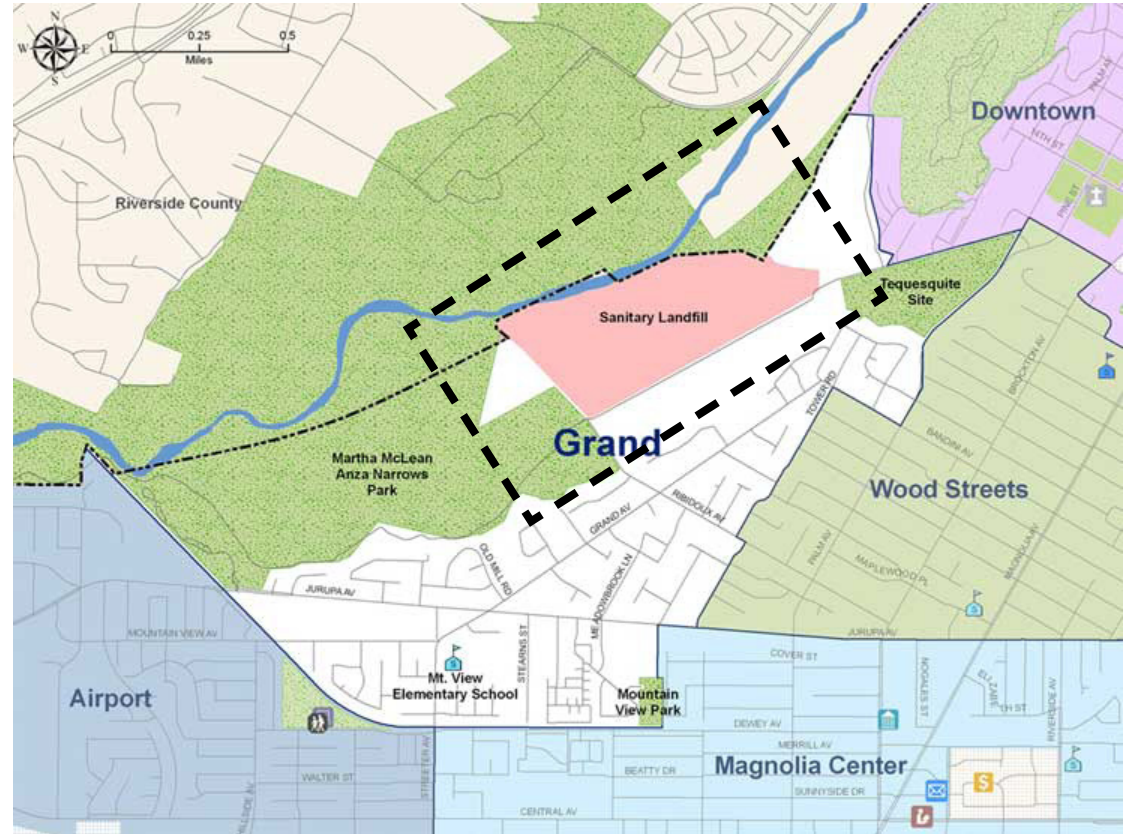


Tequesquite Landfill

Riverside Parks & Recreation

5000 Tequesquite Ave, Riverside, CA 92506



Leeloo Gilet

UCLAx Landscape Architecture Program
Landscape Design 7
Instructor: Jesse Corea

Location



Regional Map



Riverside, CA Map



History

Indigenous Stewardship

The site is part of the ancestral lands of the Cahuilla and Payómkawichum peoples. The arroyo provided a reliable water source and a corridor for wildlife and travel between the inland valleys and the river.

Spanish Colonialism

During Riverside's "Citrus Gold" era in the late 19th century, the arroyo served as a natural boundary and drainage for the surrounding orange groves that defined the city's early economy.

Agricultural Development

In the late 19th century, Riverside's economy was defined by agriculture, primarily orange production. The arroyo served as a natural irrigation source and drainage outlet for the surrounding orange groves.

Tequesquite Landfill

From 1940-85, the arroyo became a municipal landfill, then was capped, fenced-off, and abandoned for several decades. This left a significant physical gap between the historic neighborhoods and the river.

Tequesquite Solar Project

In 2015, the City developed the solar array on top of the landfill cap. The project consists of roughly 21,000 solar panels generating approximately 7.5 megawatts of clean energy, enough to power over 2,500 homes.

The site's history as a place of extraction and deposition, transitioning from a fertile riparian corridor for the indigenous peoples to an industrial-scale landfill, necessitates a program that prioritizes ecological healing and transparency.

The programmatic choices are driven by the site's brownfield constraints, utilizing the non-puncturable landfill cap for re-generative solar energy while surrounding it with a landscape of remediation.

This informs a design where trails act as "living timelines," moving from the ancestral ethnobotanical banks of the arroyo to modern interpretive overlooks that explain the methane-to-energy transition.

By acknowledging the site's past as a landscape of waste, the design serves as a model of recovery and strategic reuse of challenged lands.



Context

Legend

	A - Agricultural
	A/RR - Agricultural/Rural Residential
	B/OP - Business/Office Park
	C - Commercial
	CRC - Commercial Regional Center
	I - Industrial
	VLDR - Very Low Density Residential
	LDR - Low Density Residential
	HDR - High Density Residential
	MDR - Medium Density Residential
	VLDR - Very Low Density Residential
	LDR - Low Density Residential
	HDR - High Density Residential
	MDR - Medium Density Residential
	MHDR - Medium High Density Residential
	VHDR - Very High Density Residential
	HR - Hillside Residential
	MU-N - Mixed Use - Neighborhood
	MU-U - Mixed Use - Urban
	MU-V - Mixed Use - Village
	CBUSP - CBU Specific Plan
	DSP - Downtown Specific Plan
	NSP - Northside Specific Plan
	OSP - Orangecrest Specific Plan
	O - Office
	SRR - Semi Rural Residential
	OS - Open Space/Natural Resources
	P - Public Park
	PF - Public Facilities/Institutions
	PR - Private Recreation



Local Character



Wood Streets Historic Homes



Historic Superior Courthouse



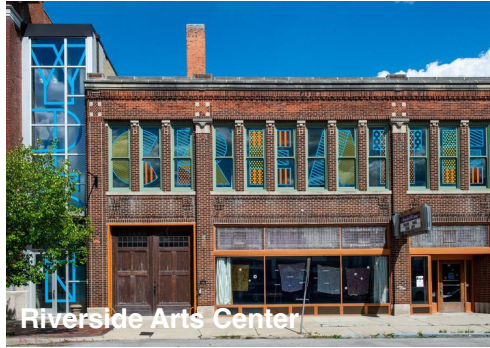
Municipal Auditorium



Murals Downtown



Riverside Museum



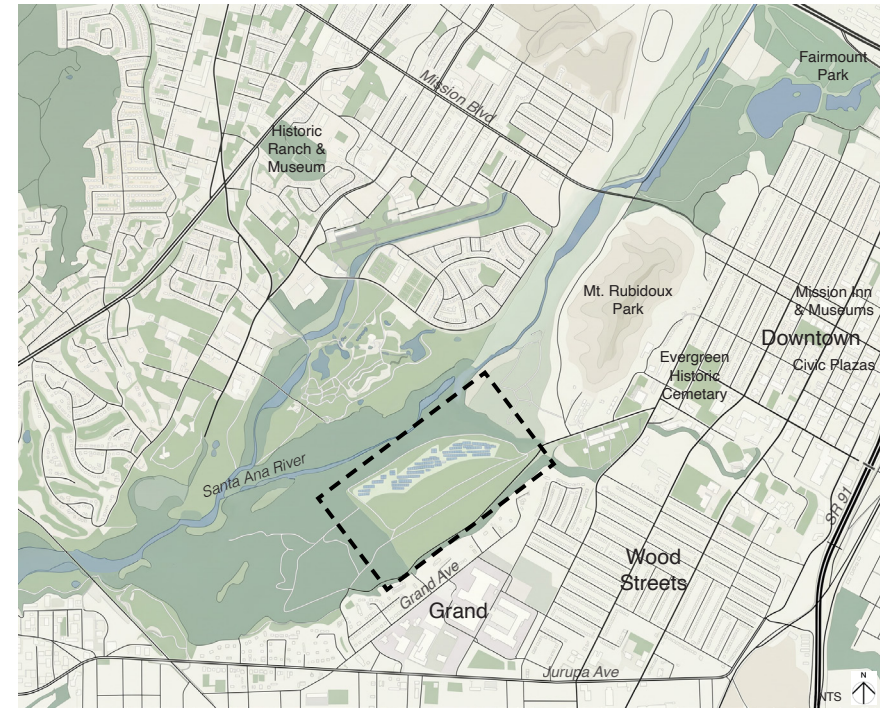
Riverside Arts Center



The Mission Inn



Mt. Rubidoux Park



There is a distinct Riverside aesthetic, characterized by a mix of Mission Revival architecture, mid century industrial architecture, and craftsman bungalows.

To harmonize the modern solar infrastructure with this historic local character, the design should utilize a palette of weathered stone, warm-toned aggregates, wood, and corten steel. Additionally, the area closest to the urban fabric could be defined by more structured “garden rooms” that echo the formal geometries of nearby landmarks, with the design transitioning into wilder, more organic textures as it approaches the Santa Ana River.

By integrating these historic cues into contemporary forms, the project avoids looking like an outlier and instead feels like a natural, strategic extension of Riverside’s long-standing civic and cultural identity.

Nearby Parks



Splash Pad at RJ Regional Park



Splash Pad at Vet. Memorial Park



RV Camping at RJ Regional Park



Sports Field at Vet. Memorial Park



Mini Golf at RJ Regional Park



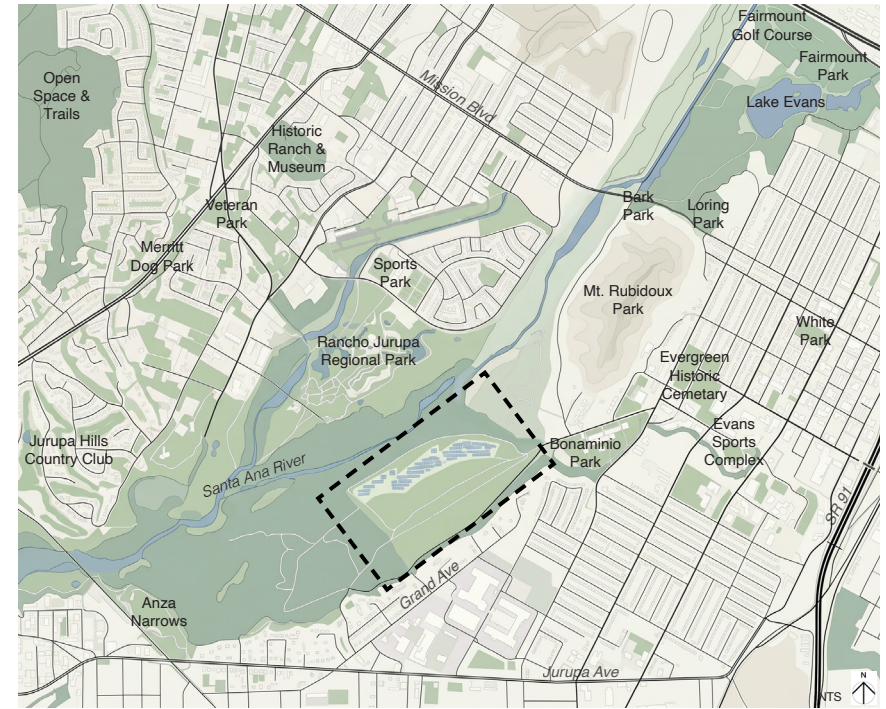
Fairmount Park & Lake Evans



Sports Park at RJ Regional Park



Anza Narrows



Nearby amenities are characterized by multitudes of high-activity sports courts and traditional playgrounds.

To address gaps in the existing recreational landscape, the design focuses on passive recreation and environmental education, introducing flexible gathering spaces that cater to Riverside's diverse demographics. The proposed design should utilize the site's unique topography to create elevated overlooks, shaded study groves for students, and interpretive trails that weave through the solar array and restored arroyo.

By prioritizing multimodal connectivity to the Santa Ana River Trail and providing quiet zones for community respite, the design transforms a formerly industrial barrier into a high-functioning social and ecological link that balances the active energy of neighboring parks with a more reflective, strategic landscape.

Demographics

Cultural & Ethnic Heritage:

- 56% Hispanic/Latino
- 26% White
- 8% Asian
- 6% Black
- 1.2% Indigenous

Age & Household Dynamics:

- Median age of 33.6 years
- The immediate adjacency to RCC means there is a high concentration of college-aged youth, alongside a strong base of family-oriented households with children.

Economic Profile:

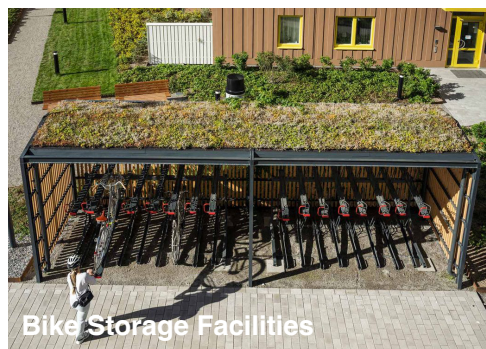
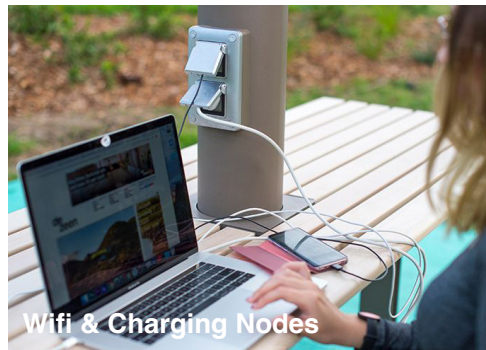
- Median household income is \$90,000
- The site can serve to connect more affluent, established historic districts with more diverse, working-class, and student-heavy neighborhoods.

