

The Economics of Land Use



Hearing Report

Parks and Recreation Facilities Fee Nexus Study

Prepared for:

County of Nevada

Prepared by:

Economic & Planning Systems, Inc. (EPS)

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*Economic & Planning Systems, Inc.
400 Capitol Mall, 28th Floor
Sacramento, CA 95814
916 649 8010 tel
916 649 2070 fax*

*Oakland
Sacramento
Denver
Los Angeles*

www.epsys.com

EPS #172130

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1. INTRODUCTION/EXECUTIVE SUMMARY

Originally established in 1997, The County of Nevada (County) collects a Recreation Development Fee from new single-family residential development in the unincorporated Western County as a means of providing park and recreation facilities needed to serve increased population resulting from new development.¹ The County engaged Economic & Planning Systems, Inc. (EPS) to prepare an updated nexus study to evaluate Recreation Development Fee provisions, including park and recreation facilities and levels of service (LOS), expansion of applicable land uses subject to the fee program, establishment of administration charges and inclusion of annual fee escalation procedures.

This nexus study establishes the maximum justified fee calculated based on facility cost allowances established herein and LOS standards based on County policy and existing service levels. The County Board of Supervisors (BOS) has the discretion to adopt fees lower than the proposed fees presented in this report.

Current Fee History and Structure

On December 9, 1997, the County adopted the Park and Recreation Capital Improvement Impact Fee Study (herein called 1997 Recreation Fee Nexus Study or 1997 Nexus Study) and Imposition of Recreation Development Fees. County Resolution No. 97528 established 5 different park impact fees for each of the 5 separate Recreation Benefit Zones (Benefit Zones): Bear River, Grass Valley/Nevada City, Twin Ridges, Western Gateway, and Truckee Donner.

The County collects a Recreation Development Fee on all new single-family residential development, excluding the Truckee Donner Benefit Zone. For properties within the Truckee Donner Benefit Zone, Recreation Development Fees are paid directly to the Truckee-Donner Recreation and Park District, which boundary is coterminous with the Truckee Donner Benefit Zone.

At present, 3 independent recreation and park districts (Park Districts) operate in the Western County: the Bear River Recreation and Park District, the Oak Tree Community Park and Recreation District, and the Western Gateway Recreation and Park District. The Bear River Recreation and Park District and Western Gateway Recreation and Park District comprise County areas that are coterminous with their namesake Benefit Zones. Oak Tree Community Park and

¹ Note the Recreation Development Fee described in this report is charged only to new residential development in the unincorporated western portion of the County, and is not charged to new development in the Cities of Grass Valley and Nevada City. The Cities of Grass Valley and Nevada City have park improvement fee programs which are charged to new development in the incorporated areas of the Western County.

Recreation District currently consists of lands that exist within the Twin Ridges Benefit Zone and the Grass Valley/Nevada City Benefit Zone. **Figure 1** illustrates the existing County Benefit Zones, and **Figure 2** shows the existing County Park Districts.

Recreation Development Fees collected in the Bear River and Western Gateway Benefit Zones are passed directly to the respective Park District. For fees collected in the Grass Valley/Nevada City and Twin Ridges Benefit Zones, the County collects and distributes Recreation Development Fee revenues via a Request for Proposal (RFP) process. The County BOS approves projects to fund through the RFP process on a case-by-case basis, dependent upon determinations that there are funds available and the proposal fits into the Recreation Development Fee program's intended use. Beneficiaries of this process often are the Cities of Nevada City and Grass Valley and nonprofit recreation providers.² Example recreation projects funded through the RFP process are shown in **Table 1**. **Figure 3** illustrates the County's collection and distribution of Recreation Development Fee funds for the Western County.

Purpose of the Report

This Recreation Fee Nexus Study updates the Recreation Development Fee for the unincorporated Western County and establishes the legally required nexus (or reasonable relationship) between projected new residential development in the unincorporated Western County and the park and recreation facilities that will be required to serve that new development. The proposed Recreation Development Fee presented in this Nexus Study reflects the maximum justified fee that can be charged to new residential development based on facility cost allowances and LOS standards described in this report.

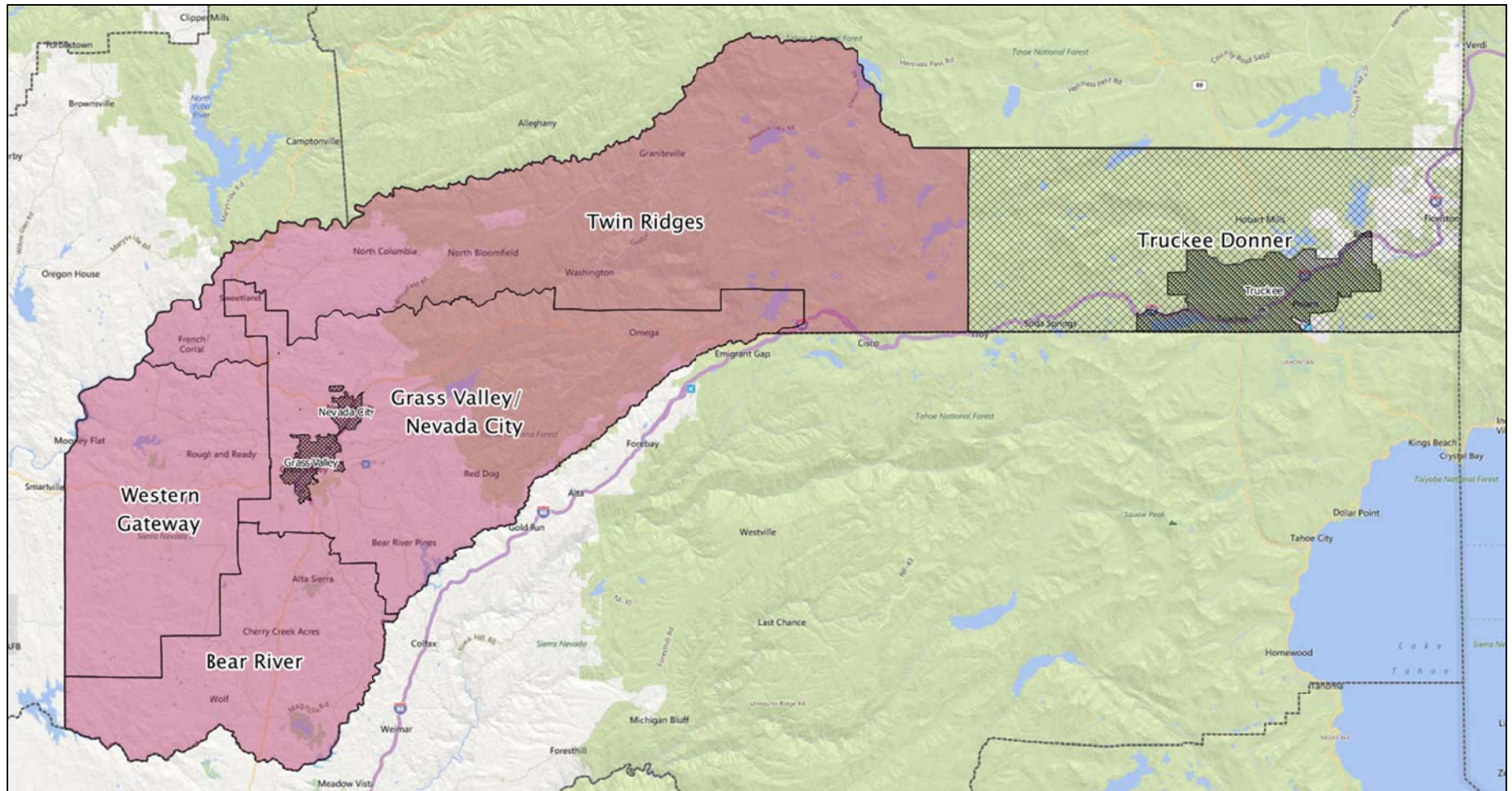
Authority

This report has been prepared to update the Recreation Development Fee program in accordance with the procedural guidelines established in the Mitigation Fee Act, which is codified in California Government Section 66000 et seq. These code sections set forth the procedural requirements for establishing and collecting various development impact fees. These procedures require that "a reasonable relationship or nexus must exist between a governmental exaction and the purpose of the condition."³

² Park facilities owned and operated by the Cities of Nevada City and Grass Valley serve populations beyond the residents within the incorporated boundaries. Acknowledging this circumstance, the County has made Recreation Development Fee revenues available to the cities to offset both citywide and unincorporated Western County growth impacts on park facilities.

³ *Public Needs & Private Dollars*; William Abbott, Marian E. Moe, and Marilee Hanson, page 109.

