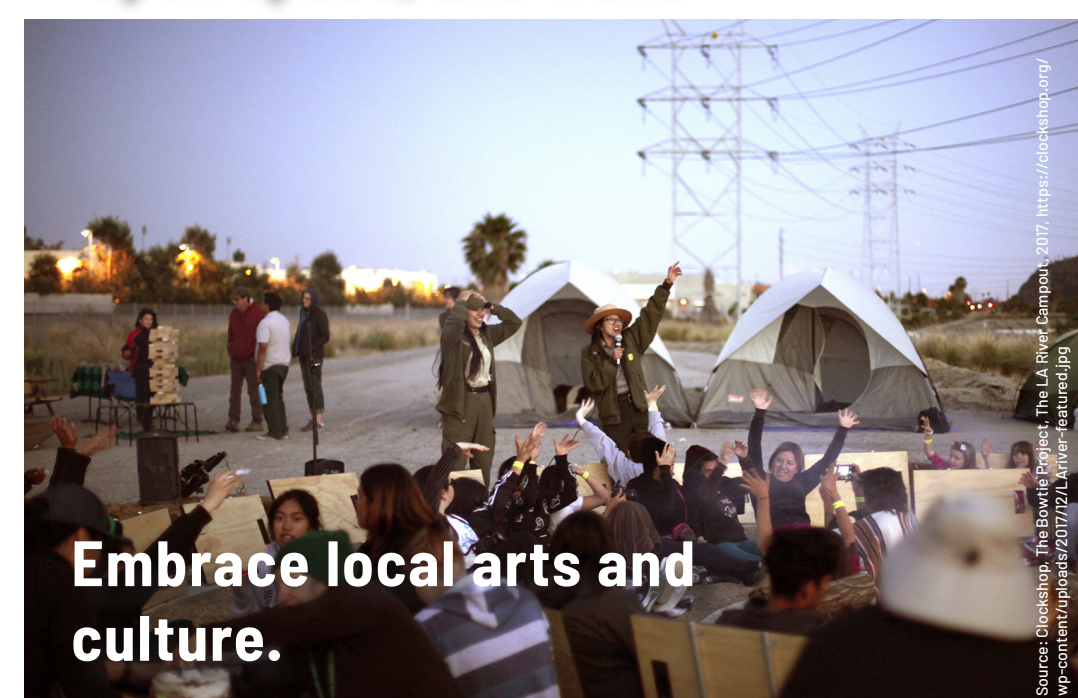
Provide equitable, inclusive, and safe parks, open space, and trails.



Support healthy, connected ecosystems.



Enhance opportunities for equitable access to the river corridor.



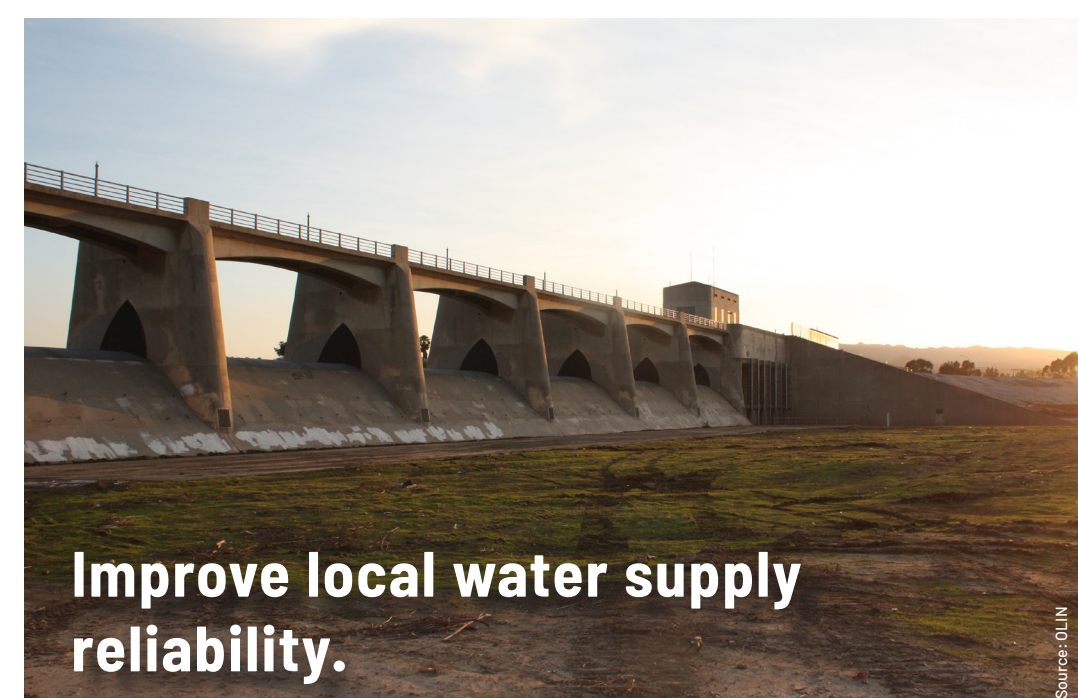
Embrace local arts and culture.



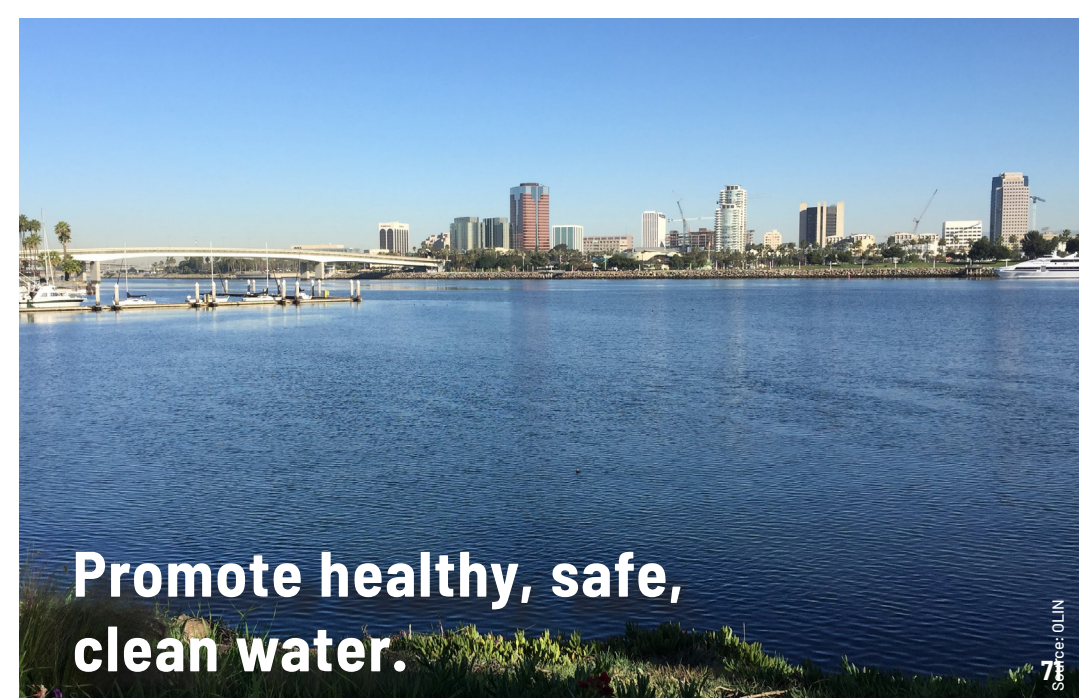
Address potential adverse impacts to housing affordability and people experiencing homelessness



Foster opportunities for continued community engagement, development, and education.



Improve local water supply reliability.



Promote healthy, safe, clean water.

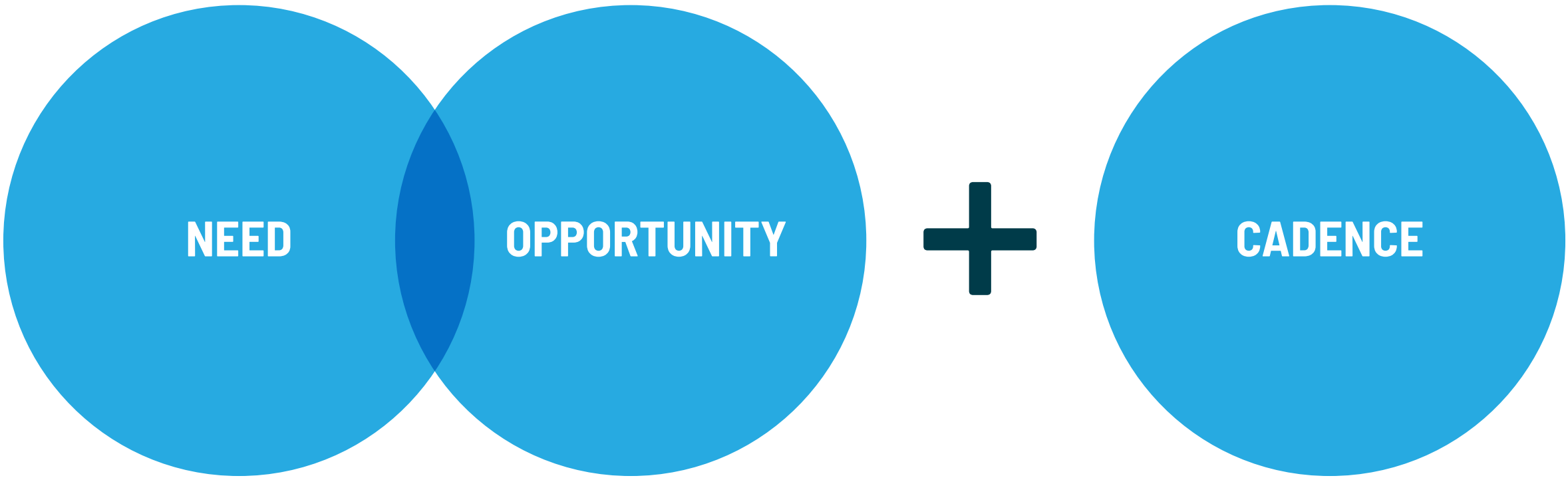
An aerial photograph of the Los Angeles River and the surrounding urban landscape, tinted in a solid blue color. The river flows diagonally from the upper left towards the lower right. The city is densely packed with buildings, mostly low-rise commercial and industrial structures. A major highway, likely the 10 Freeway, runs parallel to the river on the right side. The word "DESIGN" is overlaid in large, white, sans-serif capital letters in the center of the image.

DESIGN

Source: Joe Mabel, 2001. Wikipedia. https://commons.wikimedia.org/wiki/File:Los_Angeles_River_aerial_01.jpg

HOW DO WE LOCATE NEW PROJECTS?

Align need, opportunity, and cadence along the LA River corridor considering existing and planned projects.



GOAL-BASED NEEDS CRITERIA

<div>1. FLOOD RISK MANAGEMENT</div> <div>Level of Channel Protection Flood Plains Critical Infrastructure & Facilities</div>	<div>2. PARKS</div> <div>Parks Needs Assessment CalEnviroScreen 3.0</div>	<div>3. ECOSYSTEM</div> <div>Existing Vegetation Unprotected Areas Protected Areas Buffer Habitat Linkages</div>
<div>4. ACCESS</div> <div>River Trail Access Points River Trail Gaps Adjacent Trail Gaps Health Composite Proximity to Metro Stops, Parks, & Schools</div>	<div>5. ARTS & CULTURE</div> <div>Arts & Culture Asset Mapping Population Density Household Income</div>	<div>6. HOUSING AFFORDABILITY</div> <div>Displacement Risk</div>
<div>7. ENGAGEMENT & EDUCATION</div> <div>Education Asset Mapping Population Density</div>	<div>8. WATER SUPPLY</div> <div>Regional Need</div>	<div>9. WATER QUALITY</div> <div>EWMP/WMP Score Water Quality Priority</div>

PROPOSED EXTRA LARGE PARKS (XL)

Draft Example from December 2018

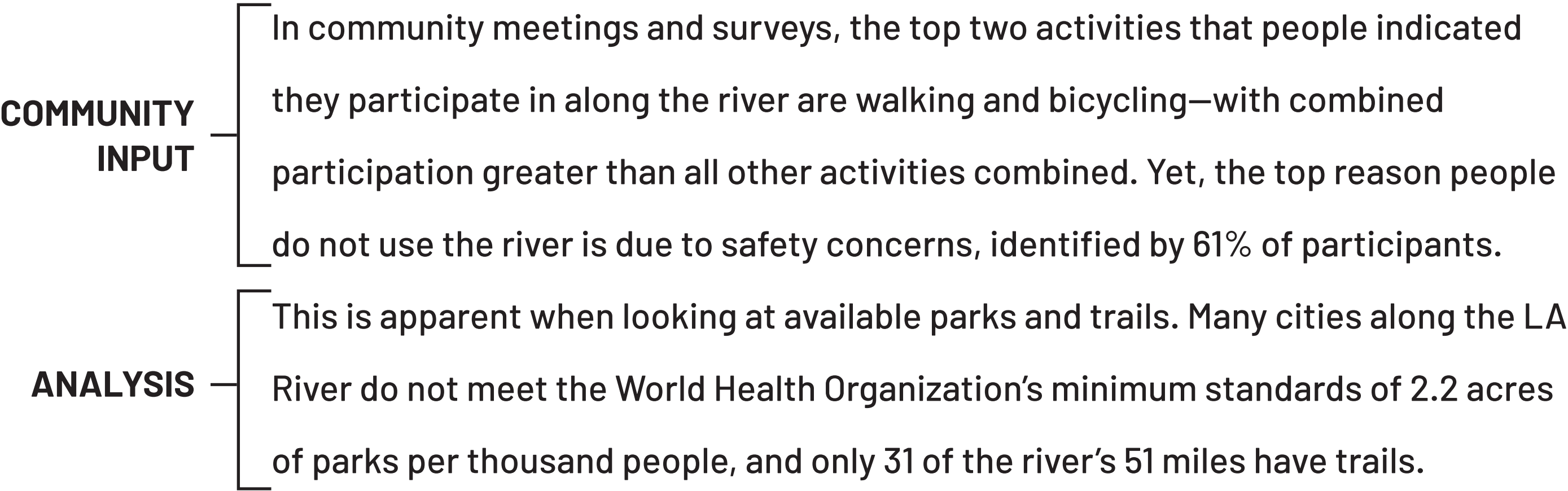




NEEDS ANALYSIS

EXAMPLE: GOAL RATIONALE

Goal: Provide equitable, inclusive, and safe parks, open space, and trails.





Reduce flood risk and improve resiliency.

Source: Flickr user Scott L. Letic 7392, 2016, <https://www.flickr.com/photos/48022686/>
N03/13904068667/



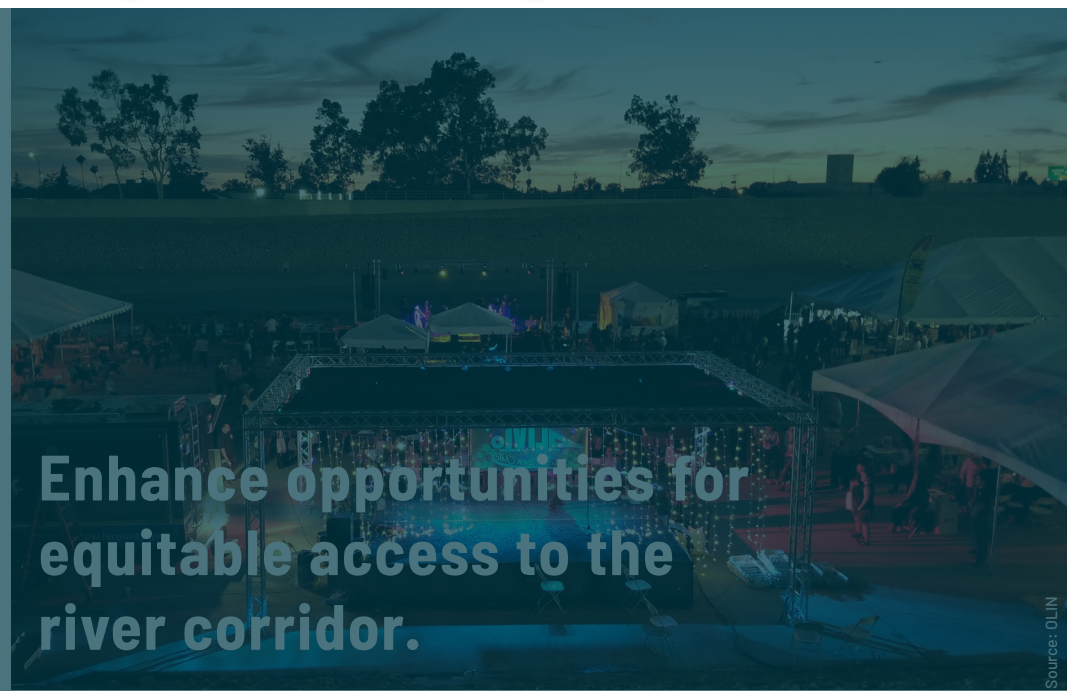
Provide equitable, inclusive, and safe parks, open space, and trails.

Source: The Source And the existing segment from Griffith Park to DTLA just shy of its current terminus near the Riverside Drive bridge. http://es-us-west.san.aznews.com/media_1thesource/metro.net/wp-content/uploads/2017/11/06155450/04157493341_0615545010-1.jpg



Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/keetdepartures/5057005520/> in album 721574531402077610201059



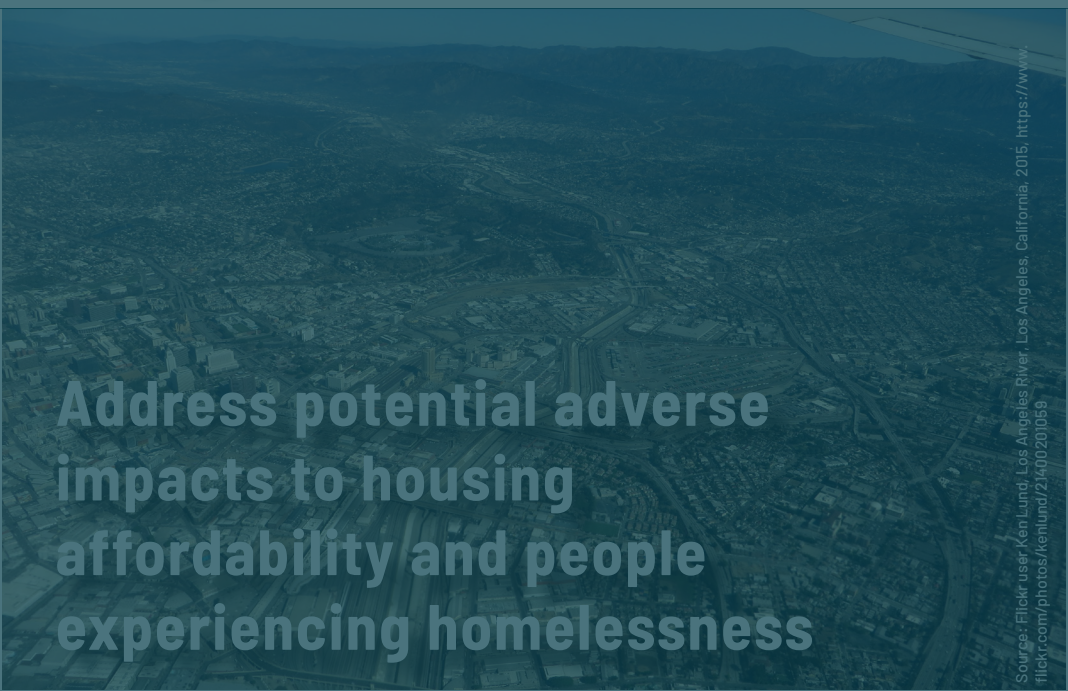
Enhance opportunities for equitable access to the river corridor.

Source: OLIN



Embrace local arts and culture.

Source: Clockshop, The Bowtie Project, The LA River Campout, 2017, <https://clockshop.org/wp-content/uploads/2017/12/LARiver-Featured.jpg>



Address potential adverse impacts to housing affordability and people experiencing homelessness

Source: Flickr user Ken Lund, Los Angeles River, Los Angeles, California, 2015, <https://www.flickr.com/photos/kenlund/21400201059/>



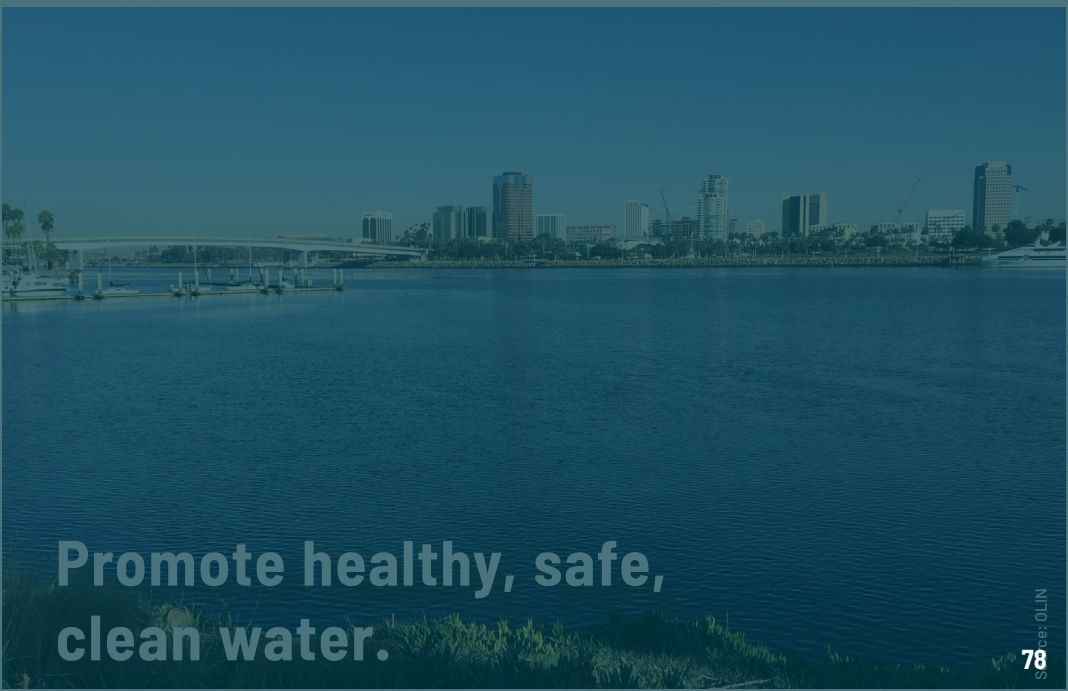
Foster opportunities for continued community engagement, development, and education.

Source: Randall R. Flickr User, <https://www.flickr.com/photos/zeroy/2406085732/in/pool-layover/>



Improve local water supply reliability.

Source: OLIN



Promote healthy, safe, clean water.

Source: OLIN

NEEDS ANALYSIS

FLOOD RISK MANAGEMENT

Level of Channel Protection^{1,2,3} (45%)

Flood Plains⁴ (45%)

Critical Infrastructure and Facilities⁵ (10%)

Need Analysis:

Highest Need

Lowest Need

Footnotes:

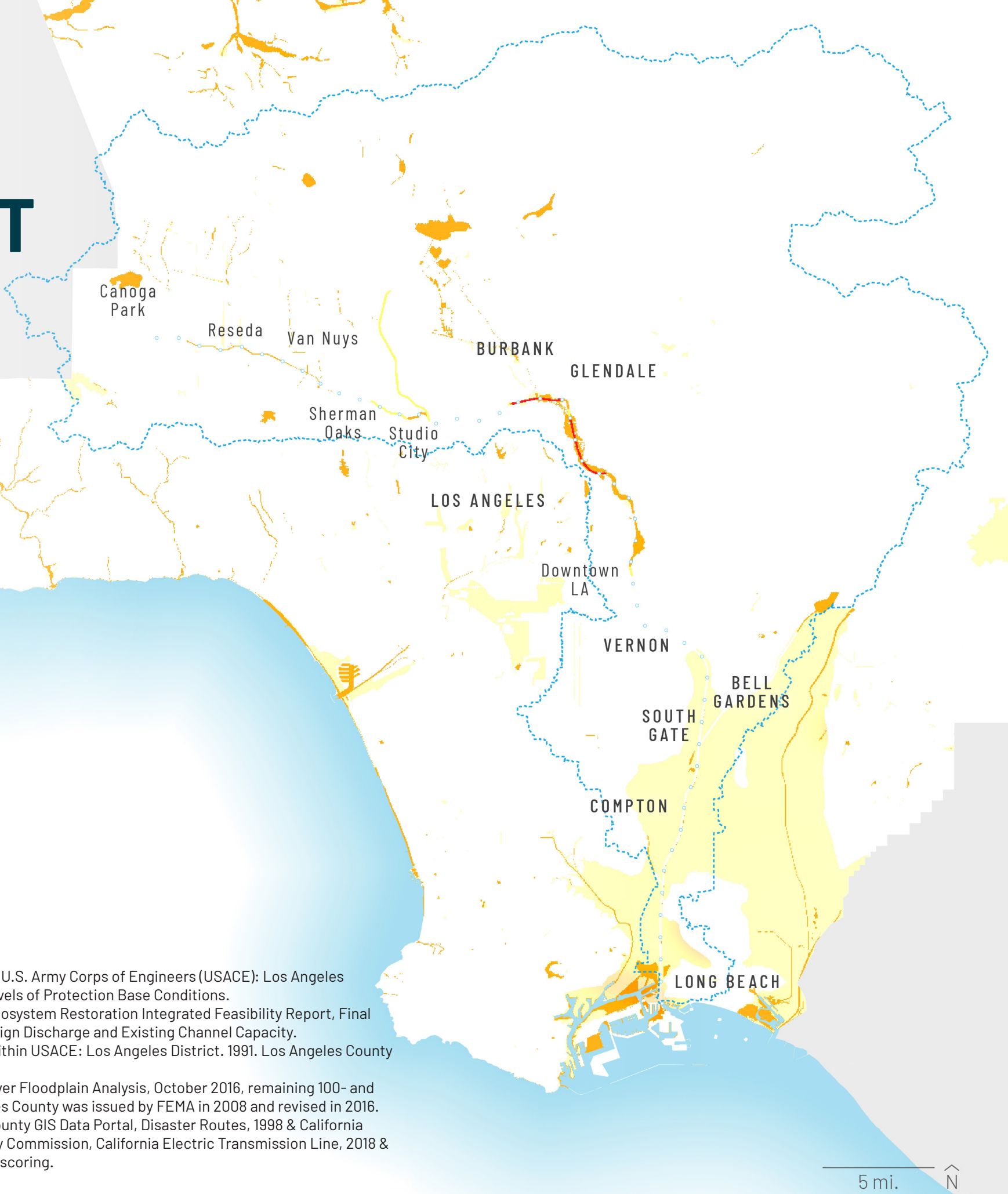
1. Level of channel protection from DS Sepulveda to top of ARBOR Study reaches interpolated from point locations within U.S. Army Corps of Engineers (USACE): Los Angeles District. 1991. Los Angeles County Drainage Area: Review, Part I Hydrology Technical Report: Base Conditions. Plate 4: Levels of Protection Base Conditions.

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3. Level of channel protection from bottom of ARBOR Study reaches to Pacific Ocean interpolated from point locations within USACE: Los Angeles District. 1991. Los Angeles County Drainage Area: Review, Part II Hydrology Report, Project Alternatives. Plate 11: NED Plan Levels of Protection.

4. 100-year flood plain for ARBOR Study area from USACE Floodplain Management Services Special Study Los Angeles River Floodplain Analysis, October 2016, remaining 100- and 500-yr flood plains from Los Angeles County GIS Data Portal, Flood Zones; The Flood Insurance Study (FIS) for Los Angeles County was issued by FEMA in 2008 and revised in 2016.

5. Critical Infrastructure and Facilities from Los Angeles County GIS Data Portal, Points of Interest, 2016 & Los Angeles County GIS Data Portal, Disaster Routes, 1998 & California Department of Transportation, California Rail Network, 2013 & EPA, FRS Geospatial Data, 2018 & State of California Energy Commission, California Electric Transmission Line, 2018 & California Department of Conservation, All Wells, 2018. Only facilities inside 100- and 500-yr floodplains included in needs scoring.



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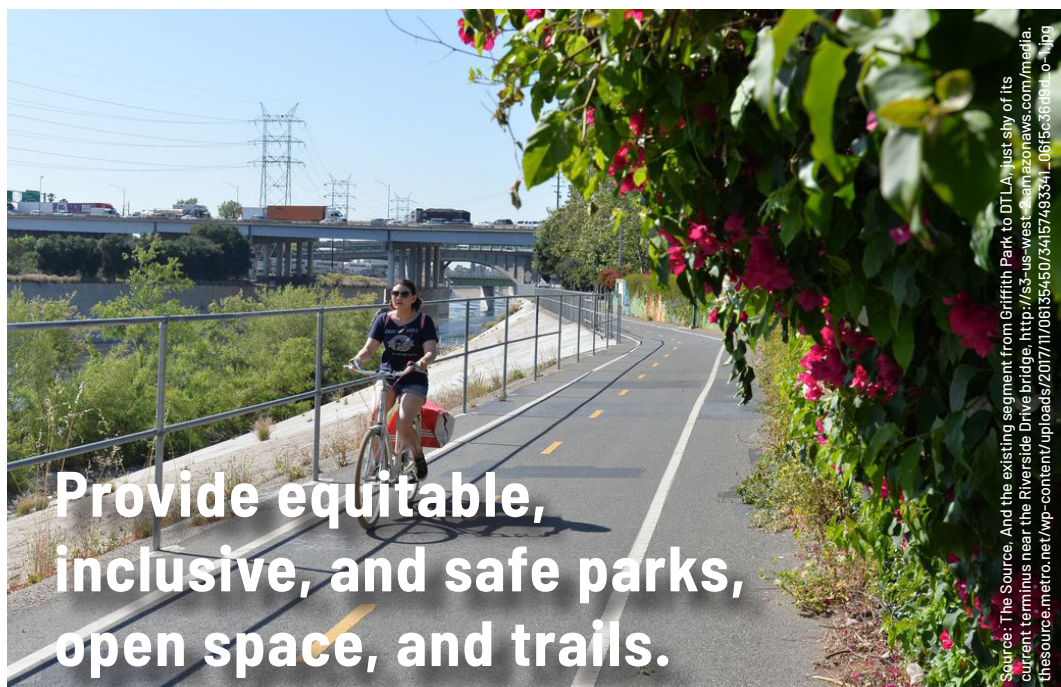
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Reduce flood risk and improve resiliency.

Source: Flickr user Scott L. LEIC 7392, 2016, <https://www.flickr.com/photos/418022686/>



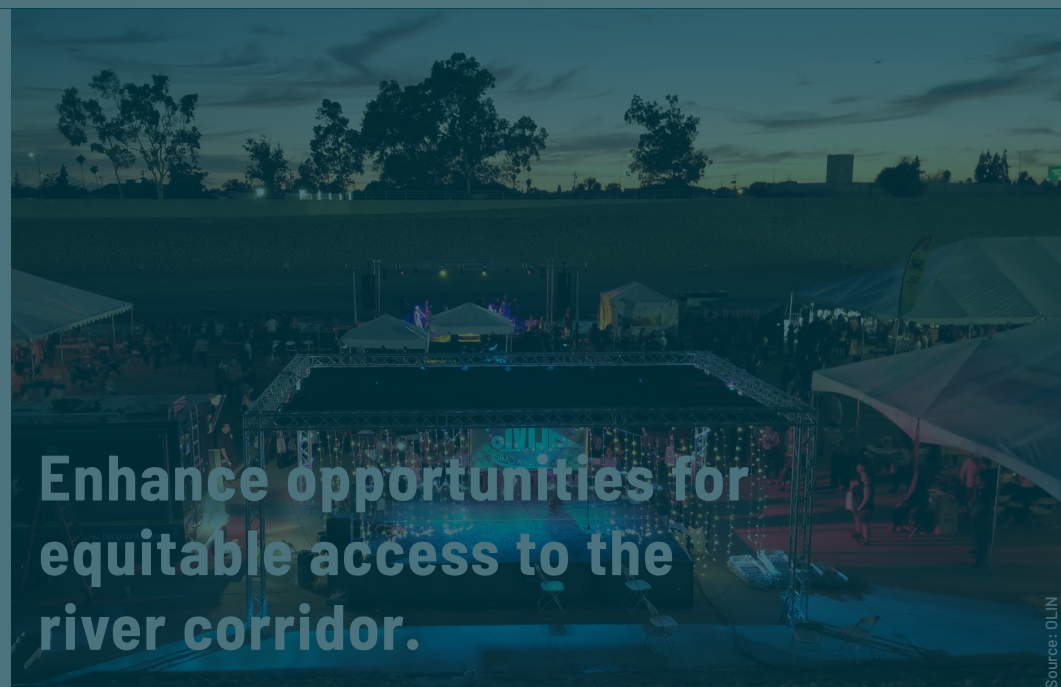
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Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/keetdepartures/5057055207/>



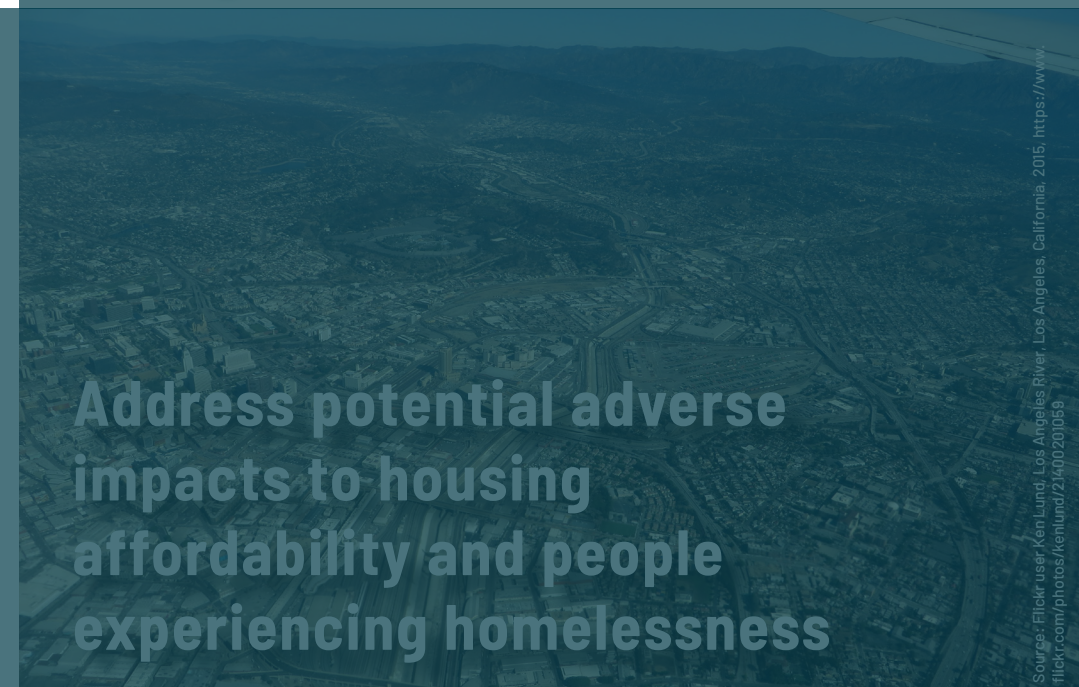
Enhance opportunities for equitable access to the river corridor.

Source: OLIN



Embrace local arts and culture.

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Address potential adverse impacts to housing affordability and people experiencing homelessness

Source: Flickr user Ken Lund, Los Angeles River - Los Angeles, California, 2016, <https://www.flickr.com/photos/kenlund/21400201059/>



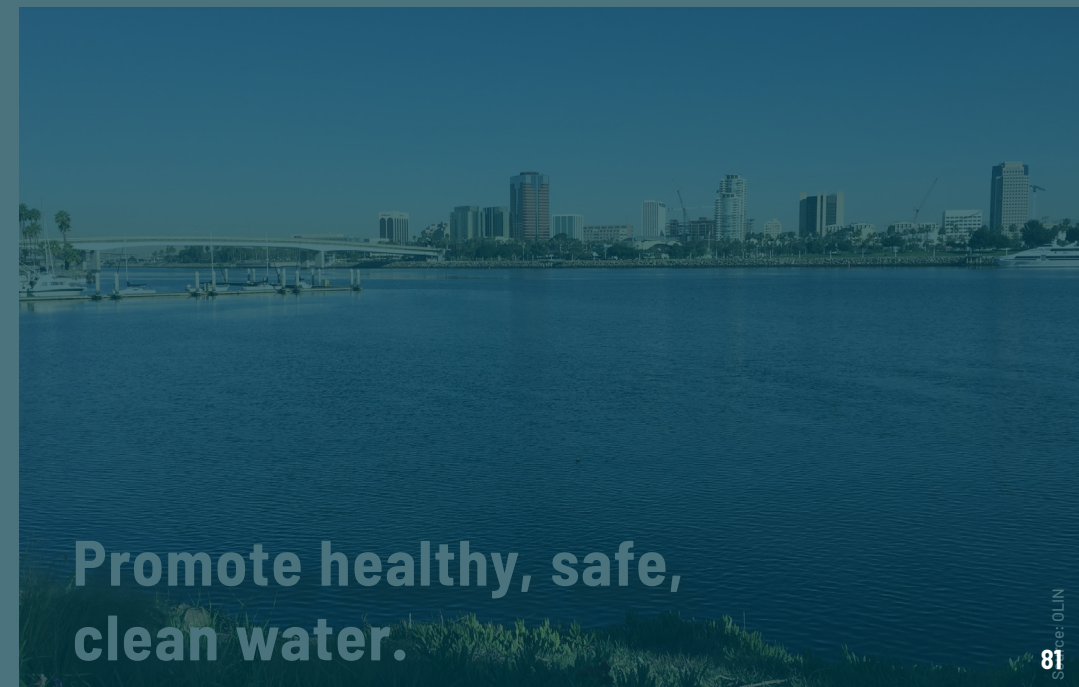
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Source: Randall, R. Flickr User, <https://www.flickr.com/photos/zeroy/2406085732/in/pool-layover/>



Improve local water supply reliability.

Source: OLIN

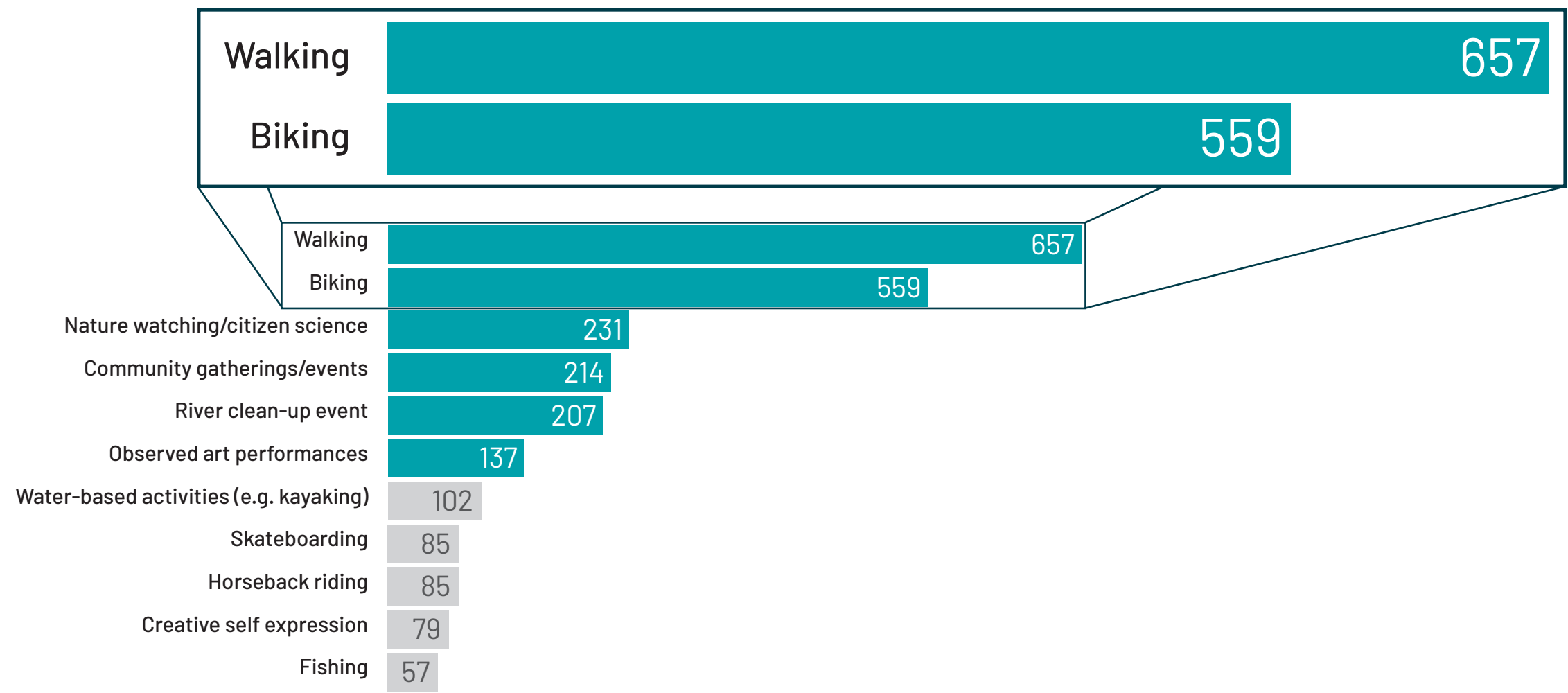


Promote healthy, safe, clean water.

Source: OLIN

THE TOP TWO ACTIVITES ALONG THE RIVER ARE WALKING AND BICYCLING

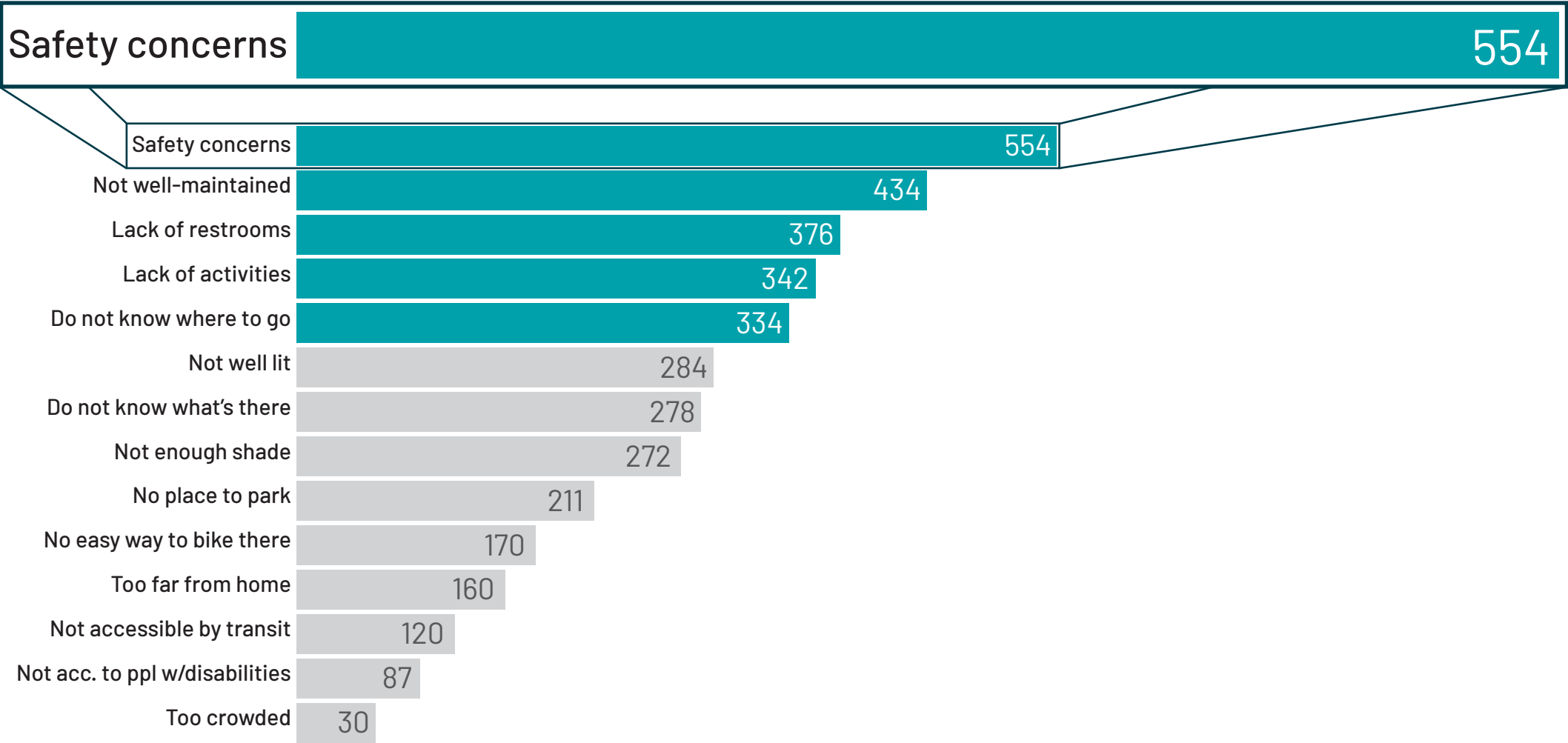
Goal: Provide equitable, inclusive, and safe parks, open space, and trails.



Source: Community Meetings, Survey, and Youth Summit

THE TOP REASON PEOPLE DO NOT VISIT THE RIVER IS DUE TO SAFETY CONCERNS

Goal: Provide equitable, inclusive, and safe parks, open space, and trails.




