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City of Rialto
City of Riverside
City of San Bernardino
City of Santa Ana
City of Westminster
City of Yorba Linda
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Huntington Beach Wetlands Conservancy
Inland Empire Bike Alliance
Inland Empire Resource Conversation District
Inland Empire Waterkeeper
National Park Service
Natural Resource Conservation Service
Newport Banning Land Trust
OC Public Works
Orange Coast River Park
Orange County
Orange County Bicycle Coalition
Orange County Coastkeeper
Orange County Water District/Santa Ana Watershed Association
Redlands Conservancy
Riverside Bicycle Club
Riverside County
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Santa Ana Watershed Association
Santa Ana Watershed Project Authority
State Coastal Conservancy
The Wildlands Conservancy
Trust for Public Land
U.S. Army Corps of Engineers
U.S. Department of the Interior, Bureau of Land Management
U.S. Fish and Wildlife Service
U.S. Forest Service - San Bernardino National Forest
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2M Associates
BlackHawk Environmental
1.0 Introduction
**INTRODUCTION**

The Santa Ana River is a treasured resource. Flowing nearly 100 miles from its northernmost reaches at the crest of the San Bernardino Mountains out to the coast near Huntington Beach, the river runs through wildlands, agriculture, parks, towns, and cities, touching the lives of millions of Californians.

The largest watershed in Southern California, it contains some of the most rapidly growing areas of the entire state as well as some of the most pristine riverine reaches remaining in Southern California. Stewardship of the Santa Ana River and its adjacent resources is critical to ensuring the continued vibrancy and resiliency of this region into the 21st century and beyond.

Over the last few decades, public and private agencies, nongovernmental organizations, and community members have worked energetically to develop visions for the river corridor as a natural and recreational resource. Collaborative efforts have generally focused on the development of the Santa Ana River Trail (SART), and have spurred momentum for regional visioning and coordination for the broader corridor. In 2014, the California State Legislature created the Santa Ana River Conservancy Program (SARCON) within the State Coastal Conservancy to address the following resource and recreational goals of the Santa Ana River region (Chapter 4.6 of Division 21, California Public Resources Code (PRC), Sections 31170-31179, referred to in this Plan as "PRC Sections 31770 et seq."):  
- Open space and trails;  
- Wildlife habitat and species restoration, enhancement, and protection;  
- Wetland restoration and protection;  
- Agricultural land restoration and protection;  
- Protection and maintenance of the quality of the waters in the Santa Ana River for all beneficial uses;  
- Natural floodwater conveyance; and  
- Public access to, enjoyment of, and enhancement of recreational and educational experiences in a manner consistent with the protection of land and natural resources and economic resources in the area.

Under this legislation, SARCON was charged with creating an advisory group and developing a Santa Ana River Parkway & Open Space Plan (SARP&OSP) to guide the future development and management of the Santa Ana River Parkway, defined as the lands within 0.5-mile of the main stem of the Santa Ana River, as shown in Figure 1-1. Under PRC Section 31174(b), the Plan is required, at a minimum, to do all of the following:

1. Determine the policies and priorities for conserving the Santa Ana River and its watershed.
2. Identify underused, existing public open spaces and recommend ways to provide better public use and enjoyment in those areas.
3. Identify and prioritize additional low-impact recreational and open-space needs, including additional or upgraded facilities and parks that may be necessary or desirable.

The creation of SARCON and development of the SARP&OSP establishes a framework for expanding the reach of the collaborative efforts within the Santa Ana River to resource protection and enhancement as well as education, recreation and access.

This chapter describes the purpose of the SARP&OSP, provides an overview of the planning process, and recommends how agencies, organizations, and the public should utilize the document.
Santa Ana River Parkway & Open Space Plan
Santa Ana River & Parkway Boundary

Figure 1-1 Santa Ana River Parkway Boundaries
PURPOSE OF THE PLAN

The overriding purpose of the Plan is to meet the minimum requirements set forth in PRC Section 31174(b), detailed above.

To achieve those objectives, the SARP&OSP was developed as a tool to facilitate the collaborative development of the Parkway beyond the trail spine, integrating parks and open space opportunities, and connecting nearby communities to the SART. The three key functions of the Plan are to:

- Define a shared vision for the Parkway as a state, regional, and local asset.
- Gather and present the first comprehensive list of completed, planned and potential parkway projects.
- Provide tools for prioritizing, developing, and implementing projects through proactive collaboration.

As such, the SARP&OSP functions as a resource for individual agencies and organizations as well as a document that provides principles and a framework for SARCON and its collaborators.

PLANNING PROCESS

The SARP&OSP planning process was initiated in July, 2016 and led by SARCON. This section describes the groups that guided the planning process and the key phases of the planning process, as well as meetings and workshops conducted as part of the process.

Advisory Groups

To ensure an inclusive and informed planning process, a Technical Advisory Committee (TAC) was formed to assist and provide input throughout the planning process. In addition, the previously established Santa Ana River Policy Advisory Group (PAG), originally created in 2006 in accordance with the Memorandum of Understanding for Coordinated Parkway Planning among Counties along the Santa Ana River Corridor, provided input on the Draft Plan components.

The PAG was originally established for the purposes of discussing and monitoring progress of the Parkway, and coordinating decision-making across jurisdictional boundaries to ensure expeditious completion of the Parkway. The PAG includes members from both the public and private sectors, has effectively coordinated decision-making across jurisdictional boundaries, and is firmly rooted in local input and control. The PAG consists of the following representatives:

- Three elected supervisors, one from each of the three counties (Orange, Riverside, San Bernardino);
- Elected city representatives from each of the three counties, appointed by the Supervisor of that county;
- One representative from the Santa Ana Watershed Project Authority, a Special District comprised of water districts and utility agencies, whose mission is to plan and build facilities to protect the water quality of the Santa Ana River Watershed; and
- One representative from the Wildlands Conservancy, a private non-profit organization with the dual mission to (1) preserve the beauty and biodiversity of the earth and (2) provide programs so that children may know the wonder and joy of nature.

The formation of the SARP&OSP TAC was a key step in the process. TAC members were selected from cities, county agencies, federal agencies, and non-profit organizations operating within the Parkway, as identified in Table 1-1. The TAC has 30 members and met three (3) times during the course of the SARP&OSP development. It is envisioned that many of the TAC members will continue the work they’ve started by joining the SARCON TAC.
### Table 1-1 Agencies and Organizations Represented on the TAC

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<td>The Wildlands Conservancy</td>
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<td>Wildlife Conservation Board</td>
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Planning Phases

The planning process included four distinct phases as described below and illustrated in Figure 1-2:

1. **Vision, Guiding Principles, and Goals:** In this phase, SARCON and the TAC worked with the consultant team to develop a vision statement and related guiding principles and goals clustered in four topic areas: 1) water; 2) habitat; 3) education and recreation; and 4) implementation. The vision and guiding principles were shared with the public via an online activity. The vision and guiding principles informed the subsequent phases of the SARP&OSP development.

2. **Parkway Inventory and Assessment:** The consultant team reviewed existing documents to create a database of proposed projects within the Parkway. This database was shared, via an online portal, with all agencies within the Parkway. These agencies augmented the database with additional information on these projects, as well as new projects. The consultant team also completed a geospatial analysis of water, habitat, and education and recreation resources within the Parkway which indicated location suitability for each of these types of features. Demographic data was gathered and analyzed as well.

3. **Project Prioritization:** Proposed projects were prioritized using a quantitative tool developed to assist SARCON in creating an initial list of projects with the most potential to contribute to the realization of the vision and statutory requirements for the Parkway.

4. **Guidelines:** A series of planning guidelines and design guidelines were created to guide future project development and project implementation within the Parkway.

Public Outreach and Engagement

Members of the public contributed to the Parkway Vision as well as the inventory and the prioritization of projects at two public workshops, a river bike festival, and via two online activities.

Public workshops were held in each county in June 2017, as described in Chapter 1. The Riverside County workshop was held concurrently with the SART Bike Ride and Festival at Ryan Bonaminio Park on June 11, 2017. The Orange County workshop was held at the Regional Transportation Center in Santa Ana on June 28, and the San Bernardino County workshop was conducted on June 27, 2017 at the City of Redlands Contemporary Club.

Two separate online activities provided an opportunity for public input. The first activity was available from December 1, 2016 through January 31, 2017. The activity solicited feedback on the draft vision and guiding principles and asked participants to share locations along the Parkway that already embody the vision. The second online activity was available to the public from June 10 to July 11, 2017 and asked participants to prioritize the types of facilities they would like to see in the Parkway and map opportunities for these facilities. Both activities were advertised by distribution to all members of the TAC for inclusion on their agency’s websites and social media platforms. TAC members were also provided sample language and social media posts that could be used to increase their reach to the public. The Coastal Conservancy’s website and social media platforms also advertised the online activity. The second activity was additionally advertised through the use of fliers distributed at the SART Bike Ride and Festival on June 11, 2017.
NAVIGATING THE SARP&OSP

The first three chapters of the SARP&OSP provide an overview of the Parkway and establish a comprehensive vision, guiding principles, and goals for realizing this vision. Chapters 4 through 6 identify and prioritize on-the-ground opportunities for enhancing the Parkway, highlighting the completion of the SART as the first priority for Parkway development and describing tools for prioritization of other project opportunities. Chapters 7 through 9 provide planning and design principles and guidelines as well as implementation strategies to be used by SARCON and collaborating organizations. A brief description of each chapter is provided below.

1. **Introduction**: Provides a general overview of the SARP&OSP.
2. **Vision, Guiding Principles, and Goals**: Defines the Parkway Vision, Guiding Principles, and Goals, and illustrates the realization of the Parkway Vision.
3. **Parkway Conditions and Existing Context**: Provides an overview of Parkway history, regulatory and planning context, and existing conditions, including natural resources and existing public access features.
4. **Completing the Santa Ana River Trail – The First Priority of the SARP&OSP**: Identifies completed and planned SART segments, emphasizing the importance of completing the SART as the backbone of the Parkway.
5. **Prioritization Tools for Projects beyond the SART**: Defines criteria and describes tools for preliminary prioritization of project opportunities other than SART completion projects.
6. **Planned and Potential Projects beyond the SART**: Describes the inventory and prioritization of planned and potential projects; this chapter is intended as a living component to be updated based on future project inventory updates.
7. **Planning Guidelines**: Offers guidelines for agencies and organizations to consider in future planning efforts.
8. **Design Guidelines**: Offers guidelines for the design of Parkway features.
9. **Implementation**: Provides strategies for implementing and updating the SARP&OSP.

**TERMINOLOGY AND KEY ACRONYMS**

- **SARP&OSP**: Santa Ana River Parkway & Open Space Plan
- **Parkway**: Santa Ana River Trail, Parkway, and Open Space
- **SART**: Santa Ana River Trail
- **SARCON**: Santa Ana River Conservancy, a program of the State Coastal Conservancy
Vision, Guiding Principles, and Goals
“The Santa Ana River is an extraordinary regional resource, for water, environment, and recreation. The River connects three counties and 18 cities. The River has the potential, the promise to be the defining physical feature for over six million people. Let’s make it happen.”

Dr. Ronald O. Loveridge
Director, UCR Center for Sustainable Urban Development
Past Mayor, City of Riverside
A cohesive vision for the future Santa Ana River Parkway (Parkway) helps guide the work of the many agencies and organizations working within the Parkway and ensure that individual efforts contribute to the greater whole. The vision is supported by guiding principles and goals which will assist Santa Ana River Conservancy (SARCON) and all Parkway jurisdictions and collaborating organizations in future decision making for Parkway development.

The Parkway Vision, Guiding Principles, and Goals presented below were informed by many visions and goals identified in existing planning documents of individual Parkway agencies and organizations. Together, SARCON and the Technical Advisory Committee refined these statements to reflect both the immense potential of the Parkway and the steps required to realize this potential.

The Parkway Vision, Guiding Principles, and Goals guided development of the assessment criteria, project prioritization tools, and guidelines presented in this plan, as shown in Figure 2-1. An illustration of the Parkway vision helps show the magnitude of opportunities available within the contiguous Parkway in a way that is visually pleasing and easy to understand (Figure 2-2). This illustration can be used for a variety of purposes from outreach to fundraising efforts to inspiring further opportunities.
The Santa Ana River Parkway is a regionally celebrated resource...

...that provides varied opportunities for residents and visitors to experience the river corridor along its entire length while providing necessary water management functions, habitat for a unique diversity of plants and animals, and recreation, education, and health benefits.

Figure 2-2 SARP&OSP Vision
VISION

The Santa Ana River Parkway is a regionally celebrated resource that provides varied opportunities for residents and visitors to experience the river corridor along its entire length while providing necessary water management functions, habitat for a unique diversity of plants and animals, and recreation, education, and health benefits.

GUIDING PRINCIPLES AND GOALS

In order to achieve the vision for the Parkway, the following guiding principles and goals have been established, consistent with PRC Sections 31170 et seq.:

Water

Water is an essential and limited resource that should be carefully managed to maximize its benefit to people, plants, and animals while providing protection from flood flows.

GOAL 1 – Manage and enhance hydrological functions, including flood management.

GOAL 2 – Maintain and enhance water quality and protect beneficial uses to ensure high quality water for people, plants, and animals.

GOAL 3 – Convey, capture, treat, and store stormwater to maximize local resource utilization and beneficial use protection.

GOAL 4 – Manage water for multiple benefits.

Habitat and Wildlife

Wetland, riparian, and adjacent upland habitats along the river corridor provide multiple environmental and community benefits; these ecosystem functions should be respected, cared for and conserved.

GOAL 1 – Protect existing high-quality habitat areas.

GOAL 2 – Restore and enhance habitat where appropriate opportunities exist to create high value habitat that provides multiple benefits.

GOAL 3 – Preserve and restore habitat connectivity.

GOAL 4 – Restore floodplain where appropriate opportunities exist.

GOAL 5 – Maintain a soft river-bottom condition to the greatest extent possible.
Education, Recreation, and Access

The river corridor is a resource that should provide equitable recreational, educational, and health benefits to all residents and visitors along its length and inspire sustained stewardship of the resource. Public access to, enjoyment of, and enhancement of low-impact recreational and educational experience on the Parkway lands and the river corridor should be developed and operated in a manner consistent with the protection of land and natural resources and economic resources in the area.

GOAL 1 – Create a continuous shared-use trail system along the length of the river.

GOAL 2 – Create physical and figurative connections between the river corridor and surrounding communities and destinations.

GOAL 3 – Provide a range of river-related opportunities for people to be active outdoors.

GOAL 4 – Provide a variety of opportunities for people to experience the natural environment.

GOAL 5 – Provide a diversity of opportunities for people to learn about the river corridor and its resources.

GOAL 6 – Prioritize increased open space access for park-deficient and disadvantaged communities along the river corridor.

GOAL 7 – Provide safe access to the river in appropriate locations.

GOAL 8 – Raise awareness of the river corridor as a local, regional, and statewide resource.

GOAL 9 – Develop a river corridor identity that communities can proudly embrace.

GOAL 10 – Protect open space along the river corridor for future education, recreation, and access opportunities where suitable.
Implementation

Cooperation and collaboration among agencies, organizations, and members of the public is critical to developing the river corridor in a way that maximizes benefits to the natural and human environments and integrates effectively with other planning efforts.

**GOAL 1** – Collaboratively design projects and programs to provide multiple benefits that support the water, wildlife and habitat, and recreation, education and access goals for the Santa Ana River Parkway.

**GOAL 2** – Share challenges, opportunities, and plans with other organizations and agencies early and often.

**GOAL 3** – Encourage land use and management policies for adjacent development that will enhance the attractiveness of the region, create economic opportunities, and increase the quality of life of residents.

**GOAL 4** – Encourage river corridor development that ensures adequate buffering from high intensity land uses.

**GOAL 5** – Assist in securing future project funding and promote local funding partnerships.

_Banning Channel Bikeway, Talbert Park._
Parkway Context and Existing Conditions
PARKWAY CONTEXT AND EXISTING CONDITIONS

This chapter provides an overview of the planning context and history for the Santa Ana River Trail (SART), Parkway and Open Space (referred to collectively as the Parkway), and summarizes the existing conditions of the Parkway including existing land use, natural resources, and existing public access features as well as population.

SART AND PARKWAY HISTORICAL CONTEXT AND BACKGROUND

The history of the Parkway is interconnected with that of the river corridor itself, shaped by adjacent urban development, flood control engineering, transportation infrastructure, as well as a growing public vision for the river corridor as a natural and recreational resource. This history is summarized below:

- Through the 1930s, the entire Santa Ana River corridor retained its natural state, but severe flooding in 1938 led to a push for control of the river in the lower watershed in Orange County. The result was Prado Dam and the Prado Flood Control Basin, which would control river flow to the channelized 30-mile stretch downstream. In the 1960s this stretch was lined with concrete to further protect adjacent communities. The river north of Prado Dam, where urban development was sparse, retained a mostly natural state.

- In the 1950s, as urban development intensified, river-adjacent communities were beginning to consider the Santa Ana River corridor a potential recreational resource, and it was recommended to the California State Parks Commission as a multi-purpose recreation area. In 1977, portions of the trail system were designated National Recreation Trail status by the U.S. Department of the Interior.

- Development of the paved southern section of the SART south of Prado Dam was made possible by concrete channelization in the 1960s, which created an adjacent service road with sufficient space for a dedicated multi-use path. The 30-mile trail section south of Prado Dam was completely paved by the mid 1970’s, providing a highly significant dedicated multi-use path in Orange County.

