American River Parkway

NATURAL RESOURCES MANAGEMENT PLAN

SACRAMENTO COUNTY REGIONAL PARKS

SACRAMENTO COUNTY

LIST OF PREPARERS

Sacramento County Regional Parks

Liz Bellas, *Director*
Michael Doane, *Deputy Director*
Mary Maret, *Senior Natural Resource Specialist*

MIG

Daniel Iacofano, PhD, FAICP, FASLA, *Principal-in-Charge*
William Spain, PhD, *Project Manager*
Jon Campbell, PhD, *Director of GIS and Biology*
Tay Peterson, *Director of Biological Analysis*
Kim Donahue, *Director of Creative Services*
Tim Carroll, *Director of Social Marketing*
Robert Templar, *Director of Cultural Resources*
Christine Santana Belete, *Graphic Design Specialist*
Melinda Mohamed, *Wildlife Biologist*
Charlotte Moran, *Associate Ecologist*
Miranda Miller, *Assistant Planner*

ICF

Gregg Ellis, *Principal*
Chris Elliott, *Principal*
Harry Oakes, *Restoration Ecologist*

Wildscape Engineering

Carol Beahan, PE, *QSD Lead Physical Setting*
Virginia Mahacek, *Engineering Associate*
Meryl Kruskopf, *EIT Environmental Engineer*
Thomas Bullard, PhD, *Senior Geomorphologist*
David Thompson, PE, PhD, *Senior Water Resource Engineer*
Nolan Platt, EIT, *Hydrologist*

SPECIAL THANKS TO THE NRMP TASK FORCE:

Cara Allen, *Wildlife Conservation Board*
Marianne Biner, *Sacramento County Department of Planning and Environmental Review*
Ruth Darling, *Central Valley Flood Protection Board*
Tom Gohring, *The Water Forum*
Josh Greetan, *Sacramento County Department of Planning and Environmental Review*
Chris Hammersmark, *cbec*
Alex Harold, *Sacramento Municipal Utility District*
Jennifer Hobbs, *U.S. Fish and Wildlife*
Elizabeth Hubert, *Wildlife Conservation Board*
Jessica Law, *The Water Forum*
Andrea Meier, *U.S. Army Corps of Engineers*
David Moldoff, *California Department of Water Resources*
KC Sorgen, *Sacramento Area Flood Control Agency*
Nicky Schleeter, *U.S. Army Corps of Engineers*
Tim Washburn, *Sacramento Area Flood Control Agency*
Leo Winternitz, *American River Parkway Stakeholders*
Dylan Wood, *California Department of Fish and Wildlife*

SPECIAL THANKS TO OUR FUNDING PARTNERS:

Wildlife Conservation Board
Sacramento Area Flood Control Agency
Sacramento County

American River Parkway

NATURAL RESOURCES MANAGEMENT PLAN

PUBLIC REVIEW DRAFT | MARCH 2021

Prepared for

Sacramento County and Sacramento County Regional Parks

This is the public review draft of the Natural Resources Management Plan and this document is not the final plan. This public review draft is available for public review and comment for a period of 60 days through May 15, 2021. Comments can be sent to nrmp@migcom.com.

The final version of the Natural Resources Management Plan will be published in Fall 2021.

CONTENTS

CHAPTER 1
Introduction 1-1

CHAPTER 2
NRMP Goals and Objectives 2-1

CHAPTER 3
Parkway Setting 3-1

CHAPTER 4
Biological Resources 4-1

CHAPTER 5
Physical Resources 5-1

CHAPTER 6
Cultural Resources 6-1

CHAPTER 7
Human Use Impact Reduction 7-1

CHAPTER 8
Management, Implementation and Monitoring 8-1

Figures

Figure 3-1 American River Parkway 3-19
Figure 4-1 Vegetation Communities 4-5
Figure 4-2 Sensitive Habitat 4-17
Figure 4-3 Regional Wildlife Connectivity 4-23
Figure 4-4 Parkway Wildlife Connectivity 4-24
Figure 4-5 Invasive Plant Species 4-31
Figure 4-6 Fire Behavior Triangle 4-33
Figure 4-7 Fuel Profile 4-34
Figure 4-8 Wildfire 4-40
Figure 5-1 Geologic Unit Description 5-4
Figure 5-2 Geologic Surface 5-4
Figure 5-3A Upper American River Watershed 5-5
Figure 5-3B LAR Watershed 5-5
Figure 5-4 Historical Timeline LAR 5-6
Figure 5-5 Pre-Folsom Dam Verses Post-Folsom Dam Flow Regime 5-6
Figure 5-6 Folsom Dam Construction, 1953 5-7
Figure 5-7 1986 Flood Photo 5-7
Figure 5-8 Recent LAR Timeline 5-8
Figure 5-9 Historical Channel Thalweg Profiles 5-8
Figure 5-10 Mature Oaks Line Upper Portion of Mostly Bar Earthen Left Bank Near Confluence (~RM 0.2) 5-11
Figure 5-11 Left Bank Vegetation Bar at Paradise Beach (~RM 5.6) 5-11
Figure 5-12 Large Urban Stormwater Outfall with Broken Apron (~RM 5.3) 5-12
Figure 5-13 Mined Left Bank Widened River, Formed in Channel Bar Seen from Boat Ramp (~RM 9) 5-15
Figure 5-14 Cobble Spoils Along Arden Bar, Evidence of Past Gravel Mining 5-17
Figure 5-15 Heavily Used Right Bank at Car Top Bat Launch (~RM 11.6) 5-17
Figure 5-16 River Right Bank Gravel Side Bar (~RM 12.1) 5-17
Figure 5-17 Exposed Fair Oaks Formation Along River Right Bank 5-17