Mobility & Transport:

- Highly car-dependent, with about 73% of residents driving alone to work.
- However, the site's proximity to the Santa Ana River Trail and Mount Rubidoux makes it a localized hub for active transit.
- There is affordable public transit, especially within the Downtown core.

Design Implications:

1. Multi-Generational & Large-Group Gathering
2. Youth & Student Infrastructure
3. Provide Bike Storage, Bus Stop
4. Multilingual Signage



Case Study 1

The Solar Strand

Buffalo, NY

Hood Design Studio

Context: A 750kW solar array designed by Walter Hood. It sits on the edge of the University of Buffalo campus, transforming a standard utility project into a public landscape.

Program & Design: The array is organized as a linear forest, mirroring a DNA strand. It includes walkable paths under and between panels, moving away from the fenced-off utility model.

Challenges: Integrating public access with high-voltage infrastructure and managing the visual weight of thousands of glass panels.

Key Lessons: Solar arrays can provide functional shade for paths. By treating the panels as a rhythmic site element, the project creates usable space underneath the energy-generating surface.



Case Study 2

Byxbee Park

Palo Alto, CA

Hargreaves Jones

Context: A 30-acre park built on a capped landfill adjacent to a sensitive marshland. It is a landmark of Land Art in landscape architecture.

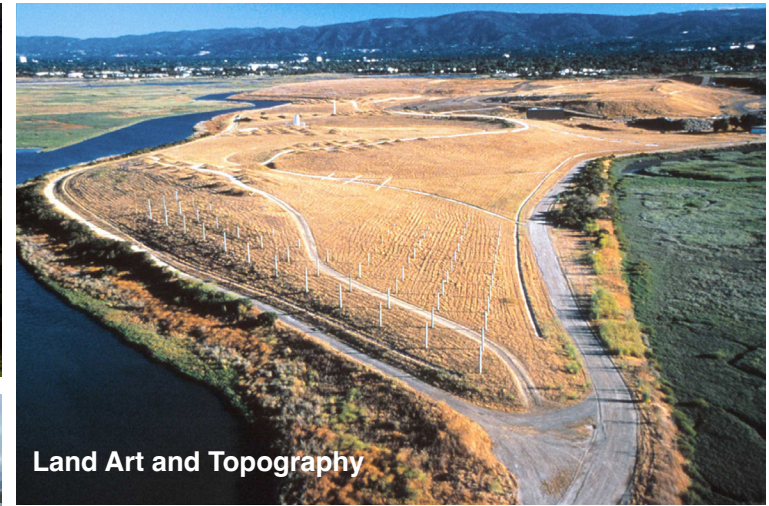
Program & Design: Hargreaves Jones used abstract forms—chevrons, mounded earth, and a Pole Field—to reference the site's artificiality and its airport adjacency.

Challenges: The Class III cap prevents deep-rooted trees or heavy structures. The design had to be lightweight and non-penetrating.

Key Lessons: Rhythmic landforms and weighted surface elements (like the Pole Field) can create vertical interest and spatial definition, especially where tree planting is restricted due to landfill cap considerations.



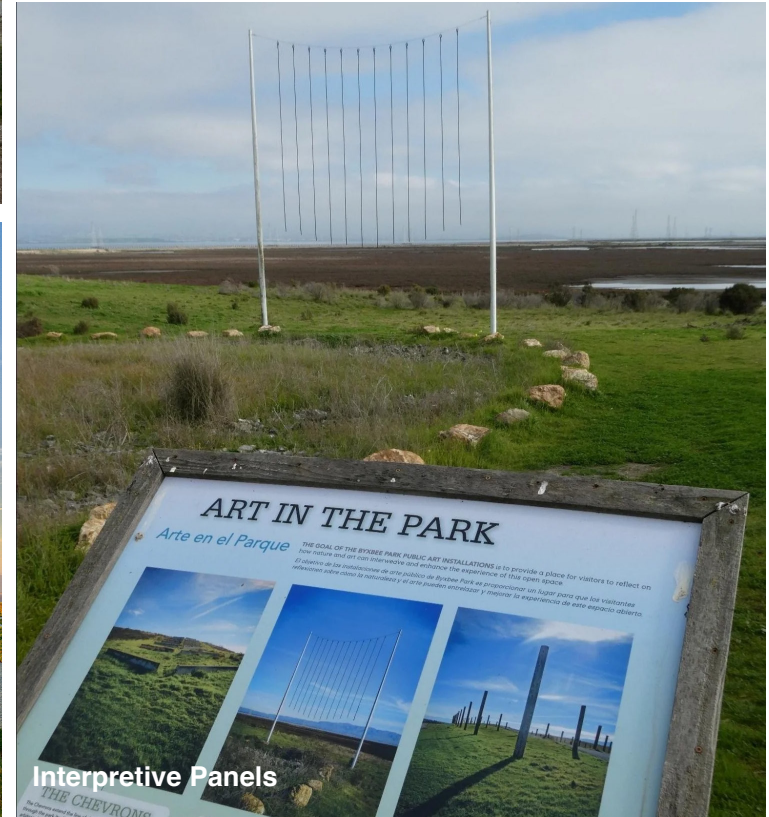
Vertical Interest Through Art



Land Art and Topography



Seating Node



Interpretive Panels



Land Art Installation on Topography



Low-Impact Art Installation

Case Study 3

Davidson Park

Milwaukee, MI

HGA

Context: A community-led park that integrates a Potawatomi Serenity Garden and a medicine wheel, focused on healing a disturbed urban site.

Program & Design: The design centers on the Four Directions. It uses native plantings significant to the Potawatomi people and serves as a quiet refuge for a dense neighborhood.

Challenges: Creating a quiet, meditative space within a busy, loud urban environment.

Key Lessons: Selection of specific native species can communicate cultural history. At Tequesquite, using White Sage or Mesquite provides a direct link to local tribal traditions.



Case Study 4

Machicomoco State Park

Gloucester, VA

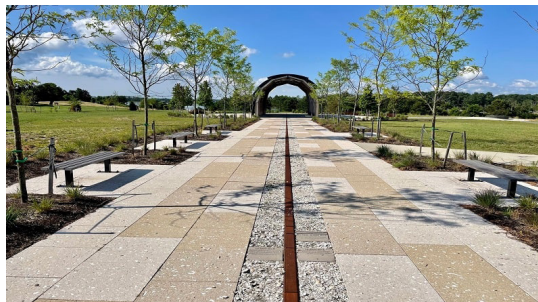
Nelson Byrd Woltz Landscape Architects (NBW)

Context: The first Virginia state park dedicated to the history of the Algonquian people. It sits on a riverfront that was a historic center of Indigenous life.

Program & Design: The interpretive trail acts as a timeline. The architecture (open-air pavilions) mimics traditional longhouse structures using modern materials to avoid theme park tropes.

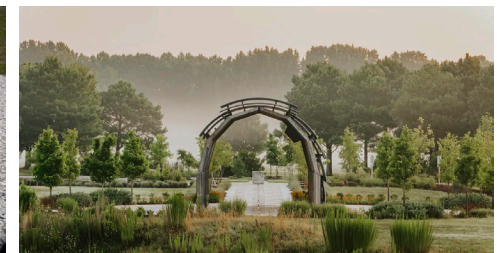
Challenges: Telling a story of a people who are still present, without treating them as historical artifacts.

Key Lessons: Use a primary path to lead visitors through different zones, from modern utilities to restored natural areas, to explain the site's history through movement.



INTERPRETIVE PENINSULA

01. Picnic shelters (2) with shared restroom
02. Multi-purpose open-air education pavilion
03. Visitor Center
04. Crushed oyster shell path
05. Existing Farmhouse: Colonial Period Agriculture
06. Boat Slip Entrance Path
07. Water's Edge and Marsh Terrace Algonquian Subsistence: Foraging and Cultivation
08. Lower Terrace Algonquian Subsistence Plot Rotation
09. Lower Terrace Algonquian Subsistence Plot Rotation
10. Upland Deciduous Forest: Algonquian Burned Forest Garden
11. Upland Deciduous Forest: Algonquian Guided Foraging
12. Visitor Access Road
13. Overflow or Staff Parking
14. Staff House
15. Boat Slips
16. Timberneck Creek
17. Catlett Islands
18. Existing Cemetery



Case Study 5

Santa Ynez Chumash Museum and Cultural Center

Santa Ynez, CA
Thornton Tomasetti

Context: A highly sophisticated facility designed by Jones & Jones that mimics a Chumash village ('albuy) and integrates seamlessly into the oak woodland.

Program & Design: The site uses Passive Site Design. Buildings are tucked into the topography, and the Great House serves as a communal heart. The landscape is a Living Museum of ethnobotanical species.

Challenges: Designing for high-fire-risk California landscapes while maintaining a wild and culturally authentic plant palette.

Key Lessons: A cultural center is most effective when the surrounding landscape is an active resource for the community, providing materials for traditional crafts or food.



Case Study Takeaways

Strategic Recommendations

Following The Solar Strand, the Tequesquite paths amidst the solar arrays should be organized to facilitate pedestrian movement. This turns the 20-acre utility zone into a shaded corridor that connects the residential neighborhood to the Santa Ana River.

Using the Byxbee Park model, the landfill cap should be shaped with low-profile earthworks. These mounds can provide views of Mt. Rubidoux and the river bottom while protecting the landfill's clay seal.

The Santa Ynez Chumash Museum and Davidson Park suggest that the Tequesquite Garden should include an ethnobotanical zone. Rather than just private vegetable plots, this area should feature native species managed for traditional uses by local tribes.

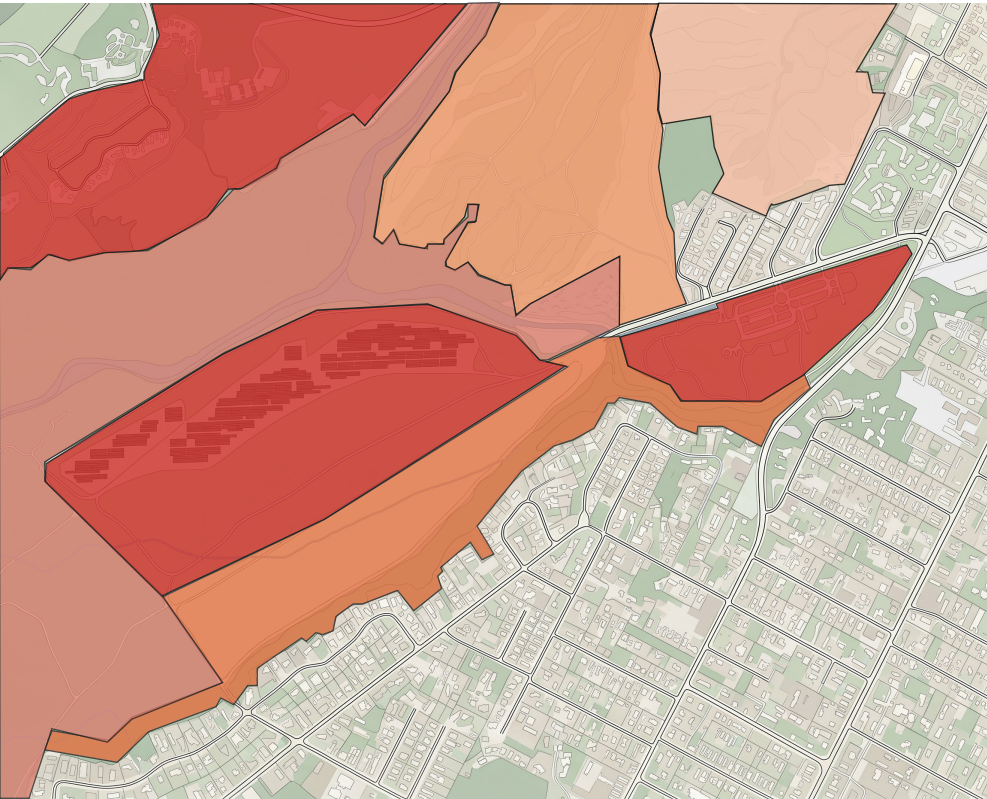
Following Machicomoco, the site should be zoned by time and function. The “top” (the landfill) represents modern energy; the “middle” (the garden) represents agriculture; and the “bottom” (the river) represents restored native habitat.

