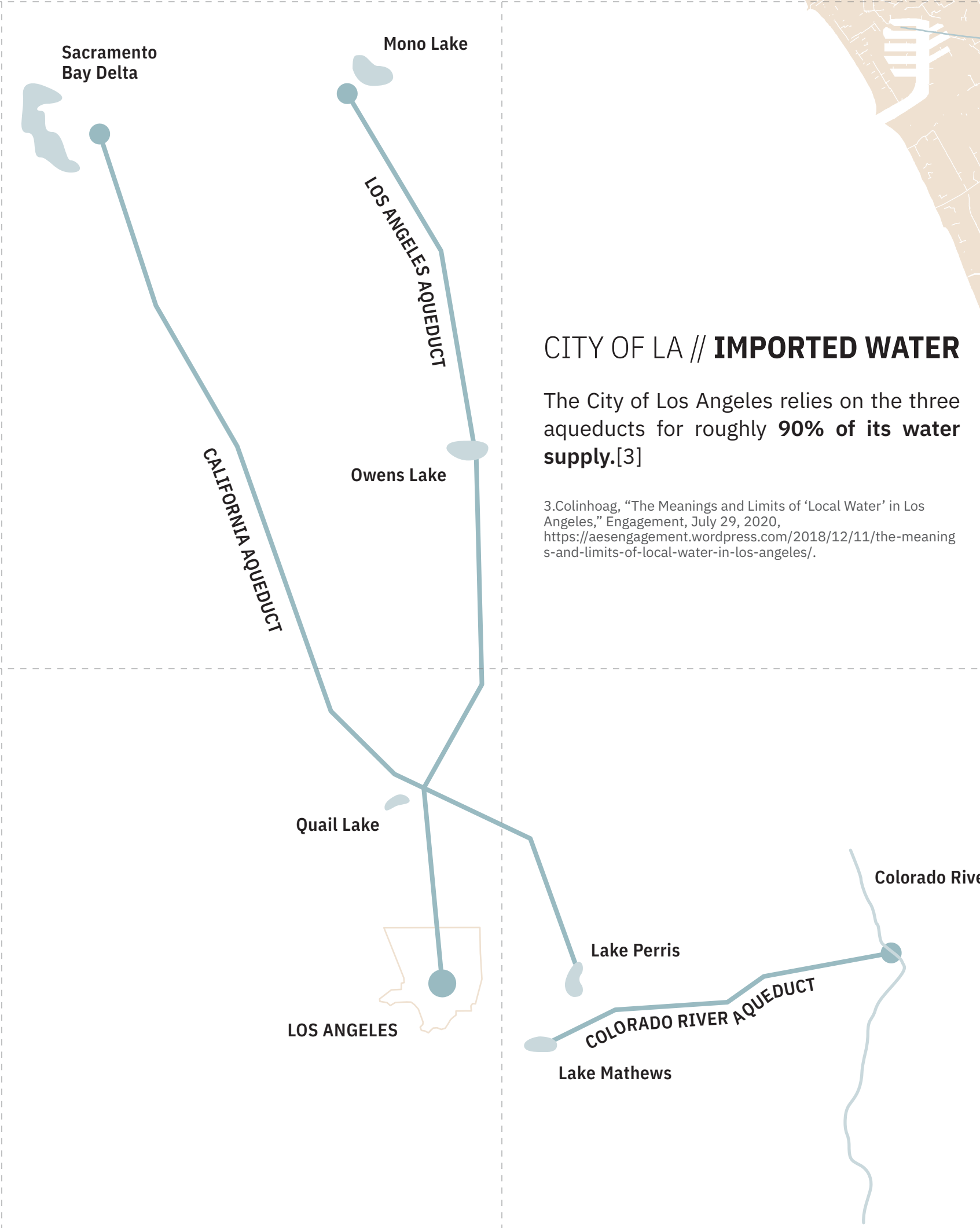


INFRASTRUCTURE // HISTORY

- 1781** Spanish settlers establish El Pueblo de Los Angeles near the river, using its waters for irrigation and daily needs.
- 1860** The City of Los Angeles finalizes its inaugural water system, marking a transition from informal water distribution to a structured municipal supply network.
- 1902** The Los Angeles Department of Water and Power (LADWP) is founded as the city's official water utility, initially focusing on drinking water rather than flood control.
- 1913** The completion of the Los Angeles Aqueduct, designed by William Mulholland, diverts water from the Owens Valley, reducing local reliance on stormwater for supply.[2]
- 1914** A major flood devastates Los Angeles, leading to early flood control efforts like levees along the Los Angeles River.
- 1915** The Los Angeles County Flood Control District (LACFCD) is created to provide flood protection and water conservation. The city constructs its first reinforced concrete storm drains to move water away from streets and buildings.
- 1928** The Metropolitan Water District of Southern California (MWD) was established to develop a more reliable regional water supply, later becoming a key player in stormwater reuse efforts.
- 1938** The deadliest flood in LA's history results in over 100 deaths and the destruction of infrastructure, prompting federal intervention.
- 1939** The U.S. Army Corps of Engineers begins channelizing the Los Angeles River, paving large sections with concrete to control future floods.
- 1952** The Sepulveda Basin is completed, serving as a flood detention area to manage overflow from the LA River.
- 1972** The Clean Water Act is passed, requiring LA to address stormwater pollution and water quality.
- 1990** The Stormwater Management Division within the Bureau of Engineering is formed with the responsibility of developing and implementing stormwater pollution abatement projects and programs.
- 1998** Proposition 0 is passed, funding stormwater quality improvement, wetlands restoration, and other sustainable projects.
- 2000** The LA River Revitalization Plan is proposed, seeking to balance flood control with wetland restoration.
- 2007** The city's Water Integrated Resources Plan (WIRP) prioritizes stormwater capture for local water supply.
- 2018** Measure W is approved, providing a long-term funding source for stormwater capture, water reuse, and infrastructure improvements.[1]

¹ History of the Los Angeles Stormwater Program, LADWP, November 2019, p. 21-22.
² Water and Power Associates Delivering the Public about Critical Dams and Energy Issues Facing Los Angeles and California, Water and Power Associates, accessed April 24, 2025, <https://www.waterandpower.com/energy-issues/>.
³ Colangelo, "The Making and Unmaking of Local Water" 11-18. <https://www.waterandpower.com/energy-issues/>.
⁴ Watersheds, "Water for LA County, May 8, 2024." <https://www.waterandpower.com/energy-issues/>.

