



## EXECUTIVE SUMMARY

AUGUST 2021

# REWILDING THE GUADALUPE RIVER IN SAN JOSÉ

## Balancing natural ecology in a rapidly changing urban environment

**In the past few years**, San José has begun to experience rapid growth and change — from Google’s plan to build its next campus downtown to regional investment in Diridon Station to support improvements to Caltrain and the extension of BART. While there’s been considerable excitement for this surge in development, it’s also been met with some degree of hesitation and anxiety about the city’s changing character. As San José continues to grow, attention and investment must be made to support existing assets and infrastructure, such as community centers, historic heritage sites and public spaces. These spaces represent the city’s history and character and play an important role in the identity of the community. Together, they provide a foundation upon which the city can grow and thrive.

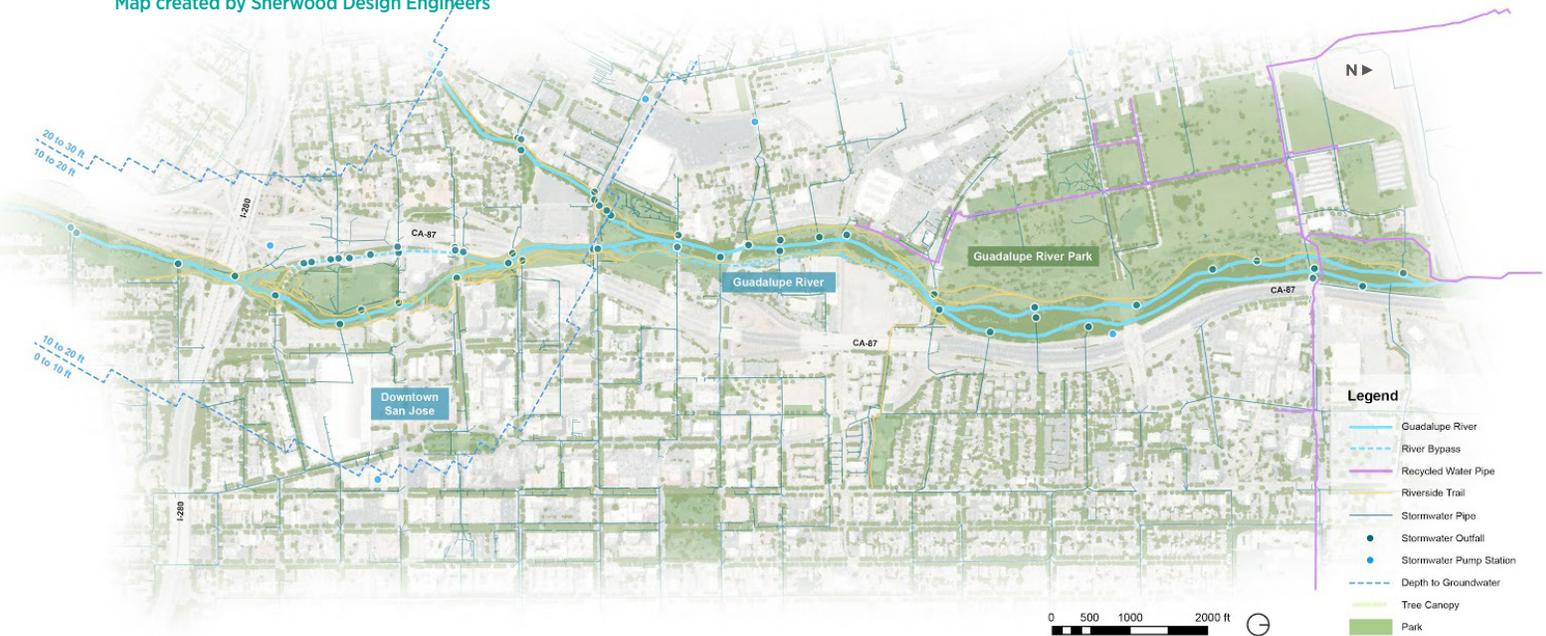
Seeing these forces at play, SPUR decided in 2017 to launch an initiative to better realize the potential of one of the city’s great untapped assets: Guadalupe River Park. The 3-mile-long ribbon of park is the city’s largest urban green space and the physical spine of a growing downtown, but underinvestment and misuse have caused the park’s safety and natural habitat to deteriorate. The renewed development interest and economic activity in downtown San José pose a unique opportunity to invest in the park’s growth and transformation.