Summary of Takeaways

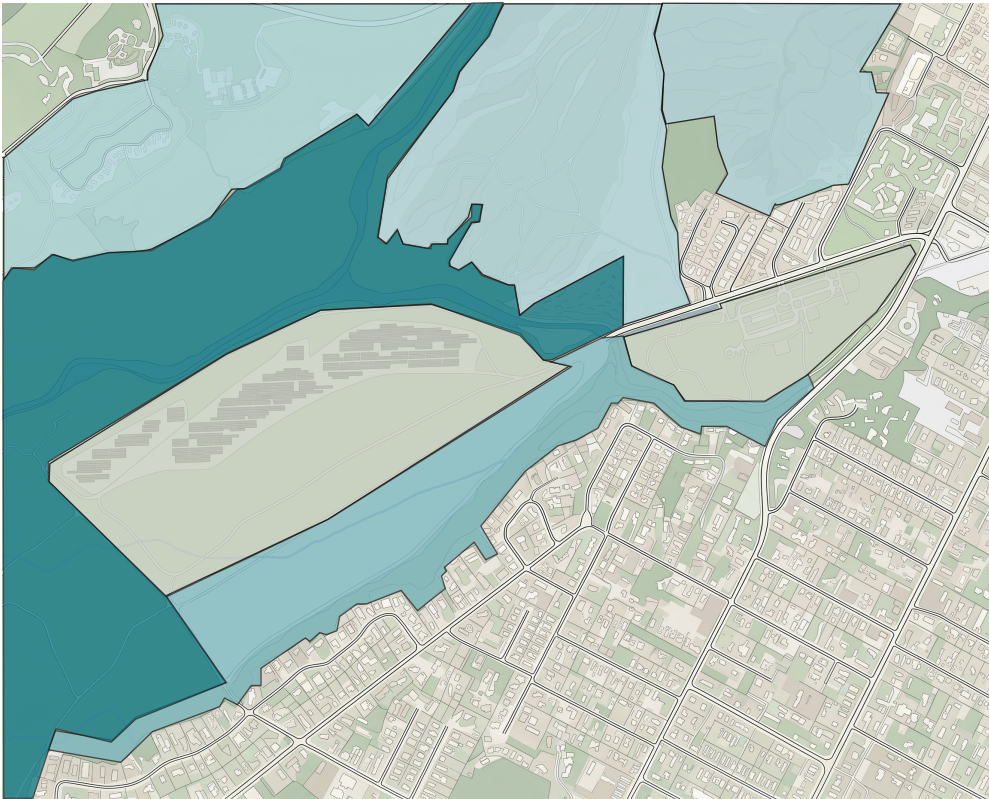
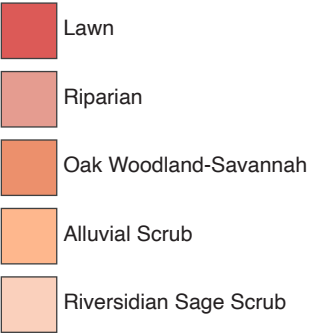
The primary takeaway from these case studies is that the Tequesquite Landfill is a structural asset rather than just a waste site. Byxbee Park demonstrates that the technical constraints of a landfill cap are compatible with large-scale public recreation, provided the design avoids deep foundations. By applying the layout logic of The Solar Strand, the solar project becomes a functional part of the park's circulation rather than a fenced-off dead zone.

Regarding cultural history, Machicomoco and the Santa Ynez Chumash Museum show that Indigenous recognition is most effective when it is integrated into the plant palette and the trail system. For the Tequesquite Garden, this means providing space for traditional land management alongside modern community gardening. This dual-purpose programming ensures the site serves both the immediate residential community and the broader goal of regional ecological and cultural restoration.

Vegetation



Native Plant Community

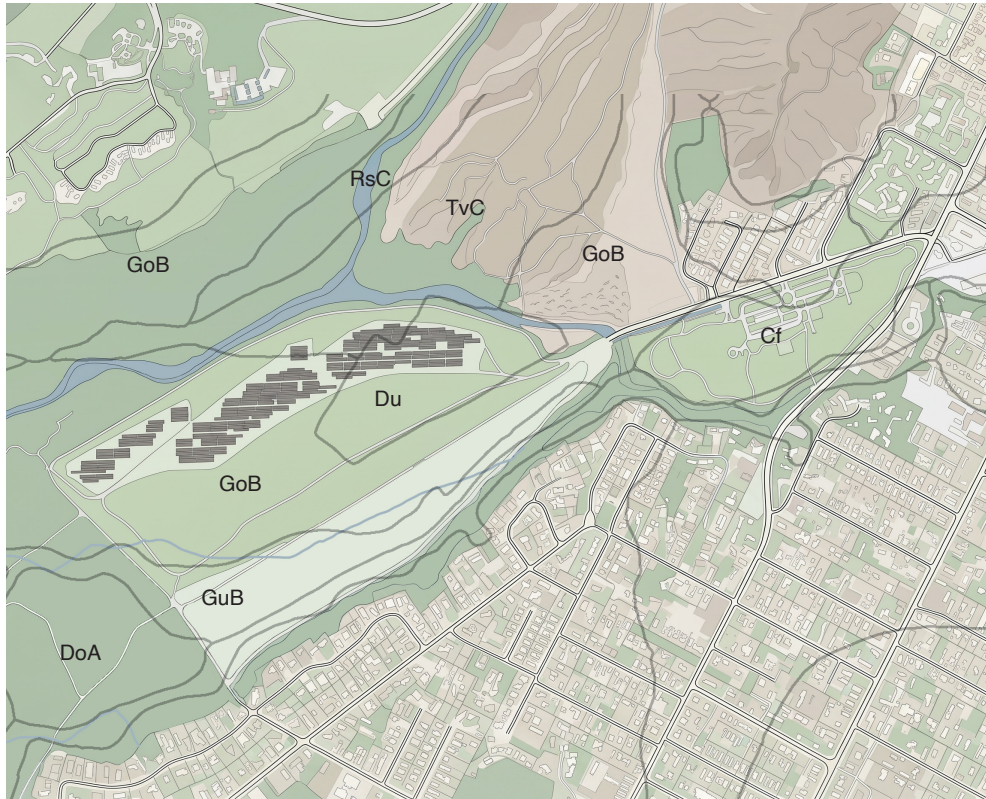


Existing Tree Canopy Distribution



Western Riverside Multi-Species Habitat Conservation Project
Burrowing Owl (*Athene cunicularia*) Habitat

Geology



Soils

Cf: Chino silt loam, drained, saline

- Fine-loamy, mixed, thermic Aquic Haploxerolls.
- Parent Material: Composed of alluvium derived from mixed sources.

Du: Domino silt loam, saline-alkali

- Fine-loamy, mixed, thermic Typic Natriferolls.
- Farmland of statewide importance.

DoA: Domino fine sandy loam, 0 to 2 percent slopes

- Fine-loamy, mixed, thermic Typic Natriferolls.
- Farmland Status: Rated as Farmland of statewide importance.

GoB: Gorgonio sandy loam, 0 to 8 percent slopes

- Coarse-loamy, mixed, superactive, nonacid, thermic Typic Xerorthents.
- Farmland of local importance.

GuB: Greenfield sandy loam, 2 to 8 percent slopes

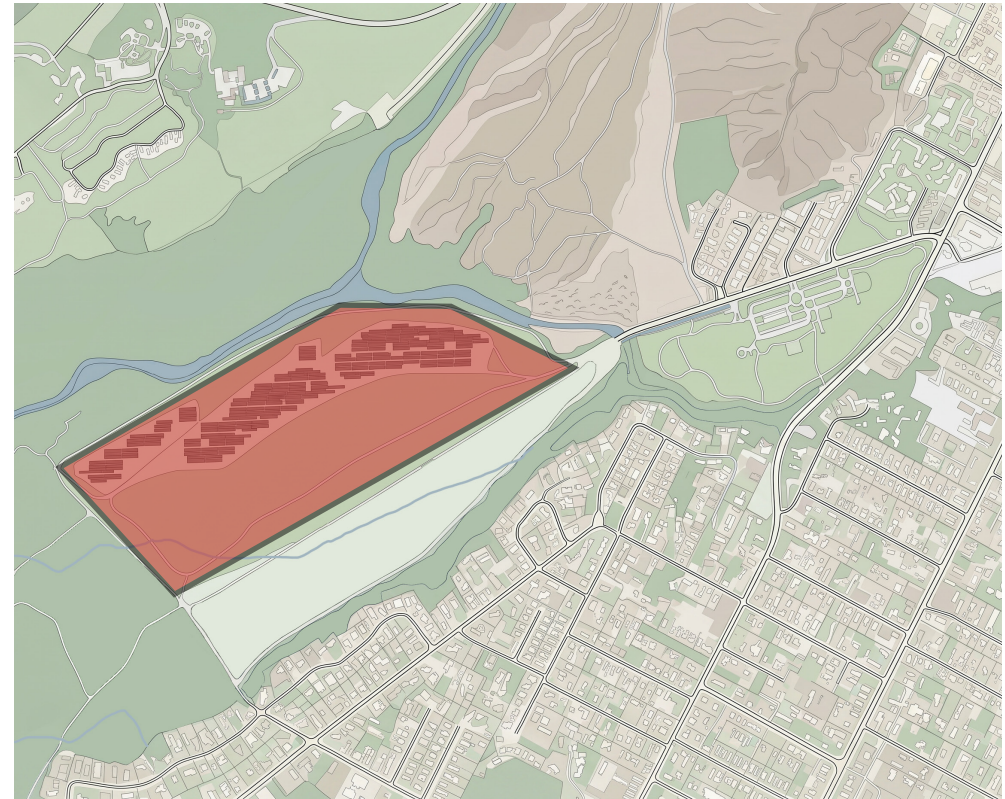
- Coarse-loamy, mixed, thermic Typic Haploxerolls.
- Prime farmland if irrigated.

RsC: Riverwash

- Mixed, thermic Typic Psammaquents.

TvC: Tujunga loamy sand, channeled, 0 to 8 percent slopes

- Mixed, thermic Typic Xeropsamments.
- pH: Has a representative pH of 7.0.
- Parent Material: Consists of sandy alluvium derived from granite.



Landfill Contamination Zone

Additional Geologic Considerations:

Not in a fault zone, low seismic potential

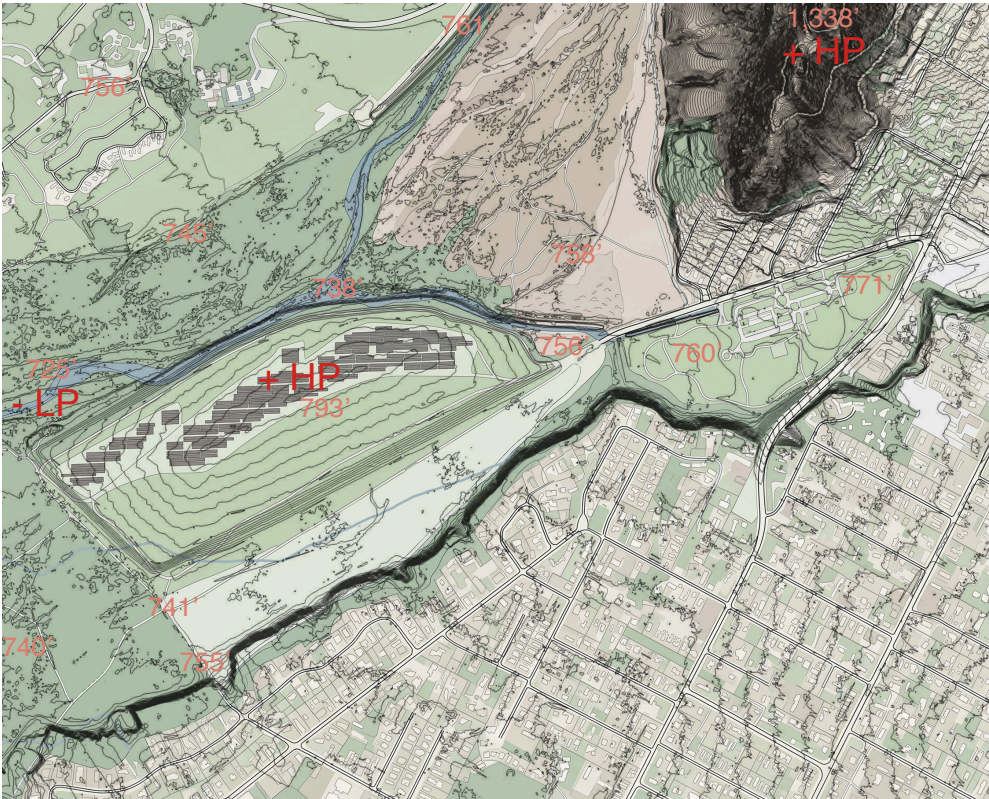
High liquefaction potential

Moderate subsidence potential

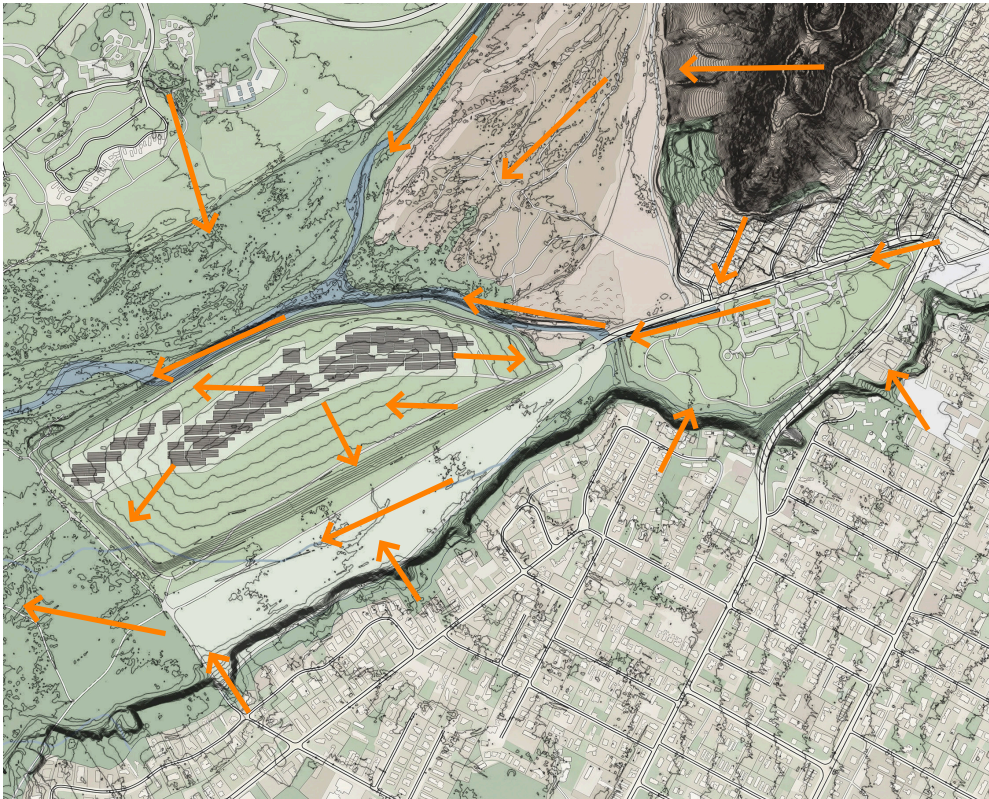
Low paleontological potential



Topography & Hydrology



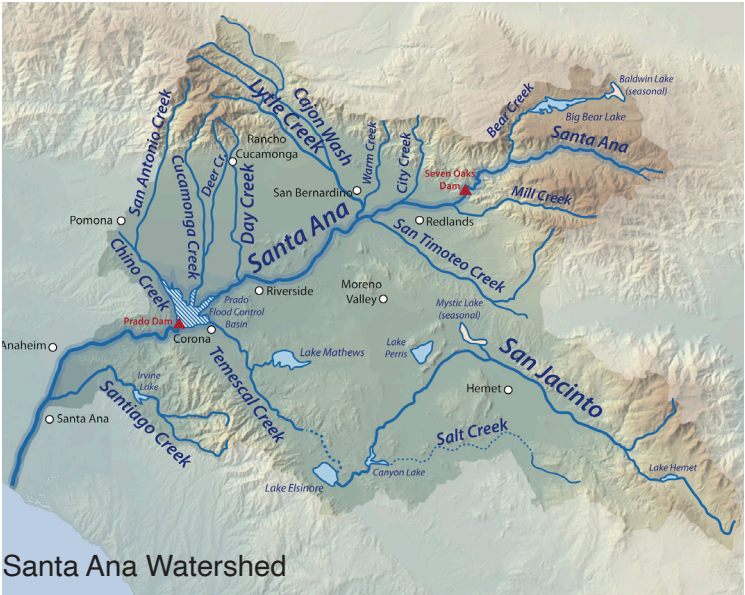
Topography



Hydrology

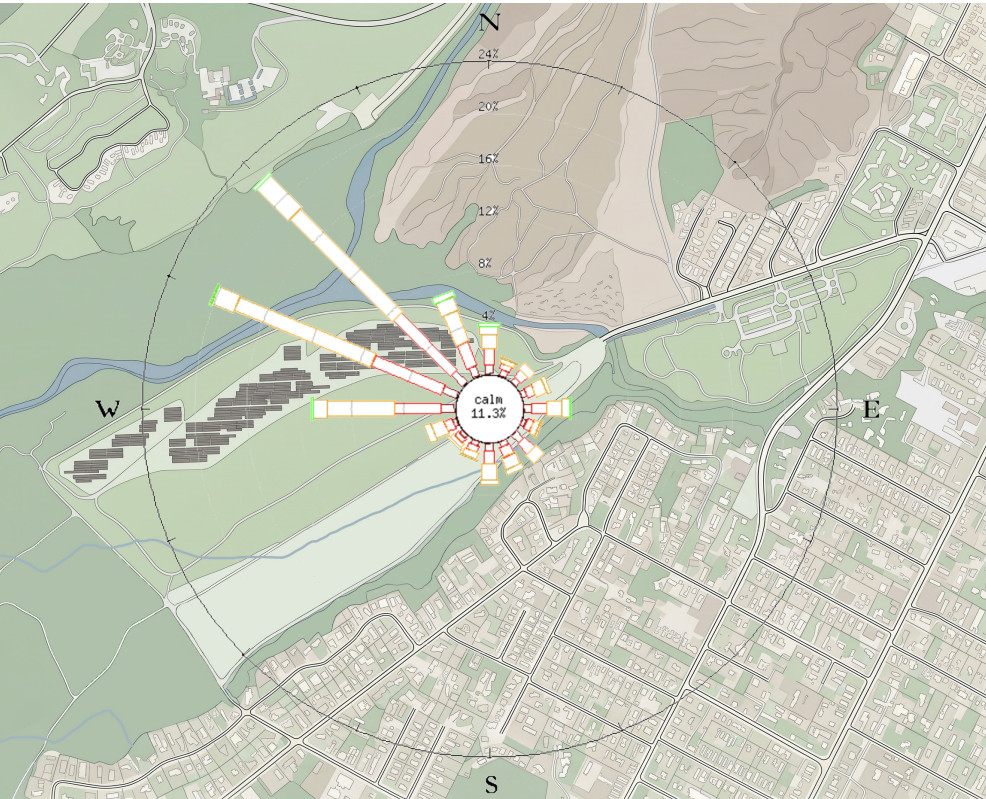
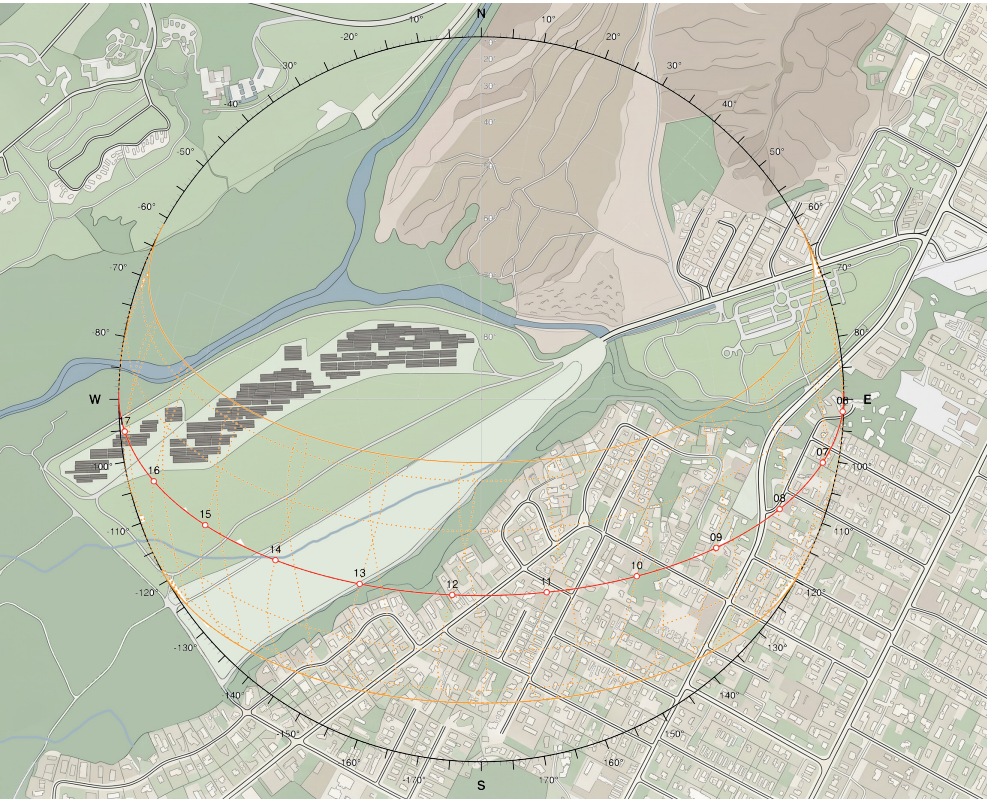


Flood Control District: Riverside County Flood Control District
Water District: Western Municipal Water District