LOS ANGELES INFRASTRUCTURE STORMWATER & FLOOD CONTROL

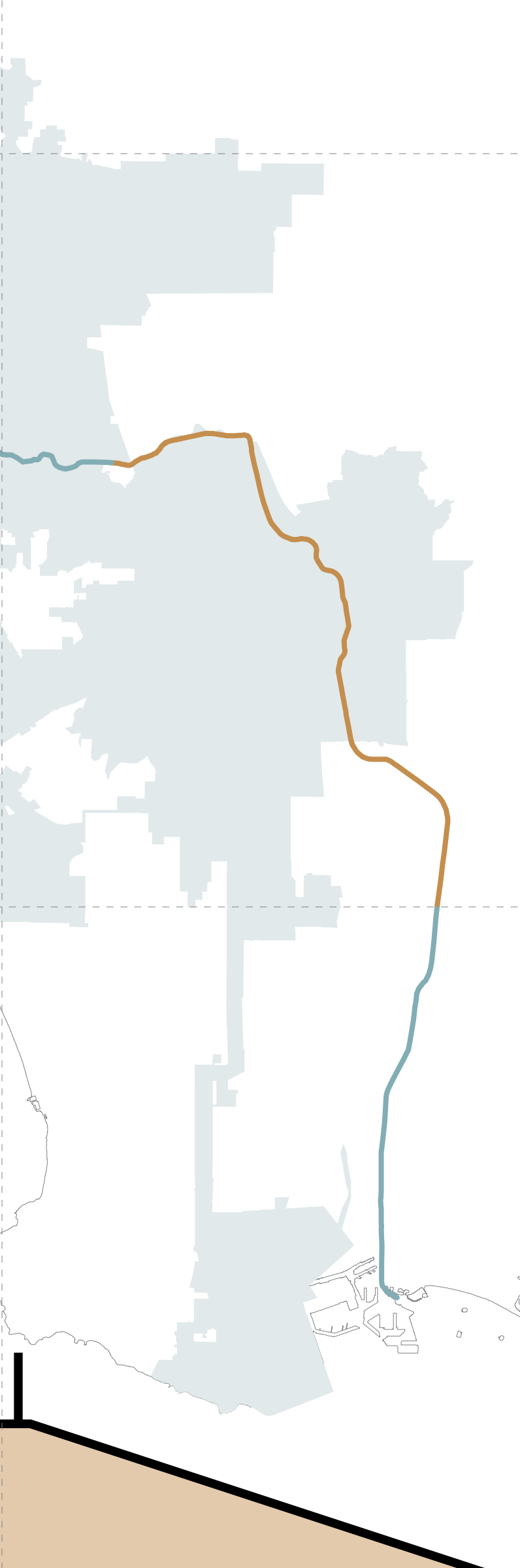


CITY OF LA // IMPORTED WATER
 The City of Los Angeles relies on the three aqueducts for roughly **90% of its water supply**.^[3]

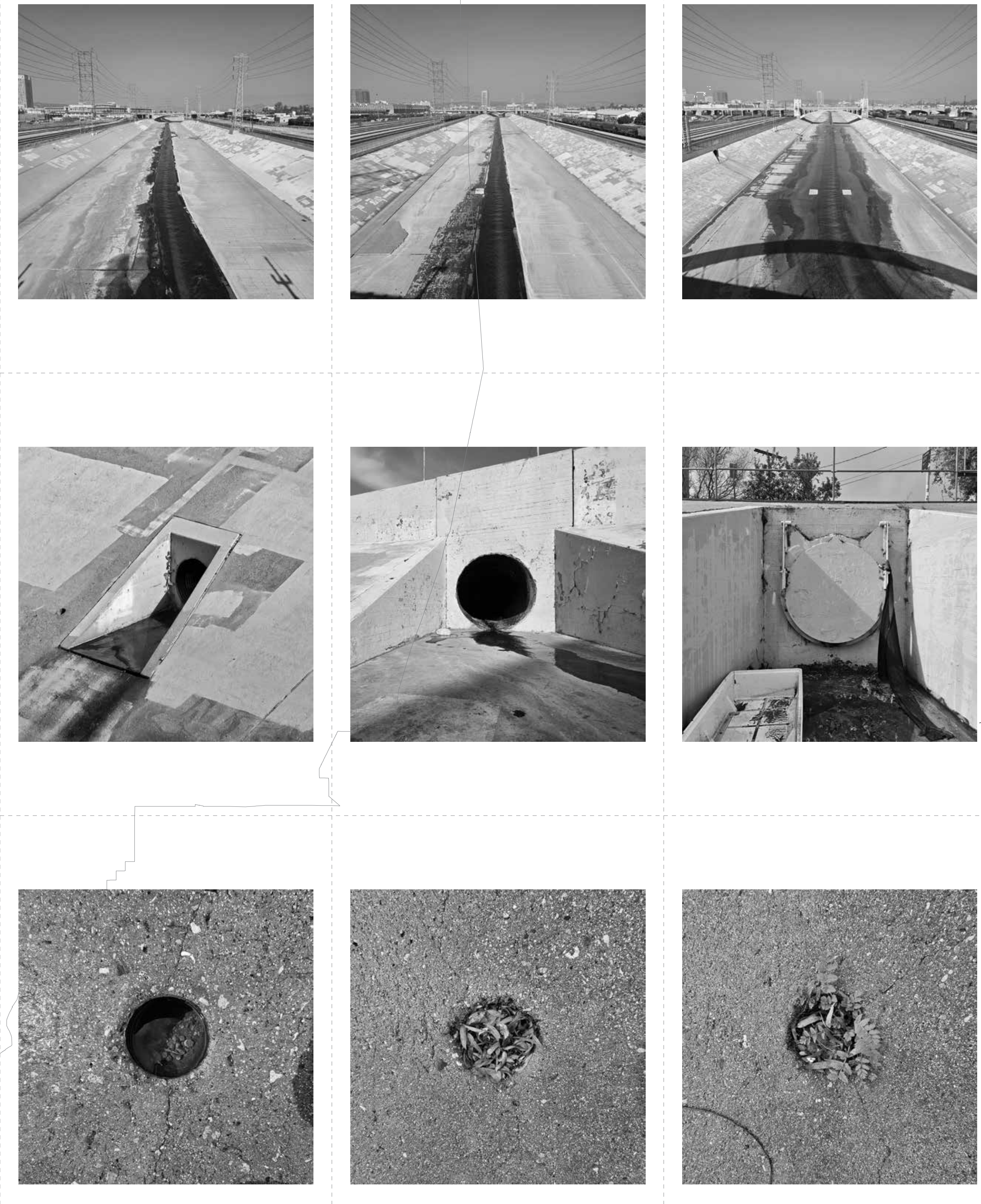
LA RIVER // JURISDICTION

Currently, the operations and maintenance of the LA River and its tributaries is shared by the LA County Flood Control District and the US Army Corps of Engineers.

Ownership of the approximately 2,300 acres of land within the LA River ROW varies. The LACFCD owns the largest portion of the ROW, but the USACE, municipalities, and private owners also own portions of the ROW.^[8]