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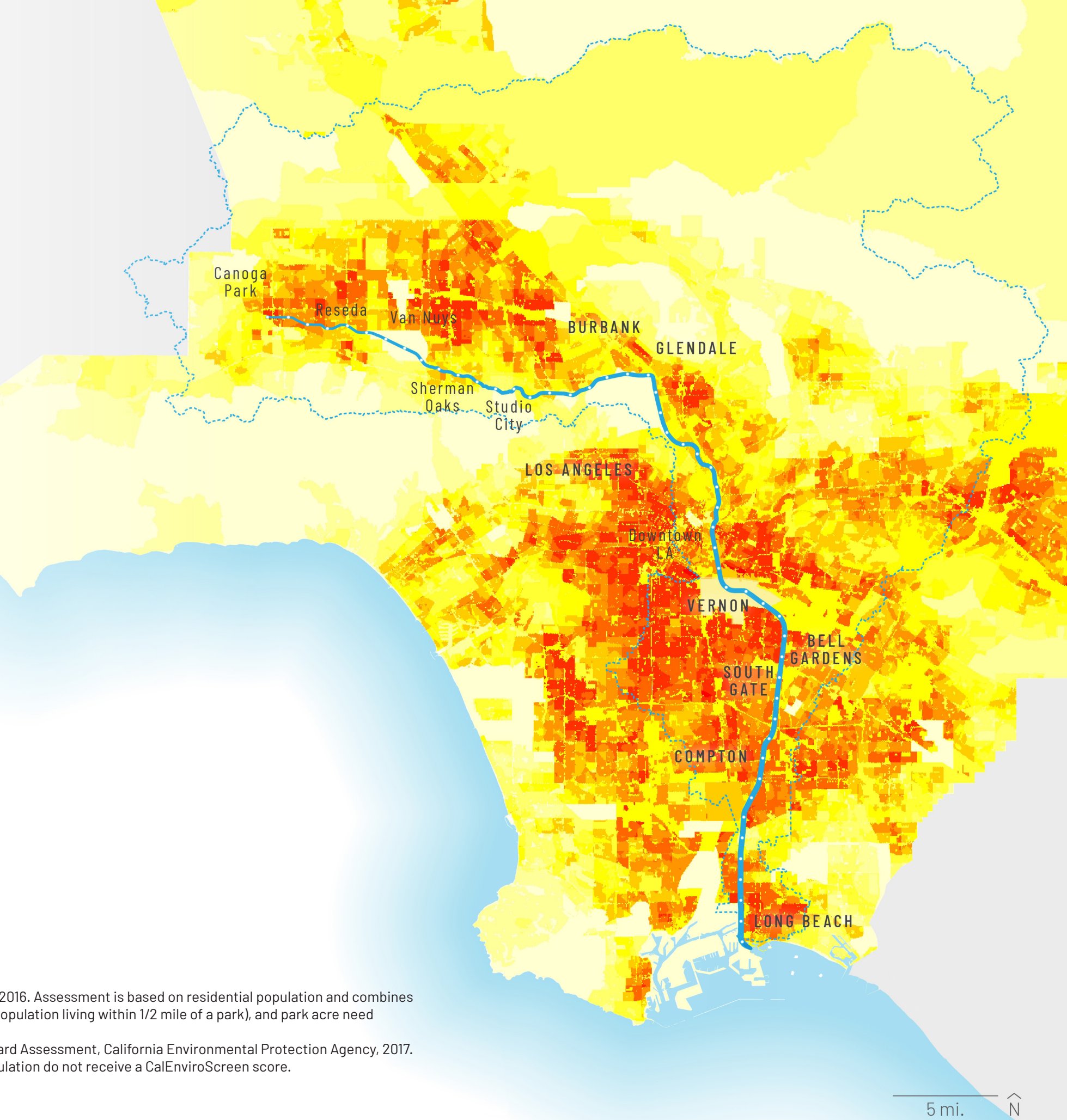
NEEDS ANALYSIS

PARK NEED

Parks Needs Assessment¹ (50%)
CalEnviroScreen 3.0² (50%)

Need Analysis:
 Highest Need
Lowest Need


Footnotes:
1. Park need from Los Angeles Countywide Comprehensive Parks and Recreation Needs Assessment, 2016. Assessment is based on residential population and combines park pressure (amount of park land available to residents around each park), park access (percent of population living within 1/2 mile of a park), and park acre need (acres of park per 1,000 people).
2. Exposure to environmental pollution from CalEnviroScreen 3.0, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, 2017. CalEnviroScreen combines pollution burden indicators with population indicators. Areas with low population do not receive a CalEnviroScreen score.



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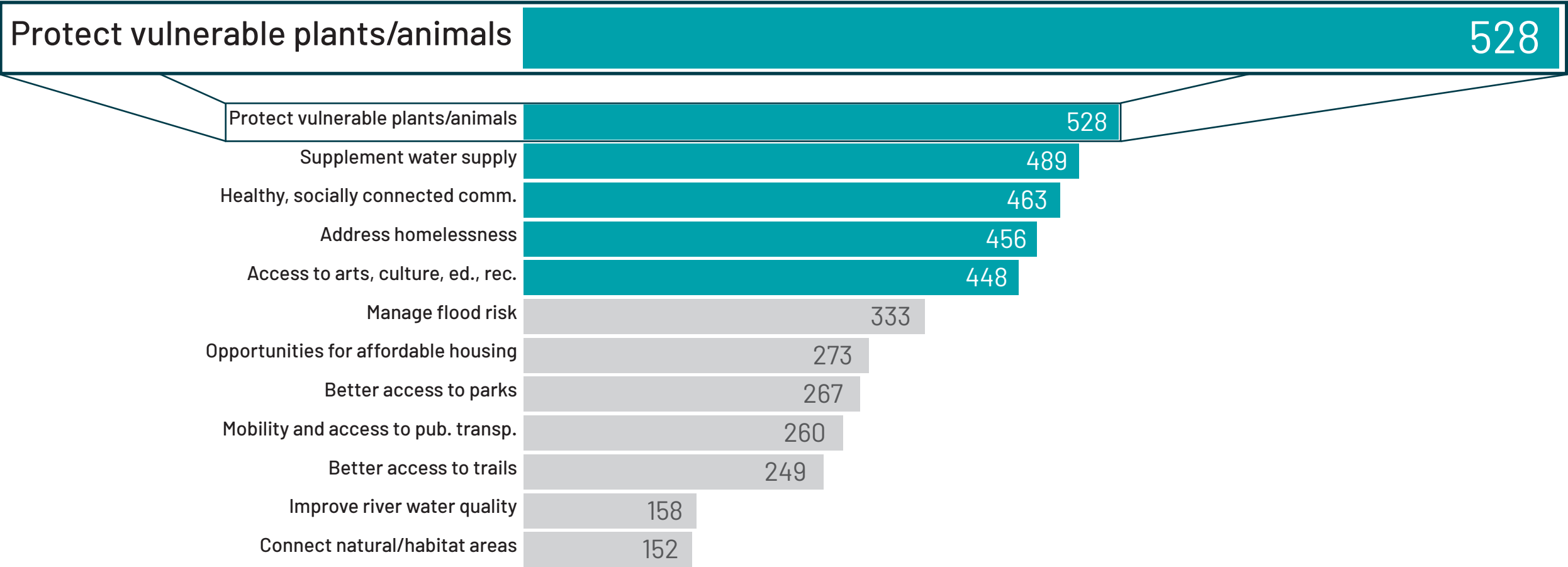
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PROTECTING VULNERABLE PLANTS AND ANIMALS IS THE MOST IMPORTANT ISSUE TO THE COMMUNITY

Goal: Support healthy, connected ecosystems.



Source: Community Meetings, Survey, and Youth Summit

NEEDS ANALYSIS

ECOSYSTEMS

- Existing Vegetation¹ (37.5%)
- Protected Habitat Area Buffer² (20%)
- Unprotected Areas³ (12.5%)
- Linkages⁴ (30%)

Need Analysis:

Highest Need

Lowest Need

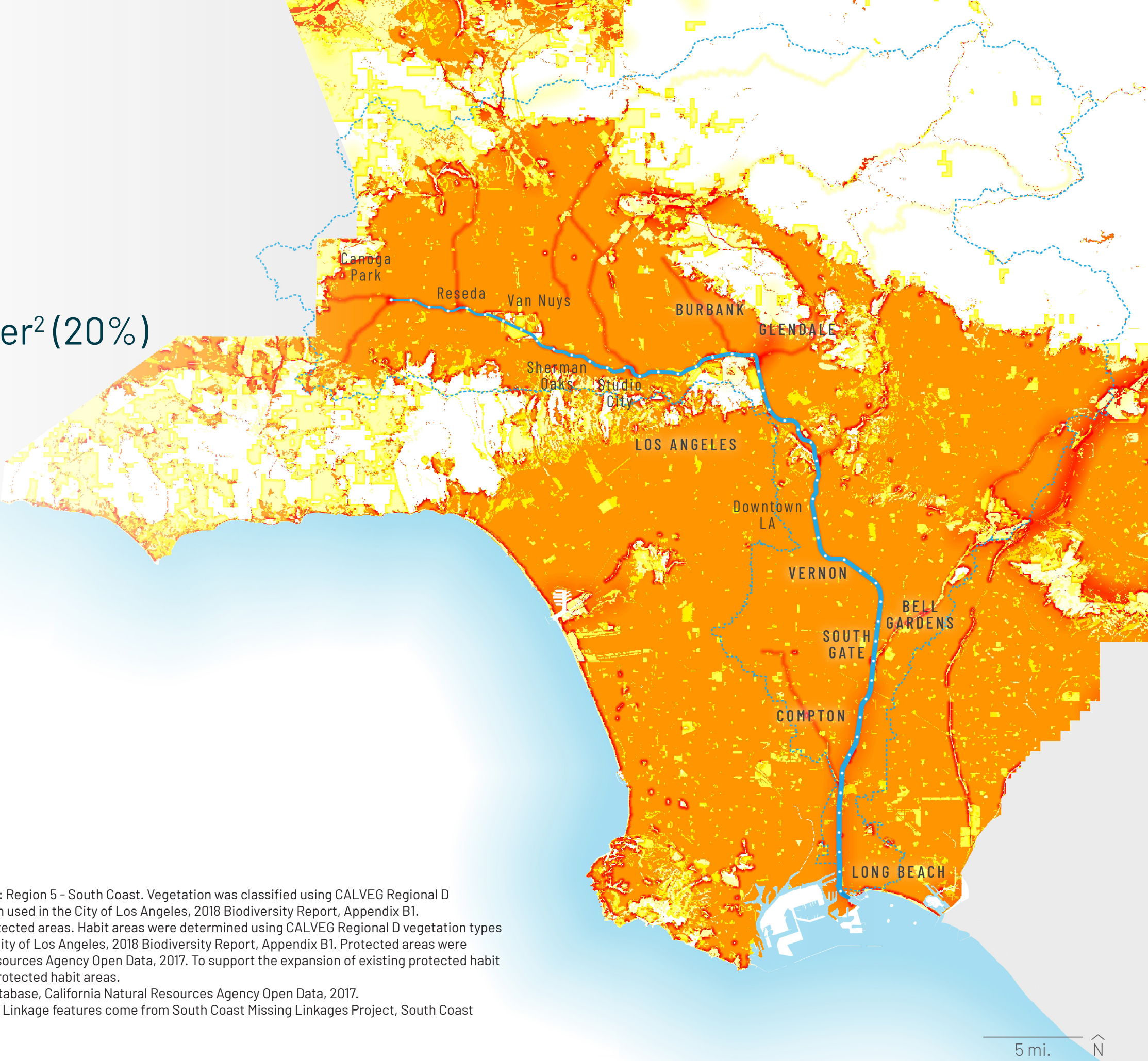
Footnotes:

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4. Linkages were identified to support existing and potential wildlife corridors. Linkage features come from South Coast Missing Linkages Project, South Coast Wildlands, 2008; & LA River Tributaries, Geosyntec, 2016.



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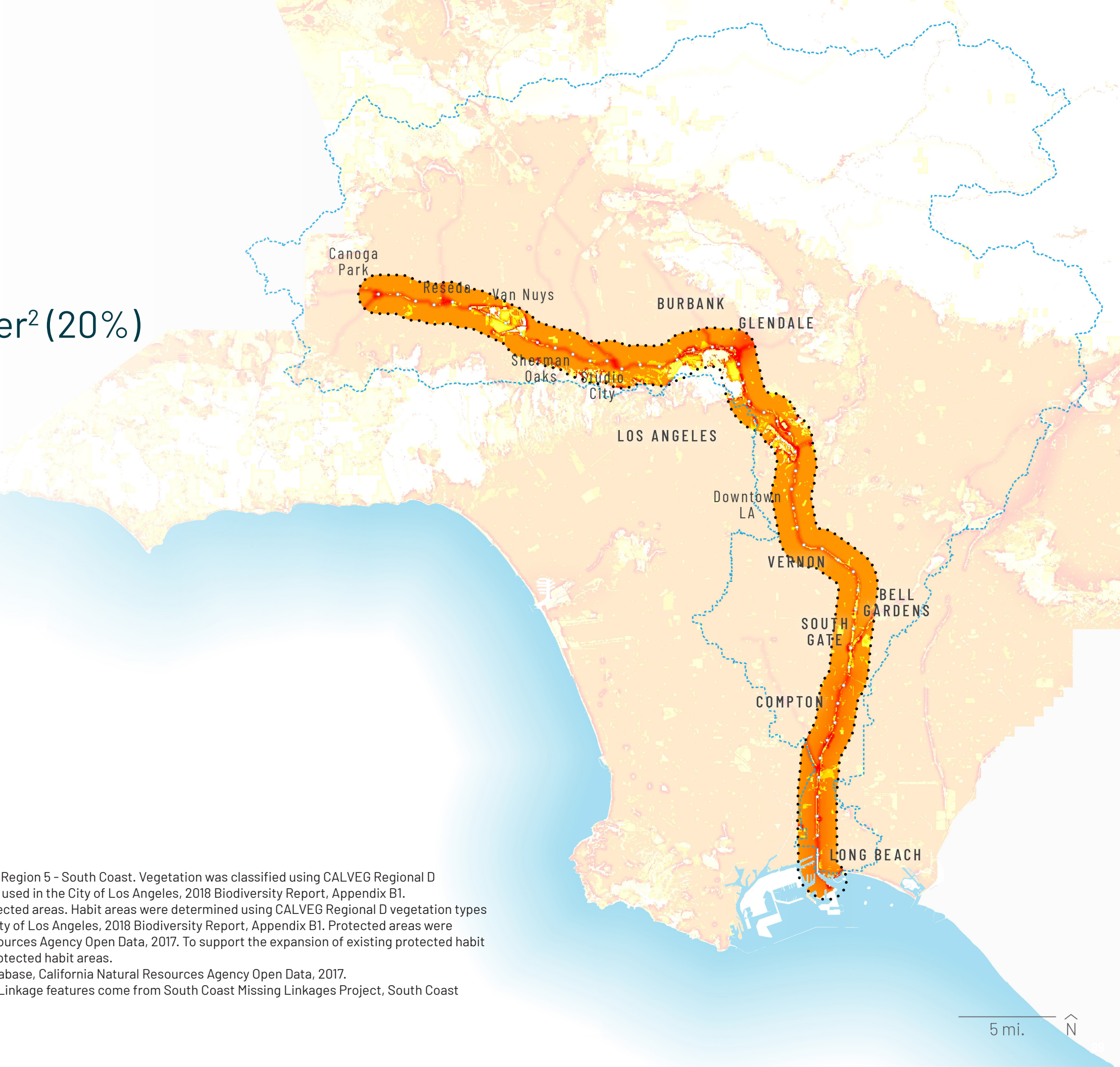
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Source: Flickr user Scott L. LEIC 7892, 2016, <https://www.flickr.com/photos/48022686/>



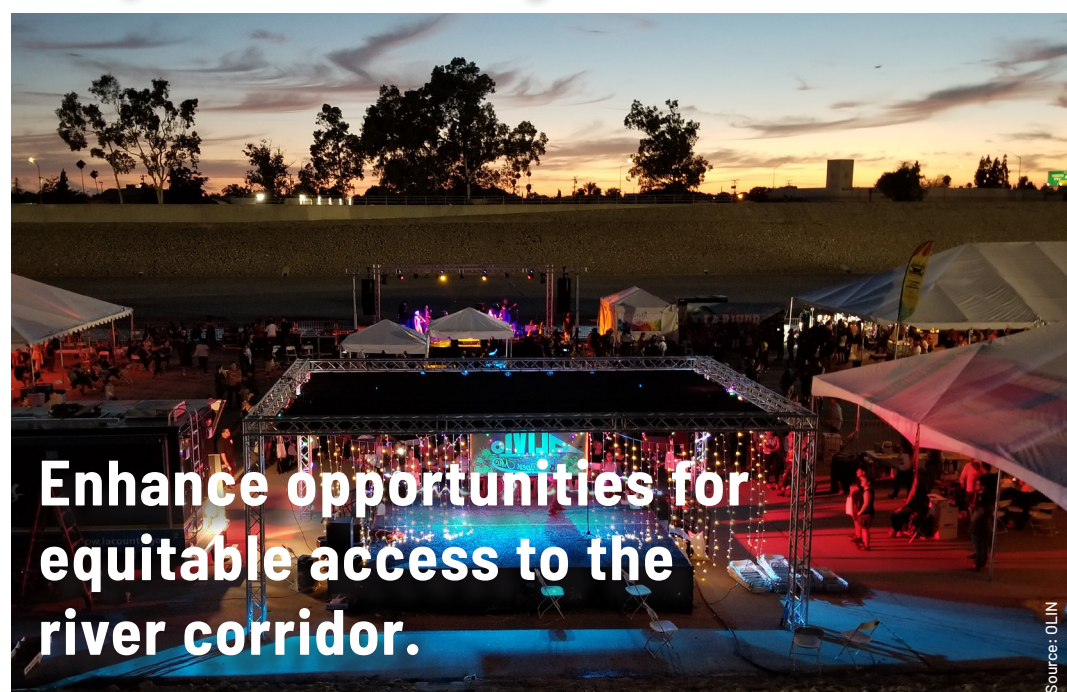
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Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/kcetdepartures/5057055207/in/album-72157451402077610201059>



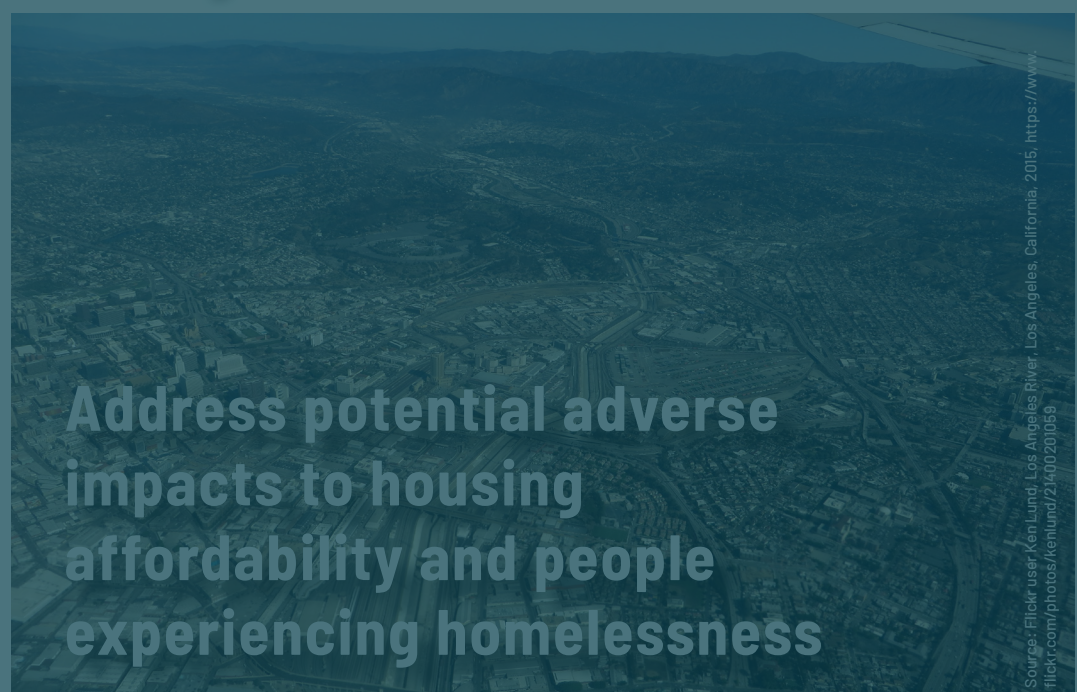
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Source: OLIN



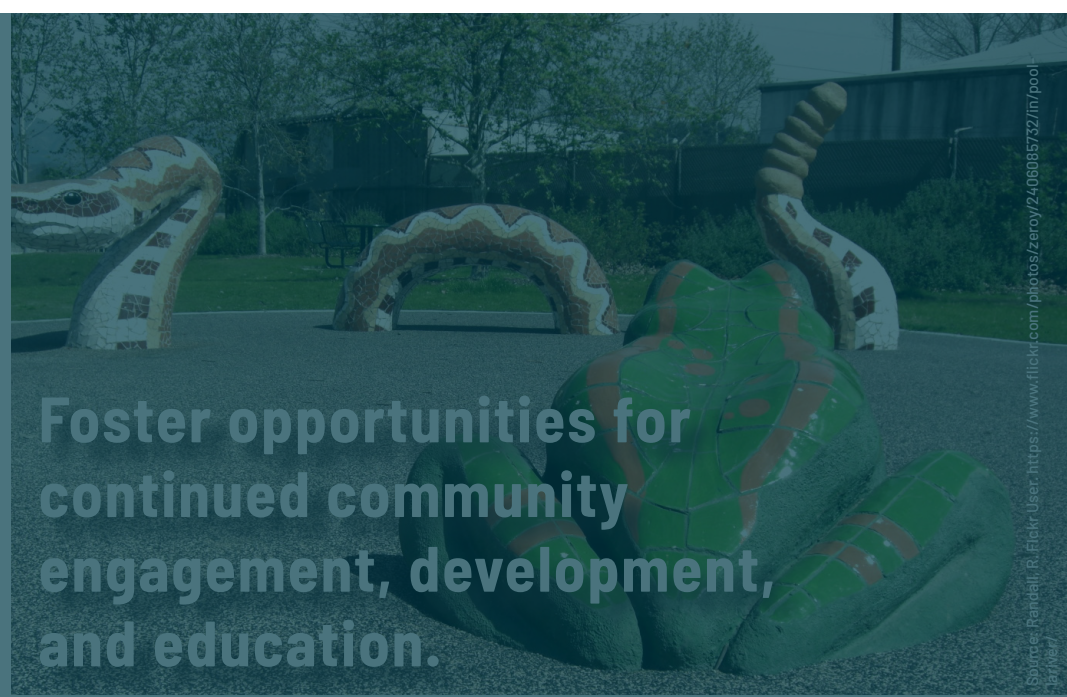
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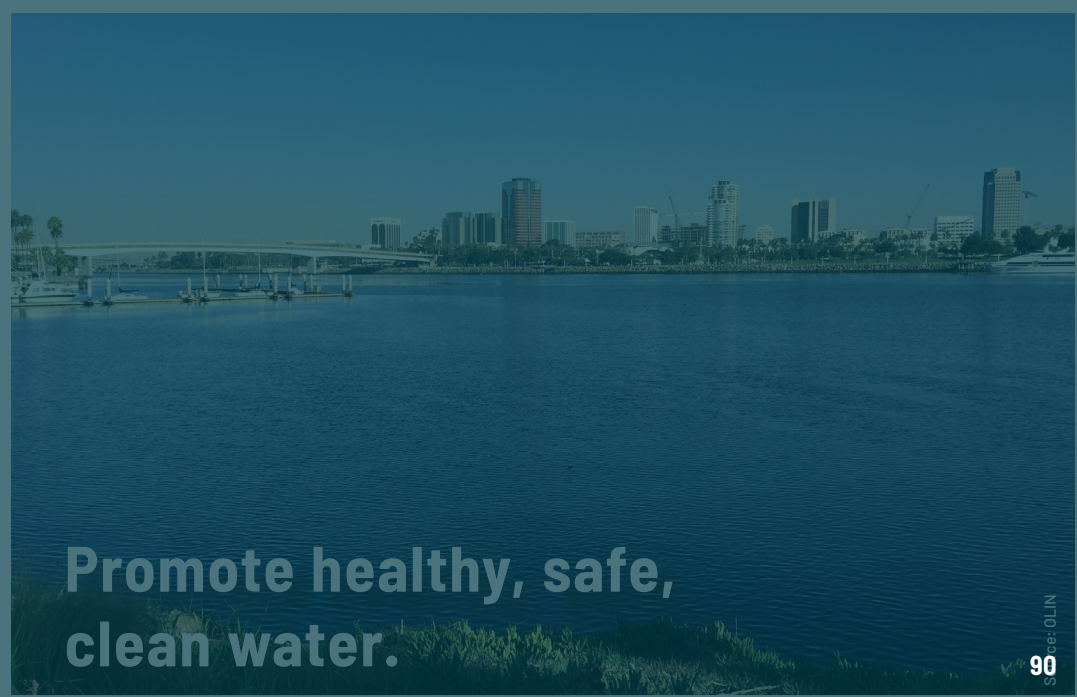
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Source: OLIN

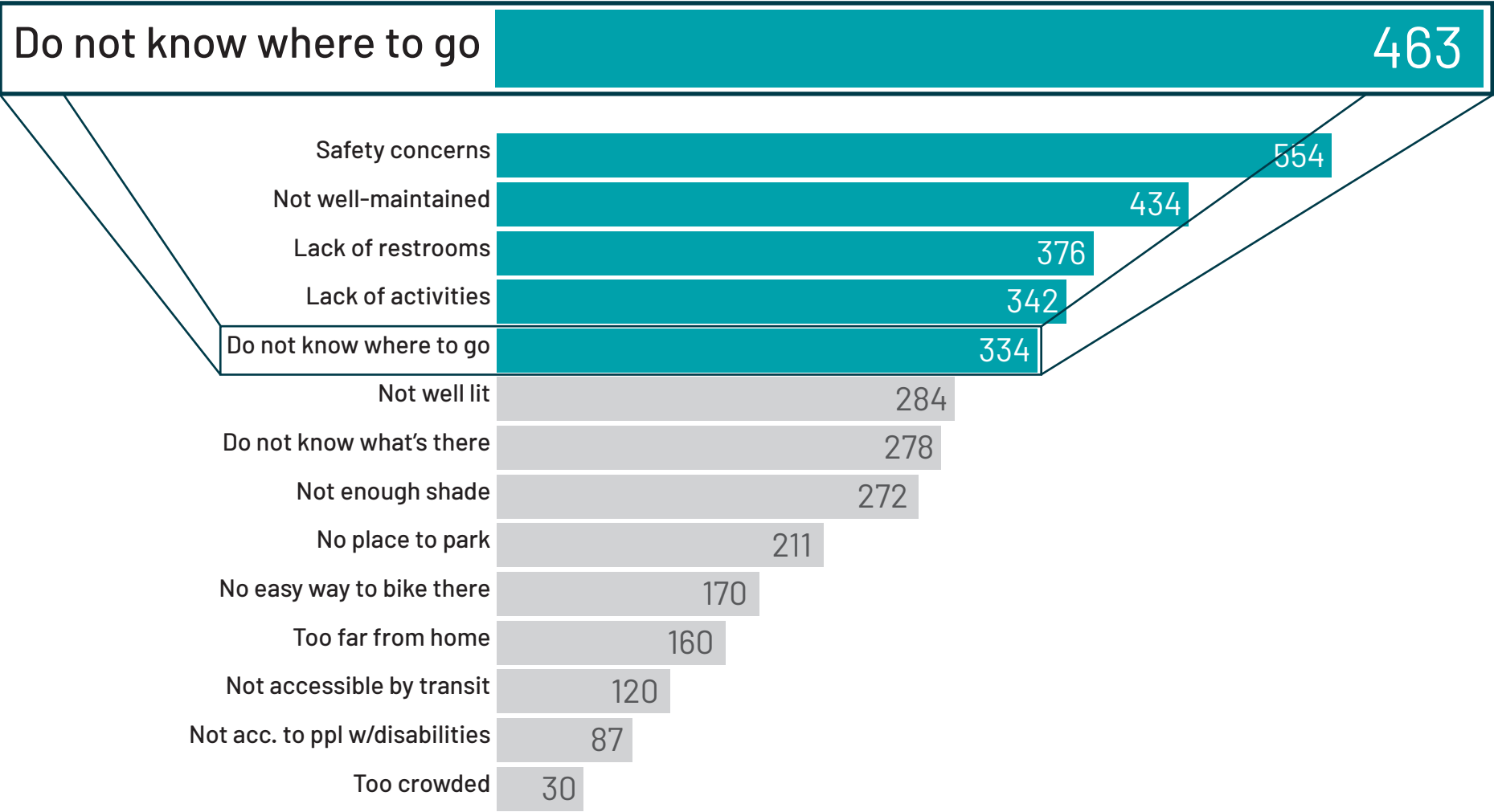


Promote healthy, safe, clean water.

Source: OLIN

NOT KNOWING WHERE TO GO IS A TOP REASON PEOPLE DON'T VISIT THE RIVER

Goal: Enhance opportunities for equitable access to the river corridor.



Source: Community Meetings, Survey, and Youth Summit

NEEDS ANALYSIS

ACCESS & TRAILS

- River Trail Gaps¹ (30%)
- River Trail Access Points² (30%)
- Adjacent Trails³ (20%)
- Health Composite⁴ (10%)
- Proximity to Metro Stops, Parks, and Schools⁵ (10%)

Need Analysis:

Highest Need

Lowest Need

Footnotes:

1. River trail gaps were identified based on City of Los Angeles, LA River Greenway, LA River Access and Points of Interest, 2018. On both the left and right bank of the river, OLIN identified gaps between existing and proposed trail segments.

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3. Adjacent existing and proposed trails from Los Angeles GIS Dataportal, Department of Parks and Recreation Trails, 2015.

4. Health composite compiled from the Los Angeles County Department of Public Health Los Angeles County Health Survey, 2015.

5. A half-mile proximity to stops identified in LA Metro’s Active Transportation Strategic Plan Online Data Portal, 2014. A half-mile proximity to parks from Los Angeles County GIS Dataportal, Countywide Parks and Open Space layer, 2016. A half-mile proximity to schools from Los Angeles County GIS Data Portal, LA County Points of Interest Data, 2016, using the following Cat2 fields: Colleges and Universities, Early, Private and Charter Schools, Public Elementary Schools, Public High Schools, and Public Middle Schools.

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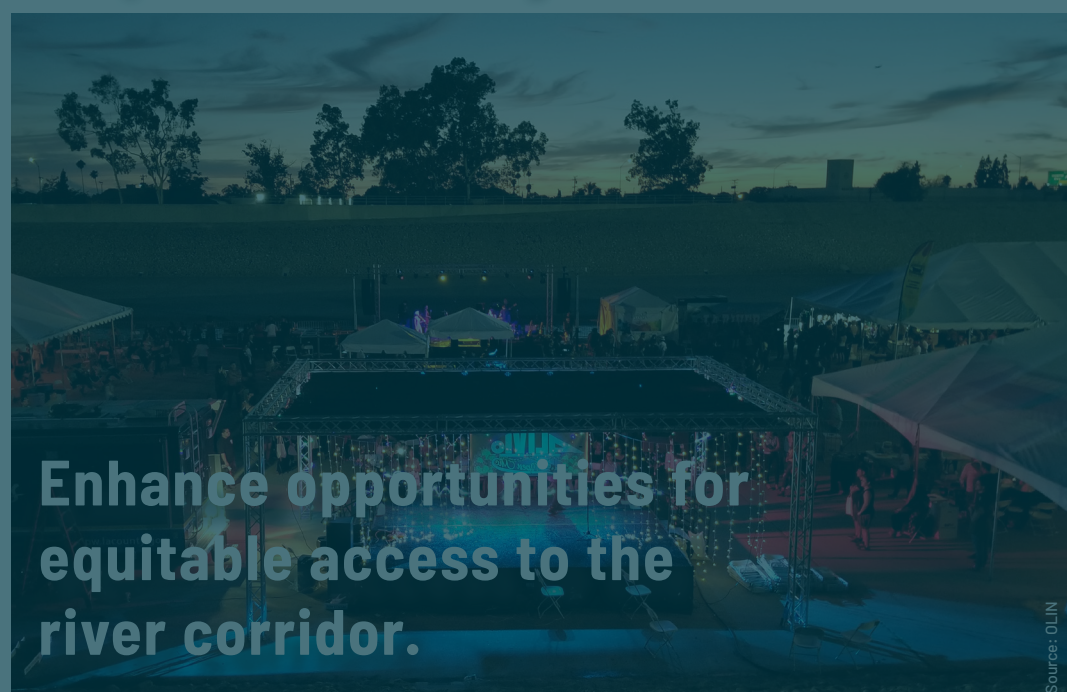
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Source: The Source. And the existing segment from Griffith Park to DTLA just shy of its current terminus near the Riverside Drive bridge. http://es-us-west.com/news.com/media-the-source/metro.net/wp-content/uploads/2017/11/06155450/4157493341_06155450-1.jpg



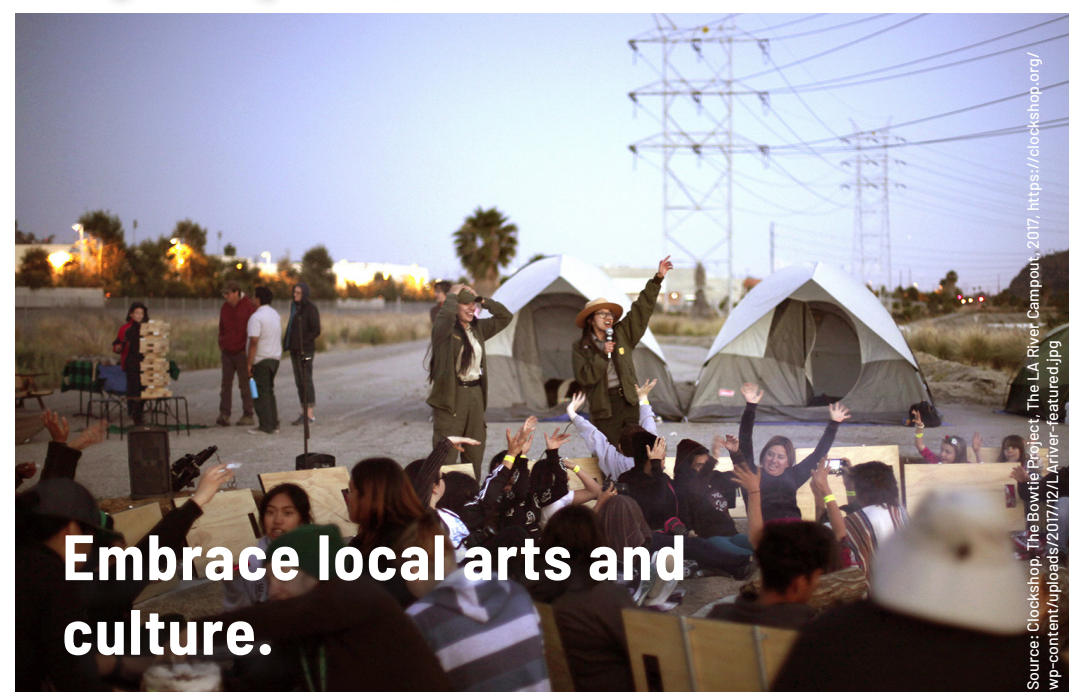
Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/kcetdepartures/5057055207/in/album-72157451402077610201059>



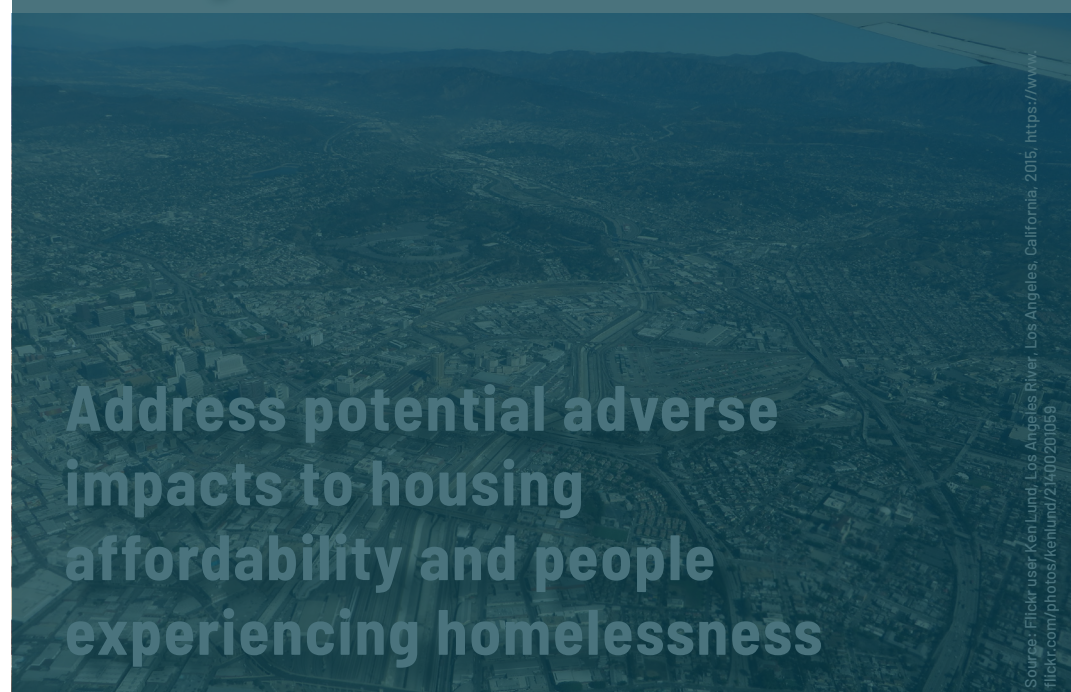
Enhance opportunities for equitable access to the river corridor.

Source: OLIN



Embrace local arts and culture.

Source: Clockshop, The Bowtie Project, The LA River Campout, 2017, <https://clockshop.org/wp-content/uploads/2017/12/LAriver-featured.jpg>



Address potential adverse impacts to housing affordability and people experiencing homelessness

Source: Flickr user Ken Lund, Los Angeles River, Los Angeles, California, 2016, <https://www.flickr.com/photos/kenlund/21400201059>



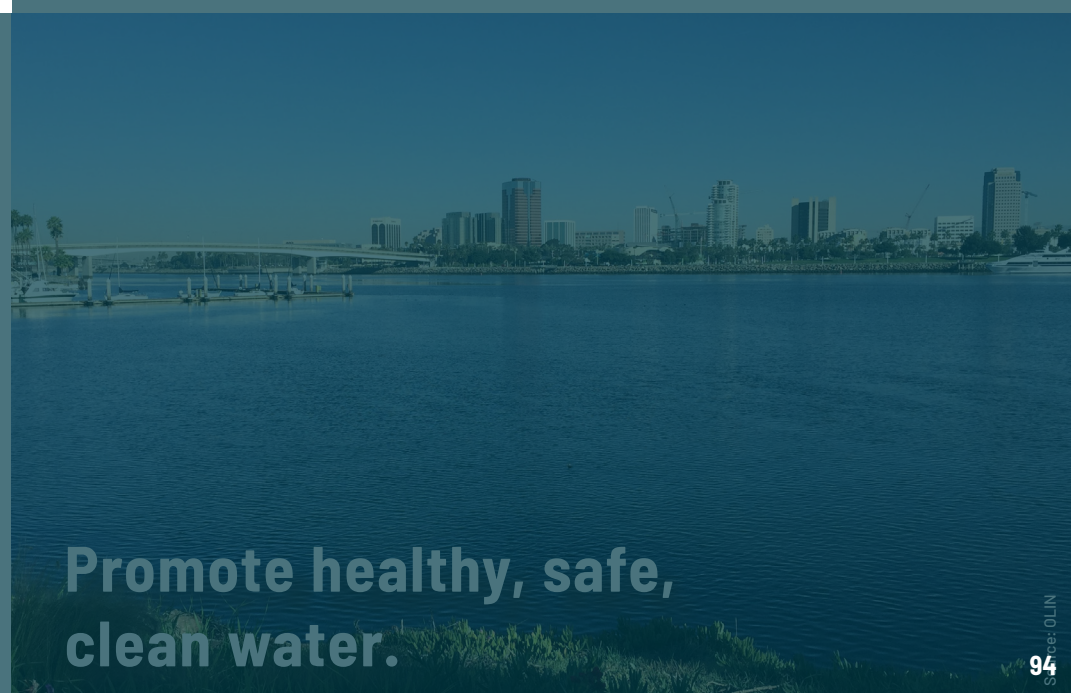
Foster opportunities for continued community engagement, development, and education.

Source: Randall, R. Flickr User, <https://www.flickr.com/photos/zeroy/2406085732/in/pool-layover/>



Improve local water supply reliability.

Source: OLIN

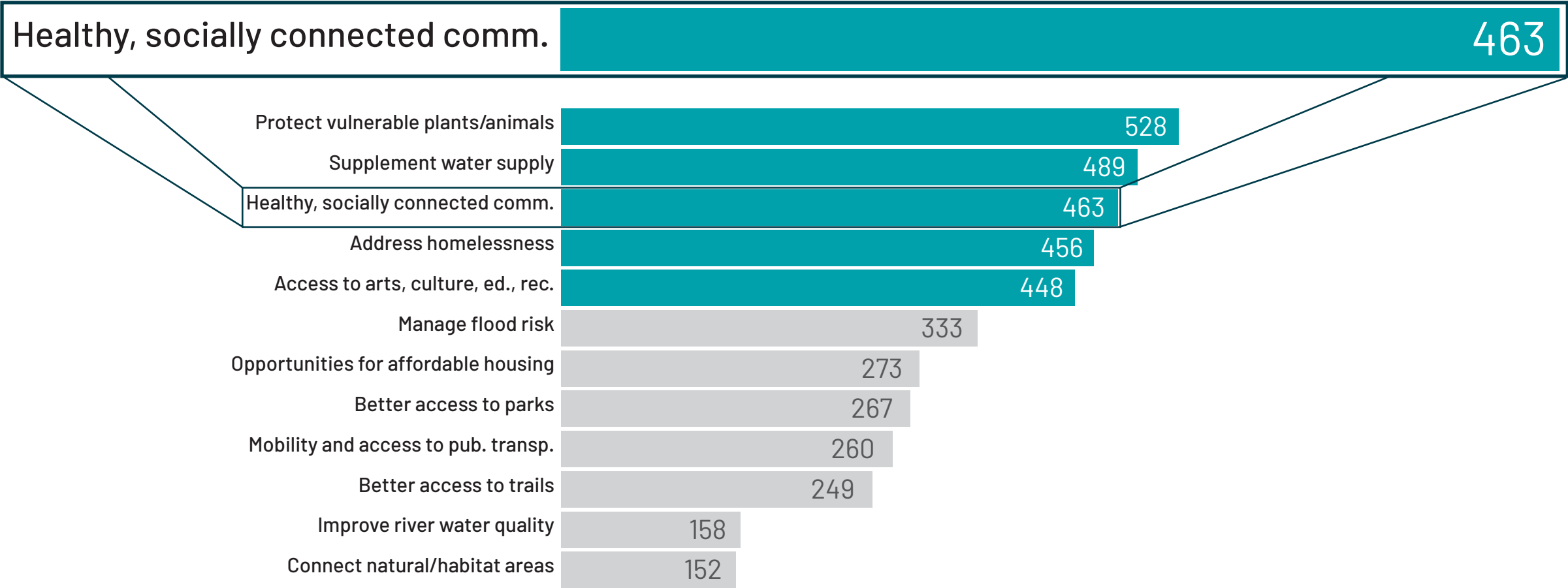


Promote healthy, safe, clean water.

Source: OLIN

HEALTHY, SOCIALLY CONNECTED COMMUNITIES ARE A TOP PRIORITY TO THE COMMUNITY

Goal: Embrace local arts, culture, and communities.




Source: Community Meetings, Survey, and Youth Summit

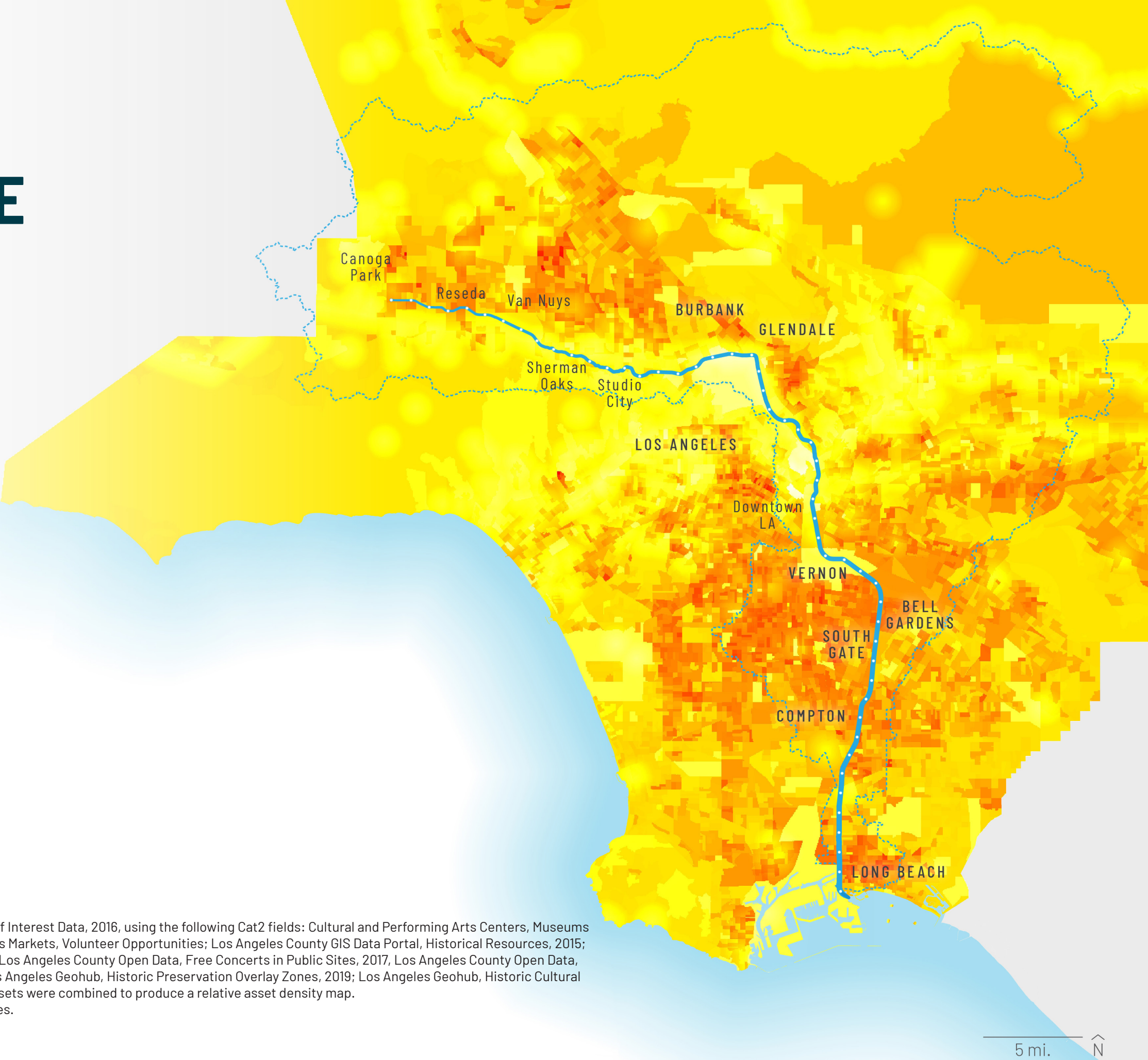
NEEDS ANALYSIS

ARTS & CULTURE

Asset Mapping¹ (33%)
Population Density² (33%)
Household Income² (33%)

Need Analysis:
 Highest Need
Lowest Need


Footnotes:
1. Asset mapping from Los Angeles County GIS Data Portal, LA County Points of Interest Data, 2016, using the following Cat2 fields: Cultural and Performing Arts Centers, Museums and Aquariums, Historical Parks, Churches, Community Organizations, Farmers Markets, Volunteer Opportunities; Los Angeles County GIS Data Portal, Historical Resources, 2015; Los Angeles County Open Data, Los Angeles County Civic Art Collection, 2017; Los Angeles County Open Data, Free Concerts in Public Sites, 2017, Los Angeles County Open Data, Community Arts Partners, 2012; National Register of Historic Places, 2014; Los Angeles Geohub, Historic Preservation Overlay Zones, 2019; Los Angeles Geohub, Historic Cultural Monuments, 2019; & ArcGIS Online, User USCSSI, Los Angeles Murals, 2018. Assets were combined to produce a relative asset density map.
2. U.S. Census Bureau 2012–2016 American Community Survey 5–Year Estimates.



NEEDS ANALYSIS

ARTS & CULTURE

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2. U.S. Census Bureau 2012–2016 American Community Survey 5–Year Estimates.





Reduce flood risk and improve resiliency.