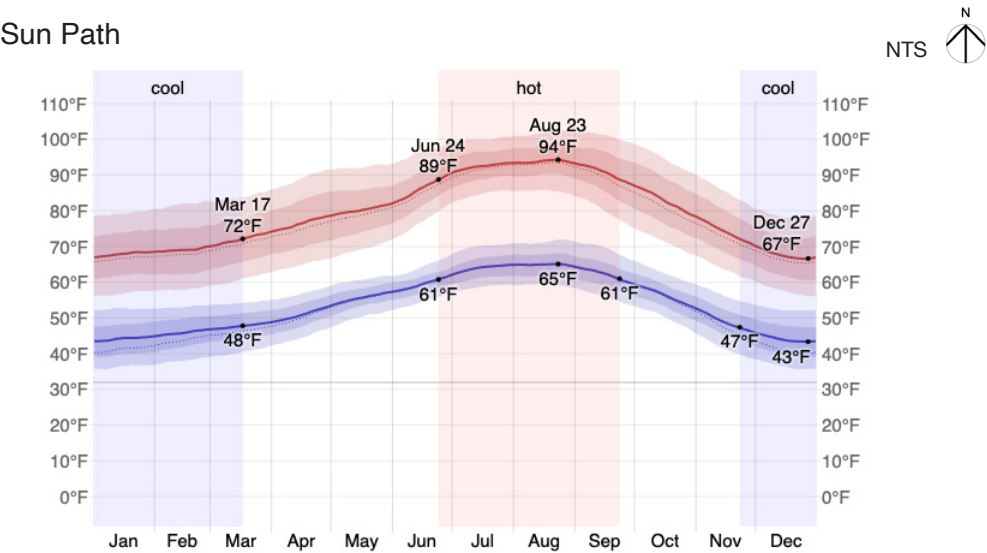


Santa Ana Watershed

Climate

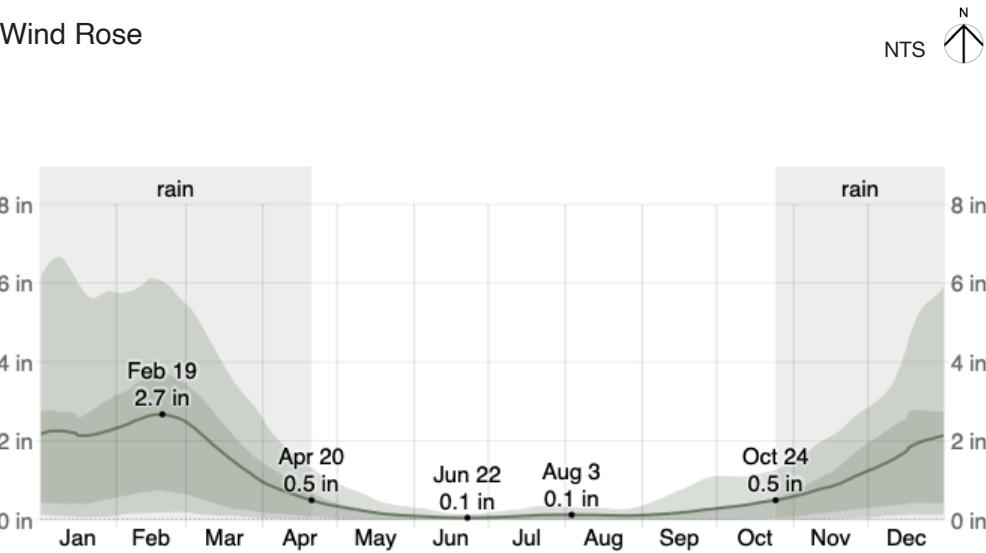


Sun Path



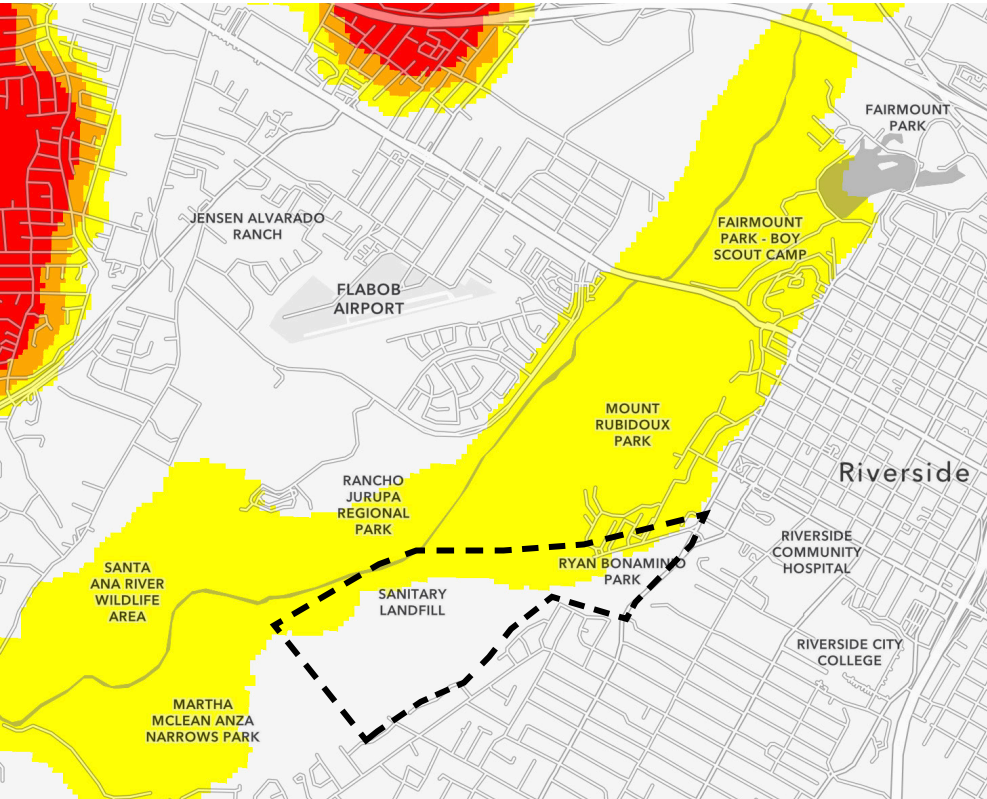
Temperature

Wind Rose



Precipitation

Fire & Heat Risk

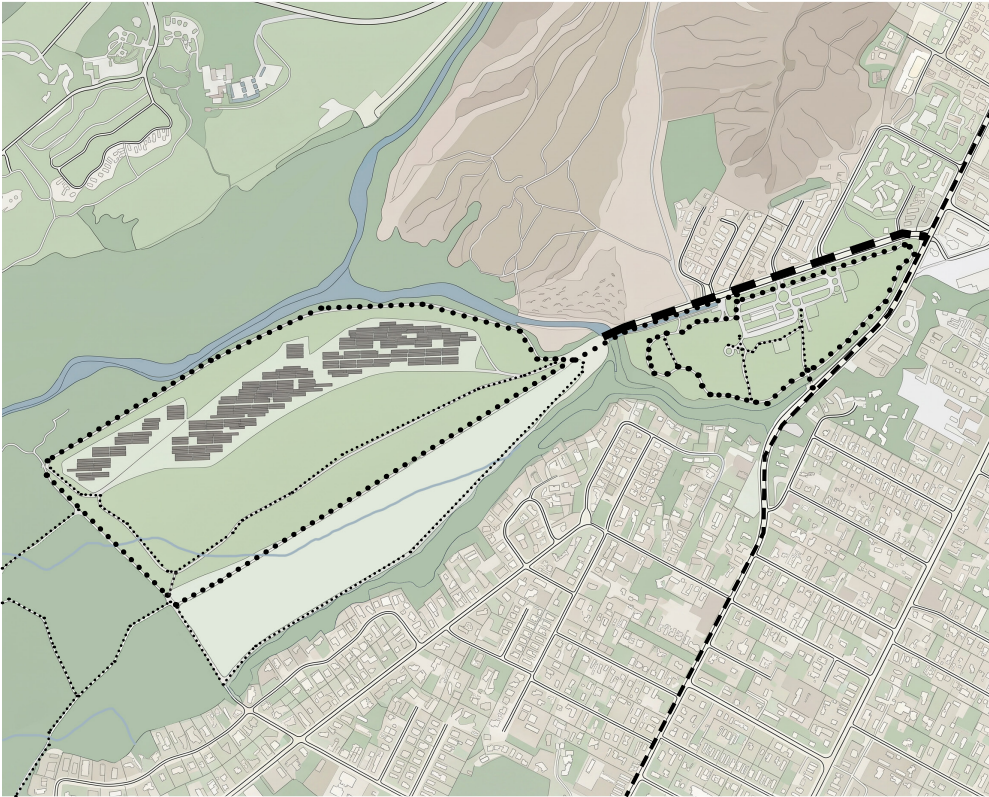


Fire Risk
Moderate



Heat Island
150-170 degree-hours per day (Severe)

Circulation & Access



Circulation

- Primary Vehicular
- Secondary Vehicular
- Primary Pedestrian
- Secondary Pedestrian



Access

- Vehicular
- Pedestrian



Ecology

Rare, high-intensity rain events in this semi-arid Mediterranean climate provide the primary pulse for groundwater recharge.

Riparian plants release oxygen and intake carbon dioxide through leaf stomata.

Cahuilla and Luiseño peoples expertly utilize willow for basketry and medicine.

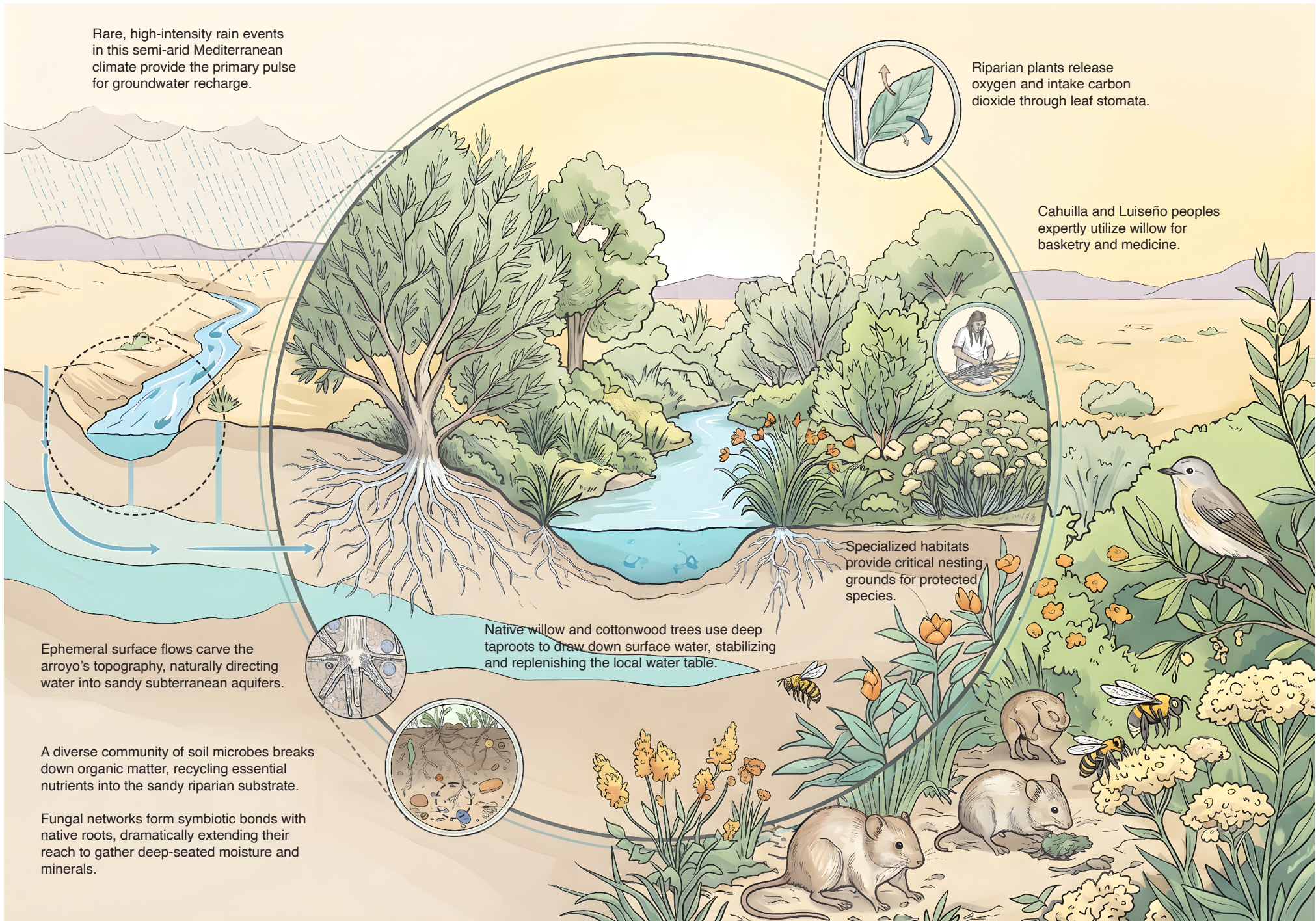
Specialized habitats provide critical nesting grounds for protected species.

Native willow and cottonwood trees use deep taproots to draw down surface water, stabilizing and replenishing the local water table.

Ephemeral surface flows carve the arroyo's topography, naturally directing water into sandy subterranean aquifers.

A diverse community of soil microbes breaks down organic matter, recycling essential nutrients into the sandy riparian substrate.

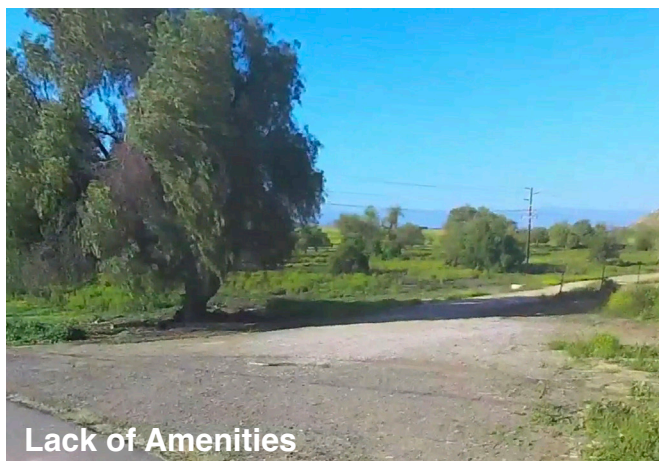
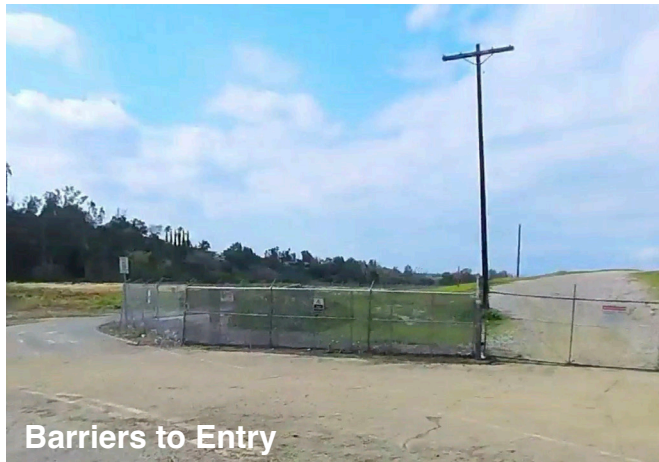
Fungal networks form symbiotic bonds with native roots, dramatically extending their reach to gather deep-seated moisture and minerals.