- In 1991, the Santa Ana River Corridor Trail System Master Plan proposed a continuous paved bike path and adjacent unpaved equestrian/hiking trail from Prado Dam northward, through Riverside County and San Bernardino County to the base of the San Bernardino Mountains near Highland. Agencies that participated in the Plan development included: Counties of Orange, Riverside, and San Bernardino; Cities of San Bernardino, Highland, Redlands, Loma Linda, Colton, Rialto, Corona, Anaheim, and Huntington Beach; the Orange County Water District; State of California Department of Parks and Recreation; the US Forest Service; and the National Park Service – Rivers, Trails and Conservation Assistance Program. While the Plan was not formally adopted, it facilitated ongoing coordination amongst these agencies.

- In July 2006, San Bernardino County, Riverside County, Orange County, the Santa Ana Watershed Project Authority and the Wildlands Conservancy signed a Memorandum of Understanding to form The Santa Ana River Trail and Parkway Partnership to establish an organizational structure and to share management of the Parkway. To this end the Partnership established a Policy Advisory Group of elected officials and a Technical Advisory Group of agency managers. Over the past 10 years the Partnership has been successful in that significant segments of the SART have been funded and completed. Several gaps in the SART remain, and completing the trail in these gaps is one of the priorities of Santa Ana River Conservancy (SARCON).

- From 2005 to 2009, the Wildlands Conservancy’s Santa Ana River Habitat and Recreational Planning Project provided grants to numerous cities to develop visioning documents for the Santa Ana River addressing habitat restoration, passive recreation, and trail linkages.

- In 2014, the California State Legislature created the Santa Ana River Conservancy Program (SARCON) within the State Coastal Conservancy to address resource and recreational goals of the Santa Ana River region (Public Resources Code (PRC) sections 31170 et seq.).
REGULATORY AND PLANNING CONTEXT

This section identifies agencies and organizations with jurisdiction in the Parkway, as well as key regional and local planning documents that guide planning within the Parkway.

Parkway Agencies and Organizations

There are numerous agencies and organizations with jurisdiction in the Parkway. Some areas of the SART and Parkway fall under the concurrent jurisdiction of more than one governing body, thereby requiring coordination and collaboration between agencies. The following list categorizes the organizations currently operating within the Parkway area:

Federal

There are several federal agencies operating within the boundary of the Parkway. These agencies are tasked with caring for the land and serving the people of the United States. Some of their primary concerns include: protecting natural and cultural resources, managing recreational opportunities, and promoting environmental responsibility. The federal agencies are:

- National Park Service
- NOAA Fisheries
- Natural Resources Conservation Service
- U.S. Forest Service
- U.S. Army Corps of Engineers
- U.S. Bureau of Land Management
- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency

State

A number of state agencies have jurisdiction or authority to work within the Parkway. Conservation and restoration or protection of water resources and fish and wildlife and development or management of recreational resources are some of their key tasks. They include:

- California Coastal Commission
- California Conservation Corps
- California Department of Fish and Wildlife
- California Environmental Protection Agency
- California Natural Resources Agency
- California State Parks
- Santa Ana Regional Water Quality Control Board
- State Coastal Conservancy
- State Lands Commission
- Wildlife Conservation Board

Counties

There are three counties within the Parkway boundaries, including Orange, Riverside and San Bernardino. Each County operates a flood control district that is charged with the crucial tasks of flood protection and water conservation, as well as other departments with varying levels of oversight of the Parkway area. Key County Departments involved in Parkway oversight include those listed below:

Orange County (OC)

- OC Flood
- OC Parks
- OC Public Works
Riverside County
- Flood Control and Water Conservation District
- Regional Park and Open Space District
- Public Works

San Bernardino County
- Department of Public Works – Flood Control District
- Regional Parks

Cities
The Parkway passes through 23 cities as it runs its course from the headwaters of the Santa Ana River near the City of San Bernardino to the river mouth at the Pacific Ocean. The cities operating within the Parkway area are:
- City of Anaheim
- City of Chino Hills
- City of Colton
- City of Corona
- City of Costa Mesa
- City of Eastvale
- City of Fountain Valley
- City of Garden Grove
- City of Grand Terrace
- City of Highland
- City of Huntington Beach
- City of Jurupa Valley (including Jurupa Community Services District)
- City of Newport Beach
- City of Norco
- City of Orange
- City of Placentia
- City of Redlands
- City of Rialto
- City of Riverside
- City of San Bernardino
- City of Santa Ana
- City of Westminster
- City of Yorba Linda

Other
A handful of specialized agencies in charge of water quality and watershed protection have interests in the Parkway. They include:
- Eastern Municipal Water District
- Inland Empire Utilities Agency
- Western Municipal Water District
- Inland Empire Resource Conservation District
- Orange County Water District
- Riverside-Corona Resource Conservation District
- San Bernardino Valley Municipal Water District
- San Bernardino Valley Water Conservation District
- Santa Ana Watershed Project Authority
- Western Riverside Regional Conservation Authority

Nonprofit Organizations
There are many nonprofit organizations with interests in the Santa Ana River and surrounding areas, ranging from organizations with specific interests such as bicycling to those with a broader mission, such as water quality or conservation. These organizations include:
- Friends of Harbors, Beaches and Parks
- Huntington Beach Wetlands Conservancy
- Inland Empire Bike Alliance
- Inland Empire Waterkeeper
- Newport Banning Land Trust
- Orange Coast River Park
- Orange County Bicycle Coalition
- Orange County Coastkeeper
- Rivers & Land Conservancy – Santa Ana River Trust
- Redlands Conservancy
- Riverside Bicycle Club
- Santa Ana Watershed Association
- The Wildlands Conservancy
- Trust for Public Land
Regional Plans: Water, Habitat, and Wildlife

The Santa Ana Watershed Project Authority
The Santa Ana Watershed Project Authority (SAWPA) is a joint powers authority comprising five member agencies: Eastern Municipal Water District; Inland Empire Utilities Agency; Orange County Water District; San Bernardino Valley Municipal Water District; Western Municipal Water District. SAWPA is responsible for the preparation and implementation of the One Water One Watershed Integrated Regional Water Management Plan for the Santa Ana River Watershed (OWOW) Adopted in 2014. OWOW project evaluation criteria and related performance measures fall into one of four criteria: improve water reliability, improve water quality and salt balance in the watershed, manage flood waters through preservation and restoration of natural hydrology, reduce greenhouse gas emissions from water management activities, and cost effectiveness. Specific goals for open space and recreation are not considered.

San Bernardino National Forest
Planning goals and policies for the San Bernardino National Forest are found in the following documents:

- Land Management Plan: Part 1 Southern California National Forests Vision
- Land Management Plan: Part 2 San Bernardino National Forest Strategy

Using a “place-based” program strategy, San Bernardino National Forest Land Management Plan:

- Includes Wildlife, Fish and Plant Management programs to sustain the health of the river and riparian ecosystem including habitat for threatened, endangered, proposed, candidate, and sensitive species.
- Recognizes sections of the Santa Ana River for potential designation as a Wild and Scenic River.
- Supports the Santa Ana River as the largest and most heavily visited fishing stream on the Forest and the SART as a popular shared-use, regionally designated non-motorized ‘crest to coast’ route.
- Identifies goals to reduce invasive animal and plant species over time.
- Identifies and protects river-related heritage properties and Native American gathering areas.

The multiple-use perspective of the San Bernardino National Forest Strategy assures ecological diversity and that the river and trail will remain available for the public use in a healthy, safe environment.

The Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP)
Several relevant conservation plans have been approved or are underway within the Parkway. The Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP) was approved in 2004, and covers the Parkway within Riverside County. It is administered by the Western Riverside Regional Conservation Authority and protects over 140 native species while preserving a half-million acres of their habitats in Western Riverside County. All projects proposed within the Parkway that are also within the jurisdiction of the WRCMSHCP will need to comply with the WRCMSHCP.
The Upper Santa Ana River Wash Land Management and Habitat Conservation Plan

The Upper Santa Ana River Wash Plan, approved in 2008, covers just over 4,000 acres in the cities of Highlands, Redlands, and San Bernardino County, at the mouth of Santa Ana Canyon. The goal of the Wash Plan is to allow continued use of land and mineral resources while protecting the biological and hydrological resources of the area. Recreational activities are also covered by the plan. All projects proposed within the Parkway that are also within the jurisdiction of the Wash Plan will need to comply with the Wash Plan.

The Upper Santa Ana River Habitat Conservation Plan (Upper SARHCP)

This plan is currently under development and is a collaborative effort between multiple agencies, including the water resource agencies of the Santa Ana River watershed and U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. Once complete the Upper SARHCP will enable the water resource agencies to maintain a secure supply of water for users in the watershed, while conserving the natural rivers and streams that provide habitat for many unique and rare species in the watershed. The Upper SARHCP is currently in the second of three phases, with completion anticipated in 2019. Once completed, all projects proposed within the Parkway also within the jurisdiction of the Upper SARHCP will need to comply with this plan.

Local Planning

This section describes three types of local plans that guide Parkway development: General Plans, Area Plans, and Blue Ribbon Committee Plans.

General Plans

Because the concept of the Parkway is relatively new, most General Plans encompassing the Parkway do not reference the Parkway as a specific land use designation. While many General Plan policies may recognize the SART within their jurisdiction, reference is sometimes made to a separate agency being responsible for developing, operating, or maintaining the trail. In some cases, the trail is considered a singular linear land use element without consideration being made for parks and staging areas along the trail. In some cases, reference to the open space resources of the Santa Ana River are limited to potential conservation of sand and gravel mining resources.

Area Plans

While the General Plan sets forth the overall land use policy direction, subareas of cities benefit from a detailed plan that a local jurisdiction may adopt for a particular area of the community. A comprehensive plan can serve as a bridge between community-wide land use planning and individual parcel review, offering an opportunity to incorporate trail development policies as a component of the specific project area. An area plan provides more complete direction for land use, development, urban design, neighborhood revitalization, or other topics. There are several types of area plans including specific plans, redevelopment plans, and master plans.

Blue Ribbon Committee Plans

As part of the Santa Ana River Habitat and Recreational Planning Project, The Wildlands Conservancy provided grants for cities to develop visioning documents to address habitat restoration, passive recreation, and trail linkage along the Santa Ana River. Cities that developed Blue Ribbon Committee Plans included the cities of Colton, Costa Mesa, Huntington Beach, Newport Beach, Redlands, Riverside, San Bernardino, and Santa Ana.

Santa Ana River.

State Coastal Conservancy
PARKWAY POPULATION

The three counties in which the Parkway is located have a combined population of nearly 7.5 million people. A small portion of this population, 172,221 people, live within the Parkway (U.S. Census 2014). Characteristics of the Parkway and Study Area populations are described in Figure 3-1.

Slightly more than half of the Parkway population is between the ages of 19-54 years. Younger people, under 18 years, make up 30 percent of the population which is somewhat higher than the State average of 23.2 percent. The Parkway’s senior population, 55 years and over, accounts for 19 percent of the total residents. More than half of the population (56 percent) is white (Caucasian), 14 percent are Asian, and 22 percent are of some other race. Fourteen percent of the community block groups within the Parkway are economically disadvantaged, defined as having a median household income less than 80 percent of the statewide average. Nine percent of Parkway residents are part of a severely disadvantaged community, where median household income is less than 60 percent of the statewide average. The majority of the Parkway population (77 percent) is not part of a disadvantaged community.

EXISTING LAND USE

Existing land use within the Parkway is shown in Figure 3-2, and was compiled based on information available in planning documents, maps, publically available GIS data, and the California Protected Areas Database. Existing land uses as depicted on the map include: Developed, Public (unknown), Public Park, Protected Habitat and Open Space, and Other Undeveloped Land, which includes agriculture, mineral extraction, water-related land, and undeveloped land. Of the 40,427 acres within the Parkway, 15,978 acres, approximately 40 percent of the Parkway, is developed; 241 acres, approximately 1 percent of the

Figure 3-1 Parkway Population

AGE

- Age 55+ 30%
- Age 0 – 18 30%
- Age 19 – 54 30%

Racial/Ethnic Composition

- White 56%
- Other 22%
- Asian 14%
- Multi 4%
- Hawaiian/Pacific Islander 0%
- American Indian/Eskimo 1%
- African American 3%

Income Distribution

- Not a Disadvantaged Community (> $49,190) 14%
- Severely Disadvantaged Community (< $36,892) 9%
- Disadvantaged Community ($36,892 - $49,190) 14%
Figure 3-2 Existing Land Use in the Santa Ana River Parkway
Parkway, is public (unknown); 3,683 acres, approximately 9 percent of the Parkway, is public park; 1,585 acres, approximately 4 percent of the Parkway, is protected habitat and open space; and 18,640 acres or 46 percent of the Parkway is other undeveloped land (as shown in Figure 3-3). Protected habitat and open space include protected habitat land use and open space land use. Other undeveloped land includes agriculture, mineral extraction, undeveloped land, and water-related such as rivers, dams, or ponds.

In general, the Orange County portion of the Parkway is heavily developed, with more agricultural, mining, and water related uses prevalent in Riverside and San Bernardino counties. Existing land use may affect the type of opportunities available for extending the Parkway’s reach. For instance, less developed areas are more likely to present opportunities to add significant new parks and open space to the Parkway, and heavily developed areas may present significant opportunities to connect the Parkway to urban populations.

### NATURAL RESOURCES

#### Habitat

Historically the Parkway area supported many different habitat types including: alpine and highland forest, riparian, riparian woodland, freshwater marsh, saltwater marsh, grassland, and coastal sage scrub. However, 44 percent of the land within the Parkway has since been developed and now provides little to no habitat for wildlife. Data from the USDA Forest Service’s CALVEG classification system breaks down vegetation in the Parkway into seven categories (see Table 3-1 and Figure 3-4.) Herbaceous land cover includes grassland, meadows, and wetlands and shrub land cover includes chaparral, coastal sage shrub, bush scrub, and shrubland.

- **Brauton’s Milk-Vetch**: Endangered species, along the Santa Ana River near the Orange County and Riverside County border.
- **Coastal California Gnatcatcher**: Threatened species, in three locations in the Parkway, including Newport Beach, Chino Hills State Park, and San Bernardino County.
- **Least Bell’s Vireo**: Endangered species, along the Santa Ana River from Corona to Riverside.
- **San Bernardino Merriam’s Kangaroo Rat**: Endangered species, along Santa Ana River in San Bernardino County.
- **San Diego Fairy Shrimp**: Endangered species in Newport Beach.
- **Santa Ana Sucker**: Threatened species, all along the Santa Ana River from Anaheim to the end of the Parkway in San Bernardino County.
- **Southwestern Willow Flycatcher**: Endangered species, along the Santa Ana River in Norco, Colton, and in the San Bernardino National Forest.
- **Western Snowy Plover**: Threatened species, where the Pacific Ocean meets the Santa Ana River.
- **Yellow-billed Cuckoo**: Threatened species, along the Santa Ana River at the Riverside County and San Bernardino County border.

#### Table 3-1 Land Cover

<table>
<thead>
<tr>
<th>LAND COVER TYPE</th>
<th>ACRES</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardwood forest/woodland</td>
<td>4,601</td>
<td>10.1%</td>
</tr>
<tr>
<td>Herbaceous</td>
<td>10,030</td>
<td>22.0%</td>
</tr>
<tr>
<td>Mixed conifer and hardwood forest/woodland</td>
<td>620</td>
<td>1.4%</td>
</tr>
<tr>
<td>Shrub</td>
<td>5,205</td>
<td>11.4%</td>
</tr>
<tr>
<td>Barren (Rock/Soil/Sand/Snow)</td>
<td>3,789</td>
<td>8.3%</td>
</tr>
<tr>
<td>Urban</td>
<td>20,259</td>
<td>44.2%</td>
</tr>
<tr>
<td>Water</td>
<td>1,174</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

U.S. Fish and Wildlife Service have identified critical habitats for nine different species in the Parkway, mostly along the Santa Ana River.
Figure 3-4 Existing Habitat and Surface Water
The largest areas of remaining habitat include the San Bernardino National Forest, a large area below Seven Oaks Dam, Hidden Valley Wildlife Area, and the Prado Basin. Of these areas Prado Basin provides the most significant expanses of freshwater marsh and riparian habitat. Created by the impounded waters of the Prado Dam, Prado Basin is heavily used by waterfowl year round and is home to several rare and endangered birds including the Least Bell’s Vireo and Southwestern Willow Flycatcher. It also supports a diverse aquatic habitat. The remaining fragmented riparian habitats along the Parkway are frequently overrun by invasive non-native plants, including Arundo donax, which displaces native plants and associated wildlife species by monopolizing soil moisture and providing little shading to the in-stream habitat.

Water
The Santa Ana River begins in the San Bernardino Mountains, crossing San Bernardino County, Riverside, County, and Orange County before emptying into the Pacific Ocean. At about 100 miles long and with more than 50 tributaries, the river drains 2,650 square miles of land. The river is divided geographically into upper and lower watersheds that are delineated by the 60 year-old Prado Dam, a flood control facility located on the river where it cuts through the Santa Ana Mountains section of the Coast Range. The dam was constructed in response to the river’s flood-prone past and is the separation between the most natural and most developed river reaches. Another dam in the watershed is the Seven Oaks Dam, which was completed in 1999 in the San Bernardino National Forest north of the cities of Redlands and Highland.

In addition to flooding, water quality is a key issue for the Santa Ana River. As Southern California has rapidly urbanized in the past 50 years, issues of water rights and water quality along the Santa Ana River have come to the forefront. Surface water runoff and homeless encampments along the river are among the challenges to the river’s water quality.

**EXISTING PUBLIC ACCESS FEATURES**

Parkway public access features include the SART and trail connections, parks and open space, and Parkway amenities such as restrooms and drinking fountains. Existing public access features are described below and located in Figure 3-5. As described further in Chapter 6, existing access features were identified based on review of existing planning documents and GIS data, and directly by Parkway agencies and organizations.