Source: Flickr user Scott L. LEIC 7/3/2016, <https://www.flickr.com/photos/48022683/190313904008860/>



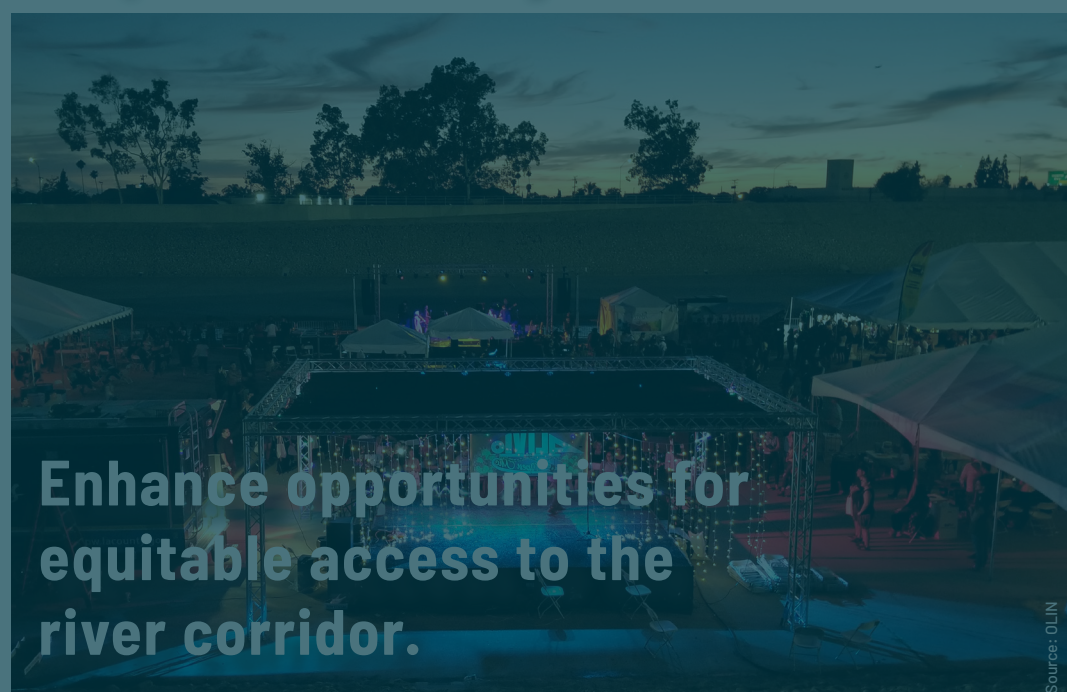
Provide equitable, inclusive, and safe parks, open space, and trails.

Source: The Source. And the existing segment from Griffith Park to DTLA just shy of its current terminus near the Riverside Drive bridge. http://es-us-west.san.aznews.com/media-the-source/metro.net/wp-content/uploads/2017/11/06155450/4157493341_06155450-1.jpg



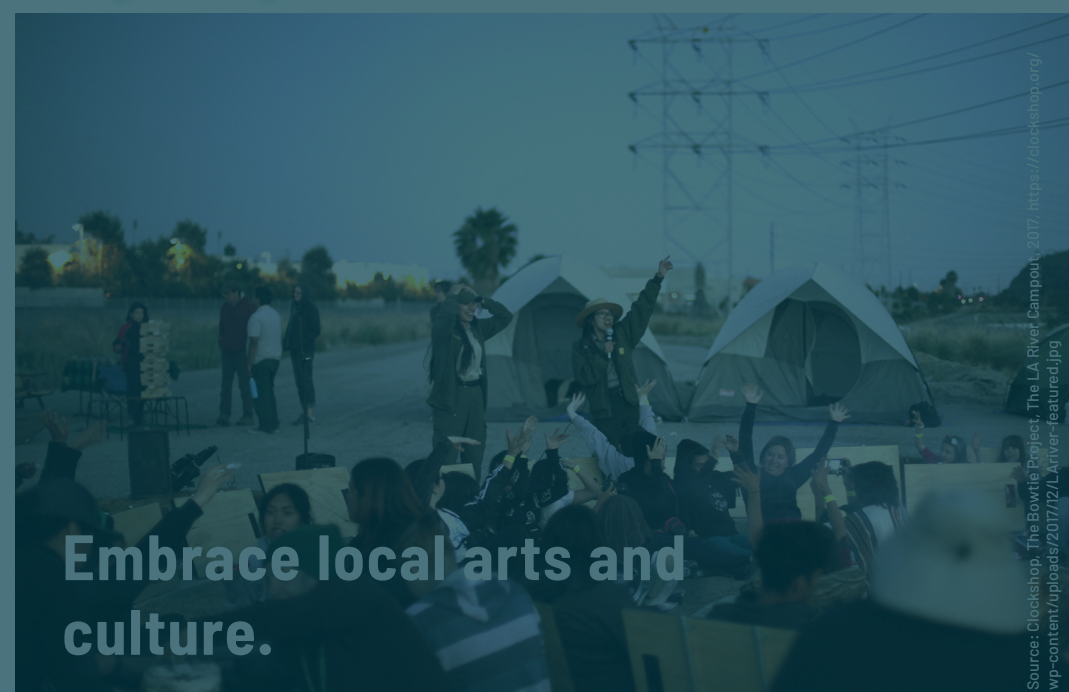
Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/kcetdepartures/5057055207/in/album-72157451402077610201059>



Enhance opportunities for equitable access to the river corridor.

Source: OLIN



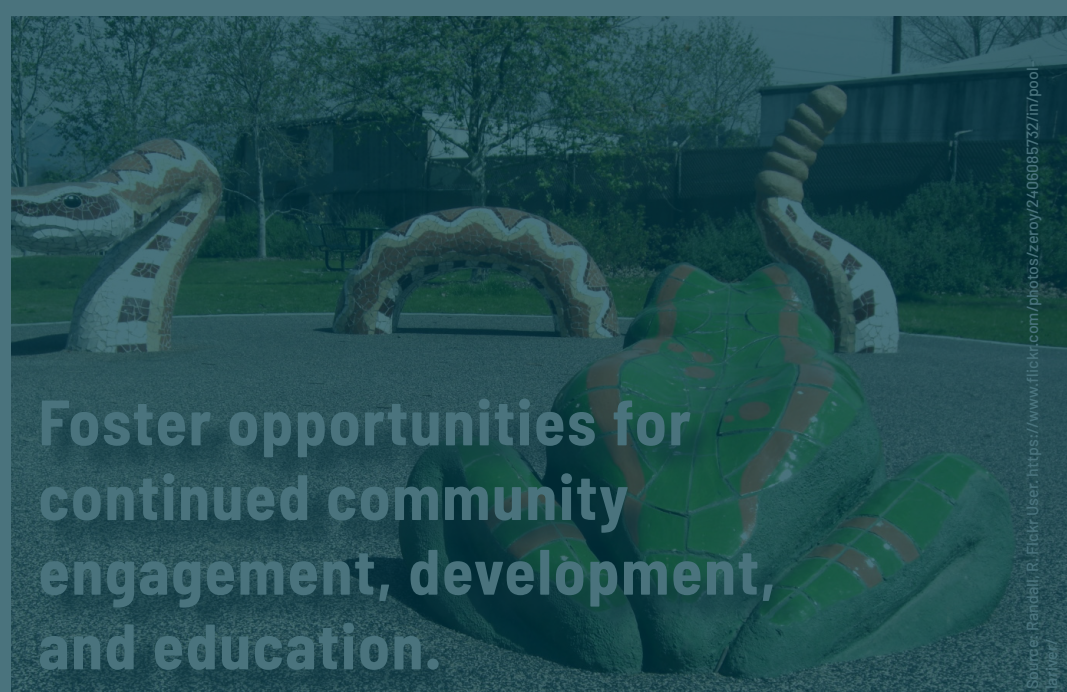
Embrace local arts and culture.

Source: Clockshop, The Bowtie Project, The LA River Campout, 2017, <https://clockshop.org/wp-content/uploads/2017/12/LAriver-Featured.jpg>



Address potential adverse impacts to housing affordability and people experiencing homelessness

Source: Flickr user Ken Lund, Los Angeles River, Los Angeles, California, 2015, <https://www.flickr.com/photos/kenlund/21400201059/>



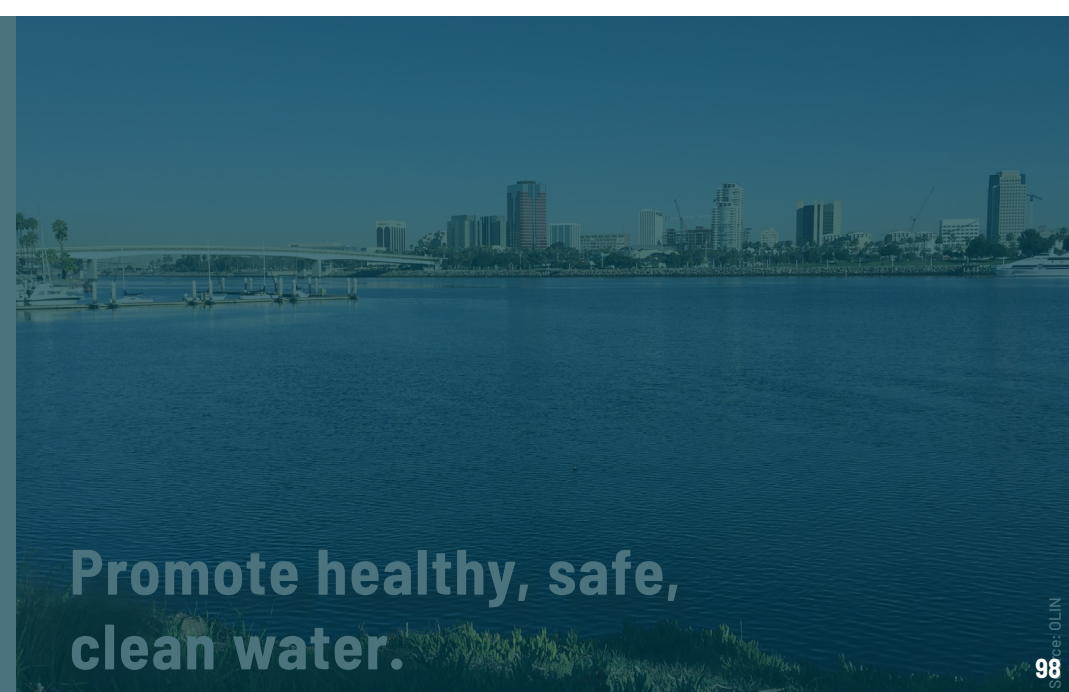
Foster opportunities for continued community engagement, development, and education.

Source: Randall R. Flickr User, <https://www.flickr.com/photos/zeroy/2406085732/in/pool-layover/>



Improve local water supply reliability.

Source: OLIN



Promote healthy, safe, clean water.

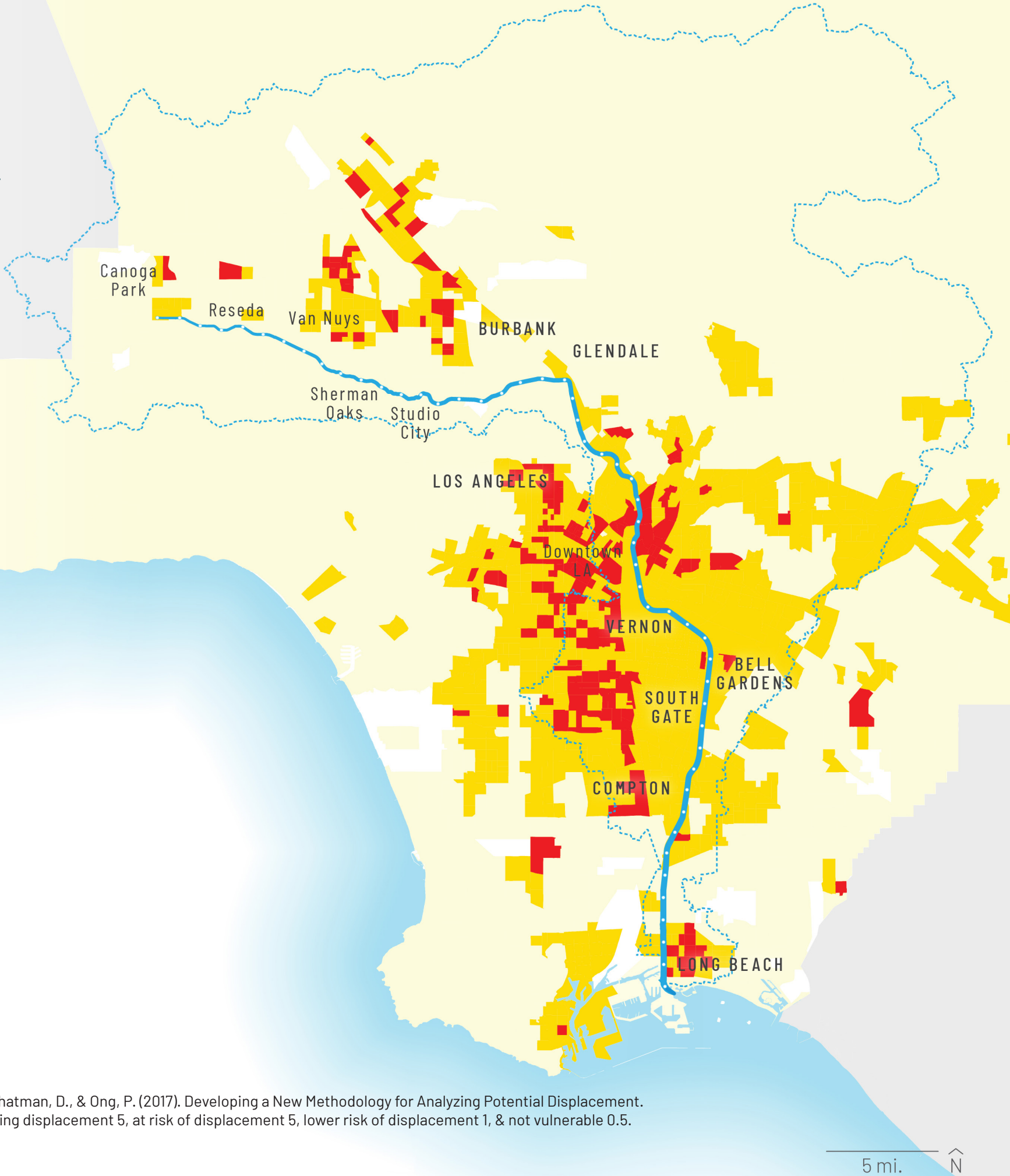
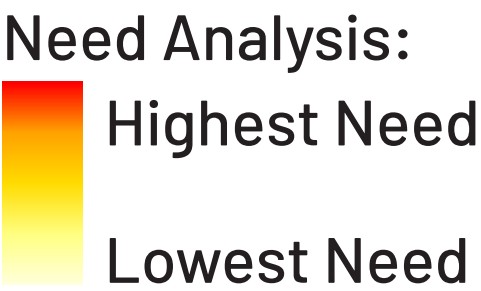
Source: OLIN

NEEDS ANALYSIS

HOUSING AFFORDABILITY

Displacement Index¹ (100%)

Highest needs were assigned to areas at risk of or with on going displacement.²



Footnotes:


1. Map developed based on research by the Urban Displacement Project: Chapple, K., Loukaitou-Sideris, A., Waddell, P., Chatman, D., & Ong, P. (2017). Developing a New Methodology for Analyzing Potential Displacement.

2. Displacement risk categories were scored from 0 (low need) to 5 (high need) as follows: advanced displacement 1, ongoing displacement 5, at risk of displacement 5, lower risk of displacement 1, & not vulnerable 0.5.

NEEDS ANALYSIS

HOUSING AFFORDABILITY

Displacement Index¹(100%)

Need Analysis:
 Highest Need
Lowest Need



Footnotes:
1. Map developed based on research by the Urban Displacement Project: Chapple, K., Loukaitou-Sideris, A., Waddell, P., Chatman, D., & Ong, P. (2017). Developing a New Methodology for Analyzing Potential Displacement.
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Reduce flood risk and improve resiliency.

Source: Flickr user Scott L. L. EIC 7392, 2016, <https://www.flickr.com/photos/48022686/>



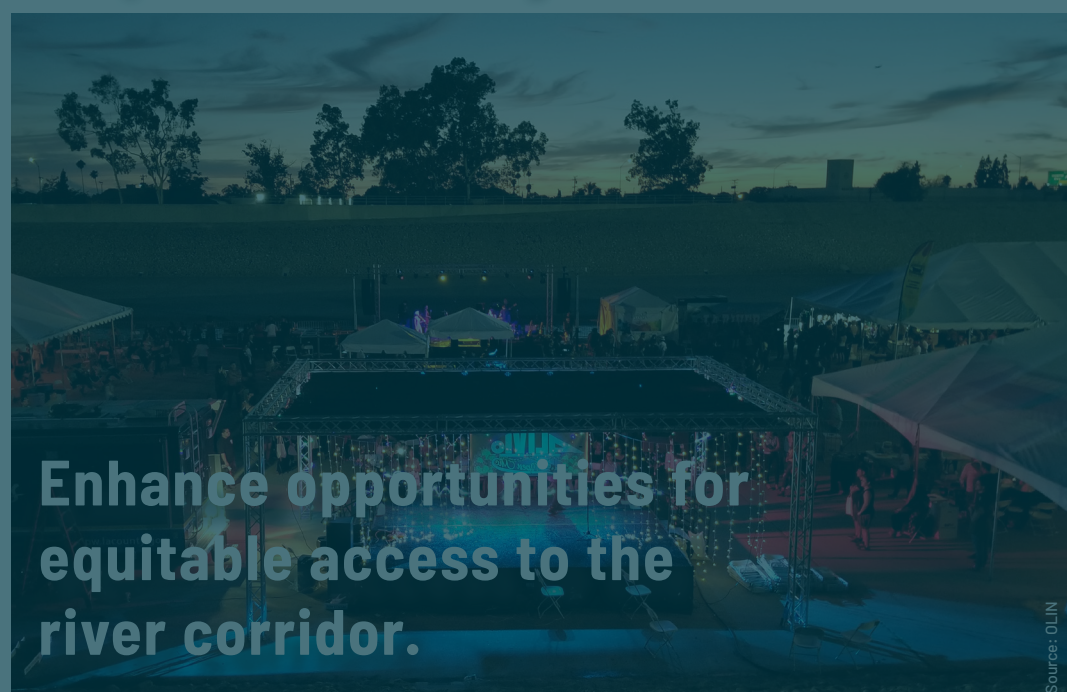
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Source: The Source. And the existing segment from Griffith Park to DTLA just shy of its current terminus near the Riverside Drive bridge. http://es-us-west.san.aznews.com/media-the-source/metro.net/wp-content/uploads/2017/11/06155450/4157493341_06155450-1.jpg



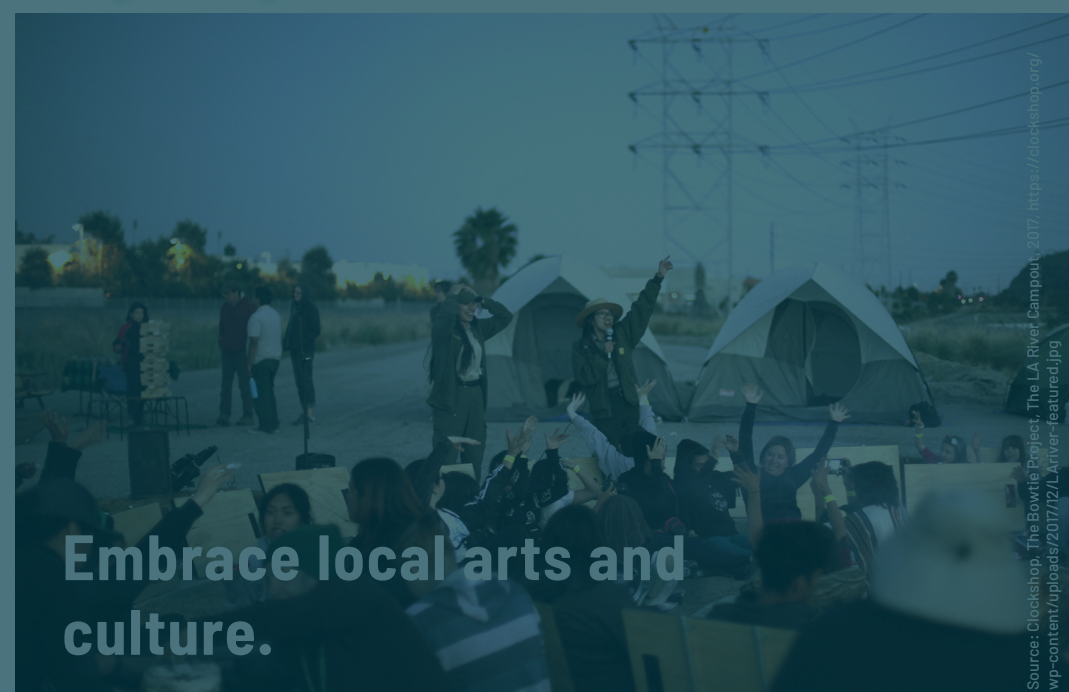
Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/keetdepartures/5057055207/>



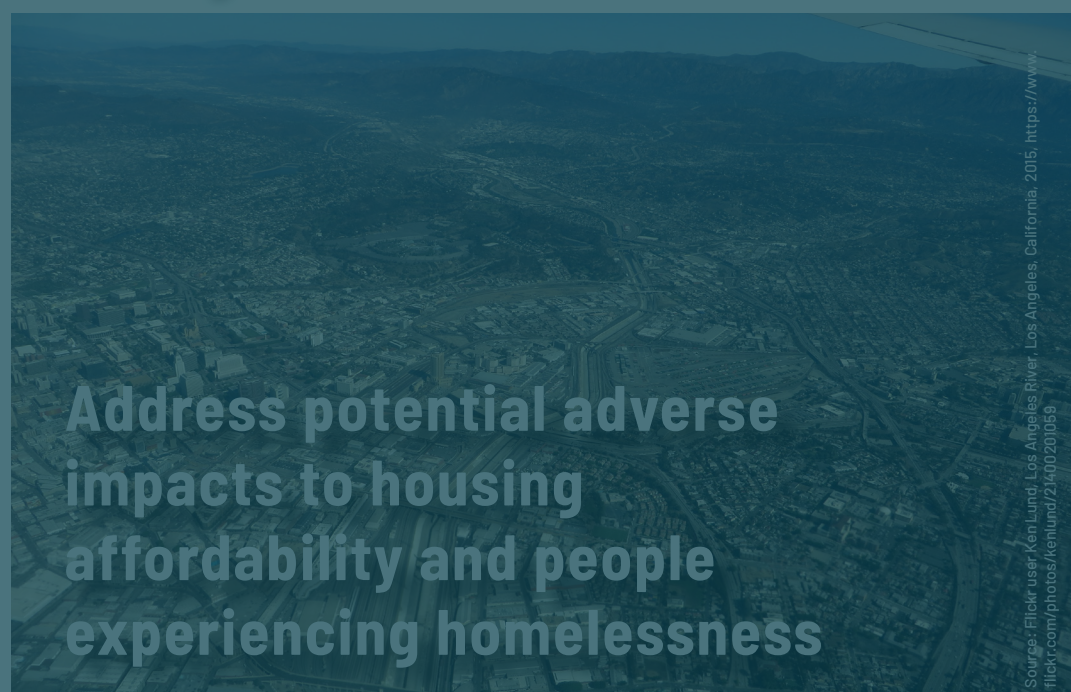
Enhance opportunities for equitable access to the river corridor.

Source: OLIN



Embrace local arts and culture.

Source: Clockshop, The Bowtie Project, The LA River Campout, 2017, <https://clockshop.org/wp-content/uploads/2017/12/LAriver-Featured.jpg>



Address potential adverse impacts to housing affordability and people experiencing homelessness

Source: Flickr user Ken Lund, Los Angeles River, Los Angeles, California, 2016, <https://www.flickr.com/photos/kenlund/21400201059/>



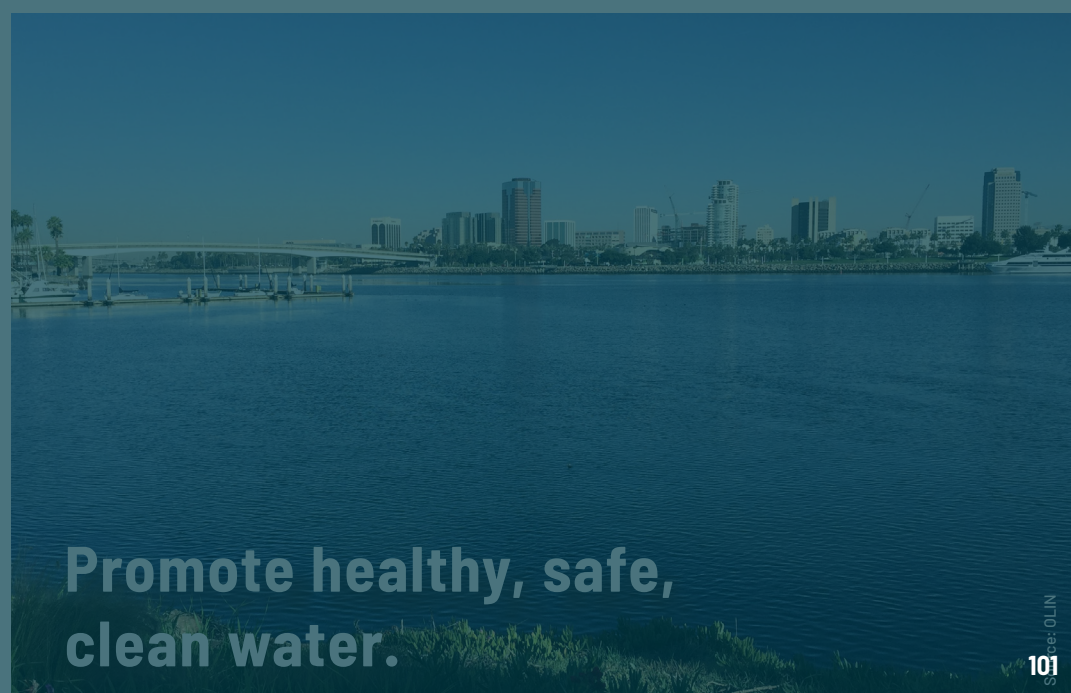
Foster opportunities for continued community engagement, development, and education.

Source: Randell R. Flickr User, <https://www.flickr.com/photos/zero72406085732/in/pool-lariver/>



Improve local water supply reliability.

Source: OLIN

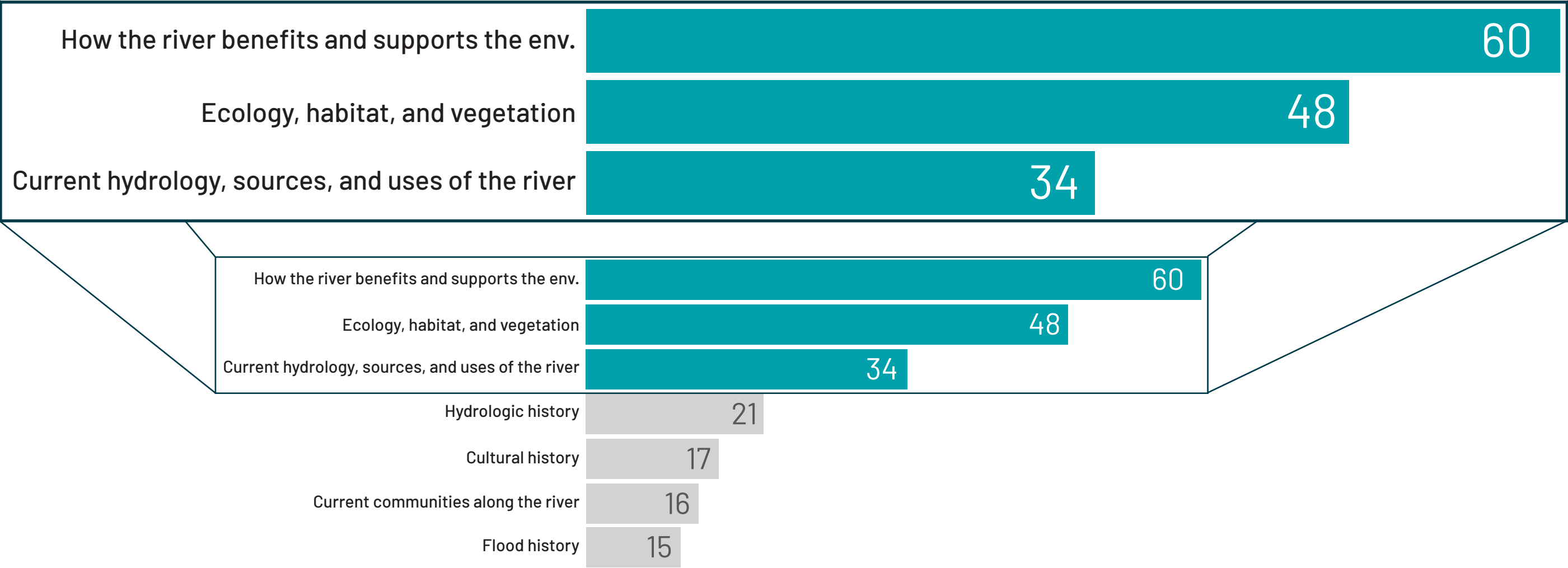


Promote healthy, safe, clean water.

Source: OLIN

WHAT THE COMMUNITY VALUES AS EDUCATIONAL OPPORTUNITY

Goal: Foster learning and opportunities for education.




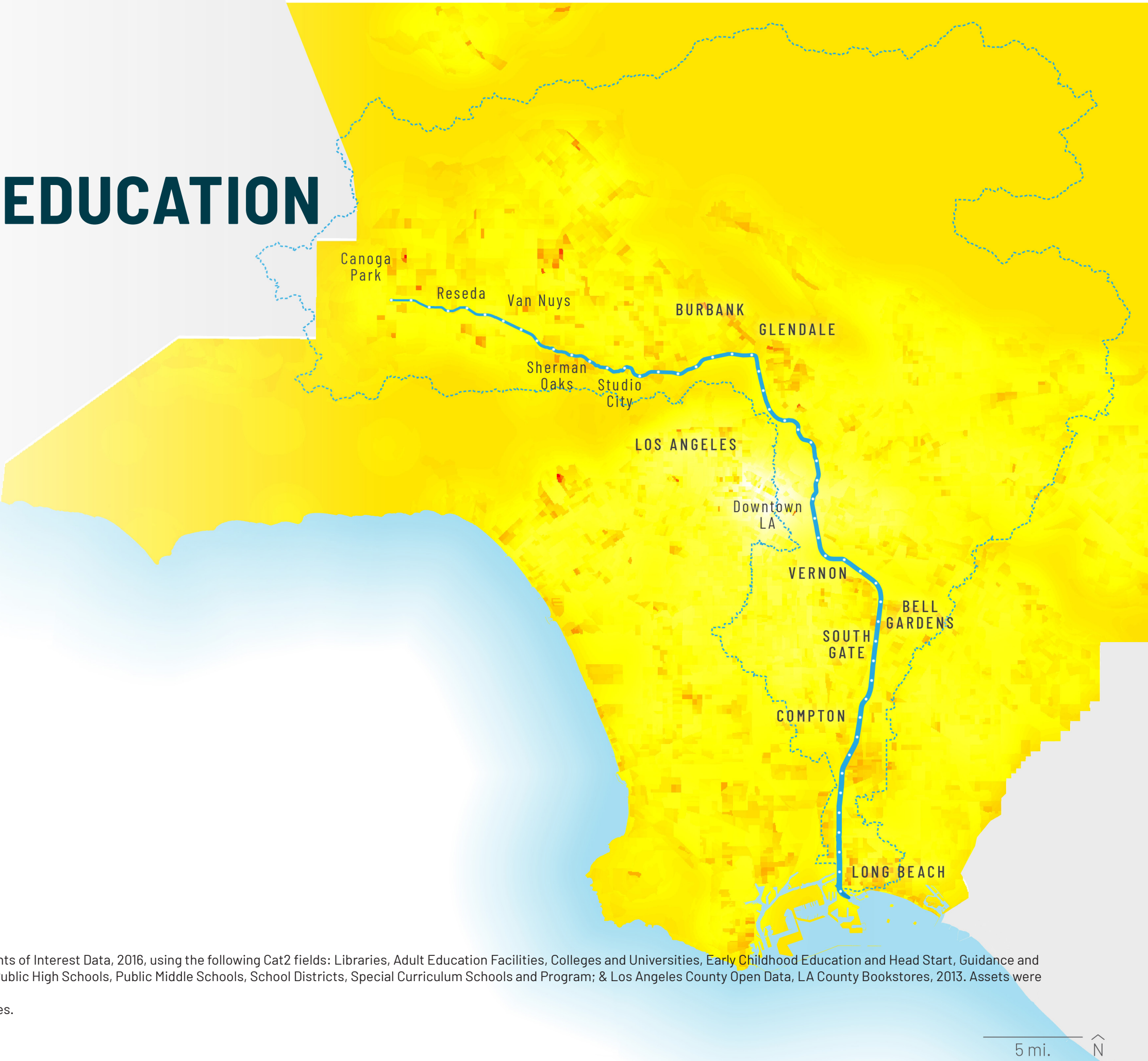
Source: Community Meetings, Survey, and Youth Summit

NEEDS ANALYSIS

ENGAGEMENT & EDUCATION

Asset Mapping¹ (50%)
Population Density² (50%)

Need Analysis:
 Highest Need
Lowest Need




Footnotes:
1. Asset mapping includes: Los Angeles County GIS Data Portal, LA County Points of Interest Data, 2016, using the following Cat2 fields: Libraries, Adult Education Facilities, Colleges and Universities, Early Childhood Education and Head Start, Guidance and Tutoring Programs, Private and Charter Schools, Public Elementary Schools, Public High Schools, Public Middle Schools, School Districts, Special Curriculum Schools and Program; & Los Angeles County Open Data, LA County Bookstores, 2013. Assets were combined to produce a relative asset density map.
2. U.S. Census Bureau 2012–2016 American Community Survey 5–Year Estimates.

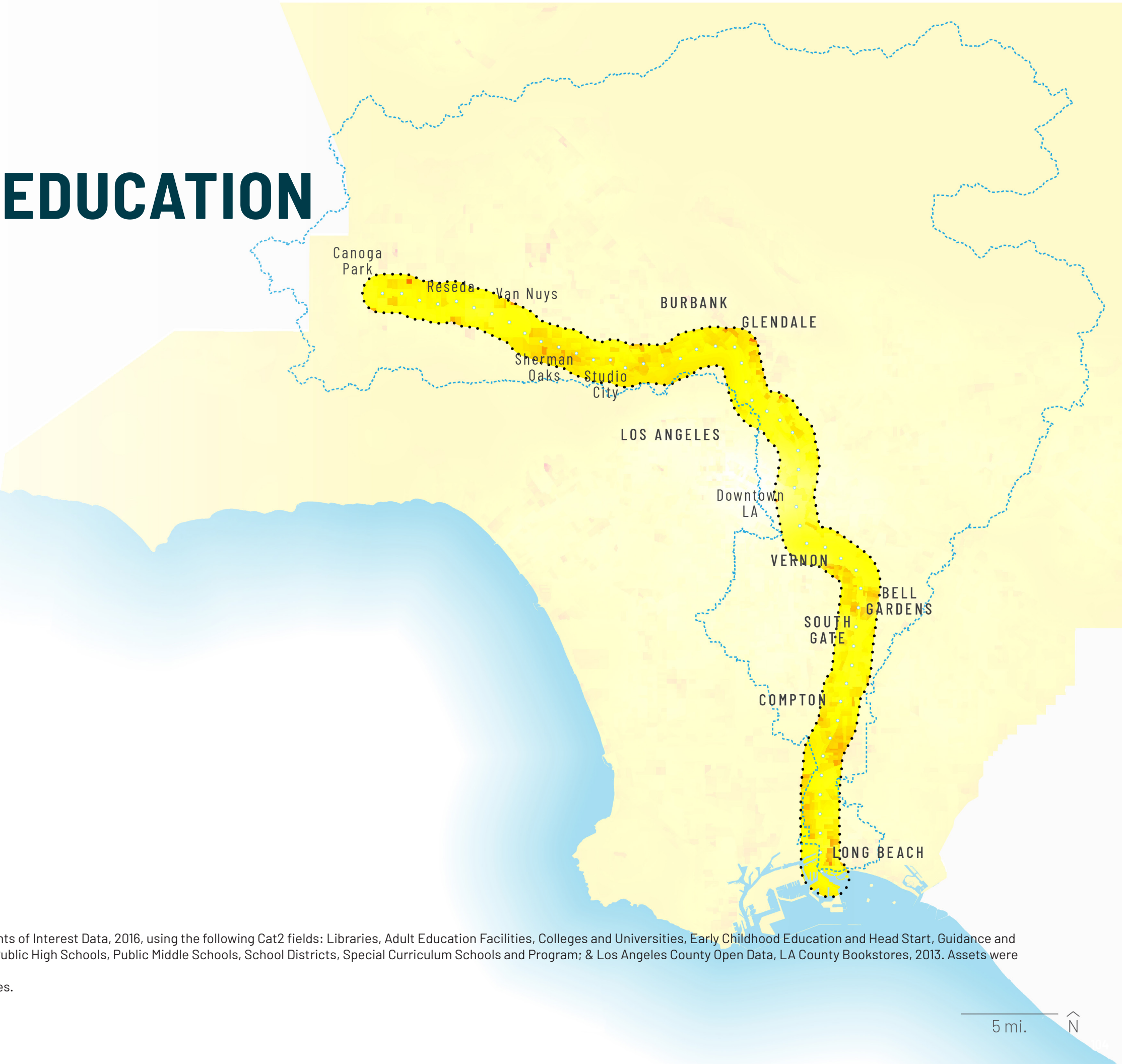
NEEDS ANALYSIS

ENGAGEMENT & EDUCATION

Asset Mapping¹ (50%)
Population Density² (50%)

Need Analysis:
 Highest Need
Lowest Need

Footnotes:
1. Asset mapping includes: Los Angeles County GIS Data Portal, LA County Points of Interest Data, 2016, using the following Cat2 fields: Libraries, Adult Education Facilities, Colleges and Universities, Early Childhood Education and Head Start, Guidance and Tutoring Programs, Private and Charter Schools, Public Elementary Schools, Public High Schools, Public Middle Schools, School Districts, Special Curriculum Schools and Program; & Los Angeles County Open Data, LA County Bookstores, 2013. Assets were combined to produce a relative asset density map.
2. U.S. Census Bureau 2012–2016 American Community Survey 5–Year Estimates.





Reduce flood risk and improve resiliency.

Source: Flickr user Scott L. LEIC 7392, 2016, <https://www.flickr.com/photos/48022686/>



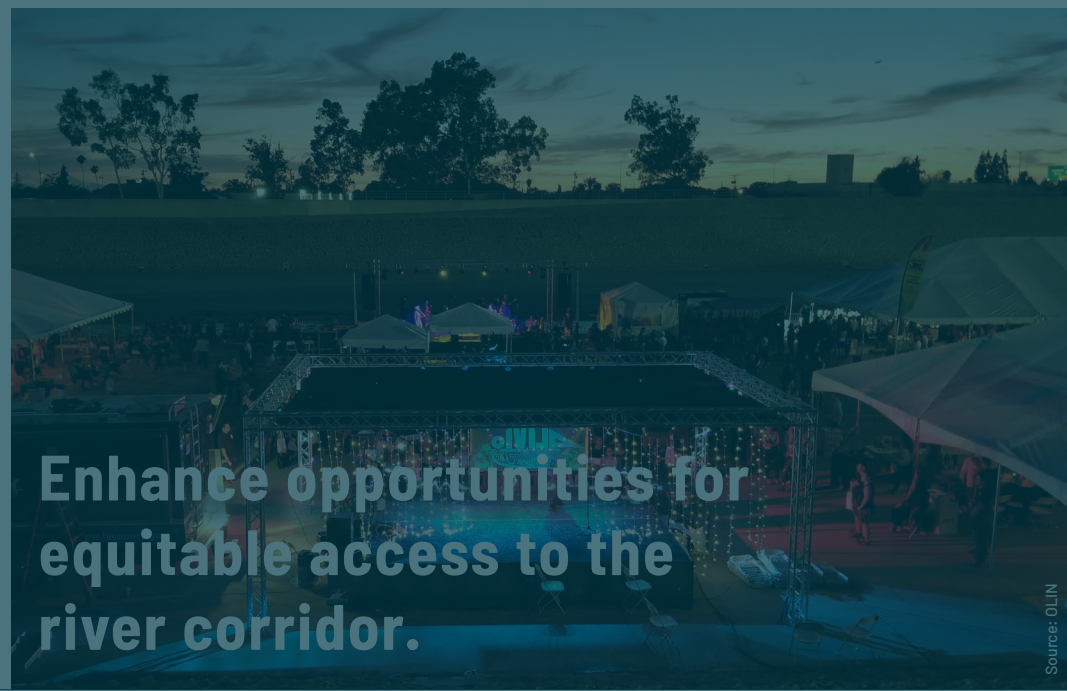
Provide equitable, inclusive, and safe parks, open space, and trails.

Source: The Source. And the existing segment from Griffith Park to DTLA just shy of its current terminus near the Riverside Drive bridge. http://es-us-west.san.aznews.com/media-the-source/metro.net/wp-content/uploads/2017/11/06155450/4157493341_06155450-1.jpg



Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/keetdepartures/5057055207/>



Enhance opportunities for equitable access to the river corridor.

Source: OLIN



Embrace local arts, culture, and communities.

Source: Clockshop, The Bowtie Project, The LA River Campout, 2017, <https://clockshop.org/wp-content/uploads/2017/12/LAriver-Featured.jpg>



Address potential adverse impacts to housing affordability.

Source: Flickr user Ken Lund, Los Angeles River, Los Angeles, California, 2016, <https://www.flickr.com/photos/kenlund/21400201059/>



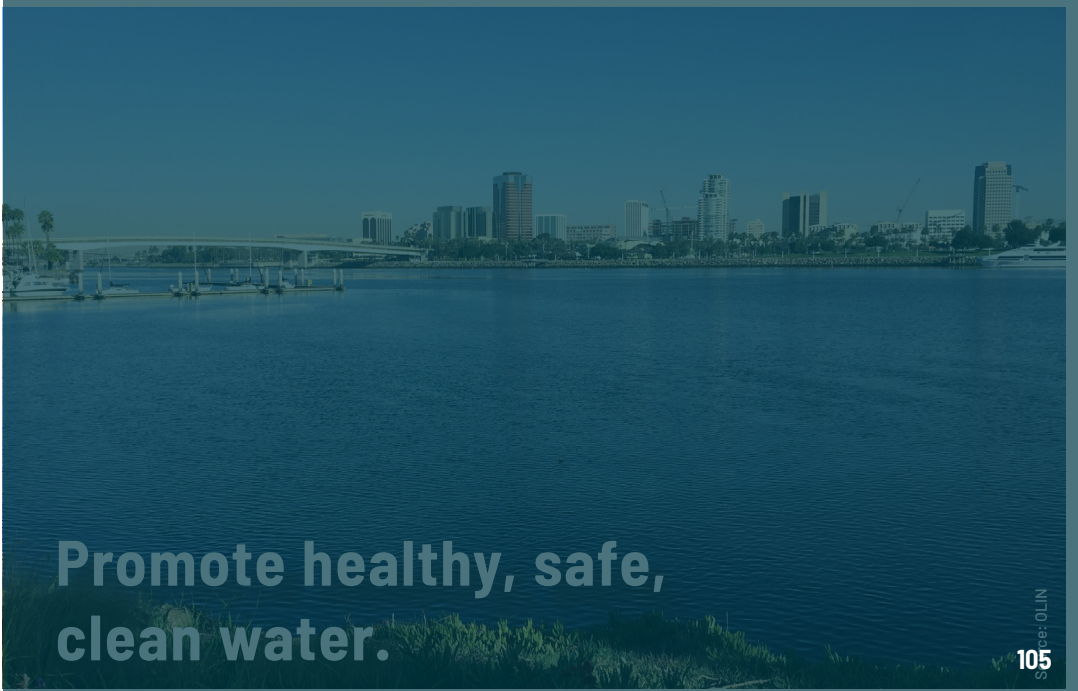
Foster learning and opportunities for education.

Source: Randall, R. Flickr User, <https://www.flickr.com/photos/zeroy/2406085732/in/pool-lake/>



Improve local water supply reliability.

Source: OLIN

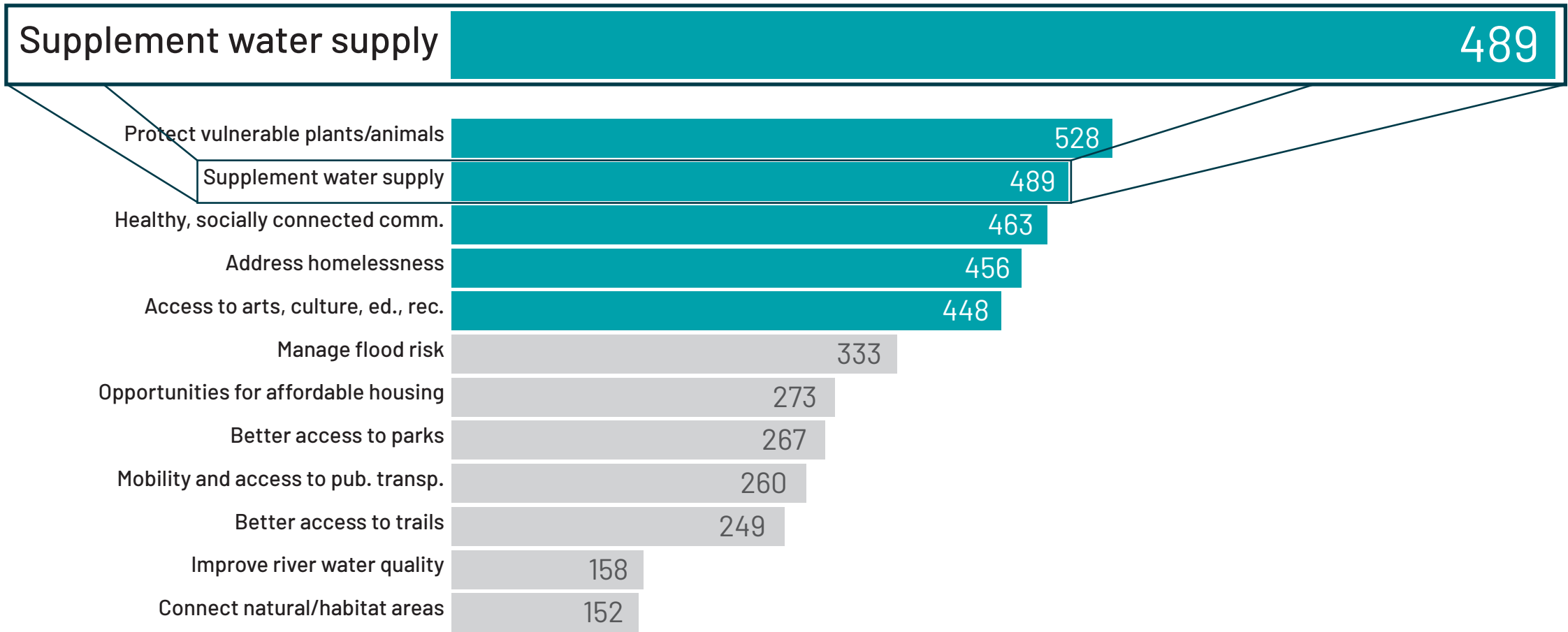


Promote healthy, safe, clean water.

Source: OLIN

SUPPLEMENTING WATER SUPPLY IS THE SECOND MOST IMPORTANT ISSUE TO THE COMMUNITY

Goal: Improve local water supply reliability.



Source: Community Meetings, Survey, and Youth Summit

NEEDS ANALYSIS

WATER SUPPLY

Regional Need (100%)

Need Analysis:
Highest Need
Lowest Need



NEEDS ANALYSIS

WATER SUPPLY

Regional Need (100%)

Need Analysis:

Highest Need

Lowest Need





Reduce flood risk and improve resiliency.