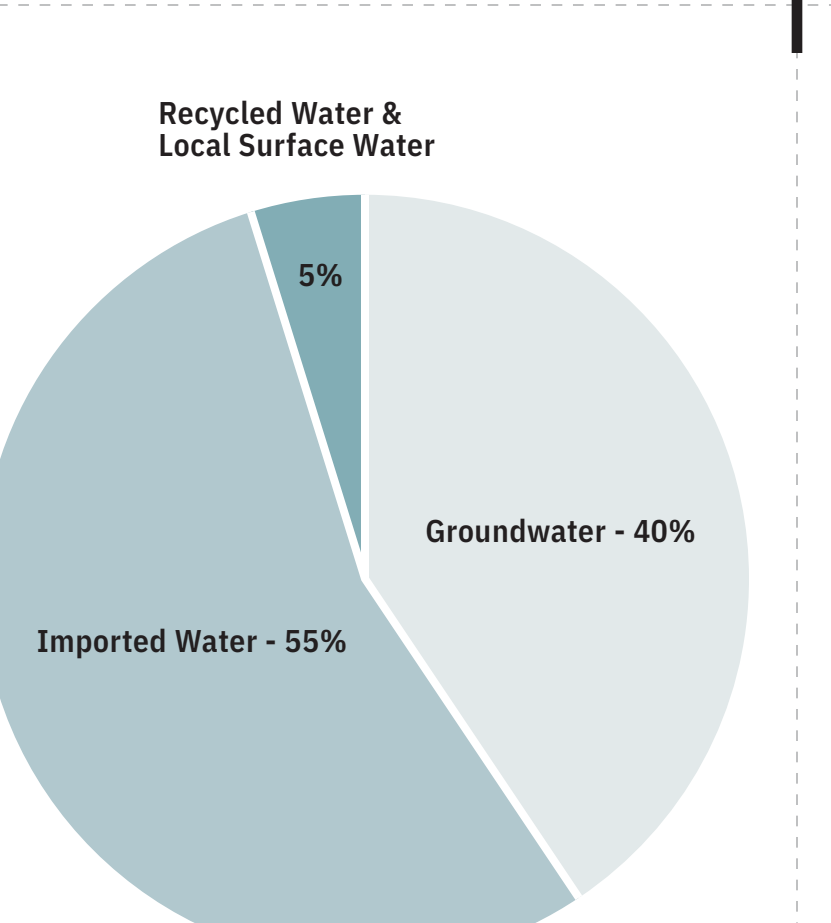
INFRASTRUCTURE // PHOTOS



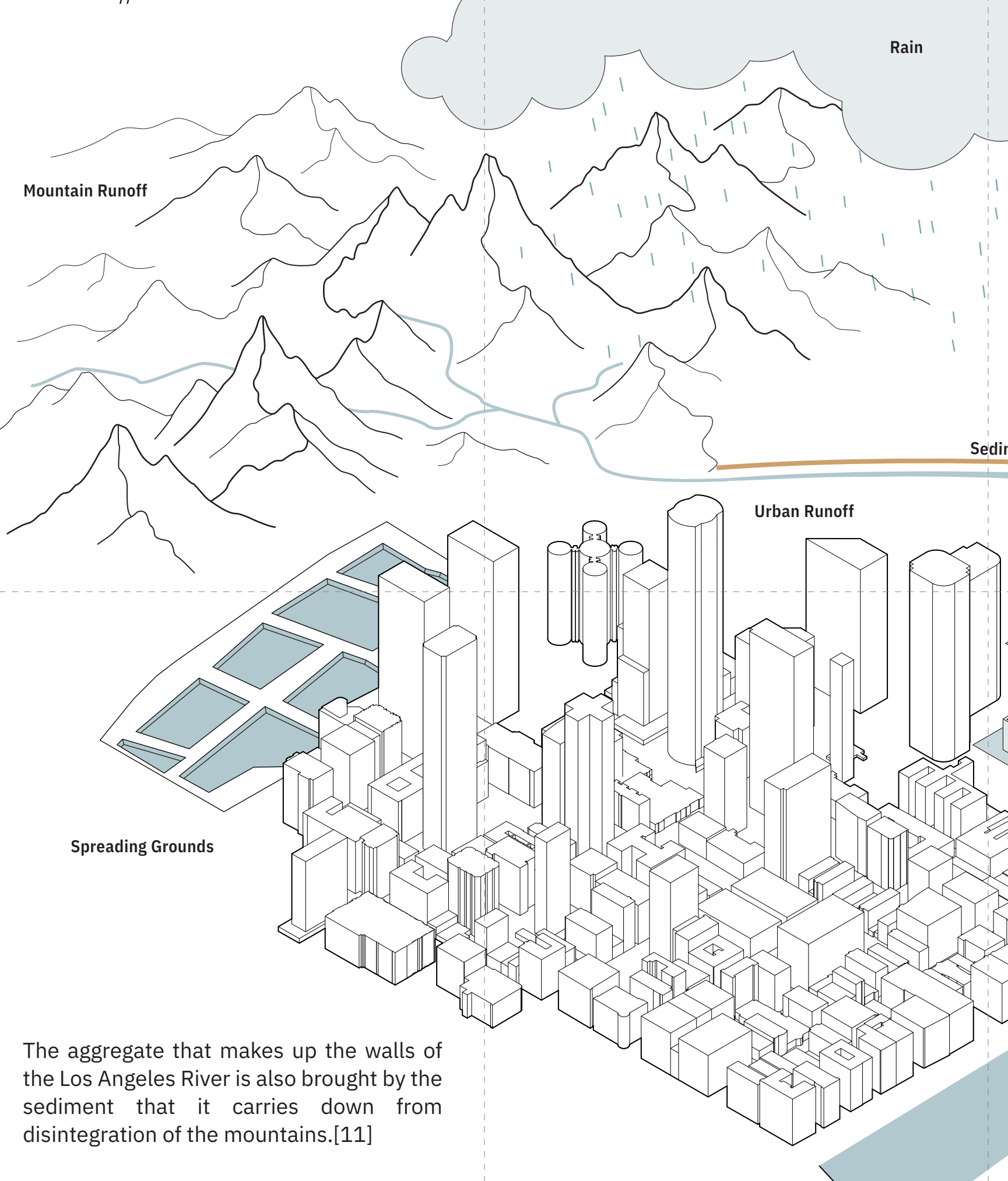
LA COUNTY // WATER SUPPLY

The water supply of Los Angeles County is a diverse mix of groundwater, surface water, imported water, and recycled water.^[9]

However, less than 50% of the region's water supply is from local sources.^[10]

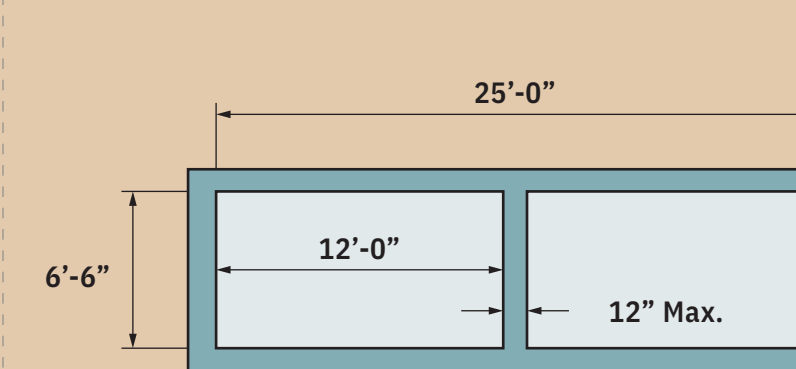


WATER // ABRIDGED DRAWING

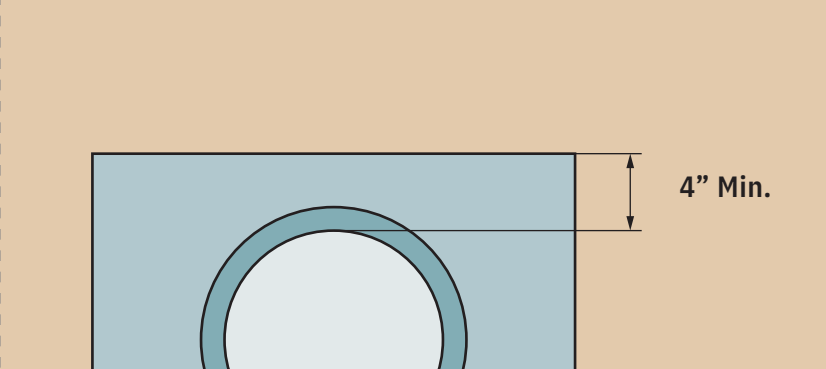


INFRASTRUCTURE // SECTION

STORM DRAIN SECTION



PIPE SECTION



INFRASTRUCTURE // LOST WATER

When the U.S. Army Corps of Engineers built the channel, its sole purpose was to drain water through the city and to the ocean as quickly as possible to prevent flooding.

However, as a result, 80% of valuable rainwater is still dumped into the ocean every year.^[12]

At the end of LA County's 2024 storm season, more than **96.3 billion gallons of stormwater were captured and stored** within the county's reservoirs and delivered to spreading grounds for recharge of groundwater aquifers.