**Trail and Trail Connections**

The SART travels along the length of the river corridor, with gaps in several locations as further described in Chapter 4. In addition to the SART, many connector trails bring residents and visitors to the SART and the river. These connector trails create the beginnings of a trail network system that encourages people to experience the many varied environments of the river corridor. These connector trails also allow SART users to venture into the communities adjacent to the river.
Figure 3-5 Existing Public Access Features
Parks and Open Space within Parkway

As discussed above, public parks (9%) and protected open space (4%) comprise a total of 13 percent of the Parkway. There are currently over 230 public parks within the Parkway that provide recreation spaces for adjacent residents, and stopping areas and amenities such as restrooms and water fountains for pedestrians, cyclists, and others using the SART. Some of the larger protected open space areas provide habitat value as well as recreational value. Large parks and wildlife areas within the Parkway include: Hidden Valley Wildlife Area, Prado Regional Park, Chino Hills State Park, Yorba Regional Park, Deer Canyon Park, Orange Coast River Park, and Talbert Regional Park.

Parkway Amenity Distribution

Parkway amenities are not distributed evenly along the length of the river corridor. There is a concentration of trail amenities in the southern Orange County portion, and in the southern Riverside County portion of the Parkway. The distribution of existing Parkway features such as trail access points, parking lots, restrooms and drinking water shows that access points and other features are generally concentrated in areas where the SART is already completed.
Completing the Santa Ana River Trail
“As our significant investments over the last couple of decades demonstrate, the state has a keen interest in helping to sustain the economic and ecological vitality of the complex Santa Ana River watershed.”

John Laird
Secretary of Resources Agency
Completing the Santa Ana River Trail – The First Priority of the Santa Ana River Parkway & Open Space Plan

The concept of a continuous Santa Ana River Trail (SART) has been the galvanizing action along the river corridor for decades and continues to inspire agencies, nonprofit organizations, and users of the SART. Completing the SART has been a priority for all these stakeholders and continues to be the first priority of Santa Ana River Conservancy (SARCON). The SART invites users to explore the Santa Ana River and has great potential to increase awareness of the environmental, educational, and recreational resources of the entire Santa Ana River Parkway (Parkway).

SART as the First Priority

Completion of the SART is well underway, with plans to construct the final portions of the trail in progress. By focusing on completing the SART, SARCON can build on the momentum and collaborations that stakeholders have been working on for years. Once complete, the SART will connect the many open spaces along the Parkway, providing the connecting thread that holds the Parkway together. The SART will serve as a backbone for the Parkway, and will connect with adjoining feeder trails to create a network that links communities with public park and open space along the Parkway. The completed SART will invite local and regional residents and visitors to experience the river corridor, and by doing so will expand the river’s reach.

Status of SART Completion

The majority of the SART is completed, and plans are in place for the completion of remaining gaps. This section summarizes the current status of the SART, and provides an overview of plans to complete existing gaps.

As illustrated in Figure 4-1, the SART currently begins in the San Bernardino National Forest near the Pacific Crest Trail at Heart Bar Campground and continues downstream to Mill Creek Road. A large gap in the trail exists from Garnet Street near Mill Creek Road downstream to Waterman Avenue, just inside the San Bernardino County line, where the trail begins again. The trail then travels through the cities of Colton and Riverside passing busy industrial properties and residential communities along the way. This eastern section ends at the Hidden Valley Wildlife Area east of Norco. A significant gap exists between this point and the resumption of the trail downstream from Prado Dam. Continuing downriver the trail passes the iconic Angels Stadium of Anaheim, ultimately ending at the Pacific Ocean between Huntington Beach and Newport Beach. When completed, the trail will run for 110 miles from the crest of the San Bernardino Mountains to the Pacific coast.

Talbert Park.
Figure 4-1 Completing the SART
Completing the Santa Ana River Trail

**Riverside**

Within the County of Riverside, there is an approximately 12-mile gap that extends from the Hidden Valley Wildlife Area to the downstream end of Prado Dam. Riverside County Regional Park and Open Space District has identified plans in collaboration with local agencies for the completion of ten trail segments that will together complete this gap. The planned gap completion will include approximately seven miles of new trail construction, and will formalize approximately five miles of existing on-street bike routes as segments of the SART. The timeline for the remaining trail segments will be determined based on various factors including funding and permitting.

**Orange County**

The SART is complete within Orange County with the exception of an approximately three mile gap that would connect the Orange County SART to Riverside County. This SART segment is planned to run along the Santa Ana River adjacent to the Green River Golf Course. OC Parks has identified completion of this segment as a priority, and is in the final design and engineering phase for this segment of the SART. Design is anticipated to be complete in 2019. Construction will follow design completion as funding becomes available.

**San Bernardino**

The approximately 11-mile SART gap in San Bernardino County extends roughly from Garnet Street at Mill Creek Road downstream to Waterman Avenue. San Bernardino County Regional Parks Department has identified a phased approach for completing the remaining portions of the SART, with construction anticipated to commence in 2018 and be complete by approximately 2023. The trail segment from Waterman to California Street will be the next to be constructed. Planning is well underway for the trail segments from California to Orange Street, and has recently begun for the trail segments from Orange Street to Judson Street and Judson to Opal Avenue, all within the City of Redlands. The trail segment from Opal Avenue to Garnet Street where the trail transitions onto Forest Service land will be the last segment to be planned and constructed.

Completing SART gaps is a priority of the SARP&OSP, and most of the planned segments are anticipated to be complete by 2023. However, the timeline for construction of all segments will be dependent upon permits and approvals from regulatory agencies, as well as availability of funding. An overview of the planned approach for completing SART gaps within each county, including responsible parties and anticipated timeline is provided below. Additional information is provided in Appendix D, SART Gap Completion.
5.0
Prioritization of Santa Ana River Parkway Projects
“The Santa Ana River is the hydrologic backbone of the watershed, which ties Orange County, Riverside and San Bernardino Counties together.”

Celeste Cantu
Former General Manager, Santa Ana Watershed Project Authority
Prioritization of Santa Ana River Parkway Projects

In addition to the Santa Ana River Trail (SART), determining what specific projects are best positioned to contribute to the realization of the Santa Ana River Parkway & Open Space Plan’s (SARP&OSP’s) vision will allow Santa Ana River Conservancy (SARCON) and other agencies to effectively focus time, effort, and future funding on projects that will lead to the completion of the SARP&OSP vision.

This chapter begins with an overview of criteria and a quantitative prioritization tool to assess the priority of Santa Ana River Parkway (Parkway) projects. Projects submitted in 2017 were evaluated using this tool as described in Chapter 6, Planned and Potential Projects; and the tool will continue to inform prioritization of future project submittals and is further described in Chapter 9, Implementation.

Following the overview of the quantitative tool, a summary of the Location Suitability Assessment that was conducted of the Parkway and Parkway Study Area is provided. The Location Suitability Assessment is a key input to the tool. In addition, the maps developed through the Location Suitability Assessment provide a resource for identifying areas of the Parkway that would be suitable for various projects and thus can inform and inspire new project submittals throughout the Parkway, including within existing parks. With this in mind, the Chapter concludes with an overview of the assessment of all undeveloped parcels in the Parkway.

Prioritization Criteria and the Quantitative Prioritization Tool

Four criteria were identified for the initial prioritization of projects. These include: project location suitability; consistency with Parkway Guiding Principles; proximity to the river; and project status. The Quantitative Prioritization Tool is a framework for assessing individual projects against these criteria. The result is a prioritized matrix of projects where projects with the highest score are those likely to have the greatest potential to provide multiple benefits. If desired, the matrix can be sorted to highlight projects based on specific priorities, criteria relevant to grant funding, specific community need, or other considerations. The tool and scoring mechanisms are intended to provide objectivity when comparing and contrasting diverse projects, and to allow preliminary consideration of projects that have different types and complexities of development.

Project Scoring for Individual Prioritization Criteria

These criteria and the methodology utilized for scoring projects against these criteria are described below.

Criteria #1: Project Location Suitability

The project location suitability criterion is an important measure for evaluating how likely existing conditions and land use are to support potential projects. Projects are evaluated using the Location Suitability Assessment developed as part of the planning process. An overview of the Location Suitability Assessment is provided below, and the complete assessment is provided in detail in Appendix B, Inventory and Assessment Report. The Location Suitability Assessment utilizes the geospatial data produced during the Parkway assessment to estimate the Parkway’s potential for supporting water, habitat, and equitable education and recreation access. Each project is mapped and its location is evaluated against the outcomes of the Location Suitability Assessment that was completed as part of the planning process. Given that the spatial data may not reflect actual site conditions in some cases, the assessment is intended for preliminary prioritization; site conditions will be evaluated on a project-specific basis when projects submit requests for funding, as described in Chapter 9.

Projects receive a score ranging from Very Suitable (6) through Very Unsuitable (1) based on the cumulative analyses of water, habitat and wildlife, and equitable education and recreation access. Exceptions to this scoring systems were made for projects within the San Bernardino National Forest. As existing conditions within the San Bernardino National Forest are generally consistent from a planning perspective, all projects in this area were scored as follows for location suitability (LS): 6 points for water, 6 points for habitat, and 1 point for equitable education and recreation access.
Criteria #2: Consistency with Parkway Guiding Principles

Consistency of planned and potential projects with Parkway Guiding Principles is assessed through review of project descriptions. Because the quality of the project description can vary greatly between projects submitted in 2017, additional information from the web portal or publicly available documents was also used to evaluate the projects where possible. Each project is scored for consistency with each of the following three guiding principles: water, habitat and wildlife, and equitable education, recreation, and access. To reduce subjectivity, each project was scored by two independent reviewers in 2017 and it is recommended that future projects also be scored by two independent reviewers. In cases where scores are inconsistent, it is recommended that the project be reviewed jointly by the reviewers and a final score determined. To further reduce subjectivity, only two scores are allowed in this category: a score of six (6) indicates that a project Definitely meets the intent of the Guiding Principle, while a score of one (1) indicates that a project Does not meet the intent, or the intent is not clear.

Criteria #3: Proximity to the River

Emphasizing the importance of expanding from the river into the surrounding communities, projects are scored for their proximity to the main stem of the Santa Ana River. Scoring for the proximity to the river is either 12, for projects within ½ mile of the river; 6, for projects between 0.5-mile and 1-mile from the river; or 1, for projects located more than 1-mile from the river.

Criteria #4: Project Status

Projects that are underway are most likely to contribute to the goals of the SARP&OSP as they have some support from agencies or organizations that could bring them to fruition. To assess projects in this category, criteria were developed to determine the status of a project’s completion. Projects that were Underway received a score of 6, while projects identified as opportunities, with no official plans, received a score of 1.

Cumulative Scoring Using the Quantitative Prioritization Tool

Each project’s overall score was generated by multiplying the location suitability score (LS) by the consistency with the guiding principle score (GP), and then adding these scores to the proximity to river score and project status score, as shown in Figure 5-1. This equation emphasizes the importance of projects that address multiple guiding principles, are located near the river and have some type of agency or non-profit organization support to move forward.

Figure 5-1
Quantitative Project Prioritization Equation

\[(\text{Water LS} \times \text{Water GP}) + (\text{Habitat LS} \times \text{Habitat GP}) + (\text{Access LS} \times \text{Access GP}) + \text{Proximity to River} + \text{Status Score} = \text{Overall Score}\]

Location Suitability Assessment

Understanding the physical characteristics of the Parkway is the basis for determining project score under Criteria #1, Project Location Suitability. In addition, it allows high-level analysis of suitability of the Parkway for all potential project types. Focusing on physical characteristics related to water, habitat and wildlife, and equitable education, recreation, and access, the Parkway was analyzed as part of the SARP&OSP planning process to develop a general understanding of the areas of the Parkway with the greatest potential to contribute to the goals of the water, habitat and wildlife, and equitable education, recreation, and access guiding principles.

Although the Parkway is defined as the lands within a 0.5-mile of the main stem of the Santa Ana River, the Parkway analysis included the Parkway Study Area to provide greater context and allow for projects beyond the Parkway to be assessed using the Quantitative Prioritization Tool. The Parkway Study Area extends 2.5 miles beyond each side of the designated Parkway boundaries below Seven Oaks Dam, an area with a population of approximately 1.4 million (US Census 2014). The area of the Parkway above Seven-Oaks Dam is comprised predominantly of lands managed by the United States Forest Service; existing conditions within this area are generally consistent from a planning perspective and therefore unique assumptions were used to assess location suitability as described above.

Metrics, framed as questions related to the water, habitat and wildlife, and equitable education, recreation and access guiding principles, were developed with input of the Technical Advisory Committee (TAC). These questions were answered using spatial analyses techniques that overlaid various geospatial data to produce the cumulative analysis map for each topic area. Each cumulative analysis map
shows a gradient, ranging from “least suitable” to “most suitable” that answers the central question for each topic area.

The information contained in the cumulative analysis maps provides a high level understanding of the Parkway’s physical characteristics and is used to inform the prioritization of Parkway projects, specifically the scoring of projects based on Project Location Suitability. An overview of the location suitability assessment, including the questions asked for each topic area and the resulting cumulative analysis map, is provided below. Greater detail is provided in Appendix B, Inventory and Assessment Summary Report.

**Summary of Analysis and Findings by Topic Area**

**Water**

Flood protection, groundwater recharge, and water quality were analyzed in order to identify areas within the Study Area most suitable for projects with water management components. While all projects have the potential to incorporate features that improve water management, the purpose of this assessment was to identify the most ideal locations for siting such projects. Three questions were asked:

1. Which areas of the Parkway contribute to flood protection or have the potential to contribute to flood protection?
2. Which areas of the Parkway support groundwater recharge, or have the potential to support groundwater recharge?
3. Where is there potential for improving water quality?

The data analyzed to answer these questions included soil infiltration rate, wetlands, floodplains, land use, riparian vegetation, and water quality data, with different data sources weighted differently depending on the question (refer to Appendix B for further detail). Areas with the greatest potential to support a range of water management projects were identified by overlaying the outcomes of the analyses conducted for flood protection, groundwater recharge, and water quality; giving equal weight to each of the three topics. Based on this analysis, the most suitable locations for siting multi-benefit water management projects are in the Prado Basin and upstream through Eastvale, Norco, and Jurupa Valley, as shown in Figure 5-2. Overall, 16 percent of the Study Area was identified as Good, Very Good, or Most Suitable for water management projects, while 38 percent of the Parkway was identified as Good, Very Good, or Most Suitable. Although individual projects will be evaluated on a project level, in general, it is likely that projects located in the bluer areas of the map will more likely meet water management goals than projects that are not located in these areas.

**Habitat and Wildlife**

Although many projects have the potential to include wildlife-friendly elements such as native plants, this analysis identifies areas with physical characteristics that are most likely to contribute to the success of habitat-focused projects. The analysis answers the following questions:

1. Where are conditions most appropriate for habitat protection? This question focuses on identifying existing habitat to be protected as part of the Parkway.
2. Where are conditions most appropriate for habitat enhancement? This question focuses on identifying additional areas that could support habitat enhancement projects.

The data analyzed to answer these questions included soil infiltration rate, habitat types, land use, species observations, aquatic and terrestrial habitat data from the California Natural Diversity Database, and California Protected Areas Database (CPAD).

Areas with the greatest potential for habitat-focused projects were identified by combining results from the habitat protection and habitat enhancement analyses. The two outputs were weighted evenly at 50 percent each. Reflecting the built-out character of much of the river corridor, the analysis shows that a majority of the Study Area is not suitable for habitat with almost 95 percent of the Study Area classified as Fair or Poor, and approximately 5 percent classified as Good or Very Good. Almost zero percent of the Study Area was classified as Most Suitable for habitat-focused projects. On the other hand, 85 percent of the Parkway is classified as Fair or Poor, and approximately 15 percent as Good or Very Good. Much like the Study Area, the Parkway also had almost zero percent of the Parkway classified as Most Suitable for habitat projects. As shown in Figure 5-3, the suitable areas are adjacent to the river with large swaths of potential areas in the eastern portion of the Study Area and near the Prado Basin and Chino Hills State Park, and upstream through Jurupa Valley and Riverside. The Parkway near the cities of Colton and Grand Terrace, and Highland and Redlands also contains significant areas suitable for habitat.
Figure 5-2 Cumulative Analysis: Water
Figure 5-3 Cumulative Analysis: Habitat
Equitable Education and Recreation Access

This analysis focuses on two questions:

1. Where is there potential for increasing educational and recreational use of the SART and river?
2. Where is there potential to provide improvements that increase equitable access to the Parkway’s resources? To answer this question, five factors were considered.

- **Land use**: Land use data for the Parkway was from the Southern California Association of Governments and the San Bernardino Associated Governments. Lands that were developed were categorized into a “no priority” category and undeveloped lands and open spaces were categorized as “high priority”. This is the same input used in the Water and Habitat analysis.

- **Proximity to River**: Proximity to river was measured at a half-, one-, and 2.5-mile distance from the Santa Ana River. Areas within a half-mile of the river were classified as the highest priority, areas between half to one mile away were medium priority, and areas between 1 to 2.5 miles away were not a priority.

- **Access to River**: The Access to River input was created by finding areas within a half-mile walking distance of river access points. This was created through a network analysis of walkable streets. Areas within a half-mile walking distance were classified as a high priority, while the remaining areas were not a priority.

- **Access to Parkway**: The Access to Parkway input was created in a similar manner to Access to River input, by finding areas within a half mile walking distance of Parkway access points. This was created through a network analysis of walkable streets. Areas within a half-mile walking distance were classified as a high priority, while the remaining areas were not a priority.

- **Disadvantaged Communities**: Using US Census Bureau data, block groups were identified as disadvantaged communities based on its median household income. For this analysis, the data was classified into three priority groups. Block groups with a median household income of less than $36,892 were classified as a Severely Disadvantaged Community and given the highest priority. Block groups with a median household income of more than $36,892 and less than $49,190 were classified as a Disadvantaged Community and given a medium priority. Any block groups with a median household income of greater than $49,190 were not a priority.