Source: Flickr user Scott L. LEIC 7/3/2016, <https://www.flickr.com/photos/48022686/>



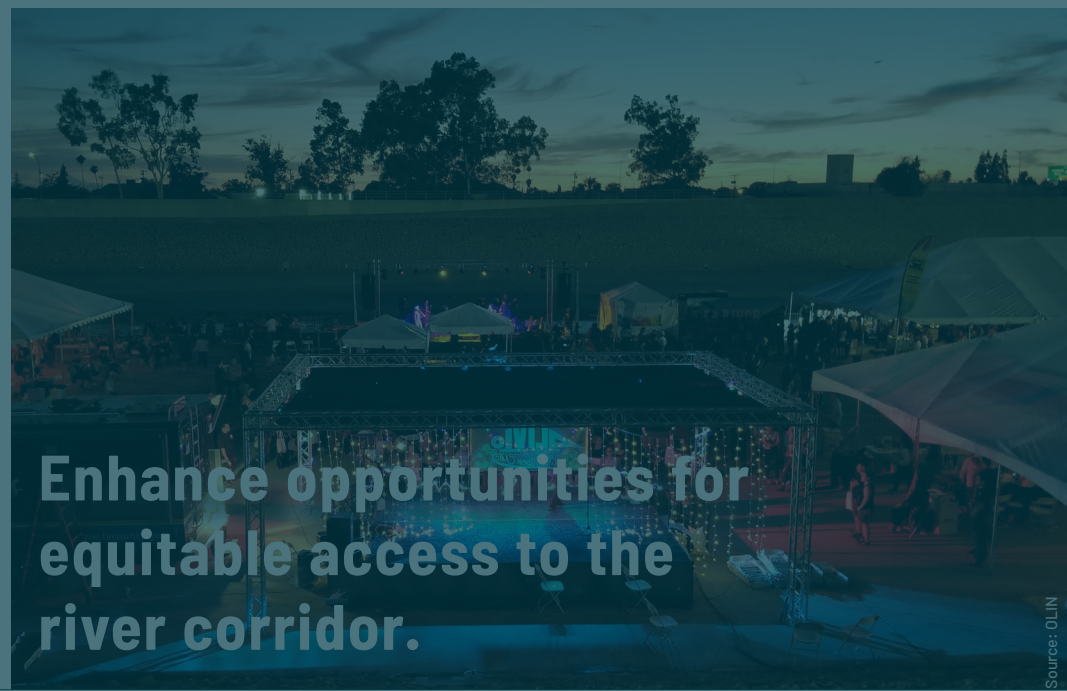
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Support healthy, connected ecosystems.

Source: KCET Departures, South L.A. - Willow Street, 2010, <https://www.flickr.com/photos/keetdepartures/5057055207/> (album - 72157451402077610201059)



Enhance opportunities for equitable access to the river corridor.

Source: OLIN



Embrace local arts and culture.

Source: Clockshop, The Bowtie Project, The LA River Campout, 2017, <https://clockshop.org/wp-content/uploads/2017/12/LARiver-Featured.jpg>



Address potential adverse impacts to housing affordability and people experiencing homelessness

Source: Flickr user Ken Lund, Los Angeles River, Los Angeles, California, 2015, <https://www.flickr.com/photos/kenlund/21400201059/>



Foster opportunities for continued community engagement, development, and education.

Source: Randall, R. Flickr User, <https://www.flickr.com/photos/zeroy/2406085732/in/pool-layover/>



Improve local water supply reliability.

Source: OLIN




Promote healthy, safe, clean water.

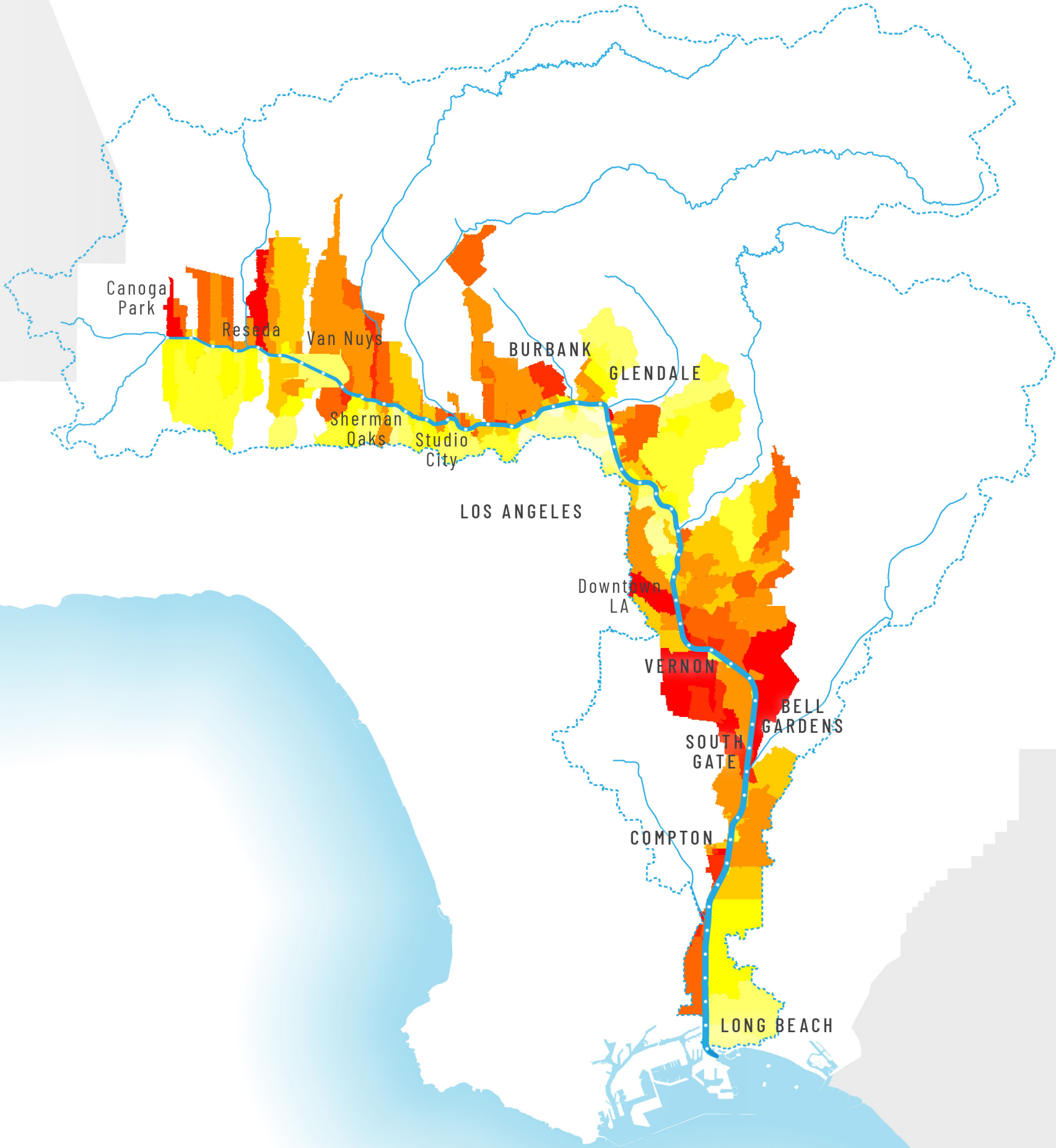
Source: OLIN

NEEDS ANALYSIS

WATER QUALITY

EWMP/WMP Score¹ (50%)
Water Quality Priority (50%)

Need Analysis:
 Highest Need
Lowest Need




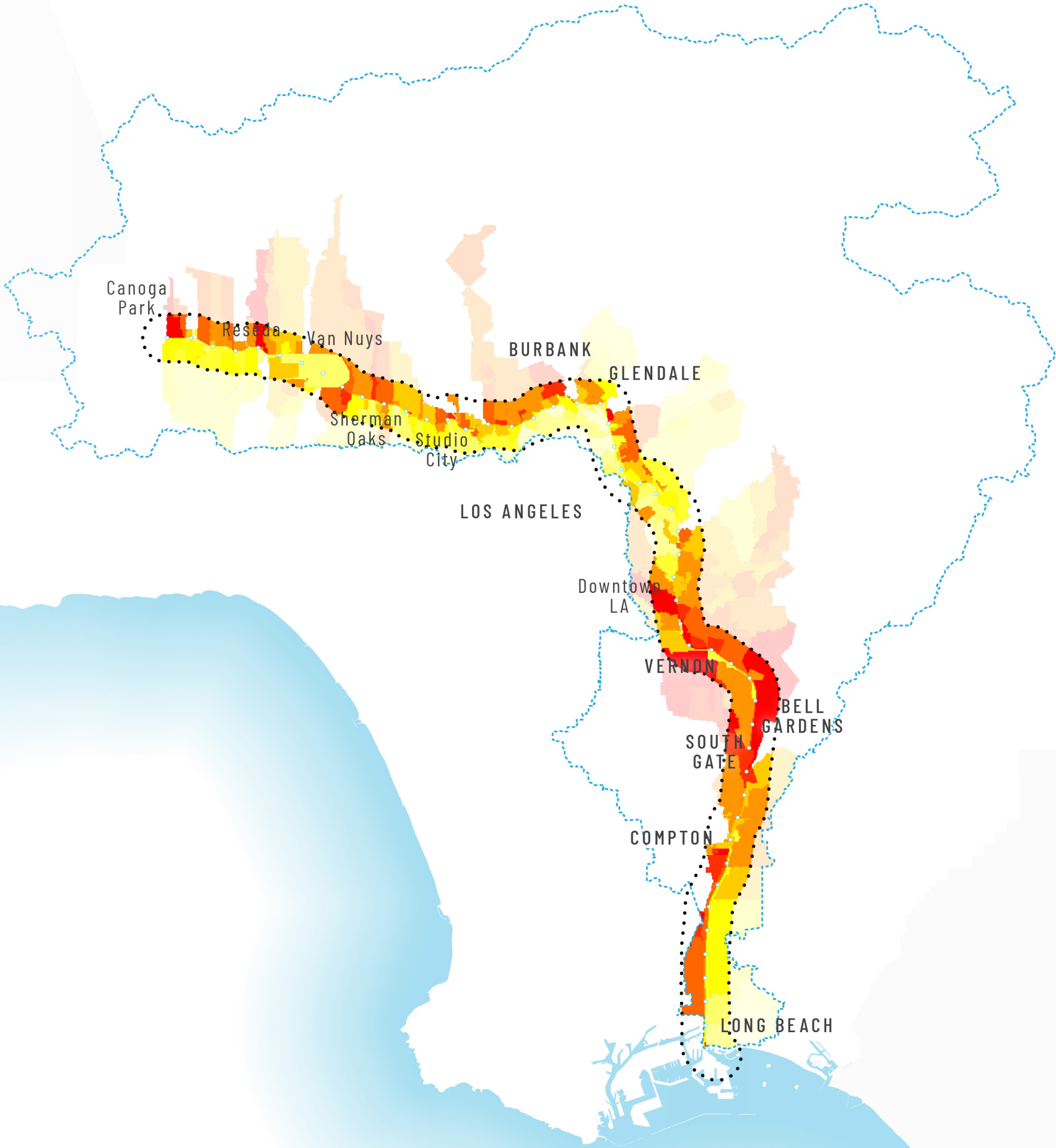
Footnotes:
1. EWMP and WMP score compiled from target versus planned BMP volume assigned to catchment areas within Upper LA River EWMP (2016), LA River Upper Reach 2 WMP (2015), and Lower LA River WMP (2017). Target BMP volume weighted 75% versus 25% planned volume to account for uncertainty in future implementation.

NEEDS ANALYSIS

WATER QUALITY

EWMP/WMP Score¹ (50%)
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Need Analysis:
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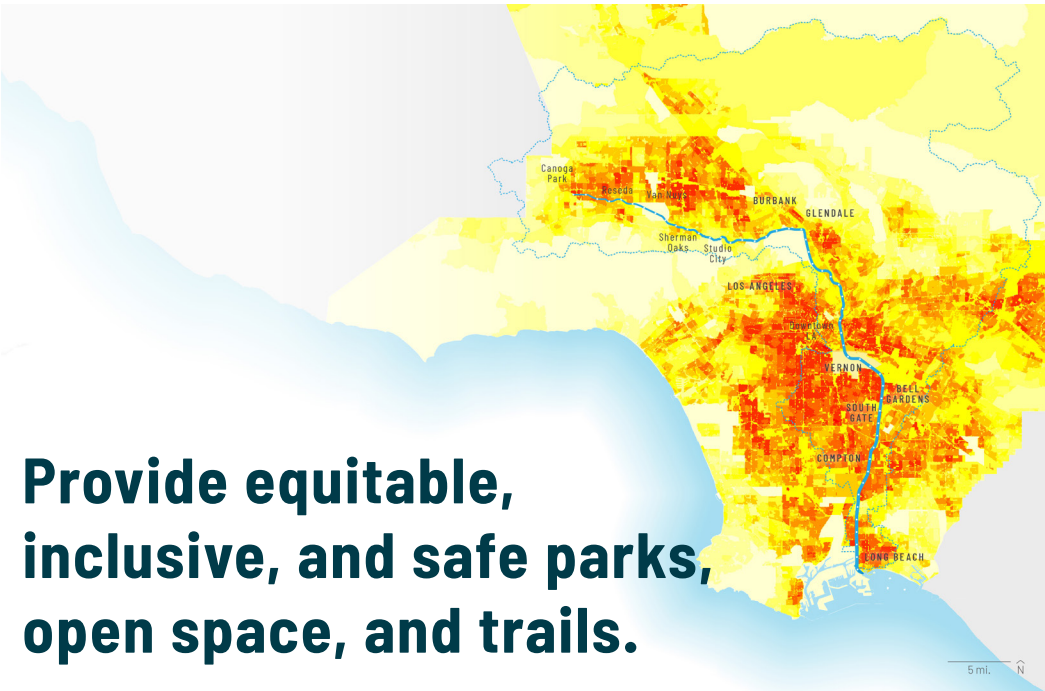


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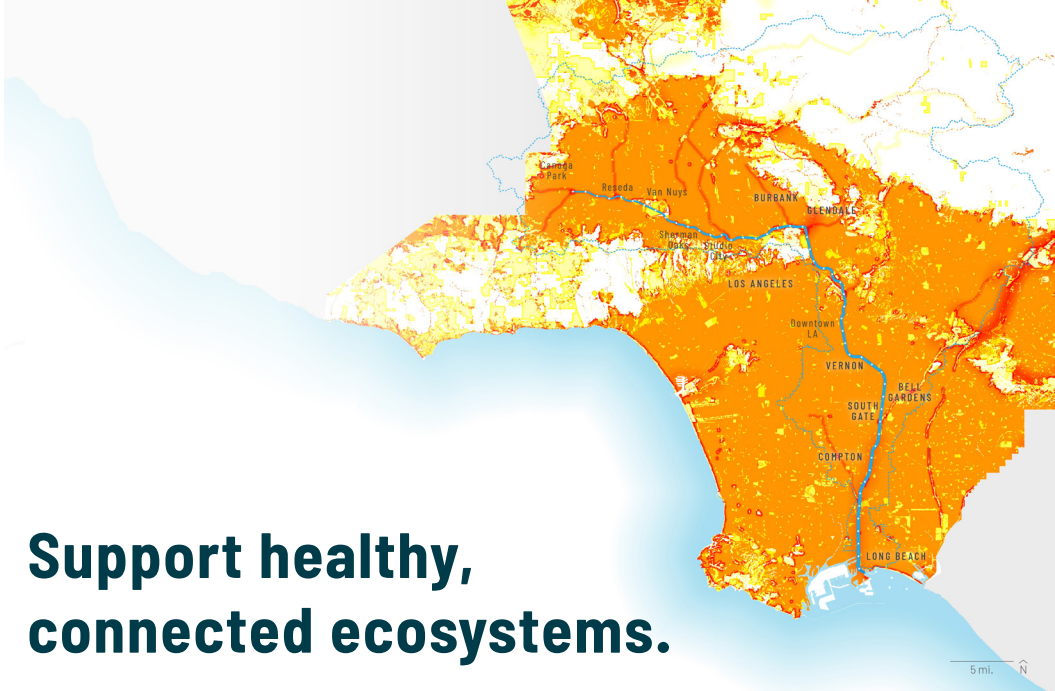
Reduce flood risk and improve resiliency.



Provide equitable, inclusive, and safe parks, open space, and trails.



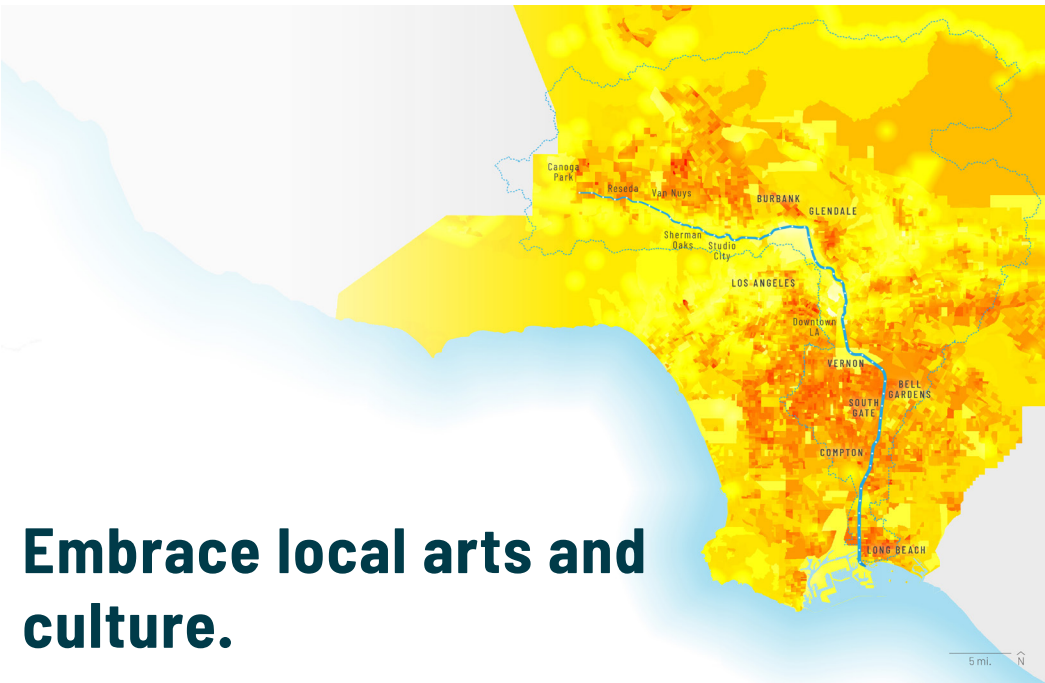
Support healthy, connected ecosystems.



Enhance opportunities for equitable access to the river corridor.



Embrace local arts and culture.



Address potential adverse impacts to housing affordability and people experiencing homelessness.



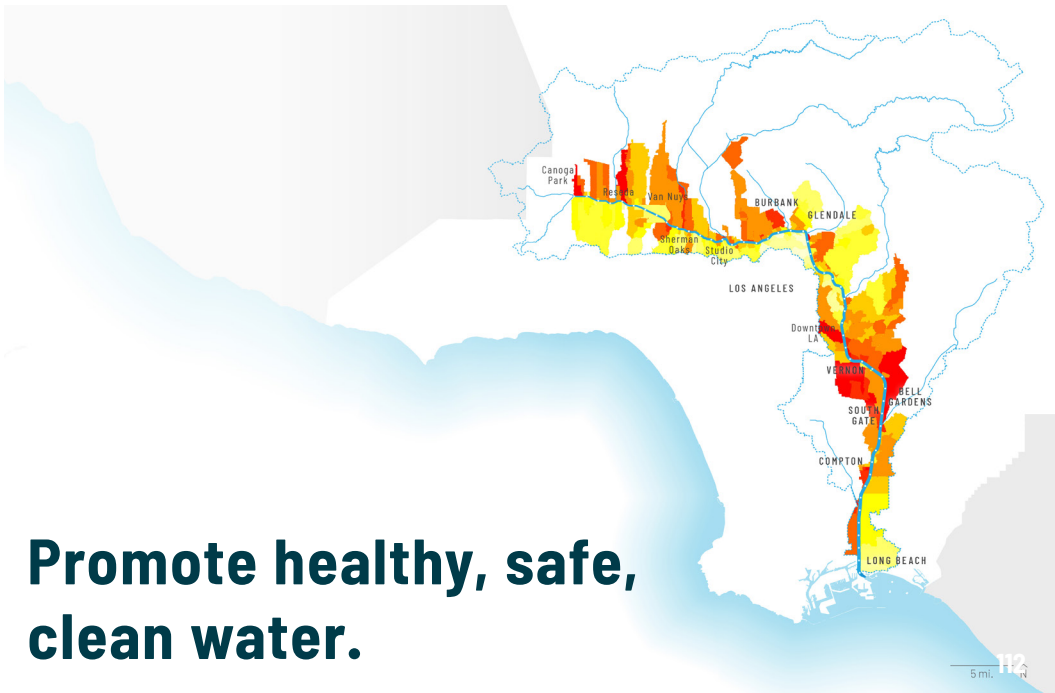
Foster opportunities for continued community engagement, development, and education.



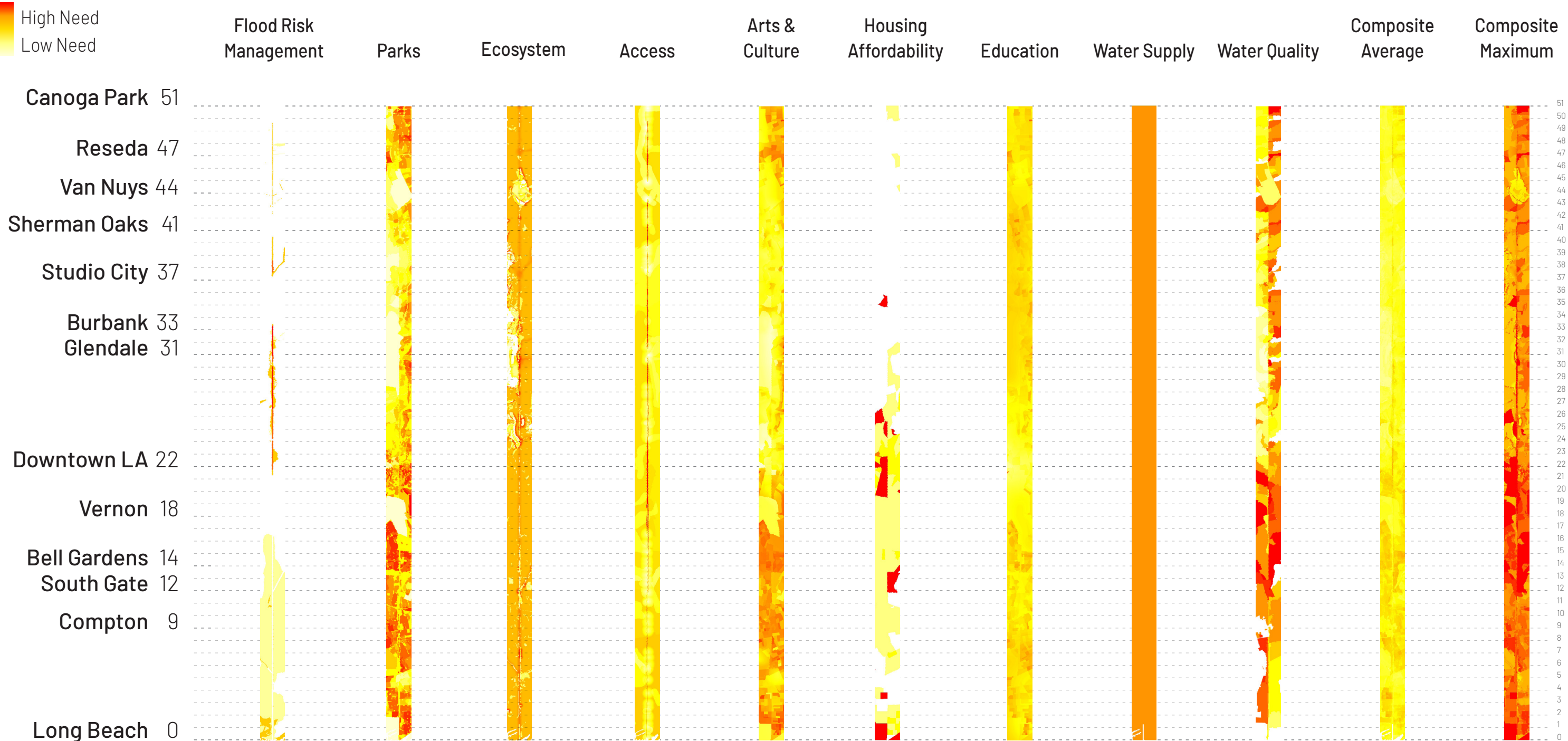
Improve local water supply reliability.



Promote healthy, safe, clean water.



RELATIVE NEEDS COMPARISON



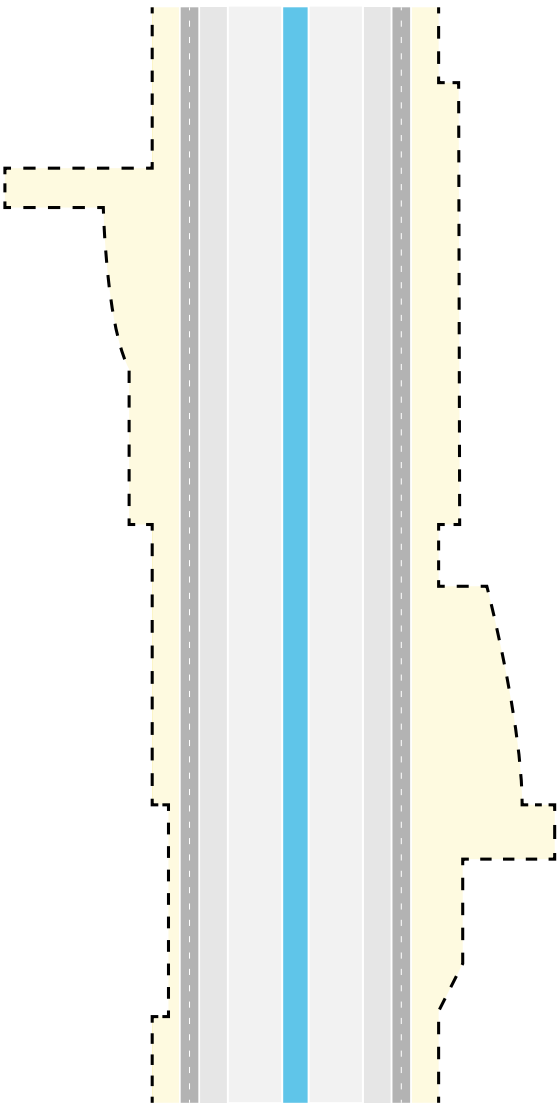
Source: Geosyntec, OLIN



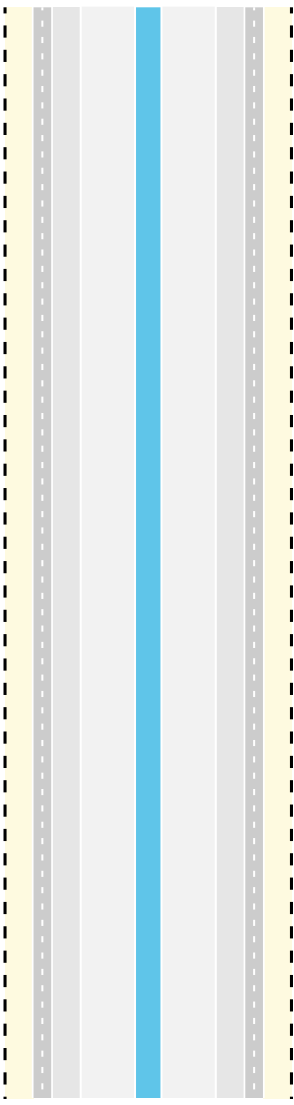
OPPORTUNITIES

TYPICAL OPPORTUNITY SITES

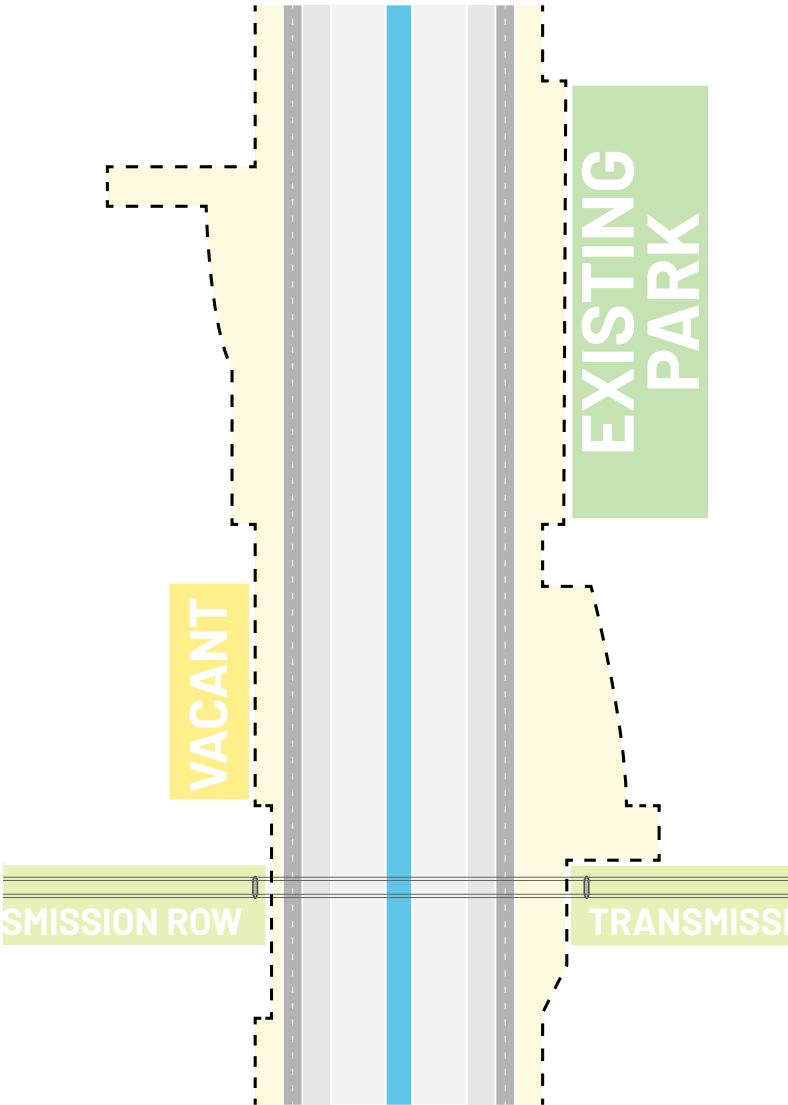
Typical Conditions Along the LA River Corridor



Varied LA River ROW



Constrained LA River ROW



Adjacent Opportunities

OPPORTUNITY

Capitalize on areas that have the greatest capacity to site new projects.

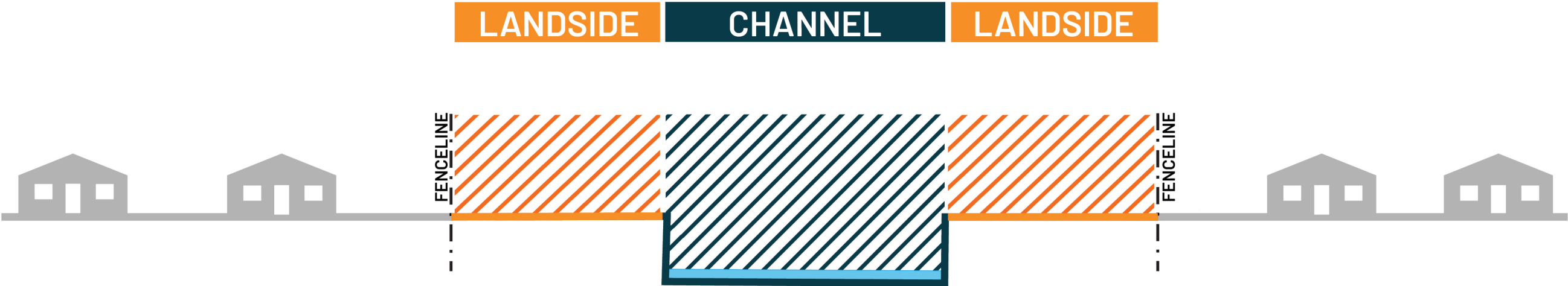
LAND ASSETS:

- LA River Right-of-Way
- LA County Owned Parcels (Priority to Vacant & Underutilized)
- Other Publicly Owned Parcels (Priority to Vacant & Underutilized)
- Other Underutilized Right-of-Way
- Vacant Private Parcels
- Underutilized Private Parcels (Only Applied to Housing Need)
- Pedestrian Street Network

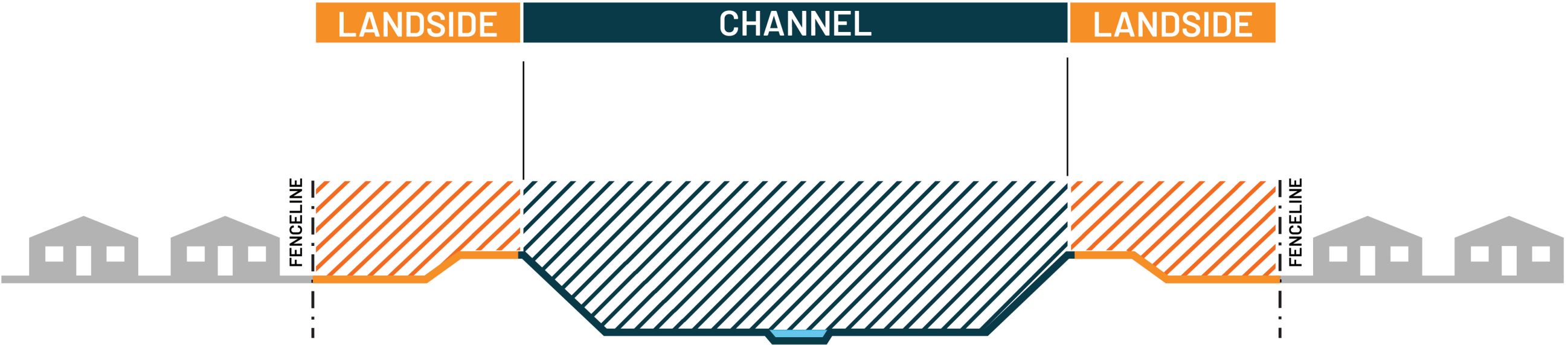
OPPORTUNITY: LAND ASSETS

LA River Right-of-Way (ROW)

Rectangular Box Channel:



Trapezoidal Channel:



OPPORTUNITY: LAND ASSETS

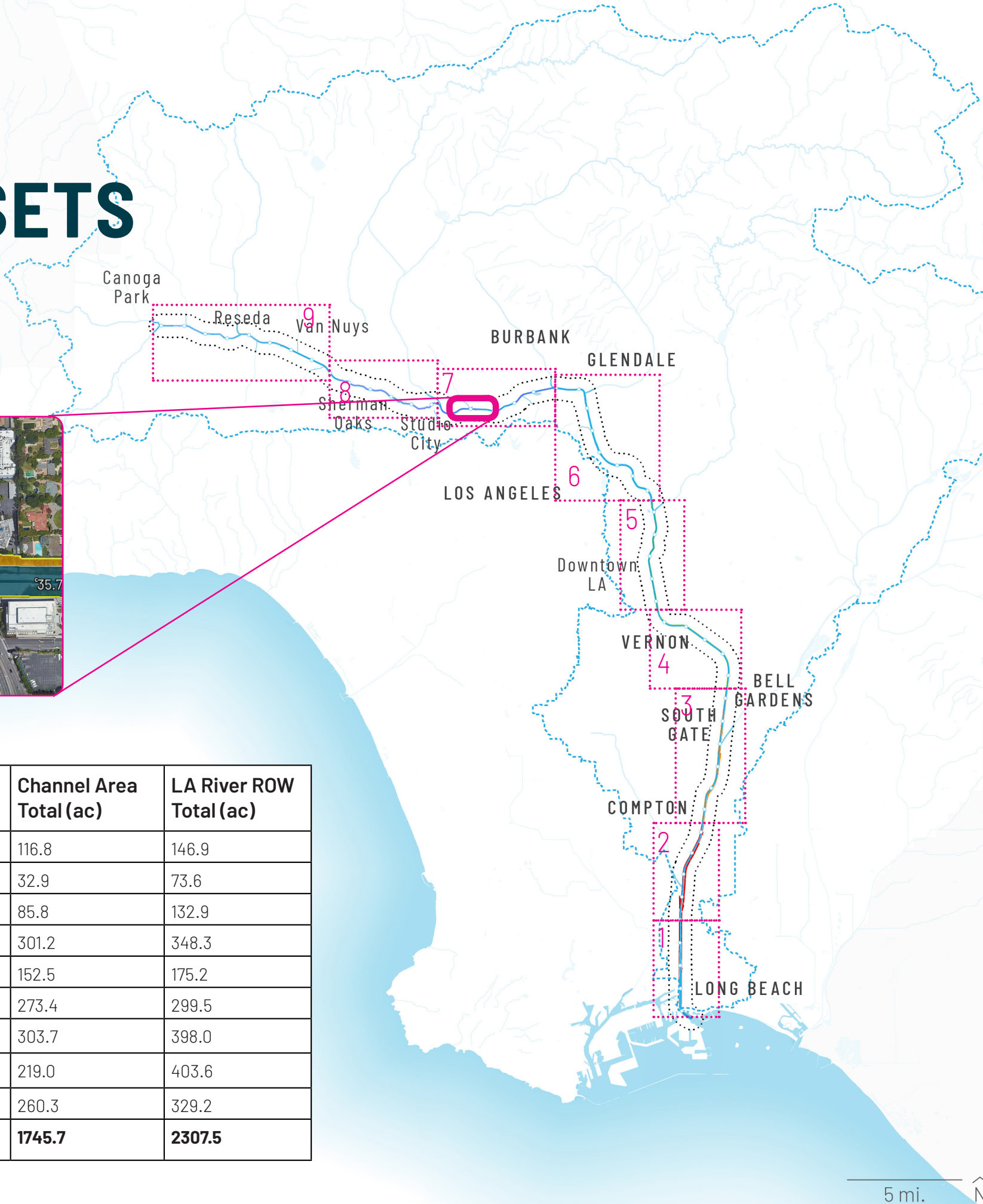
LA River Right-of-Way (ROW)

ROW Detail: Frame 7 / River Mile 36

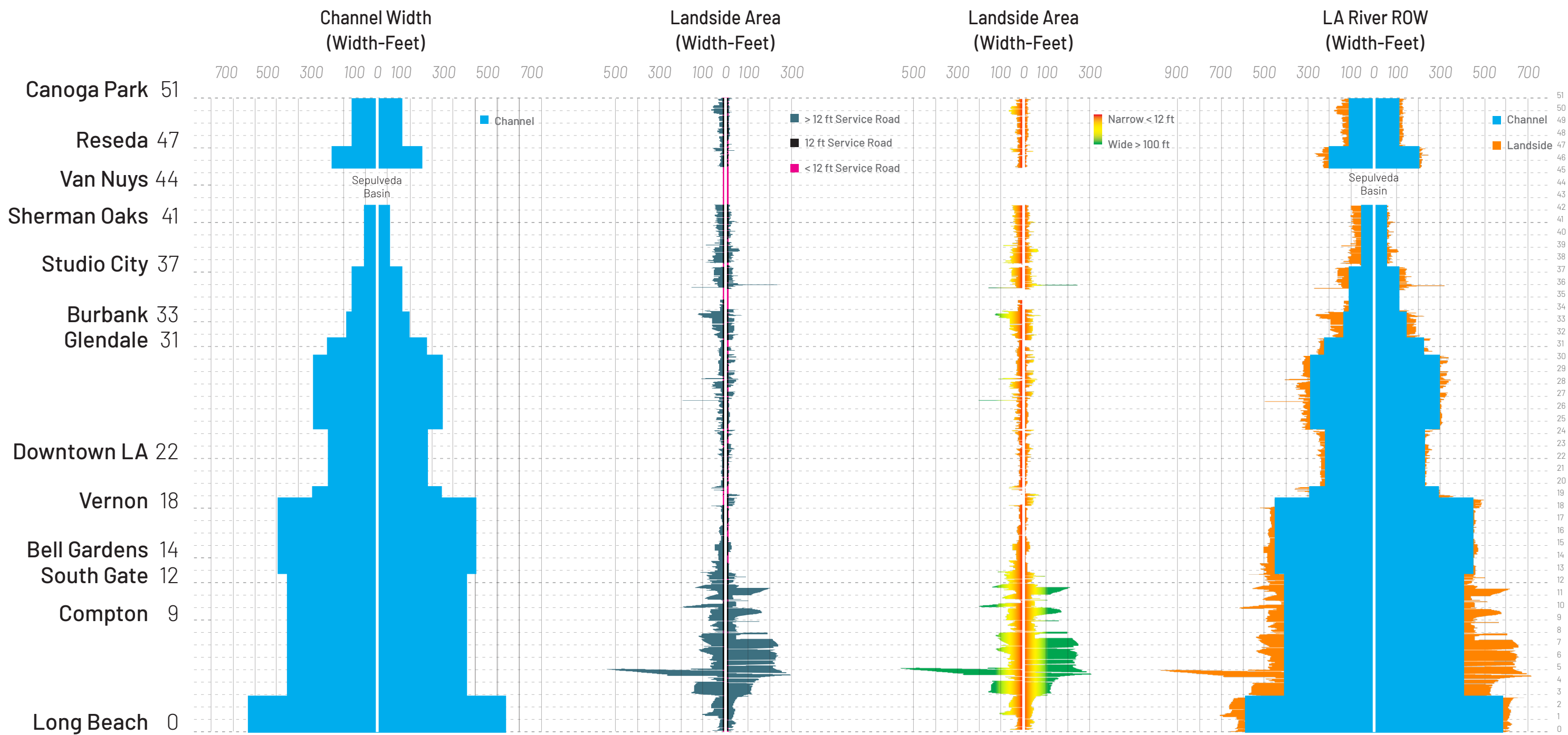


LA River ROW Totals By Frame

#	Planning Frame Name	Length (mi)	Landside Area Left Bank (ac)	Landside Area Right Bank (ac)	Landside Area Total (ac)	Channel Area Total (ac)	LA River ROW Total (ac)
9	Western San Fernando Valley	8.0	12.9	17.2	30.1	116.8	146.9
8	Central San Fernando Valley	5.3	19.2	25.2	40.7	32.9	73.6
7	Eastern San Fernando Valley	5.8	21.9	21.6	47.1	85.8	132.9
6	Narrows	7.5	25.1	22.0	47.1	301.2	348.3
5	Heights	5.0	12.8	9.9	22.7	152.5	175.2
4	North Los Angeles Plain	5.1	15.2	11.1	26.1	273.4	299.5
3	Central Los Angeles Plain	6.0	53.7	40.6	94.3	303.7	398.0
2	South Los Angeles Plain	4.4	130.5	54.1	184.6	219.0	403.6
1	Estuary	4.0	37.3	31.6	68.9	260.3	329.2
	TOTAL:	51.1	328.6	233.3	561.7	1745.7	2307.5



OPPORTUNITY: LA RIVER ROW ANALYSIS

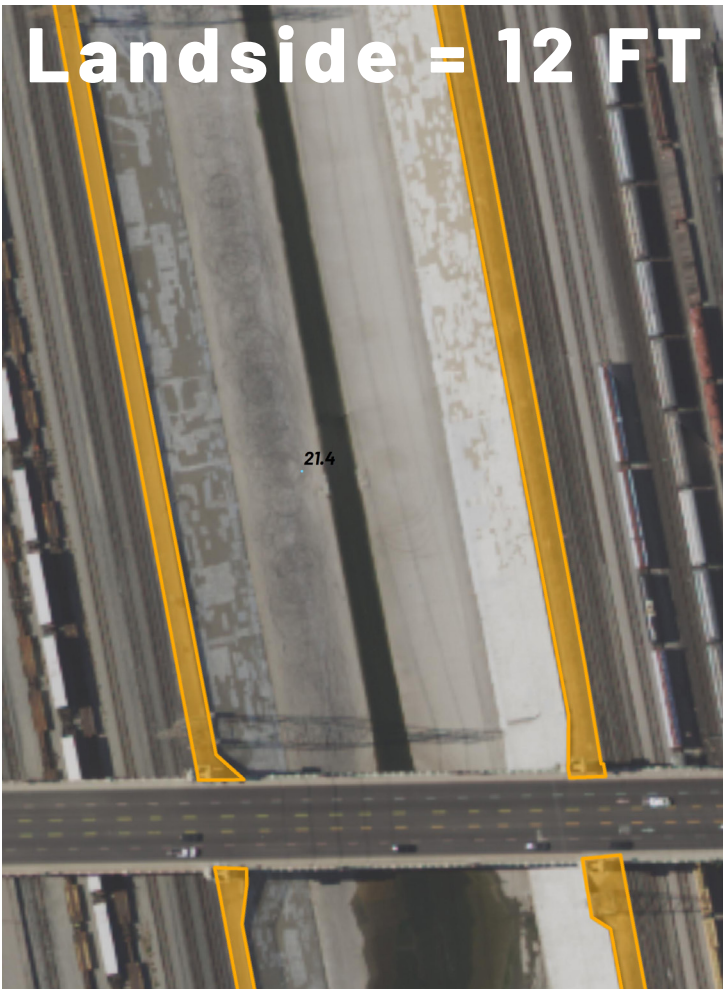


OPPORTUNITY: LAND ASSETS

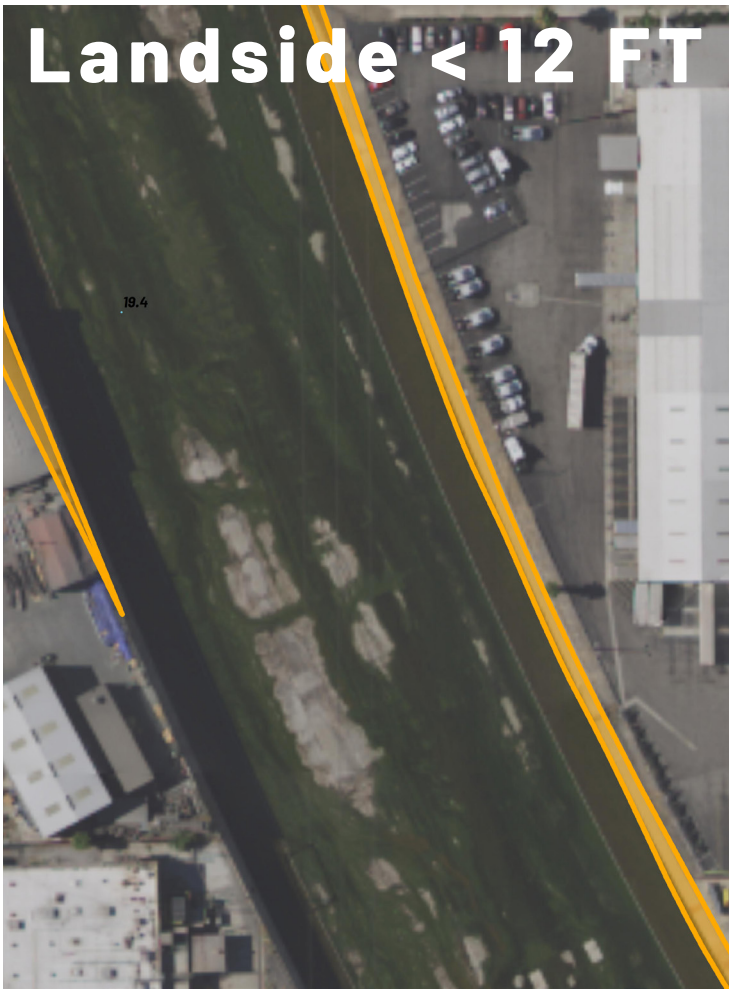
LA River Landside Area



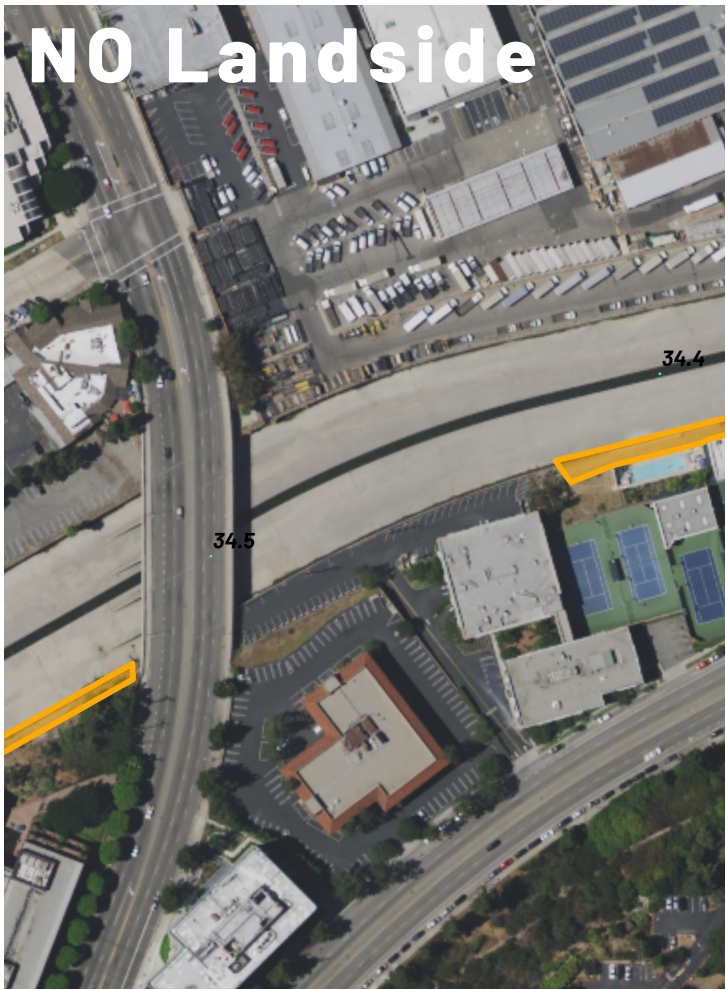
Total: 74 mi / 72.6%
Right Bank: 41.8 mi / 82.0%
Left Bank: 32.2 mi / 63.1%