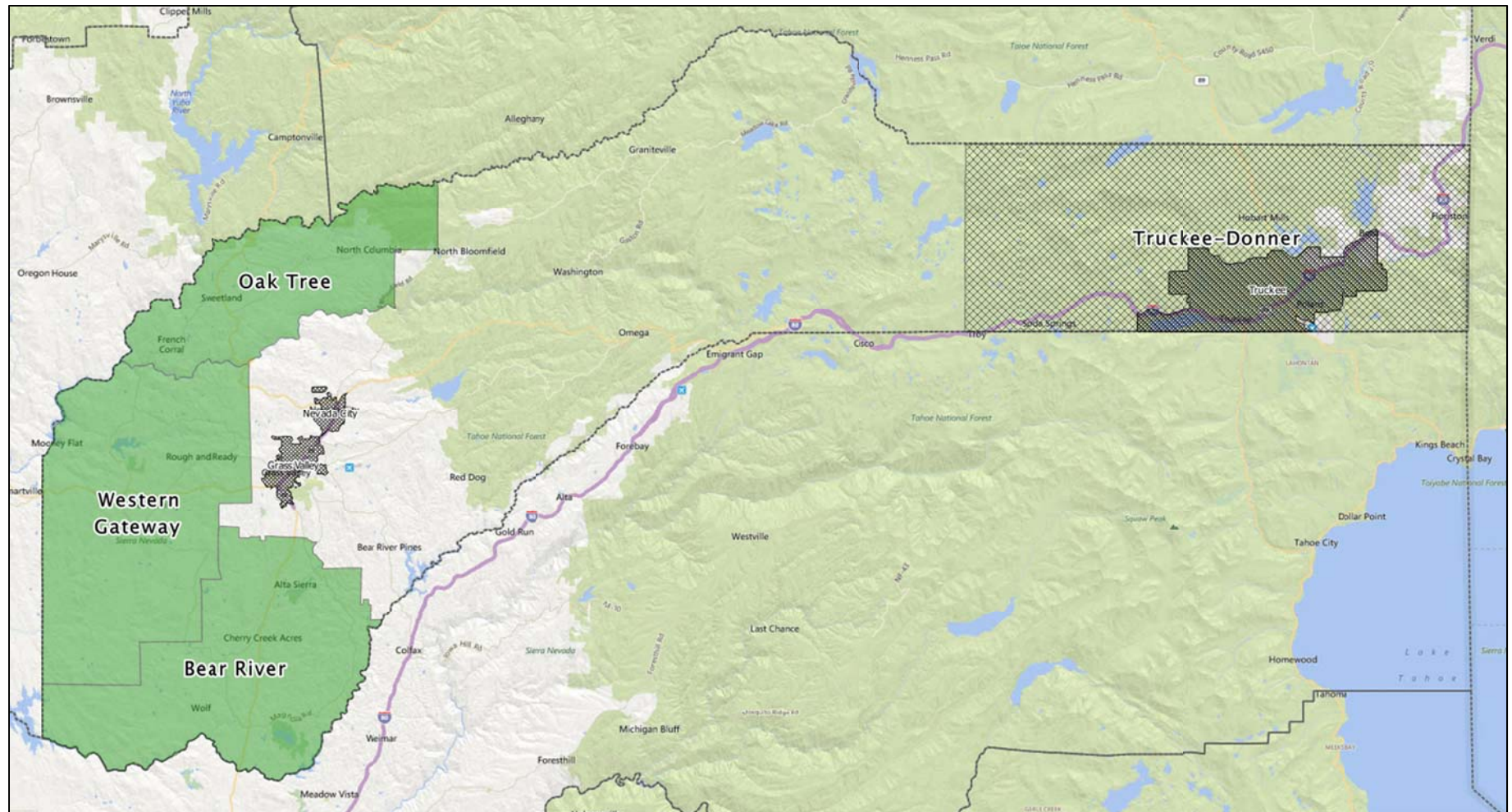
Figure 1
County of Nevada
Parks and Recreation Facilities Fee Study
Existing Recreation Benefit Zones



Source: QGIS.

Map and objects not to scale.

Figure 2
County of Nevada
Parks and Recreation Facilities Fee Study
Existing Recreation and Park Districts



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Source: QGIS.

Map and objects not to scale.

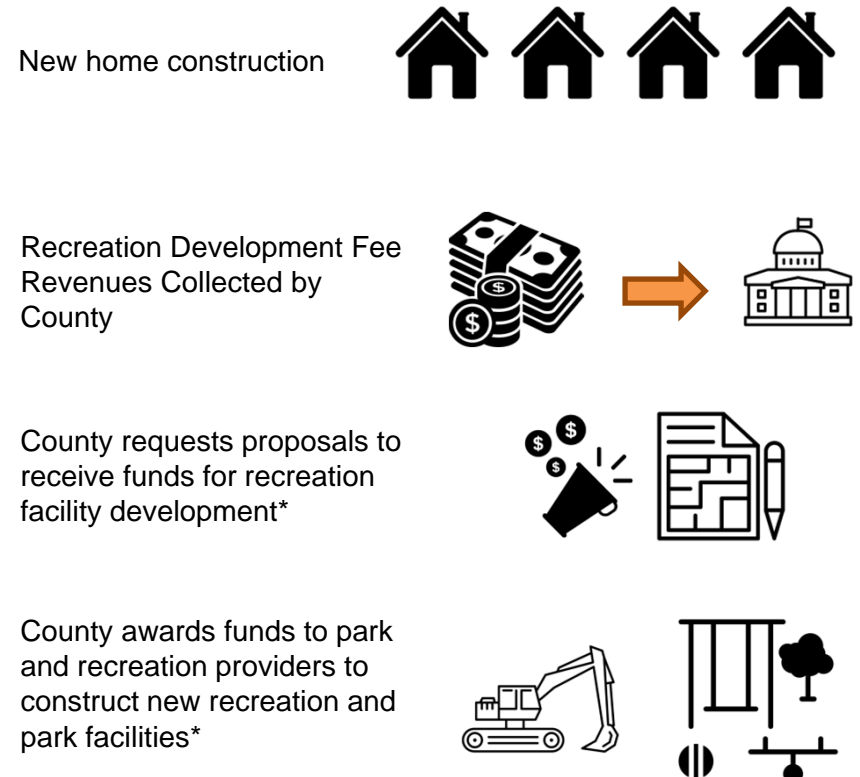
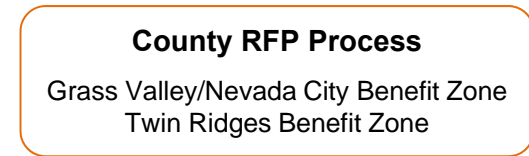
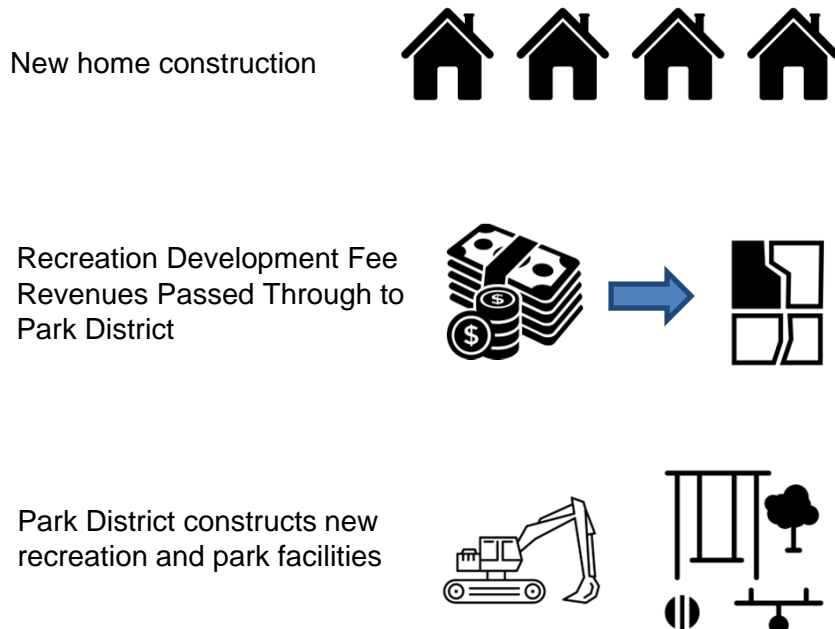
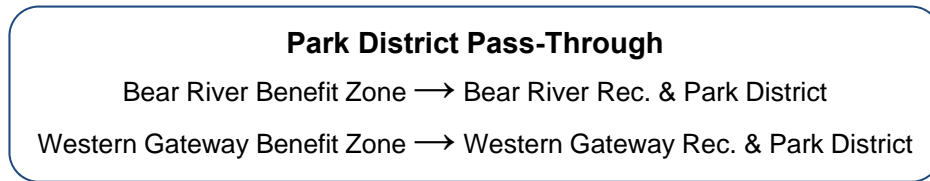
Table 1
County of Nevada
Parks and Recreation Facilities Fee Study
Example Recreation and Park Improvements Funded by RFP Process

Item	Benefit Zone
Improvement	
Minnie Park Playground	Grass Valley
Condon Park Skate Park	Grass Valley
Tobiassen Park Footbridge and Access Trail	Nevada City
Oak Tree Park Improvement Project	Twin Ridges
Oak Tree Park Renovation	Twin Ridges
Hirshman Trail Construction	Nevada City
Tobiassen Park Improvement Project	Nevada City
Memorial Park - Playground Shade Structure	Grass Valley
Grass Valley Library and Elisabeth Daniels Park Improvements	Grass Valley
Sugarloaf Mountain Land Acquisition	Nevada City
Mautino Park - Playground Surfacing and Shade	Grass Valley
Dog Run Free Park - Dog Pool Feature	Grass Valley
Library Collaborative Technology Center	Nevada City
Pioneer Park Playground	Nevada City
Condon Park Community Building Parking Lot	Grass Valley
Pioneer Park Picnic Area Improvements	Nevada City
Madelyn Helling Library Stage	Nevada City
Pioneer Park BBQ Area	Nevada City

r/p improvements

Source: County of Nevada; EPS.

Figure 3
County of Nevada
Parks and Recreation Facilities Fee Nexus Study
Existing Recreation Development Fee Collection and Deployment



*Park and recreation providers includes the Cities of Grass Valley and Nevada City, and non-profit groups (e.g., Bear Yuba Land Trust)

Specifically, each local agency imposing a fee must perform the following tasks:

- Identify the purpose of the fee.
- Identify how the fee is to be used.
- Determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed.
- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed. Demonstrate a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

The findings for this Nexus Study are presented in **Chapter 3**.

Proposed Update to the Recreation Development Fee Program

This Nexus Study makes findings concerning the relationship or nexus between the costs of providing parks for future residents of the unincorporated Western County and the new development projects in the unincorporated Western County on which these costs will be imposed.

Historically, the Recreation Development Fee has been collected to fund land acquisition and improvement of new local park facilities to accommodate population growth in the unincorporated Western County. This Nexus Study updates the existing Recreation Development Fee to accommodate additional recreation facilities needed to serve new Western County residents. In addition, this Recreation Fee Nexus Study proposes changes to the current Benefit Zone composition to be coterminous with the 3 existing Park Districts. The sections below summarize the proposed updates to the Recreation Development Fee.

Benefit Zones

When codified in 1997, the Recreation Benefit Fee established 4 separate Recreation Benefit Fees for each of the 4 separate Benefit Zones in the Western County—Bear River, Grass Valley/Nevada City, Twin Ridges, and Western Gateway—as shown earlier in **Figure 1**. These Benefit Zones, in most part, were coterminous with the 2 formed Park Districts at this time (i.e., Bear River and Western Gateway), fire districts, and school districts.