During that period, LA County harvested enough water to meet the needs of more than **2.4 million people for a year**—about **24% of the region's annual demand**.^[13]

INFRASTRUCTURE // PROPOSAL AERIAL STORMWATER NETS

PROPOSAL // OVERVIEW

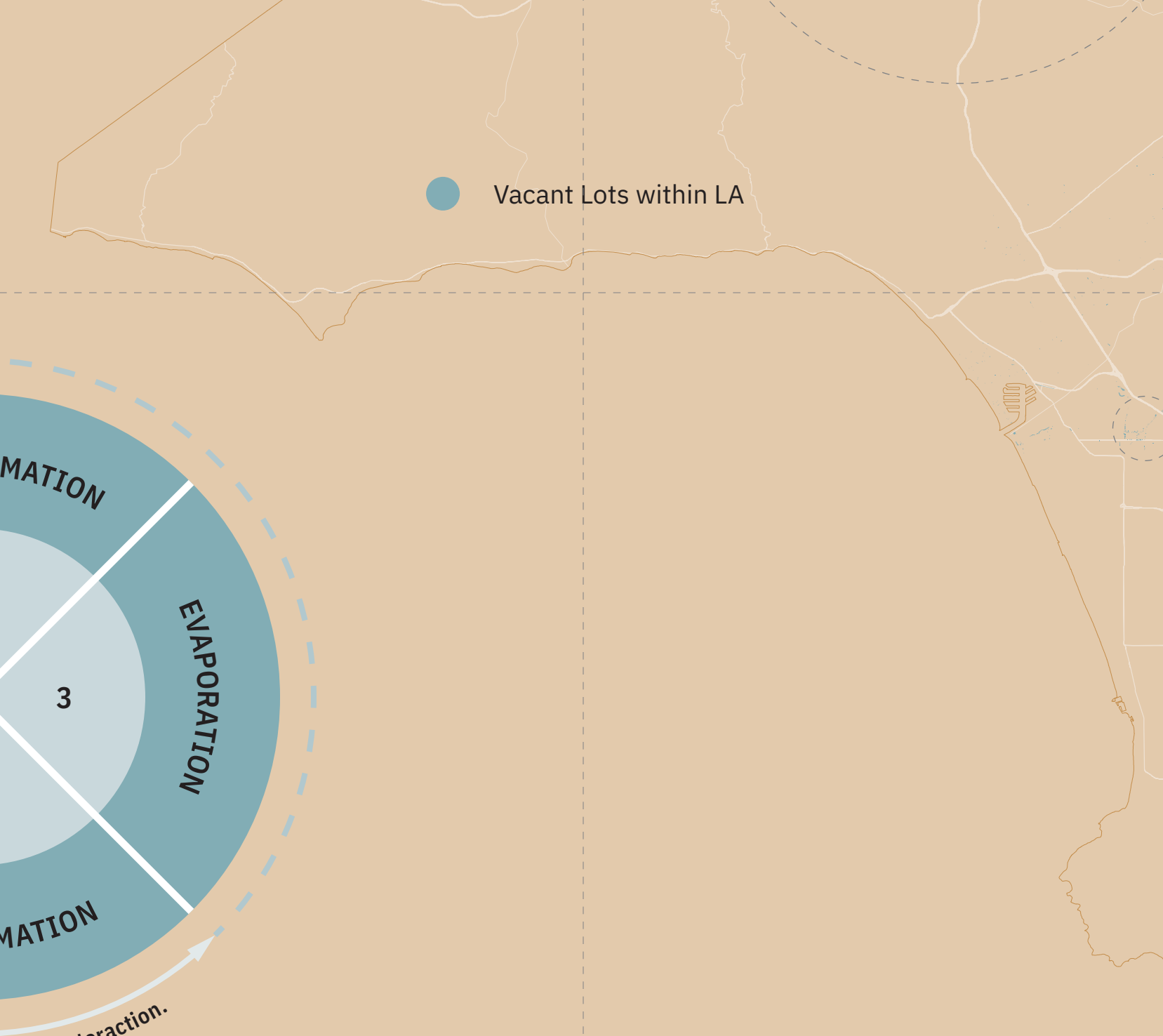
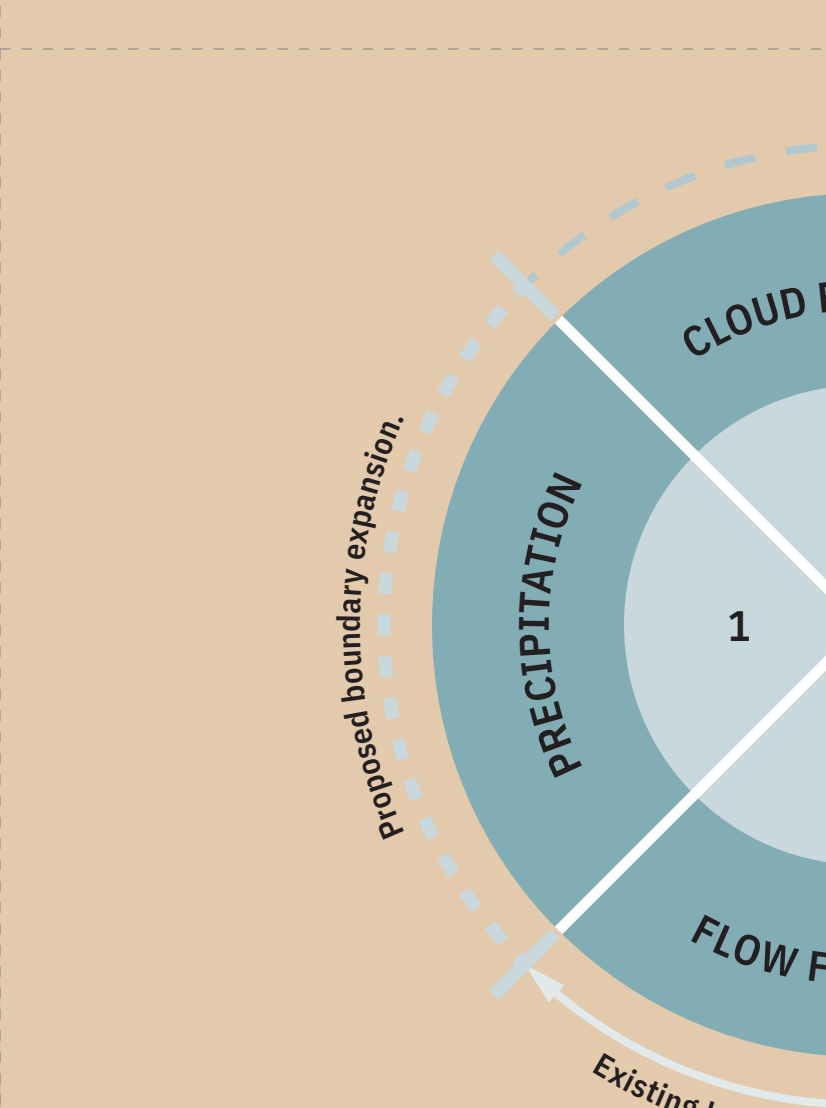