Site Photos



Constraints



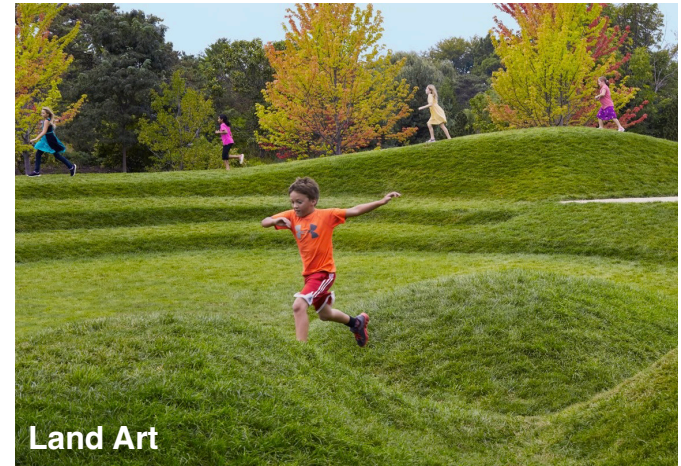
Opportunities



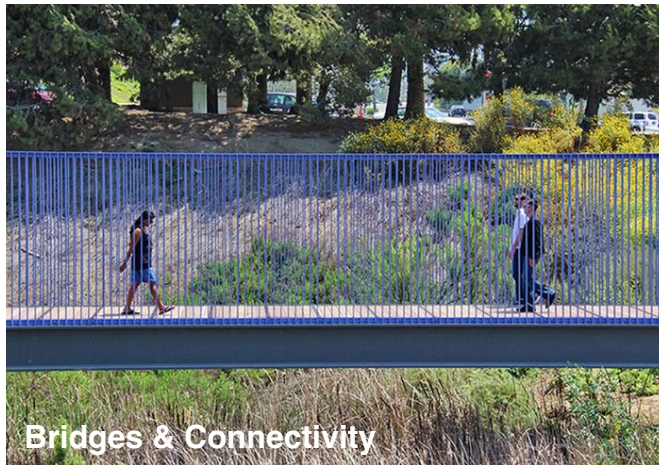
Native Habitat Restoration



Creek Dechannelization



Land Art



Bridges & Connectivity



Nature Based Stormwater Management



Overlooks



Activated Spaces

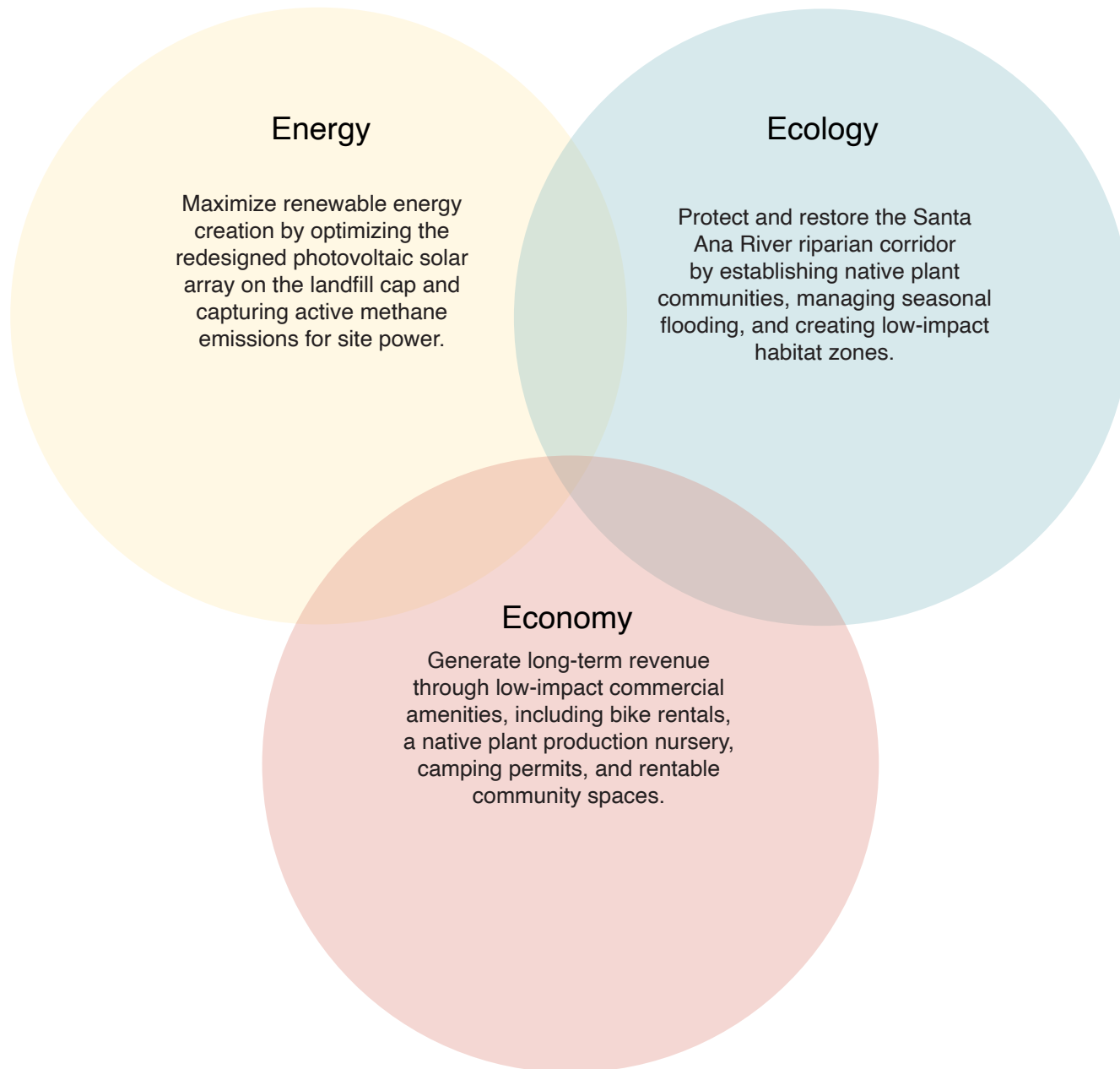


Paths at Solar Array



Campsites

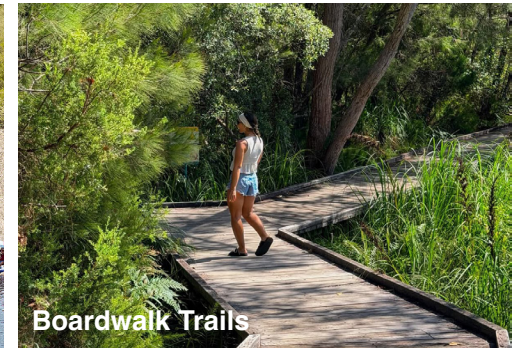
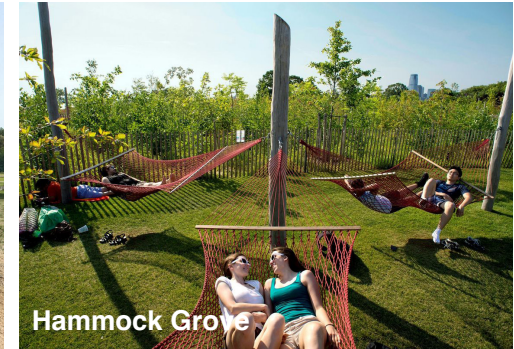
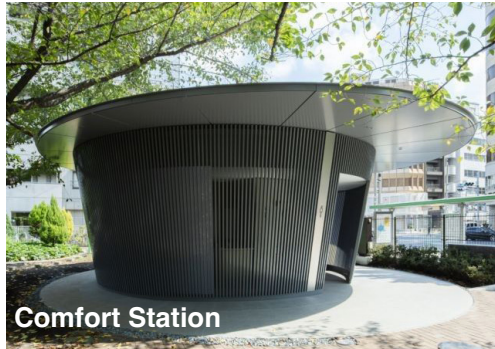
Goals & Objectives



Program Elements - Ryan Bonaminio Park - Active Park



Program Elements - Tequesquites Park - Passive Park



Preliminary Concepts

Concept

The Grid

Translates the rhythmic, rectilinear logic of the urban streetscape and the solar array into a cohesive landscape framework. By extending these structural patterns across the site, the project establishes a high-density geometric order that reclaims the brownfield as a functional and visual extension of the city's infrastructure.

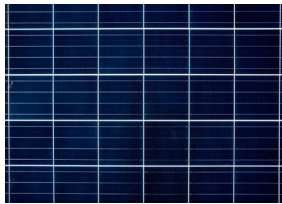
Geometry



Urban Grid

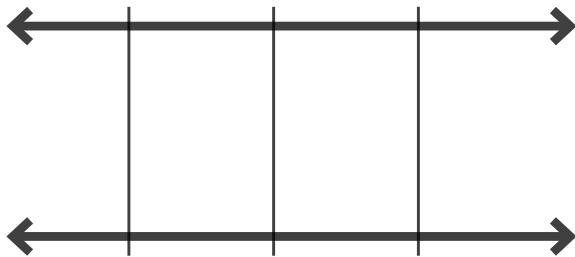


Solar Array



Solar Panel

Parti



The Leaf

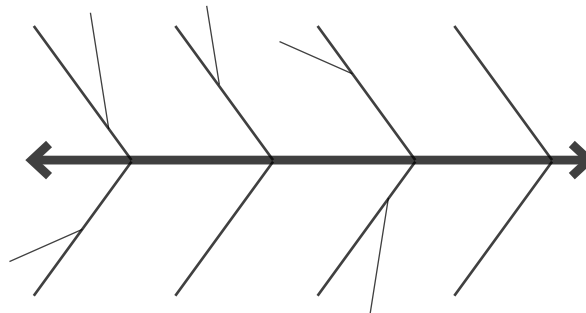
Utilizes a dendritic geometry that radiates from a primary central axis to mimic the natural vascular structure of riparian flora. This pattern organizes the site into a hierarchical system of branching pathways, where a "central artery" serves as the main thoroughfare, giving way to smaller, increasingly fine offshoots.



Willow

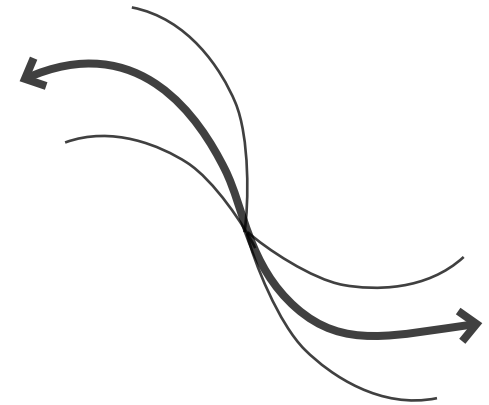


Cottonwood



The River

Inspired by the fluid artistry of Cahuilla basketry and the natural forces of the Santa Ana River, this design concept transforms the Tequesquite site into a continuous, flowing landscape canvas.



Site Plan



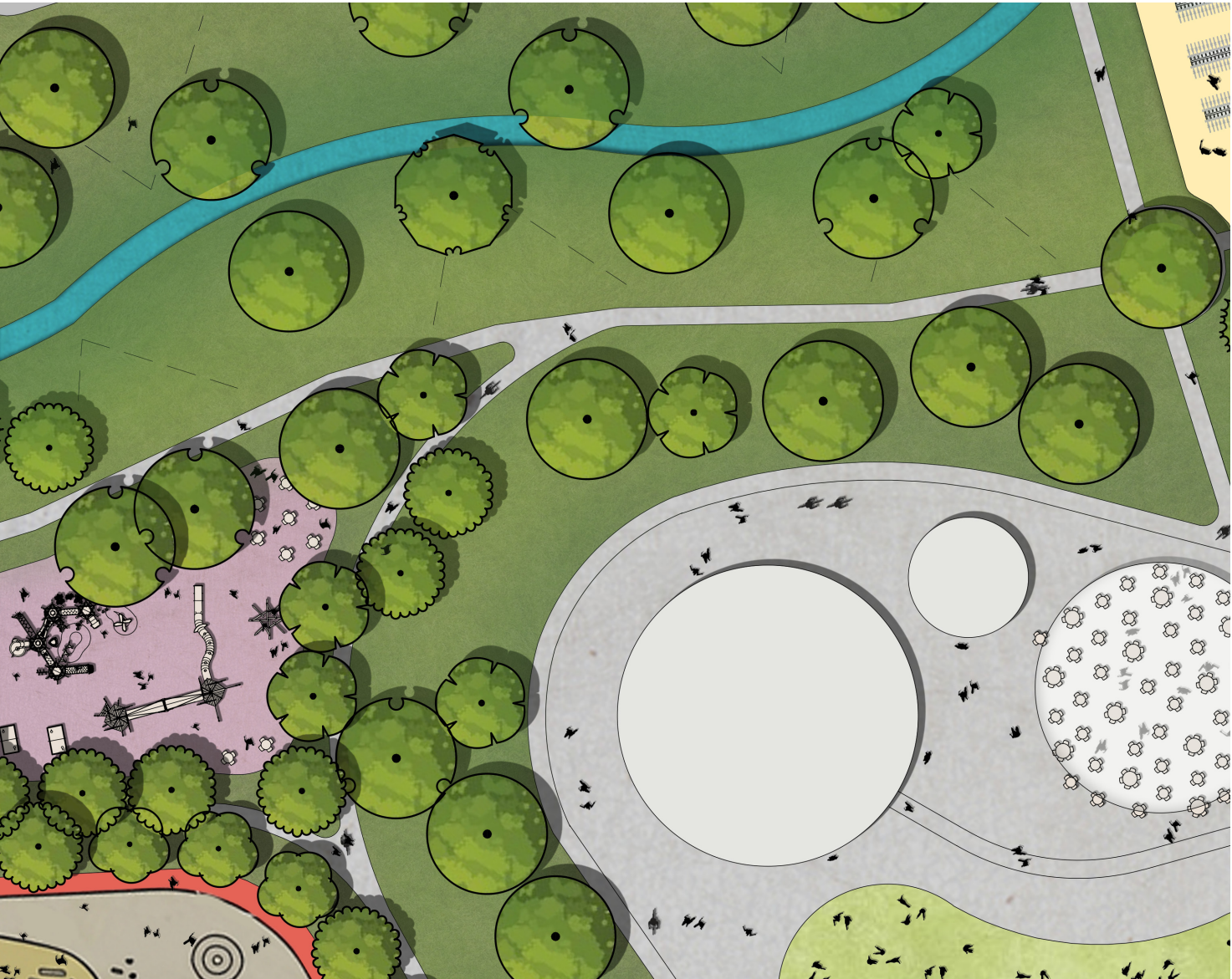
Site Plan



Legend:

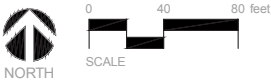
- 1 De-Channelized Tequesquite Arroyo
- 2 Community Garden & PV Array
- 3 Children's Play Area
- 4 Skate Park
- 5 Pump Track
- 6 200m Track & Multi-Use Field
- 7 Sports Court Complex
- 8 Open-Air Food Hall
- 9 Gathering Plaza & Shade Structure
- 10 Fountain
- 11 Bike Shop & Rental
- 12 Parking Lot PV Shading
- 13 Nature Trails
- 14 Beach & Shade Structure
- 15 Campground
- 16 Protected Habitat Area
- 17 Amphitheater
- 18 Flexible Plaza
- 19 Rentable Overlook/BBQ Nodes
- 20 Flower Field with Rest/Selfie Nodes
- 21 Lined Ecological Pond
- 22 Native Demonstration Garden
- 23 Native Plant Nursery (Grow Fields)
- 24 Native Plant Nursery (Shop)
- 25 Feature Sculpture, Typ.
- 26 New PV Array, Typ.