Oak Tree Community Park and Recreation District was established in 2011, following voter approval of the Park District's formation in November 2010. The Oak Tree Community Park and Recreation District's boundaries are identical to the boundaries of the North San Juan Fire District. As established, the Park District's boundaries overlap with portions of the Grass Valley/Nevada City and Twin Ridges Benefit Zones. At present, the County collects and administers Recreation Development Fees for the Oak Tree Community Park and Recreation District, though the intent is for that Park District to operate similarly to the pass-through model in effect for Bear River and Western Gateway Park Districts.

This Nexus Study proposes updates to the existing Benefit Zones to add a new Oak Tree Benefit Zone that is coterminous with the Oak Tree Community Park and Recreation District. The proposed change would comprise portions of the Grass Valley/Nevada City and Twin Ridges Benefit Zones in areas where the Oak Tree Community Park and Recreation District overlaps those Benefit Zones. This proposed Benefit Zone change is related only to the implementation of the Recreation Development Fee program, and does not affect the composition of the Oak Tree Community Park and Recreation District. Therefore, the change does not require approval from the County Local Agency Formation Commission (LAFCo) and is implemented via County approval of this Nexus Study. Imposing this change would allow the County to pass-through Recreation Development Fees generated in this new Benefit Zone directly to the Oak Tree Community Park and Recreation District in the same manner demonstrated for the Bear River and Western Gateway Park Districts, as reflected in **Figure 3**. **Figure 4** shows the proposed Western County Benefit Zones' boundaries.

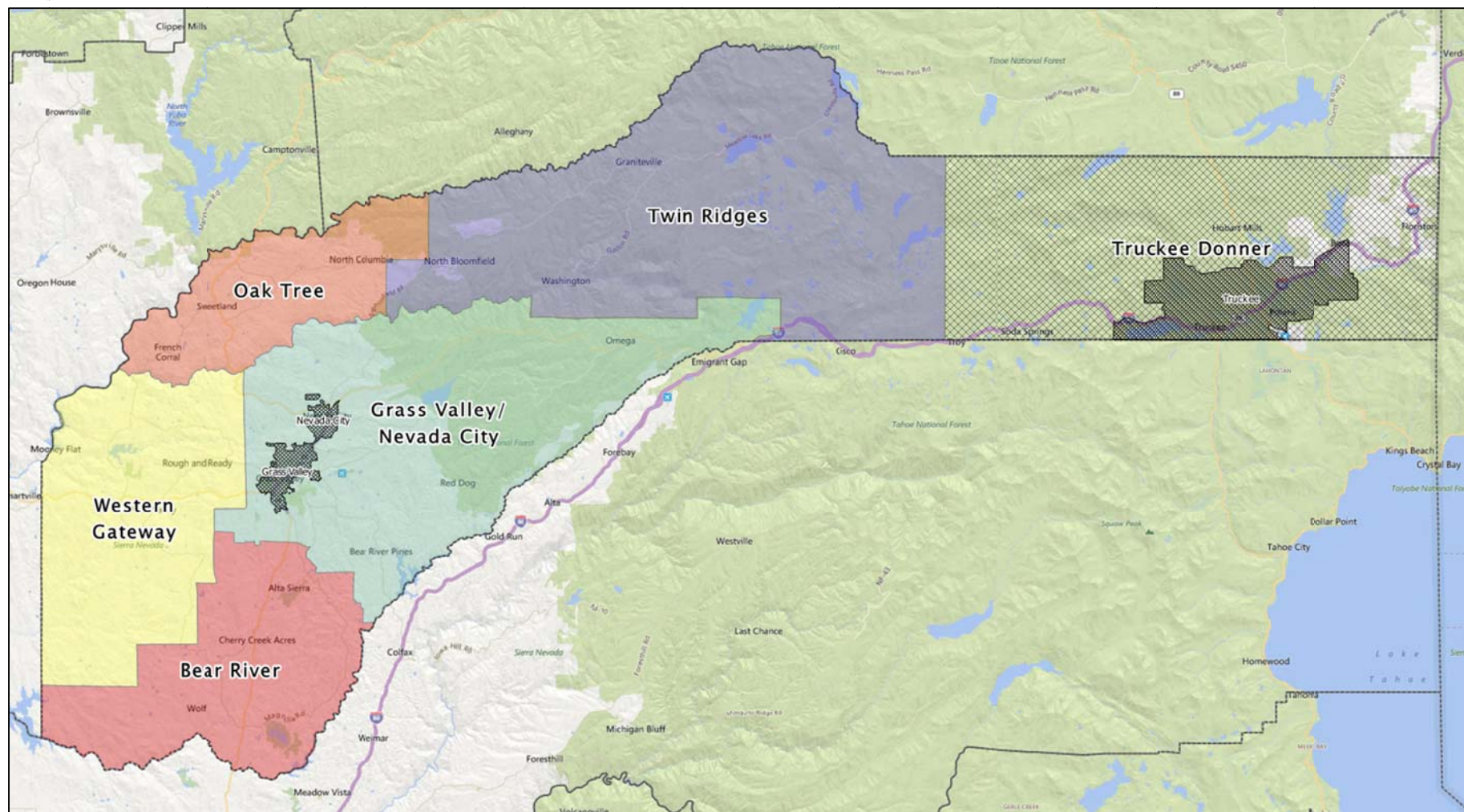
Fee Program Components

The Recreation Development Fee provides a mechanism to collect funds to mitigate new residential development's impacts on recreation and park facilities. Currently, the Recreation Development Fee includes costs for land acquisition and recreation facility development for new neighborhood- or community-serving facilities (e.g., playgrounds, ball fields, ball courts) to serve new Western County residents.

This Nexus Study also incorporates additional components to mitigate new development's demand for a full range of park and recreation facility requirements in the Western County. Therefore, this Nexus Study proposes 3 fee components to fund the facilities or portion of facilities needed to serve new Western County residents. The 3 recreation and park components included in this Recreation Fee Nexus Study are listed below:

- **Neighborhood and Community Parks.** Consistent with the existing Recreation Development Fee, this Nexus Study includes a Neighborhood and Community Parks component to fund acquisition of park land and development of Neighborhood and Community Parks facilities. This fee component is intended to provide funding for the acquisition and development of neighborhood- or community-level parks, including amenities such as ball fields or courts, and playgrounds. This fee component is based on a cost per acre of park land acquired and developed. Furthermore, this fee component is calculated based on County General Plan policy to provide 3.0 acres of park land for each 1,000 residents. Similar to the existing Recreation Development Fee, this Nexus Study proposes reduced fees for Western County communities that provide on-site private recreation facilities. Neighborhood and Community Parks fee component revenues shall be spent in the Benefit Zone in which the fees are collected (i.e., the Benefit Zone where new residential development occurs).
- **Western County Trails.** This Nexus Study includes trails development as a component of the Recreation Development Fee. New trail facilities funded through the Recreation Development Fee are intended to be granted similarly to the County's existing RFP approach, whereby a community partner will apply for funds to construct new regional trails. The Western County Trails fee component revenues may be expended throughout the Western County and are not required to be expended in the Benefit Zone in which the fee is collected.

Figure 4
County of Nevada
Parks and Recreation Facilities Fee Study
Proposed Recreation Benefit Zones



Source: QGIS.

Map and objects not to scale.

- **Regional Facility.** Currently, the Western County does not have any dedicated regional recreation facilities, such as an aquatic center or large recreation center, capable of hosting various indoor sports such as basketball or volleyball. Western County residents have expressed a need for a regional facility or facilities to meet currently unmet recreation needs for both existing and future residents. This Nexus Study proposes a Regional Facility component to provide a mechanism for residential development to pay its proportional share of costs for a new regional recreation facility.

Land Use Categories

The 1997 Nexus Study indicates the Recreation Development Fee can be charged to new multifamily residential development; however, the County historically has not collected the fee on new multifamily residential development. This Nexus Study proposes that new single-family residential development and multifamily development (e.g., apartments and condominiums) would be subject to the Recreation Development Fee.

Proposed Fee

Table 2 shows the proposed Recreation Development Fee for new single-family and multifamily residential development in each Benefit Zone. As shown, the communities of Lake of the Pines and Lake Wildwood have reduced neighborhood park fee components, reflecting a credit for community-provided private recreation facilities.

Table 3 indicates the change in proposed Recreation Development Fees from the current fee as set in 1997. **Table 3** also shows what the current fee rates would be had the fees been escalated annually since 1997 to account for cost inflation, based on calculations presented in **Table 4**. **Figure 5** offers a comparison of existing fees, existing fees with annual escalation through fiscal year 2018-2019, and the proposed fees for single-family residential Recreation Development Fees.

Implementation and Administration

The necessary findings and calculations of the Recreation Development Fee are presented in the subsequent chapters. All fees include a 2-percent allowance for administration, to help offset the costs incurred by the County to administer the Recreation Development Fee, including the cost of preparing the Nexus Study, along with conducting periodic updates and annual escalations conducted annually on July 1st of each year based on the 20-City Construction Index as reported in the ENR for the 12-month period ending in March of the year of the adjustment. Other administrative costs related to the development impact fee program include the costs of accounting and audits, investing, and planning, detailed in **Chapter 4** of this Nexus Study.