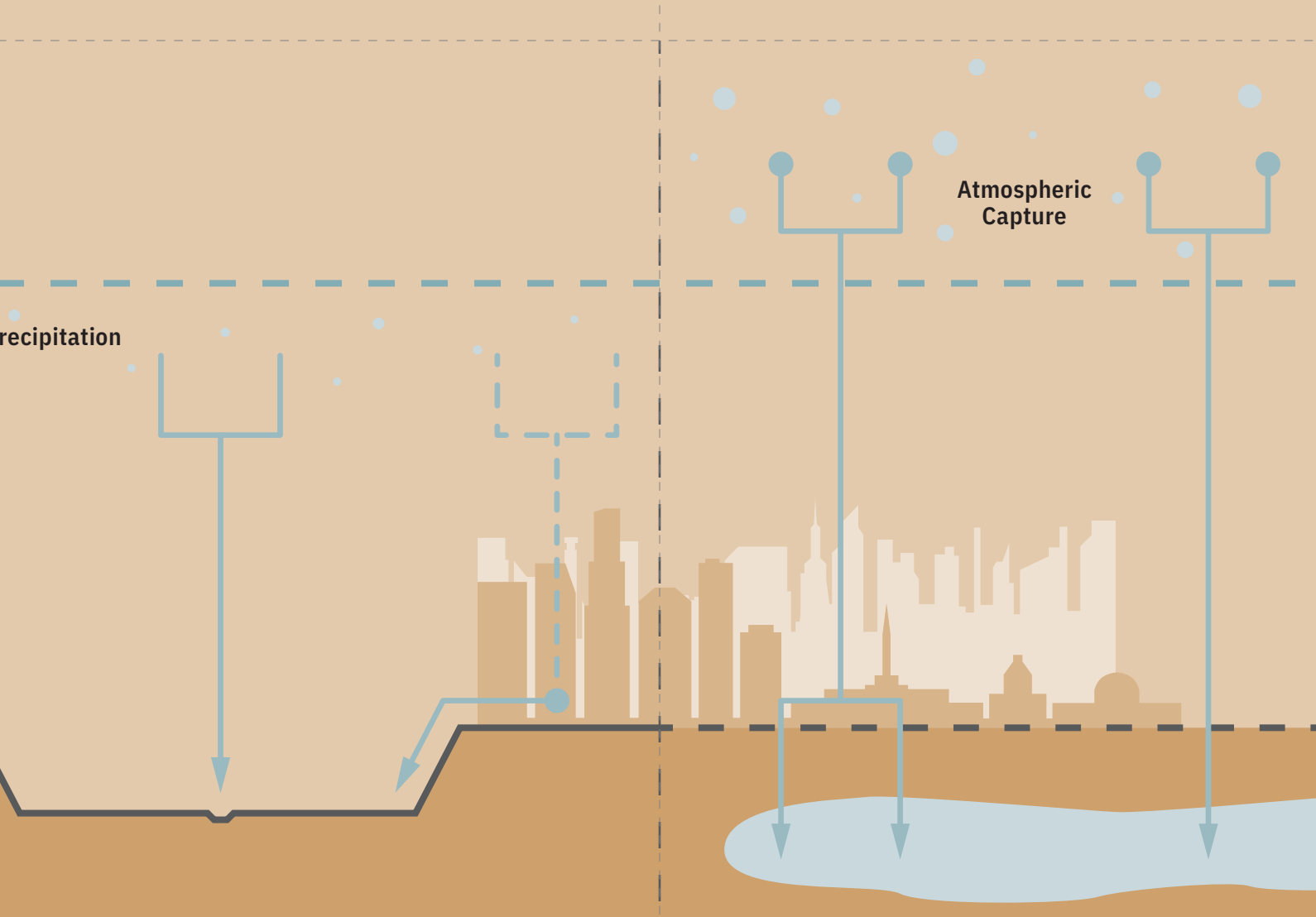
In Los Angeles, our relationship with water is narrowly defined - we only engage with it once it reaches the ground, channeled into engineered flows. This proposal challenges that limitation by expanding from the existing boundary of human interactions we have with water.