Ryan Bonaminio Park Enlargement



Legend:

- 1 Tequesquite Ave
- 2 Santa Ana River Trail
- 3 Group Campsites, Typical
- 4 Nature Play Area



Key Map:



Ryan Bonaminio Park Sections



Key Map:



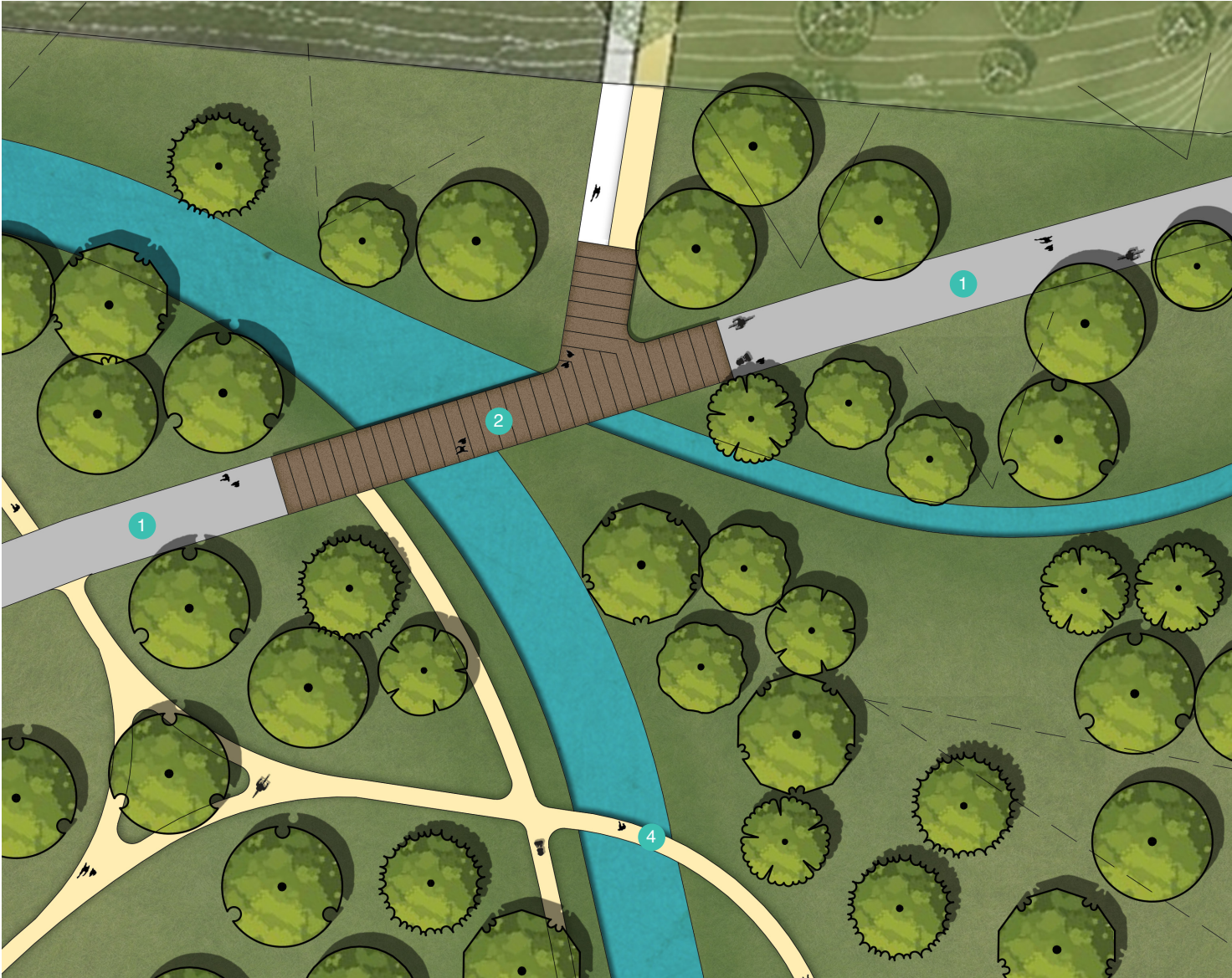
Ryan Bonaminio Park Perspectives



Key Map:

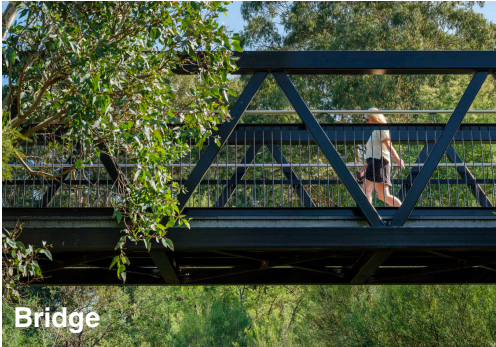
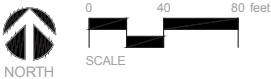


Creek Confluence Enlargement



Legend:

- 1 Tequesquite Ave
- 2 Bridge
- 3 Nature Trails
- 4 Boardwalk Trail



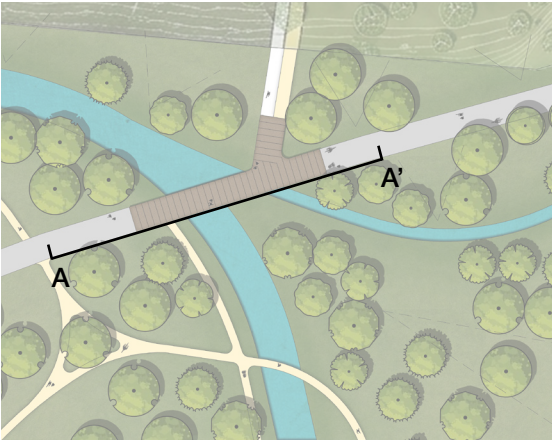
Key Map:



Creek Confluence Section



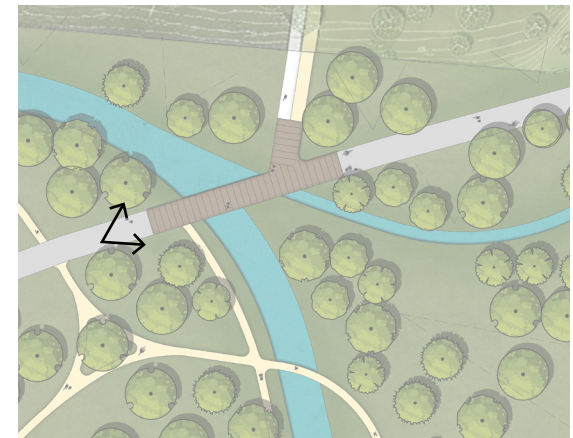
Key Map:



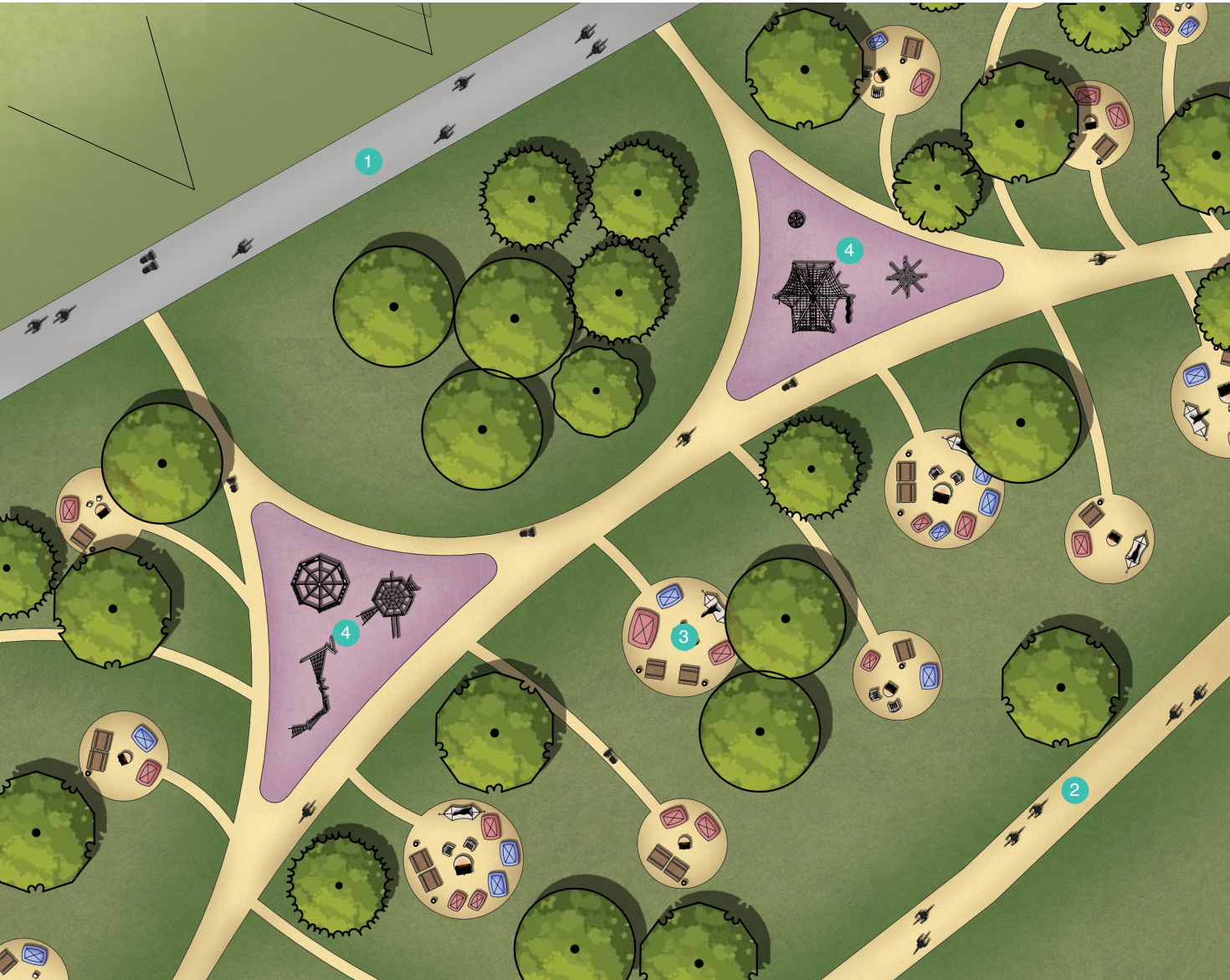
Creek Confluence Perspective



Key Map:

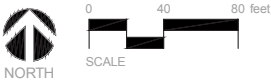


Campground Enlargement



Legend:

- 1 Tequesquite Ave
- 2 Santa Ana River Trail
- 3 Group Campsites, Typical
- 4 Nature Play Area



Campsites



Nature Play



Multi-Use Trails

Key Map:

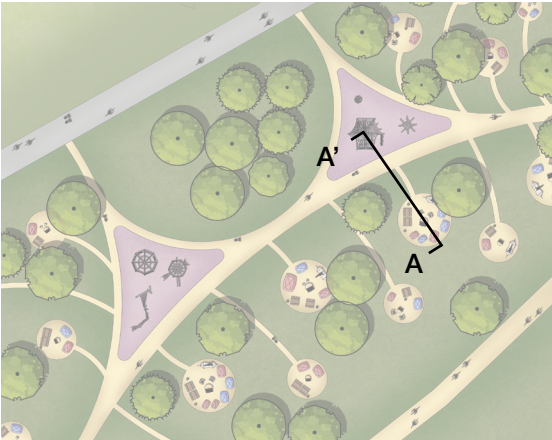


Campground Section



A

Key Map:

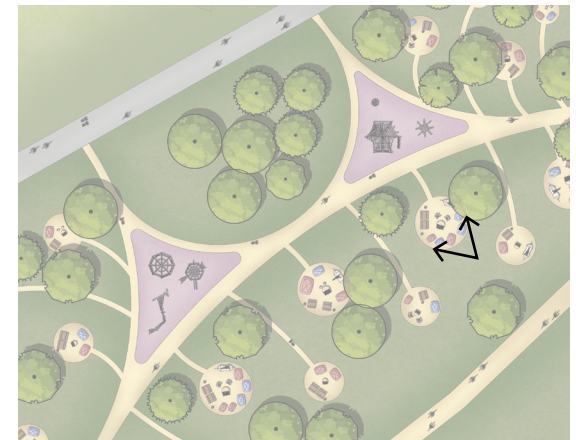


A'