Table 2
County of Nevada
Parks and Recreation Facilities Fee Study
Summary of Proposed Recreation Development Fee by Component per Unit [1] [2] [3]

Recreation Benefit Zone	Proposed Recreation Development Fee by Component							
	Neighborhood and Community Parks			Western County Trails	Regional Facility	Subtotal	Admin. (2%)	Total
	Land Acquisition	Park Improvements	Subtotal					
Grass Valley and Nevada City Recreation Benefit Zone								
Single-Family Residential	\$354	\$2,123	\$2,477	\$250	\$493	\$3,220	\$64	\$3,284
Multifamily Residential	\$300	\$1,798	\$2,098	\$211	\$418	\$2,727	\$55	\$2,782
Twin Ridges Recreation Benefit Zone								
Single-Family Residential	\$354	\$2,123	\$2,477	\$250	\$493	\$3,220	\$64	\$3,284
Multifamily Residential	\$300	\$1,798	\$2,098	\$211	\$418	\$2,727	\$55	\$2,782
Oak Tree Recreation Benefit Zone [4]								
Single-Family Residential	\$354	\$2,123	\$2,477	\$250	\$493	\$3,220	\$64	\$3,284
Multifamily Residential	\$300	\$1,798	\$2,098	\$211	\$418	\$2,727	\$55	\$2,782
Bear River Recreation Benefit Zone								
Lake of the Pines								
Single-Family Residential	\$151	\$904	\$1,055	\$250	\$493	\$1,798	\$36	\$1,834
Multifamily Residential	\$128	\$766	\$894	\$211	\$418	\$1,523	\$30	\$1,553
Remaining Development Area								
Single-Family Residential	\$354	\$2,123	\$2,477	\$250	\$493	\$3,220	\$64	\$3,284
Multifamily Residential	\$300	\$1,798	\$2,098	\$211	\$418	\$2,727	\$55	\$2,782
Western Gateway Recreation Benefit Zone								
Lake Wildwood								
Single-Family Residential	\$40	\$241	\$281	\$250	\$493	\$1,024	\$20	\$1,044
Multifamily Residential	\$34	\$204	\$238	\$211	\$418	\$867	\$17	\$884
Remaining Development Area								
Single-Family Residential	\$354	\$2,123	\$2,477	\$250	\$493	\$3,220	\$64	\$3,284
Multifamily Residential	\$300	\$1,798	\$2,098	\$211	\$418	\$2,727	\$55	\$2,782

summ fee

- [1] See Table 10 through Table 13 for detailed analysis establishing the Neighborhood and Community Parks fee component.
- [2] See Table 14 for detailed analysis establishing the Western County Trails fee component.
- [3] See Table 15 for detailed analysis establishing the Regional Facility fee component.
- [4] This analysis proposes the addition of the Oak Tree Recreation Benefit Zone, which is coterminous with the Oak Tree Park and Recreation District. The Oak Tree Park and Recreation District exists within portions of the current Twin Ridges Recreation Benefit Zone and the Grass Valley/Nevada City Recreation Benefit Zone. Boundaries of these benefit zones would be amended to exclude areas now included in the Oak Tree Recreation Benefit Zone.

Table 3
County of Nevada
Parks and Recreation Facilities Fee Study
Comparison of Existing and Proposed Fees by Benefit Zone

Item	Existing		Existing Escalated [2]		Proposed [3]		Difference: Existing and Proposed		
	SFR	MFR [1]	SFR	MFR [1]	SFR	MFR	SFR	MFR	
RECREATION BENEFIT ZONE									
Grass Valley/Nevada City Recreation Benefit Zone	\$721	\$0	\$1,372	\$0	\$3,284	\$2,782	\$2,563	\$2,782	
Twin Ridges Recreation Benefit Zone	\$747	\$0	\$1,422	\$0	\$3,284	\$2,782	\$2,537	\$2,782	
Oak Tree Recreation Benefit Zone [4]	\$747	\$0	\$1,422	\$0	\$3,284	\$2,782	\$2,537	\$2,782	
Bear River Recreation Benefit Zone [5]									
Lake of the Pines	\$345	\$0	\$657	\$0	\$1,834	\$1,553	\$1,489	\$1,553	
Remaining Development Area	\$487	\$0	\$927	\$0	\$3,284	\$2,782	\$2,797	\$2,782	
Western Gateway Recreation Benefit Zone [5]									
Lake Wildwood	\$348	\$0	\$662	\$0	\$1,044	\$884	\$696	\$884	
Remaining Development Area	\$917	\$0	\$1,745	\$0	\$3,284	\$2,782	\$2,367	\$2,782	

fee comp

Source: County of Nevada; EPS.

NOTE: SFR = Single-Family Residential; MFR = Multifamily Residential

[1] The 1997 Nexus Study indicates the Recreation Development Fee can be charged to new multifamily residential development; however, the County historically has not collected the fee on new multifamily residential development.

[2] Reflects the estimated fee rates if the fee was escalated annually based on the Engineering News Record 20-City Average Construction Cost Index. See Table 4 for details.

[3] See Table 2 for detail.

[4] This analysis proposes the addition of the Oak Tree Recreation Benefit Zone, which is coterminous with the Oak Tree Park and Recreation District. The Oak Tree Park and Recreation District exists within portions of the current Twin Ridges Recreation Benefit Zone and the Grass Valley/Nevada City Recreation Benefit Zone. Boundaries of these benefit zones would be amended to exclude areas now included in the Oak Tree Recreation Benefit Zone.

[5] The communities of Lake of the Pines and Lake Wildwood receive a credit on proposed fees because each community provides private recreational facilities. See Table 11 and Table 12 for detail.

Table 4
County of Nevada
Parks and Recreation Facilities Fee Study
Escalated Current Recreation Development Fee Rates

Recreation Benefit Zone	Current Recreation Development Fee	
	Existing Fee	Estimated Escalation to FY 2018-2019 [1]
Grass Valley and Nevada City Recreation Benefit Zone	\$721	\$1,372
Twin Ridges Recreation Benefit Zone	\$747	\$1,422
Oak Tree Recreation Benefit Zone [2]	\$747	\$1,422
Bear River Recreation Benefit Zone		
Lake of the Pines	\$345	\$657
Remaining Development Area	\$487	\$927
Western Gateway Recreation Benefit Zone		
Lake Wildwood	\$348	\$662
Remaining Development Area	\$917	\$1,745

pif increase

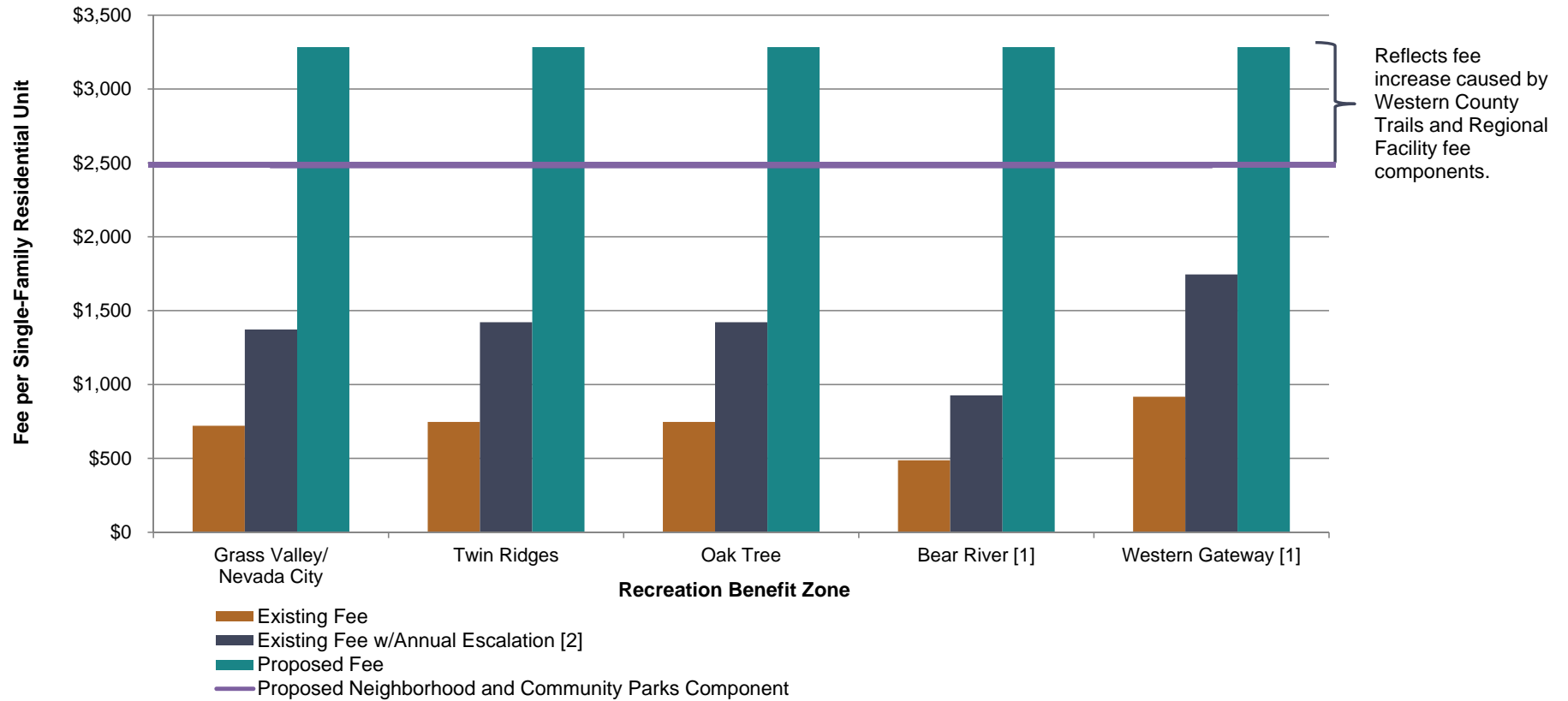
Source: Nevada County; ENR CCI; EPS.

[1] Based on 20-city ENR CCI Index increase from March 1997 to March 2018, as shown below.

Item	Amount
March 1997	5,759
March 2018	10,959
Percent Increase	90.3%

[2] This study proposes the addition of the Oak Tree Recreation Benefit Zone, which is coterminous with the Oak Tree Park and Recreation District. The Oak Tree Park and Recreation District exists within portions of the Twin Ridges Recreation Benefit Zone and the Grass Valley/Nevada City Recreation Benefit Zone. The existing fee rate is based on the existing Twin Ridges Recreation Benefit Zone fee.

Figure 5
County of Nevada
Parks and Recreation Facilities Fee Study
Single-Family Residential Fee Comparison Chart



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[1] Reflects fee rates for "Remaining Development Area."