Through a network of Aerial Stormwater Nets suspended across the urban fabric, we seek to expand our interaction with water into the sky itself, capturing atmospheric moisture and rainfall before it ever touches the surface. By doing so, we dissolve the invisible boundary that has confined our hydrological infrastructure to the ground, opening new spatial and temporal dimensions for flood control, recharge, and urban weathering.

WEIGHT // DEFINITION

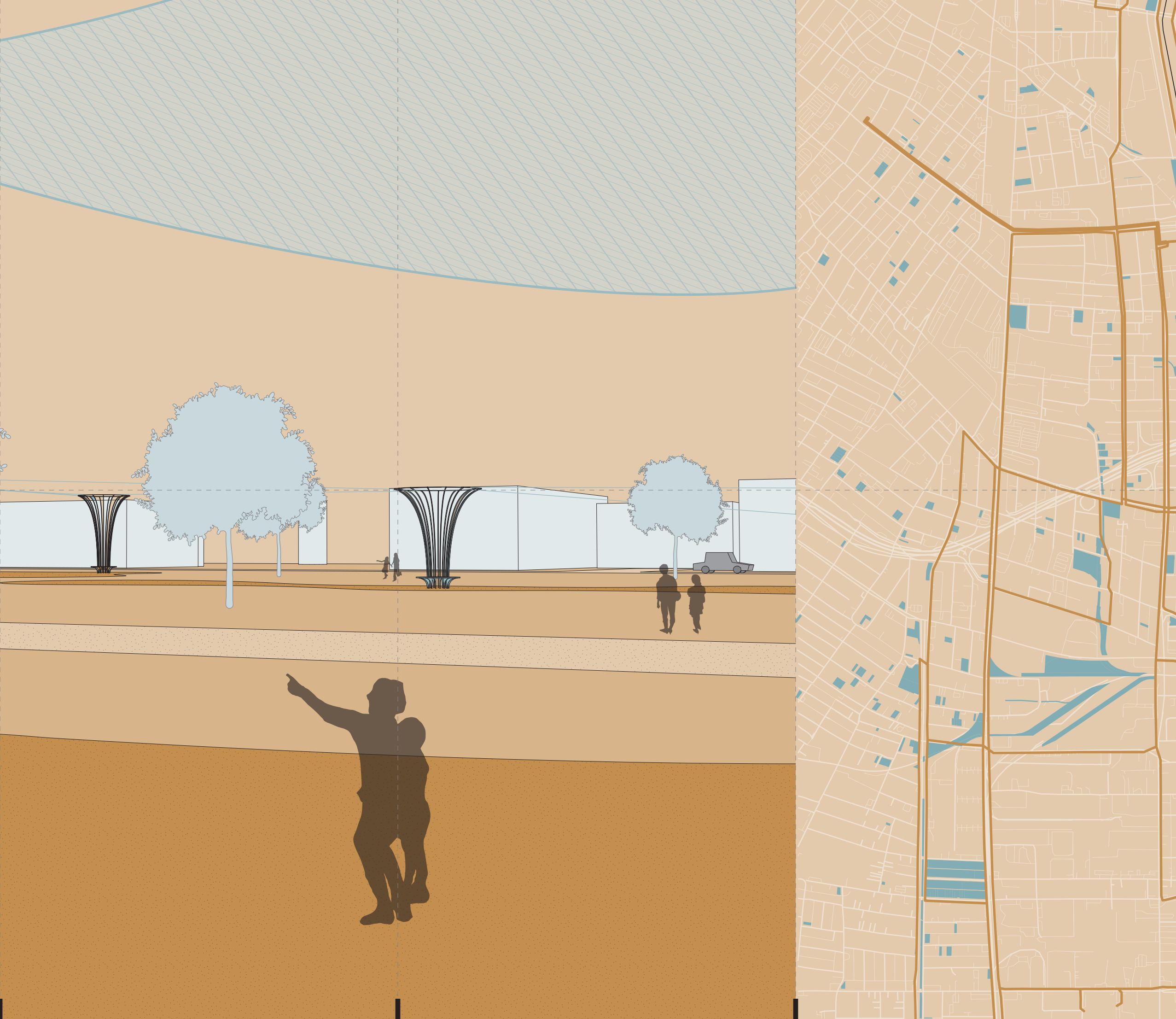
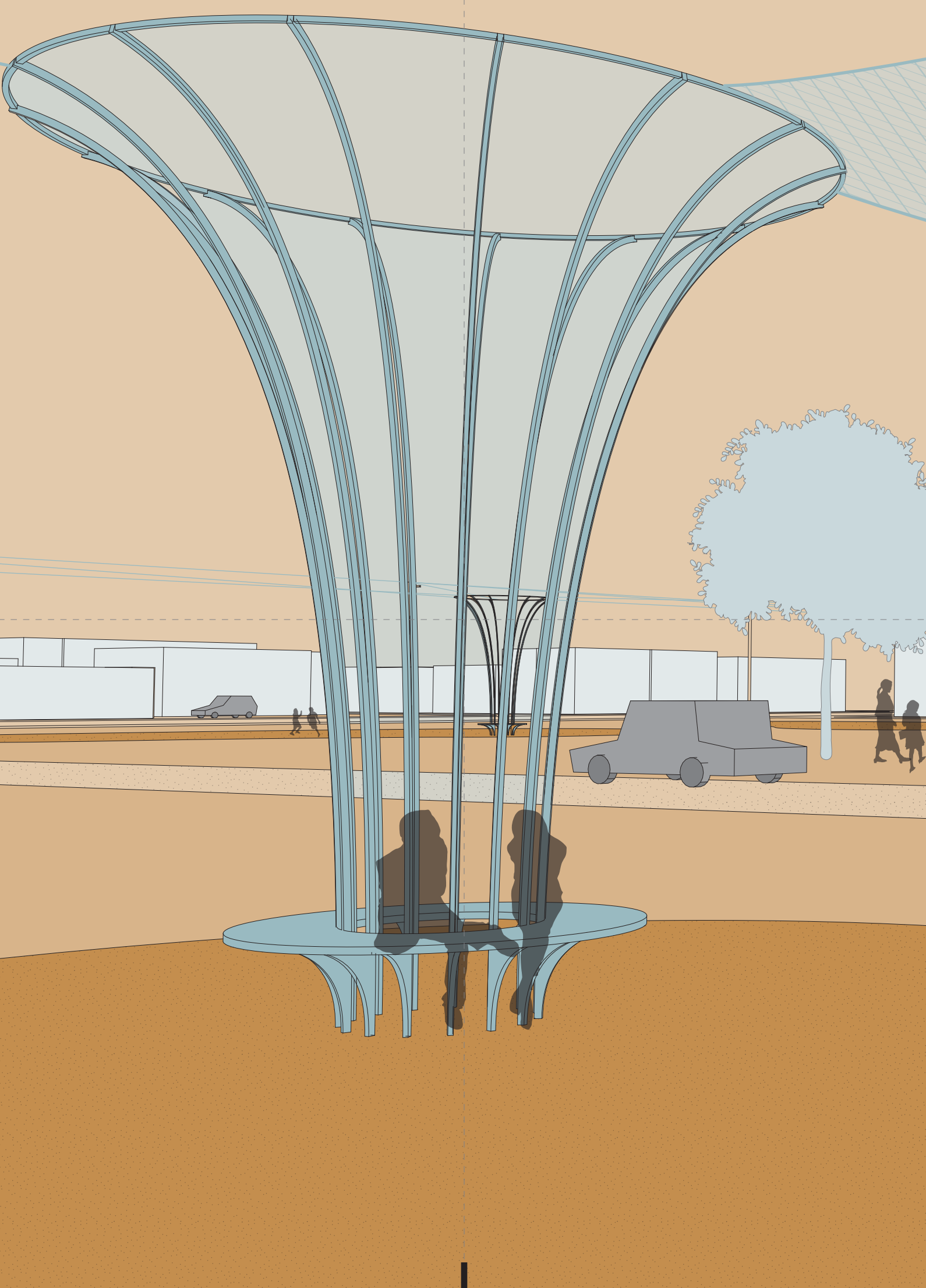
While water can be measured in pressure, volume, or flow, this proposal defines the weight of infrastructure as something else entirely: the potential water that has been lost or mismanaged as a result of outdated systems.

This netting strategy aims to make that weight visible—and reclaimable.



PROPOSAL // VACANT LOTS

Often overlooked or underutilized, these unpaired spaces offer ideal conditions for water percolation and deep soil infiltration. By anchoring stormwater nets above these sites, we create vertical access points that connect atmospheric moisture directly to permeable land. This coupling of sky and soil transforms vacant lots into active infrastructure, turning absence into opportunity and reclaiming space for hydrological recovery.