We know that great public spaces make a great city, and we believe that Guadalupe River Park is the place in San José to:

- Provide an inclusive gathering place for all
- Connect downtown to surrounding neighborhoods
- Catalyze cultural and economic vitality
- Support and enhance a flourishing natural habitat

Building from this set of principles, we launched a three-year research study with support from the Knight Foundation and in partnership with the City of San José and the Guadalupe River Park Conservancy. Our research encompassed three key bodies of work: economy, equity and ecology. The central question for this

The Guadalupe River runs north through heavily urbanized portions of the City of San José before it discharges into south San Francisco Bay. Map created by Sherwood Design Engineers



report is how to best balance natural ecology within the Guadalupe River Park with a rapidly growing urban environment. The 14-mile-long river is home to a number of species of flora and fauna, including bird such the Black-Crowned Night Heron, Red-Shouldered Hawk, and the Song Sparrow and fish such as California Roach, Steelhead Rainbow Trout and Chinook Salmon. As we consider the future of the river park as a public space, it is also time to reimagine the possibilities for the river to better support and enhance the natural habit. The river has the potential to become a key site for ecological activity in San José.

## CENTERING NATURE IN AN URBAN PARK

The last year and half has seen a dramatic shift in the prioritization of public space. As the COVID-19 pandemic forced people to shelter in place and live more locally, interest grew in access to quality outdoor public spaces such as parks, rivers, nature preserves and playgrounds. While San José as a whole followed this trend, Guadalupe River Park suffered from the loss of residents and employees working and living in downtown. Meanwhile, the number of tent encampments along the riverbank has expanded due to the housing and homelessness crisis, and the river has become an illegal dumping ground for bulk trash. This has impacted the river's water quality, the wildlife living within the park and the ability for the riverbank to be used recreationally.

While discussion about how to activate and reimagine Guadalupe River Park has accelerated over the last two years, there has been little talk about the river itself. Instead, the conversation largely focuses on the green spaces surrounding Guadalupe River and how to make them more welcoming and enjoyable to people. There is immense opportunity to improve the performance of the river and create an urban oasis within downtown that can contribute to greater ecological diversity and environmental sustainability, create a signature attraction for residents and visitors, mitigate extreme heat and manage stormwater.

Our research for this report sought to investigate how to best protect and enhance the natural habitat within the park, improve water quality within the river, and create more recreational opportunities along its banks. We also wanted to understand how investment in Guadalupe River Park, and in the river in particular, could be investments in flood prevention and mitigating the impacts of climate change such as extreme heat. For the purpose of this study, we focused primarily on the segment of the river that runs through downtown, which is bounded by major roadways I-880, US 101 and I-280.

SPUR hired Sherwood Design Engineers in late 2019 to partner on this body of research. Over the course of the last two years, we spoke with dozens of staff and managers from the City of San José, the Guadalupe River Park Conservancy and the Santa Clara Valley Water District, along with developers, environmental advocates, nonprofit leaders and engaged citizens to inform this research.