[2] Reflects the estimated fee rates if the Recreation Development Fee was escalated annually using the Engineering News Record 20-City Construction Cost Index.

comp chart

The fees presented in this Nexus Study are based on the best available cost estimates and demographic data at this time. The County will periodically conduct a review of facility costs and building trends in the Western County. If costs change significantly in either direction or if other funding to construct recreation facilities identified in this study becomes available, an update to the Nexus Study may be required. The fee will also need to be updated periodically in accordance with State of California (State) statutes.

District Consolidation Considerations

The County is separately undergoing a process to evaluate the provision of park and recreation services in the County, which includes consideration of various governance organization and service provision alternatives. Should Park Districts reorganize in the future, there may be implications for the Recreation Development Fee program. If Park Districts reorganize or consolidate but existing Benefit Zone designations remain in place, changes to the applicable fees may not be necessary. Fee collection and distribution may change, however, if areas not currently serviced by a Park District annex into an existing Park District or form a new Park District. Park Districts may opt to adopt a different LOS standard, or facility need, which may require fee calculations to change accordingly.

It is important to note that the proposed Recreation Development Fee provides funds only for land acquisition and capital expenditures necessary to provide recreation facilities to serve new unincorporated Western County residents. Park Districts or the County will need to establish appropriate funding mechanisms to fund the operation and maintenance of new park facilities, trails, or a regional facility.

Supporting Documents

The following documents produced by or for the County or Park Districts were reviewed to inform this analysis:

- County of Nevada Park and Recreation Capital Improvement Impact Fee Study, 1997.
- Nevada County Recreation and Park Services Municipal Services Review, 2006.
- Nevada County Recreation Districts Sphere of Influences Updates, 2015.
- Western Nevada County Non-Motorized Recreational Trails Master Plan, 2010.
- Nevada County General Plan Recreation Element, 1995.
- Bear River Recreation & Park District Master Plan, 2003.
- Lake of the Pines Association Long-Range Master Plan, 2015.
- League of Women Voters of Western Nevada County 2017 Recreation and Parks Study.

Organization of Report

In addition to this Introduction and Executive Summary as **Chapter 1**, this Nexus Study offers the following chapters:

- **Chapter 2** provides an overview of the factors considered to calculate the proposed Recreation Development Fees.
- **Chapter 3** shows the methodology used in calculating the Recreation Development Fees, presents the findings for the fee that satisfy Assembly Bill (AB) 1600 requirements, and shows the fee calculation.
- **Chapter 4** describes the implementation, periodic updates of the Recreation Development Fees, and considerations regarding Park Districts' consolidation.

2. OVERVIEW OF THE WESTERN UNINCORPORATED COUNTY IMPACT FEE PROGRAM

There are approximately 268 acres of improved parks serving approximately 82,000 residents in the Western County, providing a LOS of approximately 3.3 improved park acres for every 1,000 residents, as shown in **Table 5**.^{4 5} Park acres are not distributed proportionately among the proposed Benefit Zones. **Table 5** indicates the Twin Ridges Benefit Zone does not have any improved park acres, providing a LOS of 0.0 acres per 1,000 residents; whereas, the Western Gateway Benefit Zone has approximately 89 improved park acres, providing a LOS of approximately 5.7 acres per 1,000 residents.

The County General Plan establishes a targeted LOS standard of 3.0 acres of park land for each increase of 1,000 persons in countywide population.⁶ The proposed Recreation Development Fee will provide a mechanism for Western County communities to continue developing parks to serve unincorporated Western County residential growth. In addition, this Recreation Development Fee will provide a mechanism for unincorporated Western County residential growth to pay for its proportional share of other recreation amenities costs.

Demographic Estimates and Projections

Park and recreation facilities needed to accommodate future development are calibrated to the anticipated levels of population growth in the unincorporated Western County. Population and household growth estimates used in this Nexus Study include estimated development in the unincorporated Western County between 2017 and 2037. The following sources were used to determine existing population and household estimates and future projections:

- EPS used spatial analysis software program Esri Business Analyst Online to estimate the existing population, households, and persons per household (PPH) in each proposed Benefit Zone as of 2017.
- EPS projected future population and households per proposed Benefit Zone based on the average of 2 projection scenarios: Scenario 1 is based on the historical growth rates between 2000 and 2017, and Scenario 2 is based on the average annual projected growth rate for the entire County between 2017 and 2037 from projections prepared by the California Department of Finance.

⁴ The total Western County population reflects the estimated number of residents in the incorporated Cities of Grass Valley and Nevada City and in the unincorporated areas. Residents from the incorporated cities are included in the existing LOS analysis because a majority of park facilities that serve unincorporated residents in the Grass Valley/Nevada City Benefit Zone are located in the incorporated cities.

⁵ Park acreage and facility inventories for each Benefit Zone are provided in **Table A-1** through **Table A-4** in **Appendix A**.

⁶ County General Plan Chapter 5, Policy 5.5.

Table 5
County of Nevada
Parks and Recreation Facilities Fee Study
Summary of Existing Park Facilities LOS [1]

Recreation Benefit Zone	Estimated Benefit Zone Population [2]	Equivalent Improved Facilities [3]		
		City/ Park District [4]	School District [5]	Total
Grass Valley/Nevada City Recreation Benefit Zone				
		----- Acres -----		
Amount [2]	40,006	119.48	22.56	142.04
Amount per 1000 Residents	-	2.99	0.56	3.55
Twin Ridges Recreation Benefit Zone [6]				
Amount	281	-	-	-
Amount per 1000 Residents	-	-	-	-
Oak Tree Recreation Benefit Zone				
Amount	2,338	14.72	1.89	16.61
Amount per 1000 Residents	-	6.30	0.81	7.10
Bear River Recreation Benefit Zone				
Amount	23,777	8.67	11.84	20.51
Amount per 1000 Residents	-	0.36	0.50	0.86
Western Gateway Recreation Benefit Zone				
Amount	15,612	87.00	1.99	88.99
Amount per 1000 Residents	-	5.57	0.13	5.70
Western Nevada County Park Acres				
		----- Acres -----		
Amount	82,014	229.87	38.28	268.15
Amount per 1000 Residents		2.80	0.47	3.27
Western Nevada County Estimated Maintained Trails [7]				
		----- Miles -----		
Amount	82,014	-	-	217.04
Amount per 1000 Residents		-	-	2.65

summary los

Source: Various County and Park District documents, as indicated in Table A-1 through Table A-4.

- [1] See Table A-1 through Table A-4 for detailed park acreage and facility inventories for each Benefit Zone. Note there are no facilities included in the Twin Ridges Recreation Benefit Zone under the proposed Benefit Zone realignment.
- [2] Grass Valley/Nevada City Benefit Zone: Includes estimated population within the incorporated cities of Grass Valley and Nevada City, and the population included in the unincorporated areas of the Grass Valley/Nevada City Recreation Benefit Zone. The population in incorporated cities is included in this case because a majority of park facilities and some trail facilities that serve the unincorporated communities of this area exist within incorporated cities, therefore, the existing level of service should incorporate the populations inclusive of incorporated cities.
- [3] Reflects estimated park acreage provided on lands owned, operated and maintained by Park Districts and the Cities of Grass Valley and Nevada City. These estimates do not include open space, undeveloped parks, private, state or federal lands.
- [4] Existing City/Park District equivalent improved park acres does not reflect a proportional shift in region-serving facilities based on Recreation Benefit Zone population, as was done in the 1997 Nexus Study; therefore, the park acreage reflected in this table is an estimate of the park land physically within each Benefit Zone boundary. Includes park acres in incorporated cities of Grass Valley and Nevada City.
- [5] Improvements located on school grounds are restricted when school is in session, which is estimated to be 49% of the calendar year. Therefore, land and facility quantities available to the general public are multiplied by 51%.
- [6] Review of aerial images using Google Earth indicates that improved parklands that are in the existing Twin Ridges Recreation Benefit Zone are within the proposed Oak Tree Recreation Benefit Zone, therefore, this analysis assumes the proposed updated Twin Ridges Recreation Benefit Zone does not have any improved park space.
- [7] Based on the estimated existing linear miles of maintained trails in western Nevada County. The existing linear miles of maintained trails was obtained by totaling the length of trail segments provided in the County's Trails GIS shapefile provided on the County's Open Data platform. The data reflects input from a variety of sources, including the Tahoe National Forest and Grass Valley. This estimate may include maintained and accessible trails on state, federal or private property.

Table 6 shows the resulting population and household growth estimates. For this timeframe, residential population in the unincorporated Western County is anticipated to increase by 7.9 percent or approximately 5,300 residents.

Detailed further in **Chapter 3**, Recreation Development Fee calculations are based on the estimated existing unincorporated Western County PPH. EPS estimated the existing PPH using the following steps and sources:

1. EPS estimated the existing County PPH by unit type (i.e., single-family residential and multifamily residential) using American Community Survey 2012–2016 data produced by the US Census Bureau.
2. EPS used spatial analysis software program Esri Business Analyst Online to estimate the existing population and households for the unincorporated Western County as of 2017. However, these data did not provide population and households by unit type.⁷
3. EPS developed a PPH factor by unit type based on the relative proportion of single-family residential and multifamily residential PPH, whereby a single-family residential unit is a factor of 1.0 and multifamily residential is a factor relative to single-family residential PPH derived from Step 1.

Based on these steps, EPS estimated the average PPH to be 2.36 for single-family residential and 2.00 for multifamily residential, as shown in **Table 7**.⁸

Level of Service Standards

The County prepared its General Plan Recreation Element in 1995. The General Plan Recreation Element addresses the County's vision for parks, facilities, and recreation services. The County's interest is to provide County land for park and recreation uses; however, the County's position is to encourage the formation of local park districts to provide neighborhood, community, and district parks in community and rural regions. The County encourages Park Districts to adopt specific LOS for local park and recreation facilities.

The proposed Recreation Development Fee provides a mechanism for Park Districts and recreation stakeholders to develop local- and community-serving parks based on the County's General Plan policy to increase park areas by 3.0 acres for each increase of 1,000 persons in the unincorporated Western County.