Total: 6.7 mi / 6.6%
Right Bank: 0.9 mi / 1.76%
Left Bank: 5.8 mi / 11.4%



Total: 4.5 mi / 4.4%
Right Bank: 0.7 mi / 1.4%
Left Bank: 3.8 mi / 7.5%



Total: 16.8 mi / 16.5%
Right Bank: 7.6 mi / 14.9 %
Left Bank: 9.2 mi / 18.0%

OPPORTUNITY: LAND ASSETS

LA County Owned Parcels

LA County Owned Parcels

LA County-Owned Parcel Acreage Totals By Frame

#	Planning Frame Name	Length (mi)	Parcel Area Left Bank (ac)	Parcel Area Right Bank (ac)	TOTAL AREA (ac)
9	Western San Fernando Valley	8.0	137.87	135.14	273.01
8	Central San Fernando Valley	5.3	85.44	20.57	106.01
7	Eastern San Fernando Valley	5.8	42.78	33.42	76.20
6	Narrows	7.5	116.36	26.86	143.22
5	Heights	5.0	141.40	180.83	322.23
4	North Los Angeles Plain	5.1	158.72	101.99	260.71
3	Central Los Angeles Plain	6.0	542.64	80.20	622.84
2	South Los Angeles Plain	4.4	251.87	188.40	440.27
1	Estuary	4.0	182.17	125.17	307.34



OPPORTUNITY: LAND ASSETS

Other Publicly Owned Parcels (Excluding County)

- Municipally Owned Parcels
- Other Publicly Owned Parcels (Excluding County)

Publicly-Owned Parcels Acreage Totals By Frame

#	Planning Frame Name	Length (mi)	City Owned Left Bank (ac)	City Owned Right Bank (ac)	City Owned Total (ac)	Other Public Left Bank (ac)	Other Public Right Bank (ac)	Other Public Total (ac)	TOTAL AREA (ac)
9	Western San Fernando Valley	8.0	93.29	68.24	161.53	1326.93	1171.09	2498.02	2659.55
8	Central San Fernando Valley	5.3	79.71	57.84	137.55	115.97	246.32	362.29	499.84
7	Eastern San Fernando Valley	5.8	170.74	601.99	772.73	62.65	387.49	450.14	1222.87
6	Narrows	7.5	366.44	2707.99	3074.43	291.05	46.58	337.63	3412.06
5	Heights	5.0	375.42	238.83	614.25	72.23	83.60	155.83	770.08
4	North Los Angeles Plain	5.1	118.77	121.75	240.52	141.40	53.71	195.11	435.62
3	Central Los Angeles Plain	6.0	177.16	168.65	345.82	115.92	200.12	316.03	661.85
2	South Los Angeles Plain	4.4	123.30	58.45	181.75	89.27	66.72	155.98	337.73
1	Estuary	4.0	352.25	1495.49	1847.74	61.30	128.01	189.31	2037.05

OPPORTUNITY: LAND ASSETS

Other Underutilized Right-of-Way (ROW)

Other Underutilized ROW Parcels

Privately-Owned LA River ROW Acreage Totals By Frame

#	Planning Frame Name	Length (mi)	Parcel Area Left Bank (ac)	Parcel Area Right Bank (ac)	TOTAL ROW AREA (ac)
9	Western San Fernando Valley	8.0	37.66	84.15	121.81
8	Central San Fernando Valley	5.3	2.62	6.46	9.08
7	Eastern San Fernando Valley	5.8	13.07	37.44	50.50
6	Narrows	7.5	223.58	0.11	223.69
5	Heights	5.0	246.16	159.16	405.32
4	North Los Angeles Plain	5.1	567.20	121.97	689.18
3	Central Los Angeles Plain	6.0	312.82	48.71	361.53
2	South Los Angeles Plain	4.4	96.91	244.20	341.11
1	Estuary	4.0	24.83	184.91	209.74



OPPORTUNITY: LAND ASSETS

Vacant Private Parcels

 Vacant Private Parcels

Privately-Owned Parcel Acreage Totals By Frame

#	Planning Frame Name	Length (mi)	Parcel Area Left Bank (ac)	Parcel Area Right Bank (ac)	TOTAL AREA (ac)
9	Western San Fernando Valley	8.0	148.63	29.76	65.51
8	Central San Fernando Valley	5.3	54.98	231.63	250.06
7	Eastern San Fernando Valley	5.8	92.12	325.21	417.33
6	Narrows	7.5	265.30	105.30	370.61
5	Heights	5.0	113.01	141.47	254.48
4	North Los Angeles Plain	5.1	224.82	83.92	308.73
3	Central Los Angeles Plain	6.0	129.03	162.29	291.32
2	South Los Angeles Plain	4.4	148.63	101.97	250.60
1	Estuary	4.0	54.98	130.29	185.27



OPPORTUNITY: LAND ASSETS

Underutilized* Private Parcels**

**Improvement to Land Value Ratio (ILR) is an indicator of underutilization. The decimal ratio represents how much buildings or ammenities are worth divided by how much the land itself is worth. Anything below 0.8 is considered underutilized.*

***Only applicable for housing need*

- Private Parcels, $0 \leq \text{ILR} \leq 0.5$
- Private Parcels, $0.5 < \text{ILR} \leq 0.8$

Privately-Owned Parcel Acreage Totals By Frame

#	Planning Frame Name	Length (mi)	Parcel Area Left Bank (ac)	Parcel Area Right Bank (ac)	TOTAL AREA (ac)
9	Western San Fernando Valley	8.0	2985.65	2872.49	5858.14
8	Central San Fernando Valley	5.3	2093.29	2681.95	4775.24
7	Eastern San Fernando Valley	5.8	2365.65	2354.06	4719.71
6	Narrows	7.5	3590.99	1608.49	5199.48
5	Heights	5.0	1903.79	1354.59	3258.38
4	North Los Angeles Plain	5.1	2738.13	2448.25	5186.38
3	Central Los Angeles Plain	6.0	1981.36	2547.48	4528.84
2	South Los Angeles Plain	4.4	1999.65	1842.22	3841.87
1	Estuary	4.0	1478.91	1264.77	2743.68

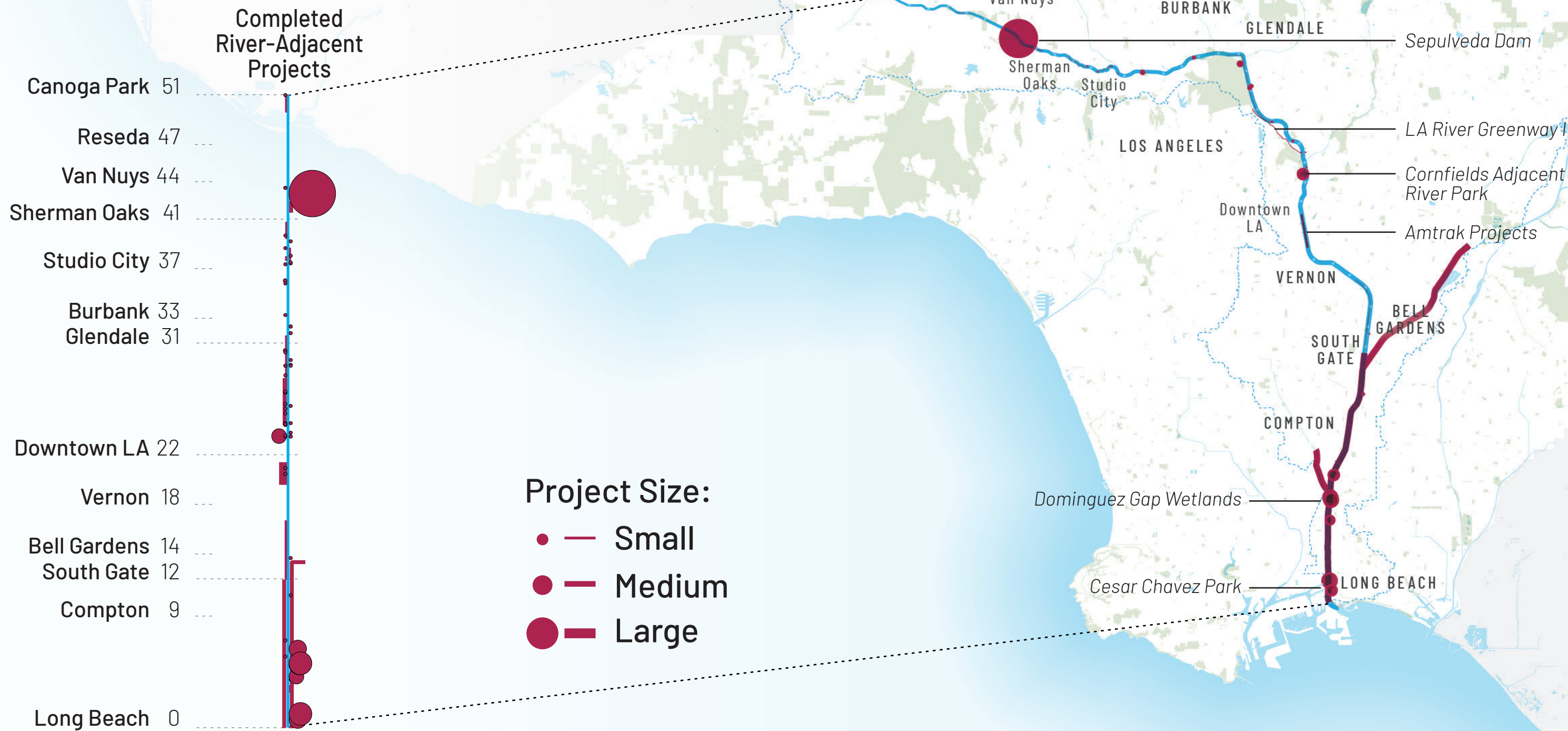


OPPORTUNITY: LAND ASSETS

Pedestrian Street Network

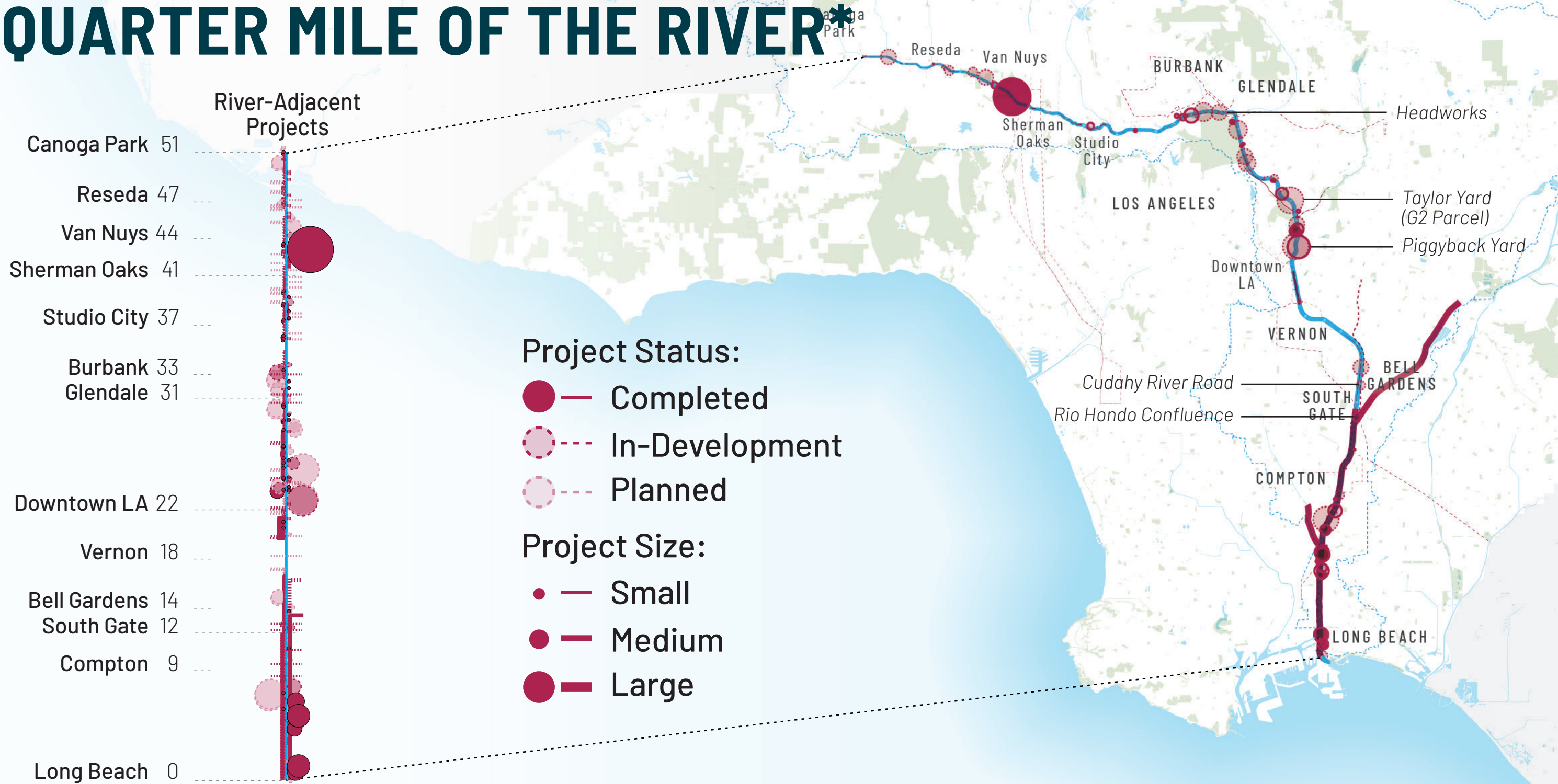
-  Pedestrian Street Network within 1 mile of the LA River
-  Other Pedestrian Street Network Streets

COMPLETED PROJECTS WITHIN A QUARTER MILE OF THE RIVER*



*DRAFT - AND COUNTING
Source: Los Angeles County Public Works, Geosyntec, OLIN

COMPLETED AND PROPOSED PROJECTS WITHIN A QUARTER MILE OF THE RIVER*

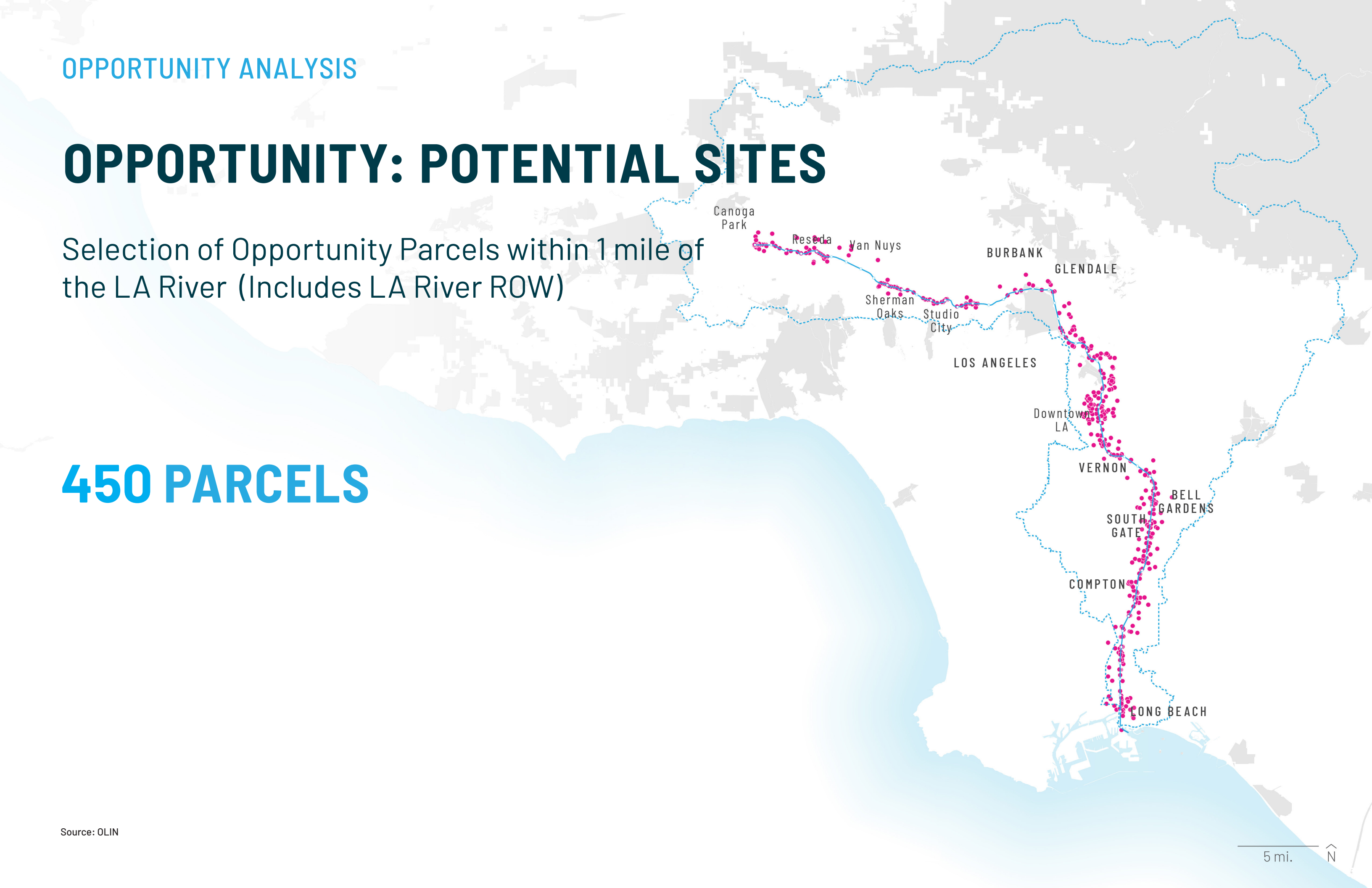


*DRAFT - AND COUNTING
Source: Geosyntec, OLIN

OPPORTUNITY: POTENTIAL SITES

Selection of Opportunity Parcels within 1 mile of the LA River (Includes LA River ROW)

450 PARCELS

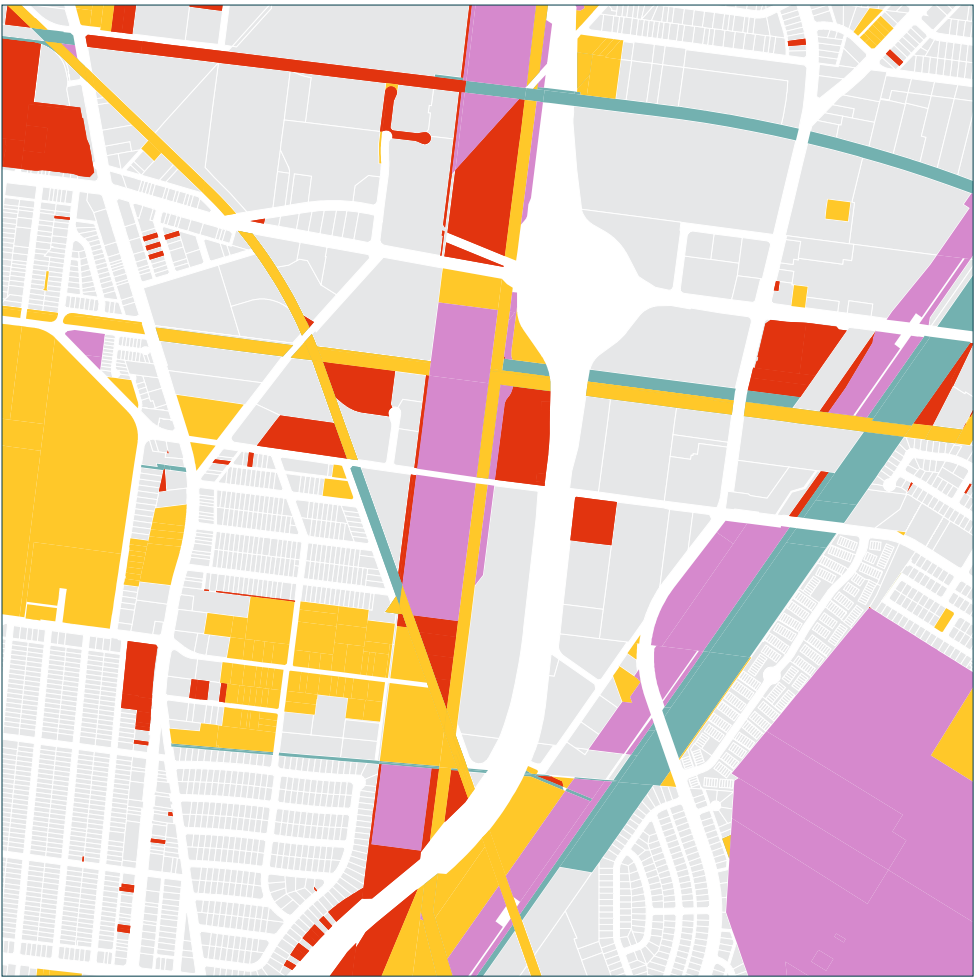


DESKTOP ANALYSIS

Analysis for Choosing Opportunity Sites

- Is there recent construction on the site?*
- Is there apparent contamination (Superfund or Brownfield designation)?*
- Is there known hazardous waste?*
- Are there any known existing or planned projects for the site?*
- Does the site align with an area of high need?*
- How large is the site?*
- How close is the site to the LA River ?*
- Could the site be part of a connected continuous open space system?*

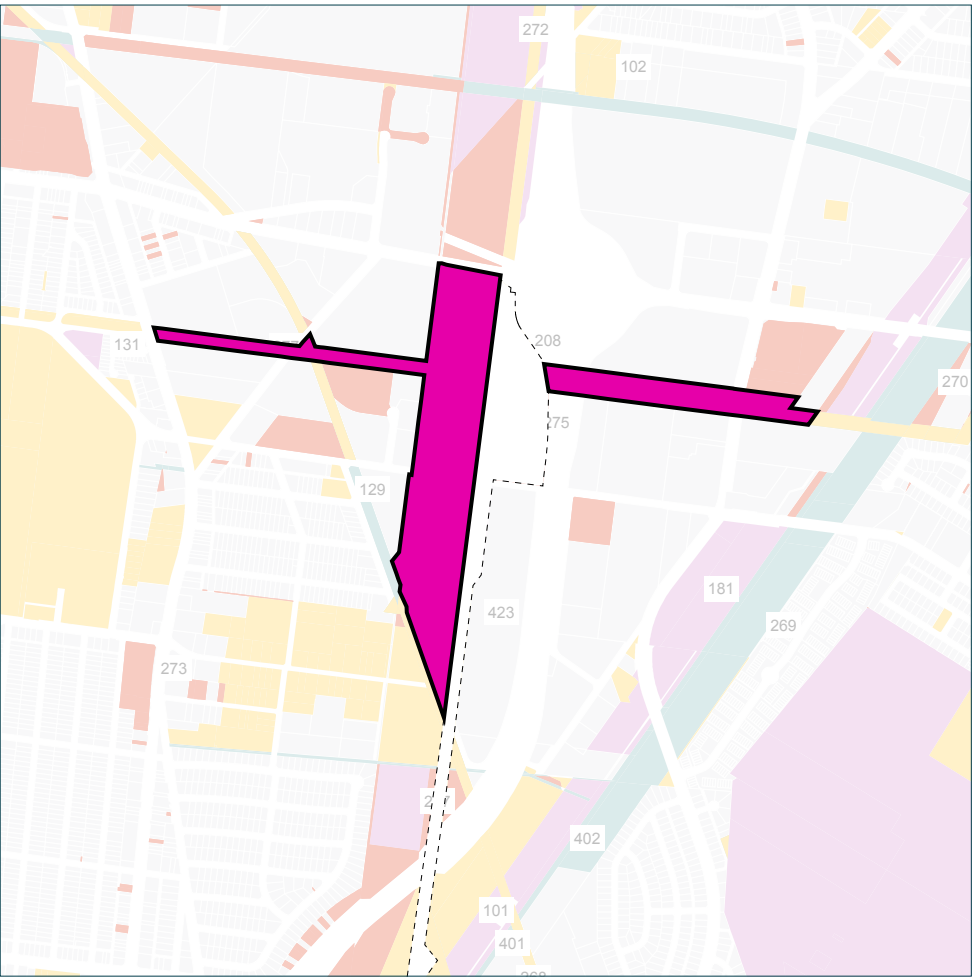
AGGREGATING PARCELS



Opportunity Parcels



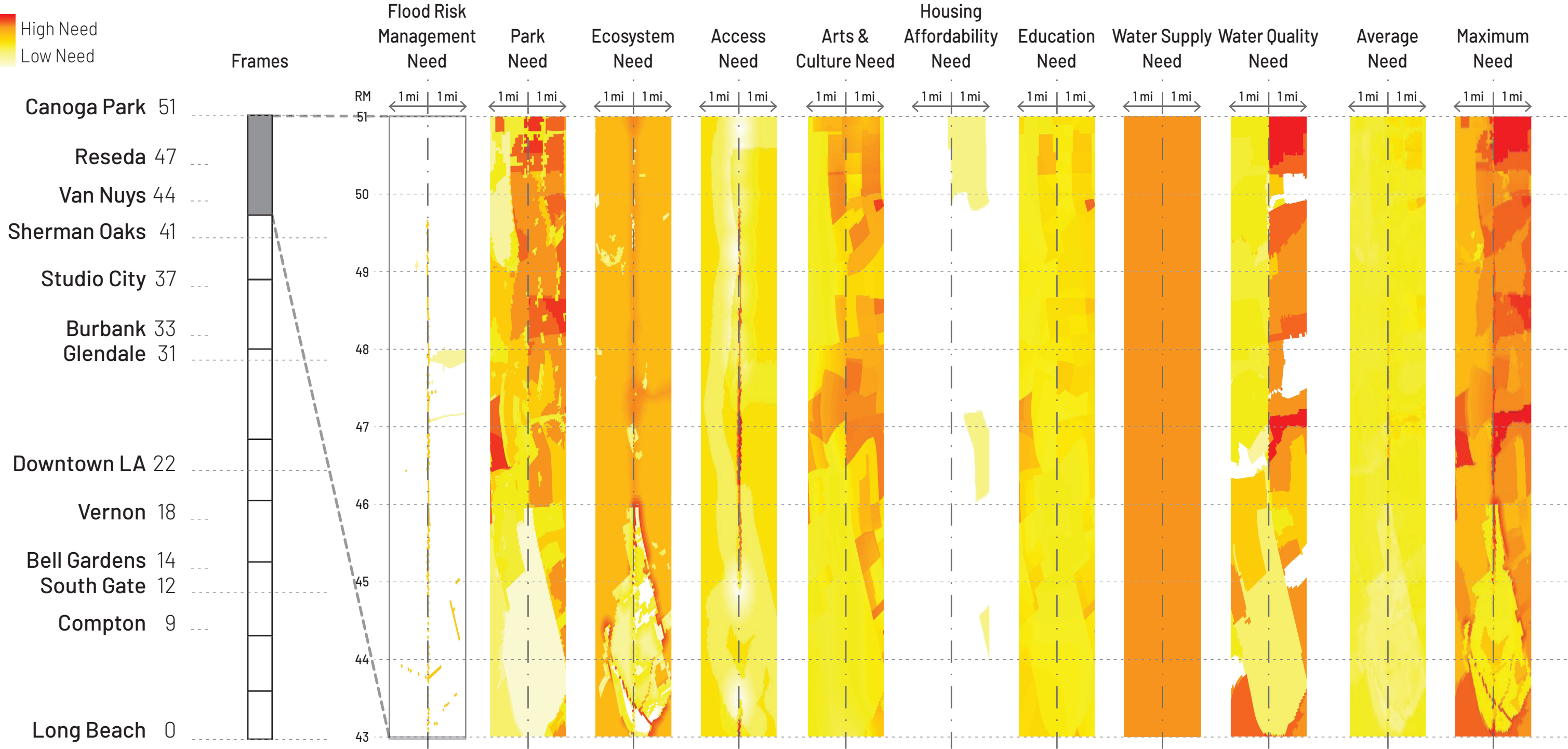
Parcels from Desktop Analysis



Site Boundary

- Site Boundary
- Planned Major Project
- County Owned
- Other Publicly Owned
- Privately Owned Vacant
- Privately Owned ROW

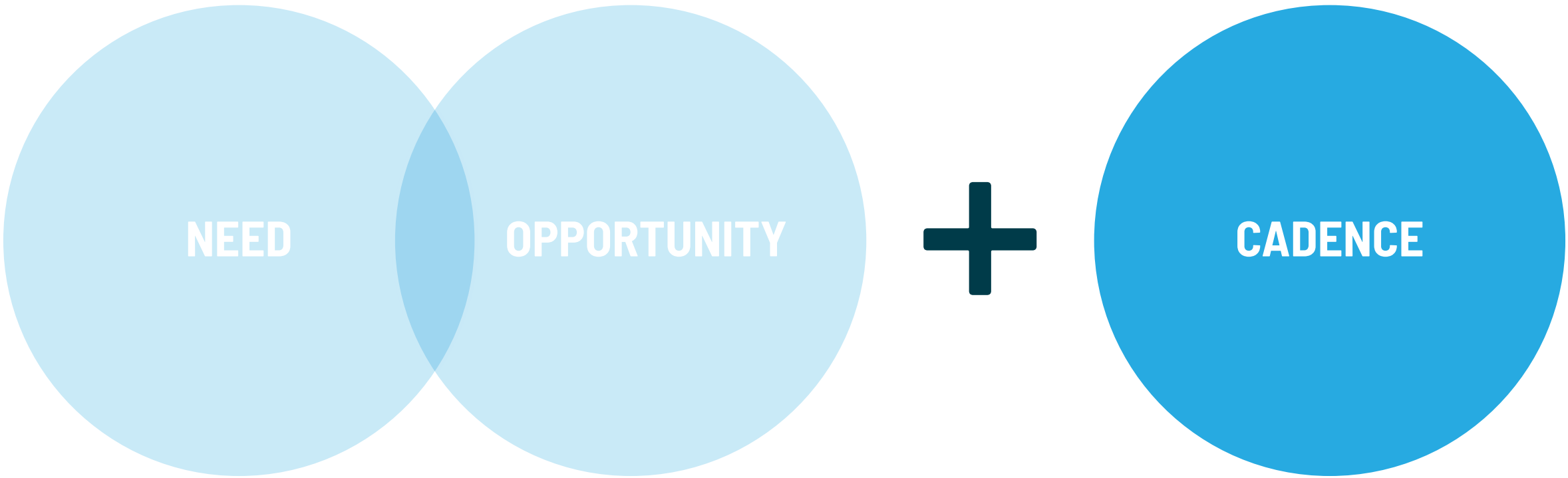
FRAME 9 NEEDS



Source: OLIN, Geosyntec

HOW DO WE LOCATE NEW PROJECTS?

Align need, opportunity, and cadence
along the LA River Corridor.



CADENCE

Confirm projects are distributed along the river equally and vary in scale.

DESIGN
COMPONENTS >

XL
ex: Regional Parks, Water Recharge Area, Affordable Housing

L
ex: Community Park, Cultural Center

M
ex: Neighborhood Parks, Community Center, Bridges

DESIGN
< GUIDELINES

S
ex: Pocket Parks, Park Nodes, Access Gateways, Restrooms & Premium Shelters

XS
ex: Basic & Comfort Shelters, Lighting, Signage, Benches

SAMPLE SITE SELECTION: XS, S

Final Criteria for Choosing Opportunity Sites

- Is there an opportunity to cross from one bank to the other every half mile?*
- Is an existing trail disconnected from adjacent neighborhoods?*
- Where do major streets intersect with the river?*
- Is there land availability where roads and proposed trails (like bike paths) meet the river?*

SITE SELECTION

SITE SELECTION: XS, S

13 NEWLY PROPOSED SITES
85 ADDITIONAL SITES FROM PLANS*
40 IMPROVED ACCESS POINTS

- ✚ Sites for XS and S Projects
- ⛶ Upgraded Access Points
- Existing Access Points

SITE SELECTION

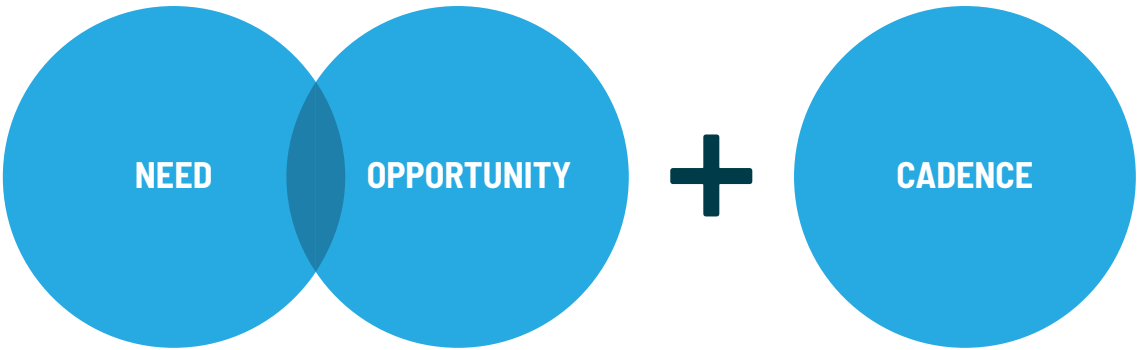
SITES, CADENCE, AND CONNECTIVITY

- ✚ Sites for XS and S Projects
- ⛶ Upgraded Access Points
- Existing Access Points

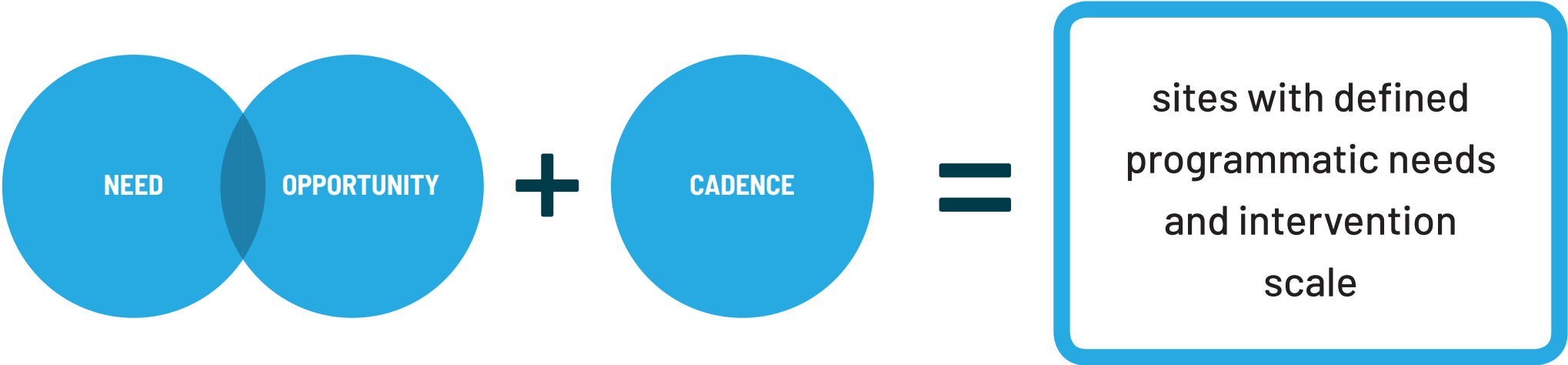
Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS

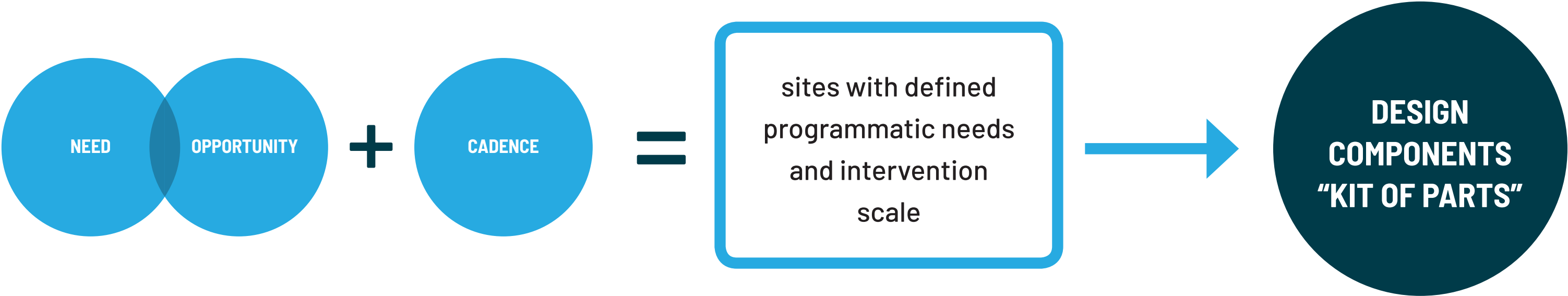
GOAL-DRIVEN DESIGN FRAMEWORK



GOAL-DRIVEN DESIGN FRAMEWORK



GOAL-DRIVEN DESIGN FRAMEWORK



EXAMPLE

NEED	OPPORTUNITY	CADENCE (SCALE)	DESIGN COMPONENT
flood risk management + water quality + habitat	landside RM 11.5 right bank (vacant parcel, publicly owned)	15 acres	natural treatment system

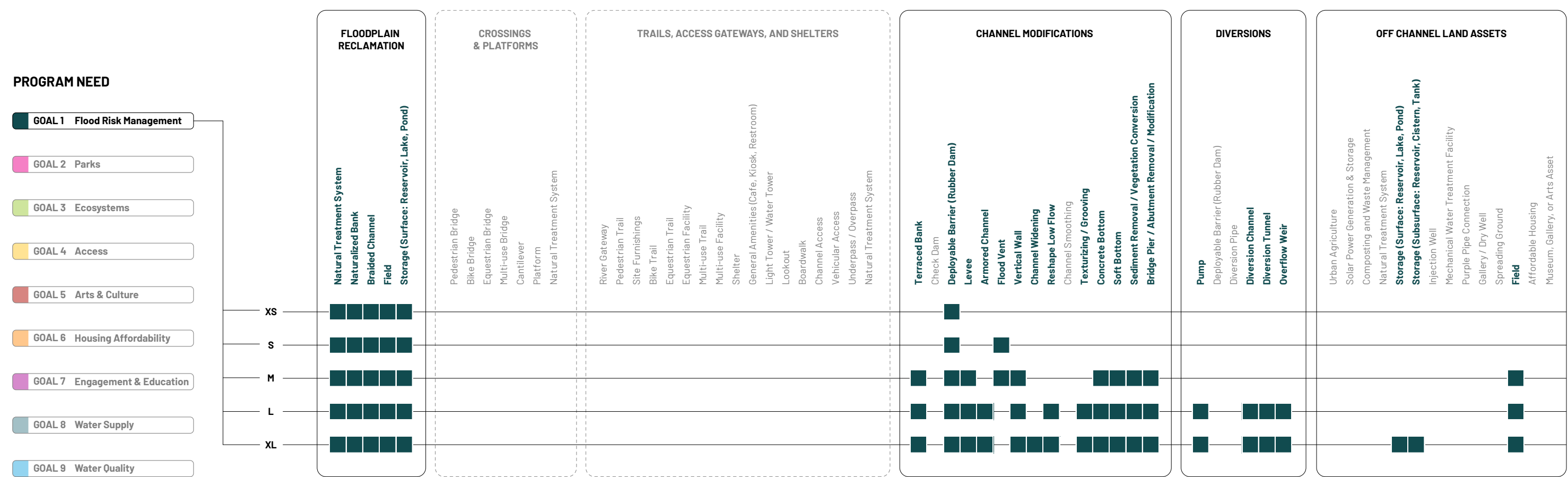
KIT OF PARTS: CATEGORIES

- 1 FLOODPLAIN RECLAMATION
- 2 CROSSINGS & PLATFORMS
- 3 TRAILS, ACCESS GATEWAYS, AND SHELTERS
- 4 CHANNEL MODIFICATIONS
- 5 DIVERSIONS
- 6 OFF CHANNEL LAND ASSETS

KIT OF PARTS: CATEGORIES & COMPONENTS

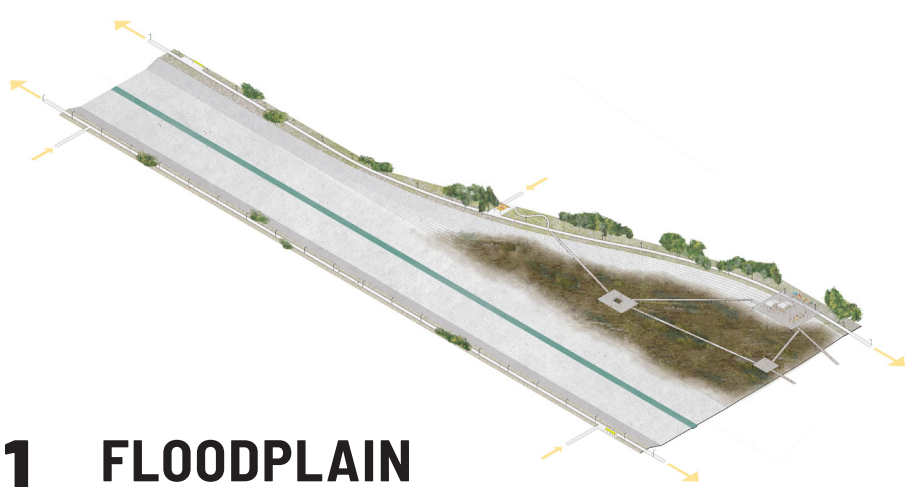
1	2	3	4	5	6
FLOODPLAIN RECLAMATION	CROSSINGS & PLATFORMS	TRAILS, ACCESS GATEWAYS & SHELTERS	CHANNEL MODIFICATIONS	DIVERSIONS	OFF CHANNEL LAND ASSETS
<ul style="list-style-type: none">Natural Treatment SystemNaturalized BankBraided ChannelFieldStorage (Surface: Reservoir, Lake, Pond)	<ul style="list-style-type: none">Pedestrian BridgeBike BridgeEquestrian BridgeMulti-use BridgeCantileverPlatformNatural Treatment System	<ul style="list-style-type: none">River GatewayPedestrian TrailPedestrian Facility (Bench, Lighting, Trash Receptacle, Wayfinding)Bike TrailEquestrian TrailEquestrian FacilityMulti-use TrailMulti-use FacilityShelterGeneral Amenity (Cafe, Kiosk, Restroom)Light Tower / Water TowerLookoutBoardwalkChannel AccessVehicular AccessUnderpass and OverpassNatural Treatment System	<ul style="list-style-type: none">Terraced BankCheck DamDeployable Barrier (Rubber Dam)LeveeArmored ChannelFlood VentVertical WallChannel WideningReshape Low FlowChannel SmoothingTexturizing or GroovingConcrete BottomSoft BottomSediment Removal / Vegetation ConversionBridge Pier / Abutment Removal / Modification	<ul style="list-style-type: none">PumpDeployable Barrier (Rubber Dam)Diversion PipeDiversion ChannelDiversion TunnelOverflow Weir	<ul style="list-style-type: none">Urban Agriculture (Orchard, Farm, Nursery, Community Garden)Solar Power Generation & StorageComposting and Waste ManagementNatural Treatment SystemStorage (Surface: Reservoir, Lake, Pond)Storage (Subsurface: Reservoir, Cistern, Tank)Injection WellMechanical Water Treatment FacilityPurple Pipe ConnectionGallery / Dry WellSpreading GroundFieldAffordable HousingMuseum, Gallery, or Other Arts Installation or Institution