Figure 5-18 Exposed Erosion Resistant Bank Toe (~RM 15.3) 5-19
Figure 5-19 Erosion Along Clay Shelf (~RM 16.7) 5-19
Figure 5-20 Actively Eroding Bank Along Clay Shelf (~RM 17.8) 5-19
Figure 5-21 Rock Rip-Rap Placed at Cordova Creek Outfall (~RM 14.5) 5-19
Figure 5-22 Bedrock Outcrops on Upper LAR 5-21
Figure 5-23 Steep Bluffs Along Right Bank (~RM 19.4) 5-21
Figure 5-24 Buffalo Creek Outfall (~RM 19.5) 5-21
Figure 7-1 Use-Impact Relationship 7-8
Figure 7-2 Electrical Power Infrastructure 7-18
Figure 8-1 Parkway Alteration 8-5
Figure 8-2 Lower Reach Alteration 8-7
Figure 8-3 Middle Reach Alteration 8-8
Figure 8-4 Upper Reach Alteration 8-9
Figure 8-5 Parkway Inundation 8-10
Figure 8-6 Lower Reach Inundation 8-11
Figure 8-7 Middle Reach Inundation 8-12
Figure 8-8 Upper Reach Inundation 8-13
Figure 8-9 Parkway Vegetation Communities 8-14
Figure 8-10 Lower Reach Vegetation Communities 8-15
Figure 8-11 Middle Reach Vegetation Communities 8-16
Figure 8-12 Upper Reach Vegetation Communities 8-17
Figure 8-13 Parkway Land Use 8-18
Figure 8-14 Lower Reach Land Use 8-19
Figure 8-15 Middle Reach Land Use 8-20
Figure 8-16 Upper Reach Land Use 8-21
Figure 8-17 American River Parkway 8-25
Figure 8-18 Area Plan 1 Discovery Park A 8-30
Figure 8-19 Area Plan 1 Discovery Park B 8-31
Figure 8-20 Area Plan 2 Woodlake A 8-36
Figure 8-21 Area Plan 2 Woodlake B 8-37
Figure 8-22 Area Plan 3 Cal Expo A 8-42
Figure 8-23 Area Plan 3 Cal Expo B 8-43
Figure 8-24 Area Plan 4 Paradise Beach A 8-48
Figure 8-25 Area Plan 4 Paradise Beach B 8-49
Figure 8-26 Area Plan 5 Campus Commons A 8-54
Figure 8-27 Area Plan 5 Campus Commons B 8-55
Figure 8-28 Area Plan 6 Howe Avenue A 8-60
Figure 8-29 Area Plan 6 Howe Avenue B 8-61
Figure 8-30 Area Plan 7 Watt Avenue A 8-66
Figure 8-31 Area Plan 7 Watt Avenue B 8-67
Figure 8-32 Area Plan 8 SARA Park A 8-72
Figure 8-33 Area Plan 8 SARA Park B 8-73
Figure 8-34 Area Plan 9 Arden Bar A 8-78
Figure 8-35 Area Plan 9 Arden Bar B 8-79
Figure 8-36 Area Plan 10 River Bend Park A 8-84
Figure 8-37 Area Plan 10 River Bend Park B 8-85
Figure 8-38 Area Plan 11 Sarah Court Access A 8-88
Figure 8-39 Area Plan 11 Sarah Court Access B 8-89
Figure 8-40 Area Plan 12 Ancil Hoffman County Park A 8-94
Figure 8-41 Area Plan 12 Ancil Hoffman County Park B 8-95
Figure 8-42 Area Plan 13 Rossmoor Bar A 8-100
Figure 8-43 Area Plan 13 Rossmoor Bar B 8-101
Figure 8-44 Area Plan 14 San Juan Bluffs A 8-104
Figure 8-45 Area Plan 14 San Juan Bluffs B 8-105
Figure 8-46 Area Plan 15 Sacramento Bar A 8-110
Figure 8-47 Area Plan 15 Sacramento Bar B 8-111
Figure 8-48 Area Plan 16 Lower Sunrise A 8-116
Figure 8-49 Area Plan 16 Lower Sunrise B 8-117
Figure 8-50 Area Plan 17 Sunrise Bluffs A 8-120
Figure 8-51 Area Plan 17 Sunrise Bluffs B 8-121
Figure 8-52 Area Plan 18 Upper Sunrise A 8-126
Figure 8-53 Area Plan 18 Upper Sunrise B 8-127
Figure 8-54 Area Plan 19 Sailor Bar A 8-132
Figure 8-55 Area Plan 19 Sailor Bar B 8-133
Figure 8-56 Parkway Potential Mitigation Areas 8-135
Figure 8-57 Lower Reach Potential Mitigation Areas 8-136
Figure 8-58 Middle Reach Potential Mitigation Areas 8-137
Figure 8-59 Upper Reach Potential Mitigation Areas 8-138

Appendices A-1

Available under separate cover

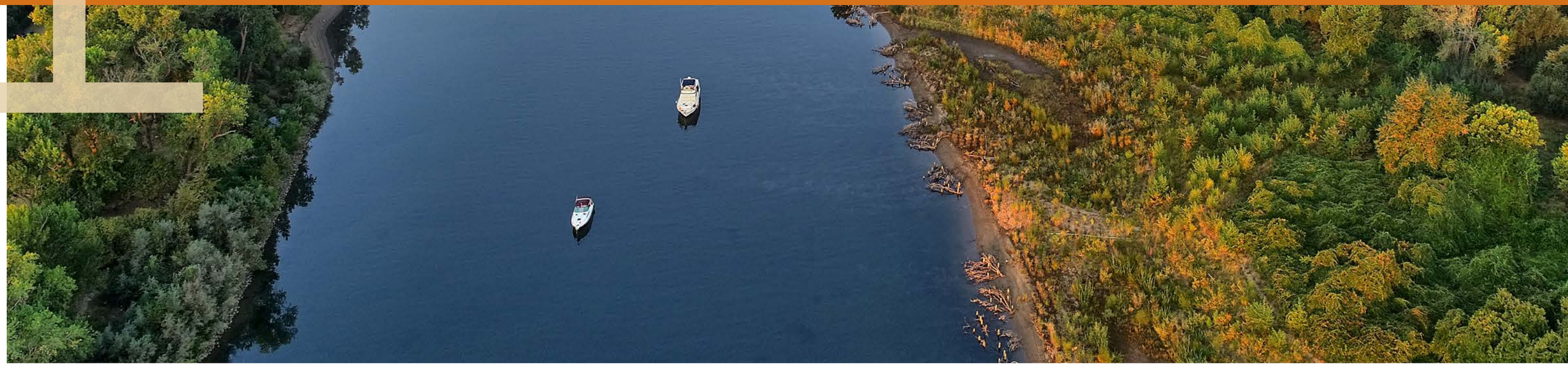
Appendix A: Public Outreach Report
Appendix B: Physical Resources Report

Acronyms and Abbreviations A-2

References A-4

1 INTRODUCTION

1.1 PURPOSE OF THE PLAN 1-4
1.2 PLANNING FRAMEWORK 1-5
1.3 BACKGROUND 1-6
1.4 OVERVIEW OF THE PLAN 1-12
1.5 NRMP TASK FORCE 1-13
1.6 NRMP COMMUNITY OUTREACH AND ENGAGEMENT 1-14



CHAPTER 1

INTRODUCTION AND OVERVIEW

The American River is the lifeblood of its surrounding communities, sustaining residents with fresh air, clean water, access to nature, recreation, and a deep sense of place. The American River Parkway (Parkway) lands bordering the river are diverse civic spaces, spanning multiple jurisdictions and creating a sense of continuity and regional identity across the otherwise urban landscape.

The Parkway has been a focal gathering point over the centuries, and past generations have left behind rich layers of cultural artifacts that attest to human dependence on the river for nourishment, wealth, and respite from our increasingly urban lives.

The American River and its surrounding habitats are home to a diversity of plants and animals that rely on it to provide food, shelter, and movement corridors. Though many species are threatened due to habitat loss and fragmentation, the American River provides a sanctuary of uninterrupted habitat throughout an urbanized environment.

Maintaining these vital functions for both human and natural uses is of critical importance, and a holistic approach to resource planning and management must be applied. This approach honors the multifaceted nature of river systems and seeks to balance human needs and uses with the need to protect and enhance the extraordinary natural and cultural resources of the river and Parkway (see Figure 1-1). The Natural Resource Management Plan (NRMP) documents these resources, while creating a unified vision that seamlessly integrates recreational, cultural, and environmental protection within the Parkway.

FIGURE 1-1 NATURAL RESOURCES MANAGEMENT PLAN

The 1968, 1973, 1985, and 2008 American River Parkway Plan. Photo Credit: Regional Parks

The Parkway is an open space greenbelt extending approximately 29 miles and covers approximately 7,000 acres. The Sacramento County Department of Regional Parks (Regional Parks) manages lands on the lower 23 miles of the Parkway from the Hazel Avenue Bridge to the American River's confluence with the Sacramento River, approximately 5,000 acres. Several urban communities are located along the edges of the Parkway, including the City of Sacramento, the City of Rancho Cordova (on the south side), and portions of unincorporated Sacramento County, including the communities of Carmichael and Fair Oaks (on the north side).

The Parkway is surrounded primarily by urban development within Sacramento County. Undeveloped "bars" (elevated landforms near a river) containing larger areas of natural vegetation on both sides of the river in the upper half of the Parkway. These bars and designated parks (from upriver to downriver) include Sailor Bar, Sacramento Bar, Rossmoor Bar, Ancil Hoffman County Park, River Bend Park, and Arden Bar. Major vegetation types in the Parkway include grassland, oak woodland, willow riparian, cottonwood forests, ponds, marshes/seeps, introduced vegetation, and agricultural. Due to past mining activities along and in the river, there are also significant areas of barren land and mine tailings/rock piles.

The Parkway was conceptualized in 1915 when a City of Sacramento planner created a plan for a continuous park called the "American River Parkway" along the Lower American River (LAR). Sacramento County officially adopted a concept master plan for the Parkway in 1962, which was then incorporated into the County General Plan. The 1962 Parkway Plan was then revised and bolstered considerably in 1968 when the County added administrative policies to the document. It was subsequently updated in 1976, 1985, and most recently in 2008. The NRMP acknowledges the complex nature of the Parkway as it seeks to balance natural resource protection with maintenance of recreational opportunities and access, along with flood management activities (Figure 1-1).

1.1 PURPOSE OF THE PLAN

In 2008, Regional Parks began a process to develop a NRMP for the Parkway. The original NRMP Stakeholder Committee worked with Regional Parks from 2008 to 2010. The Committee was charged with gathering and evaluating natural resource data in order to provide recommendations to both protect and improve the health of the Parkway's ecosystems and natural values. In 2014, Regional Parks reinitiated the NRMP effort with the goal of creating a document that would be aligned with the goals and policies of the 2008 American River Parkway Plan (Parkway Plan). A new Stakeholder Committee convened in the spring and summer of 2015 to develop a set of recommended draft Plan Specifications to establish guidelines and parameters for the NRMP.

The NRMP is a guide for implementation of a multifaceted natural resource management program for the Parkway. It integrates ecological resource management and conservation with cultural resources protection, recreational use and impacts, and other human uses in the Parkway. The NRMP informs the management, conservation, and rehabilitation of Parkway land and natural resources, and helps to ensure compliance with environmental laws and regulations. Utilizing an adaptive management approach, the effectiveness of natural resource management efforts in the Parkway will be re-evaluated and the NRMP will be updated periodically.

The purpose of the NRMP is to establish resource management guidelines to minimize the impact of human uses on the Parkway and the environment. The NRMP includes goals and objectives designed to maintain natural communities located within the Parkway and identifies projects for implementation to accomplish goals and objectives. The NRMP takes an integrative approach to planning for ecological resources, cultural resources, and human use. However, it is important to note that the emphasis of the NRMP is to manage human uses in a manner that minimizes impacts to natural and cultural resources while maintaining recreational access.

Gathering area at Soil Born Farms in the River Bend Park Area. Photo Credit: Wildlife Conservation Board

1.2 PLANNING FRAMEWORK

The NRMP takes an integrative approach by considering the overlapping nature of ecological resources, human uses (e.g., utilities, electrical infrastructure, recreation), and cultural resources. A challenge associated with natural resource planning is determining an appropriate scale of analysis. The Parkway covers a relatively large area (23 miles under County jurisdiction covering over 5,000 acres), and is within and adjacent to multiple jurisdictions. As such, the natural and social systems within the Parkway vary substantially. The NRMP considers a Parkway-wide scale and is not intended to address every natural resource detail or issue that may occur at the site level. Taking a large-scale approach acknowledges that what happens in one area may impact what happens in an adjacent area. Planning recommendations are made within the 19 areas or area plans (described in detail in Chapter 3.0 Parkway Setting). The projects (or potential management actions) identified in this plan are programmatic in nature. Some projects, if implemented, will require a separate environmental review consistent with CEQA and/or NEPA, if applicable. Furthermore, planning at larger scales involves collaborating and cooperating with other agencies that have overlapping authority or jurisdiction (Haas 2001).

Planning at a broader scale acknowledges that some ecological processes require larger areas. Begon et al. (2006) note that the overall goal of conservation is to separate the species of interest in a region from the processes that threaten it (e.g., invasive species). Also, larger protected areas are more likely to have greater species diversity compared to that of a smaller area. Currently, the Parkway provides a rare linear connection between the Sierra Nevada foothills and the Sacramento River through an area that has rapidly urbanized over the past decades. Overall, the Sacramento Valley region has been converted from grasslands and wetlands to agricultural and urbanized land uses. Therefore, the Parkway provides habitat protection in a critical riparian area surrounded by areas altered by development.

This planning approach seeks to maintain the diversity of recreational opportunities while limiting the impact of these activities on ecological and cultural resources. The Parkway provides a wide array of recreational opportunities in highly developed areas, such as Discovery Park, but also has areas where natural features predominate and recreation use is less prevalent. The Plan assumes that maintaining diverse ecosystems is consistent with providing quality recreational experiences.

Another key aspect of the NRMP is the integration of key resource categories found within the Parkway, including: (1) biological resources, (2) physical resources, (3) cultural resources, and (4) human uses. Overall, the NRMP seeks a sustainable solution to manage these, at times, conflicting resource needs. This Plan acknowledges that recreational use is a major component of the Parkway and seeks to develop approaches to reduce recreational impacts on natural resources rather than limit or eliminate recreational opportunities.

It is acknowledged that there are many issues facing the Parkway but this Plan focuses on issues that: (1) impact natural resources in the Parkway; and (2) can be addressed by Regional Parks. Therefore, some key issues, such as climate change or upstream water releases from dams, are considered and discussed, but are outside of the scope of what Regional Parks can change through management. Overall, policies and management action recommendations will be provided Parkway-wide and at the Area level, where appropriate.

In addition to considering issues within the Parkway, the NRMP considers regional resources in the Greater Sacramento area. For example, the ecological resources discussion considers how the natural communities within the Parkway fit into the larger context of the Sacramento Valley and Sierra Nevada foothills. Also, regional recreational resources, managed by Regional Parks and other agencies, are considered when discussing the recreational resources available in the Parkway. Pastor et al. (2009) argue that regional approaches are appropriate because issues or problems do not always fit within “neat” boundaries. As discussed previously, this supports the notion that these planning processes require cooperation and/or oversight with other agencies and organizations.

1.3 BACKGROUND

It is important to understand the physical and social context of the Parkway. In this section, key issues for managing natural resources in the Parkway are discussed, including climate change, population growth and urbanization, upstream water releases (from dams), gravel augmentation, homelessness, wildland fire, habitat protection, sensitive species, and vegetation enhancement. These topics are addressed throughout the NRMP.

Climate Change

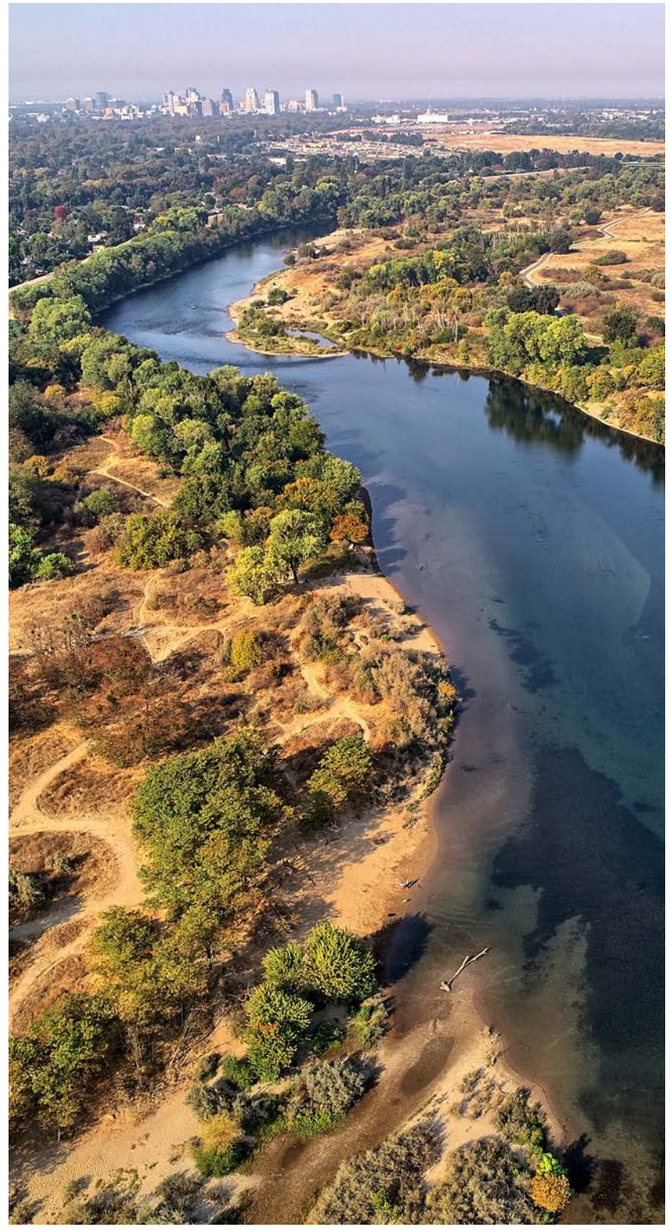
Climate change results when greenhouse gases accumulate in the atmosphere and trap the sun's energy, resulting in a warming effect (CACC 2019). Climate change has the potential to alter natural systems and increase the occurrence and severity of weather events, such as flooding and drought (National Aeronautics and Space Administration (NASA) 2019). Addressing the causes of climate change is outside Regional Parks' purview and this document. However, considering how climate change impacts the Parkway is important and consideration for potential mitigation strategies, such as increasing resiliency, is consistent with the Plan.

Population Growth and Urbanization

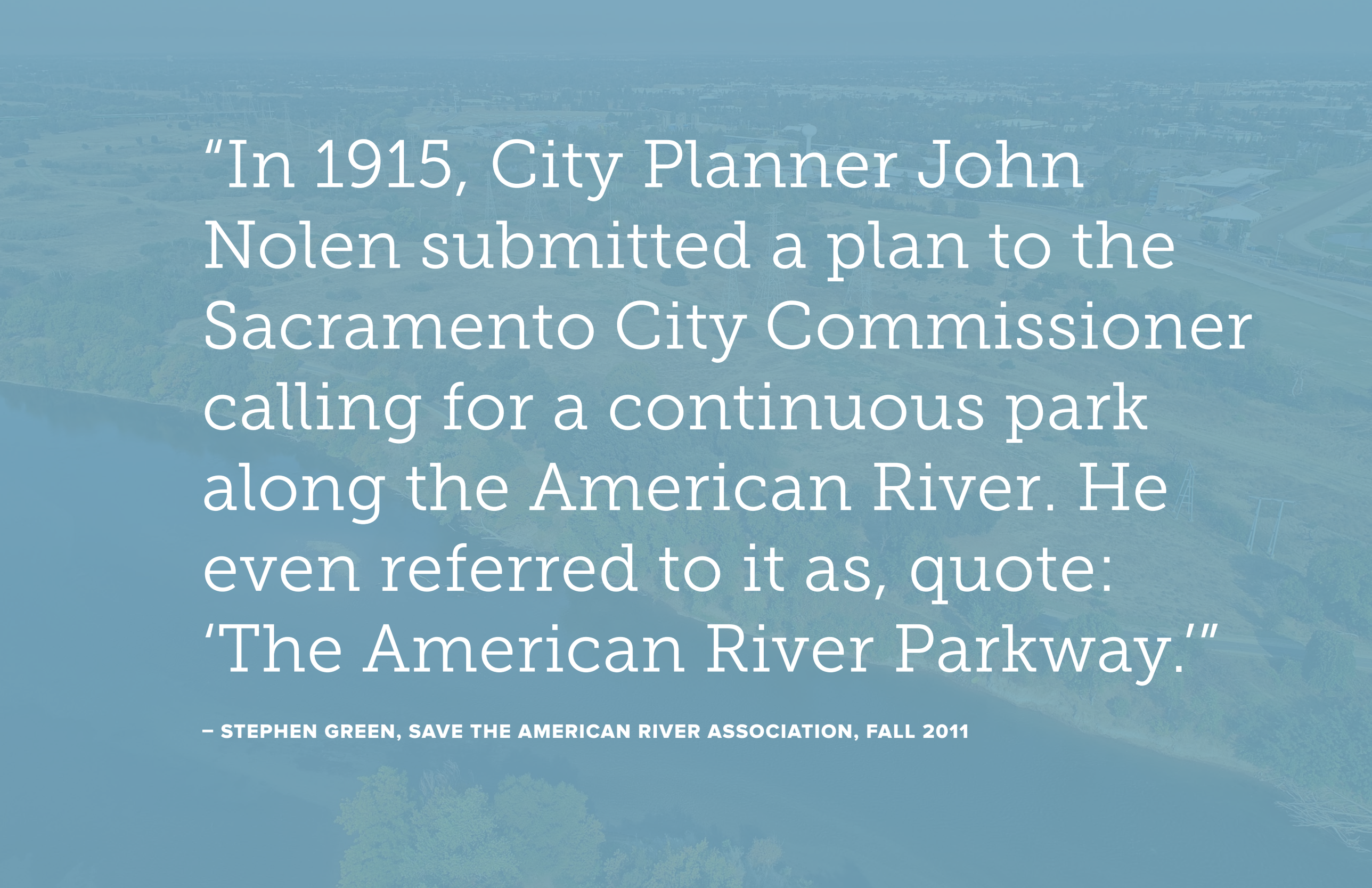
Population growth has been significant in Sacramento County since the Parkway was established. According to the U.S. Census Bureau (Forstall 1996) and the California Department of Finance (2019), the population of Sacramento County increased by approximately 180 percent in the 50 years between 1960 and 2010. The rate of population growth in Sacramento County between the present year and the mid-twenty-first century is projected to slow compared to the growth of 1960 to 2010. Though the rate of population growth is expected to slow, the County would still see an approximate 40 percent increase in population from 2020 to 2060, adding about 700,000 people. Assessing future population growth is critical in determining the future of the Parkway. Continuing population growth will likely result in an increase in recreation use in the Parkway and increased strain on natural resources. Along with significant population growth, the Greater Sacramento area has experienced increased urbanization, which typically results in increased urban runoff due to a decrease in permeable surfaces. Urbanization may also result in habitat modification and/or destruction. While population growth and urbanization have impacted and may continue to impact the Parkway, Regional Parks must consider what these two trends mean for future use in the Parkway and potential associated impacts.