Because the County does not have an established LOS standard for Western County trails, this Nexus Study estimates the existing LOS based on the linear miles of maintained trails in the Western County, as indicated in County Geographic Information System (GIS) data. As shown earlier in **Table 5**, there are approximately 217 miles of maintained trails, providing an existing LOS of 2.65 miles of maintained trails for every 1,000 residents. This Nexus Study provides a mechanism for Western County communities to develop future trails based on this existing LOS.

⁷ Esri Business Analyst Online estimates 2017 population and households based on demographic projections of Census 2010 data.

⁸ **Table B-1** and **Table B-2** in **Appendix B** provide background demographics data used in this analysis.

Table 6
County of Nevada
Parks and Recreation Facilities Fee Study
Summary of Unincorporated Western County Population and Household Projections

Item	Scenario 1: Application of Historical Growth Rate [1]			Scenario 2: CA DOF Population Projection [2]			Average			
	2017	2037	Increase	2017	2037	Increase	2017	2037	Increase	
									Amount	Percentage
Total County										
Household Population	99,995	115,763	15,768	97,434	109,560	12,126	98,715	112,662	13,947	14.1%
Households	42,443	54,349	11,906	41,398	46,550	5,152	41,921	50,450	8,529	20.3%
Grass Valley and Nevada City Recreation Benefit Zone										
Household Population	24,494	25,800	1,306	24,494	26,486	1,992	24,494	26,143	1,649	6.7%
Households	10,385	12,001	1,616	10,385	11,230	845	10,385	11,615	1,230	11.8%
Twin Ridges Recreation Benefit Zone										
Household Population	281	296	15	281	304	23	281	300	19	6.8%
Households	139	164	25	139	150	11	139	157	18	12.9%
Oak Tree Recreation Benefit Zone										
Household Population	2,338	2,497	159	2,338	2,528	190	2,338	2,513	175	7.5%
Households	1,042	1,220	178	1,042	1,127	85	1,042	1,174	132	12.7%
Bear River Recreation Benefit Zone										
Household Population	23,777	25,714	1,937	23,777	25,711	1,934	23,777	25,712	1,935	8.1%
Households	9,742	11,141	1,399	9,742	10,534	792	9,742	10,837	1,095	11.2%
Western Gateway Recreation Benefit Zone										
Household Population	15,612	17,343	1,731	15,612	16,882	1,270	15,612	17,113	1,501	9.6%
Households	6,517	7,571	1,054	6,517	7,047	530	6,517	7,309	792	12.2%
Combined Unincorporated Western Nevada County										
Household Population	66,502	71,650	5,148	66,502	71,911	5,409	66,502	71,780	5,278	7.9%
Households	27,825	32,096	4,271	27,825	30,088	2,263	27,825	31,092	3,267	11.7%

summ projection

Source: US Census Bureau, Census 2010 Summary File 1, prepared by Esri Business Analyst Online; CA Dept of Finance; EPS.

[1] Projections based on the average annual growth rate of County and Recreation Benefit Zone population and household estimates between 2000 and 2017. See Table B-1 for details.

[2] Projections based on the projected average annual population growth rate for the entire County between 2017 and 2037. Analysis projects future households based on the existing population per household for each geography. See Table B-1 for detail.

**Table 7
County of Nevada
Parks and Recreation Facilities Fee Study
Estimated Existing Western County Population and Housing**

Recreation Benefit Zone [1] [2]	Estimated 2017 Population [3]	Households	Persons per Household		
			Total	SFR	MFR
Persons per Household Factor [4]			1.00	1.02	0.86
Grass Valley/Nevada City Recreation Benefit Zone [5]					
Grass Valley Portion	27,473	12,358	-		
Nevada City Portion	12,533	5,550	-		
Total Grass Valley/Nevada City Recreation Benefit Zone	40,006	17,908	2.23	2.27	1.92
Twin Ridges Recreation Benefit Zone	281	139	2.02	2.05	1.74
Oak Tree Recreation Benefit Zone [6]	2,338	1,042	2.24	2.28	1.93
Bear River Recreation Benefit Zone	23,777	9,742	2.44	2.48	2.10
Western Gateway Recreation Benefit Zone	15,612	6,517	2.40	2.43	2.06
Estimated Western County	82,014	35,348	2.32	2.36	2.00

pph district

Source: US Census Bureau, Census 2010 Summary File 1, prepared by Esri Business Analyst Online; EPS.

- [1] The total population and household amounts for all combined Recreation Benefit Zones may not match the total countywide data. The information used in this analysis is based on data provided using Esri Business Analyst Online, which allocates population and household information based on the centerpoint of Census data blocks. If the center of a Census data block lies within a unique boundary, then the data for the entire Census data block will be reflected in the unique geography.
- [2] Excludes the Truckee Donner Recreation and Park District because the District collects and administers their own fee.
- [3] Excludes group quarters population.
- [4] Persons per Household Factor based on the relative proportion of SFR and MFR persons per household compared to the countywide total persons per household, as shown on Table B-2.
- [5] Includes incorporated cities of Grass Valley and Nevada City.
- [6] This study proposes the addition of the Oak Tree Recreation Benefit Zone, which is coterminous with the Oak Tree Park and Recreation District. The Oak Tree Park and Recreation District existed within portions of the Twin Ridges Recreation Benefit Zone and the Grass Valley/Nevada City Recreation Benefit Zone. The existing fee rate is based on the existing Twin Ridges Recreation Benefit Zone fee.

The Western County does not have a regional recreation facility, and no LOS standard has been established for this type of facility. Because the Recreation Development Fee can be used to fund only new growth's proportional share of new facility costs, development of a regional recreation facility standard is based on future growth's share of the projected 2037 unincorporated Western County population, which is equal to approximately 7.4 percent, as shown in **Table 8**.

Improvement Costs

Park and recreation facility costs used in this Nexus Study are based on information obtained from various park master plans, nexus studies, and industry experts. **Table 9** provides summary facility cost assumptions and LOS standards used to calculate the Recreation Development Fee components in this Nexus Study. The sections below describe the costs and sources for each fee component.

Neighborhood and Community Parks

Development of Neighborhood and Community Parks can include various components, from basic greening of the park (i.e., turf and irrigation) to more intense recreation development with amenities, such as field and court facilities, playgrounds, and splash or spray parks.

The Neighborhood and Community Parks component established through this Nexus Study is based on costs for park improvements and land acquisition. The County does not have a detailed park and recreation master plan describing preferred amenities and park development costs on a per acre basis. EPS's research demonstrates that basic park improvements (i.e., turf, irrigation, bathrooms) average approximately \$250,000 per acre. For the purposes of this Nexus Study, the estimated park development cost per acre is \$300,000, which would provide an allowance for these basic improvements plus amenities such as playgrounds, ball fields, and ball courts, which would be determined at the discretion of the recreation service provider constructing the improvements. It is important to note that this amount is an allowance for park facilities and amenities and eligible costs may include, but are not limited to the following expenses:

- Basic park improvements.
- Park amenities.
- Expanded and improved recreation facilities.
- County costs to administer the RFP for Neighborhood and Community Parks fee component revenues for the Grass Valley/Nevada City and Twin Ridges Benefit Zones.

The estimated cost of land acquisition is \$50,000 per acre and is based on land sales costs for residentially zoned properties in the Western County. In total, the Neighborhood and Community Parks fee component is based on a cost estimate of \$350,000 per acre.

Table C-1 through **Table C-3** in **Appendix C** provide background cost data used to estimate the Neighborhood and Community Parks facilities.

Table 8
County of Nevada
Parks and Recreation Facilities Fee Study
New Growth as a Percentage of Total 2037 Western County Population

Item	Amount	Percentage of Total
2037 Unincorporated Western County Population		
Existing (2017)	66,502	92.6%
Future Growth [1]	5,278	7.4%
Total	71,780	100.0%

share growth

Source: US Census Bureau, Census 2010 Summary File 1,
 prepared by Esri Business Analyst Online; CA Dept of Finance; EPS.

[1] Reflects the average population of two growth scenarios summarized in Table 6.

Table 9
County of Nevada
Parks and Recreation Facilities Fee Study
Summary of Component Costs and Facility Standards

Item	Facility Standard	Cost Assumption
Proposed Park and Recreation Impact Fee Component Key Cost Assumptions		
Neighborhood and Community Parks [1]		
Land Acquisition [2]	3.00 acres per 1,000 res	\$50,000 per acre
Park Improvements [3]	3.00 acres per 1,000 res	\$300,000 per acre
Subtotal Neighborhood and Community Parks	3.00 acres per 1,000 res	\$350,000 per acre
Western County Trails [4]	2.65 linear miles per 1,000 res	\$40,000 per linear mile
Regional Facility	[5]	[5]

assump standards

- [1] Neighborhood and Community Parks facility standard may be reduced to reflect credits for communities that provide on-site recreational facilities.
- [2] Based on asking sales price for vacant residential land in Nevada County. See Table C-3 for details.
- [3] Reflects the estimated per-acre costs of providing basic improvements (e.g., turf, irrigation, bathrooms) and park amenities (e.g., ball fields, ball courts, playground). See Table C-1 for facility cost examples.
- [4] Information from trail designing and construction firm Trailscape, based in Auburn, CA, indicates costs for trails development on foothill and mountain terrain in the Sierra Nevadas is approximately \$6 per linear foot, or approximately \$32,000 per linear mile. This analysis is based on an assumed design and contingency of 25% for estimated construction cost of \$40,000 per linear mile. Additional cost considerations are necessary if the terrain requires significant work (e.g., terrain steeper than 30%, rock cutting), or requires bridges or culverts.).
- [5] Regional Facility standards and cost assumption is based on the Western Nevada County unincorporated area share of new population in 2037 (approximately 7%). This analysis is based on the assumption a regional facility will cost \$15,000,000, of which approximately \$1.1 million can be attributed to new development. Please see Table 15 for details.

Western County Trails

Similar to Neighborhood and Community Parks, trails development costs can vary based on the intent and function of the proposed trail. For the purposes of this Nexus Study, trails costs reflect the costs to design, clear, and cut earthen trails made of natural materials. The costs used to generate the Western County Trails fee component established through this Nexus Study is based on a cost estimate of \$40,000 per linear mile.