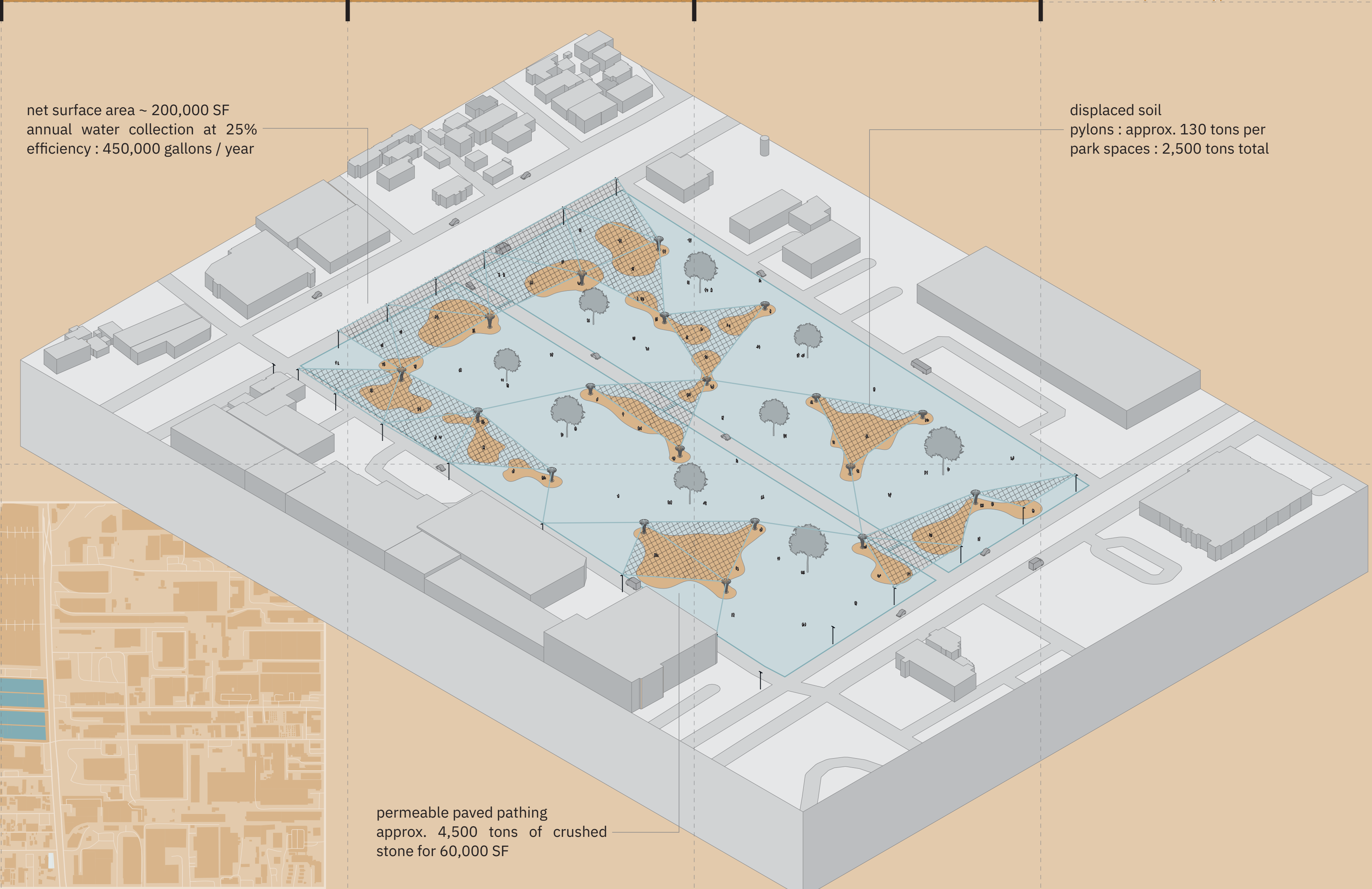


PROPOSAL // POWER LINES

Rather than defaulting to wholly new construction, this proposal aims to leverage existing powerline corridors as tethering points for the Aerial Stormwater Nets. These corridors, which often underutilized and restricted in use, offer a vast spatial network already embedded in the urban landscape. By suspending the nets from these transmission lines, the project aims to reclaim infrastructural redundancy, transforming our passive overhead networks into a hydrological system.

COMMERCIAL // SINGLE LOT

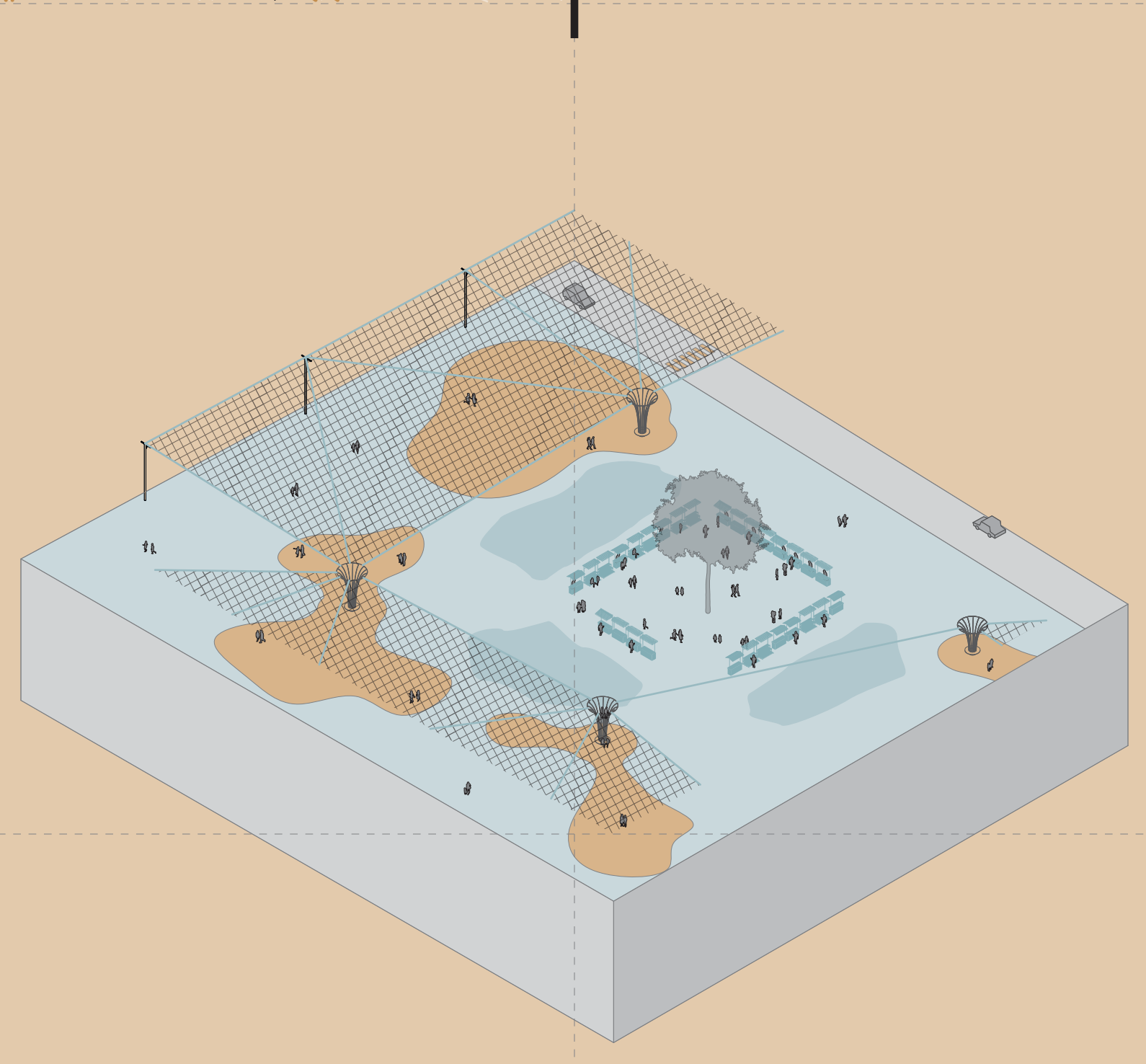
In large commercial lots, the Aerial Stormwater Nets are deployed as high-volume collection systems. Elevated net arrays harvest atmospheric moisture and direct it downward through pylons that double as structural anchors and mechanical infrastructure. Inside each pylon, a pump system transfers the collected water into subgrade recharge shafts, ensuring direct infiltration into the aquifer. Beneath the net canopy, former heat islands are reclaimed as shaded community parks with permeable paving designed for play and passive use, where community members can witness the collection and recharge process in real time.