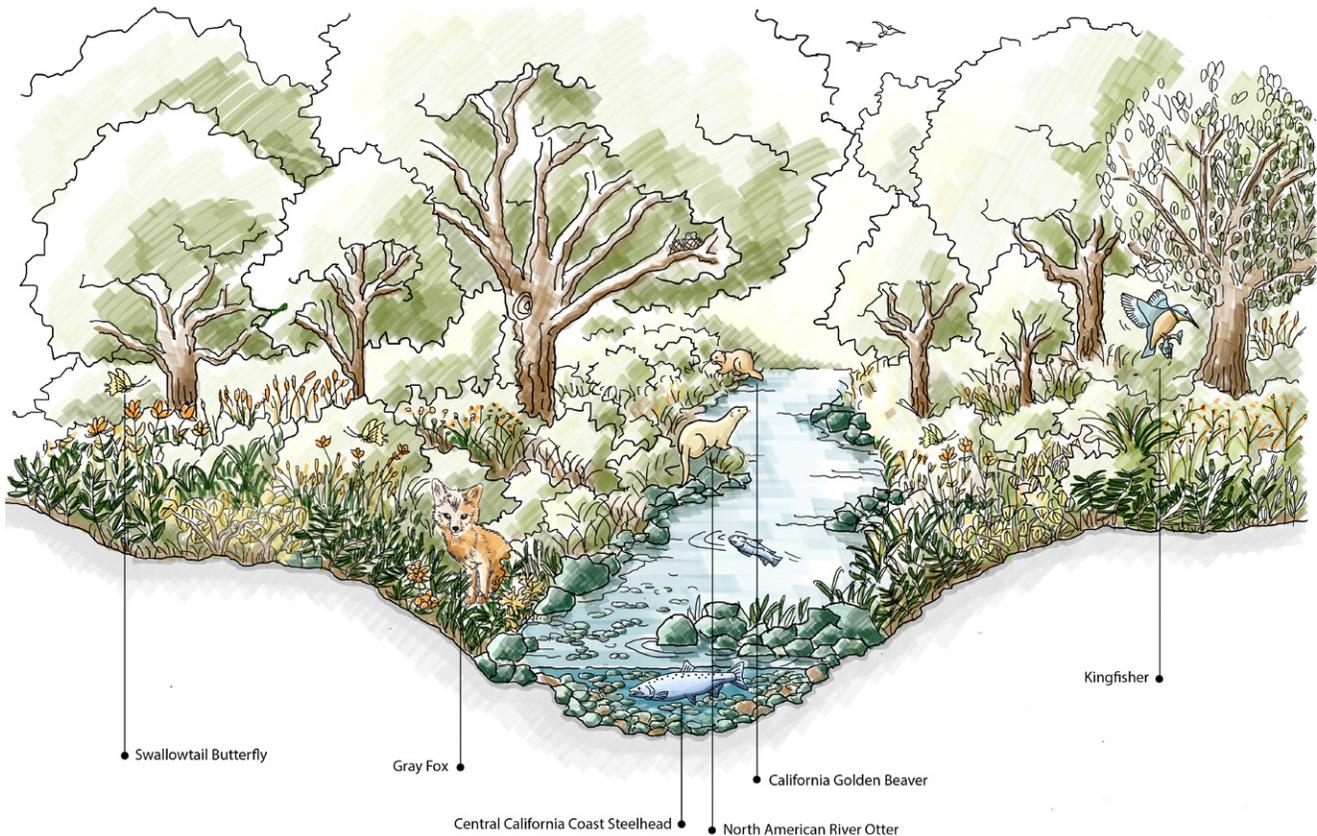
This study was conducted to identify strategies for protecting and transforming the Guadalupe River into a place that supports natural ecology, improves the human experience and public health of residents, and improves the overall environmental performance of downtown San José. The complete report is available at [spur.org/rewildingguadalupe](https://spur.org/rewildingguadalupe)

## KEY STRATEGIES

The report provides four main strategies to help enhance the river and support nature while improving the conditions around the park and testing out nature-based solutions for addressing climate change.

**1 | Enhancing the river ecology.** Over the years, the Guadalupe River has deteriorated due to a variety of challenges from lack of maintenance and stewardship to being an attractor of illicit use. In recent decades,

Removing concrete and “rewilding” the riverbank could enhance riparian habitat and promote the return of native species. Illustration by Sherwood Design Engineers



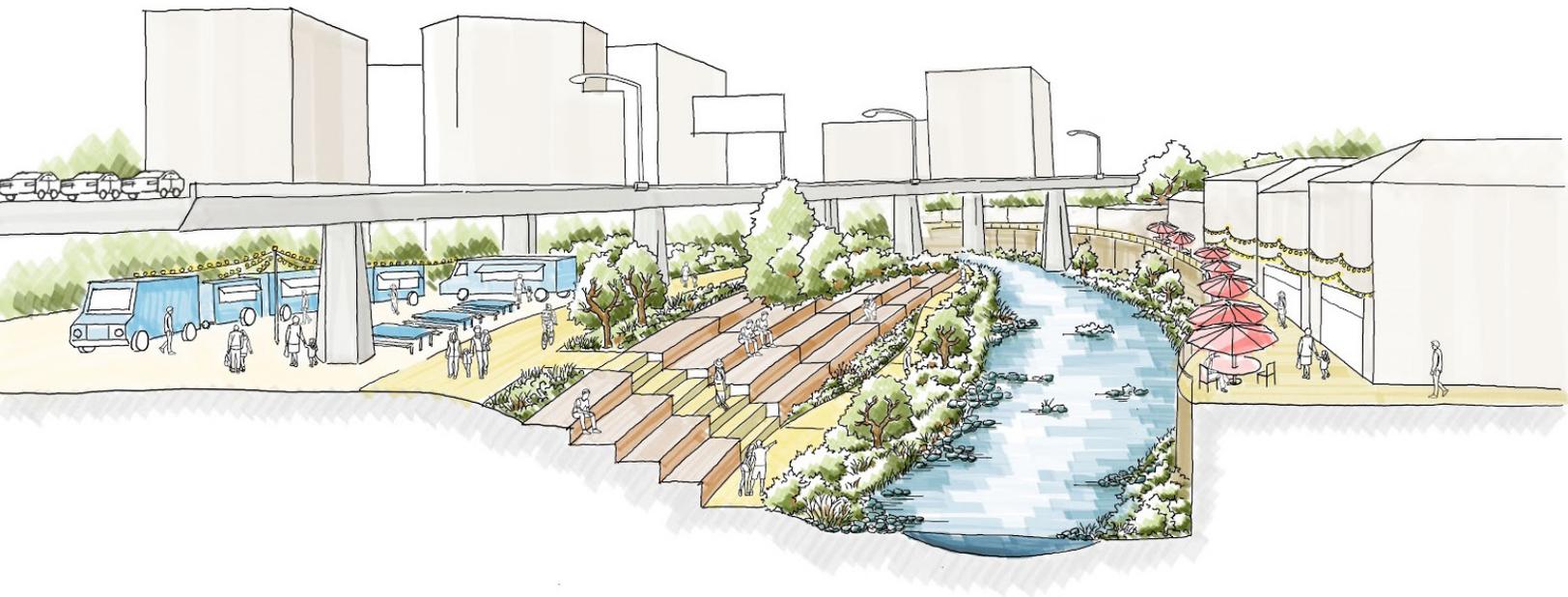
many cities have gone to great lengths to bring back natural river processes and function, drawing people back to the river and the riverfront. One idea for Guadalupe River, which was placed in a concrete channel in the 1990s, is to adopt the concept of “rewilding,” or allowing the river to retake some of its natural shape and course. This would mean replacing concrete channels with naturalized and restored habitat and could include reinstating “meanders” or bends in the river.

**2 | Improving the connection and relationship between people and nature.** In order to truly promote the return of ecology and enhancement of habitat, we need to encourage the protection and conservation of natural areas. While we want to encourage people to recreate in the park and be in close proximity with nature, there must also be targeted areas along the river that are off limits to people in order for species to thrive and biodiversity to be fully realized. Identifying locations for overlooks and gathering spaces along the river, while simultaneously keeping them a protective distance from the river ecosystem, is one possibility for balancing the desire to attract more people to the park while also being sensitive to the natural system. This strategy also looks closely at how to respond to the challenges of people living in close proximity to the river and using it for personal hygiene. The report found that some of the most effective and proven methods to mitigate the negative impact of people on rivers are programs curated by local agencies and nonprofits focused on river health. Examples include homeless work pilot programs implemented in Fairfax County, VA, and even one here in San José led by the Santa Clara County Creeks Coalition in 2014. Another tool to address the impact of people on the river would be enrolling volunteer stewards for sections of the river to help answer questions, facilitate creek clean-ups and provide outdoor educational walks. In the long term, these river stewards can even organize events and activities that invite people to the river, such as the Los Angeles River’s permitted summer boating program.

Overlooks could provide places for people to connect with nature while still protecting habitat. Illustration by Sherwood Design Engineers



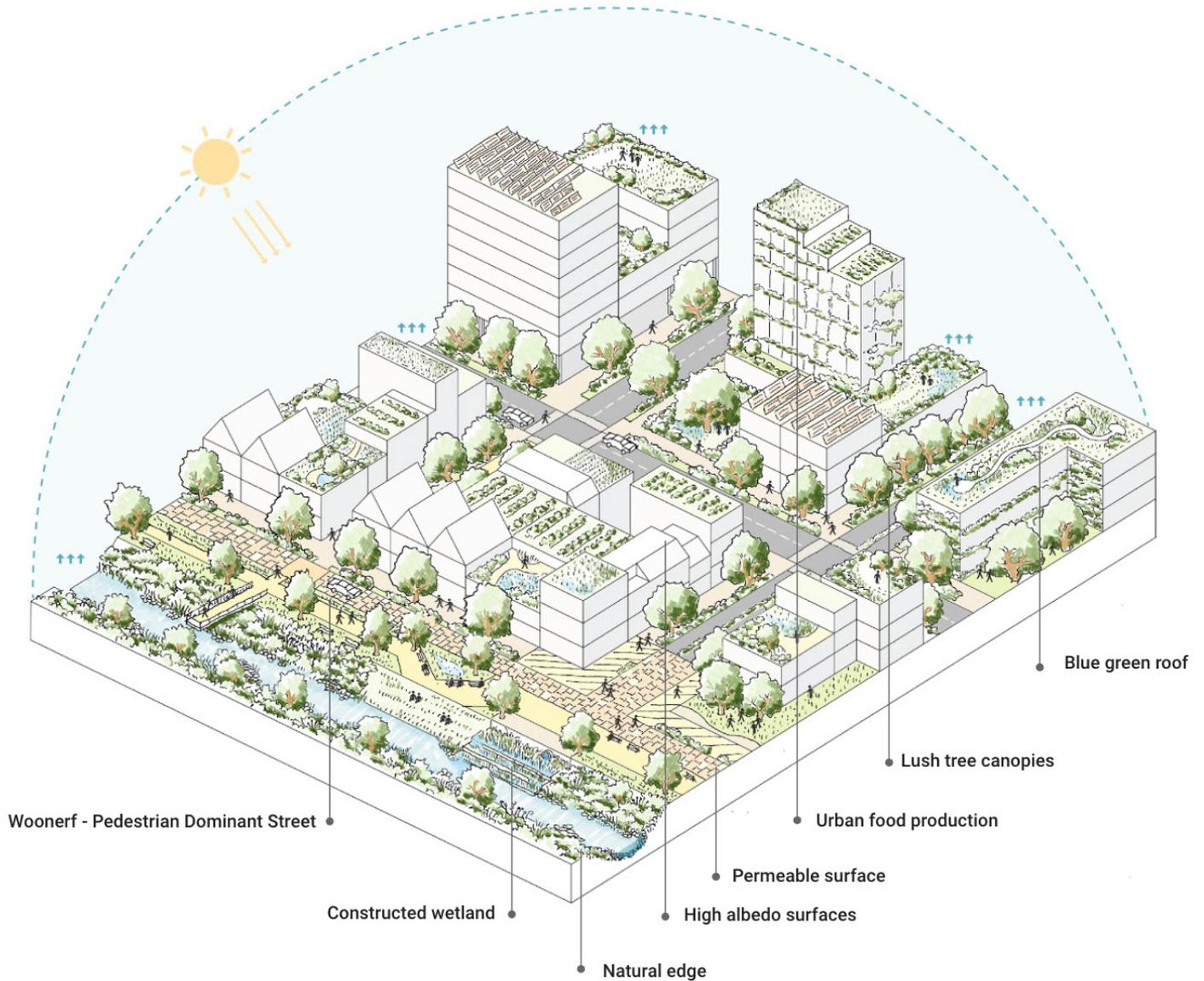
Underused space beneath overpasses could support community uses like an open-air market. Illustration by Sherwood Design Engineers



**3 | Reimagining underutilized parcels for community and ecological use.** The analysis showed a significant amount of land adjacent to the river park that could be repurposed for community use. These parcels of land include underpasses, parking lots, roadway medians and interstitial green spaces along highways and ramps. This land is not suitable for large-scale commercial or residential development but does have enough space to support uses such as an open-air market or playground. These parcels could also be repurposed into floodable open space or wetlands to provide habitat.

**4 | Improving stormwater and flood management.** As cities grow, impermeability typically increases, as well: paved surfaces, buildings, parking garages and other urban infrastructure begin to replace natural systems, preventing water from absorbing into the ground and increasing the risk of flooding. Green streets, green parking lots, rain gardens, vegetated roofs and other tools improve water capture and soil infiltration. The Guadalupe River is a complex natural system nestled in an urban watershed. By modifying the adjacent urban fabric, the river and riparian zone can be expanded and made into a high performing natural flood management system whose benefits can extend outwards into downtown San José.

Green infrastructure like permeable paving and rooftop gardens could capture runoff and help manage flooding in areas near the river.  
 Illustration by Sherwood Design Engineers



While this report offers a host of strategies and alternatives for improving the river and park adjacent space around it, it does not present a specific design solution for the park, as that needs to be determined through an extensive community engagement process. Instead, this analysis outlines the current conditions of the park and examines potential solutions for improving the river and natural ecosystem within it.

**Read the complete report or watch a presentation about it at [spur.org/rewildingguadalupe](http://spur.org/rewildingguadalupe)**

# Acknowledgements

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