This cost estimate was established based on information obtained from trail designing and construction firm Trailscape, based in Auburn, California. Trailscape indicates costs for trails development on foothill and mountain terrain in the Sierra Nevada area is approximately \$6 per linear foot, or approximately \$32,000 per linear mile. This Nexus Study is based on an assumed design, engineering, and contingency of 25 percent for an estimated construction cost of \$40,000 per linear mile.

Trails development costs may be greater if trails are designed to be developed on terrain steeper than 30 percent, if rock cutting is necessary, or if bridges or culverts are required. In addition, this cost estimate does not consider the cost to construct paved multipurpose trails, nor does it consider the cost to construct parking lots serving trailheads.

Regional Facility

Currently, the County does not provide regional recreation facilities capable of hosting indoor activities and sports. While neither the County nor any Western County Park Districts have established plans to develop a regional recreation facility, the County has identified regional recreation facilities as an unmet need of existing and future Western County residents. This Nexus Study therefore includes an allowance for new development to pay their fair share towards a future regional recreation facility.

EPS established an estimated cost for a regional facility based on the average estimated costs of the Truckee-Donner Recreation and Park District facilities,⁹ as well as other regional recreation facility costs observed throughout the region. The estimated regional facility used in this Nexus Study is \$15 million, which includes costs for planning, design, and construction of a new facility.¹⁰ Should a Park District or the County plan to develop a regional facility serving Western County residents, the Regional Facility fee component would be updated to reflect the corresponding planning, design, and construction cost estimates. Alternatively, should the County decide not to pursue a regional recreation facility, this Nexus Study should be updated to reflect County priorities.

⁹ The Truckee-Donner Recreation and Park District prepared a park impact fee nexus study in 2013 to allocate new development's fair share of costs for 2 planned regional recreation facilities: a community recreation center and an aquatic facility. In 2013, the Truckee-Donner Recreation and Park District estimated the costs of a 38,500-square-foot community recreation center to be approximately \$24.2 million and a 25,840-square-foot indoor aquatic center to be approximately \$7.2 million. Truckee-Donner Recreation and Park District Park Impact Fee Nexus Study Update. October 2013. Prepared by SCIconultingGroup.

¹⁰ See **Table C-4** in **Appendix C** for case study regional facility estimated costs.

3. RECREATION DEVELOPMENT FEE CALCULATION AND NEXUS FINDINGS

This chapter describes the Nexus Study methodology and the findings necessary to establish the proposed Recreation Development Fee, consisting of the Neighborhood and Community Parks fee component, the Western County Trails fee component, and the Regional Facility fee component. This chapter builds on the analysis described in **Chapter 2** of this Nexus Study.

Summary of Methodology and Fee Calculation

The methodology used to determine each Recreation Development Fee component is described below.

Neighborhood and Community Parks

1. Determine the park acres required per new resident based on the General Plan LOS standard of 3.0 park acres for every 1,000 new residents.
2. Calculate the park acres required for each new single-family and multifamily residential unit by multiplying the park acres required for each new resident (**Step 1**) by the average PPH for single-family and multifamily residential units, provided in **Chapter 2**.
3. Multiply the total park acres required per unit (**Step 2**) by the per acre land acquisition and park improvement costs described in **Chapter 2**.

Credit for Existing Facilities

The 1997 Nexus Study established reduced fees for the communities of Lake of the Pines and Lake Wildwood. Both communities provide robust park and recreation facilities, including privately maintained parks, ball courts, swimming pools, golf courses, and lakes. The 1997 Nexus Study applied a 75-percent credit for on-site park improvements in single-family subdivisions.

This Nexus Study includes a proposed reduced Neighborhood and Community Parks fee component to credit park acreage that serves residents in the Lake of the Pines and the Lake Wildwood communities, reflecting the reduced impact these communities are expected to have on the need for County park facilities. The steps to develop a reduced fee for these communities are detailed below:

1. Estimate the number of residents in each community by multiplying the buildout number of units by the Western County average PPH.
2. Add the total improved Neighborhood and Community Parks acres in each community.
3. Multiply the total improved park acres calculated in **Step 2** by 75 percent.

4. Calculate the creditable improved park acres per 1,000 community residents by dividing the creditable park acres (**Step 3**) by number of community residents (**Step 1**) divided by 1,000.
5. Calculate the remaining Neighborhood and Community Parks obligation by subtracting the creditable improved park acres per 1,000 residents from the Neighborhood and Community Parks LOS standard of 3.0.

Table 10 provides the calculation for Neighborhood and Community Parks for all unincorporated Western County Benefit Zones. **Table 11** and **Table 12** provide a reduced Neighborhood and Community Parks calculation for Lake of the Pines and Lake Wildwood, respectively, and **Table 13** demonstrates the fee credit and reduced fee calculation for Lake of the Pines and Lake Wildwood.

Western County Trails

This Nexus Study proposes a Western County Trails fee component based on the estimated existing LOS of maintained trails described in **Chapter 2**. The Western County Trails fee component is calculated based on the steps provided below:

1. Determine the trail miles required per new resident based on the LOS standard established in **Chapter 2**.
2. Calculate the trail miles required for each new single-family and multifamily residential unit by multiplying the trail miles required for each new resident (**Step 1**) by the average PPH for single-family and multifamily residential units provided in **Chapter 2**.
3. Multiply the total trail miles required per unit (**Step 2**) by the estimated per-mile trail improvement costs provided in **Chapter 2**.

Table 14 summarizes the steps described above and shows the resulting Western County Trails fee.

Regional Facility

This Nexus Study proposes a Regional Facility component to provide a mechanism for residential development to pay its proportionate share of costs for a new regional recreation facility. Currently, a Park District or County regional recreation facility does not exist in the Western County; therefore, this Nexus Study allocates new growth's share of facility costs to new residential units, based on the Western County 2037 population. Since the Recreation Development Fee revenues may be used only on improvements that serve future growth, the County will need to identify other sources of funds to pay the proportionate share of regional facilities serving the County's existing population. The Regional Facility fee component is calculated based on the steps provided below:

1. Calculate future growth's share of 2037 Western County population provided in **Chapter 2**.
2. Determine new growth's share of costs to construct a regional recreation facility by multiplying the future growth's share of 2037 Western County population (**Step 1**) by the total regional recreation facility costs.

Table 10
County of Nevada
Parks and Recreation Facilities Fee Study
Calculation of Neighborhood and Community Parks Fee Component [1]

Item	Assumption	Single-Family Residential	Multifamily Residential
Assumptions			
LOS Standard [2]	3.00 acres per 1,000 res		
Land Acquisition Costs [3]	\$50,000 per acre		
Park Improvement Costs			
Basic Improvements [4]	\$250,000 per acre		
Park Amenities [5]	\$50,000 per acre		
<hr/>			
Park Factor per Resident		0.0030	0.0030
Persons per Household [6]		2.36	2.00
Total Park Acres Required per Unit		0.0071	0.0060
Park Mitigation Costs per Unit			
Land Acquisition		\$354	\$300
Park Improvements			
Basic Improvements		\$1,769	\$1,498
Park Amenities		\$354	\$300
Subtotal Park Improvements		\$2,123	\$1,798
Subtotal Neighborhood and Community Parks Mitigation Costs per Unit		\$2,477	\$2,098

pif w co

Source: County of Nevada; US Census Bureau; EPS.

- [1] Reflects the Neighborhood and Community Parks fee component calculation for areas not receiving credit for providing on-site recreational facilities.
- [2] Based on Objective 5.2, Policy 5.5 of the Recreation Chapter Policies in the 1995 Nevada County General Plan.
- [3] Based on asking sales price for vacant residential land in Nevada County. See Table C-3 for details.
- [4] Reflects the estimated per-acre costs of providing basic improvements such as turf, irrigation, and bathrooms. See Table C-1 for facility costs examples.
- [5] Reflects the estimated per-acre costs of providing amenities such as ball fields, courts, and playgrounds. See Table C-1 for facility costs examples.
- [6] Based on the estimated persons per household for single-family residential and multifamily residential units by Benefit Zone. See Table 7 for details.

Table 11
County of Nevada
Parks and Recreation Facilities Fee Study
Calculation of Neighborhood and Community Parks Fee Component: Lake of the Pines

Bear River - Lake of the Pines

Item	Assumption	Single-Family Residential	Multifamily Residential
Assumptions			
LOS Standard [1]	1.28 acres per 1,000 res		
Land Acquisition Costs [2]	\$50,000 per acre		
Park Improvement Costs			
Basic Improvements [3]	\$250,000 per acre		
Park Amenities [4]	\$50,000 per acre		
<hr/>			
Park Factor per Resident		0.0013	0.0013
Persons per Household [5]		2.36	2.00
Total Park Acres Required per Unit		0.0030	0.0026
Park Mitigation Costs per Unit			
Land Acquisition		\$151	\$128
Park Improvements			
Basic Improvements		\$753	\$638
Park Amenities		\$151	\$128
Subtotal Park Improvements		\$904	\$766
Subtotal Neighborhood and Community Parks Mitigation Costs per Unit		\$1,055	\$894

pif calc lop

Source: County of Nevada; Lake of the Pines Homeowners Association; US Census Bureau; EPS.

- [1] The County General Plan LOS Standard for park development is 3.0 acres per 1,000 residents; however, Lake of the Pines development receives a credit on this service standard based on the amount of parks provided within the community. See Table 13 for details.
- [2] Based on asking sales price for vacant residential land in Nevada County. See Table C-3 for details.
- [3] Reflects the estimated per-acre costs of providing basic improvements such as turf, irrigation, and bathrooms. See Table C-1 for facility costs examples.
- [4] Reflects the estimated per-acre costs of providing amenities such as ball fields, courts, and playgrounds. See Table C-1 for facility costs examples.
- [5] Based on the estimated persons per household for single-family residential and multifamily residential units for the unincorporated western Nevada County. See Table 7 for details.