PROPOSAL // FUTURE

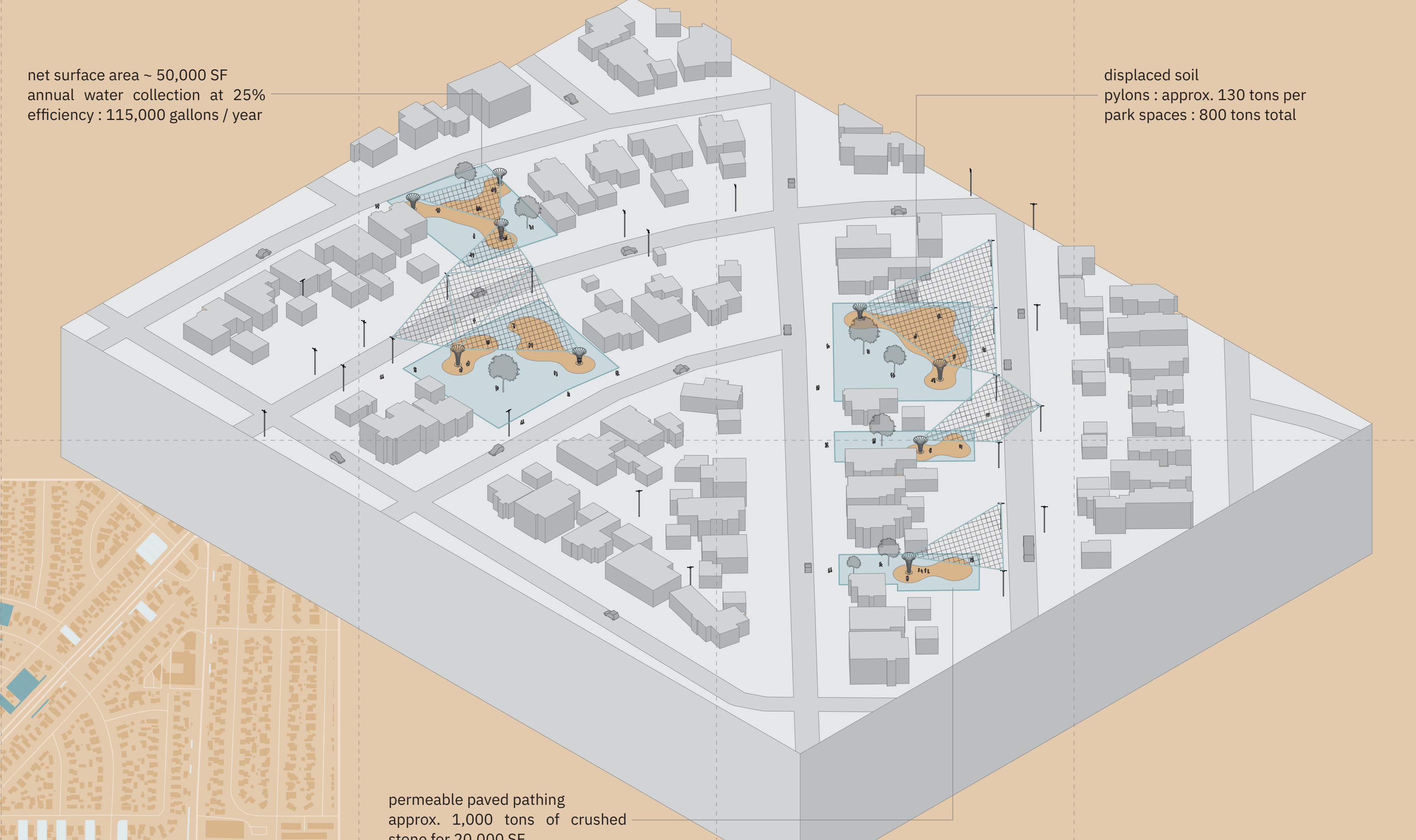
YEAR 5 : SEEDING COMMUNITY & ECOLOGY

In the early phase, the site begins its transformation with the introduction of native vegetation to boost biodiversity and reduce the urban heat island effect. A community garden and seasonal farmers market activate the space, establishing it as a social and ecological hub. While only operating at 25% efficiency, they lay the groundwork for a system that is as much about stewardship as it is about capture.



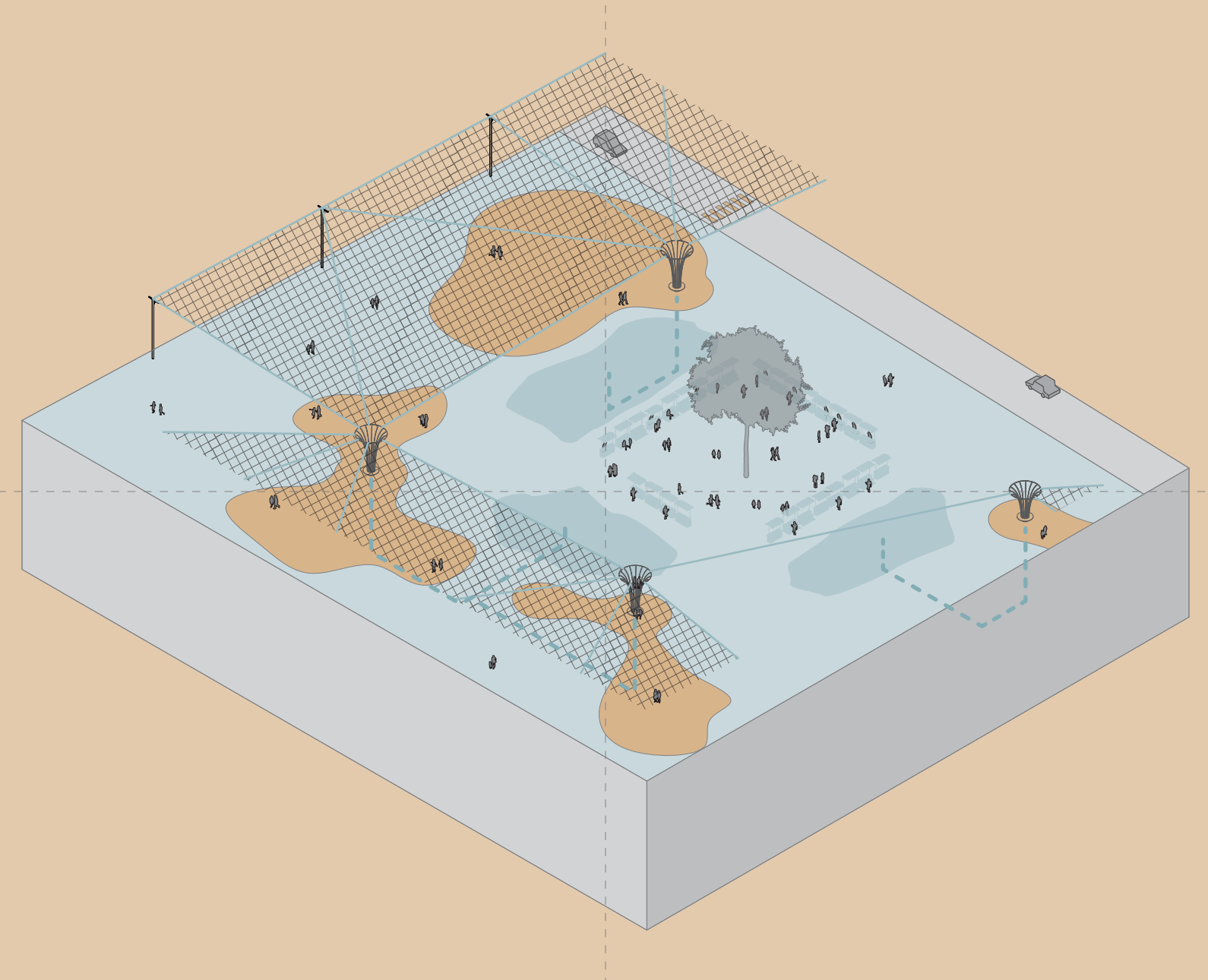
RESIDENTIAL // LOT CLUSTER

In residential neighborhoods, where lots are smaller and scattered, the nets are anchored across clusters of adjacent parcels and underutilized spaces. Each pylon similarly serves as a physical support and a mechanical pump system, moving collected water from above into subsurface infiltration zones, bypassing surface runoff routes and delivering moisture directly to the aquifer. Beneath the netting, intimate park spaces with permeable paving emerge—designed for gathering, rest, and everyday neighborhood life. Open, uncovered areas are converted into planted commons that absorb overflow and support play and recreation.



YEAR 15 : RESPONSIVE SYSTEMS & SELF-SUSTAINING LANDSCAPES

The site matures into a semi-autonomous climate system. Smart irrigation fed by captured water now supports robust native plantings and small-scale urban agriculture. The community thrives in a greener, cooler environment with reduced dependence on city water. Net efficiency rises to 35%, and the system begins to adaptively manage itself based on real-time conditions.



YEAR 50 : INTEGRATED POWER, WATER, AND PUBLIC LIFE

The site becomes a fully integrated environmental machine. Pylons no longer support just mechanical water pumps, but also wind turbines, producing energy to sustain the system itself. At 65% net efficiency, the infrastructure is not only harvesting atmospheric moisture but generating power, supporting life, and anchoring a new model of public space.