Based on the analysis of these five factors, many areas within the Parkway are classified as being Good for educational and recreational projects. Within the expanded Study Area, 19 percent of the area is classified as Fair, 2 percent classified as Good, and less than 1 percent as Very Good. Within the Parkway, 36 percent of the area is classified as Fair, 9 percent classified as Good, and less than 1 percent as Very Good. As shown in Figure 5-4, the sites with the greatest suitability are concentrated in the eastern half of the Parkway.
Figure 5-4 Cumulative Analysis: Equitable Education and Recreation Access

Note: Areas that are suitable for education and recreation access may include areas where access needs to be restricted to protect resources.
ASSESSMENT OF UNDEVELOPED PARCELS

In addition to informing the prioritization of projects, the Location Suitability Assessment can be used to assess suitability of any area of the Parkway for future project opportunities. Undeveloped parcels have great potential to support project opportunities, and therefore are of specific interest for expanding the river’s reach. Designated parks and open space are not identified as “undeveloped;” opportunities to improve these existing facilities are identified under Chapter 6, Planned and Potential Projects Beyond Santa Ana River Trail. In order to provide an additional tool for identifying and prioritizing future opportunities, undeveloped parcels were prioritized based on their potential to contribute to the Parkway vision. This assessment also responds to SB 1390 language stating that the SARP&OSP shall “identify underused, existing public open spaces and recommend ways to provide better public use and enjoyment in those areas.”

Undeveloped parcels were identified based on existing land use, as described in Chapter 3, and include the following:

- Agriculture
- Mineral extraction
- Undeveloped land
- Water-related land

Although ownership of the undeveloped parcels is unknown, each parcel represents a potential opportunity site for future projects that could contribute to the Parkway. Due to the fact that no projects are yet proposed for these parcels, prioritization criteria did not include consistency with Parkway Guiding Principles. Criteria that were included were project location suitability and proximity to the river, using the same methodology as for project assessment as described above. The scores for each criterion were summed to arrive at the overall prioritization score for each parcel.

The Parcel Prioritization Matrix, provided in Appendix C, documents each parcel’s total score as well as its score for individual criterion. The matrix can be sorted by individual prioritization score categories, or by overall prioritization score, allowing SARCON and collaborating agencies and organizations to easily identify parcels based on various aspects of the prioritization score. For example, if a funding source for land acquisition becomes available, the Parcel Prioritization Matrix can be used to quickly identify parcels that have a high overall score. Additional uses of the quantitative parcel prioritization matrix are discussed in Chapter 9.
6.0 Planned and Potential Projects Beyond Santa Ana River Trail
PLANNED AND POTENTIAL PROJECTS BEYOND SANTA ANA RIVER TRAIL

Plans for projects within the Santa Ana River Parkway (Parkway) have been generated by many agencies and shared as needed with regulatory agencies and other collaborating entities. The Santa Ana River Parkway & Open Space Plan (SARP&OSP) gathers these many plans into a single database that will allow Santa Ana River Conservancy (SARCON) to review future plans and begin to understand which projects will best support the vision of the SARP&OSP. Having all the Parkway projects in a single database will also allow SARCON to find synergies between projects and begin to prioritize projects for future funding, additional support, or further development. SARCON expects to update this database on a regular basis in the future, to ensure that information about projects within the Parkway remains current.

The SARP&OSP prioritized two types of Parkway opportunities:

4. Projects – submitted by agencies, organizations, and members of the public.
5. Parcels – locations determined to have potential to contribute the realization of the Parkway vision.

GATHERING PROJECTS (METHODOLOGY)

The inventory of projects began with a comprehensive review of existing and planned projects contained in publicly available documents. This was followed by an interactive web portal which agencies and organizations used to verify existing project plans and report additional projects; an online activity which members of the public used to submit project ideas; and public workshops where participants submitted additional project ideas. Approximately 500 projects were inventoried, although not all of these projects were included in the final list of planned and potential projects, due to project status (for example, completed projects were not included) and redundancy or overlap between projects.

Review of Existing Plans

A variety of plans and documents were reviewed to identify projects, including the Santa Ana River Corridor Trail System Master Plan, County and City General Plans, Blue Ribbon Committee Plans, and other plans such as Bicycle Master Plans and Trail and River Plans. A complete list of plans reviewed as part of this effort is provided in Appendix B, Background Documents (see Table 2).

Projects identified in these documents were categorized into three types: Access Points; Trails; and Sites.

- Access Point Projects – provide new or improved access to the Santa Ana River Trail (SART) or river channel in the form of new or improved trailheads, parking areas, ADA improvements, river crossings, or programs that encourage increased use of the Parkway.
- Trail Projects – include new trails, trail connections and trail extensions, and improvements to existing trails, such as restrooms, drinking water, trail widening, or signage.
- Site Projects – encompass all projects that acquire open space, improve or create facilities such as developed parks, undeveloped space, open space of any type, nature or interpretive centers, or other projects that are not solely an access point or trail.
Over 400 projects were identified through this background review of existing plans. These projects were collected into a single database that was provided to Parkway agencies and non-profit organizations for review in the project web portal.

**Web Portal**

All agencies with Parkway jurisdiction and selected non-profit organizations operating within the Parkway were invited to verify the data compiled from existing plans and to contribute additional projects using an online portal (Figure 6-1). Within their jurisdiction, participants were specifically asked to:

1. Review and confirm all projects in the database.
2. Add additional access point projects, trail projects, and site projects that were not initially included in the database.
3. Provide corrections to the existing Parkway features in the database and make any other data corrections needed.

All participants were offered a comprehensive training session which guided users through the web portal’s various functions. Participants also received a Quick Start Guide and additional as-needed technical support. Over an eight-week reporting period, 22 agencies and organizations contributed data by confirming nearly 400 Parkway features, planned Parkway projects, or future opportunities.

**Public Engagement**

The general public was invited to contribute project ideas at public workshops and by using an online survey and mapping activity. Public workshops were held in each county in June 2017 and the online survey was available from June 10, 2017 to July 11, 2017, as described in Chapter 1. Approximately 60 project ideas were submitted by members of the public for inclusion in the SARP&OSP.

**PARKWAY PROJECT OPPORTUNITIES**

Many of the 400 projects initially gathered included projects beyond the Parkway, projects that have been completed, and some duplicate projects. The Parkway Project Opportunity Sites Map below (refer to Figure 6-2) depicts only those projects that are in the Parkway and are not yet complete. The Parkway Project Opportunity Site Map and Project Prioritization Matrix (discussed below) include 155 projects. Within each County, each project has a unique number (refer to Appendix A, Map Book to view numbers); project information including project type and description are included in the Project List (Appendix C).

Of the projects included on the Project Opportunity Sites map, 28 are access point projects, 50 are trail projects, and 76 are site improvements. While most of the projects involve the construction of new facilities, 36 projects are to improve an existing Parkway facility (see Table 6-1, Figure 6-3, and Figure 6-4). The map shows that more projects are proposed in Riverside and San Bernardino counties than in Orange County. This may be due to the fact that the majority of the Parkway in Orange County is developed, leaving fewer opportunities for projects.
Planned and Potential Projects Beyond Santa Ana River Trail

Figure 6-2 Parkway Project Opportunity Sites Map
Table 6-1 Distribution of Projects by County

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>ACCESS</th>
<th>SITE</th>
<th>TRAIL</th>
<th>TOTAL</th>
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<tbody>
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<td>Improve</td>
<td>Total</td>
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</tr>
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<td>Orange*</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Riverside*</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
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<td>11</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>2</td>
<td>28</td>
<td>48</td>
</tr>
</tbody>
</table>

* Trails include pedestrian bridge projects
** Total number of projects includes one site improvement project for lighting along the SART that spans across all three counties.

The Project Prioritization Matrix, maintained as a digital document by SARCON, contains a complete list of all projects inventoried. As discussed in Chapter 5, the project inventory will be updated on a regular basis in the future.

**PROJECT PRIORITIZATION MATRIX**

As described in Chapter 5, each project included on the Parkway Projects Opportunity Site map was scored on the following criteria: project location suitability, consistency with Parkway guiding principles, proximity to the river, and project status.

The Project Prioritization Matrix, maintained as a digital document by SARCON, documents pertinent project information and scores for each project. The matrix can be sorted by agency, project type, individual prioritization score categories, or overall prioritization score. The flexibility created by the matrix allows SARCON to easily find projects based on any number of criteria. For example, if a funding source for trail projects becomes available, the matrix can be used to quickly identify trail projects that have a high overall score. Overall scores range from 1 to

Figure 6-3 Distribution of New Projects by County

Figure 6-4 Distribution of Improvement Projects by County
90, with site projects generally scoring higher than other types of projects. This is due to the fact that this type of project is more likely to include elements that contribute to multiple guiding principles. A project in each county that strongly supports the SARP&OSP goals are highlighted below, to provide examples of the types of multi-benefit projects that scored high in the prioritization process.

Proposed projects that are identified as high priorities using the matrix will be encouraged to submit proposals for grant funding. Proposed projects submitted for SARCON grant funding will be further evaluated at the project level using the Project Submittal Form described in Chapter 9, Implementation. Project-level evaluation will consider the specific details of the actual project as proposed, circumstance for carrying out the project, available funding and its constraints, and existing local, state, and federal laws and regulations.

The Project Prioritization Matrix is a living document that can be updated to reflect changes in the status of proposed projects and to include and prioritize additional proposed projects. The process for updating the Project Prioritization matrix is discussed in Chapter 9, Implementation.

Highlighted Projects

Orange County: Anaheim Coves North, City of Anaheim

The Anaheim Coves North Project is an expansion of the successful Anaheim Coves project completed in 2008. The project includes multiple access points, a one mile Class I bike trail with parallel decomposed granite running track, and amenities, including 11 acres of native landscaping, a children’s nature garden, interpretive signage, drinking fountains, benches, trash cans, and dog waste stations, as shown in Figure 6-5. Anaheim Coves North will connect to the original segment of Anaheim Coves and provide connection to the SART, while also expanding community access to an area that has been closed to the public in the past. Project completion is anticipated for spring 2018.
Riverside County: Hidden Valley Duck Ponds

This restoration project is being designed to maximize habitat function, aquatic resources, and California Department of Fish and Wildlife (CDFW) management priorities. It includes treatment of invasive species, restoration of four abandoned ponds, restoration of approximately 1 mile of river channel and riparian vegetation, and development of fishing and educational ponds as shown in Figure 6-6 and Figure 6-7. Target species may include migratory birds, Western pond turtle, tri-colored black bird, and garter snakes. This plan is in the preliminary planning stage.
San Bernardino County: Converse Meadow Restoration

The Forest Service has identified several meadows that have been impacted by past and current usage and notes that restoration of meadows to their original functioning condition would have multiple benefits including attenuating flood flows, maintaining higher groundwater level, protecting native and listed plant species, and increasing riparian habitat. Converse Meadow is one of the meadows identified (refer to Figure 6-8). The project would include both an environmental analysis as well as the restoration effort.
This chapter recommends overarching Santa Ana River Parkway (Parkway) Perspectives as well as planning guidelines to further Parkway and open space planning efforts. Parkway Perspectives describe the recommended approach to discussing and pursuing the Parkway Vision. The planning guidelines provide a framework for furthering parkway and open space planning efforts through collaboration and proactive planning. In addition, the planning guidelines also provide agencies within or bordering the Santa Ana River Parkway a common touchstone applicable to any project within the Parkway boundaries to facilitate achievement of the Parkway Vision. The guidelines are intended to inform policies and actions of the Santa Ana River Conservancy (SARCON) and other Parkway development participants, which include jurisdictions with Parkway management responsibilities or land use regulatory authority as well as organizations and committees with an interest in enhancing and expanding the reach of the Parkway. These collaborating entities are listed in Chapter 3, Parkway Context and Existing Conditions. Planning guidelines present recommendations and considerations for best practices that agencies can utilize or adopt on a voluntary basis. All projects will need to be planned, designed, and implemented in compliance with existing local, state and federal requirements.

Planning guidelines are focused on informing policies and actions, while design guidelines in Chapter 8, Design Guidelines, focus on the character and development of specific projects. Chapter 9, Implementation, focuses on prioritization and phasing for these efforts.

WHO WILL USE THESE GUIDELINES?

These planning guidelines as well as the design guidelines provided in Chapter 8, Design Guidelines, have been developed for use by:

- Public Agencies – Cities, counties, special districts, and regional, state, and federal agencies involved in resource protection, land use planning, and the development of publicly accessible recreation sites or trail facilities.
- Planning and Design Teams – Developers, land planners, engineers, landscape architects, architects and other members of professional teams working on projects in the Parkway, the Santa Ana River Trail (SART), and other accessible trails to and along the Santa Ana River.
- The Public – Community groups and individuals interested in understanding or contributing to the implementation of the Santa Ana River Parkway and Open Space Plan (SARP&OSP).

PARKWAY PLANNING PERSPECTIVES

The following Parkway Perspectives describe the recommended approach to discussing and pursuing the Parkway Vision, and therefore serve as a backbone for the subsequent planning guidelines. These Parkway Perspectives include considering the Parkway as a state, regional and local resource, considering the SART as a trail system, and considering the Parkway as an open space continuum.
Santa Ana River Trail as a Trail System

The SART should be embraced as a system of trails, rather than a single route. A principal goal of the Parkway is a “crest-to-coast” trail running the length of the Santa Ana River. However, for the Parkway to be successful and accessible for a variety of uses and all surrounding residents, the Parkway will include any number of additional trails forming a system. Figure 7-1 illustrates how different trails connect to form a unified system. In some places the SART may actually be two parallel trails (e.g., shared-use bicycle path and equestrian path). There will likely be trails similar in design to the main stem SART on the opposite side of the river that then connect with the SART. There will be side loop trails and point access trails stemming from the SART to provide Parkway visitors recreation and educational access to and along the river. As the Parkway grows, similar tributary greenways and trail systems will be connected to it.

The Parkway as a Continuum of Open Space

For general planning purposes, the definition of open space is any parcel or area of land or water that is essentially unimproved and devoted to an open space use for many different purposes, including, but not limited to: (1) the preservation of natural resources, (2) the managed production of resources, (3) outdoor recreation, or (4) public health and safety.¹

¹ See e.g. State of California, Governor’s Office of Planning and Research, 2003. State of California General Plan Guidelines; and Government Code Section 65560.
Open space encompasses a continuum of uses from natural resource lands to urban parks. For habitat, this continuum extends from upland areas to riparian areas to coastal tidal aquatic habitats. For recreation this continuum extends from natural open space areas to greenways to park and urban recreation areas. Figures 7-2 and 7-3 provide a visual description of the continuum for habitat and recreation, extending from the Parkway’s beginning in the mountains to its ending on the coast. By viewing open space habitat and recreation as a continuum that changes depending on location and the needs of the region, multiple options can be considered in determining how these elements can work together and complement each other.

From a planning perspective, open space conservation is typically addressed through state required open space and conservation elements of General Plans. As a planning matter, the definition of open space is defined based on the community values of the individual jurisdiction and is therefore interpreted fairly widely by the counties and cities within the Parkway. In the foothill cities, open space is differentiated from developed urban parklands and focuses on natural, undeveloped lands that have been designated as environmentally and ecologically significant. On the other hand, for the more urbanized areas of the Parkway where cities are built out and contain little or no undeveloped or undisturbed lands, open space emphasizes urban lands used for recreation. These lands include neighborhood and community parks, sports fields, school facilities, greenways, bikeways, green streets, medians, utility easements, and the like. The Parkway is also a managed hydrological system with flood control dams and channel requirements for flood waters and in-channel habitats that are balanced to function symbiotically.
The variations between jurisdictions are generally due to the interpretation of the phrase “essentially undeveloped,” a relative term. However as a practical matter open space within the Parkway is any publicly owned land and any lands that, while they may be used for agriculture, interim uses such as mining, or lying fallow, are not developed in such a way to preclude habitat and public recreation uses.

**PLANNING GUIDELINES**

The purpose of all planning guidelines is to realize the Parkway Vision and Goals, as defined in Chapter 2, Vision, Guiding Principles, and Goals. Planning guidelines are organized according to the high-level, collaborative actions listed below. Parkway Guiding Principles that are targeted by each topic area are identified in parenthesis following the guideline.

1. Building Parkway Recognition and Collaboration (Guiding Principle: Implementation)
2. Expanding the Parkway (Guiding Principles: Water; Habitat and Wildlife; Education, Recreation and Access)
3. Protecting and Enhancing Resources (Guiding Principles: Water; Habitat and Wildlife)
4. Providing Equitable Public Access, Recreation, and Education (Guiding Principles: Education, Recreation and Access)
5. Managing, Operating, and Maintaining the Parkway (Guiding Principles: All)

**Building Parkway Recognition and Collaboration**

Senate Bill 1390 defines the Parkway as the lands within 0.5-mile of the main stem of the Santa Ana River. The Parkway encompasses the land use jurisdictions of three counties and 23 cities. There are a myriad of stewardship agencies that own and manage portions of the Parkway. Establishing common vocabulary and understanding of the Parkway is a building block for collaborative efforts. For instance, the need exists to provide direction for preserving, linking, restoring, and creating open space along the Santa Ana River by providing a comprehensive regional framework for incorporating open space, both habitat and recreation, into water management project design features. In addition, informing the general public about the active transportation, recreation, and educational opportunities presented by the Parkway and the SART facilities is essential to ensure that the Parkway’s benefits are realized. Actions can be taken to increase recognition of the Parkway area.
Planning Guidelines

It is recommended that:

1. SARCON engage a broad network of agencies and non-government organizations and interest groups in the Parkway’s funding, planning, and implementation activities.

2. SARCON designate Parkway Use Areas and Protected Areas in order to build awareness and recognition of the Parkway. All designated Parkway areas and facilities should be appropriately signed.

3. SARCON forward to the Secretary of the Interior all completed segments of the SART to be designated as a National Recreation Trail including, in cooperation with the U.S. Forest Service (USFS), trail segments in the San Bernardino National Forest.

4. SARCON consider development of an internet-based virtual visitor center that not only instructs the visitor about Parkway opportunities, but encourages actual visitation to the Parkway.

5. Upon updating its General Plan, each county and city land use jurisdiction take actions to incorporate the Parkway Vision, Guiding Principles and Goals, and planning and design guidelines into its General Plan or applicable area plans directly or by reference.

6. SARCON explore opportunities for collaboration with and between agencies in charge of existing and future habitat conservation plans, including the Western Riverside Multiple Species Habitat Conservation Plan, the Upper Santa Ana River Habitat Conservation Plan, and the Upper Santa Ana River Wash Plan.

7. Land stewardship agencies with properties in the Parkway evaluate current plans in light of incorporating the Parkway Vision, Guiding Principles and Goals, and planning and design guidelines and modifying plans and management practices as appropriate.

8. SARCON encourage USFS to continue updating the San Bernardino National Forest Strategy with inclusion of the Santa Ana River Parkway.

9. County and city agencies that prepare area plans that incorporate all or a portion of the Parkway ensure that the Parkway is embraced as an integral amenity, with non-motorized access to the Parkway and the SART provided from adjacent development areas, and park and habitat setbacks provided to expand the natural values of the river corridor.

10. SARCON and collaborating agencies monitor proposed development, including General Plan amendments and zoning changes, and/or subdivision of properties within the Parkway corridor for proposed trail routes or park and open space projects, and work with property owners and/or their representatives to ensure Parkway planning and design guidelines are incorporated.

11. SARCON work with the Santa Ana Watershed Project Authority (SAWPA) agencies to integrate Santa Ana River Parkway guiding principles and goals into the evaluation criteria from One Water One Watershed (OWOW) Integrated Regional Water Management Plan, particularly those related to expansion and connectivity of wildlife habitat and public access to and through the Parkway for education and recreation purposes. Consider specifically upland buffers and habitat linkages. Further guidance for buffers is provided in Chapter 8, Design Guidelines.

12. Each county and city land use jurisdiction as well as land stewardship agencies identify regional (Parkway-wide) opportunities associated with their Parkway assets, as well as opportunities for adjacent land uses to connect to or embrace the Parkway’s character. Further guidance for adjacent land uses, including development within the Parkway, is provided in Chapter 8, Design Guidelines.

Expanding the Parkway

One of the main pillars of the Parkway is conserving and expanding viable open space along the river that supports quality transportation, recreation, and outdoor education experiences. In addition, the Parkway can be expanded by strengthening connections between the River and surrounding land uses and destinations. Planning guidelines for expanding public ownership of Parkway open space are provided below, followed by guidelines for allowing the Parkway to extend into the other land uses.

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Planning Guidelines (Acquisitions and Easements of Open Space)

It is recommended that:

3. Counties, cities, and land stewardship agencies utilize land purchases, easements, or other mutually satisfactory arrangements to expand the Parkway on existing undeveloped or generally open lands within the 0.5-mile Parkway corridor. Potential and planned acquisitions be evaluated for suitability to serve multiple benefits (using the Parcel Prioritization Matrix), potential to contribute to a continuous wildlife corridor along the river or natural resource conservation areas, and potential to support recreation, education, and access.

4. SARCON and collaborating agencies work with gravel mining companies to acquire high priority properties after they have been mined, and promote reclamation plans that enhance and complement Parkway goals.

5. Counties, cities, and land stewardship agencies developing trail segments acquire entire natural corridors where possible to preserve both riverine and upland habitats. In places where a natural corridor does not exist, acquire a right-of-way wide enough to provide a buffer between the trail and existing or future adjacent development. A minimum width of 300 feet is desirable.

6. Counties, cities, and land stewardship agencies establish long-term agreements, where applicable, for trail rights-of-way on public agency and private lands. Trails which receive National status must have a ten-year minimum term. Agreements and permits to consider the following:
   - Avoid revocable permits. Where this is not possible, the right to revoke the permit should be available to both parties, upon sixty (60) days written notice. Renewal procedures should be specified.
   - Consider having the managing agency assume responsibility for liability resulting from trail activity and use. Agreements should contain minimal restrictions regarding design, construction, and operation of the trail. Reasonable restrictive requirements may include installation of gates, fencing, landscaping, signs, and other minor construction specifications.
   - Specific right-of-way requirements vary with the type of trail and the topography. Generally, if the public property is a linear space such as the river, an agreement covering the full corridor width is preferred. If the trail is across open land, a route must be defined, and may be simply a location attached to the agreement. In the latter case, provisions for necessary minor trail rerouting must be included within the agreement.

7. Counties, cities, and land stewardship agencies consider fee ownership when establishing rights-of-way. Fee simple is the most desirable form of title for acquisition from private owners, and allows management operating flexibility which may not be guaranteed in easements.

8. SARCON encourage donations of rights-of-way or parcels that have been identified as highly suitable for meeting Parkway goals. Counties and cities accept usable trail rights-of-way that are part of the SART or Parkway created by park dedication ordinances and by conditions placed on development.

Planning Guidelines (Connecting and Incorporating the Parkway into other Land Uses)

It is recommended that:

1. Agencies prioritize the use of the river corridor for Parkway-related uses and require any new developments that are not Parkway related to be set back from and not impact the river corridor and comply with design guidelines in Chapter 8, Design Guidelines, to the extent feasible. The designated SART route be incorporated into riverside projects and provide clear and continuous transitions to adjacent developments.

2. Cities establish at least one “Tributary Trail” that links downtown areas or other significant city hubs directly to the River via Class I or Class IV bicycle facilities to facilitate cognitive awareness of access to the river. Refer to Chapter 8, Design Guidelines, for additional guidance.

3. Counties and cities connect the Parkway with the local park and open space system, public buildings, shopping districts, and other public spaces through a network of trails.

4. Agencies encourage development in lands adjacent to the Parkway be oriented to emphasize river views and provide physical connections to the river at every opportunity.

5. Agencies plan public access areas and improvements to take advantage of views and landmarks (such as riparian forests and bridges).
Protecting and Enhancing Resources

Protection and enhancement of habitat and wildlife, as well as water-related resources including the floodplain and hydrological function, is central to the Parkway Vision and goals. It is important that all Parkway improvements, including those with public access features, consider implications to resources and opportunities for resource enhancement and protection. The guidelines below are intended for public lands, with the exception of Planning Guideline #4 which focuses on private land.

Planning Guidelines

It is recommended that:

1. SARCON and collaborating agencies work with wildlife agencies to enhance and protect Parkway habitat.

2. Agencies and land stewardship organizations adopt policies or guidelines to limit public access within designated wildlife corridors and sensitive habitat areas.

3. Agencies and land stewardship organizations locate public access features including trails, staging areas, and Parkway Use Areas to recognize the resources and hazards of the areas in which they are located, and to be protective of sensitive habitat areas such as wetlands, riparian, and upland foraging and nesting areas where sensitive species may be adversely affected.

4. SARCON and agency collaborators encourage conservation of habitat on private lands in the Parkway, especially habitat that is contiguous with undeveloped land adjacent to the river or its floodplain.

5. Agencies and land stewardship organizations conserve, enhance, restore and maintain contiguous and continuous native riparian, wetland and upland habitat on public lands and conservation easements for wildlife movement and refuge.

6. Agencies protect the river’s water quality through appropriate management of surface water runoff in the Parkway.

7. SARCON and its agency collaborators develop the Parkway in a manner that will not interfere with the river’s floodwater conveyance capacity and maintain a natural river-bottom condition, wherever possible.

8. Agencies and land stewardship organizations use native plants that provide habitat for wildlife wherever possible and appropriate, and should control and remove exotic plant species from the Parkway as feasible, including in the river channel, where they threaten to displace native plant species or disrupt natural plant community structure. Further employ measures that will discourage repopulation of exotic plant species and establish management practices to control the introduction of exotic plant species.

9. SARCON and its agency collaborators encourage the preservation of agriculture as productive open space in the Parkway.

10. Agencies and land stewardship organizations manage and protect the Parkway’s cultural resources by avoiding or minimizing impacts to these resources while encouraging educational use wherever possible.

11. SARCON and its agency collaborators incorporate climate adaptation and carbon sequestration strategies in Parkway projects, and utilize opportunities to improve regional air quality and reduce the potential for Parkway projects to contribute to air pollution.
Providing Equitable Public Access, Recreation, and Education

Planning guidelines included in this section specifically address the Guiding Principle for Education, Recreation, and Access: "The river corridor is a resource that should provide equitable recreational, educational, and health benefits to all residents and visitors along its length and inspire sustained stewardship of the resource."

Planning Guidelines

It is recommended that:

1. Agencies and organizations ensure that design of new projects as well as improvements to existing projects use the design guidelines for Parkway Use Areas, to the extent feasible. Further guidance provided in Chapter 8, Design Guidelines

2. SARCON and collaborating agencies and organizations ensure access for all segments of the population and for all residents of the region, in metropolitan and outlying areas.

3. SARCON and collaborating agencies and organizations locate access and recreation projects in areas where they best address gaps in river or park access, particularly in disadvantaged communities.

4. SARCON and collaborating agencies and organizations establish safe river access and high quality recreation areas and facilities to meet diverse recreational and environmental educational needs while conserving natural and cultural resources.

5. SARCON and collaborating agencies and organizations provide a range of recreational and educational opportunities, considering distribution of each amenity type along the Parkway. Public access development, including signage and access improvements, will comply with all requirements of the Americans with Disabilities Act (ADA).

6. Agencies and land stewardship organizations collaborate to create a series of side and connecting trails off the main stem SART to bring residents and workers from both sides of the river to the main stem SART, bring visitors to the river at selected points, provide loop trail experiences, connect to other tributary greenways or city trail systems, and encourage use of the SART as an active transportation resource.

7. SARCON and collaborating agencies and organizations coordinate Parkway public access with regional park and open space agencies and local municipalities to provide for connections to trail and public use areas that may be planned for the future.

8. SARCON and collaborating agencies and organizations provide drinking water in Parkway recreation areas where a community water system connection is available. If feasible, build, operate, and monitor new public drinking water systems in compliance with state and local laws and regulations.

9. Counties and cities explore opportunities to provide public access points where public roads and the Parkway meet, especially where adjacent Parkway parcels are identified as having high suitability for access projects by the Parcel Prioritization Matrix.

10. Counties and cities include a Class 1 Bikeway for trail interconnectivity to and along the Parkway in all new and expanded roadway bridge crossings of the Santa Ana River.

11. SARCON and collaborating agencies and organizations ensure that educational opportunities highlight river history, ecology, water resources, and the Santa Ana River Conservancy Program.

12. SARCON and collaborating agencies and organizations publish and periodically update maps and guides to existing public trails and pathways.

13. SARCON and collaborating agencies and organizations ensure that a range of user capabilities and needs (including persons with physical limitations) is provided for along Parkway trails and within Parkway Use Areas, in a manner consistent with federal and state regulations.

14. Counties, cities and other land stewardship organizations should reference design guidelines provided in Chapter 8, Design Guidelines, when upgrading or adding new Parkway Use Areas, access features, or connector trails to the SART system.
Managing, Operating, and Maintaining the Parkway

Parkway Use Areas and trails serve as public amenities where managed and used properly. Parkway operations, maintenance and management resources must be developed and sustained. A secure and safe parkway experience is dependent on the level of service related to operations, maintenance, and management (O&M) of the Parkway. Given the diversity of resources along the Santa Ana River, the operations and maintenance of the parkway will logically be dispersed between agencies as it has been up to now. As the Parkway expands and as public trail use increases, the challenge of patrolling and maintaining the Parkway will also increase, perhaps faster than the resources of the public parks and open space agencies responsible for them. To help assure that facilities remain usable and safe, public agencies may need to rely more on individual volunteers as well as nonprofit organizations (including trail user groups) for assistance.

Planning Guidelines

It is recommended that:

1. SARCON and collaborating agencies and organizations build from the 2008 Santa Ana River Parkway Minimum Maintenance Guidelines (provided in Appendix E) to develop long-term strategies for operating and maintaining the Parkway through cooperative projects, public and political support, stewardship agreements and leases, and other opportunities.

2. Counties and cities identify adequate long term O&M resources before authorizing a project for construction.

3. The SARCON PAG and collaborating entities consider developing a Parkway Monitoring and Management Program to monitor SART and other Parkway-related facilities and for regular maintenance and repair of such features, and to assist managing agencies in determining whether management programs are effective and recommend changes if necessary.

4. Agencies ensure that trails and Parkway Use Areas are clearly signed, provide trail users and visitors with information regarding property rights and rules in order to minimize public/private use conflicts and trespassing, and ensure that signage identifies managing agencies and provide contacts for maintenance and/or emergencies.

5. Managing agencies cooperate with enforcement agencies to provide for public health and safety in the Parkway, and should consider guidance offered in the Disadvantaged Community Involvement Program funded by 2014 Prop 1 Water Bond when addressing issues related to the homeless population.

6. Managing agencies close to the public any lands or facilities which managers/owners are unable to maintain in a clean and safe manner and to adequately protect the wildlife and rights of adjacent property owners.

7. SARCON and collaborating agencies and organizations work with interested groups (including but not limited to: affected landowner groups; trail interest groups; and organizations representing persons with disabilities) to develop recommendations for specific design and management plans of trails and Parkway Use Areas that are consistent with federal, state, and local design and management regulations, and reflective of environmental and safety constraints, community needs, and the needs of the various user groups.

8. Land managing agencies consider employing volunteer groups, “Adopt a Trail” or “Adopt a Parkway Project” programs, contracted labor such as the California Conservation Corps, and public awareness programs to provide trail O&M support services ranging from “Parkway watch” and cleanup activities to annual maintenance and construction. To establish new groups, agencies may offer information and technical services to neighborhoods and commercial developments surrounding the Parkway on how to establish “Adopt a Trail” groups.

9. The SARCON PAG and collaborating entities establish a model commercial use ordinance for the Parkway and encourage potential adoption and use by local agencies. There are numerous ways the Parkway could be used commercially. Examples include providing Parkway-related goods and services (such as a campground; bicycle rentals, and the like), or providing a setting location for the filming and advertising industries, or potentially providing a location for professional dog walkers. All such activities would be subject to local land use and regulatory permits. It is recommended that SARCON initiate a long-term maintenance and operations plan to facilitate collaboration amongst jurisdictions, and to work towards the establishment of consistent rules and regulations for Parkway uses.
8.0 Design Principles and Guidelines
"I look forward to the day when I can get on my bike and ride along the Santa Ana River with my daughters all the way from Riverside to the beach or to the mountains without worrying about conflicts with cars. The Santa Ana River Trail, once completed, will set Riverside apart from other cities and regions as we continue to invest in being more fit, fresh and fun as a community."

Rusty Bailey
Mayor City of Riverside
These design principles and guidelines provide a set of considerations aimed at developing the Santa Ana River Parkway (Parkway) while providing for the protection of Parkway resources, enhancement of adjacent developments, Parkway visitor enjoyment, regional livability, and local economic prosperity.

These design principles and guidelines have been developed for use by public agencies, private developers, design professionals, and the interested public. They are to be used only in combination with other approved plans. Examples include: habitat conservation plans such as the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP); San Bernardino National Forest Land Management Plan; State Park General Plans; the California Department of Transportation’s standards and additional guidelines contained in the Highway Design Manual (HDM) for bikeways, as well as other national, state, regional and local municipality guidelines. There are many unique conditions along the Parkway corridor that will require departure from these guidelines. As such, these guidelines are not intended to constrain inspiration when an opportunity exists for a design that is visionary.

The design guidelines include the following topics: Parkway design principles; branding and signage; Parkway Protected Areas; Parkway Use Areas and adjacent land uses; and trails. Parkway Use Areas are accessible to people for recreation and educational use. Parkway Protected Areas are those areas that primarily function as habitat or water management areas. Access in these areas is limited to viewing areas or perimeter trails. As discussed in Chapter 7, Planning Guidelines, and Chapter 9, Implementation, it is recommended that Parkway use areas and protected areas, as well as components of the Parkway Trail System, be designated through a voluntary program. However, design guidelines presented in this chapter could be applied to all projects within the Parkway regardless of official designation. Guidelines developed by the Santa Ana River Conservancy (SARCON) Technical Advisory Committee (TAC) for signage, public art, and maintenance between 2008 and 2011 informed the development of these guidelines, and are provided for reference in Appendix E.

**PARKWAY DESIGN PRINCIPLES**

The Parkway design principles are broad recommendations to consider for all appropriate projects. The principles provide a structure and direction that will help ensure that all built projects contribute to the Parkway Vision. Principles include: Create Multi-benefit Projects; Embrace the Parkway’s Natural and Cultural Character; and Embed Sustainability and Safety.

**Create Multi-Benefit Projects**

Parkway projects are encouraged to provide design elements that include habitat, water, education, recreation, access and scenic benefits, and to nourish the synergistic relationships between resource protection and public access. For instance, the health and vitality of Parkway habitats and the flora and fauna that frequent them. It is recommended that every access project include resource enhancement and protection. Resource-based projects can be designed to offer educational elements or scenic benefits where it is feasible to do so without harming the resource.

**Embrace the Parkway’s Natural and Cultural Character**

Parkway Use Areas are most enjoyed when they are designed and built to encourage diverse, river-related activities. The varied conditions of the Parkway and each site’s historical, cultural and natural attributes provide opportunities for creating projects with a “sense of place” and a unique identity. This can vary widely as the Parkway’s settings range broadly from wilderness areas, to open space areas, to highly developed urban settings.

Public access development along the Santa Ana River Parkway can take maximum advantage of the attractive setting that the river provides, working with the natural characteristics rather than competing with them. For instance, a site’s historical or cultural attributes could form central themes for Parkway facilities and the site’s visual character. The design character of Parkway spaces can also relate to the scale and intensity of the surrounding area. For example, projects in urban areas may include a complex and dynamic riverside experience. Conversely, in a more rural setting, the serene visual quality of the river can be preserved and maintained by focusing on the site’s natural characteristics.

Some existing river floodplain and adjacent upland uses, such as parking lots and industrial structures, neither visually complement the river’s resources nor lend themselves to a riverside setting. Over time, opportunities will be presented where existing inappropriate uses will be phased out or upgraded by normal market forces, public action or a combination of the two.
Embed Sustainability and Safety

New facilities within the Parkway are encouraged to incorporate sustainable design principles which reduce energy consumption and decrease long-term maintenance costs. These include but are not limited to the Santa Ana River Trail (SART), access points, restrooms, picnic shelters, concession buildings, and interpretive/nature/visitor centers.

A safe visitor experience is a function of levels of use, overall visibility, and the presence of maintained facilities. Safety should always be a consideration in the design of Parkway and SART projects. A well-designed Parkway Use Area or portion of the SART is a safe environment that minimizes conflicts between SART and Parkway visitors and between other nearby activities and SART and Parkway visitors. At the same time, well-designed use areas and trail systems encourage use, improve the user experience, and reduce the managing agency’s liabilities.

DESIGN GUIDELINES FOR SIGNS, WAYFINDING, AND BRANDING

Generally, use of signs is discouraged except for management purposes. Signage should comply with all requirements of the Americans with Disabilities Act (ADA). It is recommended that general advertising signage in public access areas be avoided except for identification signage such as Parkway and Trail logo signage. The length of the Parkway and diversity of environments through which it weaves make it a spectacular resource, as well as a challenge to mark. With this in mind:

- The Parkway and Trail logo should be easy for anyone to recognize from near (small signs) or far (large signs).

- Recognition of the Parkway and SART is critical: to inform users that they have arrived at the Parkway; to direct users along the SART; and in some cases, to inform users that they are in the Parkway along the SART and have not made a wrong turn.

The Parkway and Trail logo identifies trails within the Parkway SART system as distinct from other facilities. As an icon, the logo sign may be used for both identification and directional purposes. Each type of Parkway project including Protected Areas, Use Areas, SART connector trails, and the designated SART trail can have a unique logo identifying project type, yet all include the Parkway and Trail logo as shown in Figure 8-1. These logos can be used in conjunction with other directional, management, prohibition, and warning signs of the managing agency. The logo can be used within designated Parkway facilities, including the SART trail system. It is recommended that signs outside of designated Parkway use areas spell out “Santa Ana River Parkway and Trail” instead of using the logo.

It is recommended that the size of a Parkway and Trail logo sign be based on the scale of the surrounding environment and infrastructure as well as the user group.

Logo Signs

There are three standard sizes of SART logo signs. The standard sizes and recommended use are described below.

- **Large Parkway and Trail logo signs (18” x 18”):** use within the user’s view at the entrance to a Parkway Use Area or SART trailhead, and where a large visible sign is needed to identify the SART crossing a street. This size of logo sign is useful to both trail users and passing motorists.

- **Medium Parkway and Trail logo signs (12” x 12”):** use along entrances to designated Parkway Use Areas, along the SART and at its intersection with other trails, on long trail stretches without intersections, and along urban streets where the SART consists Class II bike lanes or a Class IV separated bikeway.

- **Small Parkway and Trail logo signs (3” x 3”):** use in designated Parkway Use Area settings and also along the SART or other Parkway trails, in combination with mileage markers (see below), or when either: the pedestrian portion of the SART is adjacent to separated bikeways or Class II bike lanes; the equestrian portion of the SART is separated from the bikeway; or there are long segments of SART that run on or parallel to city streets where there are many intersections.

Using the Parkway and Trail logo as a painted pavement marking is discouraged unless long-term maintenance can be assured. Large logos made of a durable material and embedded in trail pavement could be a viable alternative to pavement logo paintings. Materials could include cast iron, stamped or etched concrete, or tile mosaic where appropriate.
Figure 8-1 Parkway and Trail Logos
Clockwise from upper left: SART logo, protected area logo, use area logo, connector trail logo, and yield / trail courtesy with logo
Prohibition, Regulatory and Warning Signage
For prohibition, regulatory, and warning signs related to bicycle trails, reference the *California Manual on Uniform Traffic Control Devices* (California MUTCD). Typical shared-use trail warning signs are shown in Figure 8-2.

Location Maps
Reminding Parkway users where they are and illustrating other Parkway use opportunities provides both a sense of security and exploration. Consider locating Parkway maps at:

- Intersections with other local and regional trails and bikeways.
- Parkway end points and key entries to cities and communities.
- Staging and major rest areas.
- Significant interpretative features (as needed).
- Where visitors can safely pull off the SART to access and read the map.

Directional Signs
Along the SART, the logo sign could be complemented with arrows in advance of a trail intersection to indicate the direction of the SART.

Mileage Markers
The goal is that there will eventually be one main stem of the SART extending the length of the Santa Ana River. It is recommended that one of the above SART signs be located at appropriate intervals to reassure trail users they are still on the SART. There are many trail users and events where mileage is an important aspect of trail use. All SART users would benefit from mileage markers along the SART main stem. Mileage markers can be located starting at the Pacific Ocean (0.0) moving upstream at 0.5-mile intervals. Because some segments of the SART are yet to be completed, the marker system can only be expanded when a completed segment links to the continuous trail leading to the ocean.
Pavement Markings

Common pavement markings stenciled on the trail and used to direct and manage use along the SART shall include:

- Solid yellow center lines to separate directions of travel and indicate no passing by trail users. A solid center line is commonly used in heavily travelled sections of trail or around blind turns.
- Striped yellow center line to separate directions of travel along heavily used sections of trail where view lines allow safe passing.
- Solid yellow markings to inform the trail user of obstructions within the trail.
- Solid white lines to separate users into individual lanes, delineate the edge of the trail, and inform trail users of obstructions on the shoulder.
- White symbols and arrows for bicyclists and pedestrians that are stenciled on the trail to indicate individual lanes and direction of travel.
- White railroad crossing, road crossing, stop, or yield markings.
- Multiple colors and patterns at crosswalks (Figure 8-3).

Management Area Closure Signs

Public access to some areas may be required to be restricted permanently or seasonally near sensitive resource areas, some mitigation areas, or highly secure areas. In any closure circumstance, signs can be posted at regular intervals along perimeter posts or fencing stating that the area is closed to public use. In instances where area closures are related to wildlife habitat or other cultural consideration suitable for interpretation, signs can be used to provide a brief explanation to educate the public about such closures. See also Figure 8.1.
DESIGN GUIDELINES FOR PARKWAY PROTECTED AREAS

Parkway protected areas may include habitat areas for protected species, water recharge areas, or other land uses within the Parkway corridor where public access is excluded. There are many areas along the Santa Ana River where conditions are such that public access can be designed to retain habitat vitality and provide a quality Parkway experience.

Habitat Areas

In many locations along the river, the Parkway’s water, riparian zones, floodplain, and upland habitats are vital to wildlife. Access to some wildlife areas allows visitors to discover, experience and appreciate the river’s natural resources and can foster public support for river resource protection. However, in some cases, public access may have adverse effects on wildlife (including flushing, increased stress, interrupted foraging or nest abandonment), and may result in adverse long-term population and species effects. The type and severity of effects, if any, on wildlife depend on many factors, including site planning, the type and number of species present and the intensity and nature of the human activity. General guidelines include:

6. Prepare a site analysis to generate information on wildlife species and habitats existing at the site and the likely human use of the site.
7. Employ appropriate siting, design and management strategies (such as buffers or use restrictions) to reduce or prevent adverse human and wildlife interactions.
8. Plan public access in a way that balances the needs of wildlife and people on an area wide scale, where possible.

9. Provide visitors with diverse and satisfying public access opportunities to focus activities in designated areas and avoid habitat fragmentation, vegetation trampling and erosion.
10. Evaluate wildlife predator access and control in site design.
11. Retain existing wetland and riparian plant associations and restor or enhance wildlife habitat, wherever possible.
12. Use levees, habitat access control fencing, vegetation, existing moats and wetlands, and/or open space buffers to separate the Parkway visitor from habitat areas. Wildlife-friendly fencing should comply with all regulatory standards, and include an adequate height at the base to allow wildlife movement underneath. It is recommended that fencing be set back from the trail and located at a lower elevation to allow users to experience unobstructed distant views to the natural backdrop.

Land Uses Closed to the General Public

Parkway Use Areas and the SART may pass through or be adjacent to any number of land uses that are considered security risks by the managing agency, including national security risks that are governed by standards and guidelines of the U.S. Department of Homeland Security. Site plans and trail designs should create a positive user experience that does not include undue visual barriers for the users while maintaining security and privacy for the adjacent land use. Typical provisions involve assuring that all Parkway visitors stay in designated use areas or on trails and that the adjacent lands are secure from physical entry, visual intrusions, and protected from objects that may be tossed from use areas or trails. Typical design features may include providing any or all of the following:

- **Setbacks**: Sufficient horizontal distance between the use area or trail and the secure area so that an object could not enter the secure area.
- **Fencing**: High-security fencing, where required, that is visually pleasing.
- **Visual Barriers**: Screening with fencing systems, walls, or vegetation.
- **Lighting**: Full use area, trail and adjacent area lighting.
- **Camera Surveillance**: 24-hour and full coverage video systems tied either to police departments or the adjacent property owners’ security systems.
- **Anti-Graffiti**: Using materials, including plants, to discourage graffiti.

DESIGN GUIDELINES FOR PARKWAY USE AREAS AND ADJACENT LAND USES

Parkway Use Areas are those areas that are accessible to people for recreation and educational use. Public access to and along the Santa Ana River and its surrounding riparian corridor is an integral component of the Parkway for uses such as fishing, swimming, water play, boating, picnicking, and nature education. Parkway Use Areas may include regional or local staging areas and related facilities. In more urban areas of the Parkway, use areas may include plazas and promenades, multi-use areas for any number of recreation activities, open-air festival or event spaces, or public spaces related to commercial development.
General Guidelines for All Use Areas

1. Embrace the scenic benefits of the Parkway by locating project features such that they enhance and dramatize views of the river corridor from public thoroughfares and other public spaces, organizing adjacent development to allow river views and access between buildings, and designing observation towers, bridges or other structures as landmarks that suggest the location of the river, even when the river itself is not visible.

2. Conduct a site analysis prior to developing schematic designs to fully understand opportunities, including those for maximizing the public’s physical and visual access to the Parkway.

3. Design public access improvements for a wide range of users. While some river areas are best suited for quiet and contemplative public spaces, others lend themselves to use for large public gatherings, such as festivals, outdoor markets or exhibits. In remote natural locations, simple trail systems may be all that is needed.

4. Design use areas in a manner that feels public and inviting. This can be accomplished by incorporating the SART as a primary design element, providing public amenities and furnishings, creating clear delineations between public areas and private development or protected areas.

5. Incorporate accessibility improvements in compliance with the Americans with Disabilities Act (ADA) into all Parkway facilities and use areas. For additional information, refer to the U.S. Access Board’s Design Guidelines (www.accessboard.gov) and the California Building Code.

6. Use local public street networks to inform Parkway site design and to extend the public realm to the river. Consider providing connections perpendicular to the river at regular intervals (city block length or less) to maximize the opportunities for accessing and viewing the river.

7. Consider the following energy saving measures where possible, including:
   • LEED building certification based on the current U.S. Green Building Council certification criteria at the time of design.
   • Compliance with the latest California Energy Commission building standards.
   • Solar orientation, use of solar panels, employment of passive solar designs with a surrounding vegetation design not blocking solar access.
   • Use of Energy Star roofs to exceed Title 24 requirements where possible.
   • For non-roof surfaces, provide shade, light-colored/high-albedo materials, and open grid pervious pavement where possible.
   • Use of recycled building and facility materials where possible.

8. Consider the following to create public access spaces that are safe and secure:
   • Providing an adequate buffer to create a safe and positive user experience that considers design elements of sights, sounds and fresh air.
   • Designing facilities and the SART to accommodate expected future levels and types of use.
   • Developing areas and trails with open sight lines.

9. Consider the following guidelines for surface water management within the Parkway. (For more information, refer to the design guidelines provided by the Santa Ana Regional Water Quality Control Board (http://www.waterboards.ca.gov/santaana/).
   • Protecting the Santa Ana River’s water quality through surface water treatment using practical techniques such as infiltration devices, drainage swales and retention areas.
   • Reducing urban runoff and non-point source pollution by minimizing impervious areas that are directly connected to a storm drain system. Direct runoff from the site’s impervious areas to pervious areas and/or small swales in parking lots and landscaping.
   • Considering the potential aesthetic qualities of surface water systems.

10. Consider the following measures for floodplain erosion control:
    • Selecting the type of protective structures used for erosion control that are appropriate for the project site and its erosion conditions.
• Employing knowledgeable engineering professionals to participate in the design of erosion control projects.

• Where wetland or riparian establishment has a reasonable chance of success, designing protective measures to include provisions for non-structural methods, such as establishing transitional upland vegetation as part of the protective structure.

• In lower energy flood environments, using vegetated gabions or other shoreline protection devices that allow plant growth.

• Reconnecting or maintaining the floodplain where practicable.

11. Consider the following measures for planting within the Parkway:

• Use native and drought tolerant plants in landscaping where possible to connect to the Parkways natural aesthetic, enhance Parkway habitat, and contribute to sustainable projects.

• Controlling landscaping to preserve and dramatize river views.

• Providing shade.

• Providing a hierarchy of plant types and sizes within a project that relates to the river, public spaces and adjacent developments.

• In limited locations, and only when necessary, screening vegetation strategically placed to physically separate the Parkway visitor from selected high value river corridor habitats while still allowing views to the surrounding mountains and ridgelines. Vegetation can provide a physical barrier to keep Parkway users out of sensitive areas, provide a “natural” barrier that also enhances native plant communities, help control erosion, and provide additional wildlife habitat/wildlife cover.

Parkway Staging Areas

It is recommended that new staging areas are located for access from existing public roads or easements and include the following features:

- Identity, regulatory, and wayfinding signs.
- Universal access information for trails (information on grade, cross slope, width, surface, length).
- Parking areas with designated ADA-accessible parking spaces and bicycle parking.
- Restrooms (if not located within the 100-year floodplain).
- Drinking water (if available).
- Water trough and hitching posts when developed for equestrians.
- Outdoor seating oriented to the river.
- Shade for both parking and use areas.

It is encouraged that all parking areas be designed for efficient circulation and to maximize permeable surfaces. The surface for parking areas should be compatible with anticipated use. Parking areas that receive heavy and regular use can be paved with asphalt or porous paving systems. For parking areas that experience lighter use, unpaved surfaces with road base material may be appropriate. Overflow parking areas for special event parking can be unpaved or planted with low growing grasses that help meet guidelines for non-point source pollution control.

Parking areas should all be designed to comply with the appropriate California Regional Water Quality Control Board (RWQCB) Stormwater National Pollutant Discharge Elimination System (NPDES) Permit post-construction requirements and promote on-site surface water treatment and detention and emphasize infiltration, water harvesting and re-use. In addition to utilizing permeable surfaces that allow for infiltration, the use of swales and other surface water best management practices can be used. Swales typically have flat bottoms at least 18 inches wide, utilize rock cobble at points of concentrated flow, and are vegetated with native plants.

Other Parkway Use Areas

Parkway Use Areas are most enjoyed when they are designed and built to encourage diverse, river-related activities. Parkway Use Areas may include state, regional, or local parks whose environment includes, but is not limited to the Santa Ana River. They may be public spaces specifically only supporting the Parkway. They may be urban promenades or commercial areas adjacent to the river.

The varied conditions of the Parkway and each site’s historical, cultural and natural attributes provide opportunities for creating projects with a “sense of place” and a unique identity. In order to accomplish this, the following considerations apply:

- Designing public access improvements for a wide range of users. While some river areas are best suited for quiet and contemplative public spaces, others lend themselves to be used for large public gatherings, such as festivals, outdoor markets or exhibits. In remote natural locations, simple trail systems may be all that is needed. Within every project, public access should be designed to respect all visitors’ experiences of the river corridor. It is recommended that highly active uses be located away from the river floodplain and always be balanced with opportunities for passive activities, such as strolling, viewing and relaxing.
- Taking advantage of existing site characteristics and opportunities, such as fishing, viewing, picnicking, swimming or boating.
- Providing opportunities to get close to the river.
- Maximizing user comfort by designing for the weather and day and night use. Buildings and structures can be sited to create “suntraps” with protection from prevailing winds. Shade structures provide protection from the sun.
- Providing children’s play opportunities that have an artistic theme or an educational function.
- Incorporating accessibility improvements into public access areas. For additional information, refer to the U.S. Access Board’s Design Guidelines (www.access-board.gov) and the California Building Code.
- Designing public access spaces that are safe and secure.
- Providing interpretation of historical, cultural or natural attributes of the site.
- Providing public parking for convenient access to the Santa Ana River.
- Providing basic public amenities, such as trails, benches, play opportunities, trash containers, drinking fountains, lighting and restrooms that are designed for different ages, interests and physical abilities.

### Campgrounds and Overnight Accommodations

Camping opportunities along or near the Parkway exist at:

- Rancho Jurupa Park: located along the SART and roughly at the center point of the SART.
- Prado Regional Park: located approximately 4.0 miles from the SART.
- Chino Hills State Park: located approximately 3.5 miles from the SART.
- Featherly Regional Park: privately operated and located along the SART with cabins available.

Consider additional campgrounds or other overnight accommodations as they relate to the SART long-distance user. For bicyclists traversing the SART in two days (downstream), Rancho Jurupa Park is ideally located. To accommodate all long-distance SART users, it is recommended that overnight campgrounds or accommodations be made available at 10-mile intervals.

### Educational Facilities

The Parkway visitor should be provided with educational elements that add interest to the river and create a varied and rich river experience that:

- Increases visitors’ knowledge regarding wildlife and the implications of users’ actions.
- Fosters public support for habitat conservation and enhancement programs.
- Educates the visitor about the natural and cultural resources of the river.

### Educational and Interpretive Signage/Elements

Interpretive signs should be located at staging areas, and at transition points where a SART system trail-nears or is adjacent to sensitive habitat areas that:

- Provides interactive or kinetic site elements allowing people to more fully experience natural, cultural or historical features of the site and the Santa Ana River.
- Provides educational enrichment through identification of unique natural features and historical or cultural attributes.
- Provides public art that complements the river setting, adds visual interest to the SART trail system and provides visitors with a sense of discovery.

### Observation Points

At strategic locations, observation points throughout the Parkway and along the SART should be provided to direct use, allow desired visual access, and limit direct proximity to wildlife. Observation points help provide predictability of human use, increasing the ability of wildlife to adapt to human activity. The observation points should accommodate both the individual trail user and small groups. They may include interpretive panels to educate the user and provide telescopes that will allow views and further discourage access into the habitat area.

### Outdoor Gathering Places and Classrooms

In order to effectively build a sense of stewardship for the Parkway, each use area should consider developing an outdoor space or sequence of spaces that can be used for small groups of 20 to 30 at one time. These places could be associated with a staging area, riverside park, or visitor center that also provides drinking water, restroom facilities, and seating. These
places may be open areas with minimal facilities that are strategically located with physical or visual access to unique habitats or cultural resources along the Parkway.

Visitor Centers
In order to build awareness and understanding of the Parkway’s outdoor recreation and educational opportunities, facilities should be provided for visitors to obtain an overview of the Parkway. This could be accomplished through a single Parkway-wide visitor center or a series of smaller centers that focus on individual segments of the Parkway. In either case, visitor centers would ideally be located in highly accessible locations such as near major freeway intersections.

Parkway and Trail Amenities
Specifying trail amenities involves consideration of the site’s characteristics, the managing agency’s overall design guidelines, and anticipated levels of use.

Seating
- Assure trail seating is accessible and outside the clear space of the SART and other trails.
- Orient seating toward river views or vistas of opposite banks or landmarks, such as bridges or towers.
- Provide elevated overlook places to sit away from the trail for viewing the Parkway where possible.
- Provide various seating choices. In addition to fixed benches with and without backs, some seating could be in the form of chairs, picnic tables, retaining walls, planter seats, grass berms, or steps.
- Locate seating at regular intervals along the trail based on the surrounding environment, land uses, and level of use.
- Provide shade, or place seating where shade is available.
- Provide picnic tables for families or small groups where possible.

Bicycle Parking/Racks
- There are opportunities to provide bicycle parking at major facilities within the Parkway, at key entrance points, and in parking areas. Anticipate the need for bicycle racks or other storage devices particularly where the SART and other bicycle trails are associated with parks, other transit facilities or visitor-serving destination points.
- Bicycle racks typically include galvanized steel U-racks, or racks with similar design, with metal or painted finish. If paint is necessary, racks can be painted with neutral tones.
- Assure bicycles attached to bicycle racks are located outside the clear space of the trails.

Drinking Fountains
- Provide a source of drinking water at a minimum of 2-mile intervals along the Parkway where possible. This could be through stand-alone drinking fountains or at trailside parks, nearby convenience stores, or other commercial development. Consider placing drinking fountains with a bottle-filler nozzle at regular intervals for SART users with refillable water bottles.

Restrooms
- Provide restrooms at a minimum of 2-mile intervals along the Parkway, where feasible and based on the surrounding environment and level of use.
- Restrooms may be at SART staging areas, along the trail, or associated with restrooms of other riverside uses such as parks, sports fields, or commercial areas.

Other Trail Amenity Considerations
- Other appropriate amenities for trail entrances and Parkway Use Areas include:
  - Trash and recycling containers
  - Pet waste stations
  - Bicycle repair stations
- Consider providing fishing pole holders on bridge railings and fish cleaning stations near water bodies where fishing is an allowed use.

Public Art
Public art may be permanent or temporary fixed installations or it could be a performance. Gateways, interpretive signs, and any number of a variety of architectural features could all be considered art. When developing a public art concept, opportunities for public art to celebrate the natural and cultural character of the Santa Ana River and the Parkway through materials and design, or to contribute to educational programming, should be considered. Guidelines for Public art along the SART and within Parkway Use Areas are as follows:
- Place art in such a manner where it may be enjoyed by all Parkway visitors and normal use of the SART can continue.
- Minimize distractions such as unnatural light and noise that could impact the trail user experience.
- Be consistent with any Public Art Policy adopted by the local jurisdiction.
- Regularly maintain artwork in such a manner that the public may continue to enjoy it for the duration of the installation. Include site clean-up as part of the planning for performance art and other temporary events.

**Adjacent Land Uses**
- Provide “maximum feasible public access” at each Parkway use area or project bordering the Parkway. When possible, developments should maximize views to the river corridor and provide physical access to and along its banks.
- Provide visual interest and architectural variety in massing and height to new buildings along the river’s bank that emphasize a relationship to the river (not away from it). Locate service areas, such as garbage facilities and loading docks, away from the river or screen with suitable fencing or landscaping.
- Use development footprints to create a diversity of public spaces along the river, and articulate riverside building facades with human-scale elements.
- Use forms, materials, colors and textures that are compatible with the river.
- Utilize the urban edge for river-related land uses as much as possible; locate non-complementary uses away from the river so they do not impact the river corridor.
- Improve existing degraded bank edges and substandard flood plain erosion protection as part of new riverside developments.

**DESIGN GUIDELINES FOR TRAILS**

Given the importance of the SART and connecting trails to the Parkway, trail design guidelines are a significant focus of the SARP&OSP. This section provides an overview of the trail design framework, trail terminology, and trail design principles. Detailed trail design guidelines addressing trail geometrics, grade separations, street crossings, sustainability, and lighting are provided in Appendix E. Refer to the Design Guidelines for Branding and Signage above for trail signage and markings guidelines.

**Overarching Trail Design Framework**

The trail design framework identifies the key design considerations for the SART and associated trails from within the San Bernardino National Forest, as well as from the San Bernardino National Forest to the Pacific Ocean.

**San Bernardino National Forest**

The portion of the SART within the San Bernardino National Forest encompasses about 30 percent of the entire SART length. This section of the SART will be unpaved. The SART and related system trails on Forest Service land would be designed and maintained based on the following Forest Service Guidelines:

- Forest Service Trail Accessibility Guidelines (USDA 2015 or latest edition).

**San Bernardino National Forest to the Pacific Ocean**

The Design Principles and Guidelines that follow describe and illustrate solutions that represent creative responses and best practices for use by government agencies and developers, as well as their qualified trail design professionals in planning, designing, developing, and upgrading any SART segment below the National Forest boundary. The guidelines are intended as an aid in addressing common design issues that could exist along the SART and many trails that tie into the SART from surrounding cities. Although these guidelines provide examples of design solutions, they are not meant to preclude creativity in design based on individual project site and contextual considerations or as exemplified in other agency or industry standards and guidelines.

The guidelines are to be used in combination with the California Department of Transportation’s standards and additional guidelines contained in the current editions of the following as well as other national, state, regional and local municipality guidelines about shared-use trails:

- California Department of Transportation, *Highway Design Manual (HDM) Chapter 1000*.

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**State Coastal Conservancy**

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Trail Terminology
In the trail design guidelines below, the following terminology applies.

- “Santa Ana River Trail” or “SART” or “Trail” refers to the paved and/or natural surface portion that defines the user’s primary travel space including trail shoulders if present. In cases where the Santa Ana River Trail passes through heavily used areas such as urban parks or plazas, striped pavement edge markings may define the trail. In some cases the SART will be a shared-use trail. In some segments the SART may segregate trail users with two parallel trail routes.
- “Shared-Use Trail” is used to describe the SART where it provides a completely separated right-of-way for exclusive non-motorized use with cross-flow minimized to the extent possible. A shared-use trail is used by people of all shapes, sizes, ages, and abilities. In selected locations a shared-use trail may, by design, include equestrians although nothing in the guidelines precludes equestrians from using any segment of the SART. A shared-use trail may be paved or unpaved depending on the surrounding land use circumstances. A shared-use trail may generally be analogous to the terms “Class I” bike path used in the California Highway Design Manual and the term “Shared-Use Path” used by the American Association of State Highway Transportation Officials.
- “Trail Shoulder” as part of the SART refers to a clear area immediately adjacent to the trail that serves a number of functions including: use for a wide variety of trail-related activities; providing a buffer free of obstructions; and/or being used as a permeable water quality control feature.
- “Riding and Hiking Trail” as part of the SART trail system, is a natural-surfaced trail that would be used by equestrians, hikers, and mountain bicyclists and would typically be in conjunction with either a Class I bicycle path or other bicycle route facilities.
- “Side or Connecting Trail” as part of the SART trail system, is a trail that may be of the same design of the SART, or may be a narrower trail that either provides river access, trail loop opportunities, or access from surrounding communities.
- “Tributary Trail” is a trail that may be of the same design of the SART or may be a Class IV cycle track¹ and sidewalk system that that connects core urban areas with the SART.

Trail Design Principles
Trail design principles that apply to the overall SART trail network include the following, each of which is described below in greater detail.

9. Design Comprehensively and Consider the Overall Trail System
10. Understand SART Trail System Users and Use Dynamics
11. Make the SART Enjoyable and Safe for All User Groups
12. Anticipate Future Use Conditions
13. Assure a Seamless Linear Trail System Experience
14. Provide Access to the River
15. Anticipate Sea Level Rise

Design Comprehensively and Consider the Overall Trail System
Design implies intent, and each segment of the SART involves a wide range of opportunities and constraints requiring careful investigation and thoughtful design decisions. Sometimes trail design choices are clear and straightforward, as when a stream must be crossed and a bridge is needed. Sometimes the choices are more complex. Key design considerations include:

- **Collaboration:** there are numerous local and regional agencies whose individual policies and standards regarding the SART and its setting need to be considered. These will vary from trail segment to trail segment. Communication among involved professionals is paramount to a successful design that can be both permitted and constructed.

- **Width and Sight Lines:** With some exceptions, the SART rarely travels in a straight line. It turns because of topography, to avoid obstacles, or to capture important views of the river. The SART travels up and down slopes, over and under roads, railroads, and side channels, and follows the contours of the river itself. It is recommended that the SART corridor, i.e., the right-of-way around the actual trail, be planned and designed to be wide enough to accommodate the expected future level of use when the SART system is fully completed. (Refer to Figure 8-4).

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¹ A cycle track is defined by the National Association of City Transportation Officials (NACTO) as “an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane.”
- **Surface**: The SART surface will typically be paved outside of the San Bernardino National Forest, but may also include non-paved shoulders for a variety of uses. Within the National Forest and in limited cases in other areas of the Parkway, such as in areas of sensitive habitat or on levees with particular maintenance conditions, the entire trail tread may be composed of stabilized natural materials.

- **Water Quality**: To protect the river, storm water runoff from the trail can be managed with sheet drainage directed to a system of water quality control features or through use of permeable paving materials.

- **Constrained Right-of-Way**: On occasion, the planning and design of the SART involves adapting to existing physical conditions. In these instances, creative solutions are required such as reducing the width of adjacent road travel lanes, eliminating trail shoulders, or adding signage or other measures.

![Figure 8-4 Standard Santa Ana River Trail Width – Shared-Use (Bicyclists and Pedestrians)](image-url)
Understand SART Trail System Users and Use Dynamics

The SART, simply defined, accommodates pedestrian, bicycle, equestrian, and other non-motorized forms of movement. However, SART users cannot be easily characterized as simply bicyclists or pedestrians or equestrians. A goal of the SART is to accommodate and provide access to the largest spectrum of non-motorized users possible.

SART users can be:

- Any age with any level of physical ability.
- Solo travelers, small groups that might be traveling side-by-side, or part of a bicycle club or large group led by a docent or teacher.
- On individual bicycles, tandem bicycles, bicycles with trailers, or tricycles.
- Using skateboards, rollerblades, or non-motorized scooters.
- Carrying nothing or in some cases carrying a variety of equipment such as for picnicking, water play, sunning, observing nature, teaching a class or leading a tour.
- Pushing strollers or pulling wagons with children in them.
- Walking, running, or bicycling with one or more dogs.

SART users can also vary in the speed at which they use the trail. Because of these varied use types and mannerisms, the paramount design consideration related to the SART system trails are the dynamics of shared-use and the quality of the visitor experience. A chief SART design goal is to provide sufficient future capacity, width, line of sight, and in some cases delineating the trail corridor to accommodate this variety of use and help minimize conflicts among uses, as illustrated in Figures 8-5 and 8-6. A critical concept in design of the SART is consideration of its use level when the entire SART system is completed and linked to nearby communities.
Make the SART Enjoyable and Safe for All User Groups

The SART in its entirety, including all associated trail features, should be designed to be usable by as many people and user types as possible. A well-designed trail is a safe trail that minimizes conflicts between trail users and other nearby activities. Accomplishing safe and enjoyable trails for all involves:

- Developing a complete trail along the river that is separate from motor vehicles.
- Designing a trail wide enough to accommodate expected future levels and types of use, and to provide adequate capacity in order to minimize conflicts between trail users.
- Developing the SART for personal safety with open sight lines so that existing and future users can more easily avoid obstructions.
- Specifying trail and shoulder surfaces that accommodate different users such as bicyclists and joggers.
- Avoiding constraining trail conditions or obstructions that reduce the functional width of the trail.
- Providing safety and security lighting to facilitate 24 hours a day, 7 days a week access where appropriate. Commuter routes may benefit from specialized signs and lighting.

Anticipate Future Use Conditions

Since its inception, the SART has drawn a growing number of users each year. With every additional segment of the SART completed, and more direct connections from other bicycle and pedestrian systems being made, more connectivity is created and even more use occurs. The higher the user numbers and the greater the variety in users traveling at different speeds for different purposes, the more the need will increase for designs that expand the capacity and width of the SART. The trail must be designed to accommodate the growing population in the watershed and the expected increased use of the SART system. Anticipating future use conditions means providing a wider trail where the anticipated volume of use is expected to be higher than typical, and separating faster-moving and slower-moving uses on wider trails.
Assure a Seamless Linear Trail System Experience

There are two aspects of a seamless linear trail: Continuity and connectivity.

**Continuity**

The SART experience is about continuous linear travel. The SART will be fully functional when it provides a continuous route that connects San Bernardino National Forest lands, 3 counties, and all the cities that border the Santa Ana River. From a functional standpoint, the SART design must consider all the dynamics involved with two-way circulation for bicyclists and pedestrians including continuity of travel, lines of sight, turning movements, user interactions, traffic signs and signalization, and physical obstructions.

**Connectivity**

Direct pedestrian and bicycle connections with adjacent cities, activity centers, park and recreation areas, and public transit facilities, including MetroLink, will exponentially increase SART use by the general public. This involves:

- Incorporating the SART, connecting trails to it, and other Parkway amenities into all projects within the Parkway corridor and providing clear, continuous and seamless transitions to local and regional trail systems.
- Working with property owners and local jurisdictions to provide clear transitions to the SART from other pedestrian and bicycle facilities.
- Providing clear transitions when bicycle and pedestrian facilities shift between Class I bike paths, Class II bike lanes, Class IV separated bikeways, and sidewalks.
- Connecting the SART to all transit sources within walking and bicycling distance, such as buses and rail systems.
- Connecting the SART with schools, civic areas and government offices, commercial districts, businesses, and other activity centers in adjacent cities.
- Coordinating SART staging areas and access points with regional parks and open spaces and local municipal parks.
- Providing clear wayfinding signs at all decision points.
- Coordinating with transit agencies to include amenities such as bike stations, bike racks, and real-time applications that encourage use.

**Provide Access to the River**

Access is both physical and visual. It is recommended that development of the SART take maximum advantage of opportunities to see the Santa Ana River and, where appropriate, use its waters for a variety of recreational and educational activities. Consider locating the SART as close to the river as feasible and include, where appropriate, side loop trails within the river floodplain. Consider including point access trails to the river and its beaches and specific interpretive and observation points.

**Anticipate Sea Level Rise and Flooding**

While scientific uncertainty remains regarding the pace and amount of future sea level rise, and only the most downstream portions of the Parkway would be subject to sea level rise, it is recommended that the SART trail design use the most current regional sea level rise projections available, as shown in Figure 8-7. While the SART is ideally located at the edge of the Santa Ana River corridor to enjoy views of the river’s water and riparian zone, that proximity often creates a vulnerability to flooding. When near the Pacific Ocean, a redeveloped segment of the SART may also afford the opportunity of protecting other Parkway Use Areas from the effects of sea level rise. This would be accomplished by:

- Integrating the SART into the design of new protection structures and assuring that the top elevations are sufficiently wide to accommodate the SART and future SART expansion.
- Involving knowledgeable geotechnical and civil engineering professionals in the design of the trail.
- Including adjacent structural (e.g., levees, seawalls) and non-structural (e.g., wetlands, vegetative buffers) erosion control measures to protect the SART from damage.
Figure 8-7 SART and Sea Level Rise
9.0 Implementation
“The Santa Ana River helps define our community because of its extraordinary visual, habitat and economic resource contributions.”