KIT OF PARTS FRAMEWORK

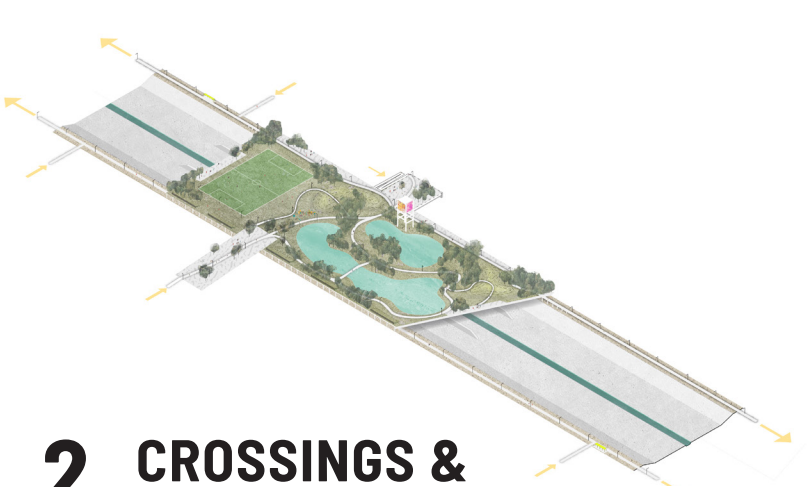


Source: OLIN, Gehry Partners, Geosyntec

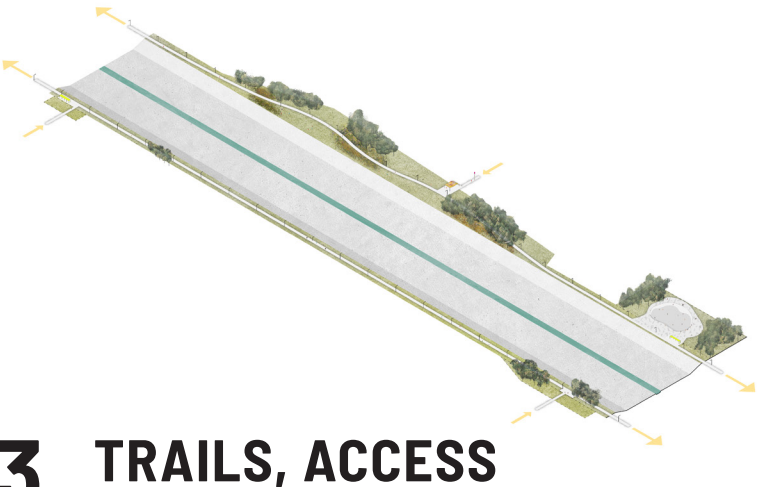
KIT OF PARTS



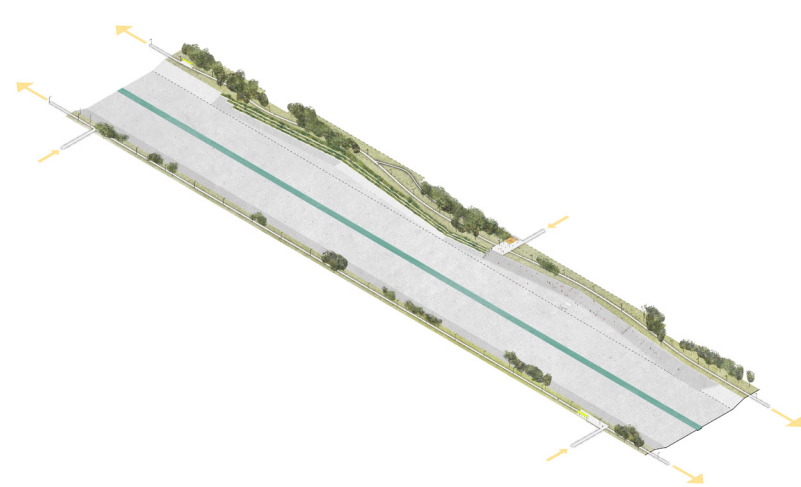
1 FLOODPLAIN RECLAMATION



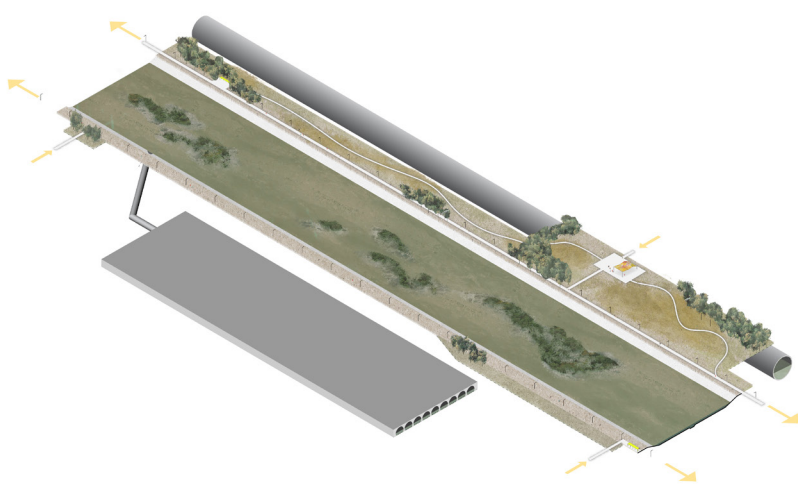
2 CROSSINGS & PLATFORMS



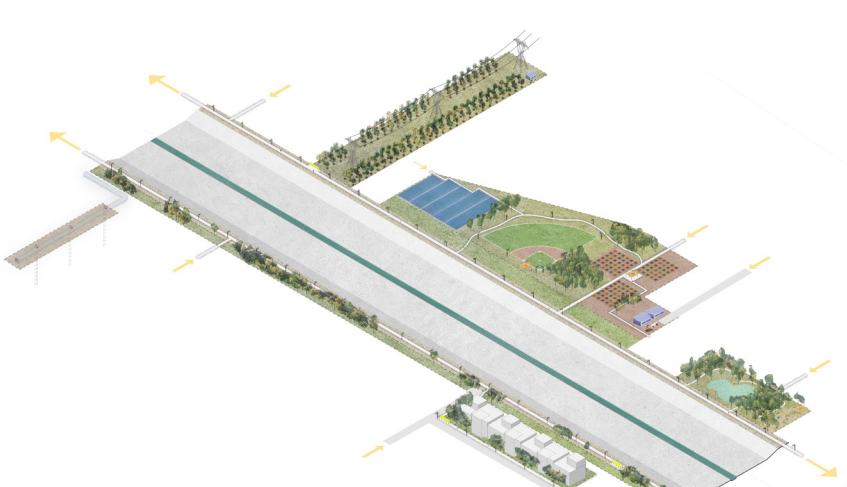
3 TRAILS, ACCESS GATEWAYS & SHELTERS



4 CHANNEL MODIFICATIONS



5 DIVERSIONS

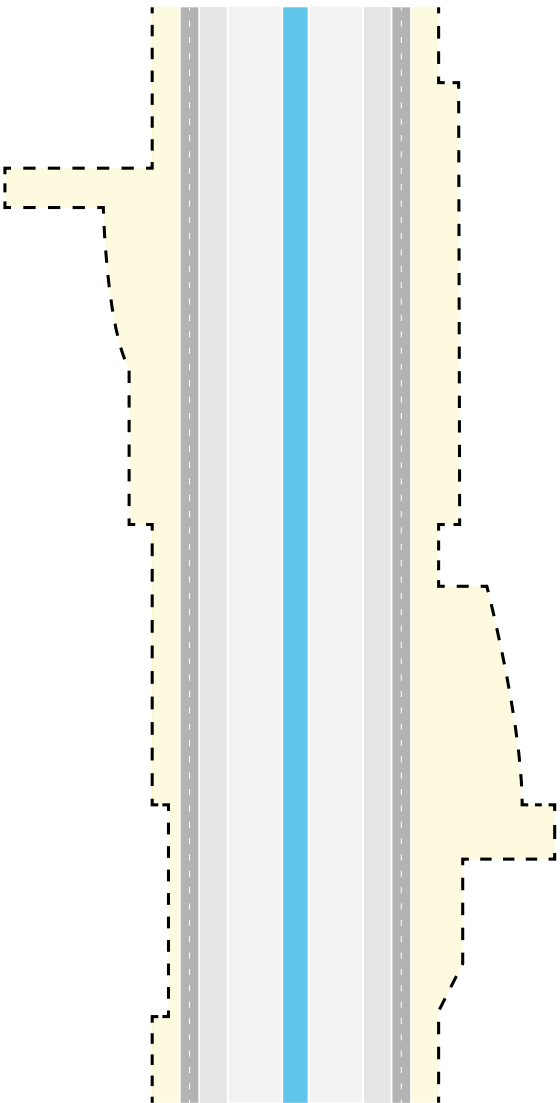


6 OFF CHANNEL LAND ASSETS

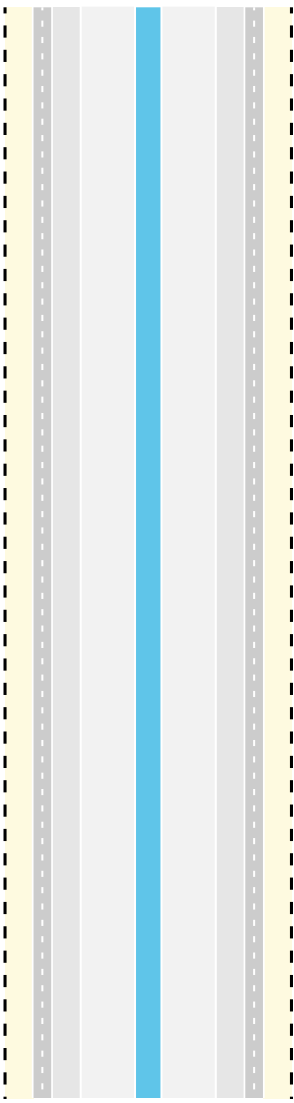
Source: OLIN, Gehry Partners, Geosyntec

TYPICAL OPPORTUNITY SITES

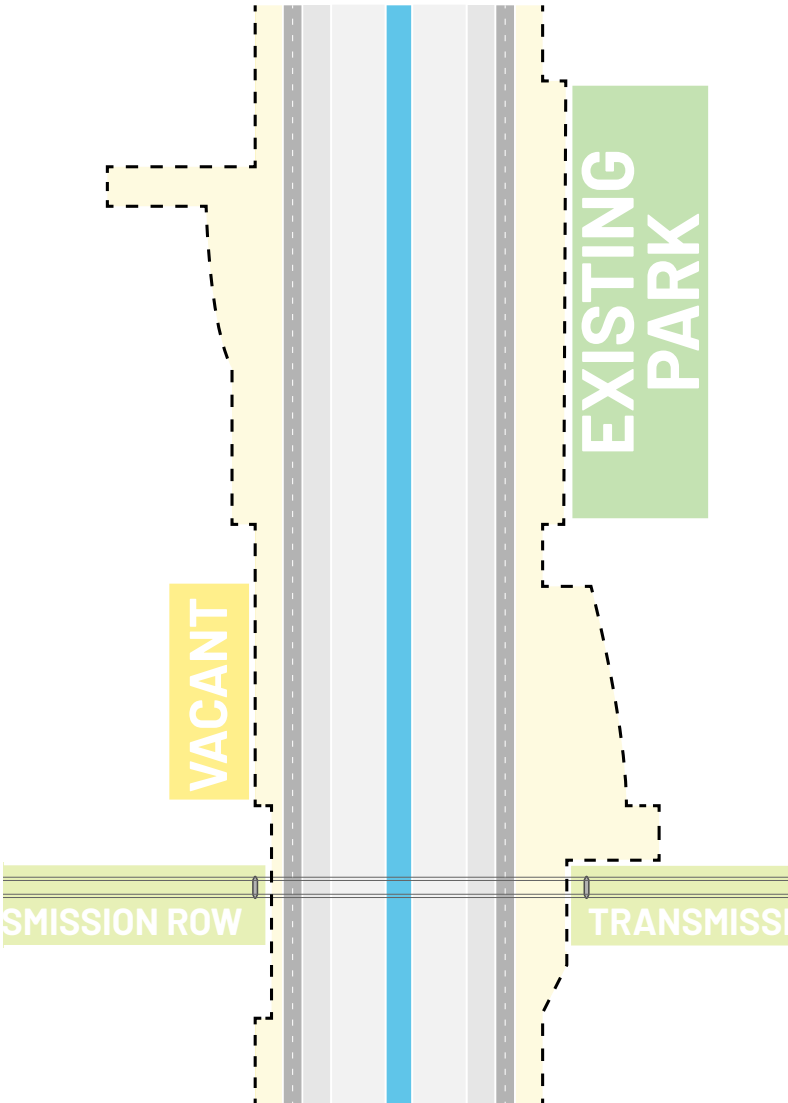
Common Conditions Along the LA River Corridor



Varied LA River ROW



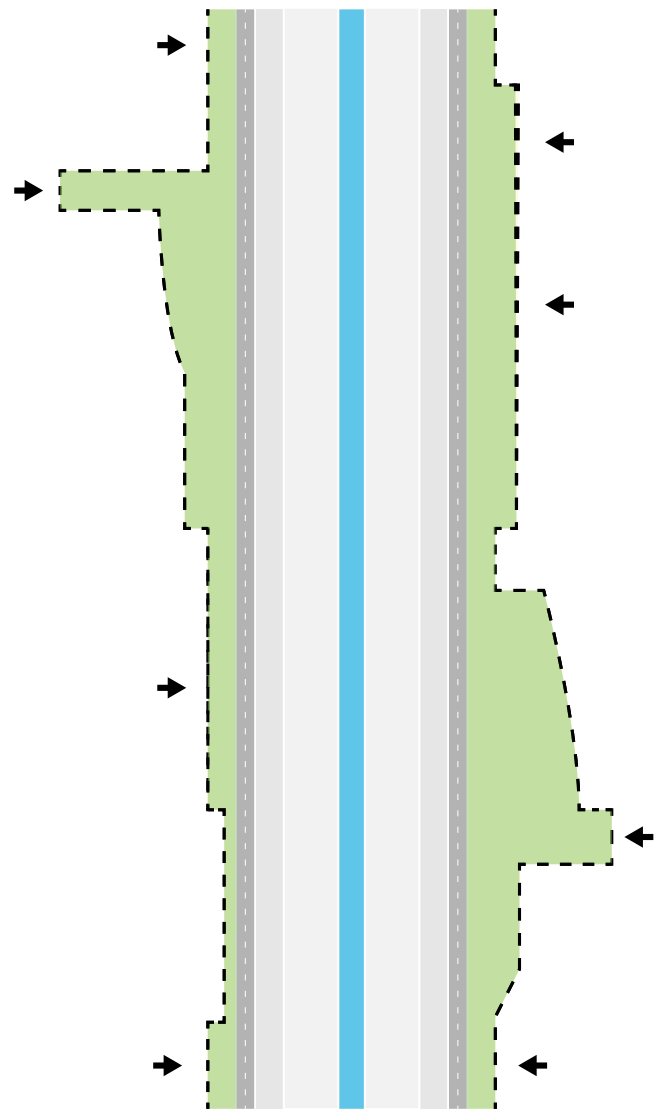
Constrained LA River ROW



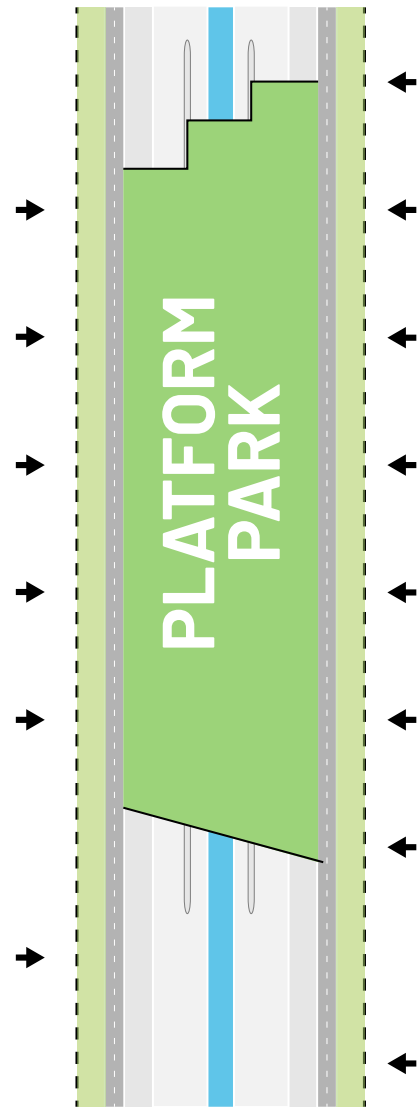
Adjacent Opportunities

RELATING NEED AND DESIGN

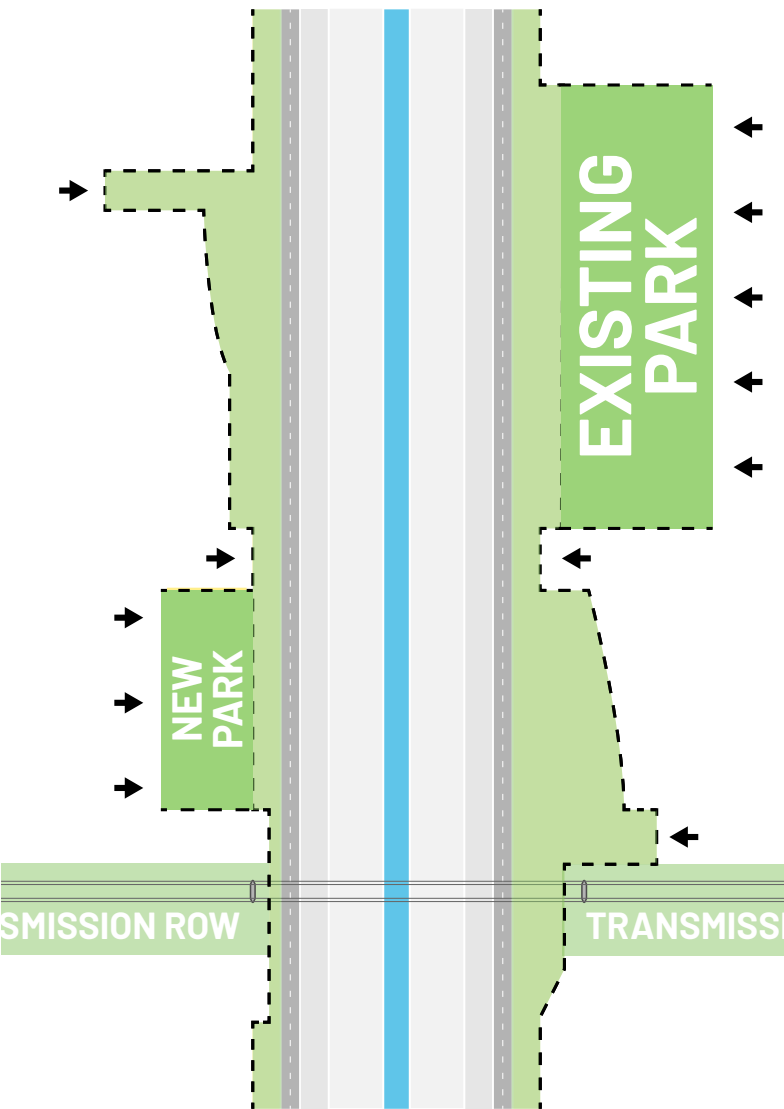
Strategies for Applying Design Elements



Varied LA River ROW



Constrained LA River ROW

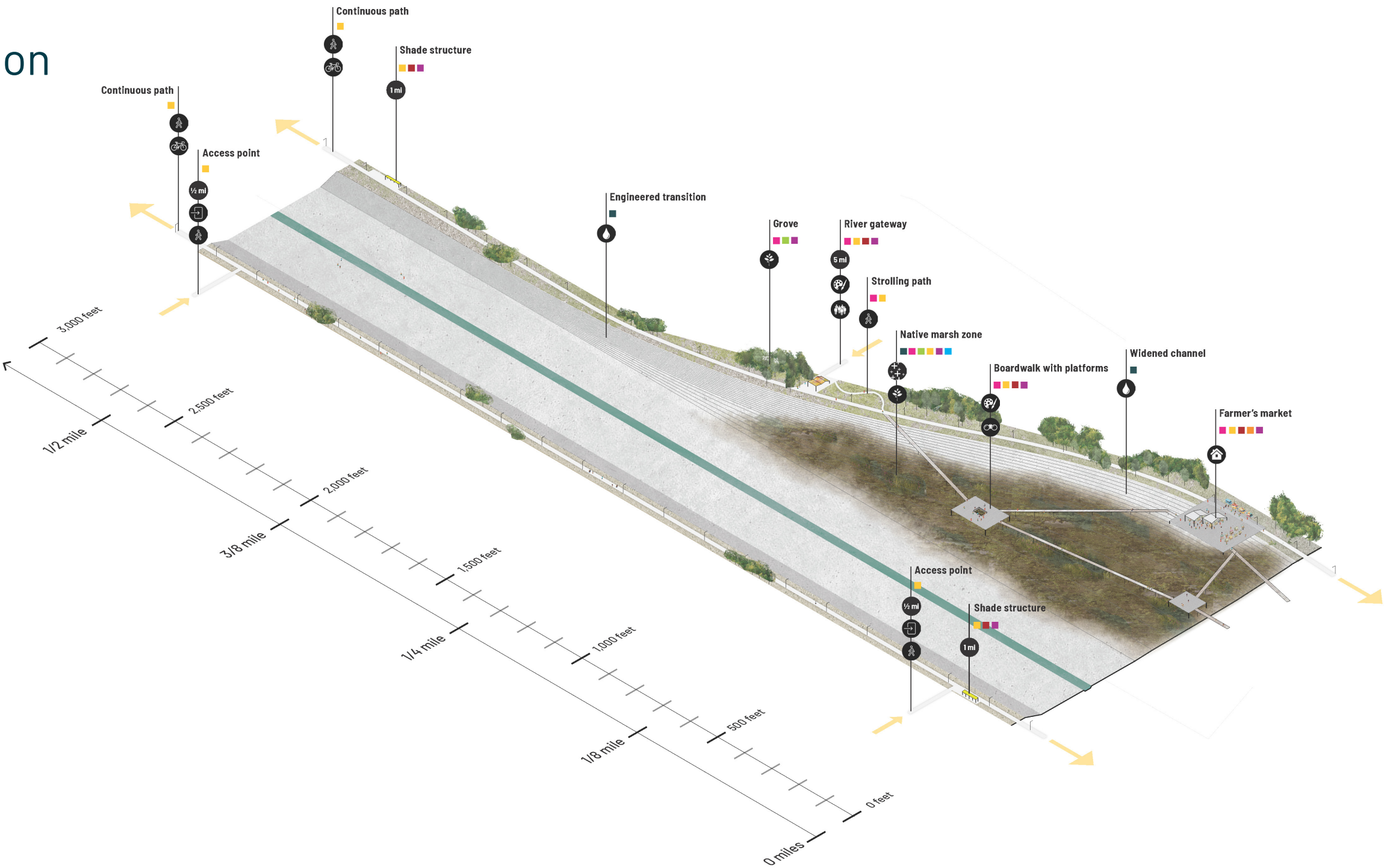


Adjacent Opportunities

KIT OF PARTS

Floodplain Reclamation

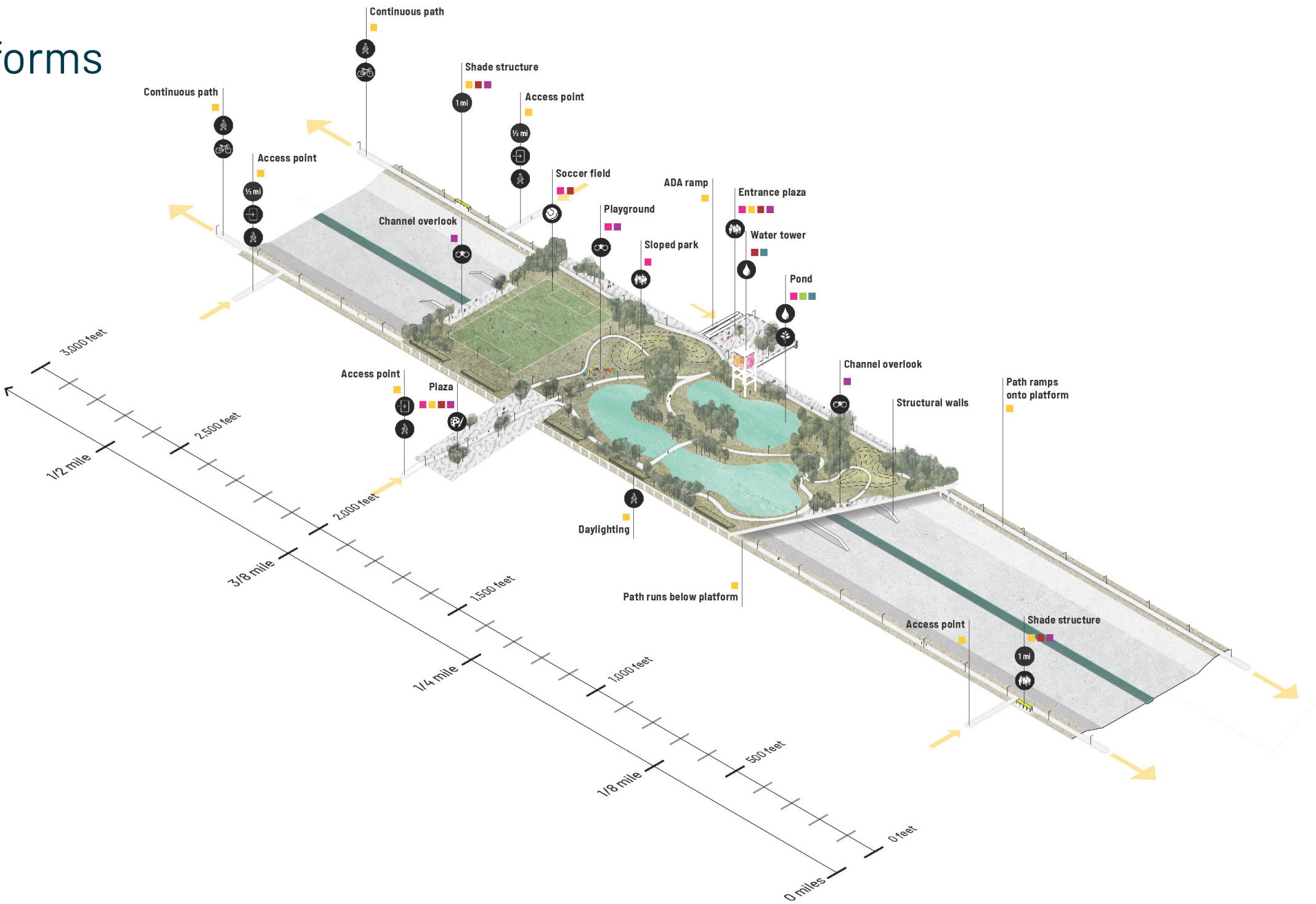
- FLOOD RISK MANAGEMENT
- PARKS
- ECOSYSTEMS
- ACCESS
- ARTS & CULTURE
- HOUSING AFFORDABILITY
- EDUCATION
- WATER SUPPLY
- WATER QUALITY



KIT OF PARTS

Crossings and Platforms

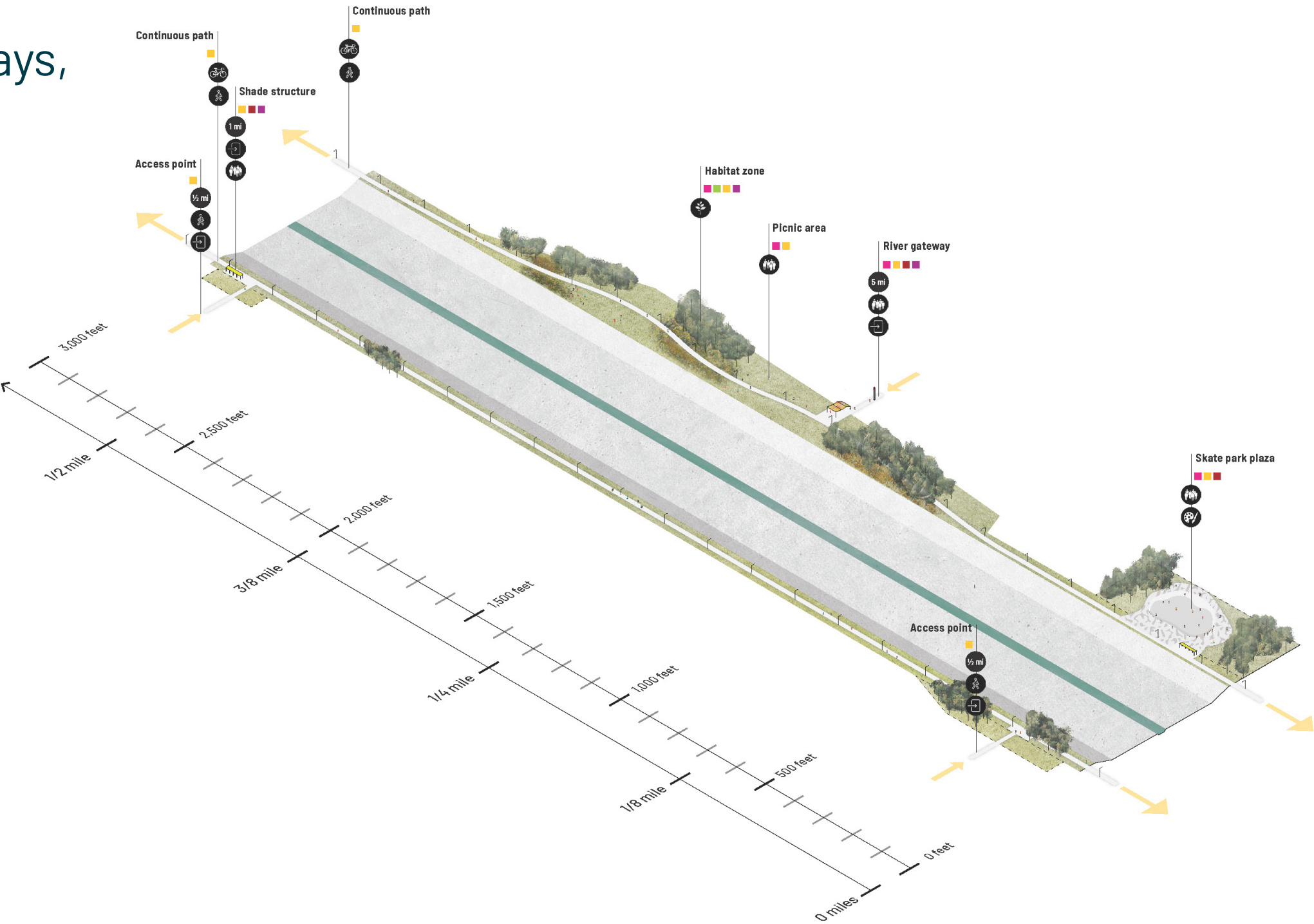
- FLOOD RISK MANAGEMENT
- PARKS
- ECOSYSTEMS
- ACCESS
- ARTS & CULTURE
- HOUSING AFFORDABILITY
- EDUCATION
- WATER SUPPLY
- WATER QUALITY



KIT OF PARTS

Trails, Access Gateways, and Shelters

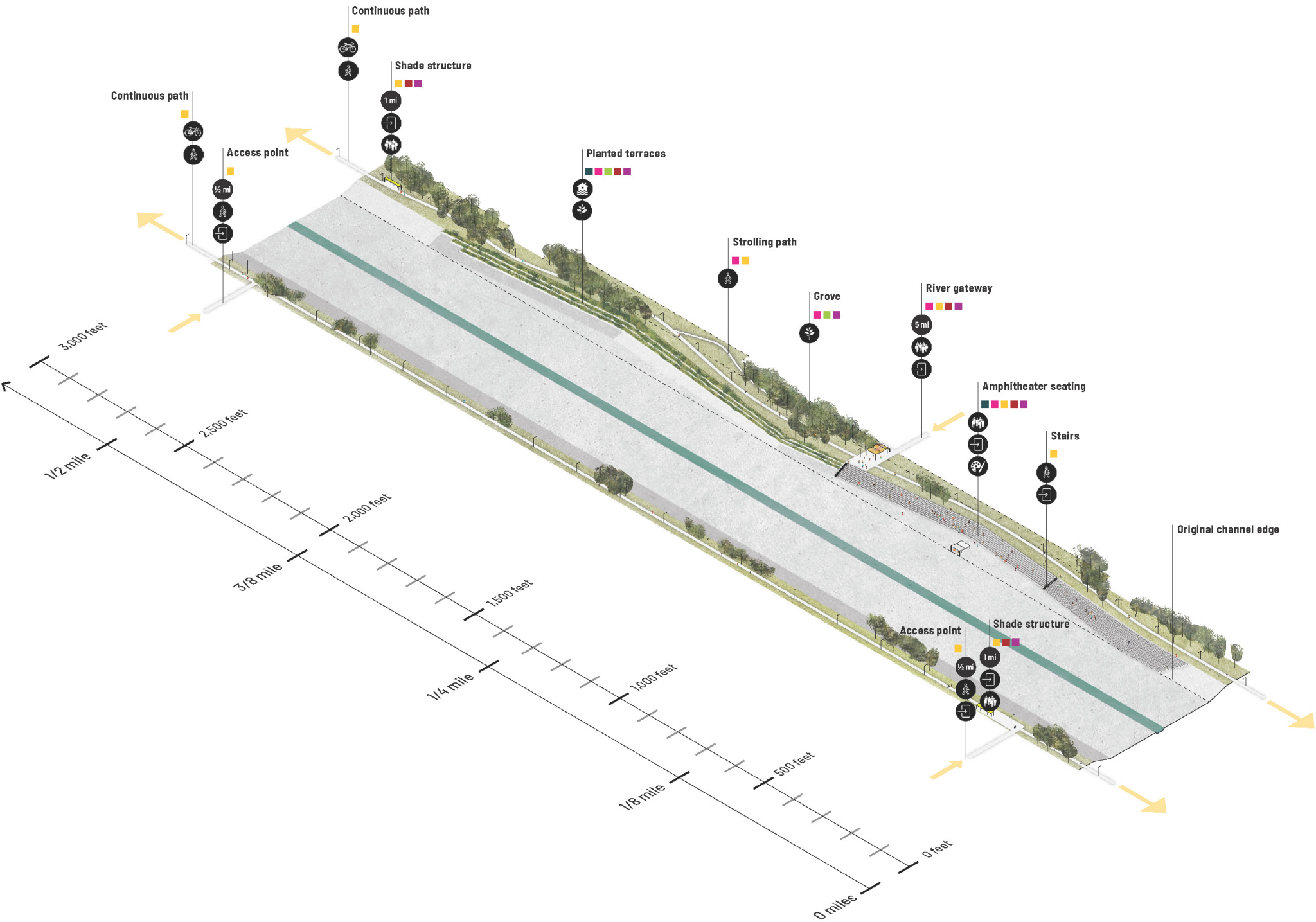
- FLOOD RISK MANAGEMENT
- PARKS
- ECOSYSTEMS
- ACCESS
- ARTS & CULTURE
- HOUSING AFFORDABILITY
- EDUCATION
- WATER SUPPLY
- WATER QUALITY



KIT OF PARTS

Channel Modification

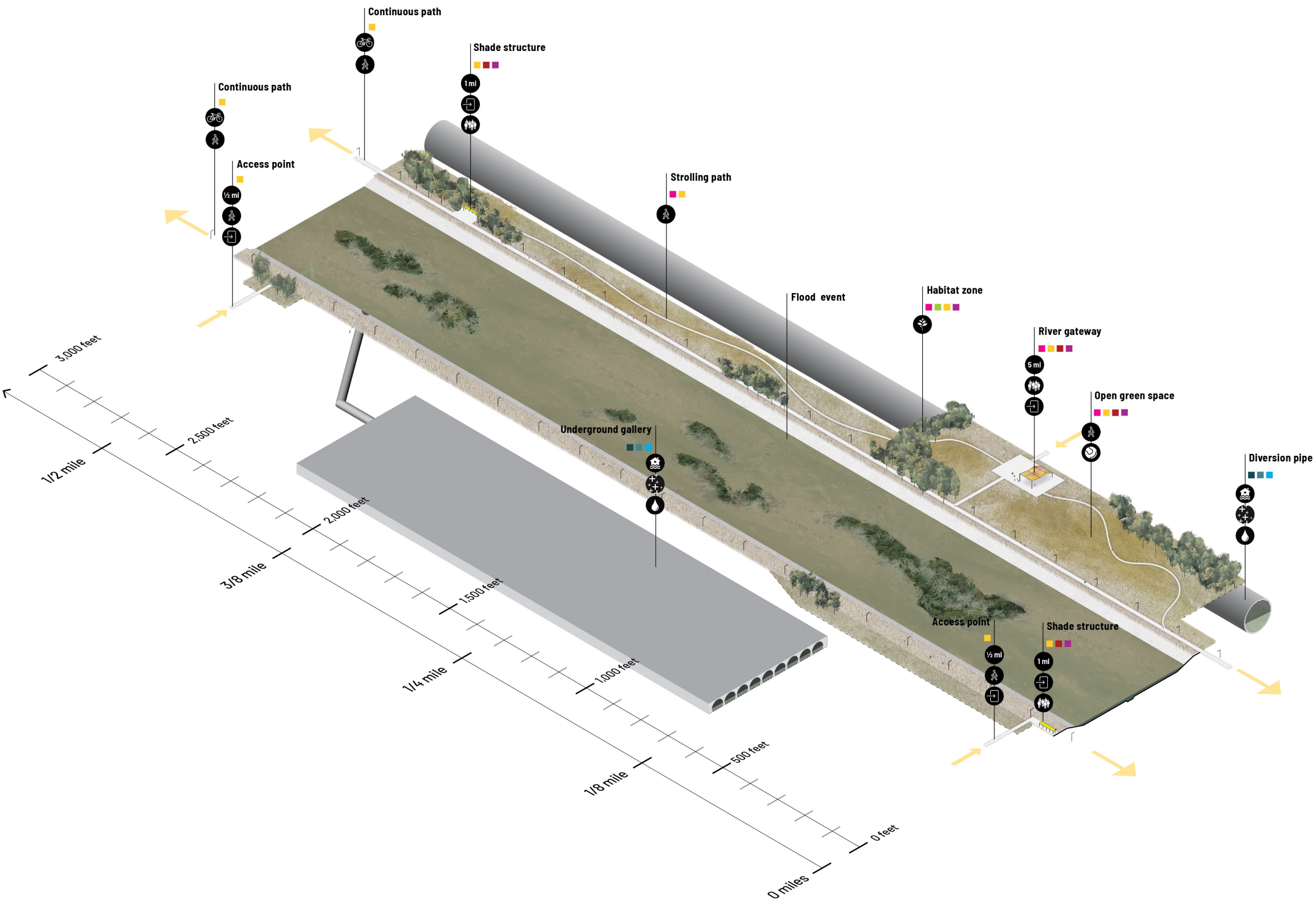
- FLOOD RISK MANAGEMENT
- PARKS
- ECOSYSTEMS
- ACCESS
- ARTS & CULTURE
- HOUSING AFFORDABILITY
- EDUCATION
- WATER SUPPLY
- WATER QUALITY



KIT OF PARTS

Diversions

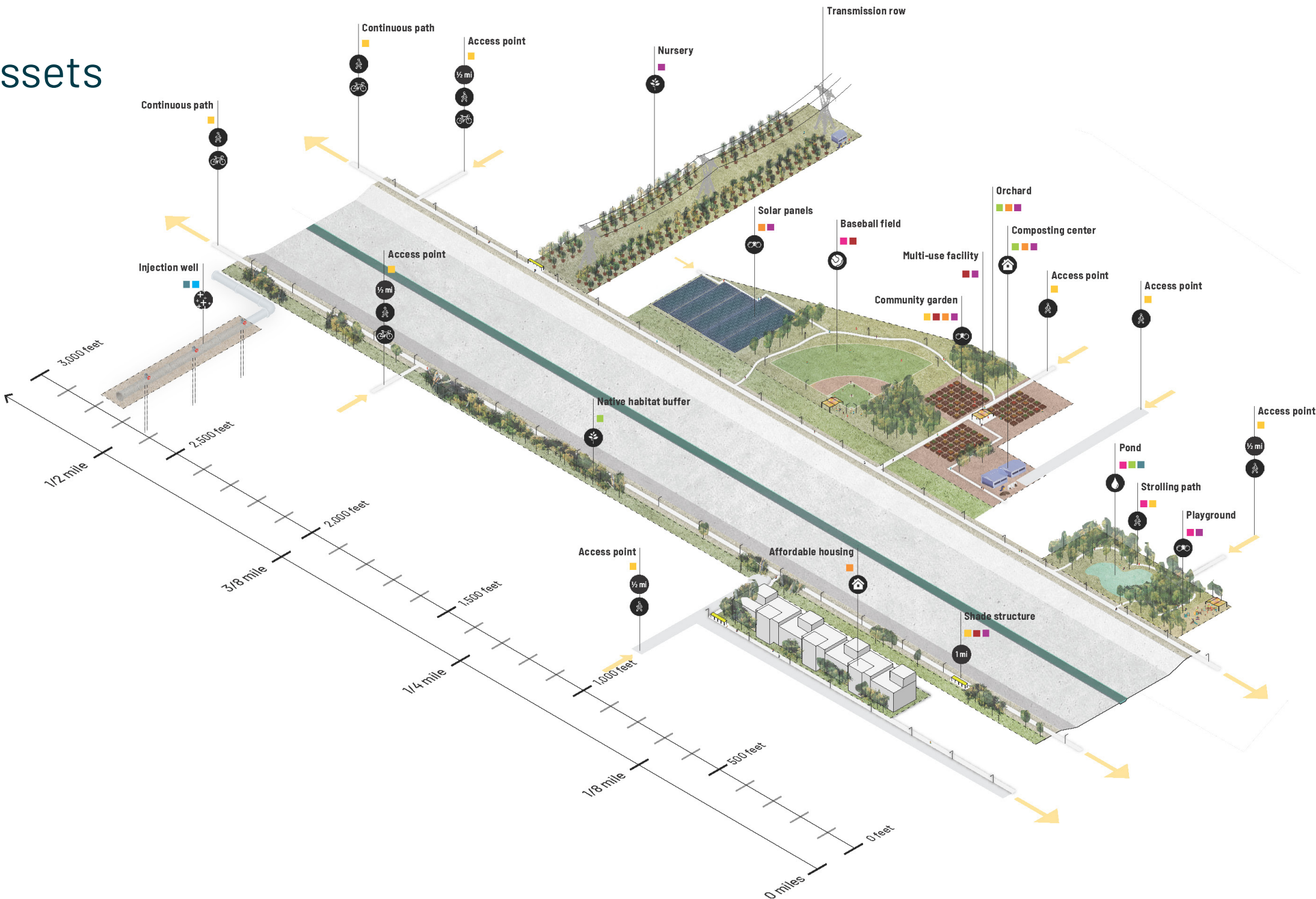
- FLOOD RISK MANAGEMENT
- PARKS
- ECOSYSTEMS
- ACCESS
- ARTS & CULTURE
- HOUSING AFFORDABILITY
- EDUCATION
- WATER SUPPLY
- WATER QUALITY



KIT OF PARTS

Off Channel Land Assets

- FLOOD RISK MANAGEMENT
- PARKS
- ECOSYSTEMS
- ACCESS
- ARTS & CULTURE
- HOUSING AFFORDABILITY
- EDUCATION
- WATER SUPPLY
- WATER QUALITY



POLICY

GOAL: *ACTIVE PRIORITY FOR THE FUTURE*

POTENTIAL ACTIONS

- *Movements toward the priority*

POTENTIAL METHODS

- *Specific implementation steps for each action*

2020 PLAN RECOMMENDATIONS

Goals (9)

L Actions	WHAT
Methods	
PARTIES RESPONSIBLE FOR IMPLEMENTATION	WHO
POTENTIAL IMPLEMENTATION PARTNERS	
GEOGRAPHIC BOUNDARIES	WHERE
ORDER-OF-MAGNITUDE COST	
EXISTING FUNDING SOURCES	HOW
POTENTIAL NEW FUNDING SOURCES	
TIMEFRAME	WHEN

Frames (9)

L Projects

EXAMPLE OF GAM MATRIX

1. Reduce flood risk and improve resiliency.			WHAT		WHO	WHERE		HOW		WHEN	
Action/Methods			Related Actions/Methods	LARMP 1996	Implementation Responsibility	Potential Partners	Geographic Boundaries	Cost	Existing Funding Sources	Potential New Funding Sources	Timeframe
1.1. Reduce flows into the river.					PW/FCD		LA River Watershed				ongoing
	1.1.1.	Ensure all development within the watershed incorporates low impact development techniques.									
	1.1.2.	Evaluate regional scale upstream flood detention basins.									
	1.1.3.	Coordinate with Watershed Management Programs/Enhanced Watershed Management Programs (E/WMPs) and other watershed management efforts to reduce imperviousness in the watershed.									
1.2. Increase capacity of the river in high risk areas and provide flood risk management to at least the 100-year event.					PW/FCD	USACE	LA River Corridor				long term (0-20 years)
	1.2.1.	Prioritize natural features and processes for flood risk reduction.									
	1.2.2.	Purchase or otherwise reclaim land along the channel and immediately adjacent floodplain areas.									
	1.2.3.	Widen and deepen the channel or raise levees.									
	1.2.4.	Build bypass channels and tunnels.									
	1.2.5.	Manage sediment in the river channel and before it accumulates in the river channel.									
	1.2.6.	Manage vegetation and remove invasive plants.									
1.3. Include climate change research in the planning process for new projects along the river.					PW/FCD	CSO	LA River Watershed				short term (0-5 years)
	1.3.1.	Update and improve the LA River hydrology analysis.									
	1.3.2.	Update and improve flood inundation mapping.									
	1.3.3.	Conduct inter-institutional study on climate change impacts in the LA Basin and how they impact hydrology.									
	1.3.4.	Apply latest accepted climate change prediction models in flood risk reduction planning.									
1.4. Improve and refine emergency preparedness.					PW/FCD	Sheriff, Fire Department, Health Agency, Municipal	LA River Corridor				short term (0-5 years)

Q & A AND DISCUSSION



PUBLIC COMMENT

Source: OLIN

PUBLIC COMMENT OPTIONS

- **Verbal comments**
 - Speakers to be called in order of speaker cards submitted (optional)
 - Up to 15 minutes total for the Public Comment item
 - Total time per person will depend on number of speaker cards received
- **Comment cards**
- **Email comments to LARiver@dpw.lacounty.gov**

WRAP UP

Important Upcoming Dates:

- Resource Conservation District Clean Up Day at Sepulveda Basin – April 13, 2019
- Community Meeting (Compton /Lynwood/East Rancho Dominguez) – April 24, 2019
- Community Meeting (Pacoima) – May 15, 2019
- Native Voices Symposium – June 1, 2019
- Steering Committee Meeting #6 – June 26, 2019
- Community Meeting (Glendale) – June 27, 2019
- Pacoima Beautiful Summer Institute and Community Event – July 1, 2019
- SELA Arts Fest (Exhibitors) – July 27, 2019

INPUT, QUESTIONS, IDEAS?

