

Enchanted Hills Park

PERRIS, CALIFORNIA

Sustainable SITES Case Study



project **details**

ENCHANTED HILLS PARK, Perris, California

Area: 22 acres

Project Type: Community Park

Former Land Use: Undeveloped, Vacant

Terrestrial Biome: Mediterranean Forests,
woodlands and scrubs

Total Park Improvements Costs: \$8,695,000



PARK'S NORTHERN AMENITIES

Images: Author

project **summary**

ENCHANTED HILLS PARK, Perris, California

In this once derelict site, the City of Perris saw the valuable wild foliage, native landscape, and natural stone outcroppings that would be the perfect back drop for its community to gather, exercise, and enjoy SoCal’s idyllic weather.

The dedicated design professionals and City residents created a place where community -strengthening social connections could be made and environmental conservation would be understood and appreciated. They have created an inclusive space full of amenities for users of all ages and abilities while embracing existing features like the community-made BMX track and owl mural that reflect local cultural identity.

Formerly 22-acres of uninhabitable, blighted property, Enchanted Hills Park is now a robust park space for the City of Perris. The design team enhanced the existing community-made BMX track they added other active park play elements such as multiple playground structures, splash play, a skate spot, zip lines, and basketball courts. More relaxed park features include trails and walking paths, shaded seating, picnic and barbeque areas and a large lawn area. At this park users can appreciate some local culture by viewing ceramic art tiles drawn by local elementary school children or visiting the painted rock murals, inspired by “The Owl”. Painted by a neighborhood artist for his children, The Owl has been a long-standing neighborhood fixture since before the park’s development.

The design also incorporated onsite stormwater features, native plant gardens, and low-water use irrigation to bolsters the long-term sustainability of this park. By including interpretive signage throughout the park, users are educated on the importance of certain design elements throughout the site.



PARK’S SOUTHERN AMENITIES

Image: Author

site context

Location + Climate

Perris, California is located approximately 70 miles east southeast of Los Angeles in Southern California's Riverside, County. Enchanted Hills Park is located just west of the City of Perris city center, and its 22 acres is nestled within a residential section of the city.

Climate data:

- Typical July high and low temps: 97 F°/57 F°
- Typical January high and low temps: 65 F°/35 F°
- Average Annual Precipitation: 10.42 inches
- 60th percentile rainfall event: 0.37 inches

Constraints + Opportunities

Rocky soils and some rugged topography were the site's most formidable constraint and opportunity. The site was riddled with exposed bedrock and large boulders. The team used the opportunity to work with the unique site features and incorporate them into the design. Many of the boulders on site designed to remain in place, helping to create a unique sense of place. Boulders became part of the skate spot feature, created natural boundaries to play areas, and some even became mural canvases for local artists.



NATURAL SITE FEATURES

Image: Author

challenges + **solutions**

Urban Blight

Large portions of the 22 acre site had become a makeshift dumping site that is detrimental to the safety, health and welfare of the community. This area was unsightly, unsafe, abandoned, and uninhabitable. Prior to installation of the park, the site was noted by local police for drug issues, illegal dumping, and other criminal activity.

One of the first steps in creating the new park was to bring in Southern California Mountains Foundation, a non-profit that supports youth development through conservation initiatives environmental education, training, and hands-on service projects. The Foundation's crew cleaned the site of debris and cleared the site of invasive plant species.

It was imperative that the design process include input from local law enforcement to maintain the safety and security of the park. The design reflected the recommendations of law enforcement and the requests of citizens. The final design included classic landscape design safety strategies such as clear sight lines, ample lighting, and security cameras.

Site Ownership

One of the first project hurdles was property ownership. The City worked for several years to obtain ownership of the many parcels that make up the park site.



SITE CLEAN-UP EFFORTS

Image: Author

sustainable **features**

Healthy Play for All

The 22-acre park provides ample opportunity for site users to get outside and get moving! Certain segments of the population such as young children, older adults, and those with lower incomes are often more susceptible to a variety of health risks. The rate of overweight or obese adults in the City of Perris is higher than that of Riverside County and the State of California. Enchanted Hills Park includes a large trail network, several children’s play structures, a splash play area, zip lines, a skate park, and a large open lawn area for Perris residents of all ages and abilities to enjoy while improving their health.

Prior to project initiation, local residents had created a BMX course onsite. Hearing their residents’ requests, the City retained and improved the existing BMX course. Installation of bike racks and a bike repair station supports BMX track users while also encouraging alternate modes of transportation that reduce pollution.



SEVERAL SITE PLAY AREAS

Image: Author

Place Making

Enchanted Hills Park features large boulder formations throughout the park that are utilized as rock-climbing walls and backdrops for seating areas where users to stop, read, rest, and enjoy the restorative effects of time spent in nature. Local artists were also recruited to paint stones located in a mural garden within the park. Children from the nearby elementary school also provided artwork to display outside the park's restroom facility. These installations provide a sense of community ownership and pride in the park, which also helps combat graffiti and vandalism.



CHILDREN'S ART MOSIACS



Images: Author

Stormwater Management

Park stormwater is captured using both pervious pavement and onsite water infiltration basins that protects water quality and allows for ground water recharge. The system manages rainfall events just beyond the 70th percentile (0.48 inches). Walking paths and educational signage near pervious pavements and detention basins connect and inform site users of these sustainable park amenities.



STORMWATER DETENTION BASIN

Image: Author

Vegetation

Portions of the project area that were not slated for construction activity were thinned of invasive and non-native plant species as identified by the California Invasive Plants Inventory, and over 2.5 acres of planter areas including 174 trees were established on site. The drought-tolerant native plantings reduce irrigation needs while working to remediate “heat island” due to increasing residential and industrial developments within the city. The park also supports mental health restoration as users enjoy time in nature. And Educational display boards provide visitors with lessons on native plants, local wildlife, and other conservation efforts.



NATIVE PLANTING

Image: Author

Irrigation

Site irrigation system utilizes a Calsense controller with “Weathersense” real-time ET technology, and communicates with the City’s Calsense Central Control System to make immediate network adjustments. The Enchanted Hills landscape and irrigation system beats U.S. EPA’s WaterSense Water Budget, using only 54% of the site’s allocation.

cost comparison

In reviewing Enchanted Hills Park as a collection of sustainable items that can generate value in many ways for the City and local residents, their long-term benefits outnumber initial investment costs when compared to the lifespan and environmental impact of traditional materials and management practices that may have lower upfront costs, additional future cost, and limited long-term benefits.

Planting

The initial increased costs of invasive species removal and native palette use is quickly offset when compared to use of traditional ornamental plantings that require more water and maintenance. Further, the introduction of native plant communities improves biodiversity,

reduces temperatures, increases carbon capture, and improves air quality, all of which benefits the overall health of the community.

Stormwater

A key benefit to improving this previously impacted site, the processes of retaining and absorbing as much of the stormwater as possible aids in continual improvement of the overall soil structure and quality, which in-turn supports the native plantings.

Paving solutions that help capture water and require use of additional non-sustainable products such as additional semiannual coatings, thus breaking the cycle of constant costly reoccurring maintenance inputs.

Energy Use

Solar lighting simplifies the impact and cost of additional support systems such as conduits and dependence on the local grid for safety and security lighting.



SOLAR LIGHTING

Images: Author

The City reviewed and supported additional costs impacts due to sustainable site features based on long-term performance and savings the sustainable features provided as compared to traditional materials and solutions. For example, on-site stormwater collection and management, permeable paving, recirculation systems for water play, and solar powered lighting features all added initial cost to the project budget when compared to traditional methods and or materials; however, The City felt that the long-term benefits of the sustainable practice would lead to lower long-term maintenance and infrastructure costs.

lessons learned

Stakeholder priorities or buy-in may change over the course of the project. For Enchanted Hills, some community volunteers and artists who were initially excited to be part of the project, lost interest as time passed between the outreach and construction phases of the project. The project team was then required to make alternate plans late in the construction phase to ensure project murals were completed. In this case, to maintain excitement for the project and help combat volunteer drop, the outreach team could have maintained regular communication to maintain volunteer interest; or the project team could have onboarded more volunteers than required for the project, while assuming a certain rate of volunteer attrition.



ROCK MURAL GARDEN

Image: Author

maintenance + **monitoring**

The design team worked with the City's maintenance staff to develop a landscape maintenance plan for short and long term sustainable site maintenance, and includes vegetation management techniques for this unique climate and employs Integrated Pest Management and organic landscape care strategies.



NATIVE PLANTING

Image: Author

project **team**

Owner:	<i>City of Perris California</i>
Landscape Architect:	<i>Community Works Design Group (prime)</i>
Civil Engineer:	<i>Adkan Engineers</i>
Electrical Engineer:	<i>RASC Engineering</i>
Structural Engineer:	<i>Innovative Structural Engineering</i>
Geotechnical Engineer:	<i>LOR Geotechnical Group</i>
Biological Expert:	<i>HELIX Environmental</i>