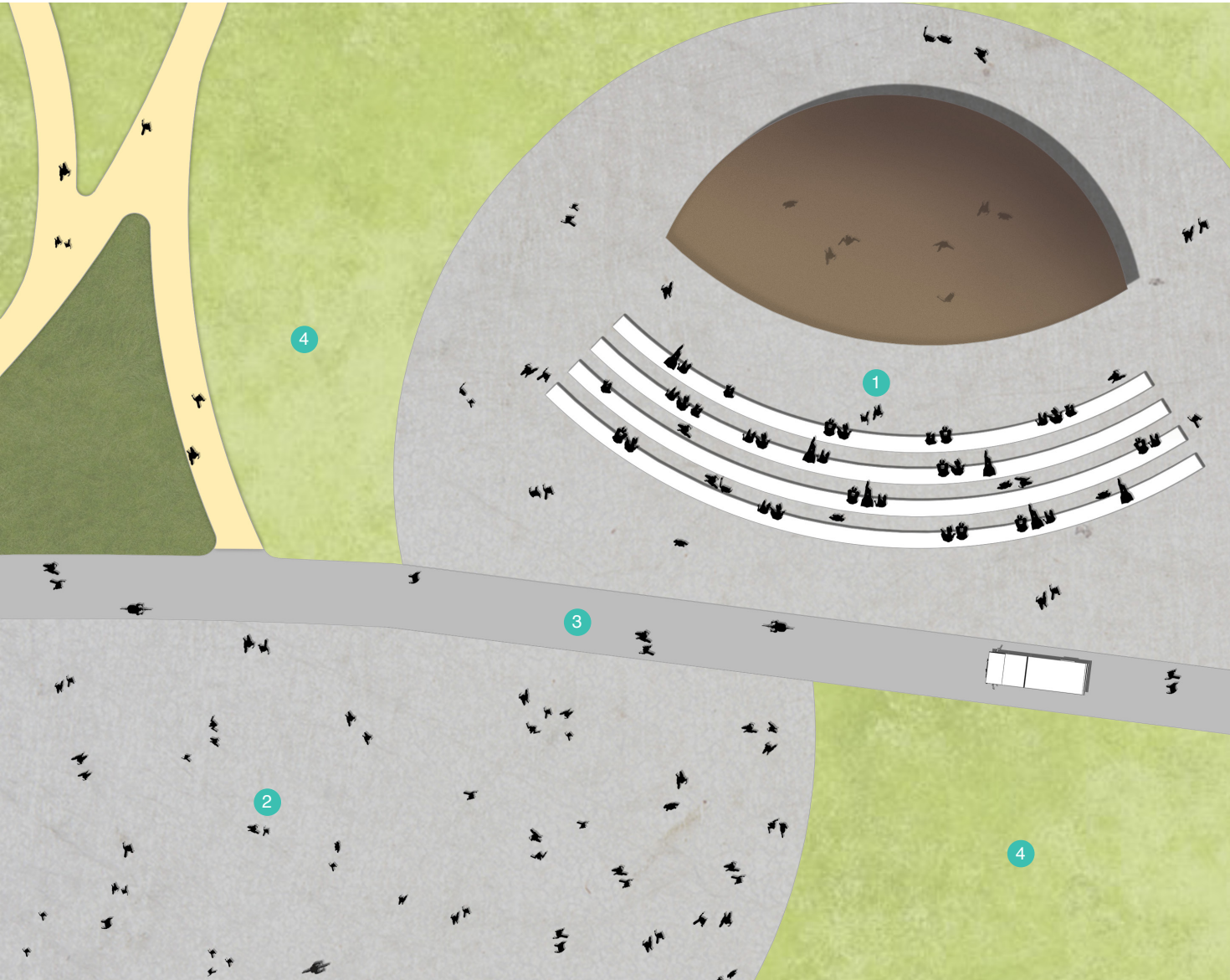
Campground Perspective



Key Map:

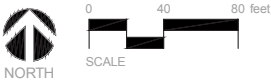


Amphitheater Enlargement



Legend:

- 1 Amphitheater & Stage
- 2 Flexible Plaza
- 3 Multi-Use Trail
- 4 Lawn, Typical



Amphitheater Seating



Stage Structure



Native Grassland Lawns

Key Map:



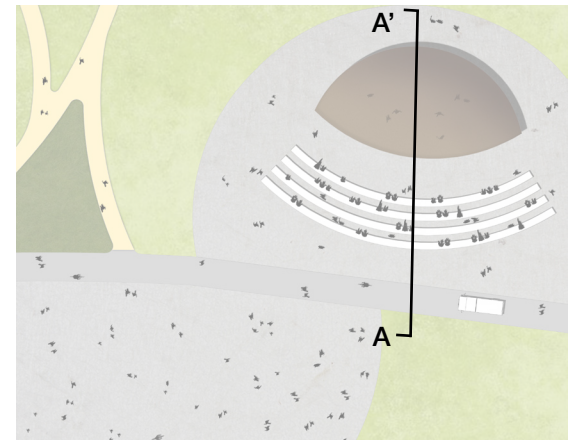
Amphitheater Section



A

Key Map:

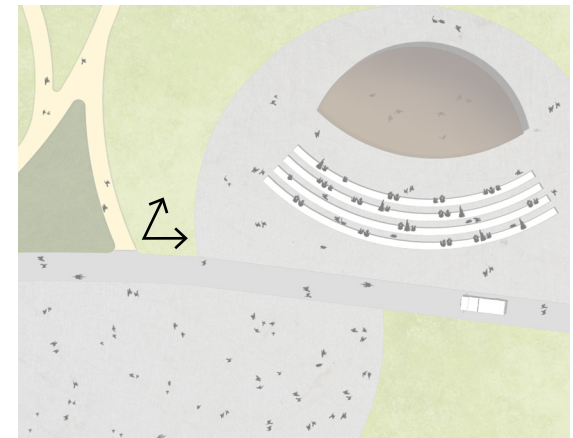
A'



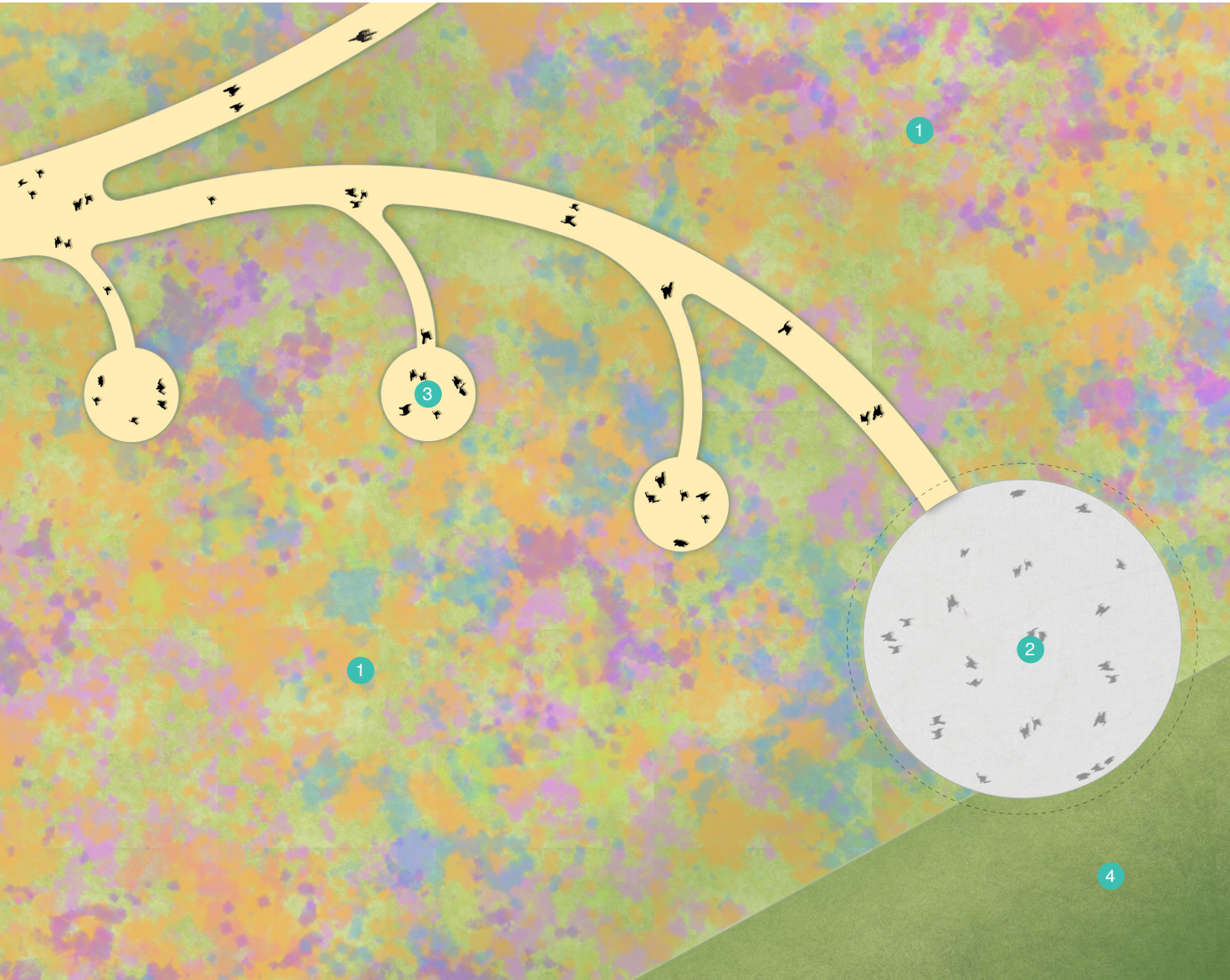
Amphitheater Perspective



Key Map:

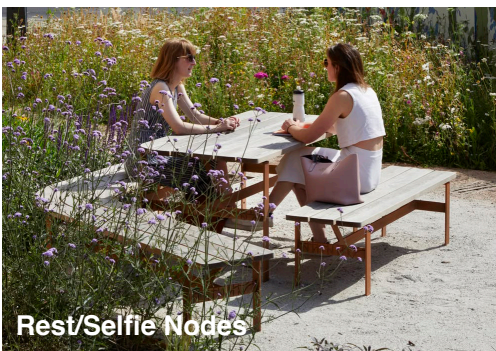


Flower Field Enlargement



Legend:

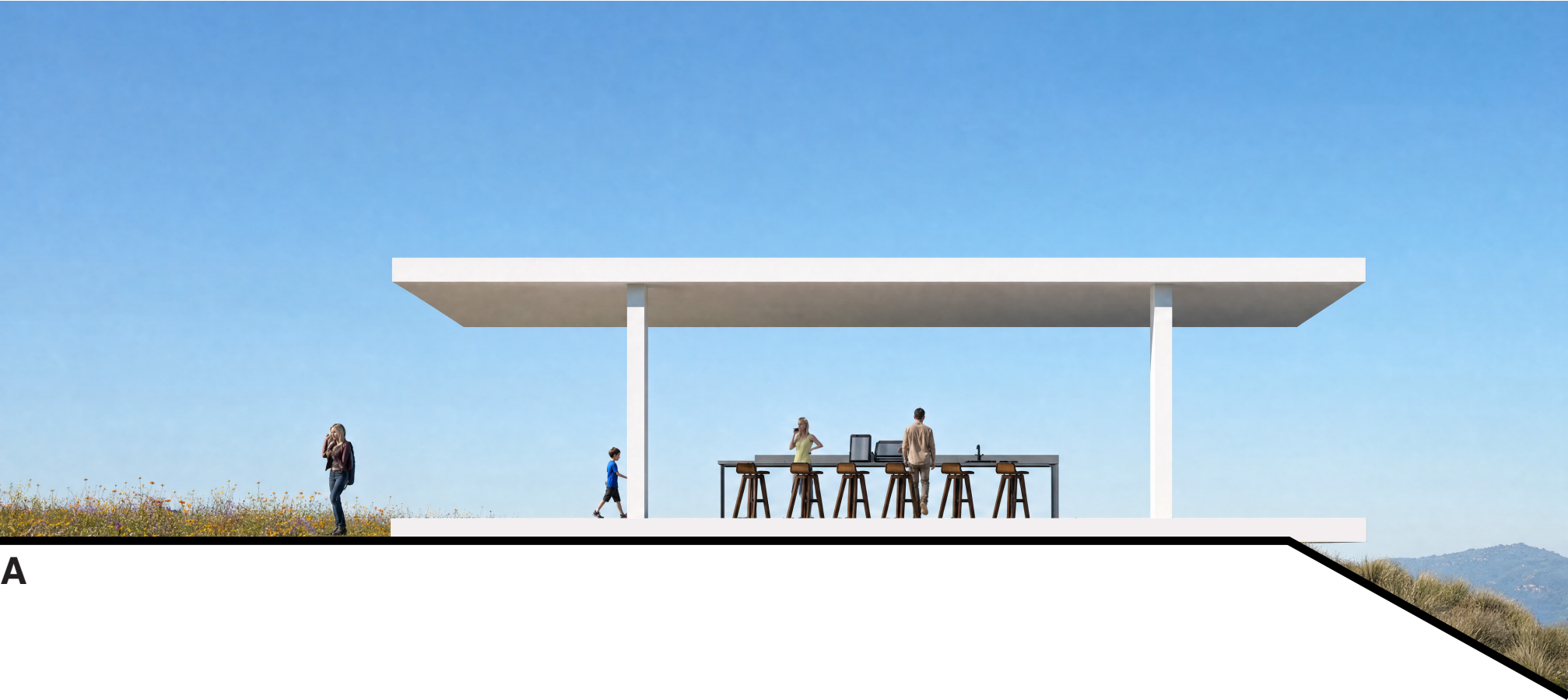
- 1 Flower Field
- 2 Shaded Gathering Space
- 3 Rest/Selfie Nodes, Typical
- 4 Landfill Mound Slope



Key Map:



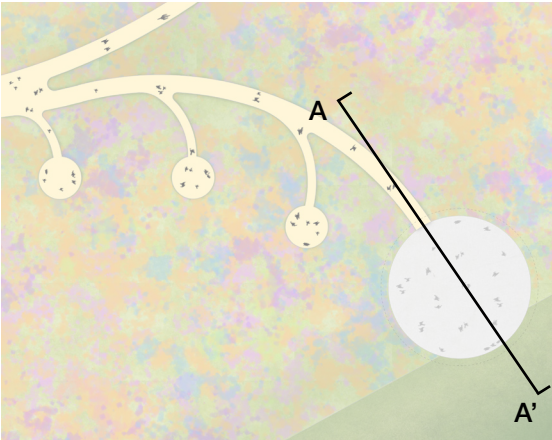
Flower Field Section



A

A'

Key Map:



Flower Field Perspective



Key Map:

