bae urban economics

Cache Creek Parkway Plan

DRAFT Feasibility Study

July 2017

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Table of Contents

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List of Tables

List of Figures

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EXECUTIVE SUMMARY

Overview

This report presents the financial feasibility analysis for the long-term improvement, and operation and maintenance of the Cache Creek Parkway system, as envisioned in the Draft Cache Creek Parkway Plan. The Parkway will consist primarily of former gravel mining quarry sites that extend along lower Cache Creek, between the towns of Capay and Yolo, in western Yolo County. The sites have been or will be restored and maintained for a range of uses, including wildlife habitat, passive open space, and parklands for various active uses. In total, the properties cover approximately 1,650 acres. The financial feasibility analysis covers the period from 2016 to 2050; however, the analysis is designed to project long-term financial feasibility for Yolo County to provide physical and financial stewardship of the various sites beyond this analysis horizon.

This study included the following major elements:

1. Defining four different scenarios of progressively more intensive development of Parkway properties with accompanying development timetables.
2. Developing one-time capital improvement costs for each scenario.
3. Projecting the ongoing operations and maintenance costs for each scenario.
4. Projecting the revenues that would be available to offset operations and maintenance costs and capital costs.
5. Evaluating the overall financial feasibility of the Draft Cache Creek Parkway Plan, including exploration of potential strategies to augment revenues in support of full plan implementation.

In conjunction with completing the components above, BAE incorporated the development assumptions, and projections of capital costs, operation and maintenance costs, and anticipated revenues into a comprehensive financial model for the Cache Creek Parkway. The model serves as the tool to evaluate financial feasibility for the different Parkway scenarios. It was designed to be easily updated, and County staff can update the financial model on an ongoing basis to project long-term costs and funding requirements, as a tool to assist in planning for and tracking Cache Creek Parkway Plan implementation.

Parkway Development Scenarios

The Draft Cache Creek Parkway Plan provides a vision for the ultimate long-term development of the Parkway properties. The vision can be considered aspirational, in that the actual development and operation of the Parkway will be constrained by the practical limitation of available funding resources, for both capital improvements and ongoing operations and maintenance costs. The four different Parkway scenarios defined for the purposes of this study illustrate a spectrum of development intensity that ranges from a Baseline scenario that

assumes limited improvements to the Parkway properties other than those that exist at the time the County acquires a given site, to an ultimate expansion scenario that examines the financial implications from developing and operating the Parkway in a manner that is consistent with the long-term vision established in the Draft Cache Creek Parkway Plan. The different scenarios and their financial implications are summarized below.

Financial Projections for Parkway Development Scenarios

The table below summarizes the one-time capital improvement cost, annual operating and maintenance cost, and annual revenue projected for the four parkway improvement scenarios. For each parkway scenario, the table shows the initial annual surplus or shortfall in the first year (2016) and the annual surplus or shortfall in the final year (2050) when all of the parkway properties have been acquired by the County. The final line summarizes the cumulative surplus or shortfall from 2016 through 2050. The remainder of the report provides additional details regarding the figures summarized in Table ES-1.

Table ES-1: Summary of Parkway Improvement Scenarios

Item	Parkway Improvement Scenario			
	Baseline	Baseline + Tier 1	Baseline + Tier 2	Baseline + Tier 3
Capital Improvements				
One-Time Cost for Full Build-Out (2050)	n.a.	$13,345,180	$37,271,177	$50,209,021
Operating and Maintenance (O&M)				
First Year (2016)				
Annual O&M Cost	$173,292	$271,171	$287,971	$299,743
Annual Revenue for O&M	$335,805	$345,593	$347,273	$348,450
Annual Surplus/(Shortfall)	$162,513	$74,423	$59,303	$48,707
Final Year (2050)				
Annual O&M Cost	$390,710	$934,008	$1,425,903	$1,481,076
Annual Revenue for O&M	$355,019	$409,349	$458,538	$464,055
Annual Surplus/(Shortfall)	($35,691)	($524,659)	($967,365)	($1,017,021)
Cumulative 2016-2050 O&M Surplus/(Shortfall)	**$727,712**	**($12,504,398)**	**($17,016,232)**	**($17,778,934)**

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

Baseline

The Baseline scenario involves the lowest level of improvements to Parkway sites, resulting in the narrowest range of amenities offered, the lowest level of operations and maintenance costs, and likely the lowest level of usage among the scenarios. For the Baseline scenario, projected revenues would exceed the projected operating costs in each five-year year period

covered in the analysis, except for the 2046-2050 period, in which projected revenues would fall slightly below the projected operating and maintenance costs. However, due to the cumulative surpluses projected in all the proceeding five-year periods, there is a modest projected cumulative surplus of $727,000 dollars by the end of the 2046 to 2050 time period. Based on these results, the financial model projects that the Baseline scenario is financially viable. The projected $727,000 million cumulative surplus might be available to make minor capital improvement investments in Parkway properties that are not currently envisioned for the Baseline scenario, or to provide reserve funding for the period extending beyond the planning horizon for this study.

Baseline + Tier One Improvement

The Baseline + Tier One improvement scenario builds on Baseline scenario by adding a range of public improvements to various Parkway sites, to provide additional amenities and support greater usage by the public and an expanded range of activities, including overnight use (camping). Such a scenario would likely require the County to utilize funding from sources that are not currently in the County's direct control, but the objective in defining this scenario was to establish a vision that was realistically achievable over the long-term. Due to the significant operating cost increases in the Baseline + Tier One improvement scenario, and limited additional revenue, this scenario would generate significant operating shortfalls, absent identification of additional new funding sources. By 2050, the total cumulative shortfall would be $12.5 million total over the planning horizon, or an average of about $357,000 per year.

Baseline + Tier Two Improvement

In addition to the improvements included in the Baseline + Tier One improvement scenario, the Baseline + Tier Two improvement scenario includes a number of "big ticket" capital improvements, for which the ability to secure funding may be considerably more challenging than the Baseline + Tier One improvement scenario. The Baseline + Tier Two improvement scenario also includes long-term operating and maintenance cost increases that are substantially above those projected for the Baseline scenario. With limited additional baseline revenue assumed, the projected cumulative operating shortfall through 2050 would be about $17.0 million, or an average shortfall of about $486,000 per year for the period.

Baseline + Tier Three Improvement

The Baseline + Tier Three improvement scenario does not involve substantial additional operating and maintenance costs above the level projected for the Baseline + Tier Two improvement scenario (about three percent above Baseline + Tier Two improvement scenario operating costs). Thus, the projected operating shortfall does not rise significantly compared to the Baseline + Tier Two improvement scenario, but would still accumulate to approximately $17.8 million through 2050. Spread over the 35-year period, this would translate to an average annual operating shortfall of about $508,000 per year.

Parkway Financial Feasibility

The results of the financial modeling indicate that with existing financial commitments and projected financial resources that are under the control of Yolo County, the Cache Creek Parkway would be viable at a Baseline level of improvements and associated public use. The financial projections for the Baseline + Tier One, Tier Two, and Tier Three scenarios provide the County with information needed to understand the additional financial resources that the County would need to secure to implement various components of the Draft Cache Creek Parkway Plan, to enhance the properties with additional amenities and features, and enable a wider range of activities and expanded usage of the Parkway properties.

Potential Revenue Augmentation

The analysis incorporates projections of several primary operating revenues (or in-kind contributions) that Yolo County can use to provide for the ongoing maintenance and operational needs of the Cache Creek Parkway, which are representative of established funding mechanisms, and for which the probability of implementation during the planning horizon is deemed to be relatively high. These conservative revenue assumptions are sufficient to demonstrate fiscal viability for the Baseline scenario; however, additional funding would be necessary to undertake substantial new capital improvements and support an expanded range of activities and usage with appropriate expansions of operations and maintenance expenditures. The final chapter of this report briefly discusses a range of potential funding augmentation opportunities that could provide meaningful support for expanded Parkway improvements and operations under the Tier One, Tier Two, and Tier Three improvement scenarios, including:

- Future Development Agreement Contributions from Mining Applications
- Potential Increased User Fee Cost Recovery
- Concession Operation Revenues
- Potential Increases or Reallocations of Annual Gravel Mining Fees
- Revenues or In-Kind Contributions from User Group Partners
- Grants
- Donations
- Dedicated Foundation

Potential Voter-Approved Parcel Tax. One element that is common to all those mechanisms is a level of uncertainty about when, or in what quantities the County might secure the revenues. The final report chapter also considers the potential revenue that could be generated by a voter-approved countywide parcel tax on residential properties within the Yolo County cities and the unincorporated area, which would generate a predictable and consistent long-term stream of revenue, a portion of which could be dedicated to Parkway capital improvements and/or operations and maintenance.

Based on the projected funding needs in this report, beyond what existing County-controlled funding sources could provide, BAE estimated the range of annual parcel tax needed to cover anticipated capital and operating costs for the different scenarios. In the estimates presented below, the lower number represents the parcel tax needed to support a funding scheme that incorporates a pay-as-you-go approach for the capital improvements. The higher number represents the parcel tax needed to support a funding scheme that incorporates a bond financed approach to capital improvements. The high and low estimates for each scenario assume the same annual operating and maintenance costs, and assume that the costs will be funded on a pay as you go basis, using available revenues, with a portion of annual parcel taxes paying for operating and maintenance costs that cannot be covered by projected revenues from other sources.

Baseline + Tier One Improvement Scenario

Single-family Annual Parcel Tax Rate	$12 to $20/year
Multifamily Annual Parcel Tax Rate	$10 to $17

Baseline + Tier Two Improvement Scenario

Single-family Annual Parcel Tax Rate	$26 to $49
Multifamily Annual Parcel Tax Rate	$21 to $40

Baseline + Tier Three Improvement Scenario

Single-family Annual Parcel Tax Rate	$32 to $63
Multifamily Annual Parcel Tax Rate	$26 to $52

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INTRODUCTION

This report presents the financial feasibility analysis for the long-term improvement, and operation and maintenance of the Cache Creek Parkway system, as envisioned in the Draft Cache Creek Parkway Plan, prepared in October 2016 by Tschudin Consulting Group and Callander Associates, in consultation with Natural Resources Division staff. The Parkway will primarily consist of former gravel mining quarry sites that extend along Cache Creek, in western Yolo County from just north of the unincorporated community of Capay to roughly two miles west of Woodland. The sites have been or will be restored and maintained for a range of uses, including wildlife habitat, passive open space, and parklands for various active uses. In total, the properties cover approximately 1,650 acres. Table 1 contains a summary of the properties included in the Draft Cache Creek Parkway Plan. Figure 1 is a map that depicts the western portion of the Cache Creek Parkway. Figure 2 depicts the eastern portion of the Parkway. Additional maps providing details of individual Parkway properties are included in Appendix A. The financial feasibility analysis covers the period from 2016 to 2050; however, the analysis is meant to project the long-term financial feasibility for Yolo County to provide financial and physical stewardship of the various sites beyond this analysis horizon.

Draft Cache Creek Parkway Plan

According to the Draft Cache Creek Parkway Plan, the County possesses fee title to seven sites, totaling 237 acres (see Table 1). The County anticipates taking possession of the remainder of properties through periodic dedications as participating mining companies exhaust gravel resources at individual sites and complete required restoration activities, or through acquisition of other properties or trail connections as opportunities to purchase or negotiate donation with willing landowners may arise.

The Draft Cache Creek Parkway Plan identifies each of the Parkway properties, its anticipated acquisition date, legal and physical property characteristics, and existing and planned improvements, among other details. BAE translated the information in the Draft Cache Creek Parkway Plan into a master schedule that tracks the acquisition of the Parkway property inventory over time to serve as the basis for assignment of one time capital improvement costs and ongoing operating and maintenance costs and track how they compound over time.

Table 1: Schedule of Potential Parkway Acquisitions and Acreage

Park Site	Year of Acquisition and Associated Acreage							Park Total
	Present-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	
1 - Capay Open Space Park*	41	0	0	0	0	0	0	41
2 - Granite Capay Lake	0	143	64	0	0	0	0	207
3 - Granite Esparto Lake and Trail	0	121	0	0	0	0	201	322
4 - Syar Lake	0	0	0	227	0	0	0	227
5 - Teichert Esparto Reiff Lake	0	0	0	88	0	0	0	88
6 - Cemex Snyder Lakes	0	0	0	165	0	0	0	165
7 - Millsap Property*	17	0	0	0	0	0	0	17
8 - YCFCWCD Properties	0	0	0	0	0	0	89	89
9 - Wild Wings Open Space Park*	17	0	0	0	0	0	0	17
10 - Teichert Coors Storz Bridge	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11 - Cache Creek Nature Preserve*	123	0	0	0	0	0	0	123
12 - Teichert Woodland Storz Lake	64	0	0	0	0	0	0	64
13 - County Borrow Site*	7	0	0	0	0	0	0	7
14 - Teichert Woodland Muller Habitat and Trail	98	0	0	0	0	0	0	98
15 - Teichert Muller Bridge	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16 - Granite Woodland Reiff Habitat	115	0	0	0	0	0	0	115
17 - Rodgers Property*	30	0	0	0	0	0	0	30
18 - Correll Property*	39	0	0	0	0	0	0	39
Additional Improvements	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total, All Acreage	**550**	**264**	**64**	**480**	**0**	**0**	**290**	**1,648**
Cumulative Parkway Acreage	**550**	**814**	**878**	**1,358**	**1,358**	**1,358**	**1,648**	

Note:

* Sites already acquired by Yolo County.

Sources: Draft Cache Creek Parkway Plan, October 2016.

Figure 1: Cache Creek Parkway (West)

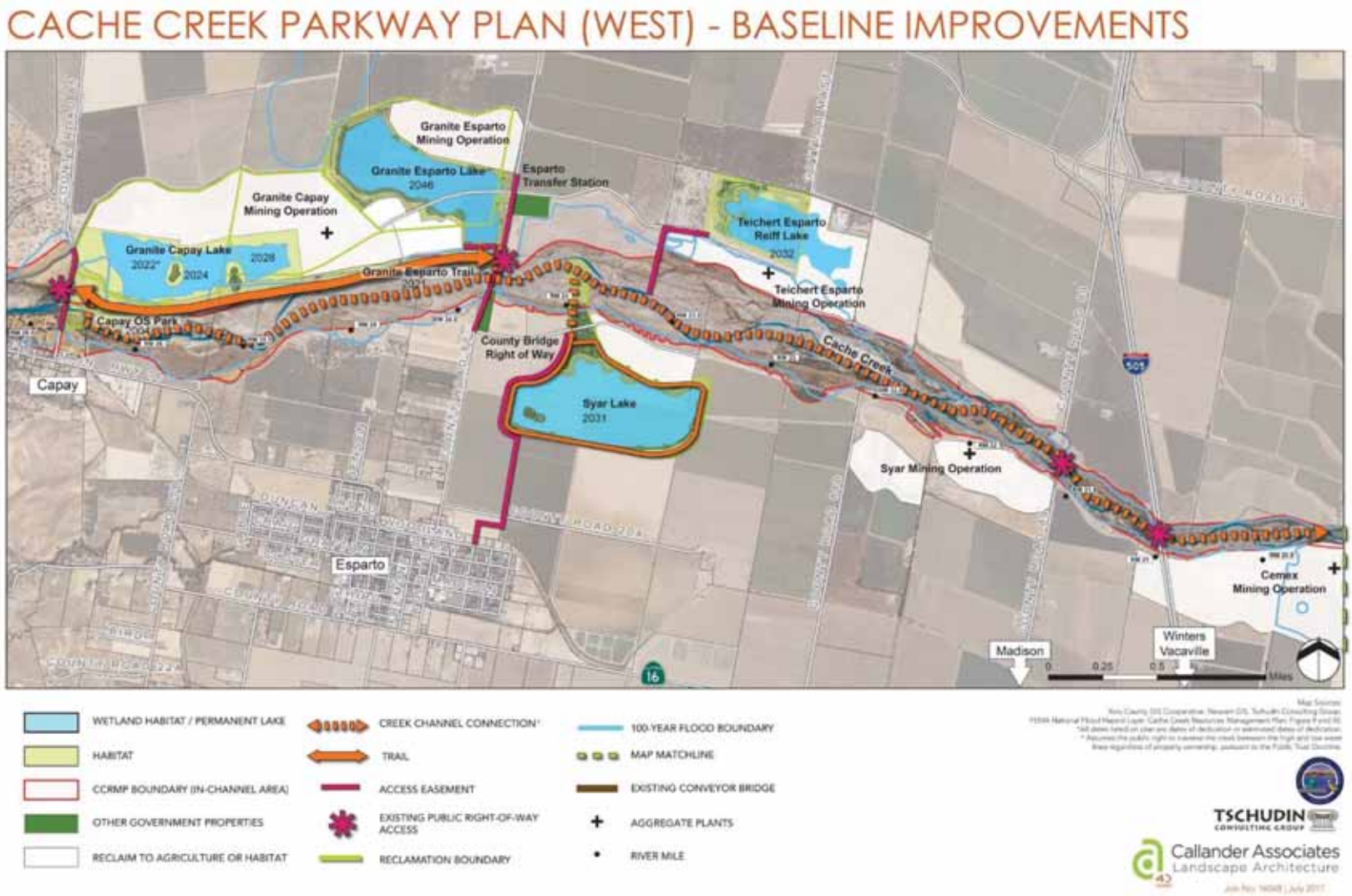
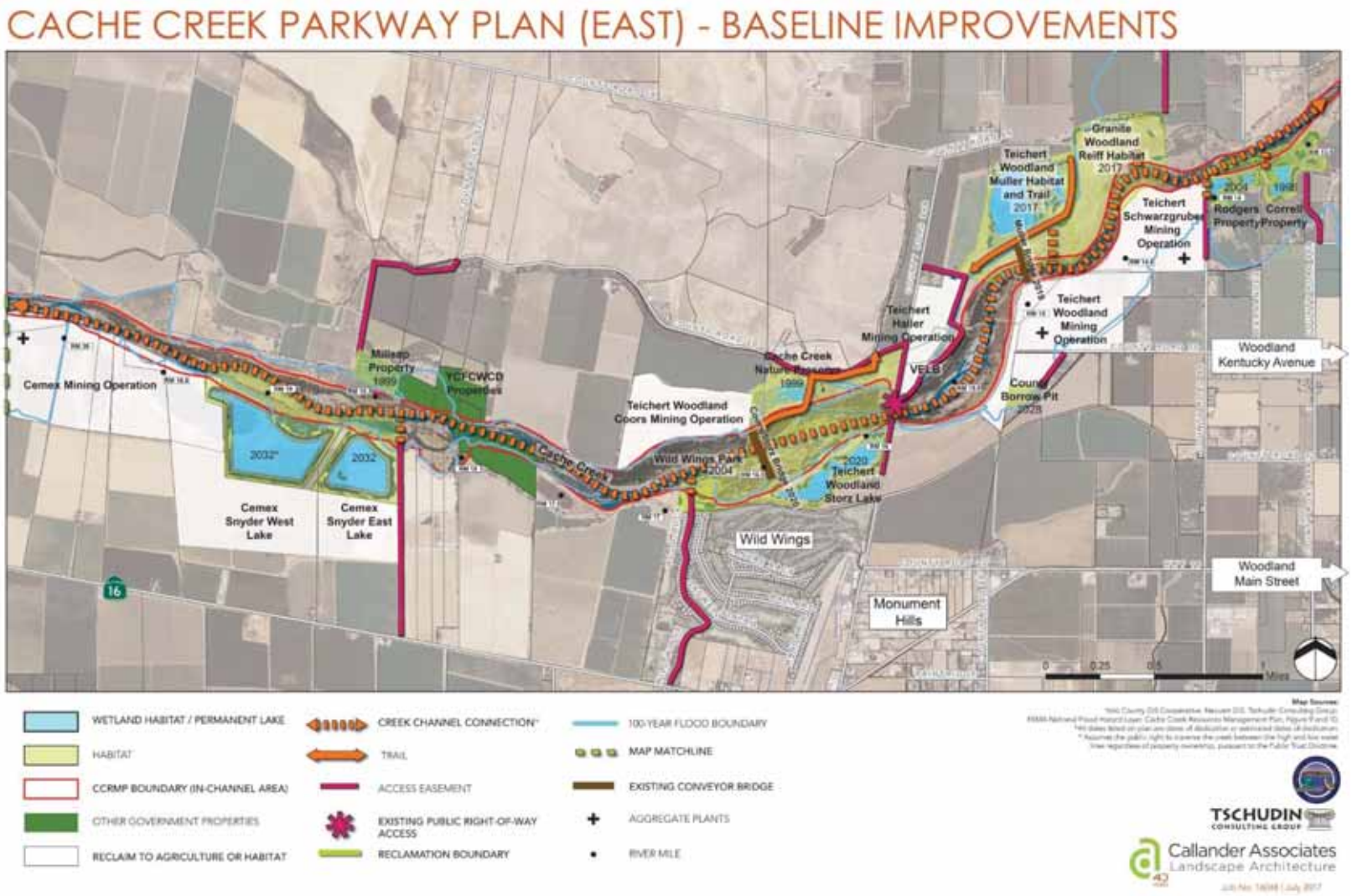


Figure 2: Cache Creek Parkway (East)



Parkway Development Scenarios

The Draft Cache Creek Parkway Plan provides a vision for the ultimate development of the Parkway properties over the long-term. The vision can be considered aspirational, in that the actual development and operation of the Parkway will be constrained by the practical limitation of available funding resources, for both capital improvements and ongoing operations and maintenance costs. This analysis defines four different Parkway development scenarios, which represent progressively more intensive development and usage of the Parkway properties, defined through collaboration between County staff, Tschudin Consulting, BAE, and Callander Associates. While the four scenarios lay out specific assumptions regarding the anticipated year of acquisition for Parkway properties and the timing of various post-acquisition capital improvements and related operations and maintenance costs, BAE created a flexible financial model that will allow the County to adjust individual cost, revenue, or timing assumptions and see how those changes flow through the model and affect financial feasibility projections.

BAE created a one-page summary sheet for each Parkway property that includes basic property characteristics and assumptions regarding acquisition date, and a summary of the capital improvements envisioned in the Draft Cache Creek Parkway Plan, and the assumptions regarding the improvement scenario to which each capital improvement is assigned. These summary sheets also include assumptions regarding capital improvement costs and timing for completion, along with estimates of associated annual operations and maintenance costs, to be discussed in the next section of this feasibility study. The property summary sheets are included as Appendices A-1 through A-19.

The four scenarios form the basis for four sets of cost and revenue projections, as described below.

Baseline

The Baseline scenario involves the lowest level of improvements to Parkway sites, resulting in the narrowest range of amenities offered and the lowest level of operations and maintenance costs. This scenario places a focus on maintaining the properties in the condition that they are in when acquired by the County. No capital improvements are assumed under this scenario; only operations and maintenance costs are considered. Under this scenario, the assumed predominant use of the properties would be for open space/habitat including public access and passive day use activities such as walking/hiking, picnicking, and wildlife viewing.

Baseline + Tier One Improvement

The Baseline + Tier One improvement scenario builds on the Baseline scenario by adding a range of public improvements to various Parkway sites, to provide additional amenities and support greater usage by the public and an expanded range of activities, including expanded trail connections, boat launch sites, swimming access, additional parking lots, restroom

facilities, picnic areas, swim and boat access, formal trails, and overnight use (camping). Such a scenario would likely require the County to utilize funding from sources that are not currently in the County's direct control, but the objective in defining this scenario was to establish a vision that was realistically achievable over the long-term.

Baseline + Tier Two Improvement

In addition to the improvements included in the Baseline + Tier One improvement scenario, the Baseline + Tier Two improvement scenario includes a number of additional, more expensive capital improvements, for which the ability to secure funding may be considerably more challenging than the Baseline + Tier One improvement scenario. For reference, the added improvements in this scenario include items such as bridge undercrossings, pedestrian bridge retrofits, expanding Tier One parking lots to accommodate more vehicles, some additional restroom facilities, establishing wells and electricity connections for public use, and the importation of sand and other fill for various uses, including a beach for better swim access and expanded picnic areas and campgrounds.

Baseline + Tier Three Improvement

The Baseline + Tier Three improvement scenario is inclusive of the improvements in the Baseline + Tier One and Baseline + Tier Two improvement scenarios, and includes additional improvements that are only included in Baseline + Tier Three. It reflects the full aspirational vision for the Parkway, assuming all improvements contemplated in the Draft Cache Creek Parkway Plan. Above the Tier Two scenario, the Tier Three scenario enhances access and connectivity between properties and includes other desirable long-range improvements, including a paved trail between the Parkway sites, additional trail connections and bridge overcrossings, additional land/easement acquisitions, and a pedestrian tunnel connection. It should be noted that this scenario includes improvements on properties for which the County currently has no cooperative agreements and/or sources of funding.

METHODOLOGY AND DATA SOURCES

The following section provides details regarding the various cost and revenue assumptions, including the source of information. Capital improvement costs and funding sources are discussed first, followed by discussion of operations and maintenance costs and funding sources.

Capital Improvement Costs

The Parkway properties analyzed in the 2016 Draft Cache Creek Parkway Plan that the County does not currently own will be conveyed to the County in a variety of ways, primarily as dictated by approved development agreements between the gravel mining operators and the County. This analysis considers the capital costs associated with the additional post-conveyance improvements that are envisioned in the Draft Cache Creek Parkway Plan, as specified in the Baseline + Tier One improvement, Baseline + Tier Two improvement, or Baseline + Tier Three improvement scenarios. The Baseline scenario does not assume any capital improvements to Parkway properties, other than those already in place at the time the County acquires the properties.

To support this feasibility analysis, Callander Associates prepared planning level cost estimates for each of the different improvements envisioned in the Draft Cache Creek Parkway Plan. As such, they include allowances for construction contingency and overhead, and design contingency and County overhead, in addition to the actual construction costs. The Callander Associates cost estimates are included as Appendix B. Note that these estimates cover design and construction only, and do not include the cost of compliance with the California Environmental Quality Act, property or easement acquisition costs (e.g., for rights-of-way, etc.), or other approvals from state or federal agencies, should they be necessary.

In consultation with County staff, Tschudin Consulting Group, and Callander Associates, BAE assigned each post-acquisition improvement specified for each Parkway property to one of the improvement scenarios defined above. The capital improvement cost estimates for the different improvement scenarios are cumulative, meaning that the capital costs for the Baseline + Tier Two improvement scenario include the capital costs that are included in the Baseline + Tier One improvement scenario, and the costs for Baseline + Tier Three include the costs for Baseline + Tier One and Baseline + Tier Two scenarios.

When assigned to a given improvement scenario, the costs for various capital improvements estimated by Callander Associates are assumed to begin to accrue in the year following the County's acquisition of the associated Parkway site, as indicated in the Property Summary Sheets contained in Appendix A.

Operating and Maintenance Costs

When capital improvements are assigned to a specific improvement scenario in the property summary sheets contained in Appendix A, the associated maintenance costs for the improvements are assumed to begin to accrue in the year following the improvements. For example, if the County receives a property in 2020, this analysis assumes the County will maintain that land with no additional improvements for that year, followed by construction/installation of the capital improvements in 2021, with the County's cost to maintain the property increasing in 2022, to reflect the presence of the additional improvements.

To estimate the costs to operate and maintain the Parkway under the different scenarios, BAE contacted numerous park operators who are responsible for maintaining parks and facilities exhibiting characteristics like those envisioned in the Draft Cache Creek Parkway Plan, including county park departments, city park departments, and California State Parks. During these interviews, BAE sought to identify general cost estimates associated with various park features, ranging from natural habitat to more intensive uses, including paved trails and recreation activities. Included in these interviews were conversations with Yolo County, Solano County, East Bay Regional Parks, the Putah Creek Council, and the Cache Creek Conservancy. Generally, cost information obtained from Yolo County and the Cache Creek Conservancy is considered more reliable, given that these two entities currently maintain a number of Parkway sites and it is anticipated that those costs will closely resemble the costs associated with future Parkway sites. In situations where maintenance cost data were unavailable from local sources, BAE collected cost estimates from multiple interviewees in order to increase the level of confidence in the estimates used for this analysis.

The cost estimates compiled for this study do not include increased costs for law enforcement within the Parkway. This topic was briefly explored in the Yolo County Sustainable Parks Study (June 2016). This study estimated that the full cost of a park ranger could exceed $105,000 per year, and indicated that the County Parks Division should work with the Yolo County Sheriff's Office to develop a formal agreement for patrolling parks and issuing citations for non-payment of fees, rather than hiring separate ranger staff. Pursuant to the study, the creation of a separate park ranger position will be re-evaluated at a later date.

Capital Improvement Funding

This analysis briefly touches on funding for capital improvements; however, it does not attempt to provide a comprehensive capital improvements financing strategy, as such a strategy would be quite speculative. This is due to the uncertain nature of sources that could provide major capital improvement funding, such as local bond measures that would require voter authorization, and/or state, federal, or non-governmental organization grants that are competitive in nature and often oversubscribed by applicants seeking funding; however, the possibility of utilizing augmented funding from several different sources, including bonds supported by a countywide parcel tax, is discussed in the final chapter of this report.

Operating Revenues

While operating costs increase with each progressively more intensive parkway scenario, the operating revenues do not increase significantly as the intensity of uses increase. This is because the primary operating revenue is assumed to be gravel mining fees, which are not assumed to increase significantly over time, after accounting for the effects of inflation.[1] Aside from the gravel mining fees, which are unique to the Cache Creek Parkway, the other operating revenues considered for this analysis are based on research conducted regarding the funding utilized by other park and open space agencies. The assumptions incorporated into this analysis are meant to provide a conservative baseline for projecting the viability of the Cache Creek Parkway Master Plan under the different scenarios. More in-depth discussions regarding the assumptions for the different operating revenue projections are provided below.

Gravel Mining Fees

One major funding source is generated by mining fees[2] paid to the County from the participating mining operations permitted along Cache Creek, dependent on the number of tons of gravel sold each year. As of 2016, the County receives $0.529 per ton of gravel sold each year. This fee is subject to annual increases and is re-negotiated from time to time as specified in the Gravel Mining Fee ordinance (Chapter 10, Title 11 of the Yolo County Code). In addition to the base fee, the County also receives an additional $0.20 Production Exception Surcharge for each ton sold in excess of 1 million annual tons[3], by each individual operator. One of the operators, based on permitting approvals and development agreements, pays an additional Unallocated Tons Surcharge (distinct from the Ordinance Surcharge) of $0.20 for each ton over 500,000 and under 1,000,000 in any given year. To estimate the anticipated future gravel fee revenue, BAE utilized records provided by the County indicating the historic annual tonnage sold by all operators combined. For the purposes of this analysis, BAE has assumed the Cache Creek gravel mining resources will support ongoing extraction beyond the 2050 time horizon used for this analysis.

According to Tschudin Consulting Group, estimates of remaining gravel resources in the Cache Creek mining area are as much as 731 million tons, although it should not be assumed that it will be feasible to extract all of this gravel, due to locational constraints and other factors.[4] Nevertheless, at a historic average of about 2.8 million tons of gravel mined per year, based on Yolo County Cache Creek mining program records, the full potential would represent a supply sufficient to support over 200 years of gravel mining activity. Although this potential

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[1] The gravel mining fees have a negotiated, built-in increase of four percent per year. This may exceed the rate of inflation, which in recent years has typically been in a range of two to three percent per year. To the extent that the actual rate of inflation averages less than four percent per year, this analysis is conservative, and will tend to understate the future purchasing power of gravel mining fees.

[2] Yolo County Code, Title 8, Chapter 11, Gravel Mining Fee Ordinance.

[3] This ordinance surcharge is the extra $0.20 per ton described in County Code Section 10.4-405 and 8-11.01(a)(5) which apply to all the currently permitted operations except Teichert Esparto.

[4] Personal communication. Heidi Tschudin, Tschudin Consulting Group, Conducted November 27, 2016.

duration should be discounted, these figures suggests that the historic gravel mining activity could be supported well beyond the 34-year planning horizon covered in this analysis. Further corroborating this are mining fee revenue assumptions contained in the 2015 Draft Yolo Habitat Conservation Plan, which project that a stable level of Cache Creek gravel mining fee revenue would be available during the 50-year permit period, which would extend by more than a decade beyond the 2050 planning horizon for this study.[5]

While it cannot be assumed that gravel mining fees will remain available in perpetuity, the available information suggests that the gravel mining fee proceeds can be a core source of funding for Parkway operations for a period that extends through the 2050 planning horizon for this analysis, and beyond. This will give Yolo County adequate time to plan for and develop alternative funding mechanisms to replace gravel mining fees when they do eventually cease. This analysis assumes that gravel mining will generate future gravel fee payments based on the historic average annual tonnage sold between 1965 and 2015, which is approximately 2,817,000 tons/year. In addition, BAE calculated the average amount of tonnage subject to the $0.20 Ordinance Surcharge between 1997 and 2015 in order to estimate the total average anticipated annual revenue from gravel mining fees that the County will receive over the long-term. While this figure varies in the available data, the average tonnage subject to the increased surcharge amounts to roughly 40,000 tons per year.

These estimates are based on current mining fee rates, which are scheduled to increase gradually over time. The adopted fee ordinance contains a four percent annual rate escalator. Because this analysis is conducted in nominal 2016 dollars, it is appropriate to project all future revenues based on the current rates, and to also project corresponding operating and maintenance costs in 2016 dollars, without adjusting for inflation. For simplicity, this analysis essentially assumes that the gravel mining fee adjustments will track operating and maintenance cost inflation over time. This is a conservative assumption, to the extent that the actual rate of cost inflation for operating and maintenance costs may be less than four percent per year.

Once received, the gravel mining fee revenues are distributed according to the provisions of the Gravel Mining Fee Ordinance, including roughly 55.6 percent to the Cache Creek Resources Management Plan (CCRMP), 17.8 percent to the Off-Channel Mining Plan, 4.4 percent for maintenance and remediation, and 22.2 percent to the Cache Creek Conservancy. Although restricted in their use until at least 2027 by the current gravel mining fee ordinance, this analysis assumes that all the funds allocated for maintenance and remediation will eventually be available to support ongoing Parkway operations and maintenance.[6] The

[5] Yolo HCP/NCCP Public Review Draft, Appendix I: Funding Plan, Table 7, Published August, 2016.
[6] In January 2027, unused funds from this fee component will become available for activities such as remediation, environmental monitoring, and lake maintenance (see specifics in the gravel mining fee ordinance). In January 2047 unused funds from this component will become available for CCAP implementation, habitat restoration, creation of open space/passive recreation facilities, and creek restoration.

financial projections contained in this report assume that either the County would modify the existing ordinance to allow use of some of these funds prior to 2027 to support parkway operations, and/or use interim funding mechanisms, such as intrafund borrowing, to provide necessary operating support for the Parkway until the funds are available to be used for Parkway operations and maintenance and to repay any interim borrowing.

Cache Creek Conservancy In-Kind

The Cache Creek Conservancy currently utilizes the mining fee funds that it is allocated, to maintain Parkway system properties, including the Cache Creek Nature Preserve. This analysis assumes that the Conservancy will maintain its current level of gravel fee revenue expenditures allocated to Parkway maintenance throughout the projection period, and that expenditures would be re-allocated to other Parkway properties if maintenance responsibility for any properties currently maintained by the Conservancy is shifted to other entities, such as the Yolo Habitat Conservancy.

Current County Parkway Maintenance Allocation

The County currently allocates roughly $110,000 per year of mining fee revenue to various entities that assist with maintaining the following properties: Capay Open Space Park, Millsap Property, Wild Wings Open Space Park, Rodgers Property, and Correll Property. BAE assumes this baseline contribution from the County for park maintenance specifically within the Cache Creek Parkway corridor will continue during the projection period covered by this analysis.

Habitat Conservancy Plan (HCP) In-Kind

The County has identified all or a portion of various current or future parkway sites to be potentially placed under easement by the Yolo Habitat Conservancy (YHC), per the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP), in exchange for the YHC funding of operations and maintenance related to habitat conservation.[7] While not a direct revenue source, this analysis assumes that a significant portion of the baseline habitat maintenance costs of these specified properties[8] will be funded by the YHC, translating to a reduced maintenance cost for the County. This analysis assumes that Yolo County will cover ten percent of the costs of maintaining Baseline habitat within Parkway properties that are under YHC easements and that YHC will cover the other 90 percent of costs. Under scenarios where capital improvements are made to these properties, this analysis assumes that Yolo County will cover all the incremental maintenance costs associated with the improvements.

[7] Yolo County Board of Supervisors, Resolution No. 14-126, Approved December 2, 2014.

[8] The properties highlighted in the Draft Cache Creek Parkway Plan as approved or potential easement properties for the YHC include portions of the Capay Open Space Park, Wild Wings Open Space Park Granite Esparto Lake and Trail, and Cemex Snyder Lake, as well as the entire acreage of the Millsap Property, Rodgers Property, and Correll Property.

User Fees

User fees are assumed to increase over time, but are conservatively estimated at ten percent of operating costs, for properties maintained directly by the County. Based on conversations with several park operations, and review of case study information compiled as part of the Yolo County Sustainable Park Study[9], the majority of park systems surveyed that share characteristics similar to the Cache Creek Parkway generate user fees equal to roughly 10 percent of operations costs. Though some individual park facilities may be able to generate a higher percentage of user fee revenue, this analysis assumes user fee revenues equal to a 10 percent cost recovery for the annual operating and maintenance costs for each year of the analysis period, in each scenario, for Parkway properties that are not maintained by other entities, such as YHC or Cache Creek Conservancy.

Other Potential Operating Revenue Sources

Upon further study, the County may identify opportunities to generate additional operating revenues from a range of sources, such as donations or sponsors, proceeds from concession operations, partner agreements with specific user groups, additional funding from future gravel mining development agreements, and/or a potential countywide parcel tax, among others. Such additional revenues could allow the County to activate specific uses or activities within the Parkway, as funding opportunities are identified and secured, within any given operating scenario. Additional discussion of potential revenue augmentation opportunities is provided in the final chapter of this report.

[9] Yolo County, Sustainable Parks Study, adopted June 14, 2016.

PARKWAY SCENARIO FINANCIAL PROJECTIONS

This chapter of the report presents the long-term financial projections for each of the Parkway scenarios defined for the purposes of this study. BAE prepared a spreadsheet-based financial model for the Draft Cache Creek Parkway Plan to project the costs and revenues that would accrue during the time period 2016 through 2050. The property summary sheets contained in Appendices A-1 through A-19 drive the calculations that are included in a series of spreadsheets that calculate the Parkway system wide capital costs, and operations and maintenance costs over time and compare those costs to anticipated parkway funding over time. There is a separate set of tables and calculations for each of the improvement scenarios. The financial model is intended as a tool that County staff can utilize on an ongoing basis to plan for, and monitor, the financial operation of the Cache Creek Parkway. As mentioned previously, the model is structured so that County staff can update assumptions regarding timing for acquisitions and improvements, capital costs, operating costs, and revenue assumptions and see how those changes flow through the model and affect feasibility. Thus, if changes are made to any of the property-specific worksheets that would affect projected operating costs or revenues, the financial model and the summary tables will automatically update for the relevant scenario(s).

Financial Model Components

For each scenario other than the Baseline scenario (which does not include any post-acquisition capital improvements), the financial model includes a master schedule of the post-acquisition capital improvement costs, which is a year-by-year compilation of the relevant information in each Property Summary Sheet included in Appendix A, summarizing the one-time capital improvement costs, by Parkway property, by year, as they occur over time in response to continuing acquisitions of Parkway properties and subsequent completion of capital improvements. For inclusion in this report, the master schedule of capital improvement costs is further condensed into summaries of costs by five-year period.

For each scenario, including the Baseline scenario, the financial model includes a master schedule of the projected annual post-acquisition operations and maintenance costs and revenues, by Parkway property and by year. The projected annual operations and maintenance costs and revenues build up over time, as the Parkway property inventory expands over time, improvements are completed, and the County's maintenance costs increase in response. For inclusion in this report the master operations and maintenance annual cost and revenue projections for each Parkway scenario is condensed into a summary of costs by five-year period.

Baseline Scenario Projections

Based on the methodologies and assumptions previously described, the following is a summary of the financial projections for the Baseline scenario.

Capital Costs

Because the Baseline scenario does not include any capital improvements beyond those already in place at the time the County acquires Parkway properties, there are no additional capital improvement costs projected for this scenario.

Operating Costs

The upper portions of Table 2 summarize the operating and maintenance cost and revenue projections for the Baseline scenario. As shown in the table, the total five-year operating and maintenance costs for this scenario begin at just over $1 million in the 2016 to 2020 time period (i.e., these costs represent the total of annual operating and maintenance costs projected for each of the five years during this period), and are projected to nearly double, to $1.9 million for the five-year period from 2046 to 2050, based on the projected schedule for dedication of properties over time.[10]

Funding/Revenues

The lower part of Table 2 summarizes the projected operating revenues associated with the Baseline scenario, displaying the total projected revenues for each five-year period. As shown, the projected revenues begin at approximately $1.6 million for the 2016-2020 time period, and increase to just under $1.8 million for the 2046-2050 time period due to the estimated increase in user fee revenue associated with the acquisition and opening of new park sites throughout the planning period.

Projected Operating Balance

The lower part of Table 2 shows that the projected revenues would exceed the projected operating costs through 2030, with the projected operating costs outweighing the projected revenues by a small amount during the 2031 to 2050 time period; however, due to the cumulative surpluses projected that are projected to build up through 2030, there is a modest projected cumulative surplus of $727,000 by the end of the 2046-2050 time period.

As demonstrated by these results, the financial model projects that the Baseline scenario is financially viable, based on the projected operating costs and the conservative assumptions regarding operating revenues. The projected $727,000 cumulative surplus might be available to make minor capital improvement investments in Parkway properties that are not currently envisioned for the Baseline scenario.

[10] For reference, according to the Yolo County Sustainable Parks Study, the 2014/15 Fiscal Year budget of all Yolo County Parks was approximately $1.6 million, of which 85 percent came from General Fund contributions, ten percent from user fees, and five percent from State and Federal funding.

Table 2: Schedule of Operating and Maintenance Costs, Baseline Scenario (a)

	Total Operating and Maintenance Cost						
Park Site	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
1 - Capay Open Space Park	$260,651	$260,651	$260,651	$260,651	$260,651	$260,651	$260,651
2 - Granite Capay Lake	$0	$92,648	$181,102	$206,660	$206,660	$206,660	$206,660
3 - Granite Esparto Lake and Trail	$0	$359,484	$359,484	$359,484	$359,484	$359,484	$436,606
4 - Syar Lake	$0	$0	$0	$93,315	$93,315	$93,315	$93,315
5 - Teichert Esparto Reiff Lake	$0	$0	$0	$27,120	$33,900	$33,900	$33,900
6 - Cemex Snyder Lakes	$0	$0	$0	$28,177	$35,221	$35,221	$35,221
7 - Millsap Property	$15,210	$15,210	$15,210	$15,210	$15,210	$15,210	$15,210
8 - YCFCWCD Properties	$0	$0	$0	$0	$0	$0	$16,020
9 - Wild Wings Open Space Park	$19,894	$19,894	$19,894	$19,894	$19,894	$19,894	$19,894
10 - Teichert Coors Storz Bridge	$0	$0	$0	$0	$0	$0	$0
11 - Cache Creek Nature Preserve	$519,610	$519,610	$519,610	$519,610	$519,610	$519,610	$519,610
12 - Teichert Woodland Storz Lake	$8,500	$42,500	$42,500	$42,500	$42,500	$42,500	$42,500
13 - County Borrow Site	$5,985	$5,985	$5,985	$5,985	$5,985	$5,985	$5,985
14 - Teichert Woodland Muller Habitat and Trail	$52,812	$66,015	$66,015	$66,015	$66,015	$66,015	$66,015
15 - Teichert Muller Bridge	$0	$0	$0	$0	$0	$0	$0
16 - Granite Woodland Reiff Habitat	$74,218	$92,773	$92,773	$92,773	$92,773	$92,773	$92,773
17 - Rodgers Property	$10,100	$10,100	$10,100	$10,100	$10,100	$10,100	$10,100
18 - Correll Property	$35,010	$35,010	$35,010	$35,010	$35,010	$35,010	$35,010
Additional Improvements	$0	$0	$0	$0	$0	$0	$0
Total, All Operating and Maintenance Cost	**$1,001,990**	**$1,519,879**	**$1,608,334**	**$1,782,503**	**$1,796,328**	**$1,796,328**	**$1,889,470**
Revenue (b)	**$1,612,579**	**$1,728,203**	**$1,737,049**	**$1,757,284**	**$1,759,371**	**$1,759,371**	**$1,768,686**
5-Year Surplus/(Shortfall)	**$610,589**	**$208,324**	**$128,715**	**($25,219)**	**($36,956)**	**($36,956)**	**($120,784)**
Cumulative Revenue Surplus/(Shortfall)	**$610,589**	**$818,913**	**$947,628**	**$922,409**	**$885,453**	**$848,497**	**$727,712**

Notes:

(a) The "Baseline Scenario" includes the cost to operate and maintain the various park sites in the state denoted in the Development Agreements between the mining operators and the County or other means of property acquisition, with no proposed improvements.

(b) Revenue sources include mining fees, current allocations for park maintenance from Yolo County, anticipated user fees, and park sites to be maintained by the Yolo Habitat Conservancy, per the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).

Sources: Draft Cache Creek Parkway Plan, October 2016; BAE, 2016.

Baseline + Tier One Improvement Scenario Projections

Capital Costs

Table 3 summarizes the capital improvement costs for the Baseline + Tier One improvement scenario, by five-year increments. The table shows the cost of capital improvements anticipated in each five-year period, and the bottom line also summarizes the cumulative capital improvement costs through the 2050 planning horizon. Table 3 shows that this scenario assumes the capital improvement costs associated with each property are front-loaded in the first five-year period. This is because the master capital improvements schedule assumes that all Tier One improvements associated with properties that the County has already acquired will be completed in the short term. As a practical matter, the County could defer certain improvements for a specific property until later years, subject to funding availability. Overall, the County would need to secure approximately $13.3 million in funding for Tier One capital improvements.

Operating Costs

Table 4 contains the projections of operating and maintenance costs and revenues over the planning time-horizon. With the addition of new post-acquisition capital improvements, operations and maintenance costs would increase significantly under the Baseline + Tier One improvement scenario, as compared to the Baseline scenario. The projected operating costs would be about 78 percent higher in the 2016-2020 time period, and about 143 percent higher in the 2046-2050 time period, as compared to the Baseline scenario.

Funding/Revenues

As mentioned previously, the financial model generally assumes that operating revenues will increase only incrementally under the progressively more intensive Parkway scenarios because user fees are the only established revenue source that would be expected to increase with Parkway usage, and these are assumed to fund only about ten percent of Parkway operating and maintenance costs. In the case of the Baseline + Tier One improvement scenario, the financial model projects that revenues in the 2016-2020 time period will be about $1.7 million per year, which is only about five percent higher than under the Baseline scenario. By the 2046-2050 time period, projected revenues are about $2.0 million per year, or about 15 percent higher than under the Baseline scenario.

Projected Operating Balance

This scenario incurs significant operating cost increases compared to the Baseline scenario, because the capital improvements associated with Tier One improvements would introduce new uses and activities to the Parkway properties, such as overnight camping, that entail more intensive operations and maintenance costs, as compared to the primarily passive uses accommodated in the Baseline scenario. This, combined with assumptions about limited additional revenues, mean that this scenario would generate significant operating shortfalls, absent identification of additional new funding sources, as Tier One improvements are added

to the Parkway properties in accordance with the schedule outlined in the Draft Cache Creek Parkway Plan. By 2050, the total cumulative shortfall would be $12.5 million total over the planning horizon, or an average of about $357,000 per year.

Table 3: Schedule of Capital Improvement Costs, Baseline + Tier One Improvement Scenario

	Total Capital Improvement Cost						
Park Site	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
1 - Capay Open Space Park	$122,596	$0	$0	$0	$0	$0	$0
2 - Granite Capay Lake	$0	$216,147	$0	$0	$0	$0	$0
3 - Granite Esparto Lake and Trail	$0	$1,130,339	$0	$0	$0	$0	$55,000
4 - Syar Lake	$0	$0	$0	$965,196	$0	$0	$0
5 - Teichert Esparto Reiff Lake	$0	$0	$0	$546,632	$0	$0	$0
6 - Cemex Snyder Lakes	$0	$0	$0	$1,071,970	$0	$0	$0
7 - Millsap Property	$137,542	$0	$0	$0	$0	$0	$0
8 - YCFCWCD Properties	$0	$0	$0	$0	$0	$0	$54,887
9 - Wild Wings Open Space Park	$893,360	$0	$0	$0	$0	$0	$0
10 - Teichert Coors Storz Bridge	$0	$0	$0	$0	$0	$0	$0
11 - Cache Creek Nature Preserve	$33,750	$0	$0	$0	$0	$0	$0
12 - Teichert Woodland Storz Lake	$0	$826,771	$0	$0	$0	$0	$0
13 - County Borrow Site	$135,000	$0	$0	$0	$0	$0	$0
14 - Teichert Woodland Muller Habitat and Trail	$1,020,912	$0	$0	$0	$0	$0	$0
15 - Teichert Muller Bridge	$0	$0	$0	$0	$0	$0	$0
16 - Granite Woodland Reiff Habitat	$3,768,903	$0	$0	$0	$0	$0	$0
17 - Rodgers Property	$766,796	$0	$0	$0	$0	$0	$0
18 - Correll Property	$1,599,381	$0	$0	$0	$0	$0	$0
Additional Improvements	$0	$0	$0	$0	$0	$0	$0
Total, All Capital Improvement Costs	**$8,478,239**	**$2,173,256**	**$0**	**$2,583,799**	**$0**	**$0**	**$109,887**
Cumulative Capital Improvement Costs	**$8,478,239**	**$10,651,495**	**$10,651,495**	**$13,235,293**	**$13,235,293**	**$13,235,293**	**$13,345,180**

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

Table 4: Schedule of Operating and Maintenance Costs, Baseline + Tier One Improvement Scenario

	Total Operating and Maintenance Cost						
Park Site	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
1 - Capay Open Space Park	$330,651	$330,651	$330,651	$330,651	$330,651	$330,651	$330,651
2 - Granite Capay Lake	$0	$133,128	$231,702	$257,260	$257,260	$257,260	$257,260
3 - Granite Esparto Lake and Trail	$0	$359,484	$359,484	$359,484	$359,484	$359,484	$449,086
4 - Syar Lake	$0	$0	$0	$402,915	$402,915	$402,915	$402,915
5 - Teichert Esparto Reiff Lake	$0	$0	$0	$178,320	$285,900	$285,900	$285,900
6 - Cemex Snyder Lakes	$0	$0	$0	$272,515	$442,452	$442,452	$442,452
7 - Millsap Property	$20,878	$20,878	$20,878	$20,878	$20,878	$20,878	$20,878
8 - YCFCWCD Properties	$0	$0	$0	$0	$0	$0	$16,020
9 - Wild Wings Open Space Park	$42,571	$42,571	$42,571	$42,571	$42,571	$42,571	$42,571
10 - Teichert Coors Storz Bridge	$0	$0	$0	$0	$0	$0	$0
11 - Cache Creek Nature Preserve	$659,610	$659,610	$659,610	$659,610	$659,610	$659,610	$659,610
12 - Teichert Woodland Storz Lake	$8,500	$402,786	$492,858	$492,858	$492,858	$492,858	$492,858
13 - County Borrow Site	$5,985	$5,985	$5,985	$5,985	$5,985	$5,985	$5,985
14 - Teichert Woodland Muller Habitat and Trail	$198,295	$429,723	$429,723	$429,723	$429,723	$429,723	$429,723
15 - Teichert Muller Bridge	$0	$0	$0	$0	$0	$0	$0
16 - Granite Woodland Reiff Habitat	$225,418	$470,773	$470,773	$470,773	$470,773	$470,773	$470,773
17 - Rodgers Property	$136,100	$136,100	$136,100	$136,100	$136,100	$136,100	$136,100
18 - Correll Property	$160,057	$160,057	$160,057	$160,057	$160,057	$160,057	$160,057
Additional Improvements	$0	$0	$0	$0	$0	$0	$0
Total, All Operating and Maintenance Cost	**$1,788,066**	**$3,151,746**	**$3,340,392**	**$4,219,700**	**$4,497,217**	**$4,497,217**	**$4,602,839**
Revenue (a)	**$1,691,187**	**$1,891,390**	**$1,910,254**	**$2,001,004**	**$2,029,460**	**$2,029,460**	**$2,040,023**
5-Year Surplus/(Shortfall)	**($96,879)**	**($1,260,356)**	**($1,430,137)**	**($2,218,696)**	**($2,467,756)**	**($2,467,756)**	**($2,562,817)**
Cumulative Revenue Surplus/(Shortfall)	**($96,879)**	**($1,357,235)**	**($2,787,372)**	**($5,006,068)**	**($7,473,825)**	**($9,941,581)**	**($12,504,398)**

Notes:

(a) Revenue sources include mining fees, current allocations for park maintenance from Yolo County, anticipated user fees, and park sites to be maintained by the Yolo Habitat Conservancy, per the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).

Sources: Draft Cache Creek Parkway Plan, October 2016; BAE, 2016.

Baseline + Tier Two Improvement Scenario Projections

Capital Costs

As shown in Table 5, the capital improvement cost estimate for the Baseline + Tier Two improvement scenario is a total of $37.3 million through the year 2050, including the improvements that are part of the Tier One improvements package. This represents a $24 million increase from the Baseline + Tier One improvement scenario, or about an 80 percent increase in capital expenditures. As with Tier One, most of the capital expenditures would occur in the first half of the planning period, because this analysis assumes that capital improvements are made within approximately one year after properties are acquired (or in Year 1, in the case of Parkway properties that the County already owns).

Operating Costs

With the substantial increase in capital expenditures versus Tier One, this scenario also brings a substantial increase in operating costs. Table 6 shows projected operating and maintenance costs growing from $1.9 million in 2016-2020, to $5.9 million for the 2046 to 2050 time period. These figures represent 88 percent and 212 percent increases from the corresponding time periods in the Baseline scenario. These cost increases are a reflection of the increased maintenance responsibilities that would be associated with the additional facilities and improvements that this scenario envisions.

Funding/Revenues

Operating revenues would increase slightly under this scenario, starting at $1.7 million in the 2016 to 2020 time period; about five percent higher than the corresponding period in the Baseline scenario and similar to under the Baseline + Tier One improvement scenario. By the 2046 to 2050 time period, revenues would increase to $2.2 million, which is 23 percent higher than under the Baseline scenario, and also slightly higher than under Baseline + Tier One scenario.

Projected Operating Balance

The Baseline + Tier Two improvement scenario includes long-term operating and maintenance cost increases that are substantially above those projected for the Baseline scenario. With limited additional baseline revenue assumed, the projected cumulative operating shortfall through 2050 would be about $17.0 million, or an average shortfall of about $486,000 per year for the period. This is about 36 percent greater than the operating shortfall projected for the Baseline + Tier One improvement scenario.

Table 5: Schedule of Capital Improvement Costs, Baseline + Tier Two Improvement Scenario

	Total Capital Improvement Cost						
Park Site	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
1 - Capay Open Space Park	$766,411	$0	$0	$0	$0	$0	$0
2 - Granite Capay Lake	$0	$216,147	$9,624,794	$0	$0	$0	$0
3 - Granite Esparto Lake and Trail	$0	$1,130,339	$0	$0	$0	$0	$8,229,813
4 - Syar Lake	$0	$0	$0	$1,194,696	$0	$0	$0
5 - Teichert Esparto Reiff Lake	$0	$0	$0	$546,632	$0	$0	$0
6 - Cemex Snyder Lakes	$0	$0	$0	$3,335,650	$0	$0	$0
7 - Millsap Property	$137,542	$0	$0	$0	$0	$0	$0
8 - YCFCWCD Properties	$0	$0	$0	$0	$0	$0	$54,887
9 - Wild Wings Open Space Park	$918,200	$0	$0	$0	$0	$0	$0
10 - Teichert Coors Storz Bridge	$0	$684,612	$0	$0	$0	$0	$0
11 - Cache Creek Nature Preserve	$33,750	$0	$0	$0	$0	$0	$0
12 - Teichert Woodland Storz Lake	$0	$826,771	$0	$0	$0	$0	$0
13 - County Borrow Site	$135,000	$0	$0	$0	$0	$0	$0
14 - Teichert Woodland Muller Habitat and Trail	$1,020,912	$0	$0	$0	$0	$0	$0
15 - Teichert Muller Bridge	$0	$567,575	$0	$0	$0	$0	$0
16 - Granite Woodland Reiff Habitat	$3,768,903	$0	$0	$0	$0	$0	$0
17 - Rodgers Property	$820,796	$0	$0	$0	$0	$0	$0
18 - Correll Property	$1,599,381	$0	$0	$0	$0	$0	$0
Additional Improvements	$0	$0	$0	$0	$0	$0	$1,658,368
Total, All Capital Improvement Costs	**$9,200,894**	**$3,425,443**	**$9,624,794**	**$5,076,979**	**$0**	**$0**	**$9,943,068**
Cumulative Capital Improvement Costs	**$9,200,894**	**$12,626,337**	**$22,251,131**	**$27,328,109**	**$27,328,109**	**$27,328,109**	**$37,271,177**

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

Table 6: Schedule of Operating and Maintenance Costs, Baseline + Tier Two Improvement Scenario

	Total Operating and Maintenance Cost						
Park Site	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
1 - Capay Open Space Park	$344,651	$344,651	$344,651	$344,651	$344,651	$344,651	$344,651
2 - Granite Capay Lake	$0	$133,128	$657,102	$966,260	$966,260	$966,260	$966,260
3 - Granite Esparto Lake and Trail	$0	$359,484	$359,484	$359,484	$359,484	$359,484	$449,086
4 - Syar Lake	$0	$0	$0	$472,915	$472,915	$472,915	$472,915
5 - Teichert Esparto Reiff Lake	$0	$0	$0	$178,320	$285,900	$285,900	$285,900
6 - Cemex Snyder Lakes	$0	$0	$0	$314,515	$512,452	$512,452	$512,452
7 - Millsap Property	$20,878	$20,878	$20,878	$20,878	$20,878	$20,878	$20,878
8 - YCFCWCD Properties	$0	$0	$0	$0	$0	$0	$16,020
9 - Wild Wings Open Space Park	$112,571	$112,571	$112,571	$112,571	$112,571	$112,571	$112,571
10 - Teichert Coors Storz Bridge	$7,159	$35,795	$35,795	$35,795	$35,795	$35,795	$35,795
11 - Cache Creek Nature Preserve	$659,610	$659,610	$659,610	$659,610	$659,610	$659,610	$659,610
12 - Teichert Woodland Storz Lake	$8,500	$402,786	$492,858	$492,858	$492,858	$492,858	$492,858
13 - County Borrow Site	$5,985	$5,985	$5,985	$5,985	$5,985	$5,985	$5,985
14 - Teichert Woodland Muller Habitat and Trail	$198,295	$429,723	$429,723	$429,723	$429,723	$429,723	$429,723
15 - Teichert Muller Bridge	$0	$12,409	$20,682	$20,682	$20,682	$20,682	$20,682
16 - Granite Woodland Reiff Habitat	$225,418	$470,773	$470,773	$470,773	$470,773	$470,773	$470,773
17 - Rodgers Property	$136,100	$136,100	$136,100	$136,100	$136,100	$136,100	$136,100
18 - Correll Property	$160,057	$160,057	$160,057	$160,057	$160,057	$160,057	$160,057
Additional Improvements	$0	$0	$0	$0	$0	$0	$294,000
Total, All Operating and Maintenance Cost	**$1,879,225**	**$3,283,950**	**$3,906,269**	**$5,181,177**	**$5,486,694**	**$5,486,694**	**$5,886,317**
Revenue (a)	**$1,700,303**	**$1,904,610**	**$1,966,842**	**$2,097,152**	**$2,128,408**	**$2,128,408**	**$2,168,370**
5-Year Surplus/(Shortfall)	**($178,922)**	**($1,379,340)**	**($1,939,427)**	**($3,084,026)**	**($3,358,286)**	**($3,358,286)**	**($3,717,946)**
Cumulative Revenue Surplus/(Shortfall)	**($178,922)**	**($1,558,262)**	**($3,497,689)**	**($6,581,715)**	**($9,940,000)**	**($13,298,286)**	**($17,016,232)**

Notes:

(a) Revenue sources include mining fees, current allocations for park maintenance from Yolo County, anticipated user fees, and park sites to be maintained by the Yolo Habitat Conservancy, per the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).

Sources: Draft Cache Creek Parkway Plan, October 2016; BAE, 2016.

Baseline + Tier Three Improvement Scenario Projections

Capital Costs

Table 7 summarizes the capital improvement costs for the Baseline + Tier Three improvement scenario. This represents the full buildout of the improvements envisioned in the Draft Cache Creek Parkway Plan, including all improvements included in Tier One and Tier Two, plus an additional $12.9 million in improvements not included in Tier Two.

Operating Costs

This scenario does not add significantly to Baseline + Tier Two improvement scenario operating costs, but would represent a 93 percent increase over the Baseline scenario operating costs during the 2016-2020 time period, and a 220 percent increase for the 2046-2050 time period. The significant increase in operating costs by the end of the planning period is a result of the dedication of properties with significant proposed improvements under the Tier Three scenario, resulting in higher operating and maintenance costs at the end of the time horizon.

Funding/Revenues

Similar to the Tier One and Tier Two scenarios, this scenario does not generate substantial revenue increases above those projected for the Baseline scenario. As shown in the lower part of Table 8, the projected revenues are about six percent higher than the Baseline scenario for the 2016-2020 time period and about 22 percent higher than the Baseline scenario for the 2046-2050 time period.

Projected Operating Balance

The Baseline + Tier Three improvement scenario does not involve substantial additional operating and maintenance costs above the level projected for the Baseline + Tier Two improvement scenario (about three percent above Baseline + Tier Two improvement scenario operating costs). This is because the major elements of the Baseline + Tier Three improvement scenario that are not present in Tier Two are capital expenditures, such as pedestrian bridges, tunnels, and importation of fill to create additional park features that would help improve accessibility and user experience for various Parkway properties, but which would not actually expand the land area, lake area, length of trails, or other maintenance cost items. Thus, the projected operating shortfall does not rise significantly compared to the Baseline + Tier Two improvement scenario, but would still accumulate to approximately $17.8 million through 2050. Spread over the 35-year period, this would translate to an average annual operating shortfall of about $508,000 per year.

Table 7: Schedule of Capital Improvement Costs, Baseline + Tier Three Improvement Scenario

	Total Capital Improvement Cost						
Park Site	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
1 - Capay Open Space Park	$766,411	$0	$0	$0	$0	$0	$0
2 - Granite Capay Lake	$0	$216,147	$9,624,794	$0	$0	$0	$0
3 - Granite Esparto Lake and Trail	$0	$1,130,339	$0	$0	$0	$0	$8,229,813
4 - Syar Lake	$0	$0	$0	$1,194,696	$0	$0	$0
5 - Teichert Esparto Reiff Lake	$0	$0	$0	$6,546,632	$0	$0	$0
6 - Cemex Snyder Lakes	$0	$0	$0	$3,335,650	$0	$0	$0
7 - Millsap Property	$4,390,602	$0	$0	$0	$0	$0	$0
8 - YCFCWCD Properties	$0	$0	$0	$0	$0	$0	$189,787
9 - Wild Wings Open Space Park	$918,200	$0	$0	$0	$0	$0	$75,504
10 - Teichert Coors Storz Bridge	$0	$684,612	$0	$0	$0	$0	$0
11 - Cache Creek Nature Preserve	$33,750	$0	$0	$0	$0	$0	$0
12 - Teichert Woodland Storz Lake	$0	$3,282,275	$0	$0	$0	$0	$0
13 - County Borrow Site	$153,876	$0	$0	$0	$0	$0	$0
14 - Teichert Woodland Muller Habitat and Trail	$1,020,912	$0	$0	$0	$0	$0	$0
15 - Teichert Muller Bridge	$0	$567,575	$0	$0	$0	$0	$0
16 - Granite Woodland Reiff Habitat	$3,768,903	$0	$0	$0	$0	$0	$0
17 - Rodgers Property	$820,796	$0	$0	$0	$0	$0	$0
18 - Correll Property	$1,599,381	$0	$0	$0	$0	$0	$0
Additional Improvements	$0	$0	$0	$0	$0	$0	$1,658,368
Total, All Capital Improvement Costs	**$13,472,830**	**$5,880,947**	**$9,624,794**	**$11,076,979**	**$0**	**$0**	**$10,153,472**
Cumulative Capital Improvement Costs	**$13,472,830**	**$19,353,777**	**$28,978,571**	**$40,055,549**	**$40,055,549**	**$40,055,549**	**$50,209,021**

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

Table 8: Schedule of Operating and Maintenance Costs, Baseline + Tier Three Improvement Scenario

	Total Operating and Maintenance Cost						
Park Site	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050
1 - Capay Open Space Park	$344,651	$344,651	$344,651	$344,651	$344,651	$344,651	$344,651
2 - Granite Capay Lake	$0	$133,128	$657,102	$966,260	$966,260	$966,260	$966,260
3 - Granite Esparto Lake and Trail	$0	$359,484	$359,484	$359,484	$359,484	$359,484	$449,086
4 - Syar Lake	$0	$0	$0	$472,915	$472,915	$472,915	$472,915
5 - Teichert Esparto Reiff Lake	$0	$0	$0	$178,320	$285,900	$285,900	$285,900
6 - Cemex Snyder Lakes	$0	$0	$0	$314,515	$512,452	$512,452	$512,452
7 - Millsap Property	$44,742	$44,742	$44,742	$44,742	$44,742	$44,742	$44,742
8 - YCFCWCD Properties	$0	$0	$0	$0	$0	$0	$37,020
9 - Wild Wings Open Space Park	$112,571	$112,571	$112,571	$112,571	$112,571	$112,571	$120,971
10 - Teichert Coors Storz Bridge	$7,159	$35,795	$35,795	$35,795	$35,795	$35,795	$35,795
11 - Cache Creek Nature Preserve	$659,610	$659,610	$659,610	$659,610	$659,610	$659,610	$659,610
12 - Teichert Woodland Storz Lake	$8,500	$458,786	$562,858	$562,858	$562,858	$562,858	$562,858
13 - County Borrow Site	$40,985	$40,985	$40,985	$40,985	$40,985	$40,985	$40,985
14 - Teichert Woodland Muller Habitat and Trail	$198,295	$429,723	$429,723	$429,723	$429,723	$429,723	$429,723
15 - Teichert Muller Bridge	$0	$12,409	$20,682	$20,682	$20,682	$20,682	$20,682
16 - Granite Woodland Reiff Habitat	$225,418	$470,773	$470,773	$470,773	$470,773	$470,773	$470,773
17 - Rodgers Property	$136,100	$136,100	$136,100	$136,100	$136,100	$136,100	$136,100
18 - Correll Property	$160,057	$160,057	$160,057	$160,057	$160,057	$160,057	$160,057
Additional Improvements	$0	$0	$0	$0	$0	$0	$294,000
Total, All Operating and Maintenance Cost	**$1,938,089**	**$3,398,814**	**$4,035,133**	**$5,310,041**	**$5,615,558**	**$5,615,558**	**$6,044,580**
Revenue (a)	**$1,706,189**	**$1,916,097**	**$1,979,728**	**$2,110,038**	**$2,141,294**	**$2,141,294**	**$2,184,197**
5-Year Surplus/(Shortfall)	**($231,900)**	**($1,482,717)**	**($2,055,404)**	**($3,200,003)**	**($3,474,263)**	**($3,474,263)**	**($3,860,383)**
Cumulative Revenue Surplus/(Shortfall)	**($231,900)**	**($1,714,617)**	**($3,770,021)**	**($6,970,024)**	**($10,444,287)**	**($13,918,550)**	**($17,778,934)**

Notes:

(a) Revenue sources include mining fees, current allocations for park maintenance from Yolo County, anticipated user fees, and park sites to be maintained by the Yolo Habitat Conservancy, per the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP).

Sources: Draft Cache Creek Parkway Plan, October 2016; BAE, 2016.

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PARKWAY FINANCIAL FEASIBILITY

The results of the financial modeling conducted for the four different Cache Creek Parkway development scenarios indicate that with existing financial commitments and projected financial resources that are under the control of Yolo County, the Cache Creek Parkway would be viable at a Baseline level of improvements and associated public use. This is an encouraging result, which indicates that Yolo County could pursue development of the Cache Creek Parkway with the expectation that long-term operation and maintenance at the Baseline level is feasible. This is subject to the caveat that the Baseline scenario assumes that the County will defer making significant additional capital improvements that would expand maintenance demands and costs without first identifying additional, viable, sources of funding for both the one-time improvement costs and the additional ongoing operations and maintenance costs. The financial projections for the Baseline + Tier One, Tier Two, and Tier Three improvement scenarios provide the County with information needed to understand the financial resources that the County would need to secure to implement various components of the Draft Cache Creek Parkway Plan that would enhance the properties with additional amenities and features, to enable a wider range of activities and expanded usage of the Parkway properties.

If resources beyond those discussed in this analysis are identified to fund capital improvement costs, and resulting increases in Parkway operating and maintenance costs, the County will be able to consider making improvements and expanding Parkway operations beyond the Baseline level. The Baseline + Tier One, Baseline + Tier Two, and Baseline + Tier 3 scenarios provide examples of packages of improvements that could be added to the Baseline scenario; however, it should be recognized that the County will by no means be bound by the packages defined for this study. Rather, the County will be able to pick and choose from among the array of Parkway enhancement opportunities in any number of combinations, to add features and activities to the Parkway as opportunities arise and resources allow. In addition, the scenarios defined for this analysis included specific assumptions about the timing for the County to accept individual Parkway properties and to undertake capital improvements. The County could also adjust the timing to accept and/or improve parkway properties, as a means to match the timing of capital, operating, and maintenance expenditures with availability of necessary funding.

Adopting the Cache Creek Parkway Plan as the blueprint for long-term improvement and operation of the Parkway, and initiating work towards establishing the Baseline level of operation for the Parkway would likely represent a strategic foundation upon which to develop plans to raise additional funds for capital improvements and expanded operations and maintenance activities as envisioned in the plan. This would help to demonstrate the long-term vision for the Parkway and begin to expand the constituency for the use of the Parkway facilities. With the Parkway functioning at a Baseline level, and the Cache Creek Parkway Plan

articulating the ultimate vision for the Parkway, the County would be well-positioned to opportunistically pursue funding opportunities as they arise and, also, to take a systematic approach to developing additional ongoing funding resources, as discussed below. By drawing greater attention to the Parkway and introducing new users to the available recreational opportunities operation of the Baseline scenario could make the Parkway more attractive to potential partners who could assist with the effort of fully implementing the Cache Creek Parkway Plan vision.

Potential Revenue Augmentation

This analysis incorporates projections of several primary operating revenues (or in-kind contributions) that Yolo County can use to provide for the ongoing maintenance and operational needs of the Cache Creek Parkway. These include:

- Existing annual gravel mining fees
- Continuation of the County's current allocations toward Parkway maintenance
- Continuation of in-kind Parkway maintenance level of effort by the Cache Creek Conservancy
- Future in-kind Parkway maintenance contribution by Yolo Habitat Conservancy in exchange for placing conservation easements on specified properties
- Parkway user fees

These funding sources have been included in the analysis because there are existing precedents, established mechanisms, existing plans, and/or adopted agreements for the use of these resources for Parkway maintenance. Thus, the probability of implementation during the planning horizon is deemed to be relatively high. As shown in the financial projections, these conservative revenue assumptions are sufficient to demonstrate fiscal viability for the Baseline scenario; however, additional funding would be necessary to undertake substantial new capital improvements and support an expanded range of activities and usage with appropriate expansions of operations and maintenance expenditures.

Following are discussions regarding the potential to generate augmented resources to support Parkway improvements and operations.

Future Development Agreement Contributions from Implementation of the Cache Creek Area Plan

The financial projections prepared for this analysis are tied to the conditions laid out in existing development agreements that Yolo County has entered into with various mining operators within the Cache Creek Area Plan. It is very likely that within the 2050 planning horizon for this study Yolo County will establish new development agreements and/or may modify existing development agreements. As part of such actions the County would have the opportunity to negotiate for, and potentially receive, commitments from the mining operators to provide funding and/or in-kind donations that could support Parkway development and/or operations and maintenance. This could include, for example, modification of an existing agreement such that a mining operator would make an improvement, at their cost, that is currently listed as a

Tier One, Tier Two, or Tier Three improvement that would otherwise be undertaken and funded by the County, prior to transferring a reclaimed mining property to Yolo County.

Potential Increased User Fee Cost Recovery

By building an operating track record under the Baseline scenario Yolo County would be in a better position to judge whether it will be feasible to budget for operations and maintenance cost recovery that is greater than the ten percent cost recovery ratio for user fee revenues that is built into the financial projections prepared for this report. This would narrow the funding gap that otherwise would need to be closed by revenues from other unidentified sources for the more intensive scenarios contemplated in the Parkway Plan. For example, while conducting interviews with neighboring park and open space agencies a representative noted successful collaboration opportunities with third party entities as an operation strategy. More specifically, while the other agency may not have the capacity to staff concession stands or boat launch facilities, pairing with third party providers that can be self-sustaining operators can be a viable option for operation and maintenance of certain park features.

To better understand this dynamic BAE contacted Rocky Mountain Recreation, a private park operating company that manages various parks within the Northern California region. Based on our discussion with Rocky Mountain staff, they successfully manage various parks throughout the region, funded entirely through the revenue generated at the sites, including day use fees, concessions, boat rentals, and special events. While the staff cautioned that this scenario is only viable in certain locations, Yolo County may benefit from exploring this option as a potential way to support ongoing parkway utilization and maintenance above and beyond the levels included in any of the scenarios analyzed in this analysis.

Concession Operation Revenues

As discussed above, many park agencies contract with private concessionaires to operate various amenities such as campgrounds, marinas, retail, restaurants, and other services, within public park areas, instead of managing and operating such amenities using public agency staff and resources. Depending on the location and the specific type of activity and the economics of the operation, a concessionaire may pay the park owner for the privilege of operating the concession (e.g., a lease payment), which could represent net revenues to the park owner that would be available to support other park funding needs. In other cases, the economics of the operation may dictate that the park owner does not receive payments for the concessionaire's use of the property but that the park owner still benefits because the concession operation provides additional programming that supports the park mission and/or provides valuable in-kind services such as provision of public restrooms, or maintenance of property that the park owner otherwise would have to fund. In any event, developing concession operations within the Parkway could be a mechanism for Yolo County to expand Parkway operations beyond the Baseline scenario, on a selective basis, without needing to take on substantial new capital or operations and maintenance cost burdens of its own.

Potential Increases or Reallocations of Annual Gravel Mining Fees

As discussed previously, the financial model prepared for this report assumes that gravel mining fees will rise generally in line with inflation[11], through the 2050 analysis horizon. Acknowledging that costs can also be expected to rise with inflation over time, this effectively means that gravel mining revenues would be fixed over time, in terms of real purchasing power. It should be acknowledged that the County has the authority to revise the gravel mining fee ordinance and potentially increase the rate, if appropriate. The practicality of this would depend upon a number of factors, including the need to ensure that fee changes do not have an adverse effect on the viability of the gravel mining operations, which would be affected by the market conditions for construction materials, such as gravel, and other factors. In addition to modifying the per ton rates for the gravel mining fee, the County also has the authority to make decisions on the expenditure of the fee proceeds for purposes related to the gravel program. If the County found that the need for fee proceeds for other program purposes is reduced in the future, the County could potentially increase the share of fees that could be used for Parkway capital improvements and/or operations and maintenance. In addition, as discussed previously, the County also has the ability to modify the ordinance regarding the timing for the use of the maintenance and remediation fund.

Revenues or In-Kind Contributions from User Group Partners

The Cache Creek Parkway properties can potentially provide venues for a wide range of recreational activities, including activities that could be managed by private user groups that could operate within the Parkway under various forms of partnership agreements. For example, such agreements would be similar to those that have allowed groups to utilize the County's Grasslands Regional Park for activities such as archery, horseshoes, and model airplane flying. Similar to concessionaire agreements with private businesses, the goal would be to structure the agreements so that the user groups are granted use of designated areas, in exchange for conducting their own fundraising to make improvements and to provide for ongoing maintenance of the property they use. To the extent that the County can identify partner organizations that have sustainable business plans of their own and wish to conduct compatible activities within the Parkway, the County could use partnership agreements with specific user groups as a mechanism to expand the range of activities offered and broaden the base of constituents for the overall development of the Parkway system.

Grants

With planned multi-use functionality, the Cache Creek Parkway could be an attractive target for various State and Federal grant programs that focus on objectives such as water quality, environmental quality and habitat conservation, climate change, parks, recreation, open space, and others. For example, from time to time, California voters have approved bond

[11] As previously mentioned, to the extent that the built in four percent annual escalator for the gravel mining fee rate exceeds the rate of inflation for operating and maintenance costs, this analysis provides a conservative assessment of Parkway plan financial feasibility.

measures such as Propositions 12, 40, and 84, which have provided billions in funding for local park projects. While funding from such sources is not consistently available and is usually highly competitive, a Parkway functioning at the Baseline level with an adopted master plan such as the Cache Creek Parkway Plan should be an attractive candidate for funding under a range of programs designed to assist local agencies. Due to the County's limited budgetary resources, it is likely that such grant programs would be a primary source of funding for Parkway capital improvements included in Tiers One, Two, and Three, unless the County can develop a new, dedicated source of revenues to support Parkway investments.

Donations

Contributions from private donors, such as individuals or charitable foundations whose interests align with the goals of the Cache Creek Parkway Plan are another potential source of funds that could support either capital improvements or ongoing operations and maintenance. Again, if the Parkway is functioning at least at the Baseline level, this could expose the Parkway to potential donors and provide a tangible demonstration of how increased funding could enable the Parkway to serve as a resource to a larger portion of the Yolo County community.

Dedicated Foundation

Many public amenities such as museums and performing arts venues are supported by dedicated charitable organizations that are established by supporters specifically to assist in fundraising to support their mission. The Cache Creek Conservancy functions in this capacity to a certain extent, although its mission may not fully encompass all the functions that are envisioned for the Parkway. It is possible that the Conservancy could expand its mission and associated activities as the Parkway continues to develop and/or that a new organization could form that would supplement the Conservancy's activities. Such organizations may be particularly effective in conducting outreach to secure donations and in-kind contributions, as well as mobilizing and coordinating volunteers to provide various types of labor that would offset costs for Parkway operations.

Countywide Tax Measure

The various revenue augmentation approaches discussed above represent important opportunities for the County to expand the resources that can assist in generating the funding necessary to expand the Parkway operations beyond the Baseline and implement elements of Tier One, Tier Two, and Tier Thee; however, one element that is common to all of those mechanisms is a level of uncertainty about when, or in what quantities the County might secure funding. A countywide tax measure, by contrast, has the potential to generate a significant amount of funding over an extended period of time. If the County could establish such a measure, with voter approval, it would provide the County with a predictable stream of funding that it could program to systematically make capital improvements and also ensure adequate resources to maintain the Parkway system for utilization for a wider range of activities and higher levels of usage.

A number of other regional park systems are supported by parcel taxes that are levied within their service areas, including East Bay Regional Parks, and Santa Clara County Open Space Authority, Santa Cruz County Parks, Cordova Recreation and Park Community Facilities District (Rancho Cordova, approved in 2016), and Los Angeles County (approved 2016). A parcel tax has also been discussed as a method to support the American River Parkway. A modest parcel tax levied on residential properties within Yolo County could provide a substantial resource to support the development, operation, and maintenance of the Cache Creek Parkway, and could help fund both operating costs and capital costs. Some communities have also funded park systems using voter-approved local sales tax increases. For example, in November 2016, voters in the City of Woodland extended an existing ½ cent sales tax add-on that will fund, among other items, park improvements.

Capital Funding Needs

A parcel tax could also provide funding to complete capital improvement projects identified in the Draft Cache Creek Parkway Plan. An annual parcel tax could generate revenues that could be accumulated for capital projects and then spent on a "pay as you go" basis, or the annual parcel tax could be dedicated as a repayment source for bonds that could be issued to obtain up front funding for park improvements.[12] Because the Draft Cache Creek Parkway Plan anticipates acquisition of properties over time, it might be feasible to utilize a pay as you go approach for park improvements, although it may be necessary to adjust the scheduling for Parkway improvements and operations assumed for the different Parkway scenarios defined for the purposes of this analysis to match the flow of available funds. For this analysis, Table 9 calculates the annual parcel tax necessary to pay for the total capital cost of Parkway improvements under each of the scenarios on a pay-as-you go basis. Table 10 calculates the annual parcel tax necessary to provide sufficient annual revenue to cover debt service on bonds of sufficient size to cover the total Parkway improvement capital costs under each scenario. Appendix C shows the calculations used to estimate the parcel tax levels necessary to support the targeted amounts of financing for capital improvements. The calculations shown on Tables 9 and 10 assume that the annual parcel tax to support capital improvements would be collected annually for 30 years. These parcel taxes would be in addition to any

[12] A pay-as-you-go approach involves paying for capital expenditures with funds that have been accumulated prior to making the improvements. A bond financing approach involves borrowing money from bondholders in order to be able to make up-front improvements, and then paying off the debt over time, after the improvements have been made. The pay-as-you go approach may require that the timing for certain improvements be deferred, until sufficient money has been accumulated from annual tax levies. Under a pay-as-you-go approach, the capital improvement schedules shown in this report for Tier One, Tier Two, and Tier Three improvements would likely need to be altered, to more evenly stage the capital improvements over the planning period, instead of front-loading them in the first half of the planning period. Although the annual parcel tax requirements would be higher than under a pay-as-you-go approach, the bond funding approach would allow capital improvements to be front loaded, provided adequate funding for new maintenance and operations responsibilities associated with the improvements is also available.

parcel taxes established to pay for Parkway operating and maintenance costs, discussed below.

Parcel Tax Needed for Pay as You Go. As shown in Table 9, the annual parcel tax necessary to support the Baseline + Tier One improvement scenario on a pay as you go basis would be $6.33 per single-family unit and $5.18 per multifamily unit. These figures increase with the different scenarios, to $23.83 per single-family unit and $19.49 per multifamily unit for the Baseline + Tier Three improvement scenario.

Table 9: Annual Parcel Tax to Support Capital Improvement Costs, Pay-As-You-Go (a)

Baseline Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**n.a.**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c)	
Single-Family	n.a.
Multifamily	n.a.
Baseline + Tier One Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($13,345,180)**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c)	
Single-Family	$6.33
Multifamily	$5.18
Baseline + Tier Two Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($37,271,177)**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c)	
Single-Family	$17.69
Multifamily	$14.47
Baseline + Tier Three Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($50,209,021)**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c)	
Single-Family	$23.83
Multifamily	$19.49

Notes:
(a) See discussion of pay-as-you-go approach in text above.
(b) Excludes housing units located within the University of California, Davis census-designated place (CDP).
(c) Assumes Countywide per-unit parcel tax initiates in 2020 and extends through 2050.

Sources: Draft Cache Creek Parkway Plan, October 2016; California Department of Finance, 2016; U.S. Census Bureau, 2015 1-Year ACS Estimates, 2016; BAE, 2016.

Parcel Tax Needed for Bond Financing. If the financing strategy chosen for Parkway improvements is to use bond financing, this would require higher annual parcel taxes; however, it would give the County flexibility to accelerate the improvement of Parkway properties, rather than waiting for sufficient funds to accumulate sufficiently from annual parcel tax collections. As shown in Table 10, the necessary parcel tax amounts would increase to $14.51 per single-family unit and $11.87 per multifamily unit for bond financing of capital improvements under the Baseline + Tier One improvement scenario, up to $54.60 per single-family unit and $44.65 per multifamily unit under the Baseline + Tier Three improvement scenario.

Table 10: Annual Parcel Tax to Support Capital Improvement Costs, Bond Financing (Page 1 of 2) (a)

Baseline Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**n.a.**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c) (d)	
Single-Family	n.a.
Multifamily	n.a.
Baseline + Tier One Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($13,345,180)**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c) (d)	
Single-Family	$14.51
Multifamily	$11.87

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Notes:
(a) The Bond Financing strategy estimates the countywide parcel tax needed to support an upfront bond amounting to the full improvement cost through 2050.
(b) Excludes housing units located within the University of California, Davis census-designated place (CDP).
(c) Assumes Countywide per-unit parcel tax initiates in 2020 and extends through 2050.
(d) Bond Assumptions:

Annual Interest Rate	3.50%	annually
Term	30	years
Debt Coverage Ratio	1.25	x debt service
Issuance Costs	4%	of bond amount
Debt Service Reserve	2	years capitalized interest

Table 10: Annual Parcel Tax to Support Capital Improvement Costs, Bond Financing (Page 2 of 2) (a)

Baseline + Tier Two Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($37,271,177)**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c) (d)	
Single-Family	$40.53
Multifamily	$33.14
Baseline + Tier Three Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($50,209,021)**
Yolo County Housing Units (b)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Improvement Costs (c) (d)	
Single-Family	$54.60
Multifamily	$44.65

Notes:
(a) The Bond Financing strategy estimates the countywide parcel tax needed to support an upfront bond amounting to the full improvement cost through 2050.
(b) Excludes housing units located within the University of California, Davis census-designated place (CDP).
(c) Assumes Countywide per-unit parcel tax initiates in 2020 and extends through 2050.
(d) Bond Assumptions:

Annual Interest Rate	3.50%	annually
Term	30	years
Debt Coverage Ratio	1.25	x debt service
Issuance Costs	4%	of bond amount
Debt Service Reserve	2	years capitalized interest

Sources: Draft Cache Creek Parkway Plan, October 2016; California Department of Finance, 2016; U.S. Census Bureau, 2015 1-Year ACS Estimates, 2016; BAE, 2016.

Operations and Maintenance Funding Needs

Table 11 provides a series of calculations to demonstrate the approximate annual parcel tax level that would be necessary to provide increased annual funding to support operations and maintenance funding needs above the revenues projected in Tables 2, 4, 6, and 8, in order to balance operating costs and operating revenues, for each of the four different improvement scenarios.

As shown in the table, no parcel tax would be necessary to support operations under the Baseline scenario. A parcel tax equal to approximately $5.94 per single-family unit per year and $4.85 per multifamily unit per year would be necessary to address the projected operating

shortfall for the Baseline + Tier One improvement scenario. Appendix D shows the calculations used to estimate the necessary annual parcel tax.

For the Baseline + Tier Two improvement scenario, the annual parcel tax would need to be $8.08 per single-family unit and $6.61 per multifamily unit, while the Baseline + Tier Three improvement scenario would require an annual parcel tax of $8.44 per single-family unit and $6.90 per multifamily unit.

Note that these figures may somewhat understate the ongoing parcel tax that would be necessary to support operations under the various scenarios after 2050, because the figures above reflect lower costs during the early years of the projection period, prior to the County's acquisition and improvement of all the Parkway properties; however, this may be counterbalanced by that fact that, to simplify the analysis, these calculations assume that the number of housing units countywide that would pay the parcel tax would be constant at 2016 numbers.

Table 11: Annual Parcel Tax to Support Operating and Maintenance Costs

Baseline Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**$727,712**
Yolo County Housing Units (a)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Shortfall (b)	
Single-Family	n.a.
Multifamily	n.a.
Baseline + Tier One Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($12,504,398)**
Yolo County Housing Units (a)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Shortfall (b)	
Single-Family	$5.94
Multifamily	$4.85
Baseline + Tier Two Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($17,016,232)**
Yolo County Housing Units (a)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Shortfall (b)	
Single-Family	$8.08
Multifamily	$6.61
Baseline + Tier Three Improvement Scenario	
Cumulative Surplus/(Shortfall) at Full Build-Out (2050)	**($17,778,934)**
Yolo County Housing Units (a)	
Single-Family	49,796
Multifamily	24,980
Per-Unit Tax Needed to Support Shortfall (b)	
Single-Family	$8.44
Multifamily	$6.90

Notes:
(a) Excludes housing units located within the University of California, Davis census-designated place (CDP).
(b) Assumes Countywide per-unit parcel tax initiates in 2020 and extends through 2050.

Sources: Draft Cache Creek Parkway Plan, October 2016; California Department of Finance, 2016; U.S. Census Bureau, 2015 1-Year ACS Estimates, 2016; BAE, 2016.

Summary of Potential Overall Parcel Tax Rates

Table 12 summarizes the range of total combined operating and maintenance and capital improvements parcel tax levies that would be required to fully fund each of the Parkway scenarios that is more intensive than the Baseline scenario. The table shows the range of annual parcel tax levels that would be necessary for pay-as-you-go and for bond financing, to pay for capital improvement costs. As shown in the table, the most economical scenario is the Baseline scenario, which does not require any additional funding beyond the conservative assumptions about revenues that would be available. For the more intensive Parkway improvement and usage scenarios, the combined annual parcel tax needed to support the Baseline + Tier One improvement scenario operating and maintenance costs, plus pay-as-you-go capital improvements is approximately $12 per month for single-family units and $10 per month for multifamily units. The combined annual parcel tax ranges up to a high of $63 per single-family unit and $52 per multifamily unit, to support the Baseline + Tier Three improvement scenario, using a bond financing approach for capital improvements. For reference, in 2000 the City of Davis passed a parcel tax to fund open space acquisition and maintenance at a rate of $24 per market-rate dwelling unit.[13] In another example, the East Bay Regional Park District is partially funded by two distinct parcel taxes, including Measure WW, at a rate of $10 per $100,000 of a property's assessed valuation[14], and Measure CC, an annual charge of $12 per single-family unit on parcels within a portion of the Park District's service area.[15]

Table 12: Summary of Annual Parcel Tax by Improvement Scenario (Page 1 of 2)

Baseline Scenario

Per-Unit Tax Needed to Support Shortfall (a)

Capital Improvement Costs	**Pay-As-You-Go**	**Bond Financing**
Single-Family	None	None
Multifamily	None	None
Operating and Maintenance Costs	**Parcel Tax**	**Parcel Tax**
Single-Family	None	None
Multifamily	None	None
Total, Countywide Per-Unit Tax	**Total**	**Total**
Single-Family	None	None
Multifamily	None	None

- *Continued on next page* -

Note:
(a) Assumes Countywide per-unit parcel tax initiates in 2020 and extends through 2050.

[13] City of Davis, Municipal Code, Article 15.17.040.
[14] East Bay Regional Park District, Park Planning, Measure WW. Available at: http://www.ebparks.org/about/planning/ww
[15] East Bay Regional Park District, Features, All About Measure CC. Available at: http://www.ebparks.org/features/All_About_Measure_CC

Table 12: Summary of Annual Parcel Tax by Improvement Scenario (Page 2 of 2)

Baseline + Tier One Improvement Scenario

Per-Unit Tax Needed to Support Shortfall (a)

Capital Improvement Costs	**Pay-As-You-Go**	**Bond Financing**
Single-Family	$6	$15
Multifamily	$5	$12
Operating and Maintenance Costs	**Parcel Tax**	**Parcel Tax**
Single-Family	$6	$6
Multifamily	$5	$5
Total, Countywide Per-Unit Tax	**Total**	**Total**
Single-Family	$12	$20
Multifamily	$10	$17

Baseline + Tier Two Improvement Scenario

Per-Unit Tax Needed to Support Shortfall (a)

Capital Improvement Costs	**Pay-As-You-Go**	**Bond Financing**
Single-Family	$18	$41
Multifamily	$14	$33
Operating and Maintenance Costs	**Parcel Tax**	**Parcel Tax**
Single-Family	$8	$8
Multifamily	$7	$7
Total, Countywide Per-Unit Tax	**Total**	**Total**
Single-Family	$26	$49
Multifamily	$21	$40

Baseline + Tier Three Improvement Scenario

Per-Unit Tax Needed to Support Shortfall (a)

Capital Improvement Costs	**Pay-As-You-Go**	**Bond Financing**
Single-Family	$24	$55
Multifamily	$19	$45
Operating and Maintenance Costs	**Parcel Tax**	**Parcel Tax**
Single-Family	$8	$8
Multifamily	$7	$7
Total, Countywide Per-Unit Tax	**Total**	**Total**
Single-Family	$32	$63
Multifamily	$26	$52

Note:
(a) Assumes Countywide per-unit parcel tax initiates in 2020 and extends through 2050.

Sources: Draft Cache Creek Parkway Plan, October 2016; California Department of Finance, 2016; U.S. Census Bureau, 2015 1-Year ACS Estimates, 2016; BAE, 2016.

APPENDIX A: PARKWAY SITE MAPS AND SUMMARY SHEETS

Appendix A-1: Capay Open Space Park Summary Sheet

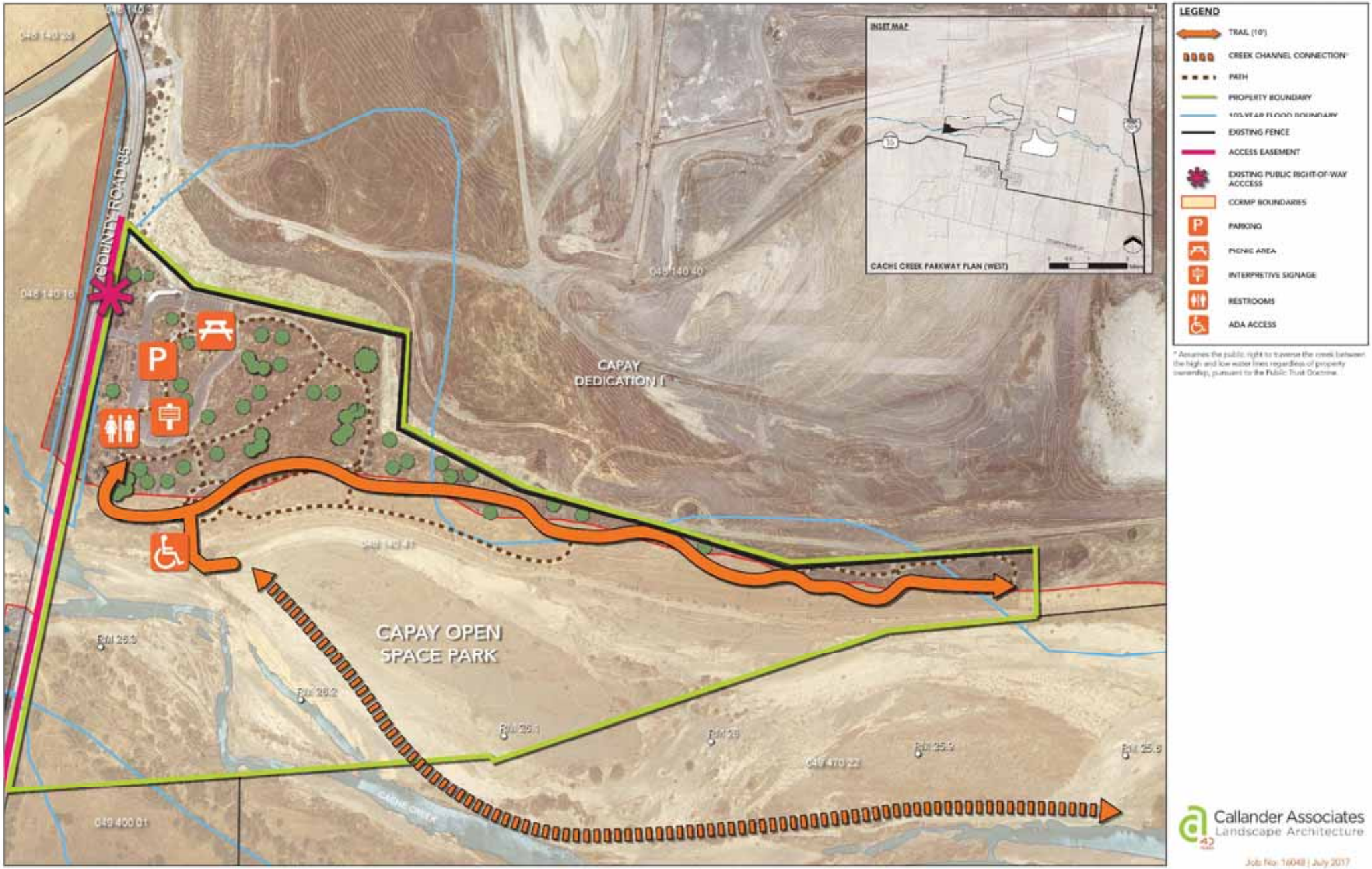
Name: Capay Open Space Park
Year of Acquisition: 2004
Acres: 41
Site ID 1

Site Information
Current Conditions: Restored

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.50	Mile	$37,752	2016	Tier One
	Trail Node	1.00	EA	$53,060	2016	Tier One
	Construction contingency & overhead	ALLOW	15%	$13,622	2016	Tier One
	Design contingency and County overhead	ALLOW	20%	$18,162	2016	Tier One
Tier Two Improvements						
	Bridge Undercrossing	1.00	LS	$476,900	2016	Tier Two
	Construction contingency & overhead	ALLOW	0.15	$71,535	2016	Tier Two
	Design contingency and County overhead	ALLOW	0.20	$95,380	2016	Tier Two
Tier Three Improvements						
	Future Trail Connection to West	(cost unknown)			2016	Tier Three

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Native Habitat with Informal Trail	41	Acres	$10,130	2008	Baseline
	Parking/Restroom/Picnic	1	Unit	$42,000	2008	Baseline
Post-Acquisition Improvements:	Cache Creek Trail	0.5	Miles	$14,000	2016	Tier One
	Bridge Undercrossing	0.1	Miles	$2,800	2016	Tier Two

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



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CAPAY OPEN SPACE PARK - BASELINE IMPROVEMENTS

0 187.5 375 750 Feet

Appendix A-2: Granite Capay Lake Summary Sheet

Name:	Granite Capay Lake - Area II	Granite Capay Lake - Area III	Granite Capay Lake - Area IV
Year of Acquisition:	2022	2024	2028
Acres:	89	54	64
Site ID	2		

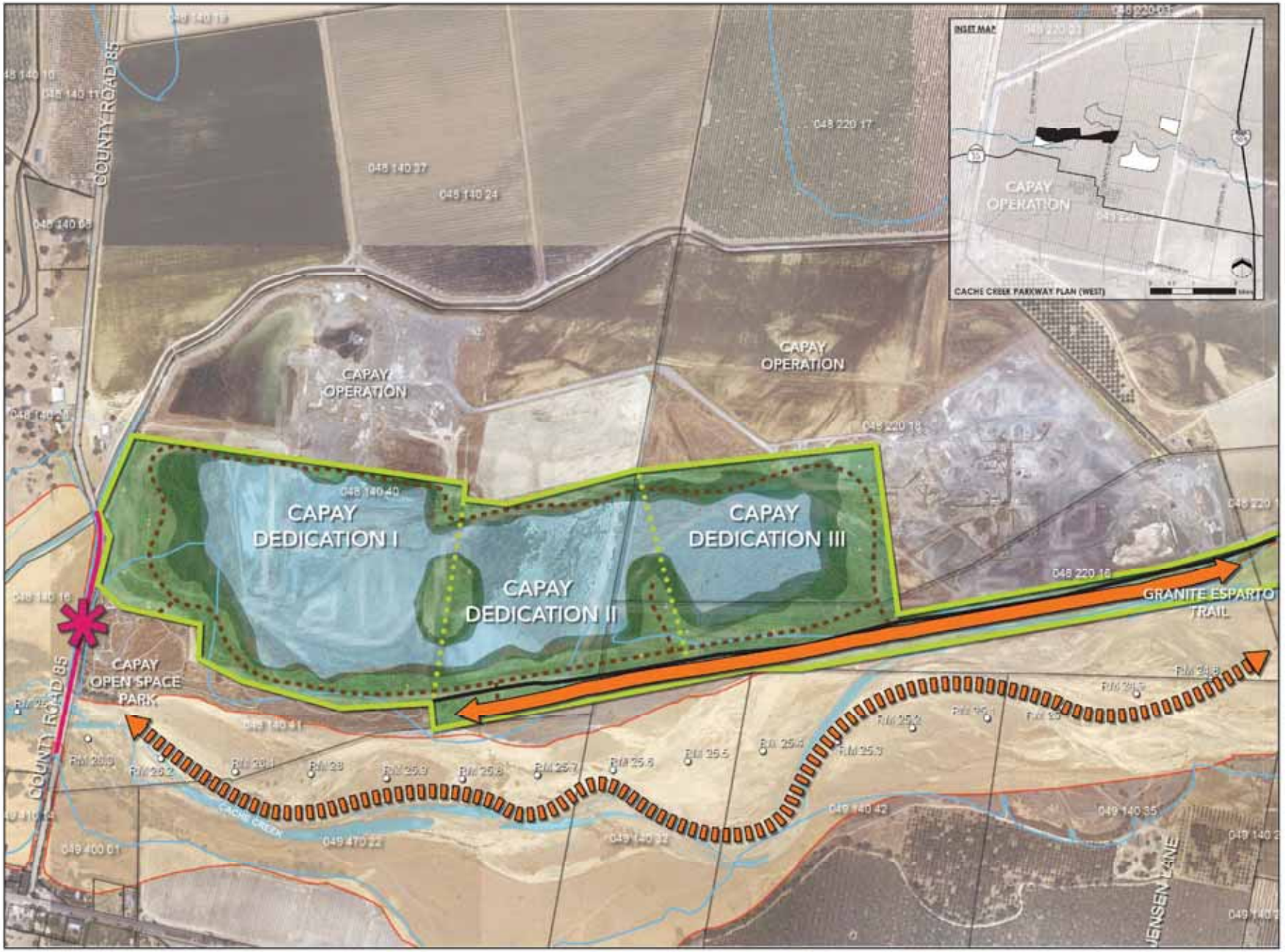
Site Information

Current Conditions: Mining

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Informal Trail	2	MI	$12,672	2023	Tier One
	Lookout	1	EA	$63,000	2023	Tier One
	Swimming Access	1	EA	$10,000	2023	Tier One
	Access Trail	0.25	MI	$18,876	2023	Tier One
	Boat Launch	1	EA	$45,000	2023	Tier One
	Site Furnishings	1	LS	$10,560	2023	Tier One
	Construction contingency & overhead	ALLOW	15%	$24,017	2023	Tier One
	Design contingency and County overhead	ALLOW	20%	$32,022	2023	Tier One
Tier Two Improvements						
	Import Fill (Expanded lake edge) **	375,000	CY	$5,625,000	2028	Tier Two
	Native Planting/Irrigation	6	AC	$814,572	2028	Tier Two
	Well	1	LS	$50,000	2028	Tier Two
	Electrical	1	LS	$20,000	2028	Tier Two
	Campground	11	AC	$519,904	2028	Tier Two
	Restroom Building	1	EA	$100,000	2028	Tier Two
	Construction contingency & overhead	ALLOW	15%	$1,069,422	2028	Tier Two
	Design contingency and County overhead	ALLOW	20%	$1,425,896	2028	Tier Two
Tier Three Improvements						

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Lake Habitat (Area II)	19.3	Acres	$561	2022	Baseline
	Lake Habitat (Area III)	11.7	Acres	$340	2024	Baseline
	Lake Habitat (Area IV)	13.9	Acres	$403	2028	Baseline
	Riparian Habitat with Informal Trail (A II)	69.7	Acres	$17,210	2022	Baseline
	Riparian Habitat with Informal Trail (A III)	42.3	Acres	$10,442	2024	Baseline
	Riparian Habitat with Informal Trail (A IV)	50.1	Acres	$12,375	2028	Baseline
Post-Acquisition Improvements:	Lake Recreation	19.3	Acres	n.a.	2022	Tier One
	Lake Recreation	11.7	Acres	n.a.	2024	Tier One
	Lake Recreation	13.9	Acres	n.a.	2028	Tier One
	Trail	0.25	Miles	$7,000	2022	Tier One
	Boat Launch	1	Unit	n.a.	2022	Tier One
	Restroom	1	Unit	$14,000	2028	Tier Two
	Campground	5.5	Acres	$127,800	2028	Tier Two

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



* Assumes the public right to traverse the creek between the high and low water lines regardless of property ownership, pursuant to the Public Trust Doctrine.

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GRANITE CAPAY LAKE DEDICATION I, II & III - BASELINE IMPROVEMENTS

0 550 1,100 2,200 Feet

Appendix A-3: Granite Esparto Lake and Trail Summary Sheet

Name:	Granite Esparto Lake and Trail	
Year of Acquisition:	Trail	Lake
	2021	2046
Acres:	121	201
Site ID	3	

Site Information

Current Conditions: Mining

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Informal Trail	0.50	MI	$3,168	2022	Tier One
	Restroom Building	1.00	EA	$100,000	2022	Tier One
	Swimming Access	1.00	EA	$10,000	2047	Tier One
	Expanded Picnic Area	1.00	AC	$256,800	2022	Tier One
	Recreation Node	1.00	EA	$133,060	2022	Tier One
	Boat Launch	1.00	EA	$45,000	2047	Tier One
	Parking Lot	1.50	AC	$330,000	2022	Tier One
	Construction contingency & overhead	ALLOW	15%	$131,705	2022	Tier One
	Design contingency and County overhead	ALLOW	20%	$175,606	2022	Tier One
Tier Two Improvements						
	Import Fill (Swim access area and habitat isl	360,000.00	CY	$5,400,000	2047	Tier Two
	Habitat Planting	4.00	AC	$592,416	2047	Tier Two
	Lookout Area	1.00	EA	$63,000	2047	Tier Two
	Construction contingency & overhead	ALLOW	15%	$908,313	2047	Tier Two
	Design contingency and County overhead	ALLOW	20%	$1,211,084	2047	Tier Two
Tier Three Improvements						
	Bridge Overcrossing	(cost unknown)				

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Habitat with Informal Trail	121	Acres	$29,897	2021	Baseline
	Open water lake	157	Acres	$4,553	2046	Baseline
	Adjacent shoreline habitat	44	Acres	$10,872	2046	Baseline
	Parking/Restroom/Picnic	1	Unit	$42,000	2021	Baseline
Post-Acquisition Improvements:	Boat Launch	1	Unit	n.a.	2047	Tier One
	Swim Rec	157	Acres	n.a.	2047	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

GRANITE ESPARTO - BASELINE IMPROVEMENTS

0 405 810 1,620 Feet

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Appendix A-4: Syar Lake Summary Sheet

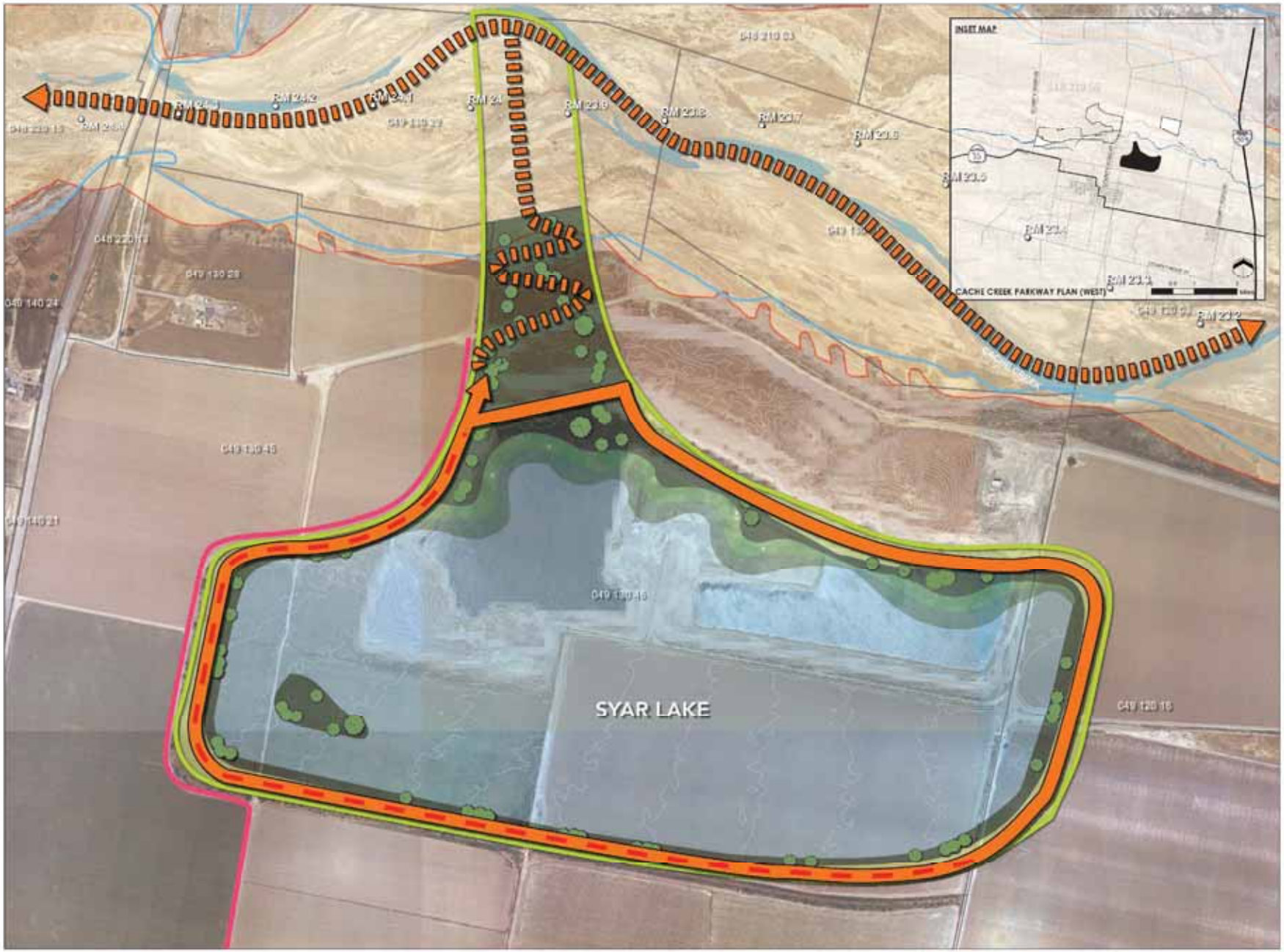
Name: Syar Lake
Year of Acquisition: 2031
Acres: 227
Site ID 4

Site Information
Current Conditions: Mining

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.10	MI	$7,550	2032	Tier One
	Parking Area	2.00	AC	$440,000	2032	Tier One
	Lookout	2.00	EA	$126,000	2032	Tier One
	Swimming Access	1.00	EA	$10,000	2032	Tier One
	Reduced Picnic Area	1.50	AC	$13,350	2032	Tier One
	Boat Launch	1.00	EA	$45,000	2032	Tier One
	Trail Node	1.00	EA	$53,060	2032	Tier One
	Creek access trail	1.00	EA	$20,000	2032	Tier One
	Construction contingency & overhead	ALLOW	15%	$107,244	2032	Tier One
	Design contingency and County overhead	ALLOW	20%	$142,992	2032	Tier One
Tier Two Improvements						
	Restroom	1.00	EA	$100,000	2032	Tier Two
	Well	1.00	EA	$50,000	2032	Tier Two
	Electrical	1.00	LS	$20,000	2032	Tier Two
	Construction contingency & overhead	ALLOW	0.15	$25,500	2032	Tier Two
	Design contingency and County overhead	ALLOW	0.20	$34,000	2032	Tier Two
Tier Three Improvements						

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Lake Habitat	142	Acres	$4,118	2031	Baseline
	Riparian Habitat	55	Acres	$9,900	2031	Baseline
	Island	5	Acres	$145	2031	Baseline
	Landscaped berms	15	Acres	$2,700	2031	Baseline
	Oak Woodland	10	Acres	$1,800	2031	Baseline
Post-Acquisition Improvements:	Cache Creek Trail	0.1	Miles	$2,800	2031	Tier One
	Parking/Picnic	2	Unit	$56,000	2031	Tier One
	Boat Launch	1	Unit	n.a.	2031	Tier One
	Restroom	1	Unit	$14,000	2031	Tier Two

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



* Assumes the public right to traverse the creek between the high and low water lines regardless of property ownership, pursuant to the Public Trust Doctrine.

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SYAR LAKE - BASELINE IMPROVEMENTS

0 437.5 875 1,750 Feet

Appendix A-5: Teichert Esparto Reiff Lake Summary Sheet

Name: Teichert Esparto Reiff Lake
Year of Acquisition: 2032
Acres: 88
Site ID 5

Site Information
Current Conditions: Mining

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Informal Trail	0.80	MI	$5,069	2033	Tier One
	Parking Area	0.75	AC	$165,000	2033	Tier One
	Reduced Picnic Area	0.65	AC	$5,785	2033	Tier One
	Boat Launch	1.00	EA	$45,000	2033	Tier One
	Signage	5.00	EA	$47,500	2033	Tier One
	Lookout	2.00	EA	$126,000	2033	Tier One
	Site Furnishing	ALLOW	LS	$10,560	2033	Tier One
	Construction contingency & overhead	ALLOW	15%	$60,737	2033	Tier One
	Design contingency and County overhead	ALLOW	20%	$80,982	2033	Tier One
Tier Two Improvements						
	(none)					
Tier Three Improvements						
	Lease, purchase or dedication of east half	(cost unknown)	0	$0	2033	Tier Three
	Import Fill (Berm between lakes)**	400,000	CY	$6,000,000	2033	Tier Three

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Lake	60	Acres	$1,740	2032	Baseline
	Riparian habitat	28	Acres	$5,040	2032	Baseline
Post-Acquisition Improvements:	Trail	0.8	Miles	$22,400	2033	Tier One
	Parking/Picnic	1	Unit	$28,000	2033	Tier One
	Boat Launch	1	Unit	n.a.	2033	Tier One
	Lookout Facilities	2	Units	n.a.	2033	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

TEICHERT ESPARTO REIFF LAKE - BASELINE IMPROVEMENTS

0 375 750 1,500 Feet

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Appendix A-6: Cemex Snyder Lakes Summary Sheet

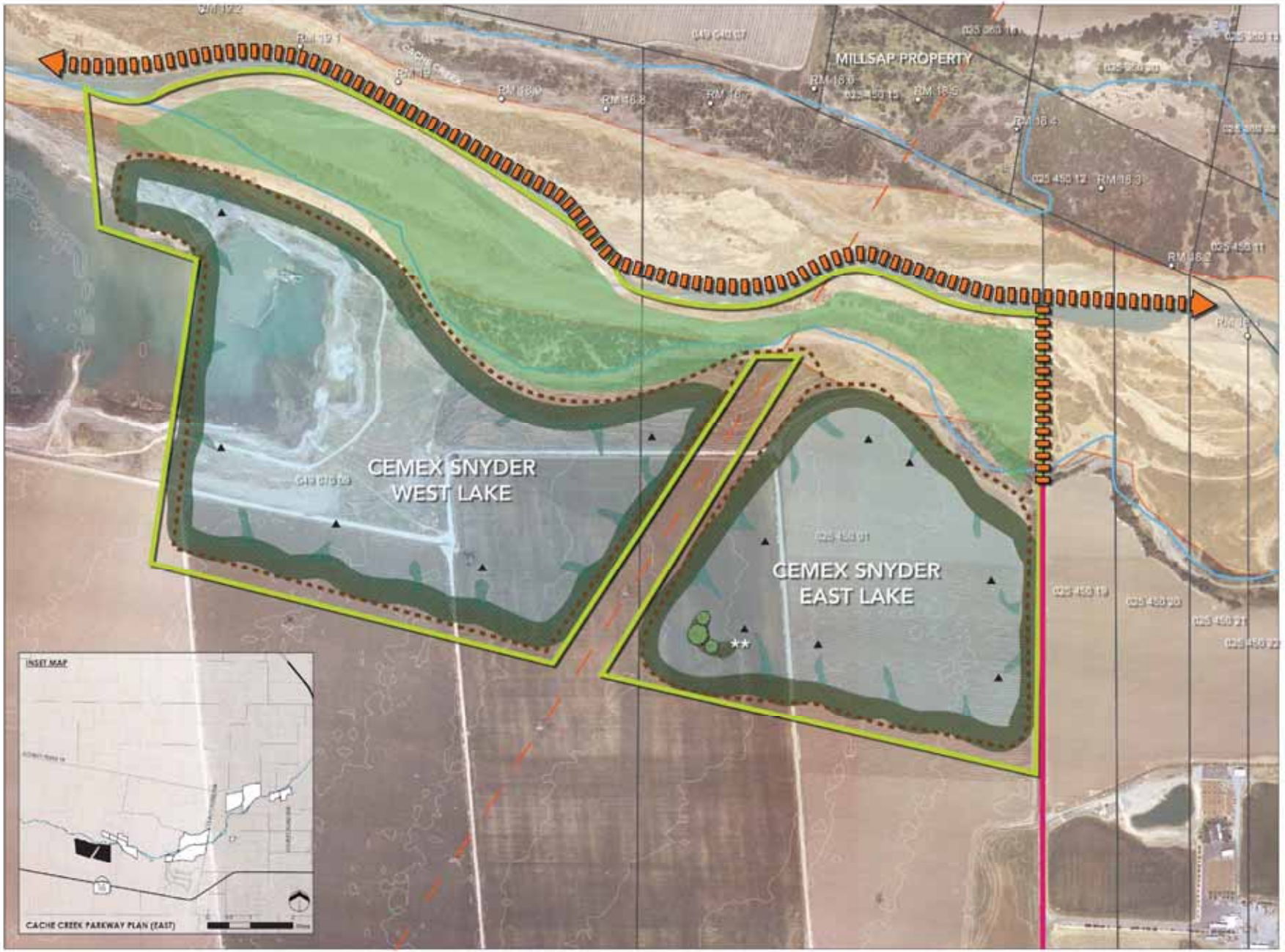
Name: Cemex Snyder Lakes
Year of Acquisition: 2032
Acres: 164.8
Site ID 6

Site Information
Current Conditions: Mining

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.65	MI	$49,078	2033	Tier One
	Recreation Node	1.00	EA	$133,060	2033	Tier One
	Trail Node	1.00	EA	$53,060	2033	Tier One
	Reduced Picnic Area	0.50	AC	$4,450	2033	Tier One
	Restroom	1.00	EA	$100,000	2033	Tier One
	Well	1.00	EA	$50,000	2033	Tier One
	Boat Launch	2.00	EA	$90,000	2033	Tier One
	Parking Area	1.00	AC	$220,000	2033	Tier One
	Informal Trail	1.80	MI	$11,405	2033	Tier One
	Lookout	2.00	EA	$63,000	2033	Tier One
	Electrical	ALLOW	LS	$20,000	2033	Tier One
	Construction contingency & overhead	ALLOW	15%	$119,108	2033	Tier One
	Design contingency and County overhead	ALLOW	20%	$158,810	2033	Tier One
Tier Two Improvements						
	Import Fill**	80,000.00	CY	$1,200,000	2033	Tier Two
	Parking Area	1.00	AC	$220,000	2033	Tier Two
	Expanded Picnic Area	1.00	AC	$256,800	2033	Tier Two
	Construction contingency & overhead	ALLOW	0.15	$251,520	2033	Tier Two
	Design contingency and County overhead	ALLOW	0.20	$335,360	2033	Tier Two
Tier Three Improvements						

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Lake/Habitat	149.8	Acres	$4,344	2032	Baseline
	Riparian Habitat	15	Acres	$2,700	2032	Baseline
Post-Acquisition Improvements:	Cache Creek Trail	0.65	Miles	$18,200	2033	Tier One
	Trail Connection	0.5	Miles	$14,000	2033	Tier One
	Passive Rec	15	Miles	$1,006	2033	Tier One
	Parking/Restroom/Picnic	1	Unit	$42,000	2033	Tier One
	Parking	1	Unit	$14,000	2033	Tier Two
	Lake Recreation	68	Acres	n.a.	2033	Tier One
	Boat Launch	2	Units	n.a.	2033	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



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CEMEX SNYDER LAKES - BASELINE IMPROVEMENTS

0 405 810 1,620 Feet

Appendix A-7: Millsap Property Summary Sheet

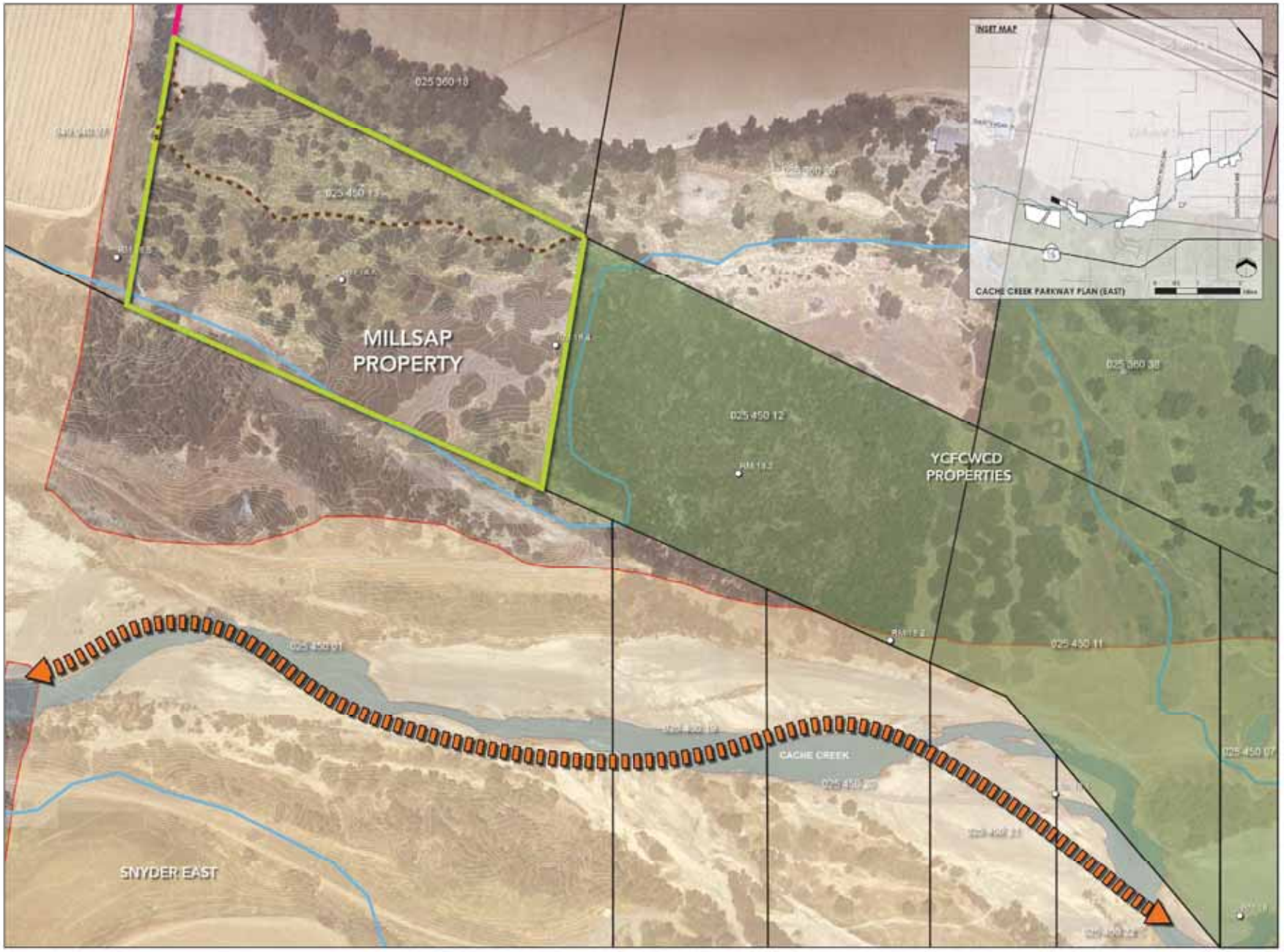
Name: Millsap Property
Year of Acquisition: 1999
Acres: 16.9
Site ID 7

Site Information
Current Conditions: Riparian vegetation; cottonwoods and low brush.

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Informal Trail	0.50	MI	$3,168	2016	Tier One
	Site Furnishings	1.00	EA	$10,560	2016	Tier One
	Interpretive Panels	5.00	EA	$47,500	2016	Tier One
	Fencing	1,694.00	LF	$40,656	2016	Tier One
	Construction contingency & overhead	ALLOW	15%	$15,282	2016	Tier One
	Design contingency and County overhead	ALLOW	20%	$20,376	2016	Tier One
Tier Two Improvements						
	(None)					
Tier Three Improvements						
	Bridge	1.00	LS	$4,200,000	2016	Tier Three
	Trail Nodes	2.00	EA	$53,060	2016	Tier Three

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Riparian vegetation	16.9	Acres	$3,042	1999	Baseline
Post-Acquisition Improvements:	Bridge	0.17	Miles	$4,773	2016	Tier Three
	Passive Rec (informal trail)	16.9	Miles	$1,134	2016	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



MILLSAP PROPERTY - BASELINE IMPROVEMENTS

0 187.5 375 750 Feet

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Appendix A-8: YCFCWCD Properties Summary Sheet

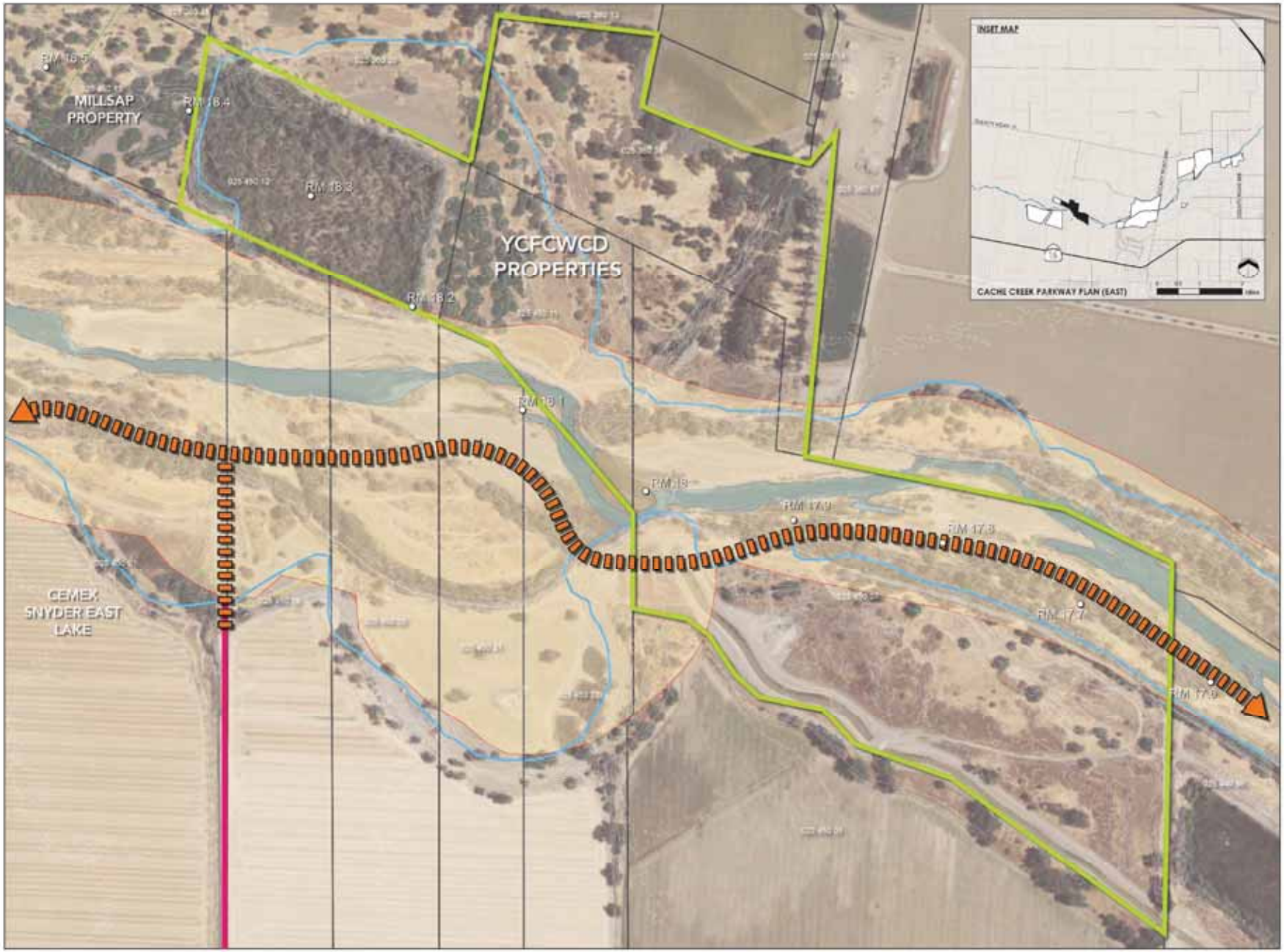
Name: YCFCWCD Properties
Year of Acquisition: 2050
Acres: 89
Site ID 8

Site Information
Current Conditions: Owned by YCFCWCD; currently undeveloped

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Fencing	1,694.00	LF	$40,656	2050	Tier One
	Construction contingency & overhead	ALLOW	15%	$6,099	2050	Tier One
	Design contingency and County overhead	ALLOW	20%	$8,132	2050	Tier One
Tier Two Improvements						
	(None)					
Tier Three Improvements						
	Cache Creek Trail	0.75	MI	$75,504	2050	Tier Three
	Trail Node	1.00	EA	$53,060	2050	Tier Three
	Informal Trail	1.00	MI	$6,336	2050	Tier Three

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Habitat	89	Acres	$16,020	2050	Baseline
Post-Acquisition Improvements:	Trail Connection	0.75	Miles	$21,000	2050	Tier Three

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



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YCFCWCD PROPERTIES - BASELINE IMPROVEMENTS

0 280 560 1,120 Feet

Appendix A-9: Wild Wings Open Space Park Summary Sheet

Name: Wild Wings Open Space Park
Year of Acquisition: 2004
Acres: 17.26
Site ID 9

Site Information
Current Conditions: Owned by County; Current informal trail

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.15	MI	$11,326	2016	Tier One
	Informal Trail	0.60	MI	$3,802	2016	Tier One
	Lookout	1.00	EA	$63,000	2016	Tier One
	Trail Node	1.00	EA	$53,060	2016	Tier One
	Passive Recreation Area	5.00	AC	$500,000	2016	Tier One
	Site Furnishings	1.00	EA	$10,560	2016	Tier One
	Creek Access Trail	1.00	EA	$20,000	2016	Tier One
	Construction contingency & overhead	ALLOW	15%	$99,263	2016	Tier One
	Design contingency and County overhead	ALLOW	20%	$132,350	2016	Tier One
Tier Two Improvements						
	Signage	1.00	LS	$9,500	2016	Tier Two
	Reduced Picnic Area	1.00	AC	$8,900	2016	Tier Two
	Construction contingency & overhead	ALLOW	15%	$2,760	2016	Tier Two
	Design contingency and County overhead	ALLOW	20%	$3,680	2016	Tier Two
Tier Three Improvements						
	Cache Creek Trail	0.3	MI	$75,504	2050	Tier Three

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Habitat	17.26	Acres	$3,107	2004	Baseline
	Passive Rec (informal trail)	13	Acres	$872	2004	Baseline
Post-Acquisition Improvements:	Informal Trail	5	Acres	$335	2016	Tier One
	Cache Creek Trail	0.15	Miles	$4,200	2016	Tier One
	Cache Creek Trail	0.3	Miles	$8,400	2050	Tier Three
	Picnic Area	1	Unit	$14,000	2016	Tier Two

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

LEGEND

- CREEK CHANNEL CONNECTION*
- EXISTING CONVEYOR BRIDGE
- PROPERTY BOUNDARY
- PATH
- ACCESS EASEMENT
- 100-YEAR FLOOD BOUNDARY
- CCRMP BOUNDARIES
- PICNIC AREA
- INTERPRETIVE SIGNAGE

* Assumes the public right to traverse the creek between the high and low water lines regardless of property ownership, pursuant to the Public Trust Doctrine.

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WILD WINGS PARK - BASELINE IMPROVEMENTS

0 187.5 375 750 Feet

Sources

Appendix A-10: Teichert Coors Storz Bridge Summary Sheet

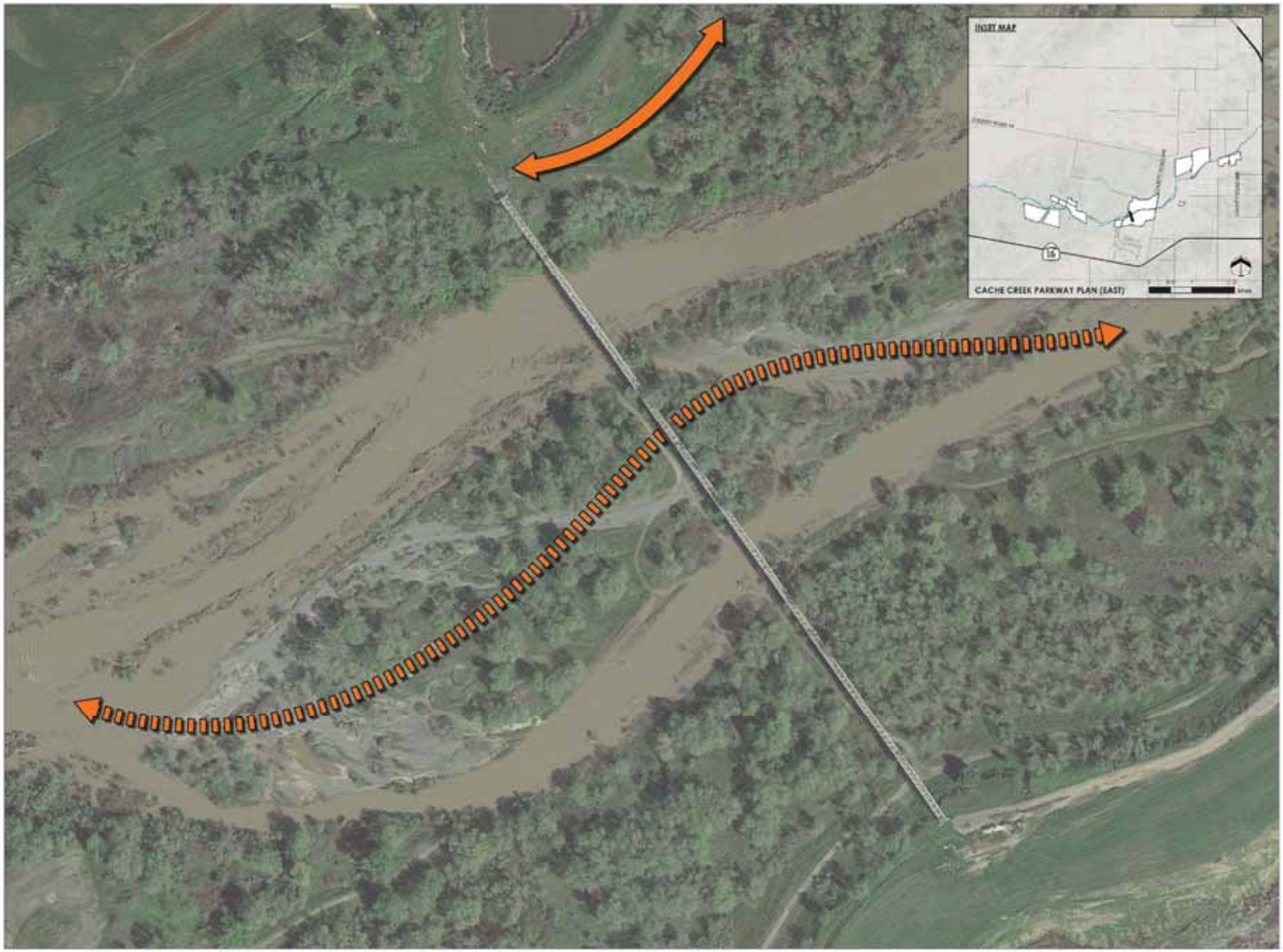
Name: Teichert Coors Storz Bridge
Year of Acquisition: 2020
Acres: Bridge
Site ID 10

Site Information
Current Conditions: Existing; not suitable for pedestrians

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	(None)					
Tier Two Improvements						
	Retrofit Bridge for Public Access	1.00	EA	$401,000	2021	Tier Two
	Trail Node	2.00	EA	$106,120	2021	Tier Two
	Construction contingency & overhead	ALLOW	15%	$76,068	2021	Tier Two
	Design contingency and County overhead	ALLOW	20%	$101,424	2021	Tier Two
Tier Three Improvements						
	(None)					

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Bridge	0.26	Miles	$7,159	2020	Tier Two

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



TEICHERT COORS / STORZ BRIDGE - BASELINE IMPROVEMENTS

NOT TO SCALE

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Appendix A-11: Cache Creek Nature Preserve Summary Sheet

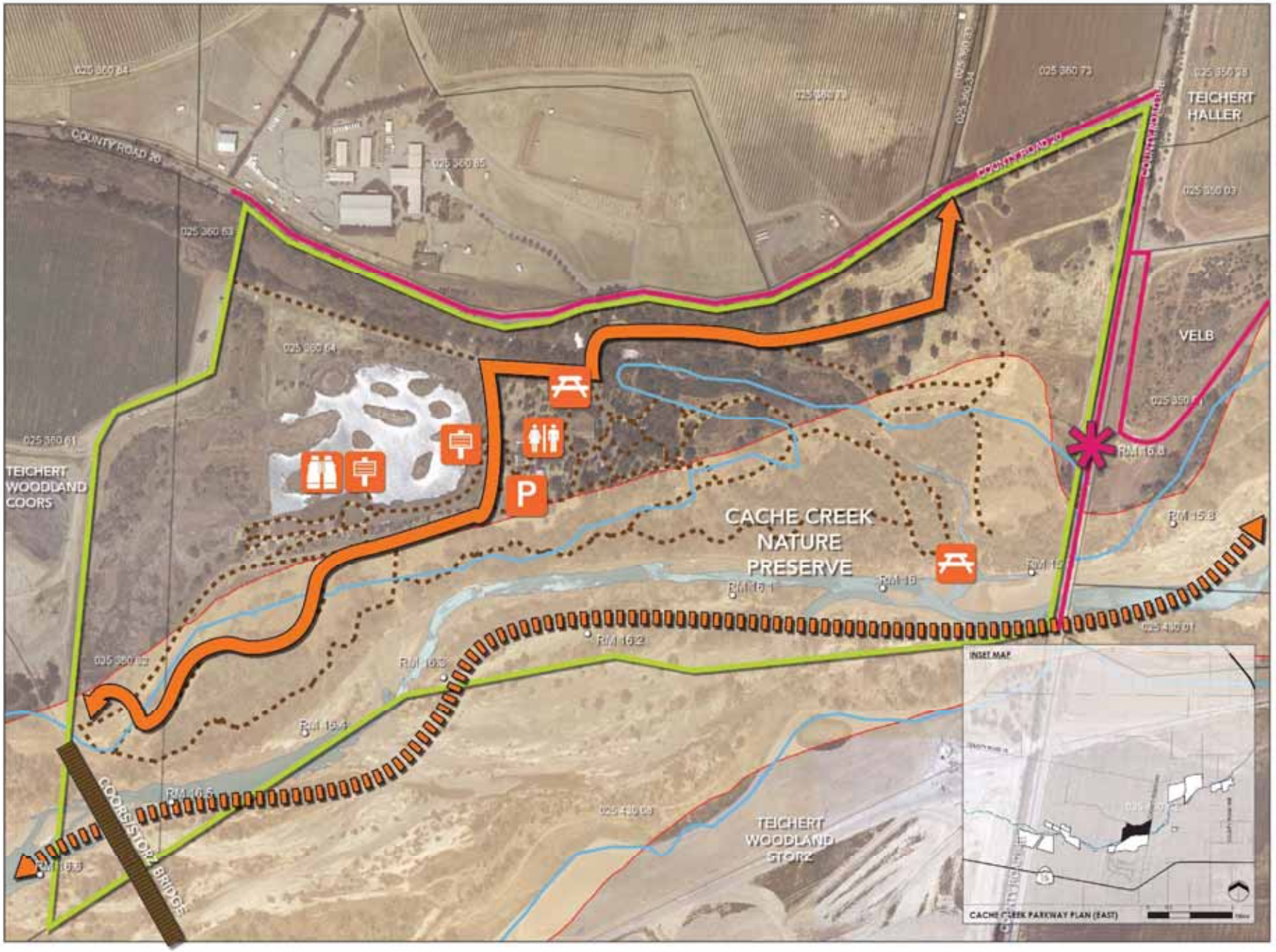
Name: Cache Creek Nature Preserve
Year of Acquisition: 1999
Acres: 122.5
Site ID 11

Site Information
Current Conditions: Owned by County; Cache Creek Conservancy provides operation and maintenance

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Pedestrian Crossing CR94b	1.00	LS	$25,000	2016	Tier One
	Construction contingency & overhead	ALLOW	15%	$3,750	2016	Tier One
	Design contingency and County overhead	ALLOW	20%	$5,000	2016	Tier One
Tier Two Improvements						
	(None)					
Tier Three Improvements						
	(None)					

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Full Park Cost (From CCC)	1	LS	$103,922	1999	Baseline
Post-Acquisition Improvements:	Cache Creek Trail	1	Mile	$28,000	2016	Tier One

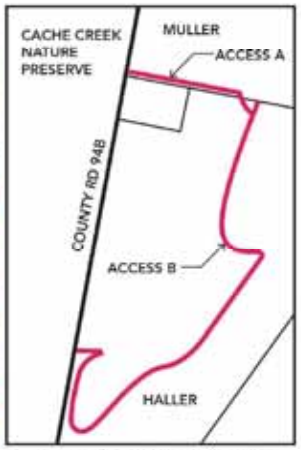
Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



LEGEND

- TRAIL
- CREEK CHANNEL CONNECTION*
- EXISTING CONVEYOR BRIDGE
- PATH
- PROPERTY BOUNDARY
- ACCESS EASEMENT
- EXISTING PUBLIC RIGHT-OF-WAY ACCESS
- 100 YEAR FLOOD BOUNDARY
- CCRMP BOUNDARIES
- RESTROOMS
- PARKING
- SEATING/PICNIC AREA
- INTERPRETIVE SIGNAGE

* Asserts the public right to traverse the creek between its high- and low-water lines regardless of property ownership, pursuant to the Public Trust Doctrine.



Access A– 40 foot unlimited public access with Muller Habitat dedication; 20 foot emergency access when plant closes.

Access B– 20 foot limited public access with Muller Habitat dedication; 20 foot unlimited public access when plant closes.

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CACHE CREEK NATURE PRESERVE - BASELINE IMPROVEMENTS

0 280 560 1,120 Feet

Appendix A-12: Teichert Woodland Storz Lake Summary Sheet

Name: Teichert Woodland Storz Lake
Year of Acquisition: 2020
Acres: 64
Site ID 12

Site Information
Current Conditions: Mining Activities w/ scattered initial restoration efforts

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.70	MI	$52,853	2021	Tier One
	Informal Trail	0.80	MI	$5,069	2021	Tier One
	Parking Area	0.50	AC	$110,000	2021	Tier One
	Lookout	2.00	EA	$126,000	2021	Tier One
	Restroom Building	1.00	EA	$100,000	2021	Tier One
	Reduced Picnic Area	0.50	EA	$4,450	2021	Tier One
	Boat Launch	1.00	EA	$45,000	2021	Tier One
	Electrical	1.00	LS	$20,000	2021	Tier One
	Well	1.00	LS	$50,000	2021	Tier One
	Pedestrian Crossing	1.00	EA	$25,000	2021	Tier One
	Native Planting/Irrigation	0.50	AC	$74,052	2021	Tier One
	Construction contingency & overhead	ALLOW	15%	$91,863	2021	Tier One
	Design contingency and County overhead	ALLOW	20%	$122,484	2021	Tier One
Tier Two Improvements						
	(none)					
Tier Three Improvements						
	Cache Creek Trail Expansion	0.5	MI	$75,504	2021	Tier Three
	Pedestrian Tunnel	1	LS	$2,380,000	2021	Tier Three
	Zipline Recreation Amenities	(cost unknown)				Tier Three

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Lake Habitat	20	Acres	$580	2020	Baseline
	Riparian Habitat	44	Acres	7920	2020	Baseline
Post-Acquisition Improvements:	Lake Recreation	20	Acres	n.a.	2022	Tier One
	Parking/Restroom/Picnic	1	Unit	$42,000	2022	Tier One
	CC Trail	1	Mile	$28,000	2022	Tier One
	Trail Connection	0.5	Miles	$14,000	2022	Tier One
	Informal Trail	44	Acres	$2,952	2022	Tier One
	Lookout Area	2	Units	n.a.	2022	Tier One
	CC Trail Expansion	0.5	Miles	$14,000	2022	Tier Three
	Boat Launch	1	Unit	n.a.	2022	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

TEICHERT WOODLAND STORZ LAKE - BASELINE IMPROVEMENTS

0 137.5 275 550 825 1,100 Feet

Callander Associates Landscape Architecture

Job No: 16048 | July 2017

Appendix A-13: County Borrow Site Summary Sheet

Name: County Borrow Site
Year of Acquisition: Prior to 1980
Acres: 6.65
Site ID 13

Site Information
Current Conditions: Owned by County; Leased to Teichert through 2028 for storage and other uses related to operations

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Mountain Bike Pump Track	1.00	LS	$100,000	2016	Tier One
	Construction contingency & overhead	ALLOW	15%	$15,000	2016	Tier One
	Design contingency and County overhead	ALLOW	20%	$20,000	2016	Tier One
Tier Two Improvements						
	(None)					
Tier Three Improvements						
	Cache Creek Trail (connection)	0.25	MI	$18,876	2016	Tier Three

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Riparian Habitat	6.65	Acres	$1,197	1980	Baseline
Post-Acquisition Improvements:	Bike Pump Track	6.65	Acres	n.a.		Self-Sustaining
	CC Trail	0.25	MI	$7,000	2016	Tier Three

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

COUNTY BORROW PIT - BASELINE IMPROVEMENTS

0 90 180 360 Feet

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Appendix A-14: Teichert Woodland Muller Habitat and Trail Summary Sheet

Name: Teichert Woodland Muller Habitat and Trail
Year of Acquisition: 2017
Acres: 98
Site ID 14

Site Information
Current Conditions: Initial Phases of Native Habitat Restoration

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.80	MI	$60,403	2018	Tier One
	Trail Node	1.00	EA	$53,060	2018	Tier One
	Informal Trail	0.50	MI	$3,168	2018	Tier One
	Expanded Picnic Area	2.00	AC	$513,600	2018	Tier One
	Lookout	2.00	EA	$126,000	2018	Tier One
	Construction contingency & overhead	ALLOW	15%	$113,435	2018	Tier One
	Design contingency and County overhead	ALLOW	20%	$151,246	2018	Tier One
Tier Two Improvements						
	(None)					
Tier Three Improvements						
	(None)					

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Habitat Zones	69	Acres	$12,420	2017	Baseline
	Wetland	27	Acres	$783	2017	Baseline
Post-Acquisition Improvements:	CC Trail	0.8	Miles	$22,400	2019	Tier One
	Trail Connection	0.75	Miles	$21,000	2019	Tier One
	Passive Recreation (informal trail)	20	Acres	$1,342	2019	Tier One
	Picnic Shelters	2	Units	$28,000	2019	Tier One
	Lookout Areas	2	Units	n.a.	2019	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

* Assumes the public right to traverse the creek between the high and low water lines regardless of property ownership, pursuant to the Public Trust Doctrine.

Access A= 40 foot unlimited public access with Muller Habitat dedication; 20 foot emergency access when plant closes.

Access B= 20 foot limited public access with Muller Habitat dedication; 20 foot unlimited public access when plant closes.

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TEICHERT WOODLAND MULLER HABITAT- BASELINE IMPROVEMENTS

0 375 750 1,500 Feet

Sources:

Appendix A-15: Teichert Muller Bridge Summary Sheet

Name: Teichert Muller Bridge
Year of Acquisition: 2019-2028
Acres: n.a.
Site ID 15

Site Information

Current Conditions: Existing Bridge; Teichert will remove conveyor equipment but no other bridge repairs will be done prior to acquisition.

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	(None)					
Tier Two Improvements						
	Retrofit Bridge for Public Access	1.00	EA	$401,000	2023	Tier Two
	Trail Nodes	2.00	EA	$53,060	2023	Tier Two
	Construction contingency & overhead	ALLOW	0.15	$68,109	2023	Tier Two
	Design contingency and County overhead	ALLOW	0.10	$45,406	2023	Tier Two
Tier Three Improvements						
	(None)					

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Bridge	0.15	Mile	$4,136	2023	Tier Two

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

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TEICHERT MULLER BRIDGE - BASELINE IMPROVEMENTS

NOT TO SCALE

Appendix A-16: Granite Woodland Reiff Habitat Summary Sheet

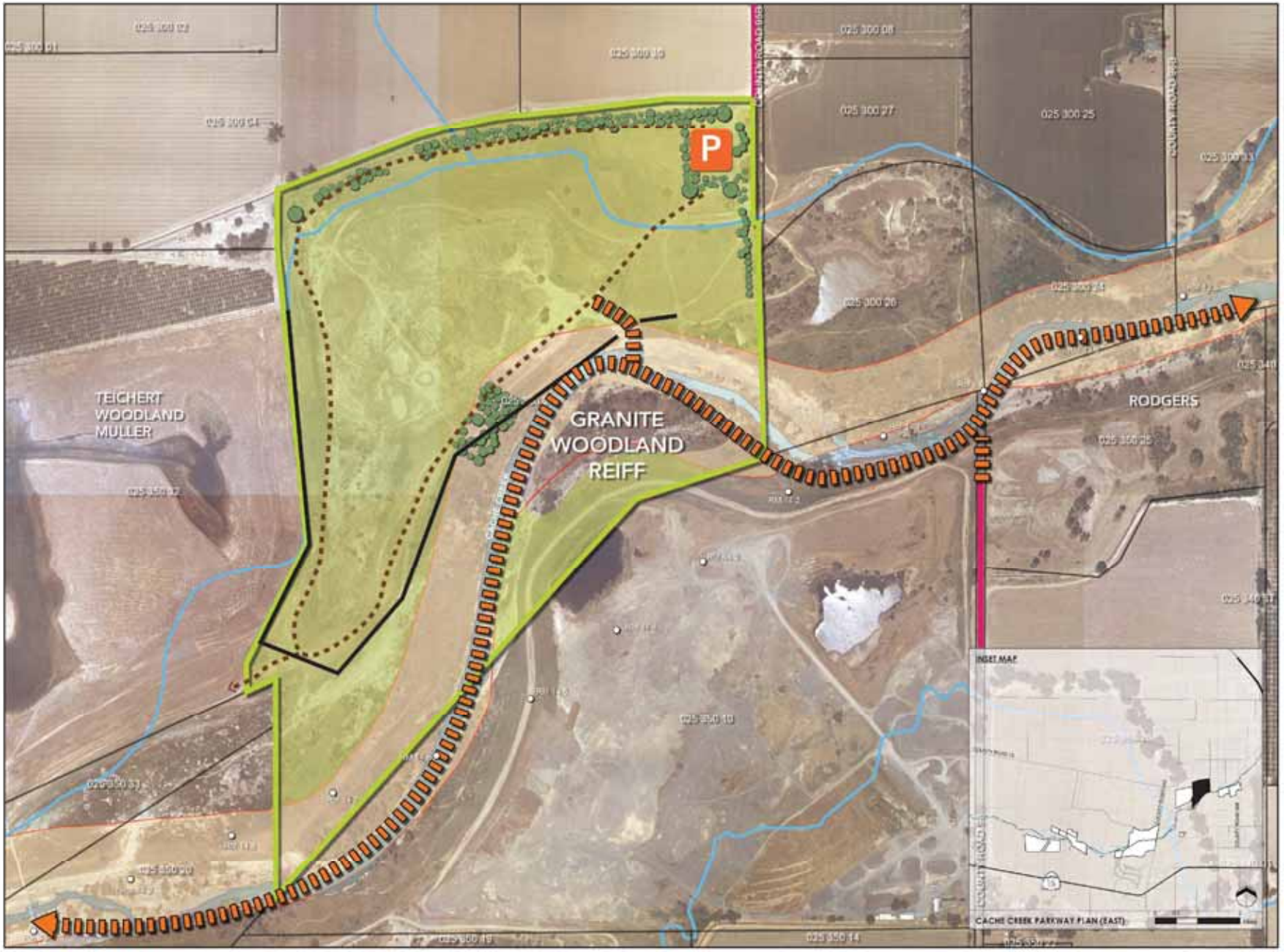
Name: Granite Woodland Reiff Habitat
Year of Acquisition: 2017
Acres: 115
Site ID 16

Site Information
Current Conditions: Reclaimed to habitat and passive recreation; Ready for County to accept

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.50	MI	$37,752	2018	Tier One
	Informal Trail	1.75	MI	$11,088	2018	Tier One
	Passive Recreation Area	10.00	AC	$1,000,000	2018	Tier One
	Native Planting/Irrigation	10.00	AC	$1,481,040	2018	Tier One
	Reduced Picnic Area	1.00	AC	$8,900	2018	Tier One
	Restroom Building	1.00	EA	$100,000	2018	Tier One
	Well	1.00	LS	$50,000	2018	Tier One
	Electrical	1.00	LS	$20,000	2018	Tier One
	Creek Access Trail	1.00	LS	$20,000	2018	Tier One
	Lookout	1.00	EA	$63,000	2018	Tier One
	Construction contingency & overhead	ALLOW	0.15	$418,767	2018	Tier One
	Design contingency and County overhead	ALLOW	0.20	$558,356	2018	Tier One
Tier Two Improvements						
	(None)					
Tier Three Improvements						
	(None)					

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Habitat	96	Acres	$17,280	2017	Baseline
	Passive Recreation	19	Acres	$1,275	2017	Baseline
Post-Acquisition Improvements:	Parking/Restroom/Picnic	1	Unit	$42,000	2019	Tier One
	CC Trail	0.5	Miles	$14,000	2019	Tier One
	Trail Connection	0.7	Miles	$19,600	2019	Tier One
	Lookout Area	1	Unit	n.a.	2019	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



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GRANITE WOODLAND REIFF HABITAT - BASELINE IMPROVEMENTS

0 375 750 1,500 Feet

Appendix A-17: Rodgers Property Summary Sheet

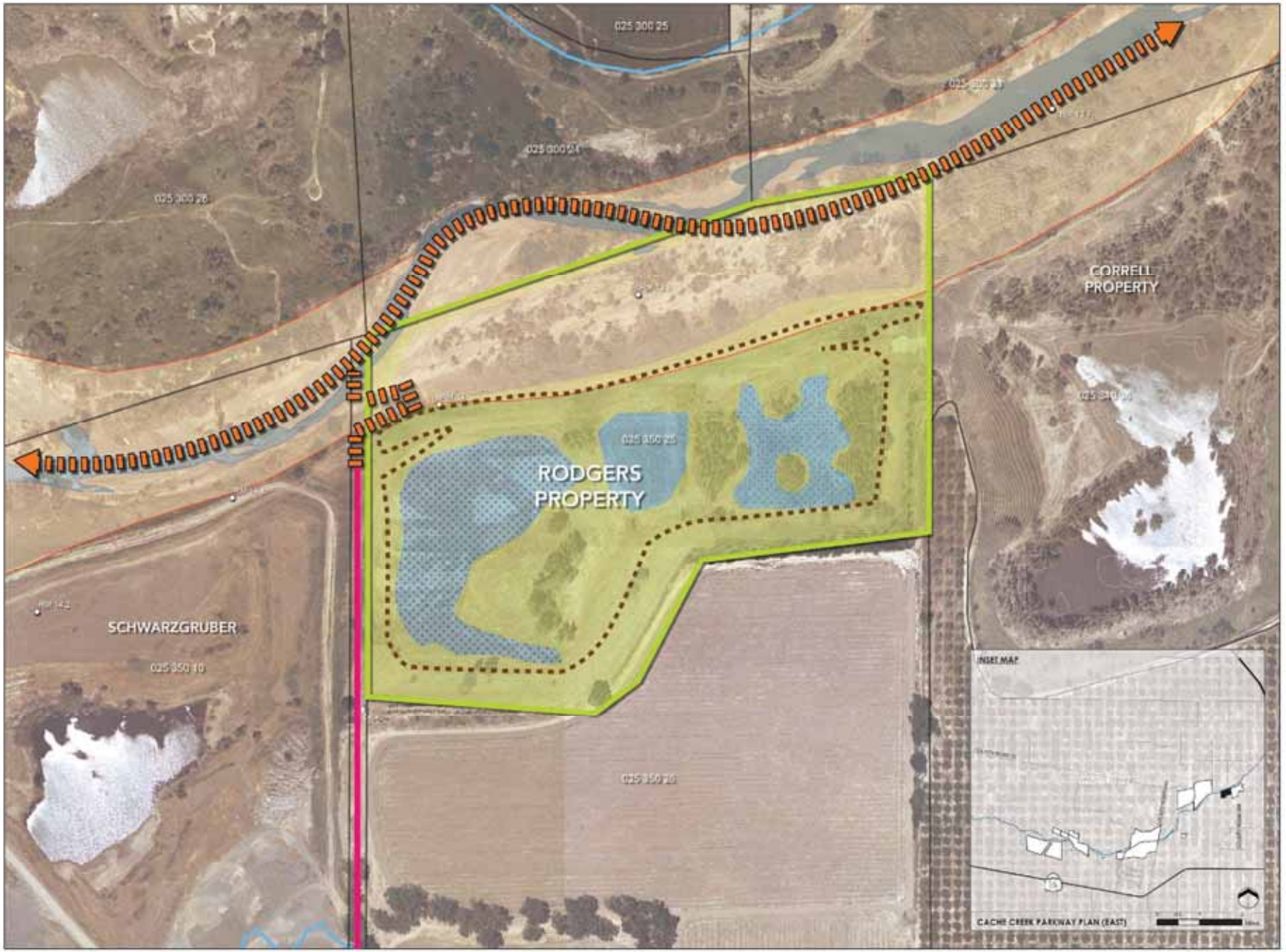
Name: Rodgers Property
Year of Acquisition: 2004
Acres: 30
Site ID 17

Site Information
Current Conditions: Owned by County; O/M conducted by Cache Creek Conservancy.

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.25	EA	$18,876	2016	Tier One
	Lookout	1.00	EA	$63,000	2016	Tier One
	Recreation Node	1.00	EA	$133,060	2016	Tier One
	Trail Node	1.00	EA	$53,060	2016	Tier One
	Creek Access Trail	1.00	LS	$20,000	2016	Tier One
	Well	1.00	LS	$50,000	2016	Tier One
	Restroom Building	1.00	EA	$100,000	2016	Tier One
	Electrical	1.00	LS	$20,000	2016	Tier One
	Parking Area	0.50	AC	$110,000	2016	Tier One
	Construction contingency & overhead	ALLOW	0.15	$85,200	2016	Tier One
	Design contingency and County overhead	ALLOW	0.20	$113,600	2016	Tier One
Tier Two Improvements						
	Pedestrian Bridge (reduced)	1.00	LS	$40,000	2016	Tier Two
	Construction contingency & overhead	ALLOW	0.15	$6,000	2016	Tier Two
	Design contingency and County overhead	ALLOW	0.20	$8,000	2016	Tier Two
Tier Three Improvements						
	(None)					

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Pond	20	Acres	$580	2004	Baseline
	Riparian Habitat	8	Acres	$1,440	2004	Baseline
Post-Acquisition Improvements:	CC Trail	0.25	Miles	$7,000	2016	Tier One
	Trail Connection	0.15	Miles	$4,200	2016	Tier One
	Parking	1	Unit	$14,000	2016	Tier One
	Lookout Areas	1	Unit	n.a.	2016	Tier One
	Bridge	0.05	Miles	$1,400	2016	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



RODGERS PROPERTY - BASELINE IMPROVEMENTS

0 187.5 375 750 Feet

Callander Associates Landscape Architecture

Job No: 16048 | July 2017

Appendix A-18: Correll Property Summary Sheet

Name: Correll Property
Year of Acquisition: 1996
Acres: 38.9
Site ID 18

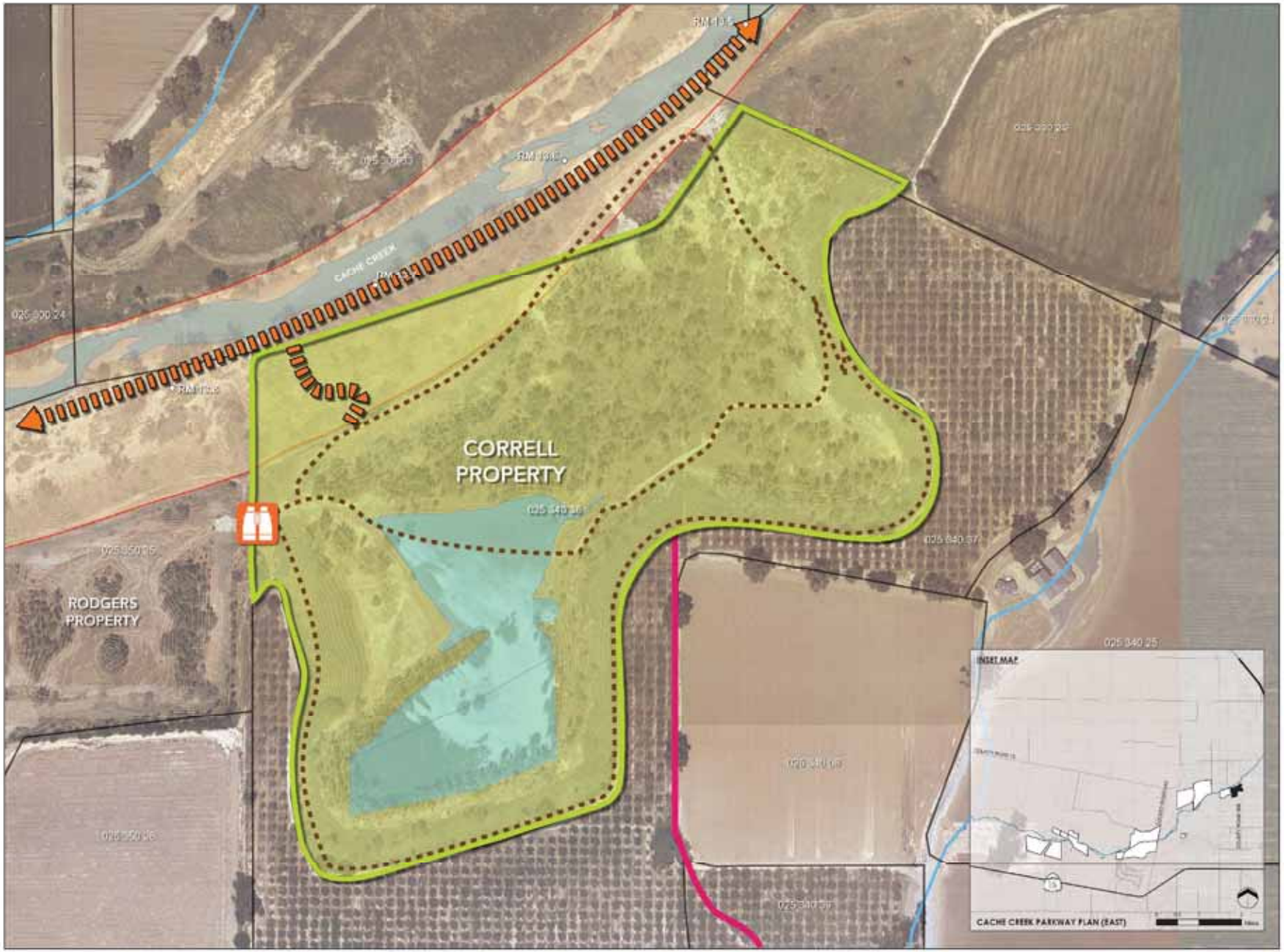
Site Information

Current Conditions: Owned by County; Major restoration effort between 2006-2010, now the site is dominated by native trees and shrubs.

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
	Cache Creek Trail	0.15	MI	$11,326	2016	Tier One
	Informal Trail	1.25	MI	$7,920	2016	Tier One
	Passive Recreation Area	3.00	AC	$300,000	2016	Tier One
	Native Planting/Irrigation	5.00	AC	$740,520	2016	Tier One
	Trail Node	1.00	EA	$53,060	2016	Tier One
	Reduced Picnic Area	1.00	AC	$8,900	2016	Tier One
	Lookout	1.00	EA	$63,000	2016	Tier One
	Construction contingency & overhead	ALLOW	0.15	$177,710	2016	Tier One
	Design contingency and County overhead	ALLOW	0.20	$236,946	2016	Tier One
Tier Two Improvements						
	(None)					
Tier Three Improvements						
	(None)					

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Included with Acquisition:	Native Habitat	38.9	Acres	$7,002	1996	Baseline
Post-Acquisition Improvements:	CC Trail	0.15	Miles	$4,200	2016	Tier One
	Trail Connection	0.15	Miles	$4,200	2016	Tier One
	Informal Trail	38.9	Miles	$2,609	2016	Tier One
	Picnic Shelter	1	Unit	$14,000	2016	Tier One
	Overlook Area	1	Unit	n.a.	2016	Tier One

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.



LEGEND

- CREEK CHANNEL CONNECTION*
- PATH
- PROPERTY BOUNDARY
- RESTRICTED ACCESS EASEMENT
- 100-YEAR FLOOD BOUNDARY
- CCRMP BOUNDARIES
- WETLAND HABITAT
- ANNUAL GRASSLAND
- LOOKOUT AREA

* Assumes the public right to traverse the creek between the high and low water lines regardless of property ownership, pursuant to the Public Trust Doctrine.

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Job No: 16048 | July 2017

CORRELL PROPERTY - BASELINE IMPROVEMENTS

0 187.5 375 750 Feet

Appendix A-19: Additional Improvements Summary Sheet

Name: Additional Improvements
Year of Acquisition: TBD
Acres:
Site ID 19

Site Information
Current Conditions:

Capital Improvements:	Feature	Amt	Units	Capital Cost	Year of Delivery	Scenario
Tier One Improvements						
Tier Two Improvements						
	SOUTHSIDE TRAIL CONNECTION/EXTENSION					
	Cache Creek Trail Improvements	9.50	MI	$717,288	2050	Tier Two
	Pedestrian crossing (at grade)	1.00	EA	$25,000	2050	Tier Two
	505 Undercrossing			(Cost Unknown)	2050	Tier Two
	Trail Nodes	3.00	EA	$159,180	2050	Tier Two
	RECREATION NODE Syar/CR 89					
	Parking	0.50	AC	$110,000	2050	Tier Two
	Restroom	1.00	EA	$100,000	2050	Tier Two
	Well	1.00	LS	$50,000	2050	Tier Two
	Electrical	1.00	LS	$20,000	2050	Tier Two
	CR87 Undercrossing					
	CR87 Undercrossing	1.00	LS	$476,900	2050	Tier Two
Future Expansion:						
	Signage			(Cost Unknown)		

Operating and Maintenance:	Feature	Amt	Units	Total O/M Cost	Year of Delivery	Scenario
Post-Acquisition Improvements:	CC Trail	9.5	Miles	$266,000	2050	Tier Two
	Parking/Restroom	1	Unit	$28,000	2050	Tier Two

Sources: Draft Cache Creek Parkway Plan, October 2016; Callander Associates, 2016; BAE, 2016.

APPENDIX B: CALLANDER ASSOCIATES IMPROVEMENT COST ESTIMATES

DRAFT

Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Capay Open Space

1. Parkway Plan Report Page # 14

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.5	Mile	$ 75,504.00	$ 37,752.00	
2.	Trail Node	1	EA	$ 53,060.00	$ 53,060.00	
						$ 90,810.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 13,621.50	$ 13,621.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 18,162.00	$ 18,162.00	
						$ 31,780.00
	Total Estimated Tier One Improvements					$ 122,590.00
B.	**TIER TWO IMPROVEMENTS**					
1.	Bridge Undercrossing	1	LS	$ 476,900.00	$ 476,900.00	
						$ 476,900.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 71,535.00	$ 71,535.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 95,380.00	$ 95,380.00	
						$ 166,920.00
	Total Estimated Tier Two Amenities					$ 643,820.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE & TIER TWO AMENITIES					**$ 766,410.00**
C.	**TIER THREE IMPROVEMENTS**					
1.	Future Trail Connection to West	(cost unknown)				

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

The above items, amounts, quantities, and related information are based on Callander Associates' judgment at this level of document preparation and is offered only as reference data. Callander Associates has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

DRAFT

Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Granite Capay Lake I, II, III

2. Parkway Plan Report Page #18

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Informal Trail	2	MI	$ 6,336.00	$ 12,672.00	
2.	Lookout	1	EA	$ 63,000.00	$ 63,000.00	
3.	Swimming Access	1	EA	$ 10,000.00	$ 10,000.00	
4.	Access Trail	0.25	MI	$ 75,504.00	$ 18,876.00	
5.	Boat Launch	1	EA	$ 45,000.00	$ 45,000.00	
6.	Site Furnishings	1	LS	$ 10,560.00	$ 10,560.00	
						$ 160,110.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 24,016.50	$ 24,016.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 32,022.00	$ 32,022.00	
						$ 56,040.00
	Total Estimated Tier One Improvements					$ 216,150.00
B.	**TIER TWO IMPROVEMENTS**					
1.	Import Fill (Expanded lake edge) **	375,000	CY	$ 15.00	$ 5,625,000.00	
2.	Native Planting/Irrigation	5.50	AC	$ 148,104.00	$ 814,572.00	
3.	Well	1	LS	$ 50,000.00	$ 50,000.00	
4.	Electrical	1	LS	$ 20,000.00	$ 20,000.00	
5.	Campground	11	AC	$ 47,264.00	$ 519,904.00	
6.	Restroom Building	1	EA	$ 100,000.00	$ 100,000.00	
						$ 7,129,480.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 1,069,422.00	$ 1,069,422.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 1,425,896.00	$ 1,425,896.00	
						$ 2,495,320.00
	Total Estimated Tier Two Amenities					$ 9,624,800.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE & TIER TWO AMENITIES					**$ 9,840,950.00**
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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*** see "Amenity Reference Menu" sheet for details*

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Granite Esparto

3. Parkway Plan Report Page #22

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Informal Trail	0.50	MI	$ 6,336.00	$ 3,168.00	
2.	Restroom Building	1	EA	$ 100,000.00	$ 100,000.00	
3.	Swimming Access	1	EA	$ 10,000.00	$ 10,000.00	
4.	Expanded Picnic Area	1	AC	$ 256,800.00	$ 256,800.00	
5.	Recreation Node	1	EA	$ 133,060.00	$ 133,060.00	
6.	Boat Launch	1	EA	$ 45,000.00	$ 45,000.00	
7.	Parking Lot	2	AC	$ 220,000.00	$ 330,000.00	
						$ 878,030.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 131,704.50	$ 131,704.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 175,606.00	$ 175,606.00	
						$ 307,310.00
	Total Estimated Tier One Improvements					$ 1,185,340.00
B.	**TIER TWO IMPROVEMENTS**					
1.	Import Fill (Swim access area and habitat islands) **	360,000	CY	$ 15.00	$ 5,400,000.00	
2.	Habitat Planting	4	AC	$ 148,104.00	$ 592,416.00	
3.	Lookout Area	1	EA	$ 63,000.00	$ 63,000.00	
						$ 6,055,420.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 908,313.00	$ 908,313.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 1,211,084.00	$ 1,211,084.00	
						$ 2,119,400.00
	Total Estimated Tier Two Amenities					$ 8,174,820.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE & TIER TWO AMENITIES					**$ 9,360,160.00**
C.	**TIER THREE IMPROVEMENTS**					
1.	Bridge Overcrossing	(cost unknown)				

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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*** see "Amenity Reference Menu" sheet for details*

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Syar Lake

4. Parkway Plan Report Page #26

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.10	MI	$ 75,504.00	$ 7,550.40	
2.	Parking Area	2	AC	$ 220,000.00	$ 440,000.00	
3.	Lookout	2	EA	$ 63,000.00	$ 126,000.00	
4.	Swimming Access	1	EA	$ 10,000.00	$ 10,000.00	
5.	Reduced Picnic Area	1.50	AC	$ 8,900.00	$ 13,350.00	
6.	Boat Launch	1	EA	$ 45,000.00	$ 45,000.00	
7.	Trail Node	1	EA	$ 53,060.00	$ 53,060.00	
8.	Creek access trail	1	EA	$ 20,000.00	$ 20,000.00	
						$ 714,960.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 107,244.00	$ 107,244.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 142,992.00	$ 142,992.00	
						$ 250,240.00
	Total Estimated Tier One Improvements					$ 965,200.00
B.	**TIER TWO IMPROVEMENTS**					
1.	Restroom	1	EA	$ 100,000.00	$ 100,000.00	
2.	Well	1	EA	$ 50,000.00	$ 50,000.00	
3.	Electrical	1	LS	$ 20,000.00	$ 20,000.00	
						$ 170,000.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 25,500.00	$ 25,500.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 34,000.00	$ 34,000.00	
						$ 59,500.00
	Total Estimated Tier Two Amenities					$ 229,500.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE & TIER TWO AMENITIES					**$ 1,194,700.00**
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Teichert Esparto Reiff Lake

5. Parkway Plan Report Page #30

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Informal Trail	0.80	MI	$ 6,336.00	$ 5,068.80	
2.	Parking Area	0.75	AC	$ 220,000.00	$ 165,000.00	
3.	Reduced Picnic Area	0.65	AC	$ 8,900.00	$ 5,785.00	
4.	Boat Launch	1	EA	$ 45,000.00	$ 45,000.00	
5.	Signage	5	EA	$ 9,500.00	$ 47,500.00	
6.	Lookout	2	EA	$ 63,000.00	$ 126,000.00	
7.	Site Furnishing	ALLOW	LS	$ 10,560.00	$ 10,560.00	
						$ 404,910.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 60,736.50	$ 60,736.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 80,982.00	$ 80,982.00	
						$ 141,720.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					$ 546,630.00
B.	**TIER TWO IMPROVEMENTS**					
	(none)					
C.	**TIER THREE IMPROVEMENTS**					
1.	Lease, purchase or dedication of east half of lake	(cost unknown)				
2.	Import Fill (Berm between lakes)**	400,000	CY	$ 15.00	$ 6,000,000.00	

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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*** see "Amenity Reference Menu" sheet for details*

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Cemex Snyder Lakes

6. Parkway Plan Report Page #34

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.65	MI	$ 75,504.00	$ 49,077.60	
2.	Recreation Node	1	EA	$ 133,060.00	$ 133,060.00	
3.	Trail Node	1	EA	$ 53,060.00	$ 53,060.00	
4.	Reduced Picnic Area	0.50	AC	$ 8,900.00	$ 4,450.00	
5.	Restroom	1	EA	$ 100,000.00	$ 100,000.00	
6.	Well	1	EA	$ 50,000.00	$ 50,000.00	
7.	Boat Launch	2	EA	$ 45,000.00	$ 90,000.00	
8.	Parking Area	1	AC	$ 220,000.00	$ 220,000.00	
9.	Informal Trail	1.80	MI	$ 6,336.00	$ 11,404.80	
10.	Lookout	2	EA	$ 63,000.00	$ 63,000.00	
11.	Electrical	ALLOW	LS	$ 20,000.00	$ 20,000.00	
						$ 794,050.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 119,107.50	$ 119,107.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 158,810.00	$ 158,810.00	
						$ 277,920.00
	Total Estimated Tier One Improvements					$ 1,071,970.00
B.	**TIER TWO IMPROVEMENTS**					
1.	Import Fill**	80,000	CY	$ 15.00	$ 1,200,000.00	
2.	Parking Area	1	AC	$ 220,000.00	$ 220,000.00	
3.	Expanded Picnic Area	1	AC	$ 256,800.00	$ 256,800.00	
						$ 1,676,800.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 251,520.00	$ 251,520.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 335,360.00	$ 335,360.00	
						$ 586,880.00
	Total Estimated Tier Two Amenities					$ 2,263,680.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE & TIER TWO AMENITIES					**$ 3,335,650.00**
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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*** see "Amenity Reference Menu" sheet for details*

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Estimate of Probable Construction Costs

prepared for the

CACHE CREEK OPEN SPACE

Tschudin Consulting Group

Millsap Property

7. Parkway Plan Report Page #38

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Informal Trail	0.50	MI	$ 6,336.00	$ 3,168.00	
2.	Site Furnishings	1	EA	$ 10,560.00	$ 10,560.00	
3.	Interpretive Panels	5	EA	$ 9,500.00	$ 47,500.00	
4.	Fencing	1,694	LF	$ 24.00	$ 40,656.00	
						$ 101,880.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 15,282.00	$ 15,282.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 20,376.00	$ 20,376.00	
						$ 35,660.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					**$ 137,540.00**
B.	**TIER TWO IMPROVEMENTS**					
	(None)					
C.	**TIER THREE IMPROVEMENTS**					
1.	Bridge	1	LS	$ 4,200,000.00		
2.	Trail Nodes	2	EA	$ 53,060.00		

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

YCFCWCD Property

8. Parkway Plan Report Page #42

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Fencing	1,694	LF	$ 24.00	$ 40,656.00	
						$ 40,660.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 6,099.00	$ 6,099.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 8,132.00	$ 8,132.00	
						$ 14,230.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					**$ 54,890.00**
B.	**TIER TWO IMPROVEMENTS**					
	(None)					
C.	**TIER THREE IMPROVEMENTS**					
1.	Cache Creek Trail	0.75	MI	$ 75,504.00		
2.	Trail Node	1	EA	$ 53,060.00		
3.	Informal Trail	1	MI	$ 6,336.00		

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Wild Wings Park

9. Parkway Plan Report Page #46

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.15	MI	$ 75,504.00	$ 11,325.60	
2.	Informal Trail	0.60	MI	$ 6,336.00	$ 3,801.60	
3.	Lookout	1	EA	$ 63,000.00	$ 63,000.00	
4.	Trail Node	1	EA	$ 53,060.00	$ 53,060.00	
5.	Passive Recreation Area	5	AC	$ 100,000.00	$ 500,000.00	
6.	Site Furnishings	1	EA	$ 10,560.00	$ 10,560.00	
7.	Creek Access Trail	1	EA	$ 20,000.00	$ 20,000.00	
						$ 661,750.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 99,262.50	$ 99,262.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 132,350.00	$ 132,350.00	
						$ 231,610.00
	Total Estimated Tier One Improvements					$ 893,360.00
B.	**TIER TWO IMPROVEMENTS**					
1.	Signage	1	LS	$ 9,500.00	$ 9,500.00	
2.	Reduced Picnic Area	1	AC	$ 8,900.00	$ 8,900.00	
						$ 18,400.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 2,760.00	$ 2,760.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 3,680.00	$ 3,680.00	
						$ 6,440.00
	Total Estimated Tier Two Amenities					$ 24,840.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE & TIER TWO AMENITIES					**$ 918,200.00**
C.	**TIER THREE IMPROVEMENTS**					
1.	Cache Creek Trail	0.30	MI	$ 75,504.00		

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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DRAFT **Estimate of Probable Construction Costs**

prepared for the **CACHE CREEK OPEN SPACE**

Tschudin Consulting Group **Teichert Coors/Storz Bridge**

10. Parkway Plan Report Page #50

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
	(None)					
B.	**TIER TWO IMPROVEMENTS**					
1.	Retrofit Bridge for Public Access	1	EA	$ 401,000.00	$ 401,000.00	
2.	Trail Node	2	EA	$ 53,060.00	$ 106,120.00	
						$ 507,120.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 76,068.00	$ 76,068.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 101,424.00	$ 101,424.00	
						$ 177,490.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER TWO AMENITIES					**$ 684,610.00**
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Jan T. Lowrey Cache Creek Nature Preserve

11. Parkway Plan Report Page #54

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Pedestrian Crossing CR94b	1	LS	$ 25,000.00	$ 25,000.00	
						$ 25,000.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 3,750.00	$ 3,750.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 5,000.00	$ 5,000.00	
						$ 8,750.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					**$ 33,750.00**
B.	**TIER TWO IMPROVEMENTS**					
	(None)					
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Teichert Woodland Storz Lake

12. Parkway Plan Report Page #58

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.70	MI	$ 75,504.00	$ 52,852.80	
2.	Informal Trail	0.80	MI	$ 6,336.00	$ 5,068.80	
3.	Parking Area	0.50	AC	$ 220,000.00	$ 110,000.00	
4.	Lookout	2	EA	$ 63,000.00	$ 126,000.00	
5.	Restroom Building	1	EA	$ 100,000.00	$ 100,000.00	
6.	Reduced Picnic Area	0.50	EA	$ 8,900.00	$ 4,450.00	
7.	Boat Launch	1	EA	$ 45,000.00	$ 45,000.00	
8.	Electrical	1	LS	$ 20,000.00	$ 20,000.00	
9.	Well	1	LS	$ 50,000.00	$ 50,000.00	
10.	Pedestrian Crossing	1	EA	$ 25,000.00	$ 25,000.00	
11.	Native Planting/Irrigation	0.50	AC	$ 148,104.00	$ 74,052.00	
						$ 612,420.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 91,863.00	$ 91,863.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 122,484.00	$ 122,484.00	
						$ 214,350.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					$ 826,770.00
B.	**TIER TWO IMPROVEMENTS**					
	(none)					
C.	**TIER THREE IMPROVEMENTS**					
1.	Cache Creek Trail Expansion	0.50	MI	$ 75,504.00		
2.	Pedestrian Tunnel	1	LS	$ 2,380,000.00		
3.	Zipline Recreation Amenities	(cost unknown)				

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

County Borrow Site

13. Parkway Plan Report Page #62

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Mountain Bike Pump Track	1	LS	$ 100,000.00	$ 100,000.00	
						$ 100,000.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 15,000.00	$ 15,000.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 20,000.00	$ 20,000.00	
						$ 35,000.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					**$ 135,000.00**
B.	**TIER TWO IMPROVEMENTS**					
	(None)					
C.	**TIER THREE IMPROVEMENTS**					
1.	Cache Creek Trail (connection)	0.25	MI	$ 75,504.00	$ 18,876.00	

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Teichert Woodland Muller Habitat and Trail

14. Parkway Plan Report Page #66

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.80	MI	$ 75,504.00	$ 60,403.20	
2.	Trail Node	1	EA	$ 53,060.00	$ 53,060.00	
3.	Informal Trail	0.50	MI	$ 6,336.00	$ 3,168.00	
4.	Expanded Picnic Area	2	AC	$ 256,800.00	$ 513,600.00	
5.	Lookout	2	EA	$ 63,000.00	$ 126,000.00	
						$ 756,230.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 113,434.50	$ 113,434.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 151,246.00	$ 151,246.00	
						$ 264,680.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					**$ 1,020,910.00**
B.	**TIER TWO IMPROVEMENTS**					
	(None)					
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Teichert Muller Bridge

15. Parkway Plan Report Page 70

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
	(None)					
B.	**TIER TWO IMPROVEMENTS**					
1.	Retrofit Bridge for Public Access	1	EA	$ 401,000.00	$ 401,000.00	
2.	Trail Nodes	2	EA	$ 53,060.00	$ 53,060.00	
						$ 454,060.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 68,109.00	$ 68,109.00	
2.	Design contingency and County overhead	ALLOW	10%	$ 45,406.00	$ 45,406.00	
						$ 113,520.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER TWO AMENITIES					**$ 567,580.00**
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

The above items, amounts, quantities, and related information are based on Callander Associates' judgment at this level of document preparation and is offered only as reference data. Callander Associates has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

DRAFT

Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Granite Woodland Reiff Habitat

16. Parkway Plan Report Page 74

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.50	MI	$ 75,504.00	$ 37,752.00	
2.	Informal Trail	1.75	MI	$ 6,336.00	$ 11,088.00	
3.	Passive Recreation Area	10	AC	$ 100,000.00	$ 1,000,000.00	
4.	Native Planting/Irrigation	10	AC	$ 148,104.00	$ 1,481,040.00	
5.	Reduced Picnic Area	1	AC	$ 8,900.00	$ 8,900.00	
6.	Restroom Building	1	EA	$ 100,000.00	$ 100,000.00	
7.	Well	1	LS	$ 50,000.00	$ 50,000.00	
8.	Electrical	1	LS	$ 20,000.00	$ 20,000.00	
9.	Creek Access Trail	1	LS	$ 20,000.00	$ 20,000.00	
10.	Lookout	1	EA	$ 63,000.00	$ 63,000.00	
						$ 2,791,780.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 418,767.00	$ 418,767.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 558,356.00	$ 558,356.00	
						$ 977,120.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					**$ 3,768,900.00**
B.	**TIER TWO IMPROVEMENTS**					
	(None)					
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

The above items, amounts, quantities, and related information are based on Callander Associates' judgment at this level of document preparation and is offered only as reference data. Callander Associates has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

DRAFT

Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Rodgers Property

17. Parkway Plan Report Page 78

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.25	EA	$ 75,504.00	$ 18,876.00	
2.	Lookout	1	EA	$ 63,000.00	$ 63,000.00	
3.	Recreation Node	1	EA	$ 133,060.00	$ 133,060.00	
4.	Trail Node	1	EA	$ 53,060.00	$ 53,060.00	
5.	Creek Access Trail	1	LS	$ 20,000.00	$ 20,000.00	
6.	Well	1	LS	$ 50,000.00	$ 50,000.00	
7.	Restroom Building	1	EA	$ 100,000.00	$ 100,000.00	
8.	Electrical	1	LS	$ 20,000.00	$ 20,000.00	
9.	Parking Area	0.50	AC	$ 220,000.00	$ 110,000.00	
						$ 568,000.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 85,200.00	$ 85,200.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 113,600.00	$ 113,600.00	
						$ 198,800.00
	Total Estimated Tier One Improvements					$ 766,800.00
B.	**TIER TWO IMPROVEMENTS**					
1.	Pedestrian Bridge (reduced)	1	LS	$ 40,000.00	$ 40,000.00	
						$ 40,000.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 6,000.00	$ 6,000.00	
2.	Design contingency and County overhead	ALLOW	20%	$ 8,000.00	$ 8,000.00	
						$ 14,000.00
	Total Estimated Tier Two Amenities					$ 54,000.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE & TIER TWO AMENITIES					**$ 820,800.00**
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

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DRAFT

Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Correll Property

18. Parkway Plan Report Page 82

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**TIER ONE IMPROVEMENTS**					
1.	Cache Creek Trail	0.15	MI	$ 75,504.00	$ 11,325.60	
2.	Informal Trail	1.25	MI	$ 6,336.00	$ 7,920.00	
3.	Passive Recreation Area	3.00	AC	$ 100,000.00	$ 300,000.00	
4.	Native Planting/Irrigation	5	AC	$ 148,104.00	$ 740,520.00	
5.	Trail Node	1	EA	$ 53,060.00	$ 53,060.00	
6.	Reduced Picnic Area	1	AC	$ 8,900.00	$ 8,900.00	
7.	Lookout	1	EA	$ 63,000.00	$ 63,000.00	
						$ 1,184,730.00
	Contingencies					
1.	Construction contingency & overhead	ALLOW	15%	$ 177,709.50	$ 177,709.50	
2.	Design contingency and County overhead	ALLOW	20%	$ 236,946.00	$ 236,946.00	
						$ 414,660.00
	TOTAL ESTIMATED CONSTRUCTION COSTS FOR TIER ONE AMENITIES					**$ 1,599,390.00**
B.	**TIER TWO IMPROVEMENTS**					
	(None)					
C.	**TIER THREE IMPROVEMENTS**					
	(None)					

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

The above items, amounts, quantities, and related information are based on Callander Associates' judgment at this level of document preparation and is offered only as reference data. Callander Associates has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

DRAFT

Estimate of Probable Construction Costs

prepared for the

Tschudin Consulting Group

CACHE CREEK OPEN SPACE

Parkway Connection Opportunities

prepared on: 11/10/2016
prepared by: BW/NO
checked by: SD/BW

Item #	Description	Qty	Unit	Cost	Item Total	Subtotal
A.	**SOUTHSIDE TRAIL CONNECTION/EXTENSION**					
1.	Cache Creek Trail Improvements	9.50	MI	$ 75,504.00	$ 717,288.00	
2.	Pedestrian crossing (at grade)	1	EA	$ 25,000.00	$ 25,000.00	
3.	505 Undercrossing				(Cost Unknown)	
4.	Trail Nodes	3	EA	$ 53,060.00	$ 159,180.00	
B.	**RECREATION NODE Syar/CR 89**					
1.	Parking	0.50	AC	$ 220,000.00	$ 110,000.00	
2.	Restroom	1	EA	$ 100,000.00	$ 100,000.00	
3.	Well	1	LS	$ 50,000.00	$ 50,000.00	
4.	Electrical	1	LS	$ 20,000.00	$ 20,000.00	
C.	**CR87 Undercrossing**					
1.	CR87 Undercrossing	1	LS	$ 476,900.00		
D.	**Regional Signage Along HWY 16**					
1.	Signage	(Cost Unknown)				

Based on DRAFT "Cache Creek Parkway Plan", dated "October 2016"

The above items, amounts, quantities, and related information are based on Callander Associates' judgment at this level of document preparation and is offered only as reference data. Callander Associates has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

*** Improvements shown and indicated on this estimate are improvements needed to link all the properties together, specifically along the south side of the Creek, to create a continuous Cache Creek path. Acquisition of the property or easements would need to take place along the entire length and those costs are not included in this estimate.*

APPENDIX C: CALCULATIONS FOR POTENTIAL PARCEL TAX TO SUPPORT CAPITAL IMPROVEMENTS

Appendix C-1: Capital Improvement Pay-As-You-Go Parcel Tax Calculations (Page 1 of 2)

Baseline + Tier One Improvement Scenario	
Shortfall Amount	$13,345,180
Number of Years for Parcel Tax	30
Annual Tax Revenue Needed	$444,839
Total County Household Population (a)	201,875
Annual Tax per Person in Households	$2.20
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Per-Unit Tax Needed to Support Shortfall	
Single-Family	$6.33
Multifamily	$5.18

Baseline + Tier Two Improvement Scenario	
Shortfall Amount	$37,271,177
Number of Years for Parcel Tax	30
Annual Tax Revenue Needed	$1,242,373
Total County Household Population (a)	201,875
Annual Tax per Person in Households	$6.15
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Per-Unit Tax Needed to Support Shortfall	
Single-Family	$17.69
Multifamily	$14.47

- Continued on next page -

Note:
(a) Excludes Household Population located within the University of California, Davis census-designated place (CPD).

Appendix C-1: Capital Improvement Pay-As-You-Go Parcel Tax Calculations (Page 2 of 2)

Baseline + Tier Three Improvement Scenario	
Shortfall Amount	$50,209,021
Number of Years for Parcel Tax	30
Annual Tax Revenue Needed	$1,673,634
Total County Household Population (a)	201,875
Annual Tax per Person in Households	$8.29
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Per-Unit Tax Needed to Support Shortfall	
Single-Family	$23.83
Multifamily	$19.49

Note:
(a) Excludes Household Population located within the University of California, Davis census-designated place (CPD).

Sources: Draft Cache Creek Parkway Plan, October 2016; California Department of Finance, 2016; U.S. Census Bureau, 2015 1-Year ACS Estimates, 2016; BAE, 2016.

Appendix C-2: Capital Improvement Bond Finance Parcel Tax Calculations (Page 1 of 2) (a)

Baseline + Tier One Improvement Scenario	
Shortfall Amount	$13,345,180
Issuance Cost	$599,783
Debt Svc. Reserve	$1,049,621
Bond Proceeds	$14,994,584
Annual Tax Revenue Needed	$1,019,094
Total County Household Population (b)	201,875
Annual Tax per Person in Households	$5.05
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Annual Per-Unit Tax	
Single-Family	$14.51
Multifamily	$11.87

Baseline + Tier Two Improvement Scenario	
Shortfall Amount	$37,271,177
Issuance Cost	$1,675,109
Debt Svc. Reserve	$2,931,441
Bond Proceeds	$41,877,727
Annual Tax Revenue Needed	$2,846,185
Total County Household Population (b)	201,875
Annual Tax per Person in Households	$14.10
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Annual Per-Unit Tax	
Single-Family	$40.53
Multifamily	$33.14

- Continued on next page -

Note:

(a) Based on the following bond assumptions:

Annual Interest Rate	3.50%	annually
Term	30	years
Debt Coverage Ratio	1.25	x debt service
Issuance Costs	4%	of bond amount
Debt Service Reserve	2	years capitalized interest

(b) Excludes Household Population located within the University of California, Davis census-designated place (CPD).

Appendix C-2: Capital Improvement Bond Finance Parcel Tax Calculations (Page 2 of 2) (a)

Baseline + Tier Three Improvement Scenario	
Shortfall Amount	$50,209,021
Issuance Cost	$2,256,585
Debt Svc. Reserve	$3,949,024
Bond Proceeds	$56,414,630
Annual Tax Revenue Needed	$3,834,173
Total County Household Population (b)	201,875
Annual Tax per Person in Households	$18.99
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Annual Per-Unit Tax	
Single-Family	$54.60
Multifamily	$44.65

Notes:

(a) Based on the following bond assumptions:

Annual Interest Rate	3.50%	annually
Term	30	years
Debt Coverage Ratio	1.25	x debt service
Issuance Costs	4%	of bond amount
Debt Service Reserve	2	years capitalized interest

(b) Excludes Household Population located within the University of California, Davis census-designated place (CPD).

Sources: Draft Cache Creek Parkway Plan, October 2016; California Department of Finance, 2016; U.S. Census Bureau, 2015 1-Year ACS Estimates, 2016; BAE, 2016.

APPENDIX D: CALCULATIONS FOR POTENTIAL PARCEL TAX TO SUPPORT OPERATIONS AND MAINTENANCE COSTS

Appendix D: Operating and Maintenance Parcel Tax Calculations (Page 1 of 2)

Baseline Scenario	
Shortfall Amount	None
Baseline + Tier One Improvement Scenario	
Shortfall Amount	$12,504,398
Number of Years for Parcel Tax	30
Annual Tax Revenue Needed	$416,813
Total County Household Population (a)	201,875
Annual Tax per Person in Households	$2.06
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Per-Unit Tax Needed to Support Shortfall	
Single-Family	$5.94
Multifamily	$4.85
Baseline + Tier Two Improvement Scenario	
Shortfall Amount	$17,016,232
Number of Years for Parcel Tax	30
Annual Tax Revenue Needed	$567,208
Total County Household Population (a)	201,875
Annual Tax per Person in Households	$2.81
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Per-Unit Tax Needed to Support Shortfall	
Single-Family	$8.08
Multifamily	$6.61

- Continued on next page -

Note:
(a) Excludes Household Population located within the University of California, Davis census-designated place (CPD).

Appendix D: Operating and Maintenance Parcel Tax Calculations (Page 2 of 2)

Baseline + Tier Three Improvement Scenario	
Shortfall Amount	$17,778,934
Number of Years for Parcel Tax	30
Annual Tax Revenue Needed	$592,631
Total County Household Population (a)	201,875
Annual Tax per Person in Households	$2.94
Average Persons per Housing Unit	
Single-Family	2.87
Multifamily	2.35
Per-Unit Tax Needed to Support Shortfall	
Single-Family	$8.44
Multifamily	$6.90

Note:
(a) Excludes Household Population located within the University of California, Davis census-designated place (CPD).

Sources: Draft Cache Creek Parkway Plan, October 2016; California Department of Finance, 2016; U.S. Census Bureau, 2015 1-Year ACS Estimates, 2016; BAE, 2016.