Jon Harrison
Councilmember, City of Redlands
IMPLEMENTATION

The Santa Ana River Parkway and Open Space Plan (SARP&OSP) identifies a vision for the Santa Ana River Parkway (Parkway), provides tools for identifying and prioritizing projects, and guidelines for furthering the Parkway Vision through both planning and design efforts. This chapter identifies phases and priorities for collaborative implementation of the tools and guidelines set forth within the SARP&OSP, and offers recommendations and funding resources for achieving the Parkway Vision.

COLLABORATION

As discussed in Chapter 2, Vision, Guiding Principles, and Goals, the SARP&OSP identifies the following Guiding Principle for implementation: “Cooperation and collaboration among agencies, organizations, and members of the public is critical to developing the river corridor in a way that maximizes benefits to the natural and human environments and integrates effectively with other planning efforts.”

This section defines a recommended framework for ongoing collaboration among the agencies, organizations, and individuals with an interest in the Parkway. Key parties and groups, and recommended roles and responsibilities are defined below, and the relationship between these parties is illustrated in Figure 9-1.

Santa Ana River Conservancy (SARCON)

- **Represented Parties:** Conservancy staff and representatives
- **Key roles and responsibilities:** SARCON is responsible for coordination, collaboration, and communication amongst various participating agencies and entities; as feasible, maintaining the Project Prioritization Matrix and coordinating updates to the SARP&OSP; developing and releasing requests for grant proposals for SARCON grant programs; and participating in regional efforts to build Parkway recognition and collaboration.

SARCON Policy and Advisory Group (PAG)

Represented Parties: The PAG includes the following representatives:

- Three elected supervisors, one from each of the three counties (Orange, Riverside, San Bernardino);
- Elected city representatives from each of the three counties, appointed by the Supervisor of that county;
- One representative from the Santa Ana Watershed Project Authority, a Special District comprised of water districts and utility agencies, whose mission is to plan and build facilities useful to its partner agencies; and
- One representative from The Wildlands Conservancy, a private non-profit organization with the dual mission to (1) preserve the beauty and biodiversity of the earth and (2) provide programs so that children may know the wonder and joy of nature.

- **Key roles and responsibilities:** The PAG is responsible for discussing and monitoring progress of the Parkway and coordinating decision-making across jurisdictional boundaries to ensure expeditious completion of the Parkway. The PAG considers recommendations made by the TAC.
SARCON Technical Advisory Committee (TAC)

Represented Parties: It is recommended that the TAC include at least one, and up to two, representatives from the following entities:

- Each county’s parks, public works or flood control district (Orange, Riverside, and San Bernardino).
- Santa Ana Watershed Project Authority.
- U.S. Army Corps of Engineers
- U.S. Fish & Wildlife Service.
- U.S. Forest Service.
- California Department of Fish and Wildlife.
- California Department of Parks and Recreation.
- Non-profit organizations in each county (Orange, Riverside, San Bernardino).
- Elected city representatives from each of the three counties.

Key Roles and Responsibilities: The TAC is charged with sharing information, leveraging resources, coordinating activities across jurisdictional boundaries, addressing logistical issues, apprising the PAG of progress and issues, and preparing recommendations for the PAG’s consideration.

Other Jurisdictions and Organized Groups

- Other Jurisdictions: It is recommended that agencies with Parkway management responsibilities or land use regulatory authority maintain communication with TAC representatives and the SARCON as needed. For instance, it is recommended that a city that does not have a direct representative on the TAC during any given year identify a key staff member to (1) maintain communication with their County TAC representative and other TAC members with similar interests; and (2) ensure that city staff and elected officials are aware of Parkway program initiatives; and (3) respond to any SARCON or SARCON TAC requests for information or input on a timely basis. It is recommended that SARCON maintain the contact list for such entities, and update the list on an annual basis.

- Community-based Organizations: It is recommended that those organizations whose mission and/or goals align with those of the SARP&OSP also be included on the SARCON contact list and provide input on Program development when solicited by SARCON or the SARCON TAC. Community-based organizations may also provide essential support for public outreach and engagement efforts.

INITIAL STEPS

Realizing the vision established by the SARP&OSP will require many years of ongoing collaboration and investment along the length of the Parkway. Although the effort needed to achieve the Parkway Vision is immense, establishment of a solid framework will ensure continual movement toward the goal. This section recommends initial steps for both developing the Santa Ana River Program and implementing priority projects. Simultaneous investment in these efforts will build Parkway recognition as well as momentum for ongoing efforts.

Santa Ana River Program Development

Recognize the SARP&OSP in Policy Documents

An important prelude to all actions associated with the Santa Ana River Parkway is to ensure that the Parkway Vision, Guiding Principles and Goals identified in Chapter 2 are considered by the plans and policies of the landowner agencies and other jurisdictions associated with the management and/or regulation of the Parkway. As discussed in Chapter 7, Planning Guidelines, this includes but is not limited to General Plans, Specific Plans, Area Plans, and Community Plans. Recognition of the SARP&OSP in planning and policy documents will contribute to the Parkway vision by ensuring that agency policies and plans are supportive of the Parkway vision. Additionally, recognition of the SARP&OSP in planning documents could help in securing future funding for Parkway projects.

It is recommended that policy documents that support the protection, enhancement, and expansion of the Parkway be reviewed by agencies to ensure consistency with the guidelines presented in Chapter 7. It is additionally recommended that agencies that have not adopted policies that support the Parkway initiate efforts to develop policies consistent with recommendations in Chapter 7.

It is recommended that SARCON, including SARCON TAC and PAG members, initiate this effort by reaching out to each city and county to discuss how the Parkway is addressed in current plans, and identify timelines and approaches for each agency to incorporate Parkway planning guidelines into these key documents.
Establish Voluntary Parkway Designation Program

Another critical step to building recognition of the Parkway is to establish a process for a voluntary parkway designation program (as described in Chapter 7). This program will allow SARCON to develop a cohesive list of Parkway projects to support collaborative efforts, and also encourage branding and recognition of the Parkway.

It is recommended that SARCON coordinate the development of a Parkway Project Designation Form that can be completed and submitted by agencies and collaborators for existing projects, considering three types of local designations:

- **Parkway Use Area**: Any publically accessible park or open space within the Parkway is eligible.
- **Parkway Protected Area**: Any protected habitat or resource area within the Parkway that is not accessible to the public is eligible.
- **SART Trail System**: Any trail that connects to the SART, including City tributary trails, identified as a SART connector.

Designation should be voluntary, but encouraged for all agencies. The requirements for designated projects include installation of signage with the Parkway and Trail logo, consistent with design guidelines provided in Chapter 8. It is recommended that designated projects be included on Parkway maps and materials.

Build Recognition for the Santa Ana River Parkway, Open Space and Trail

Designated Parkway projects can be identified through on-site signage, as well as in public materials and Parkway maps, including online materials. It is recommended that a Parkway-wide map that indicates existing trails, amenities, and related use areas open for public use be produced for distribution through website and electronic device applications, and be updated periodically.

It is recommended that the Santa Ana River Trail (SART) Bike Ride and Festival and other events be utilized as central outreach and marketing opportunities. SARCON may also develop a standalone parkway website as one-stop shopping for info on existing and planned features, and strengthen use of social media to build awareness of Parkway projects and programs. Outreach, marketing, and engagement efforts may be supported by relationships with existing educational institutions, public agencies, and non-profit organizations.

Project Development and Implementation

Initial steps for project development and implementation are identified below. All projects will need to be planned, designed and implemented consistent with existing local, State and federal requirements.

Complete the Santa Ana River Trail

The completion of the SART is a priority, as the SART is the backbone that strengthens the entire Parkway. As discussed in Chapter 4, planning, design, and construction efforts for the missing segments of the SART are well underway. Focusing efforts on completing the SART will help build recognition of the Parkway, increase use of the SART and adjacent Parkway amenities, and grow support for SARCON’s Parkway among members of the public that have long been promised a crest-to-coast trail along the river corridor.

Pursue High Priority Projects

SARCON and other agency and entity collaborators, with support from the SARCON TAC, can work towards implementation by focusing efforts on furthering high priority projects from the Project Prioritization Matrix through outreach to landowners and land managing agencies. This process may include the development of a report for each land managing agency that summarizes the ranking of projects within their jurisdiction, and encourages further development and pursuit of collaboration for highest ranking projects. It is recommended that SARCON encourage agencies or organizations with high priority projects to submit Project Submittal Forms for SARCON grant programs. SARCON may also assist with identification of alternative funding sources.

Similarly, it is recommended that SARCON and collaborators encourage landowners and land managing agencies of parcels that were ranked as high priorities by the Parcel Prioritization Matrix to evaluate parcels with high potential and develop project concepts to be included in future updates to the Project Prioritization Matrix (maintained as a digital document by SARCON) or to be submitted for SARCON grant programs.

Public input gathered during workshops (refer to Chapter 6, Planned and Potential Projects Beyond SART, for additional information) indicates that project features most highly prioritized by the public include trails and trail amenities, public parks and open space, and staging areas (Figure 9-2.). It is recommended that these priorities be considered when developing new projects. Some of the prioritized features could be included in existing planned projects, for example, educational features.
**PROJECT PRIORITIZATION AND EVALUATION TOOLS**

The enhancement and expansion of the Parkway will be realized through the implementation of individual projects. Identifying priority projects on a regional and local level can help identify opportunities for collaboration, inform funding priorities, and help ensure that the overarching goals for the SARP&OSP are met. Two tools are recommended for evaluating Parkway projects, the Quantitative Project Prioritization Tool and the Project Submittal Form. These tools are not applicable to SART gap completion projects, as all such projects have been identified as priority projects, but could be utilized for all other trail, access, and site improvement projects. Figure 9-3 describes how these tools contribute to the implementation process, and each tool is described further below.

**Tool 1: Quantitative Project Prioritization Tool**

The Quantitative Project Prioritization tool was developed to determine the degree to which potential and planned projects help achieve the Parkway Vision. The tool was used to assess and prioritize projects identified during the SARP&OSP planning process, and allow for the systematic evaluation of projects based on proposed location and project type. As described in detail in Chapter 5, Prioritization of Santa Ana River Parkway Projects, the tool employs a scoring system that considers (1) project location suitability for water, habitat, and equitable education and recreation access, (2) consistency of project proposal with Parkway Guiding Principles, (3) distance from the river and (4) the status of the project. The tool can be utilized through use of SARCON’s Parkway geodatabase and GIS analysis tools, or manually using assessment maps for reference. It is recommended that the geodatabase be updated to keep information current.

The tool requires minimal project information, and thus provides an effective lens through which to evaluate potential projects that have been minimally developed against projects that have been further planned and/or designed. The tool was used to generate the Project Prioritization Matrix and Parcel Suitability Matrix provided in Chapter 6, Planned and Potential Projects Beyond SART, both of which facilitate identification of projects recommended for further development by SARCON and/or its collaborators, either for their potential to provide multi-benefits or to meet specific goals.

It is recommended that the quantitative tool be used to update the Project Prioritization Matrix based on project updates and additions provided by agencies and organizations, and also used as a component of the Project Submittal Form and potentially the
As discussed in Chapter 6, the prioritization matrix is a preliminary evaluation of a project's likelihood of contributing to the Parkway Vision, Guiding Principles, and Goals; a high ranking does not guarantee funding or SARCON support.

**Project Submittal Form (for Grant Proposals Submitted to SARCON)**

It is recommended that the grant application form (Project Submittal Form) by which agencies and organizations submit project proposals to SARCON be utilized to collect and evaluate applications for SARCON grant awards. It is recommended that the Project Submittal Form be developed by SARCON and the SARCON TAC to correspond to SARCON grant programs and funding sources. It is recommended that agencies with highly ranked projects on the Project Prioritization Matrix or projects addressing needs on highly ranked parcels on the Parcel Prioritization Matrix be encouraged to submit applications for which funding is available.

It is recommended that the Project Submittal Form developed by SARCON require the following:

- Evaluation for location suitability using the Quantitative Project Prioritization Tool.
- Provision of further information that may include: detailed project description with a discussion of project goals and anticipated benefits; identification of lead agencies and potential/committed collaborators; cost estimate; funding source(s) and status as well as any funding constraints; acquisition requirements; anticipated permitting requirements and compliance with existing local, State, and federal law and regulations; public support; and overall project status.

- Provision of information necessary to evaluate projects based on all required and current Coastal Conservancy Project Selection Criteria. The Criteria, as adopted on October 4, 2014, currently requires consideration of the following required factors:
  - Promotion of the Conservancy’s statutory programs and purposes.
  - Consistency with purposes of the funding source.
  - Promotion and implementation of state plans and policies.
  - Support from the public.
  - Location.
  - Need.
  - Greater-than-local interest.
  - Sea level rise vulnerability.

- Provision of information to evaluate projects based on optional and current Coastal Conservancy Project Selection Criteria. The Criteria, as adopted on October 4, 2014, currently allows for consideration of the following additional factors:
  - Urgency.
  - Resolution of more than one issue.
  - Leverage.
  - Conflict resolution.
  - Innovation.
  - Readiness.
  - Realization of prior Conservancy goals.
  - Return to Conservancy.
  - Cooperation.
PARKWAY FINANCIAL CONSIDERATIONS

This section provides a discussion of parkway development costs, and recommends potential funding strategies and funding sources.

Projected Cost of Parkway Development

Implementation of the Parkway Vision will require investment of substantial resources by numerous agencies and entities. This investment includes staff and material resources for capital development (including planning, design, construction), as well as on-going costs for operations, maintenance, monitoring, and continued collaboration amongst multiple agencies. Currently, funding for capital improvements as well as operations and maintenance (O&M) is generally provided by individual agencies and/or organizations. The SARP&OSP, however, provides an opportunity to consider Parkway development and O&M costs of the Parkway’s expanse as a whole, and to identify prospects for collaboration and strategic prioritization.

The projected capital cost for all of the projects identified in the 2017 Project Prioritization Matrix is projected at $450 to $675 million dollars. This cost projection is based on June, 2017 values, is based on a conceptual level of project description, and is intended for planning purposes only. Costs indicated are solely related to construction costs. They do not include planning, design, environmental review, construction administration and mitigation monitoring costs, among others. Acquisition costs are assumed only for project proposals that specify that acquisition will be required. The cost projection will need to be adjusted for future years, and as the Project Matrix is updated with new or different projects. The projected capital cost for identified projects was calculated based on the project type and size. It is important to recognize that this estimate includes only identified projects; development of Parkway opportunities (including improvements and enhancement to the approximately 14,000 acres of undeveloped land within the Parkway) would require substantially increased investment.

Potential Funding Strategies and Sources

SARCON will help achieve the Parkway Vision by awarding grants to agencies and non-profit organizations to plan, design, construct and manage high ranking/prioritized projects. The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) allocated to the Coastal Conservancy up to a total of 45 million dollars of Proposition 84 funds for projects related to the Parkway. Specifically, Chapter 5 allocates funds to the Coastal Conservancy for projects that “expand and improve” the Santa Ana River Parkway and that have been developed “in consultation with local government agencies participating in the development of the Santa Ana River Parkway.” (California Public Resources Code (PRC) Section 75050).

To be available for application by the Conservancy or SARCON to specific projects, these Proposition 84 funds must first be appropriated to the Conservancy by the State Legislature.

While the Conservancy or SARCON may obtain additional bond or other funds in the future to distribute for SARP&OSP projects, neither the value nor schedule for such funds are known. Regardless, given the scale of the Parkway Vision and the potential for vast environmental and community benefits, it is both necessary and beneficial for agencies to dedicate additional funding for their projects and/or seek additional funding resources. It is recommended that SARCON and collaborating agencies and organizations consider the following for supplementing existing capital and O&M funding:

- Vulnerability from climate change impacts other than sea level rise.
- Minimization of greenhouse gas emissions.
- Provision of information regarding the consistency of the proposed project with the Coastal Conservancy’s current Strategic Plan and with the proposed or available Conservancy funding sources(s).

Separate forms may be developed for acquisition projects, as such projects have a different process and funding requirements than enhancement projects.
- Continue to use the mosaic model, in which each jurisdiction operates independently, for providing operations and maintenance for the near to mid-term.
- Encourage trails, parks, and accessible open space to be maintained, or obtain O&M funding, through adjacent homeowner’s associations or other private commercial development provisions.
- Expand the support from user fees where possible.
- Expand the support from concession and lease agreements where possible and permitted under project funding.
- Capture the value added to private real estate.
- Cultivate relationships with one or more foundations and seek capital grants or endowments.
- Monitor growing public support for a general regional tax support measure.
- Strategically foster general public support.
- Tactically consider specific local, state and federal grant and other funding opportunities as they arise.

Given the wide range of projects included in this Plan, there are many programs and grants that are potential sources of funding. Potential grant programs are summarized in Appendix F, Funding Resources, according to project type. These funding opportunities have online websites with ongoing grant announcements throughout the year.

**UPDATING THE SARP&OSP**

The SARP&OSP is intended to guide the long-term development of the Santa Ana River Parkway over the next ten years. However, it is also a living document in that the tools and project list need to be updated and refined on a regular basis to ensure successful implementation. It is recommended that the Project Prioritization Matrix be updated to reflect projects that have been completed as well as new projects that have been identified. It is recommended that the Project Prioritization Tools, including the Quantitative Tool and the Submittal Form, be refined as needed by the Conservancy with input from its collaborators to incorporate new data and/or to better meet program needs. Any updates to the SARP&OSP will benefit from close collaboration amongst the Conservancy and jurisdictional and land management agencies, as well as input from community organizations and the public.