Contact Genevieve Osmena at (626) 458-4322
or LARiver@dpw.lacounty.gov

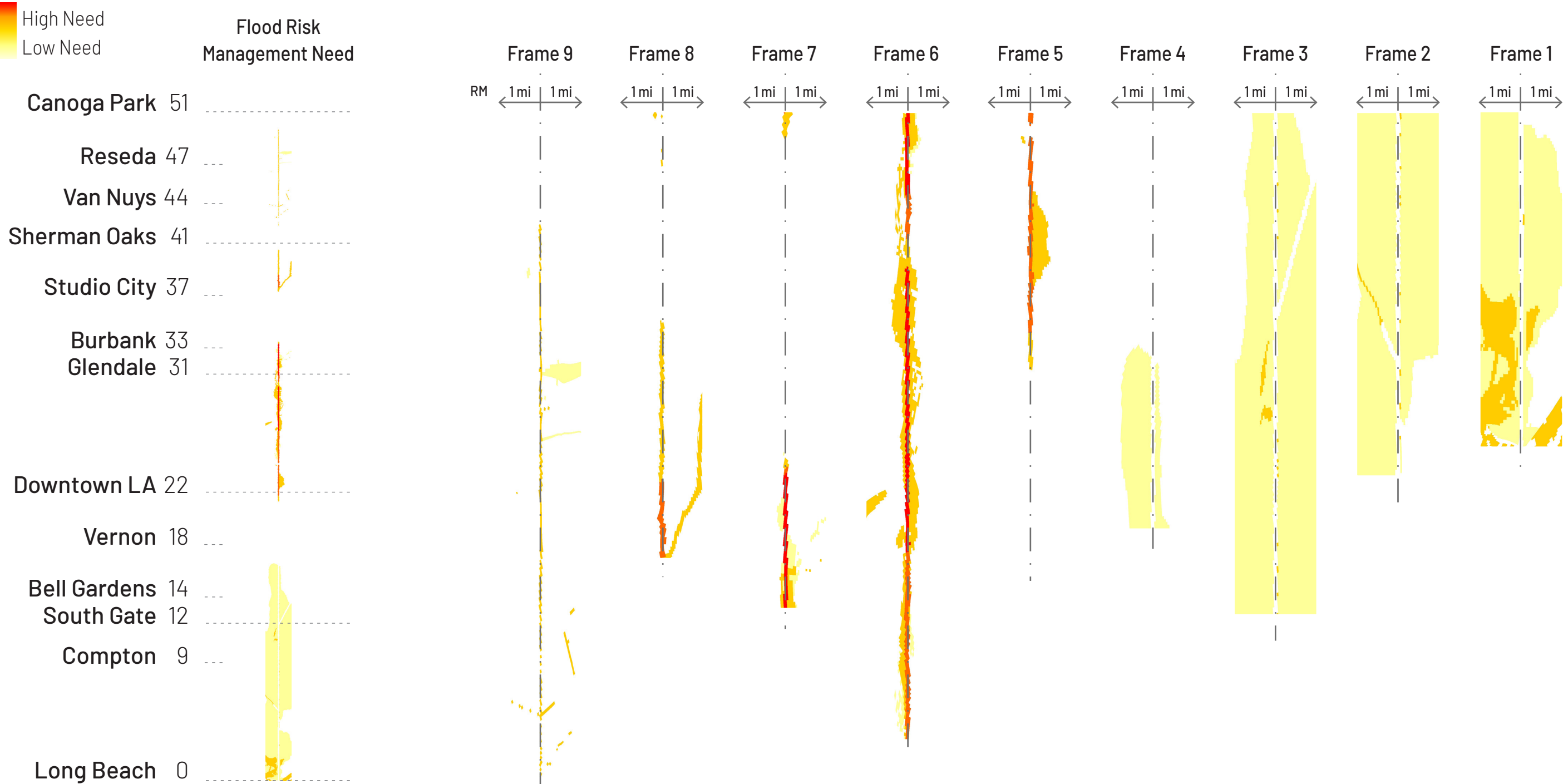


LARiverMasterPlan.org

APPENDIX

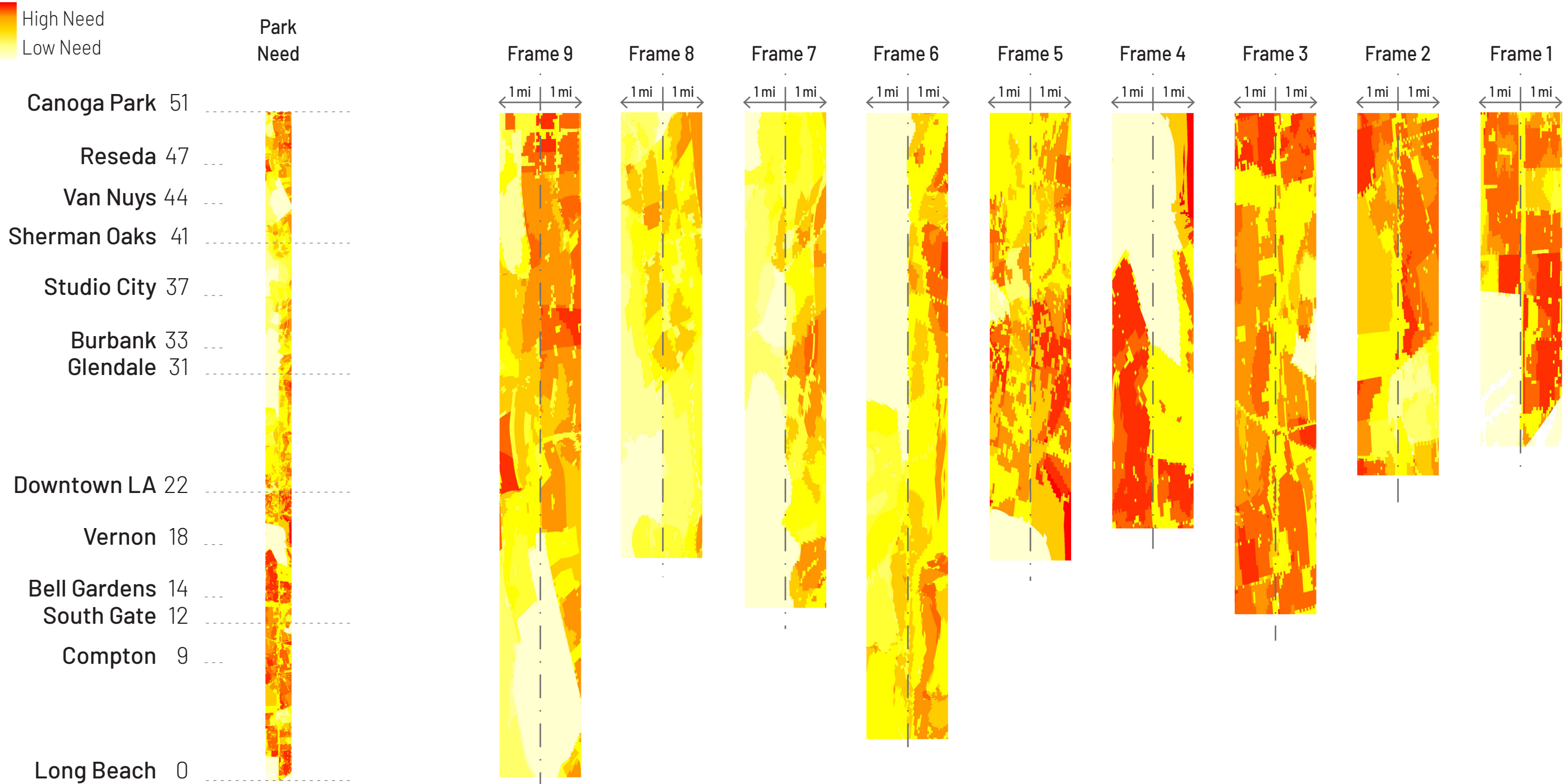


FLOOD RISK MANAGEMENT NEED



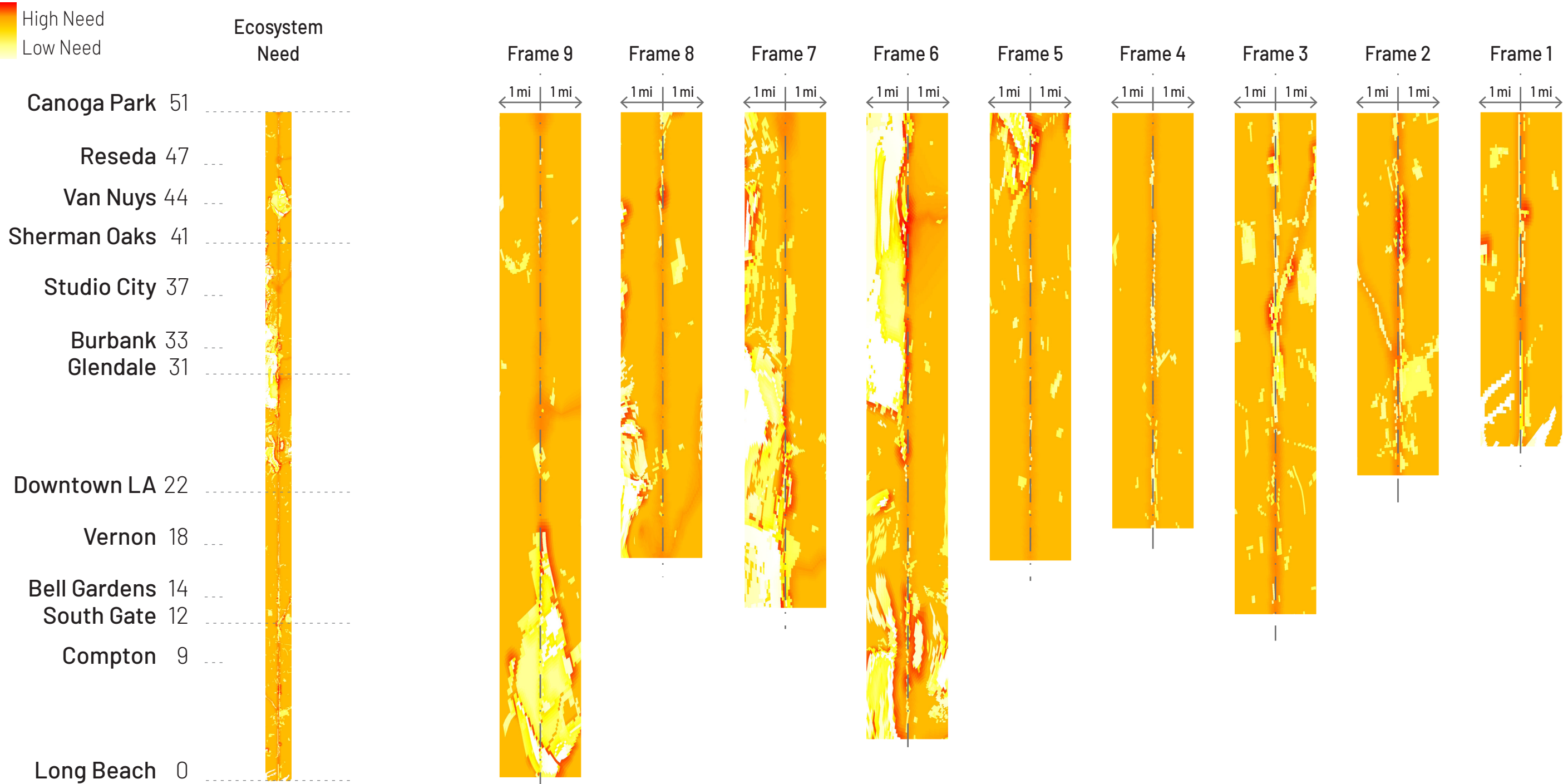
Source: Geosyntec, OLIN

PARK NEED



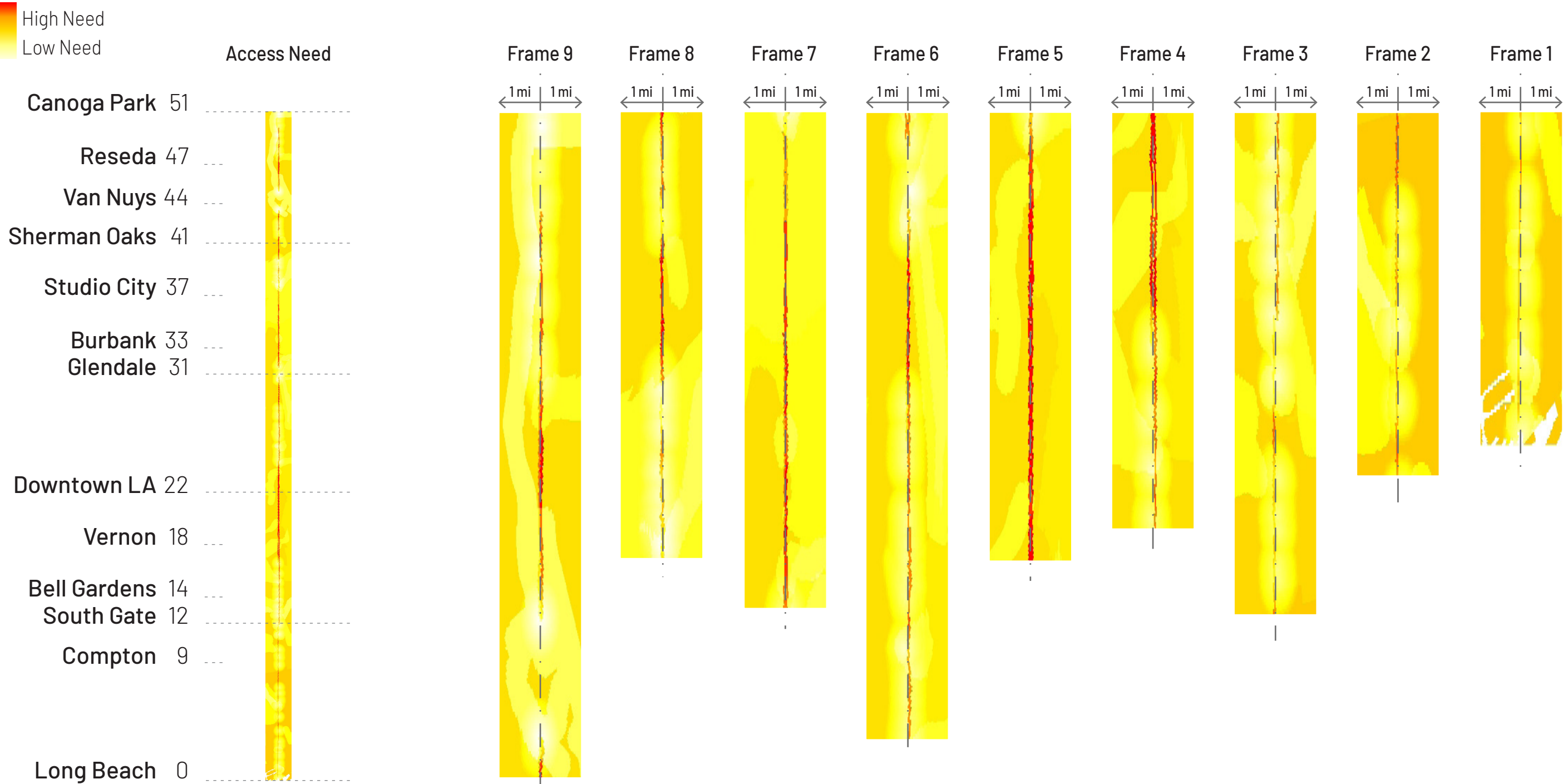
Source: OLIN

ECOSYSTEM NEED



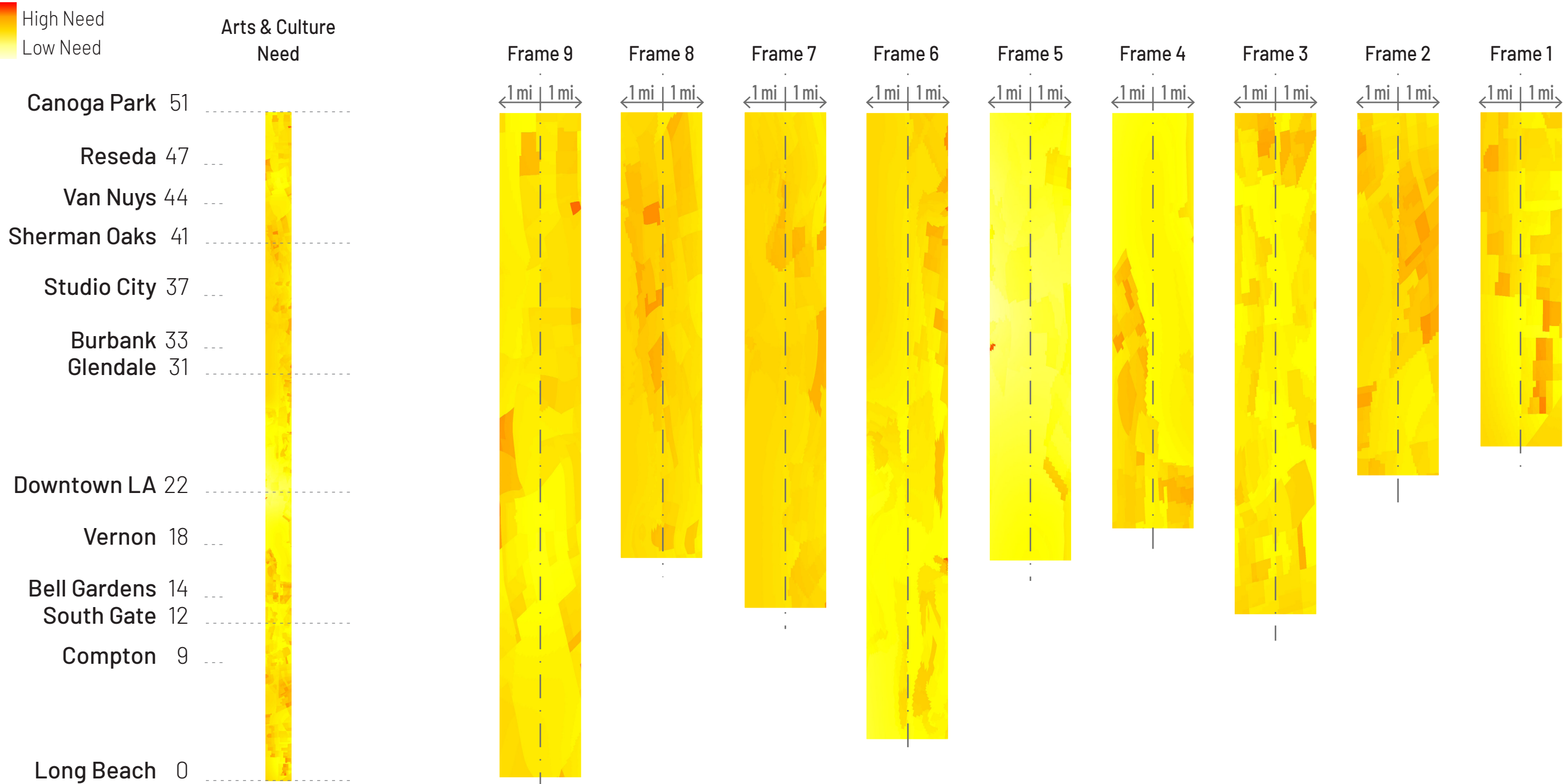
Source: OLIN

ACCESS NEED



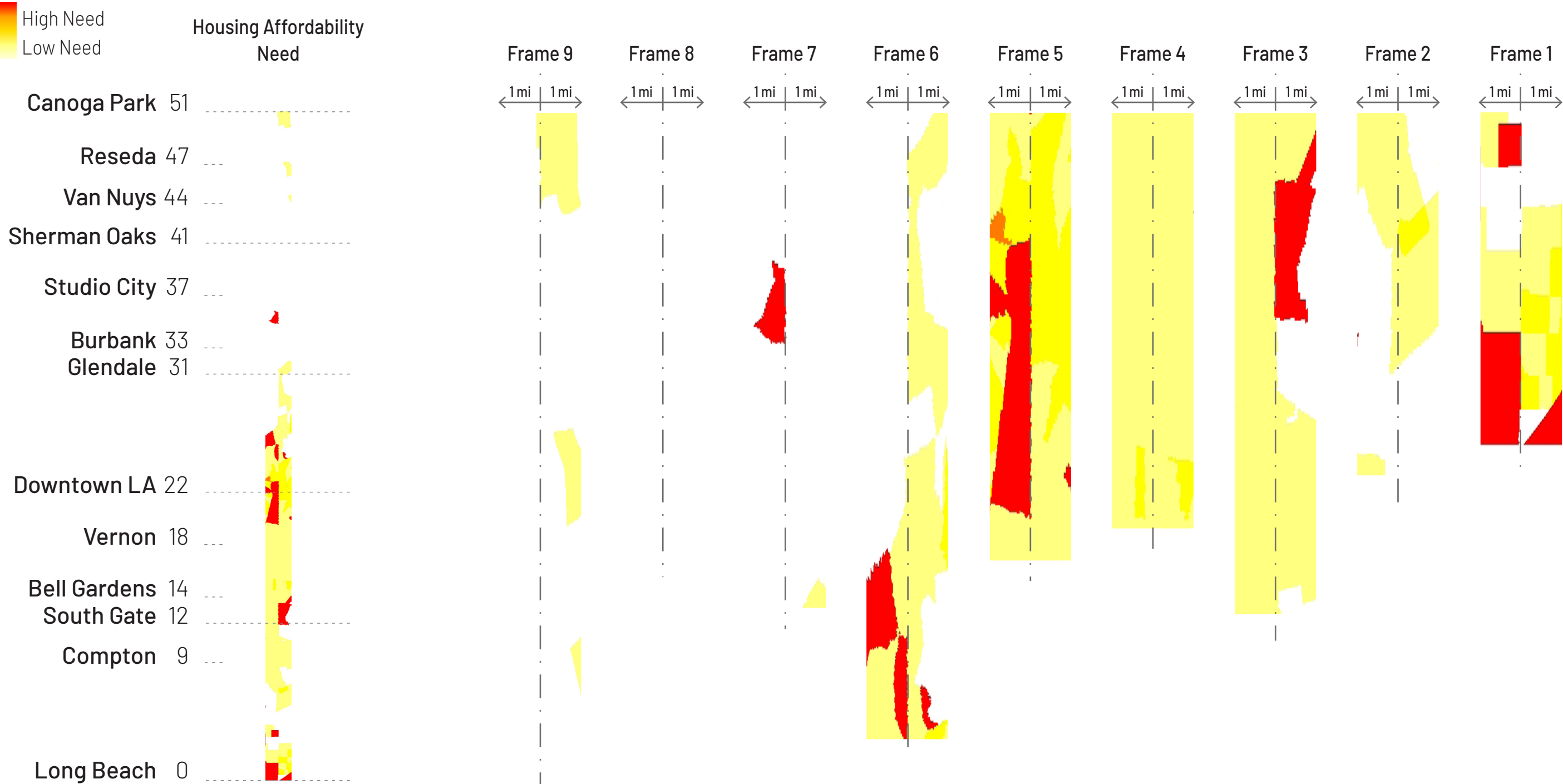
Source: OLIN

ARTS & CULTURE NEED



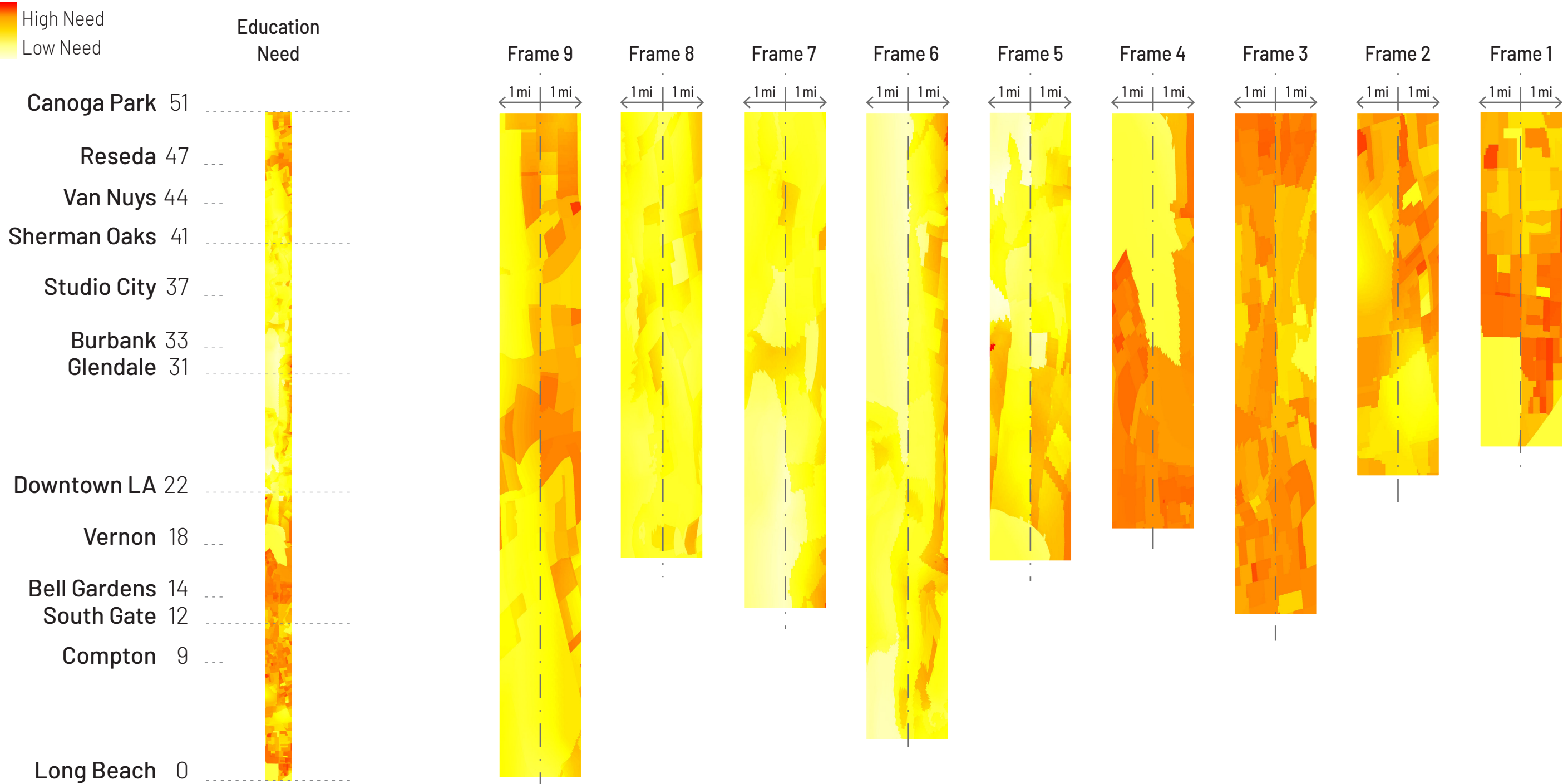
Source: OLIN

HOUSING AFFORDABILITY NEED



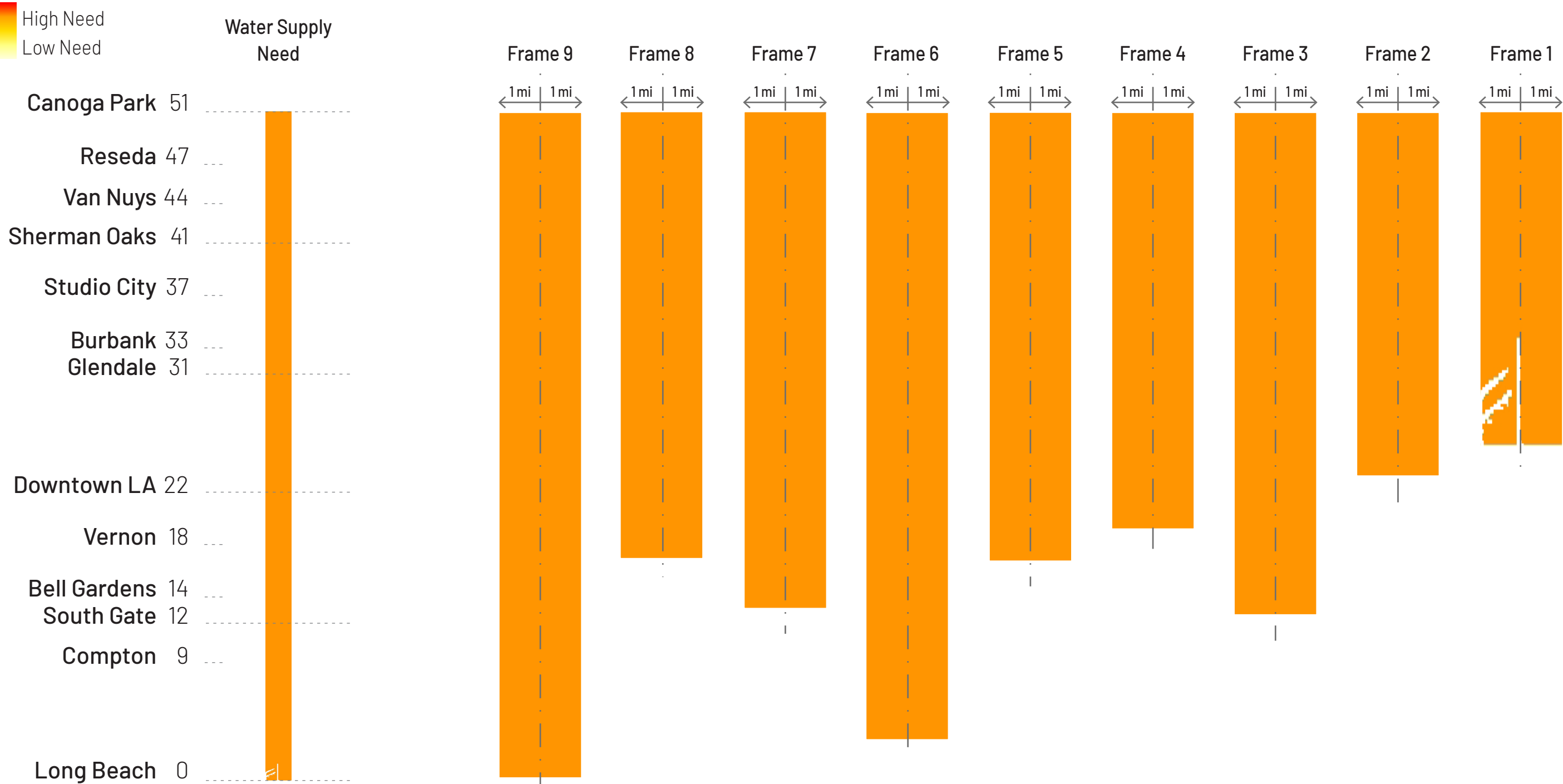
Source: OLIN *Housing affordability need used to set targets for additional affordable housing by frame, not for site selection

EDUCATION NEED



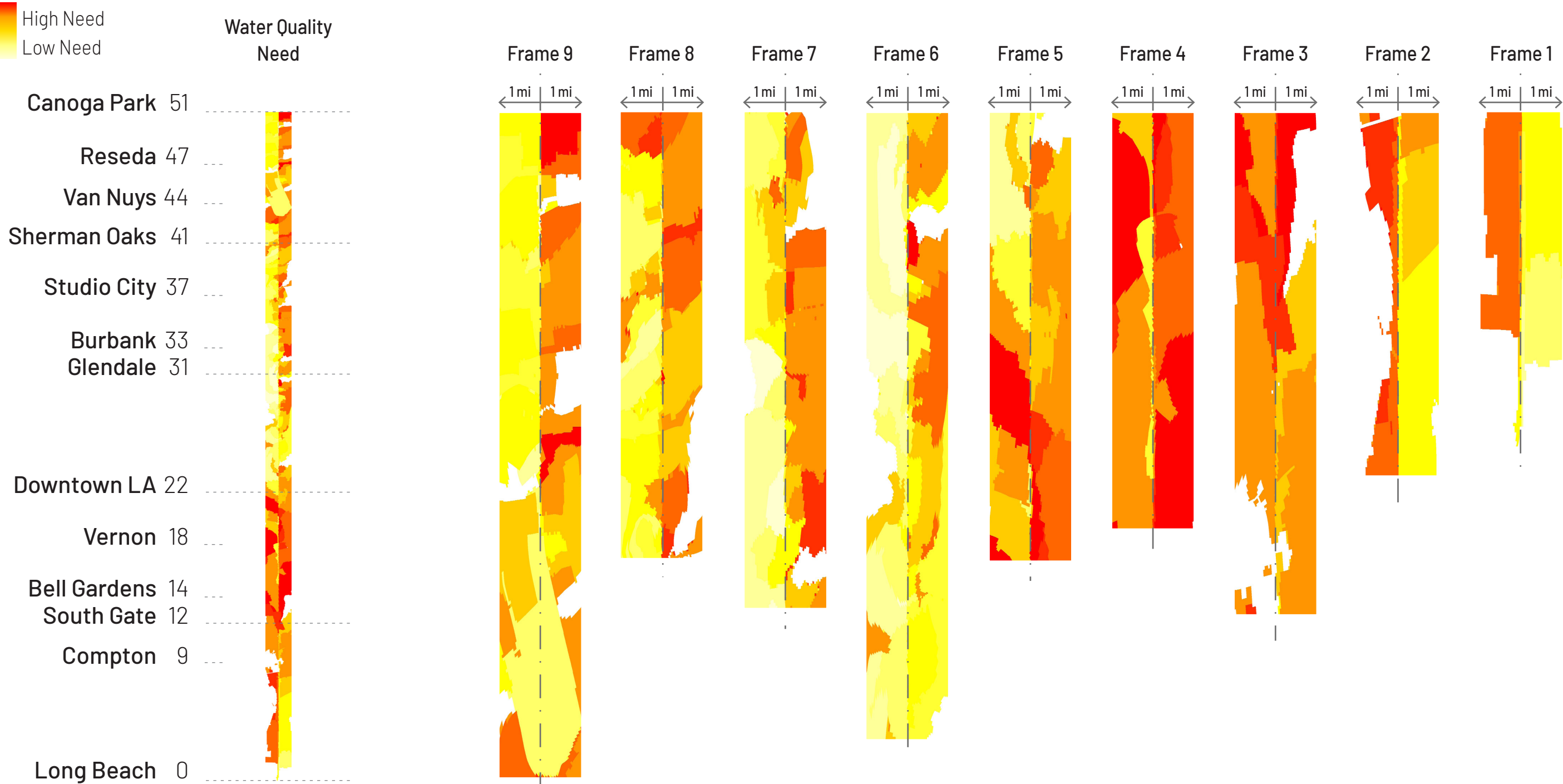
Source: OLIN

WATER SUPPLY NEED



Source: Geosyntec, OLIN

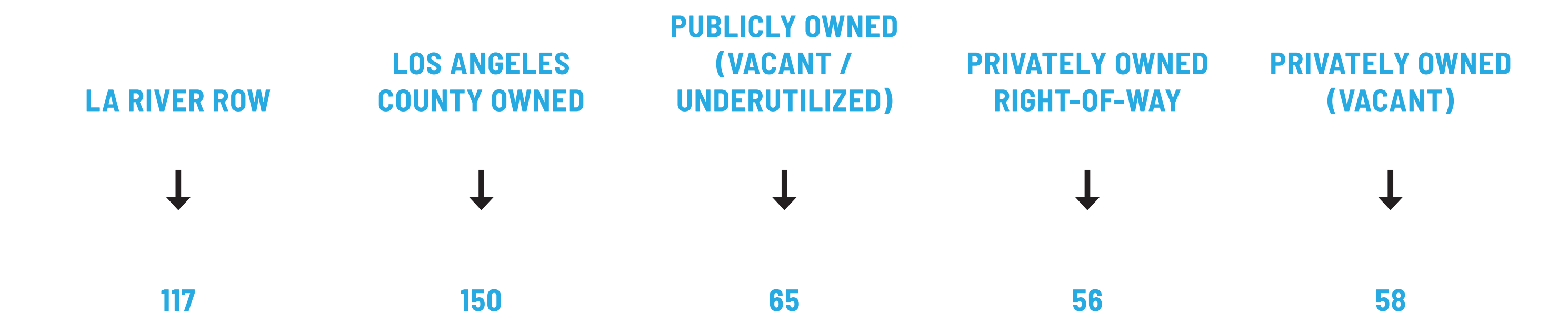
WATER QUALITY NEED



Source: Geosyntec, OLIN

OPPORTUNITY: 450 POTENTIAL SITES

Potential Opportunity Sites within 1 mile of the LA River (Includes LA River ROW)

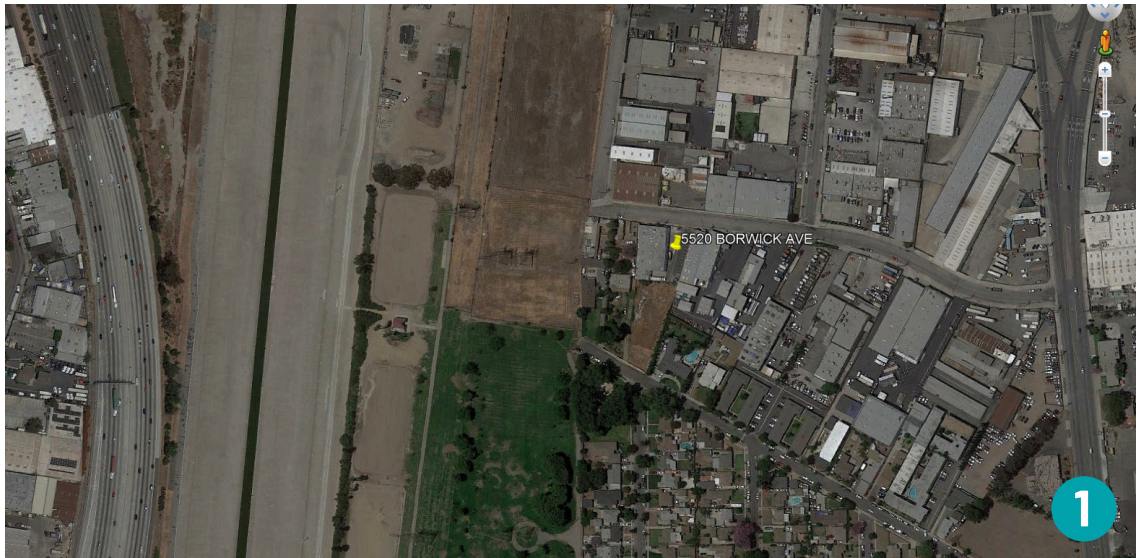


* Privately owned underutilized parcels excluded

SITE SELECTION

DESKTOP ANALYSIS

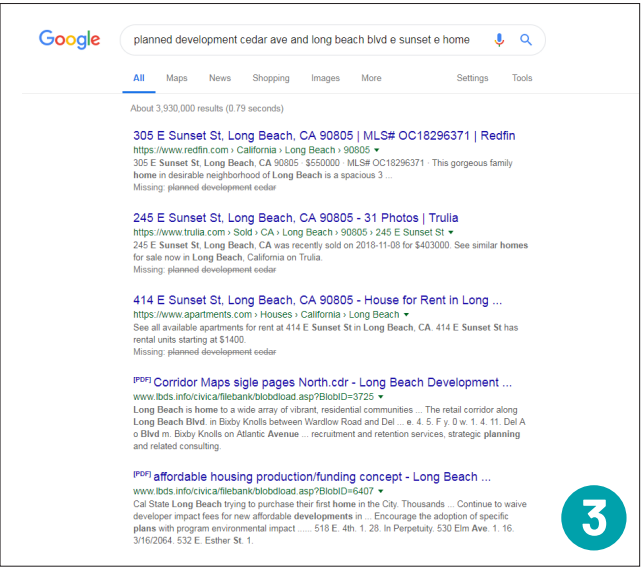
Is there recent construction on the site?
Is there apparent contamination (Superfund or Brownfield designation)?
Is there known hazardous waste?
Are there development plans for the site?



Google Earth Aerial



Google Street View

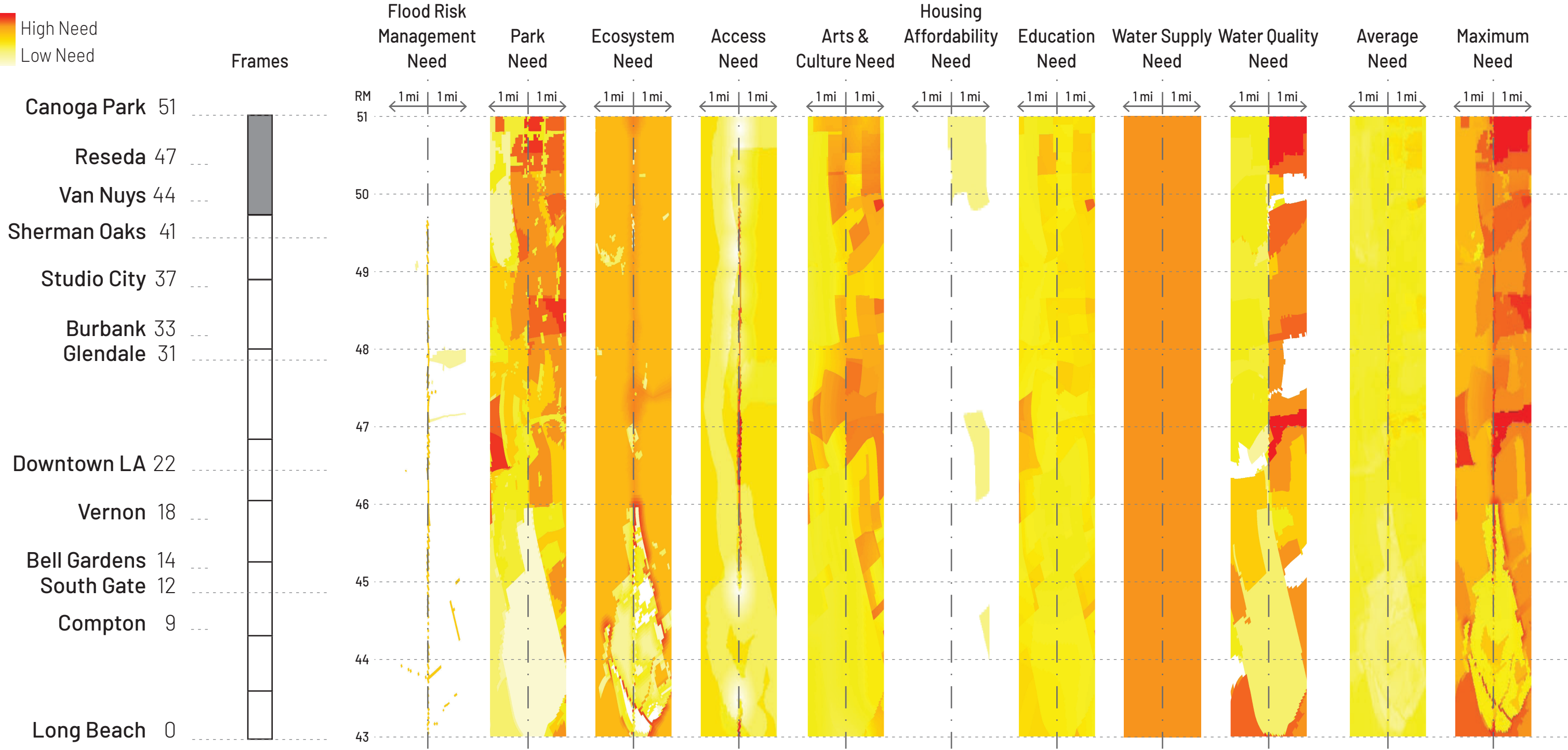


Online Search

DESKTOP ANALYSIS

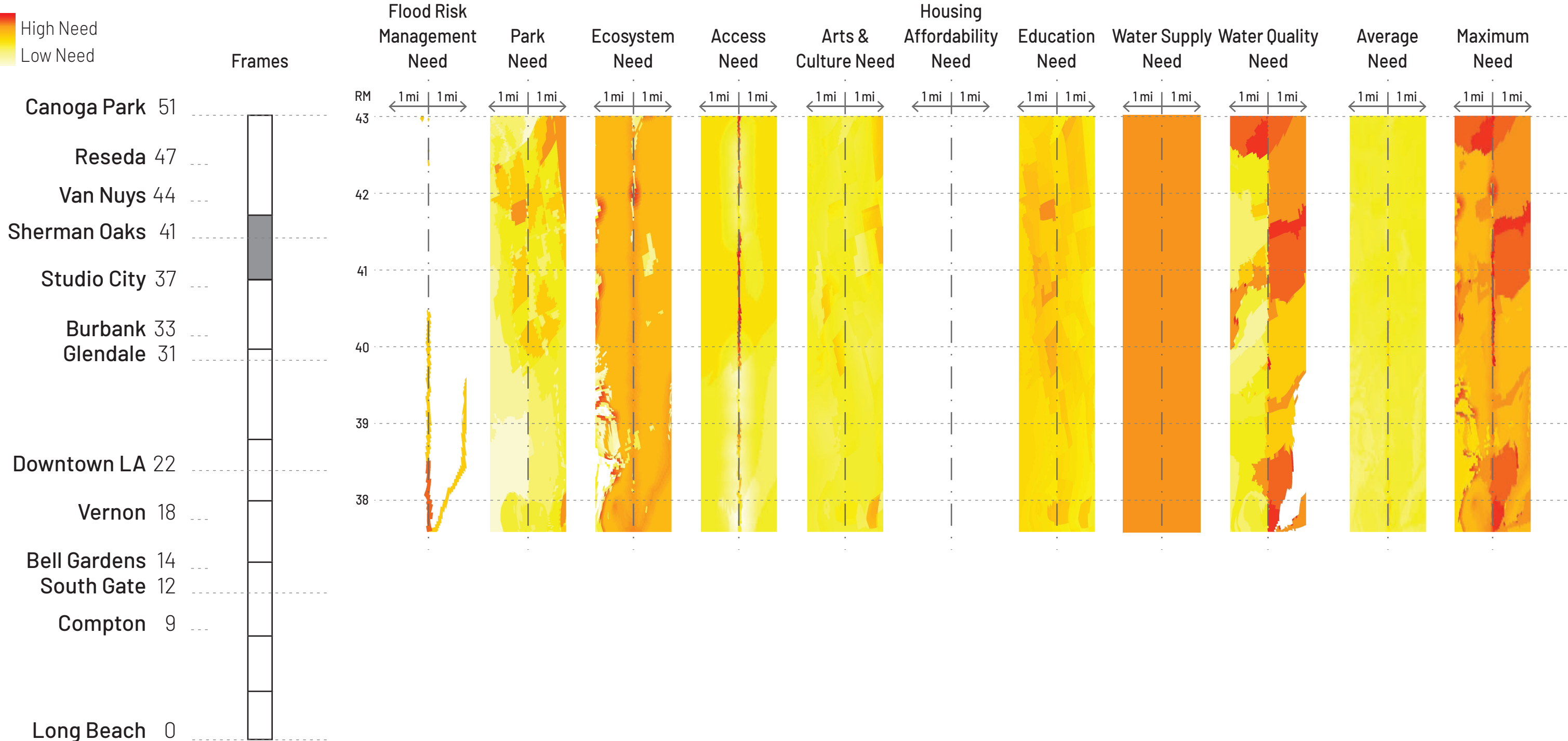
Desktop Analysis_Park Needs_Site Selection_LAR-ROW_190207.xlsx - Excel																	
File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do																	
Clipboard Font Alignment Number Styles Cells Editing																	
I114 Storage Lot																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
	done	imins	FID	OBJECTID	Frame	LAR ROW	CoordY	CoordX	Aerial	AerialScore	Streetview	StreetviewDate	StreetviewScore	PlannedDevelopment	PlanningScore	Assesso	Other notes
86	y	x	84	131	3	0	33.9483	-118.184	Parking lot	3	Fire station	1/1/18	3				
87	y	0	85	132	3	0	33.96	-118.185	Parking lot	3	Parking lot	4/1/17	3				
88	y	0	86	133	4	0	33.9689	-118.183	Parking / storage lot	3	Parking lot behind structure	3/1/17	3				
89	y	0	87	134	4	0	33.9692	-118.174	Water storage	3	Water storage	3/1/18	3				
90	y	0	88	135	4	0	33.9756	-118.17	Business parking	3	Parking lot	3/1/18	3				
91	y	0	89	136	4	0	33.9896	-118.179	Building with parking lot	3	Boxing Club building	3/1/18	3				
92	y	0	90	137	5	0	34.0178	-118.225	Truck parking	3	Parking lot	4/1/18	3				
93	y	0	91	138	5	0	34.025	-118.227	Storage yard	3	Industrial operation	4/1/18	2				
94	y	0	92	139	5	0	34.0214	-118.222	Railroad ROW	3	Not available		2				
95	y	0	93	140	5	0	34.0303	-118.225	Parking lot	3	Parking lot	10/1/17	3				
96	y	0	94	141	5	0	34.0262	-118.237	Asphalt lot	3	Fenced off, can't see	10/1/17	2				
97	y	x	95	144	5	0	34.0448	-118.232	Rail yard	3	Not available	10/1/2017	2				
98	y	0	96	145	5	0	34.0452	-118.237	Parking lot	3	Unclear if this is a walled parking lot or something else	2/1/18	2				
99	y	0	97	146	5	0	34.0398	-118.236	Parking lot	3	Parking garage	10/1/17	3				
100	y	0	98	147	5	0	34.0398	-118.24	Parking lot	3	Parking lot	1/1/18	3				
101	y	0	99	148	5	0	34.0516	-118.236	Parking lot	3	Parking lot	1/1/17	3				
102	y	0	100	150	5	0	34.0504	-118.239	Parking lot	3	Can't see	6/1/17	2				
103	y	0	101	152	5	0	34.0519	-118.23	Storage yard	3	Storage yard	8/1/15	3				
104	y	0	102	153	5	0	34.0493	-118.236	Parking lot	3	Parking lot	8/1/14	3				
105	y	0	103	154	5	0	34.0516	-118.239	Parking lot	3	Parking lot	6/1/17	3				
106	y	0	104	155	5	0	34.0527	-118.235	Industrial lot	3	Industrial operation	1/1/17	3				
107		0	105	159	5	0	34.0579	-118.239	Parking Lot	3	Parking Lot	June-17	3				
108		0	106	162	5	0	34.0567	-118.241	Parking Lot	3	Parking Lot	June-17	3				
109		0	107	165	5	0	34.0579	-118.239	Parking Lot	3	Parking Lot	June-17	3				
110		0	108	167	6	0	34.1055	-118.246	Apartment complex	1	Apartment complex	Nov-2017	1				
111		0	109	168	6	0	34.1057	-118.258	Vacant Lot	3	City Water Utility Lot?	May-2018	2				
112		0	110	169	6	0	34.1083	-118.262	Vacant Strip	3	Vacant Strip	Apr-2015	3				
113		0	111	173	9	0	34.1897	-118.592	Power Infrastructure	1	Electrical Equipment/City wide power infrastructure	May-2018	1				
114		0	112	175	5	0	34.0156	-118.225	Storage Lot	2	Raw material storage site	Jan-2018	2				Highly industrial area
115		0	113	176	4	0	34.0044	-118.206	Storage Lot	2	Storage Lot	Mar-2018	2				Highly industrial area
116	x		114	177	4	0	33.9923	-118.169	Vehicle and equipment Storage	1	US Army Vehicle and equipment Storage	Dec-2017	1				
117		0	115	178	4	0	33.9842	-118.172	Storage Yard	3	Vacant Lot	Mar-2018	3				Dirrectly Adjacent to Riverfront Pa
118		0	116	179	4	0	33.9894	-118.176	Storage Yard	3	Vacant Lot	Mar-2018	2				Highly industrial area
119		0	117	180	3	0	33.9653	-118.167	Parking Lot	3	Parking Lot	Jan-2018	3				
120		0	118	181	3	0	33.9428	-118.167	Storage Lot	2	South Gate Transfer Station	Mar-2018	2				Garbage transfer station, could the
121		0	119	182	3	0	33.9234	-118.166	Vacant Lot	3	Vacant Lot	Mar-2018	3				Directly across from Public works!
122		0	120	183	2	0	33.9887	-118.185	Park	1	Park	Apr-18	1				