Upstream Water Releases

Water levels and flows of the LAR are dictated by release operations at both the Folsom Dam and at the Nimbus Dam (Sacramento County 2008a). The Folsom Dam and Reservoir and Nimbus Dam and Lake Natoma Reservoir are part of the Central Valley Project (CVP), regulated and operated by the U.S. Bureau of Reclamation (USBR). The main function of the dams is to provide flood control protection, but the dams also store water for electrical power generation, domestic use, and irrigation uses (Sacramento County 2008a). Water releases from these dams are outside the purview of Regional Parks, but still impact the Parkway.



Aerial view of the Paradise Beach and Cal Expo Areas.
Photo Credit: Josh Hannon



"In 1915, City Planner John Nolen submitted a plan to the Sacramento City Commissioner calling for a continuous park along the American River. He even referred to it as, quote: 'The American River Parkway.'"

– STEPHEN GREEN, SAVE THE AMERICAN RIVER ASSOCIATION, FALL 2011

Aerial view of the Nimbus Fish Hatchery and American River Trout Hatchery (photo foreground, right) in the Upper Sunrise Area and the Nimbus Dam (photo background). Photo Credit: Josh Hannon

Water releases from these dams have the potential to directly impact flood control, fishery preservation, and recreational activities. Both dams release water prior to intense storm events in order to prevent flooding in the areas directly adjacent to the American River (Sacramento County 2008). Water releases may impact the river flows, water temperatures, and habitat enhancement features key to sustaining spawning fish species in the LAR (Welcomme, et al. 2006). Although USBR regulates and operates the dams, local associations collaborate with federal agencies to ensure the preservation of cultural, ecological, and recreational resources. USBR, and associated federal resource agencies, have agreed on flow management standards for the LAR, including water flows, water temperature, and establishment of a management group of water resource managers, biologists, monitors, and stakeholders (Sacramento County 2008a). Collaboration and communication with USBR and other water resource agencies, such as the Water Forum, will be essential to achieve recreational and ecological goals for the Parkway.

Gravel Augmentation

From the mid-nineteenth century through the late-twentieth century, mining activities and dam construction significantly altered natural resources in the Parkway. Gold mining in the nineteenth century resulted in dredge tailings throughout the Parkway. Mining deposited silt and aggregate materials into the river channel. As a result, terrestrial habitat areas were degraded and mining debris raised the riverbed, which reduced salmonid survival rates (Sacramento County 2008a). The construction of the Old Folsom Dam in 1893, and the modern Folsom Dam and Nimbus Dam as part of the CVP in 1955, further modified the river channel. The dams blocked the upstream migration of anadromous species, which removed access to the majority of salmonid spawning habitat (Sacramento County 2008a). Construction of the dams involved moving aggregate from the LAR, which lowered the riverbed elevation that was previously raised by mining activities. In addition, the dams blocked the natural downstream transportation of sediments.

The Central Valley Project Improvement Act (CVPIA) was passed by Congress in 1992 as part of a group of 40 titles for water resources-related projects in the western United States (USBR 2019). The CVPIA mandates that the Department of the Interior implement a program for replenishing spawning gravel and restoring salmonid habitat in the LAR from the Nimbus Dam to the confluence of the American and Sacramento Rivers. Beginning in the late 1990s, multiple groups and agencies became involved in planning and conducting the Lower American River Anadromous Fish Habitat Restoration Project, which aims to fulfill the CVPIA mandate. The gravel bars that have formed as a result of the project can create an attraction for recreationists who may congregate on these bars. This can

be an issue for Regional Park staff if illegal activities occur on bars accessible only by patrol boats.

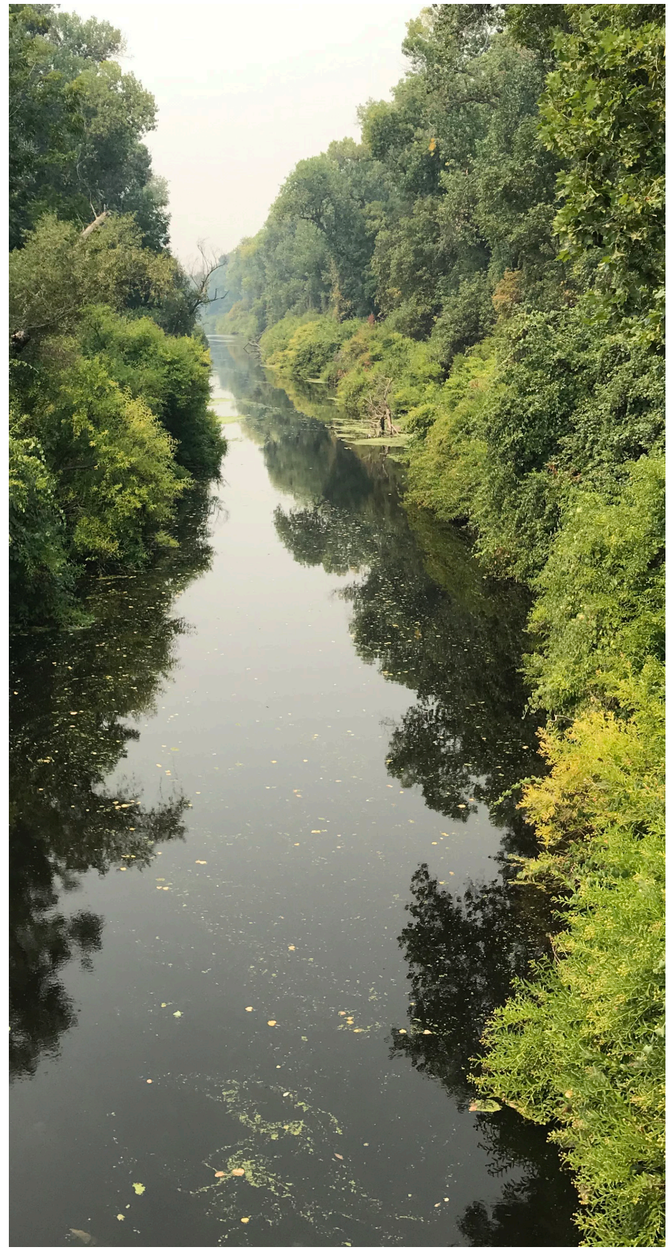
Homelessness

Homelessness is a statewide issue that impacts the Sacramento area and often results in encampments in the Parkway. This is primarily due to the high cost of living in urban areas and the moderate winter temperatures that allow for long-term living outside. These encampments occur in the riparian forest and woodlands throughout the Parkway. It is particularly prevalent in the approximate 6-mile area of the Parkway from the Discovery Park to Cal Expo Areas. On January 30, 2019, California State University, Sacramento (CSUS) and the Institute for Social Research (Baiocchi et al. 2019) conducted a "Point in Time" (PIT) count of homelessness in Sacramento County. The assessment counted 5,570 homeless individuals, a 19 percent increase in the number of homeless individuals counted in the countywide CSUS 2017 PIT Count. The assessment also found that 70 percent of the homeless people in the 2019 Homeless Count were unsheltered (e.g., living outside, in a vehicle, or in a tent). While the 2019 PIT report did not discuss homelessness specific to the Parkway, the 2017 PIT report (Baiocci et al. 2017) provided the following conclusion: "Individuals who reported continuous homelessness tended to be substantially older and were often encountered in encampments near the American River Parkway, in contrast to younger homeless who were interviewed nearer downtown Sacramento" (p. 4).

The 2017 PIT report notes that chronically homeless individuals are more likely to be suffering from PTSD (post-traumatic stress disorder) and/or have a mental health condition. It is also noted that changing river flows impact where individuals can sleep. A Sacramento Bee article reports that in 2019 park rangers and maintenance staff had cleared 767 abandoned camps per month by April; the article cites an estimate of 500-700 people camping in the Parkway every night (Yoon-Hendricks 2019). It is outside of the scope of this document to solve the homeless issue in the region, but the NRMP will consider strategies to potentially decrease natural resource impacts associated with the issue. Impacts related to encampments include those caused by unregulated campfires, vegetation clearing, potential disturbances to wildlife, and water quality impacts. Regional Parks will need to continue collaboration with other agencies (such as the Sacramento County Department of Health and Human Services) and nonprofits with expertise in addressing this issue.

Wildland Fire

As with much of California, wildland fire is a concern in the Parkway. A large portion of the outer boundary of the Parkway is wildland-urban interface (WUI) in which the probability of wildland fires is increased. Wildland fires are often directly caused by human activities (both accidental and intentional). Numerous wildland fires occur in the Parkway every year. Fuel loads, including dry, dead plant materials and highly flammable invasive species, are abundant throughout the Parkway. There is also the potential for wildland fires to occur because of campfires or barbecues placed in unregulated locations. Although wildland fire can be beneficial to natural resources as a restoration tool, it can also be damaging to other natural resources, as well as structures within and outside the Parkway. Regional Parks works to minimize potential impacts of wildland fire in the Parkway through collaborative fuel reduction projects.



Bannon Slough in the Discovery Park Area. Photo Credit: Regional Parks

Habitat Protection, Sensitive Species, and Vegetation Enhancement

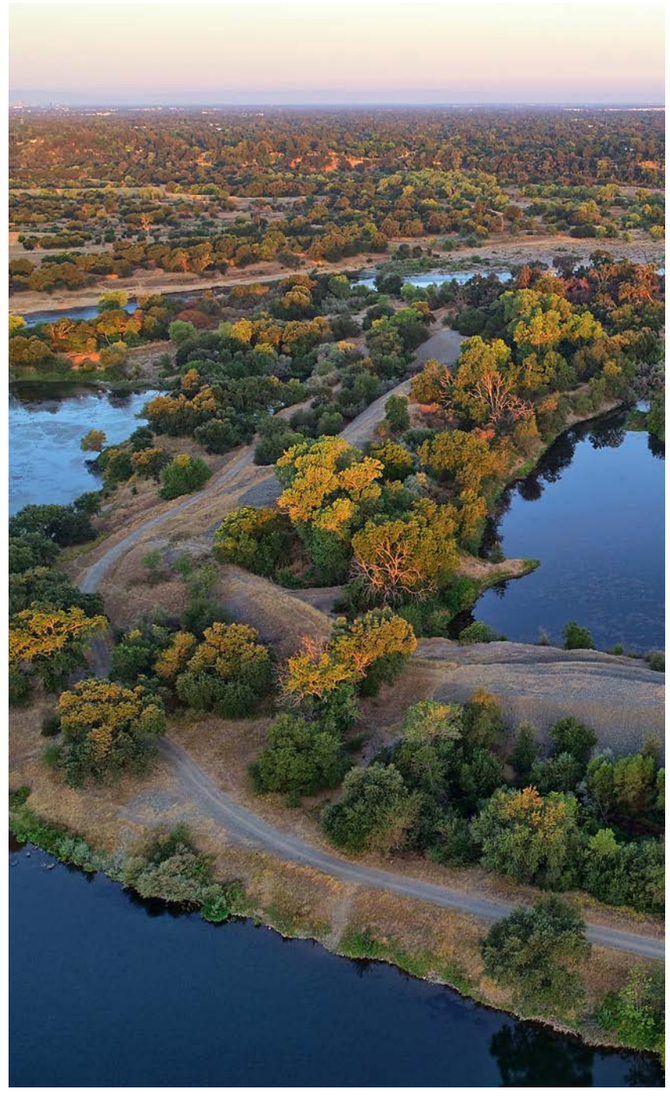
The Parkway supports a diverse range of habitats and ecosystems, including riverine, riparian, wetland, and oak woodland habitats. Each of these habitats provide unique opportunities for food, cover, and breeding for local and migrating plant and wildlife species. The LAR is home to sensitive, protected species including longfin smelt and steelhead. Riparian habitat is extremely valuable in the Parkway because it provides connectivity to the river and maintains wildlife linkages (corridors by which wildlife travel) through the interface between regional natural and urban lands.

Over time, the Parkway has been altered by both natural and anthropogenic processes that have led to a decline in the amount of riparian habitat along the river. Excess debris and trash, wildland fires, habitat loss, bank erosion, water quality issues, and human encroachment all threaten the natural ecosystem of the Parkway. Additionally, invasive plant species occur in every habitat type that is present within the Parkway. The prevalence of invasive species can inhibit native plant establishment, provide poor habitat quality for wildlife, increase hydraulic roughness during high-flow events, increase bank erosion, and exacerbate fire potential.

There is ample opportunity for habitat improvement and continued maintenance within the Parkway. Improvement of sensitive riparian vegetation, specifically in areas no longer able to support natural regeneration, should be a top priority (Lower American River Task Force (LATRF) 2002). Recreational activities should be actively managed in highly sensitive areas to avoid further reduction and degradation of existing ecological resources. In addition, floodway and recreational management strategies occurring within the Parkway need to be compatible with long-term goals for natural resource sustainability.

The NRMP assumes that there are future projects that will be proposed in the Parkway that would result in impacts to natural resources. As such, the Parkway was divided into several categories to advise Regional Parks as to where future mitigation or restoration projects, for example, should occur. These maps may also be used for targeting areas for restoration and enhancement. The following describes the management categories (the maps are included by Area Plan in Chapter 8):

- *Preservation*: Existing mitigation sites that require protection in perpetuity.
- *Conservation*: Existing conditions are considered to generally meet desired conditions, but have been degraded to varying degrees (e.g., fire, illegal camping, social trails, degraded understory, etc.) and should be improved to meet goals. The need for ongoing rehabilitation of degraded areas is expected.
- *Naturalization*: Modifying areas that were substantially altered in the past in order to improve existing natural resource conditions or otherwise modified to meet the management objectives of the ARPP, NRMP, and W&SR policies. This applies to areas previously altered and outcomes are generally native habitat types that would typically be expected to occur in the Parkway.
- Naturalization also includes converting areas that have not been altered by past actions (unaltered) to heighten, intensify, or improve highly valued resource functions that may have been lost or degraded over time. Generally, this entails conversion of land cover type.
- *Rehabilitation Overlay*: The rehabilitation overlay can be applied to any area in the Parkway where damage occurs at some point in the future.



View of ponds remnant of historical mining activities in the Sacramento Bar Area. Photo Credit: Josh Hannon

Human Uses in the Parkway

Recreation is a key human use in the Parkway. The Parkway contains approximately 82 miles of singleuse and multi-use paved and unpaved trails (Regional Parks 2009). The Parkway has beaches and boating access areas that facilitate swimming and boating activities. Fishing is permitted throughout the year (except the fall and early winter), and occurs along the riverbanks from boats in the river channel, and at fishing ponds. The Parkway's active recreational facilities include the Discovery Park archery range, the Campus Commons Golf Course, and the Ancil Hoffman Golf Course. These are recognized as incompatible uses under the Parkway Plan. Unstructured field sports are allowed on the turf fields located in Discovery Park, Ancil Hoffman County Park, and River Bend Park. Additional recreational activities include periodic special events and organized group activities, such as races, festivals, and concerts; these activities are permitted dependent upon issuance of County recreation permit(s). A common issue within recreation areas, including the Parkway, is improper disposal of solid waste (i.e., littering). Solid waste is an aesthetic impact, but it can also have an impact on ecological resources if it enters water or is consumed by wildlife. Solid waste disposal is particularly of concern along the river where boaters may dispose of their waste on shore or in the water due to the inability to access waste bins. Litter can accumulate on the bottom of streams or along the shore where it attracts aquatic and/or terrestrial species that may be harmed by ingestion.

Utility infrastructure exists in the Parkway, including electrical power transmission towers and lines, sewer and water supply pipelines, drainage mains and outfalls, roads, and bridges. Of note, some of these facilities have rights-of-way, including the electrical transmission lines. The areas under the transmission lines are subject to regulations due to wildfires. However, these areas within the Parkway may present an opportunity for vegetation enhancement.

Protection of Cultural Resources

The Parkway encompasses an area rich with remnants of prehistoric, historic, and industrial activity. Cultural resources in the Parkway include prehistoric era (archaeological) resources (e.g., tools and burial sites), historic era resources (e.g., landmarks and buildings representative of historic architectural styles), and industrial era resources (e.g., bridges and railroads). Cultural resources are important, not only as evidence of prehistoric and historic activities, but also as tools for educating the public and as a form of recreation. Balancing the multiple roles of cultural resources in the Parkway requires careful, strategic management. Cultural resources are valuable to indigenous successors and critical in informing our knowledge of historical peoples and events. Furthermore, identification of cultural resources instills in the public recognition of the Parkway as an epicenter of its rich cultural history. Interpretive areas and centers attract users who enjoy forming a connection with the Parkway's history. Though interpretative centers are recreational in nature, they can be differentiated from other recreational opportunities in that cultural resource locations should remain confidential whenever possible to protect the resources from overuse and degradation (Sacramento County 2008).

Special Events Management

Special events are allowed in the Parkway with a recreation permit. Large special events are allowed only in Discovery Park. Small special events are allowed in Discovery Park, Ancil Hoffman County Park, River Bend Park, the William B. Pond Recreation Area, and the Effie Yeaw Nature Center (Sacramento County 2008). Regional Parks issues recreation permits for special events in the Parkway, though permits from additional agencies, such as the Sacramento County Environmental Health Division, may be required depending on the size and scope of the event. Special events must be conducted in a manner and at a frequency at which natural resources are not degraded. A recreation permit is issued with conditions of approval specific to the event. It is important to continue to allow for special events, which provide unique recreational opportunities and a source of funding for the County, while minimizing their impact on natural resources.

Picnic tables and bench in the Upper Sunrise area. Photo Credit: MIG

1.4 OVERVIEW OF THE PLAN

The NRMP is designed to be accessible to both the general public and environmental professionals. The Plan is also designed to be practical and implementable. In order to efficiently implement this Plan, it is necessary to first understand the existing conditions within the Parkway and to define the natural resource management goals and objectives. The NRMP is organized in the following manner:

CHAPTER 1 introduces the planning approach applied in the NRMP;

CHAPTER 2 outlines the goals and objectives of the Plan;

CHAPTER 3 describes the Parkway setting in greater detail with a focus on Area-specific attributes (including land use);

CHAPTERS 4 provides a description and analysis of existing biological resources in the Parkway;

CHAPTER 5 describes the physical resources in the Parkway;

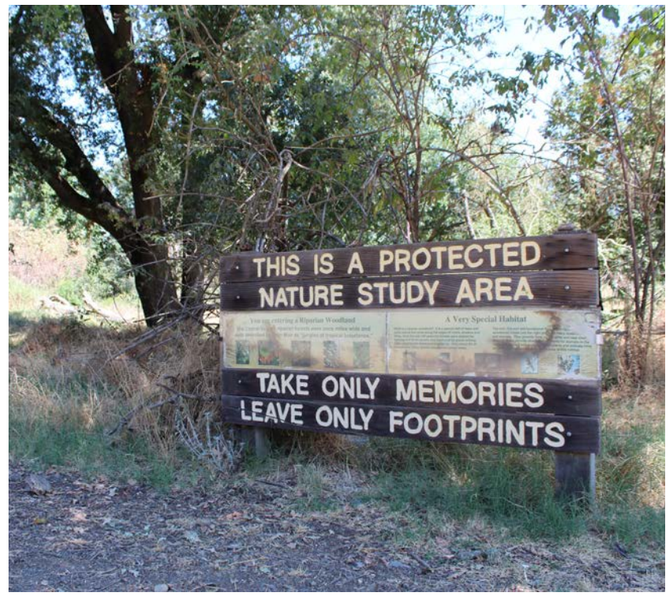
CHAPTER 6 describes the Parkway's cultural resources;

CHAPTER 7 discusses human use impact in the Parkway, and how these impacts can be reduced; and

CHAPTER 8 addresses management, implementation, and monitoring, including potential funding sources and agency roles and responsibilities.

Multi-agency and departmental communication and cooperation is necessary in order to effectively implement the NRMP. This Plan will provide recommendations, including policies, to manage natural resources in the Parkway. This Plan is designed to consider several key issues, but it is not designed to address every single site-specific issue that occurs within the Parkway. There are important issues, such as homelessness, that are considered, but clearly require policy solutions that may be beyond Regional Parks' purview. However, natural resource impacts associated with encampments are discussed. Overall, the NRMP will provide goals and objectives that will lead to implementable actions in order to provide for the sustainable management of natural resources. Additionally, it is important to consider the practical limitation on what can be implemented given financial constraints and limited time.

Concurrent with this Plan, other agencies that have responsibilities in the Parkway are developing plans and/or implementing projects that will impact natural resources in the Parkway. As an example, the U.S. Army Corps of Engineers (USACE), CA Central Valley Flood Protection Board, State Department of Water Resources, and the Sacramento Area Flood Control Agency (SAFCA) are actively engaged in planning and implementing their American River Common Features (ARCF) Project. As a part of this effort, the project sponsors are preparing a Conservation Strategy (CS) that will guide habitat restoration and mitigation efforts of the ARCF, specifically those within the Parkway. The CS will identify areas of conservation opportunities that meet ARCF mitigation needs. The needs and timing of this process lends itself to coordination and cooperation with the NRMP and its task force, with stakeholder input, utilization of a wide variety of existing plans, and common science being areas where coordination will benefit both processes. Additionally, the work of the Water Forum, including their program of improving habitat for spawning and rearing of listed fish species, also serves as an opportunity for coordination and cooperation. This Plan will lay down broad guidelines as to how these projects can be implemented consistent with the NRMP. Additionally, these projects will need the approval of the County and this may lead to required mitigation strategies that benefit both the project proponent and the Parkway. These projects may also provide a funding source to meet the goals and objectives of the NRMP.



Nature Study Area signage at the Effie Yeaw Nature Center. Photo Credit: MIG

Agricultural plantings at Soil Born Farms in the River Bend Park Area. Photo Credit: MIG

Soil Born Farms in the River Bend Park Area. Photo Credit: MIG

1.5 NRMP TASK FORCE

As part of the NRMP development, Regional Parks determined that an interagency task force was needed to create a fully informed and implementable NRMP. The NRMP Task Force ("Task Force") has been tasked with: (1) providing recommendations to Regional Parks on the preparation of the NRMP; (2) identifying recommended strategies and actions for addressing natural resources impacts on the Parkway that are aligned with parallel processes and projects; (3) identifying existing or future projects that align with the NRMP; and (4) identifying funding sources for NRMP implementation.

The NRMP will reflect the input and direction provided by Task Force members. The Task Force is composed of the following agencies and organizations:

- County of Sacramento Department of Regional Parks (Regional Parks)
- Sacramento Area Flood Control Agency (SAFCA)
- The Water Forum
- U.S. Army Corps of Engineers (USACE)
- Wildlife Conservation Board (WCB)
- Central Valley Flood Protection Board (CVFPB)
- American River Parkway Stakeholders
- WRC Environmental
- County of Sacramento Division of Planning and Review
- U.S. Fish and Wildlife Service (USFWS)
- Sacramento Municipal Utility District (SMUD)
- California Department of Water Resources (DWR)
- MIG
- ICF

The Task Force first convened in June 2020. The ninth and final Task Force meeting occurred in February 2021.

1.6 NRMP COMMUNITY OUTREACH AND ENGAGEMENT

Concurrent with the establishment of the Task Force, an NRMP Community Engagement Plan was devised to solicit public input on draft NRMP concepts and materials, including goals, objectives, and maps. Feedback from community outreach activities will be reviewed and incorporated into the NRMP. To date, Regional Parks has conducted the following community engagement activities:

- Two open community workshops to provide an opportunity for the public to provide early input on the NRMP (July 16, 2020 and July 17, 2020);
- Major NRMP concepts presentation to the American River Parkway Advisory Committee (July 10, 2020);
- Major NRMP concepts presentation to the Sacramento County Recreation and Parks Commission (July 23, 2020);
- Public Maptionnaire survey hosted on the County website to seek public feedback on the draft NRMP goals and objectives (July 2020 – September 2020);
- Two Parkway Stakeholders meetings to obtain input on the NRMP draft maps and management actions (December 4, 2020 and January 8, 2021); and
- One Fisheries Stakeholder meeting on February 5th, 2021.

A summary of the public input is provided in the Public Outreach Report, included in the appendices. Public input was incorporated into the NRMP and many of the items are included in the Chapter 8 area plans and area plan write-ups. Additional community engagement activities are planned for 2021, concurrent with the release of the public draft.

Native trees leafing out along riverbanks in River Bend Park Area. Photo Credit: Wildlife Conservation Board