FRAME 9 NEEDS



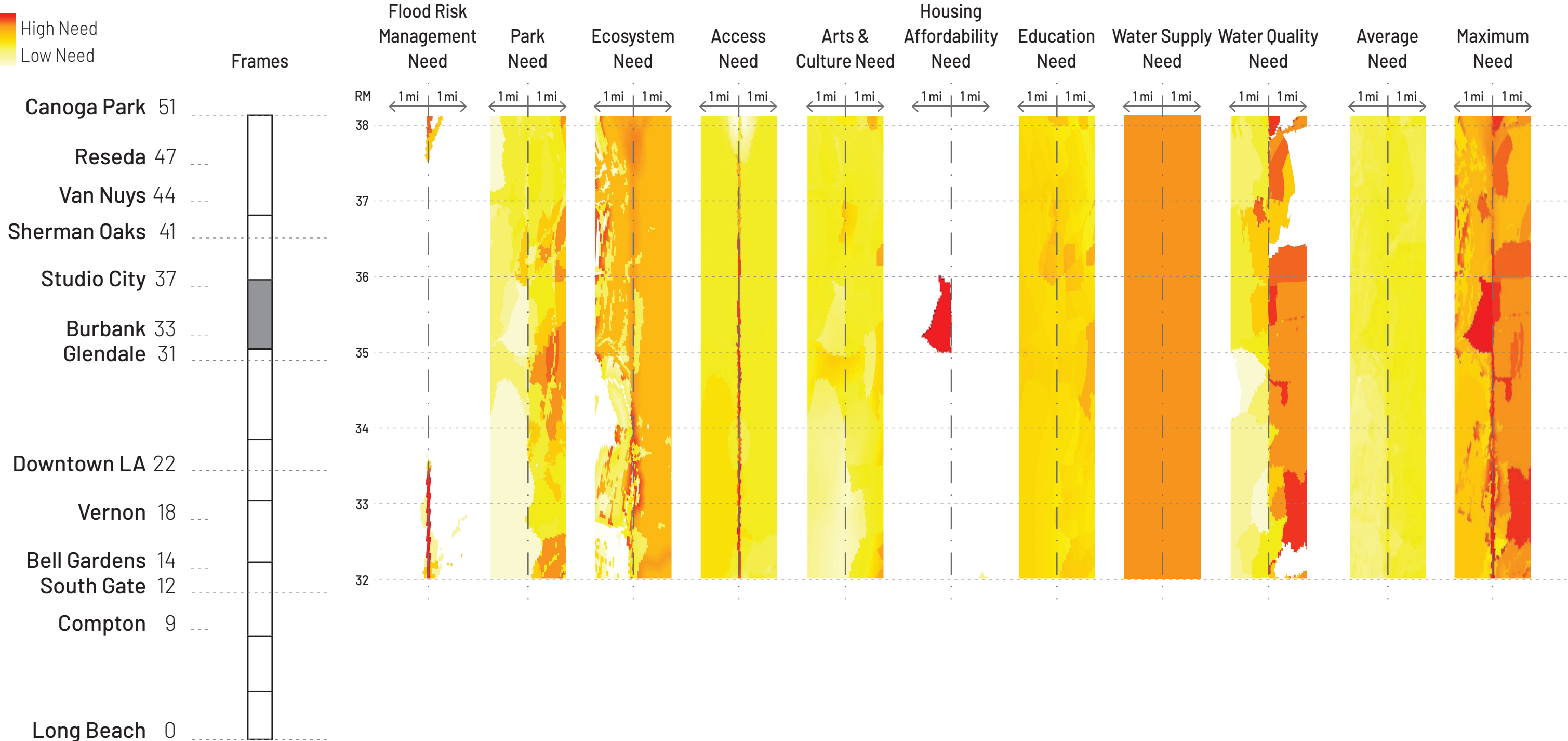
Source: OLIN, Geosyntec

FRAME 8 NEEDS



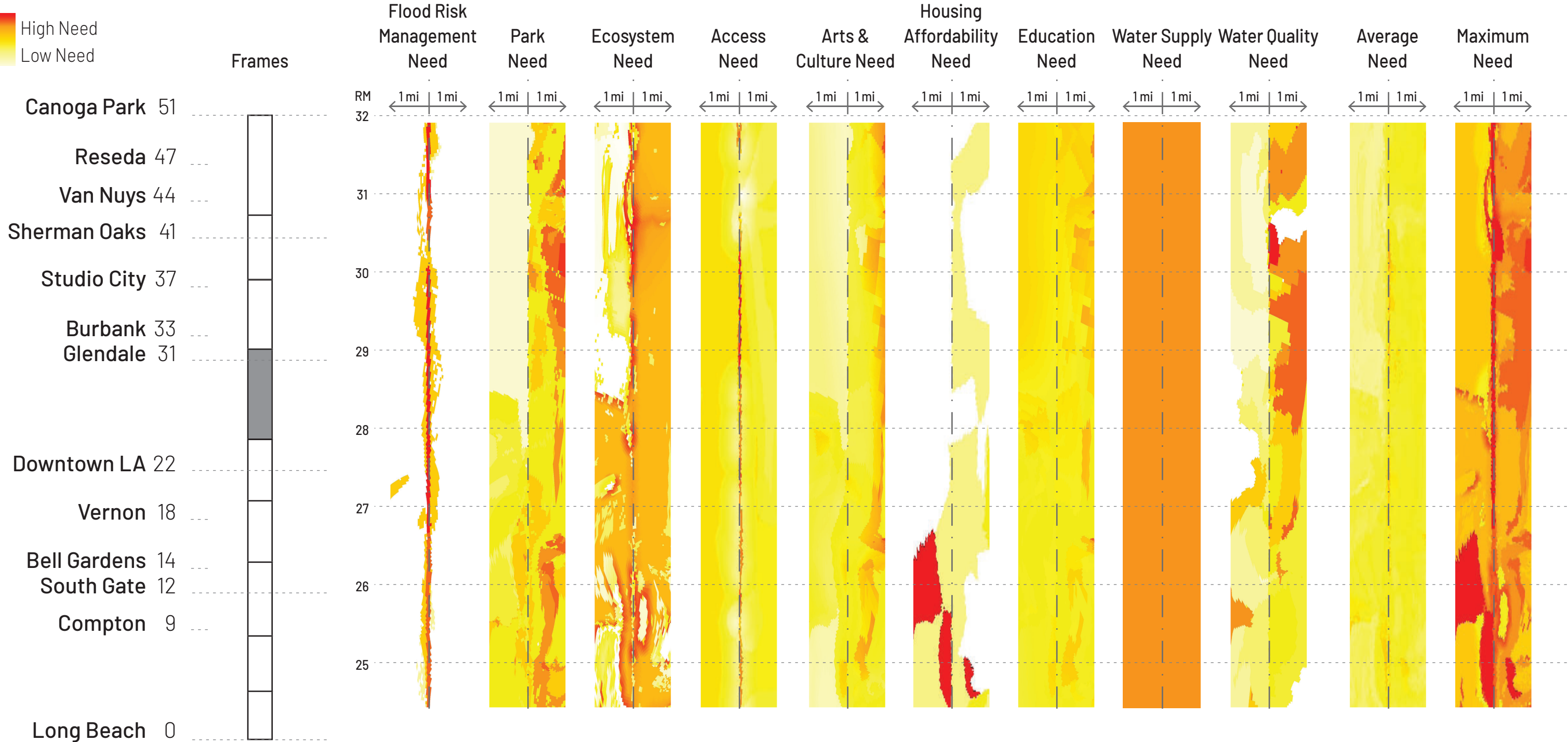
Source: OLIN, Geosyntec

FRAME 7 NEEDS



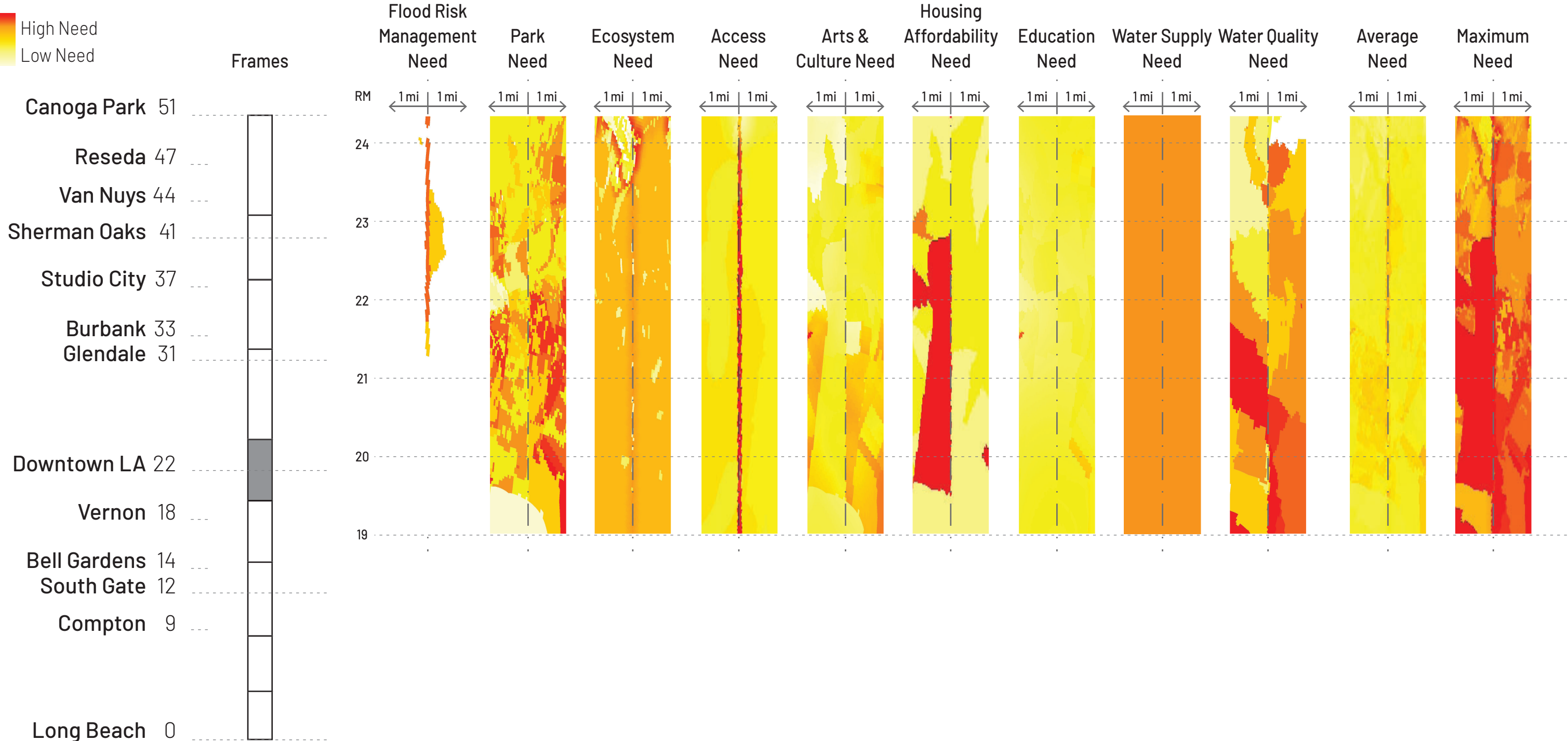
Source: OLIN, Geosyntec

FRAME 6 NEEDS



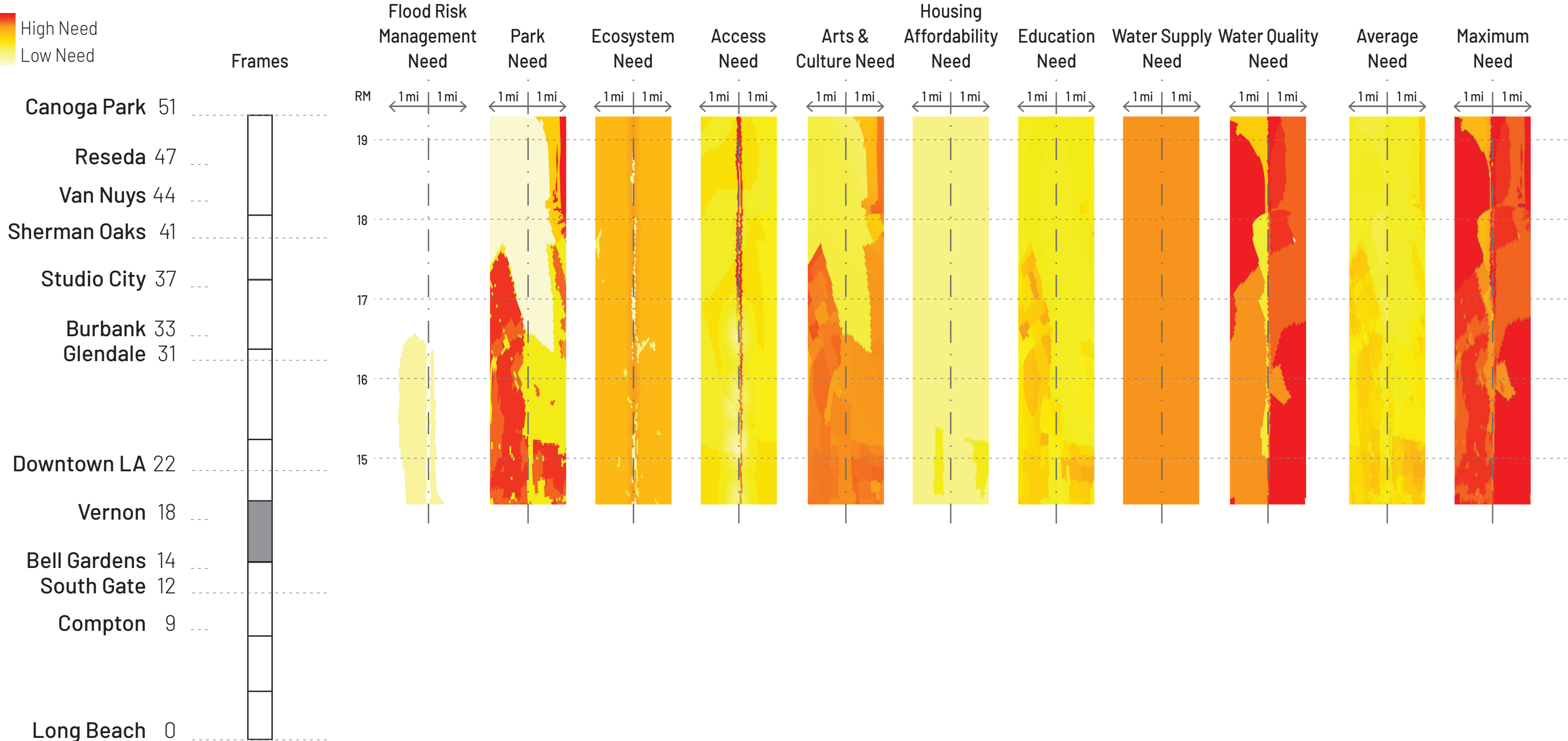
Source: OLIN, Geosyntec

FRAME 5 NEEDS



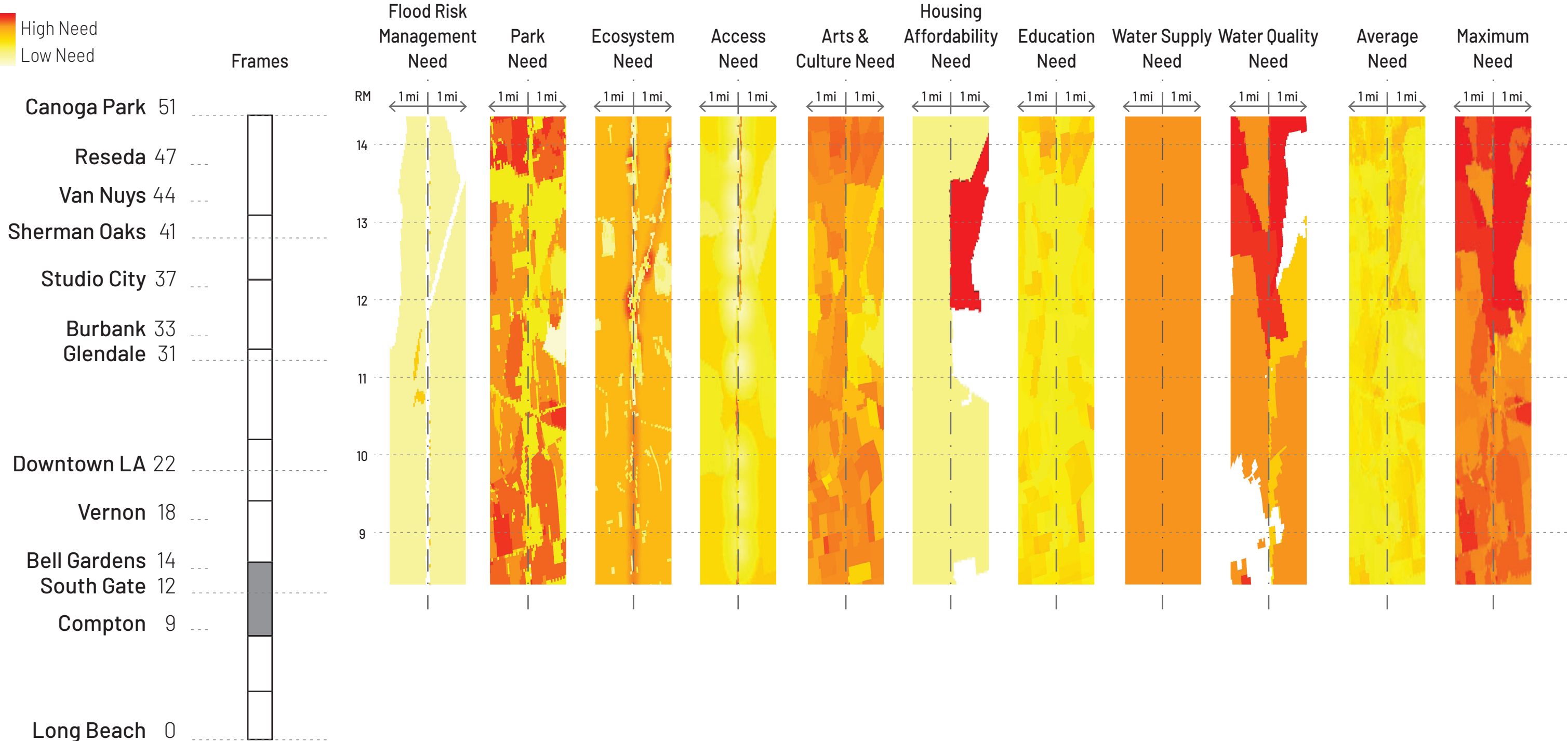
Source: OLIN, Geosyntec

FRAME 4 NEEDS



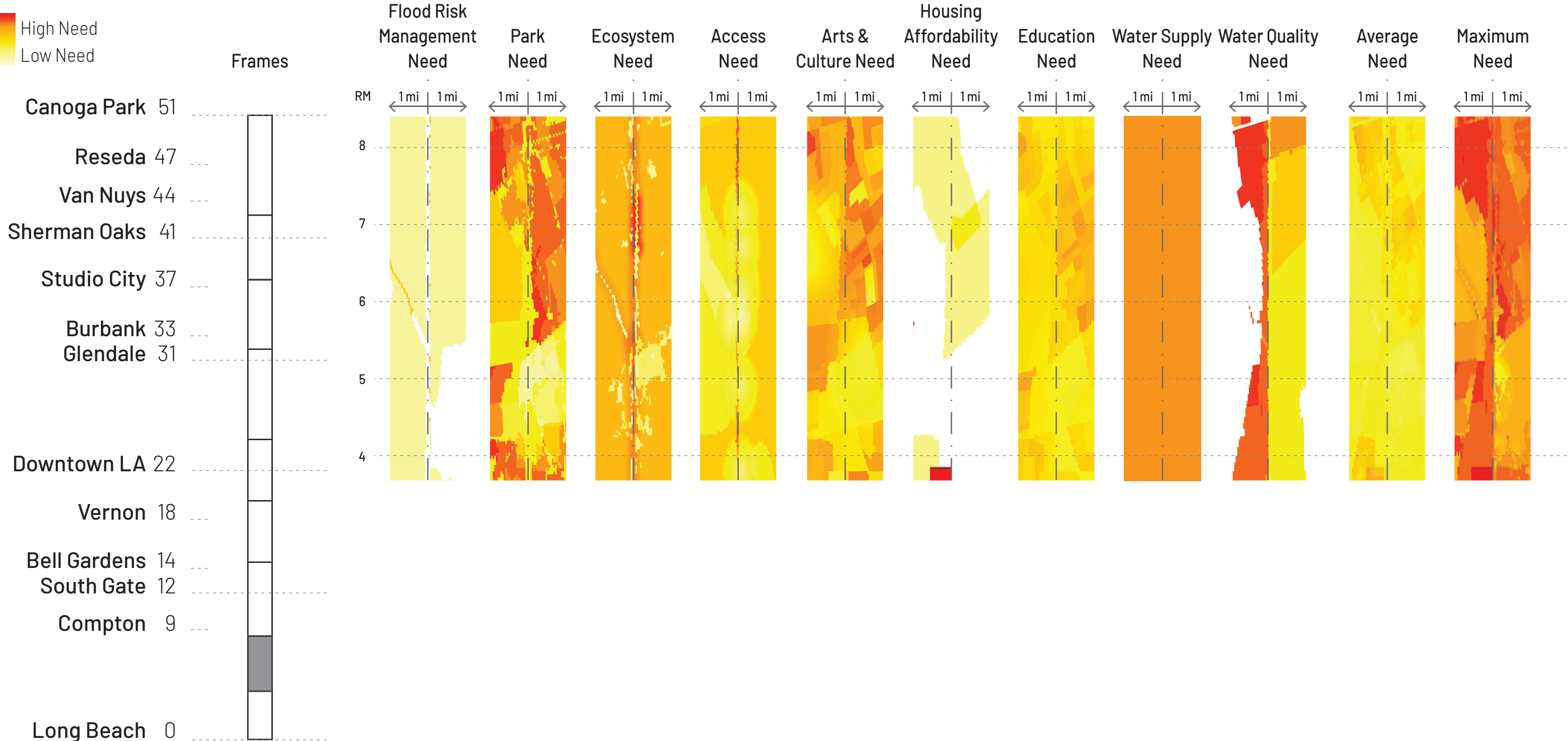
Source: OLIN, Geosyntec

FRAME 3 NEEDS



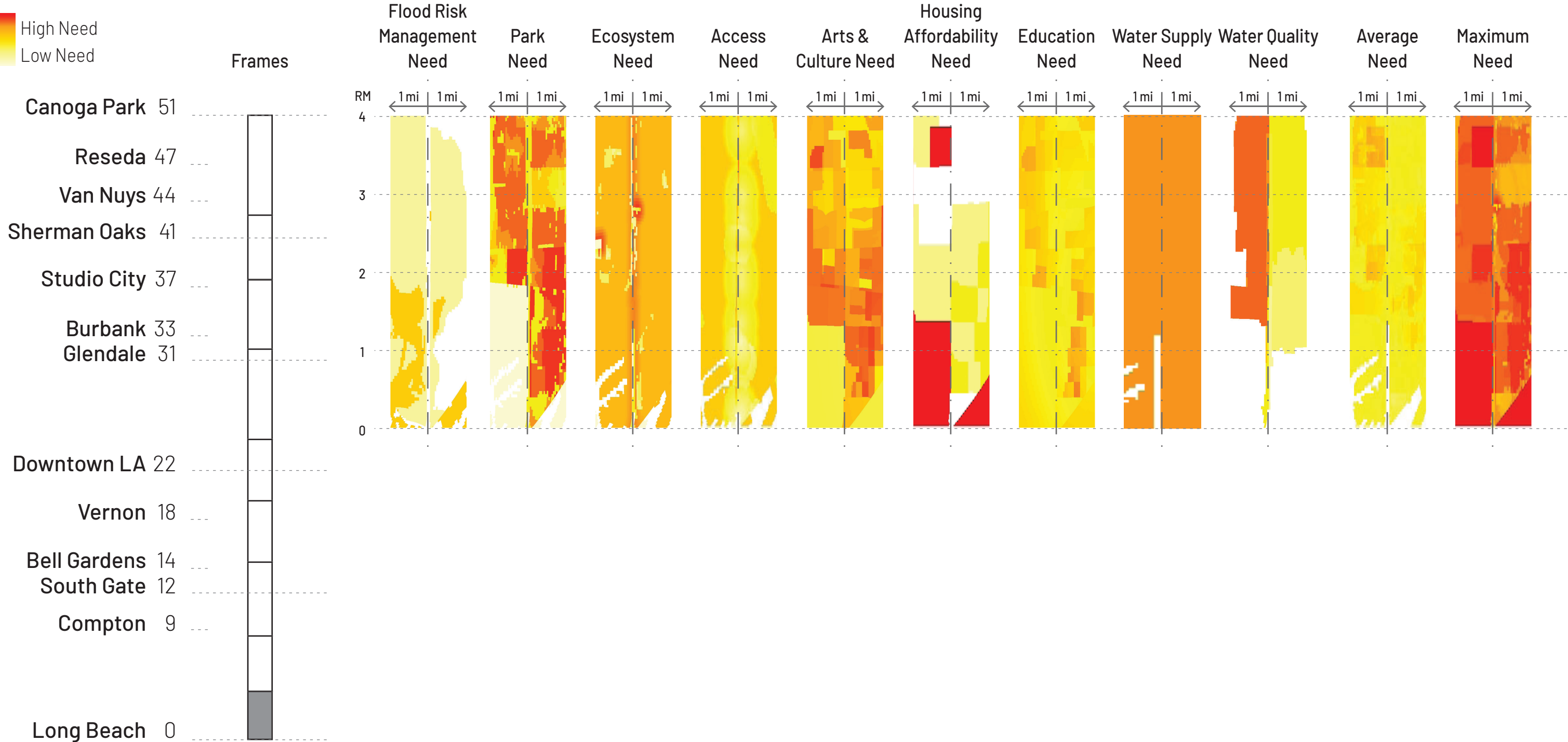
Source: OLIN, Geosyntec

FRAME 2 NEEDS



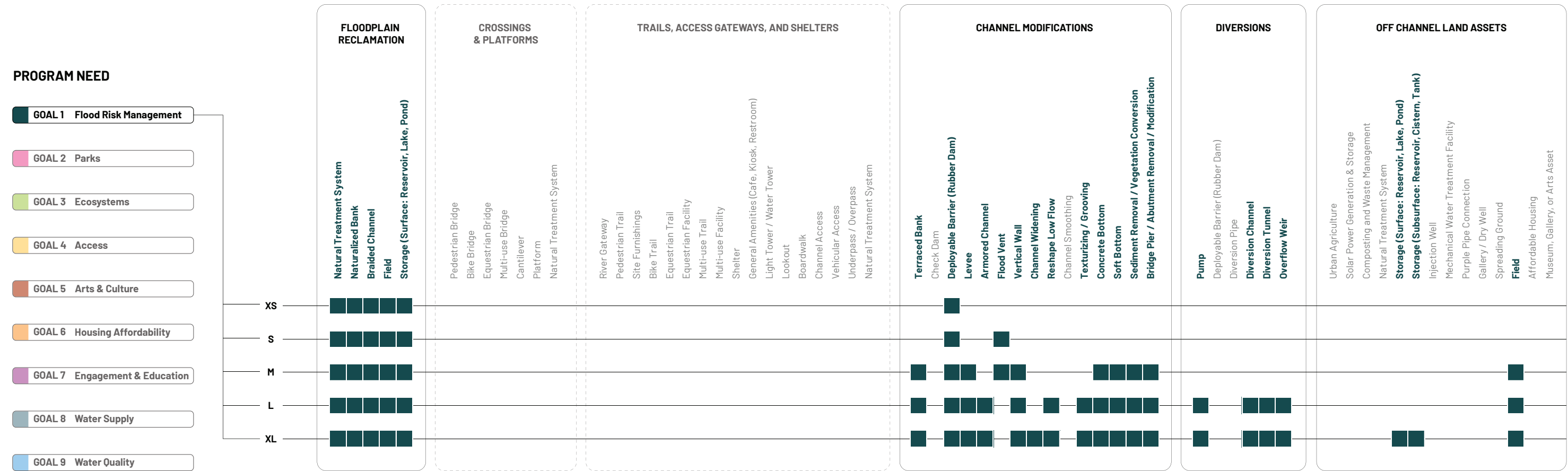
Source: OLIN, Geosyntec

FRAME 1 NEEDS



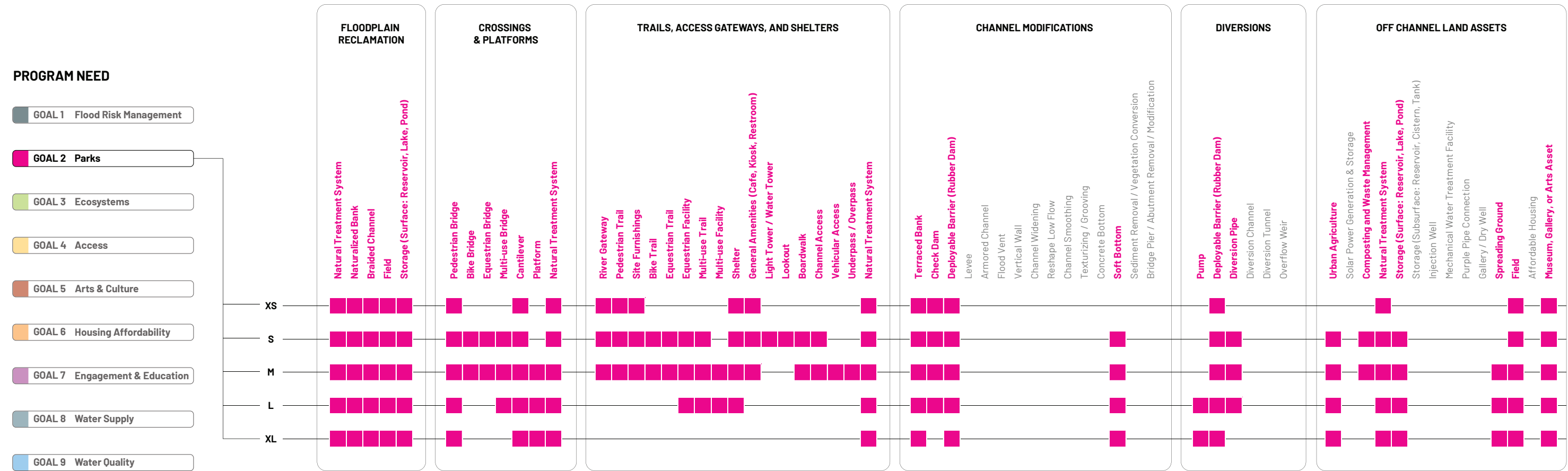
Source: OLIN, Geosyntec

KIT OF PARTS FRAMEWORK



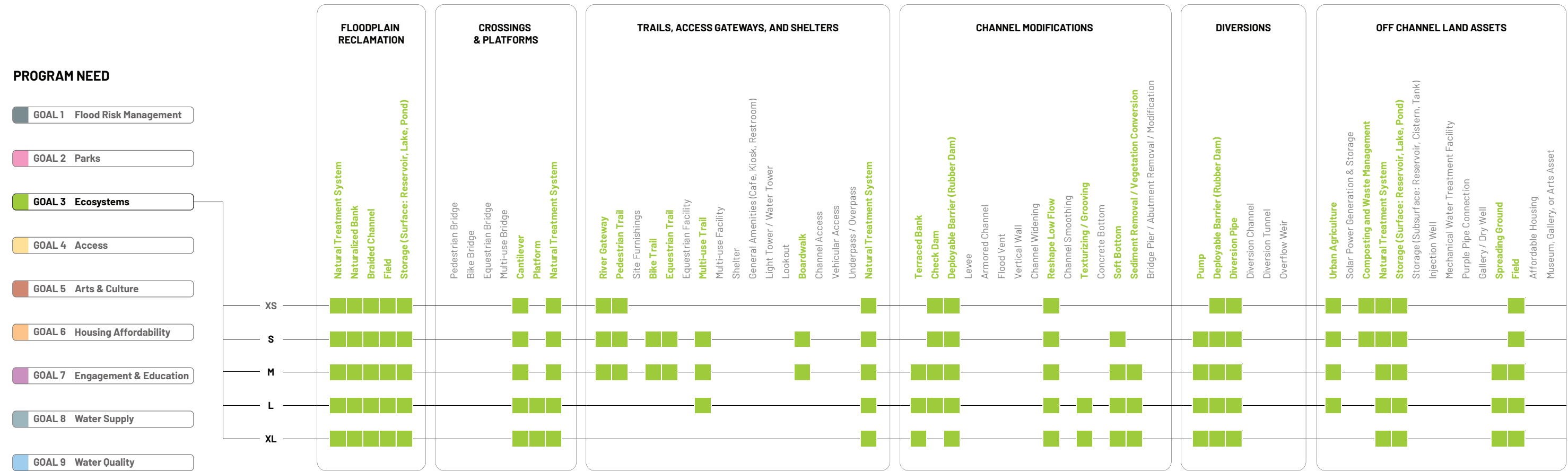
Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



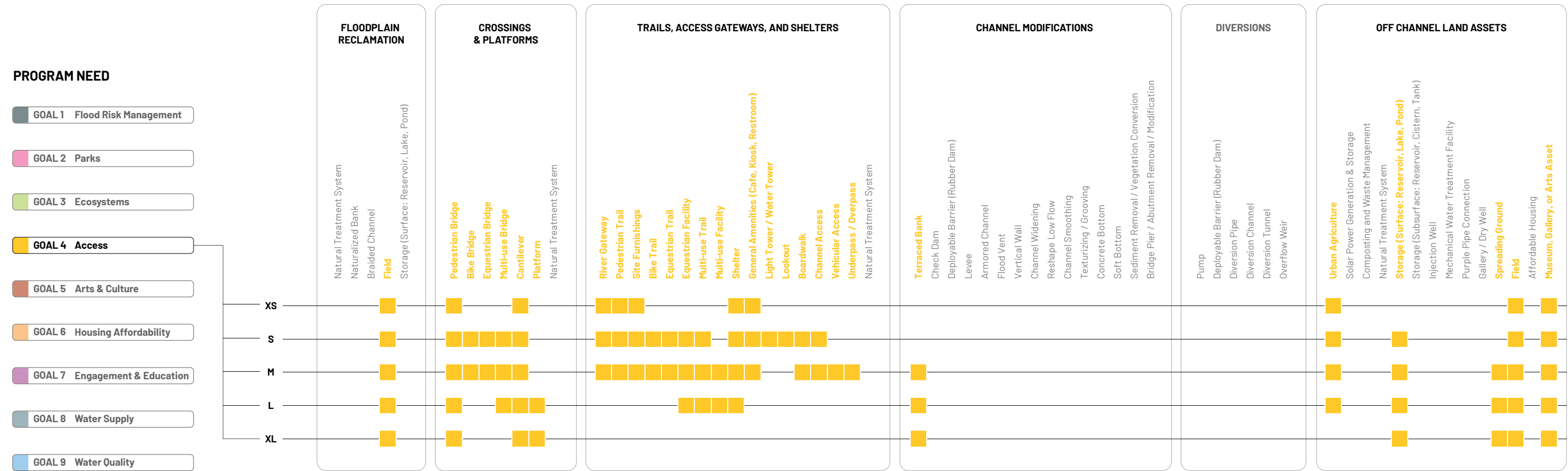
Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



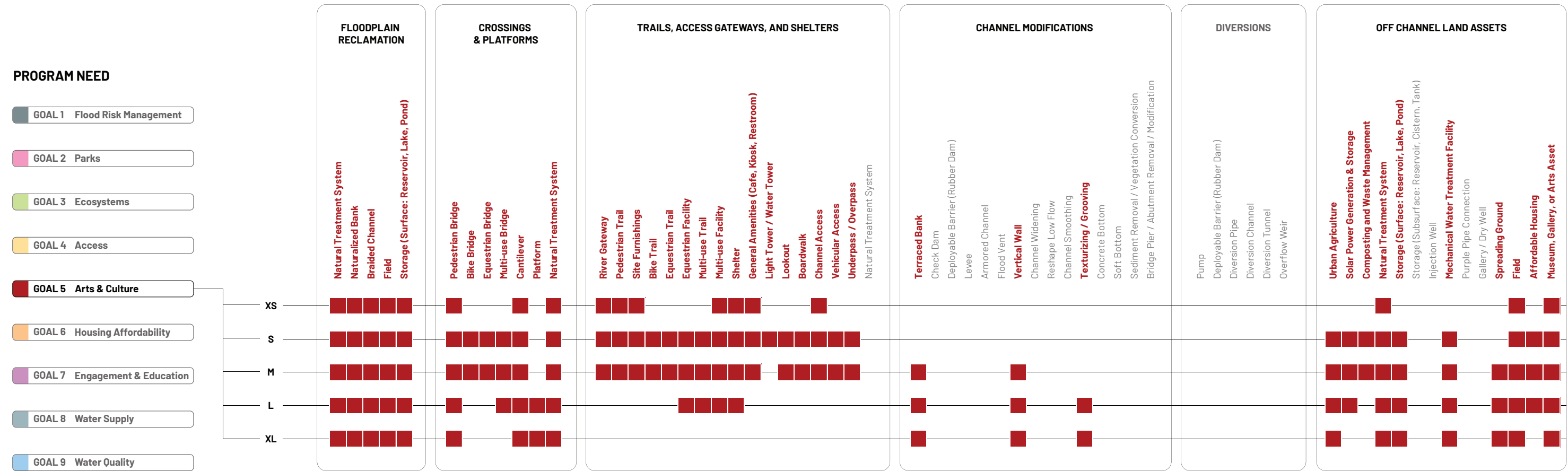
Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



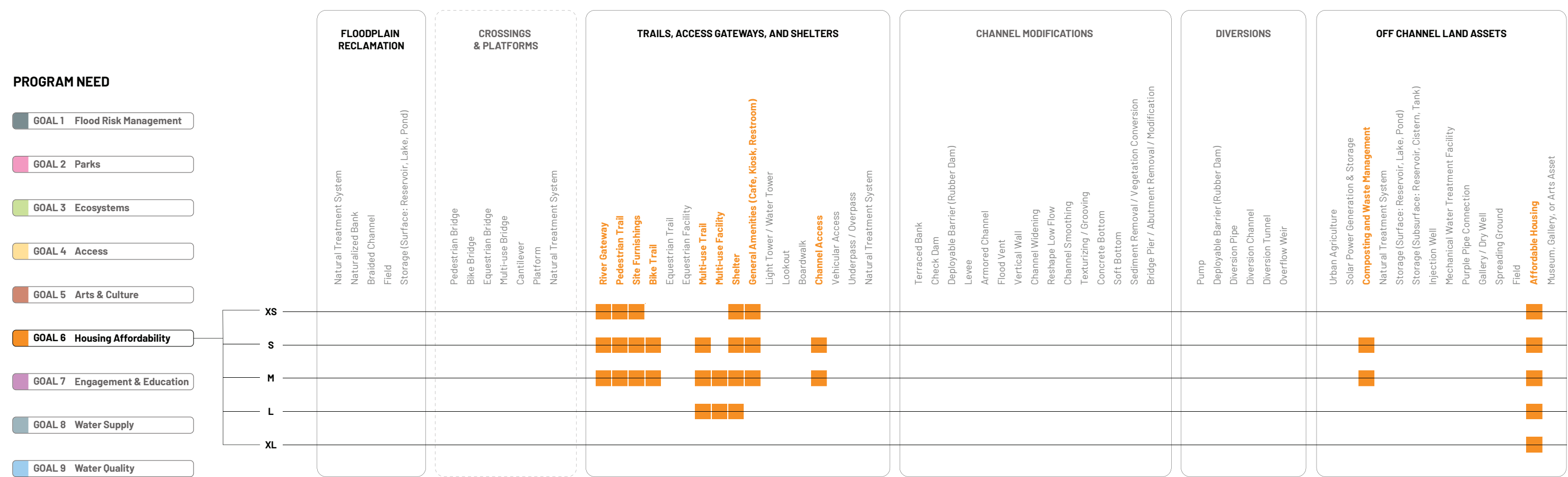
Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



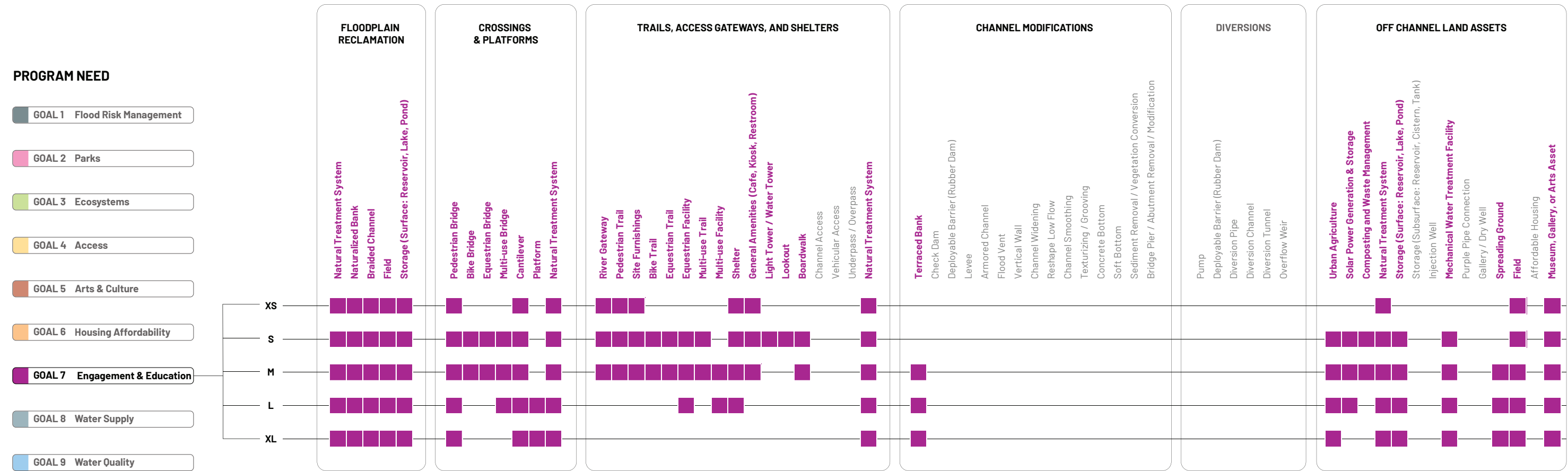
Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



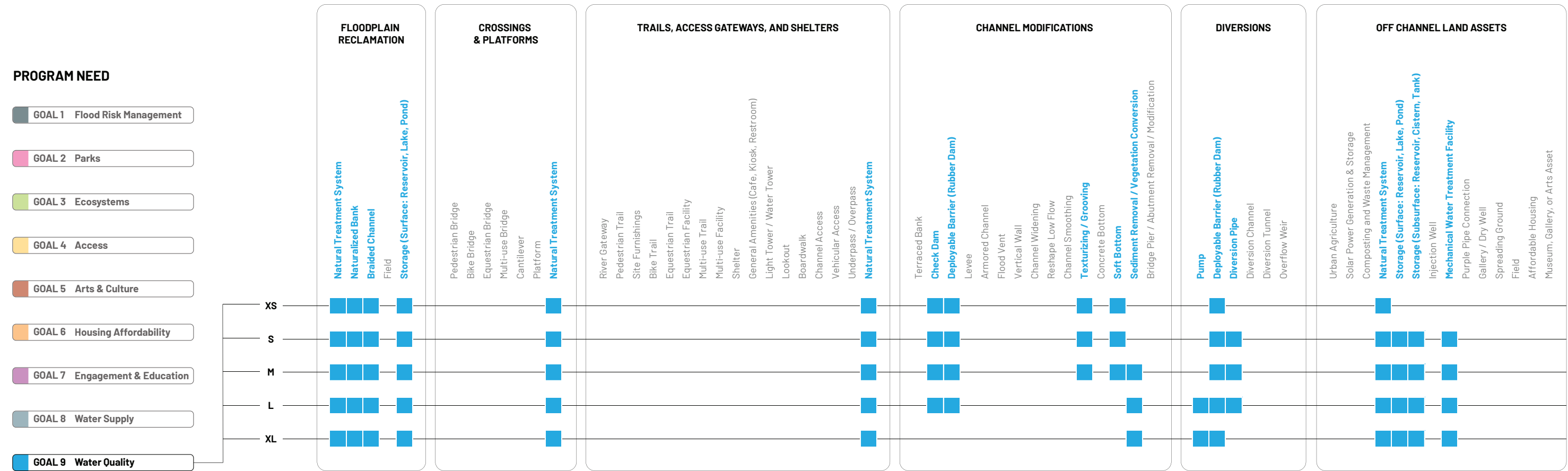
Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



Source: OLIN, Gehry Partners, Geosyntec

KIT OF PARTS FRAMEWORK



Source: OLIN, Gehry Partners, Geosyntec