Table 12
County of Nevada
Parks and Recreation Facilities Fee Study
Calculation of Neighborhood and Community Parks Fee Component: Lake Wildwood

Western Gateway - Lake Wildwood

Item	Assumption	Single-Family Residential	Multifamily Residential
Assumptions			
LOS Standard [2]	0.34 acres per 1,000 res		
Land Acquisition Costs [3]	\$50,000 per acre		
Park Improvement Costs			
Basic Improvements [4]	\$250,000 per acre		
Park Amenities [5]	\$50,000 per acre		
<hr/>			
Park Factor per Resident		0.0003	0.0003
Persons per Household [3]		2.36	2.00
Total Park Acres Required per Unit		0.0008	0.0007
Park Mitigation Costs per Unit			
Land Acquisition		\$40	\$34
Park Improvements			
Basic Improvements		\$201	\$170
Park Amenities		\$40	\$34
Subtotal Park Improvements		\$241	\$204
Subtotal Neighborhood and Community Parks Mitigation Costs per Unit		\$281	\$238

pif calc lw

Source: County of Nevada; US Census Bureau; EPS.

- [1] The County General Plan LOS Standard for park development is 3.0 acres per 1,000 residents; however, Lake Wildwood development receives a credit on this service standard based on the amount of parks provided within the community. See Table 13 for details.
- [2] Based on asking sales price for vacant residential land in Nevada County. See Table C-3 for details.
- [3] Based on the estimated persons per household for single-family residential and multifamily residential units for the unincorporated western Nevada County. See Table 7 for details.
- [3] Reflects the estimated per-acre costs of providing basic improvements such as turf, irrigation, and bathrooms. See Table C-1 for facility costs examples.
- [4] Reflects the estimated per-acre costs of providing amenities such as ball fields, courts, and playgrounds. See Table C-1 for facility costs examples.
- [5] Based on the estimated persons per household for single-family residential and multifamily residential units for the unincorporated western Nevada County. See Table 7 for details.

Table 13
County of Nevada
Parks and Recreation Facilities Fee Study
Lake of the Pines and Lake Wildwood LOS Credit Analysis

Item	Residential Units [1]			Western County Population per Household [2]	Estimated No. of Residents at Buildout	Improved Park Acres	Creditable Improved Park Acres [3]	Creditable Improved Park Acres per 1k Residents	County General Plan LOS	Remaining LOS Obligation
	Existing	Planned	Total							
<i>Formula</i>	<i>A</i>	<i>B</i>	<i>C = A+B</i>	<i>D</i>	<i>E = C*D</i>	<i>F</i>	<i>G = F*75%</i>	<i>H = G/(E/1,000)</i>	<i>I</i>	<i>J = I - H</i>
Lake of the Pines	1,920	75	1,995	2.36	4,704	10.80	8.10	1.72	3.00	1.28
Lake Wildwood	2,616	220	2,836	2.36	6,687	23.70	17.78	2.66	3.00	0.34

los credit

Source: County of Nevada; Lake of the Pines Homeowners Association; Lake Wildwood Homeowners Association; EPS.

- [1] The 1997 Final Recreation Impact Fee Study indicates the total buildout number of residential lots in both Lake of the Pines and Lake Wildwood. The remaining, or planned units, for each community was provided by the County as of June 13, 2018.
- [2] Assumes single-family residential households. See Table 7 for details.
- [3] The 1997 Final Recreation Impact Fee Study indicates costs for on-site park improvements in single-family subdivisions, apartment complexes, and Planning Development communities may be credited for up to 75% of improvement costs. This analysis applies the 75% credit on the amount of park acres provided in each community.

Table 14
County of Nevada
Parks and Recreation Facilities Fee Study
Calculation of Western County Trails Fee Component

Western County Trails

Item	Assumption	Single-Family Residential	Multifamily Residential
Assumptions			
Trails LOS [1]	2.65 <i>linear miles per 1,000 res</i>		
Trails Improvement Costs [2]	\$40,000 <i>per linear mile</i>		
<hr/>			
Facility Factor per Resident		0.0026	0.0026
Persons per Household [3]		2.36	2.00
Total Trails (Linear Miles) Required per Unit		0.0062	0.0053
Trails Mitigation Costs per Unit		\$250	\$211

pif calc trails

Source: County of Nevada; US Census Bureau; Trailscape; EPS.

- [1] Based on the estimated existing linear miles of maintained trails in western Nevada County. The existing linear miles of maintained trails was obtained by totaling the length of trail segments provided in the County's Trails GIS shapefile provided on the County's Open Data platform. The data reflects input from a variety of sources, including the Tahoe National Forest and Grass Valley. See Table 5 for details.
- [2] Information from trail designing and construction firm Trailscape, based in Auburn, CA, indicates costs for trails development on foothill and mountain terrain in the Sierra Nevadas is approximately \$6 per linear foot, or approximately \$32,000 per linear mile. This analysis is based on an assumed design and contingency of 25% for estimated construction cost of \$40,000 per linear mile. Additional cost considerations are necessary if the terrain requires significant work (e.g., terrain steeper than 30%, rock cutting), or requires bridges or culverts.)
- [3] Based on the estimated persons per household for single-family residential and multifamily residential units for the unincorporated western Nevada County. See Table 7 for details.

3. Calculate the cost per future resident by dividing future growth's share of facility costs (**Step 2**) by the number of future residents.
4. Multiply the facility cost per new resident by the average PPH for single-family and multifamily residential units provided in **Chapter 2**.

Table 15 summarizes the steps described above and shows the resulting Regional Facility fee.

Findings for the Recreation Development Fee

This Nexus Study establishes the Recreation Development Fee in accordance with the procedural guidelines established in the Mitigation Fee Act, which is codified in California Government Code Section 66000 et seq. These code sections set forth the procedural requirements for establishing and collecting various development impact fees. Among other conditions, these procedures require a "reasonable relationship or nexus...between a governmental exaction and the purpose of the condition." Specifically, for each component funded by the fee, this section makes the following findings:

1. Identify the purpose of the fee.
2. Identify how the fee is to be used.
3. Determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed.
4. Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed.
5. Demonstrate a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

The proposed Recreation Development Fee is divided into component parts. This Nexus Study makes separate findings concerning the nexus between each fee component of the Recreation Development Fee and the new unincorporated Western County development on which the Recreation Development Fee will be imposed.

Neighborhood and Community Parks

Purpose of the Fee

The purpose of the Neighborhood and Community Parks component of the proposed Recreation Development Fee is to fund the acquisition of land and the park improvements necessary to serve new residential development in the unincorporated Western County, based on the County's General Plan LOS goals stated in the Recreation Element. New development in the Western County will increase park users, generating the need for new park land and facilities to serve the increased service population.

Table 15
County of Nevada
Parks and Recreation Facilities Fee Study
Calculation of Regional Facility Fee Component

Regional Facility

Item	Assumption	Single-Family Residential	Multifamily Residential
Assumptions			
2037 Unincorporated Western County Population			
Existing (2017)	66,502	<i>92.6% of total</i>	
Future Growth [1]	5,278	<i>7.4% of total</i>	
Total	71,780		
Estimated Facility Cost (Rounded)			
Existing Population Share	\$13,897,000		
Future Growth Share	\$1,103,000		
Total	\$15,000,000		
Cost per Future Resident	\$209		
<hr/>			
Persons per Household [2]		2.36	2.00
Cost per Future Household		\$493	\$418

pif regional

Source: US Census Bureau, Census 2010 Summary File 1, prepared by Esri Business Analyst Online;
 CA Dept of Finance; EPS.

[1] Reflects the average population of two growth scenarios summarized in Table 6.

[2] Based on the estimated persons per household for single-family residential and multifamily residential units for the unincorporated western Nevada County. See Table 7 for details.

Use of the Fee

The proposed Neighborhood and Community Parks component will be used to acquire land for and develop Neighborhood and Community Parks at a LOS standard of 3.0 park acres for every new 1,000 unincorporated Western County residents. Allowable uses include park facilities such as turf, playgrounds, ball fields, and ball courts.

Relationship Between the Use of the Fee and the Type of Development

The development of new residential land uses in the unincorporated Western County will generate additional demand for park and recreation facilities and the associated need for development of such facilities. The proposed Neighborhood and Community Parks component of the Recreation Development Fee will be used to acquire land for and to develop Neighborhood and Community Parks at the levels required to meet the demand created by new residential development.

A reasonable relationship therefore exists between the use of the Neighborhood and Community Parks fee component of the Recreation Development Fee and the residential development on which the fee is imposed because the fee will be used to fund park and recreation facilities used by new unincorporated Western County residents.

Relationship Between the Need for a Facility and the Type of Project

Each new residential development project will generate additional demand for Neighborhood and Community Parks and recreation services and an associated need for Neighborhood and Community Parks and recreation facilities. To maintain the County's LOS goals, the unincorporated Western County must develop a commensurate number of acres and facilities to serve the population generated by new development, scaled to the number of new residents generated by the typical unit in each residential land use calculation.

A reasonable relationship therefore exists between the need for Neighborhood and Community Parks facilities and new residential projects on which the Neighborhood and Community Parks fee component of the Recreation Development Fee is imposed because the specific park facilities are necessary to accommodate new unincorporated Western County residents that will use those facilities.

Relationship Between the Amount of the Fee and the Cost of or Portion of Facility Attributed to Development on Which Fee Is Imposed

The cost of Neighborhood and Community Parks and recreation facilities needed to meet new resident demand for each residential land use category has been estimated by applying the park cost per user to the appropriate number of persons per household for single-family and multifamily residential units.

A reasonable relationship therefore exists between the amount of the Neighborhood and Community Parks fee component and the cost of acquiring and developing park facilities attributed to the residential development on which the Neighborhood and Community Parks fee component is imposed because the cost is calculated based on the demand generated by new residential units for Neighborhood and Community Parks facilities as measured by the amount of persons served generated by each residential development type.

Western County Trails

Purpose of the Fee

The purpose of the Western County Trails component of the proposed Recreation Development Fee is to fund the trails improvements necessary to serve new residential development in the unincorporated Western County, based on the estimated existing LOS of maintained trails serving the Western County. New development in the Western County will increase trail users, generating the need for new trail facilities to serve the increased service population.

Use of the Fee

The proposed Western County Trails component will be used to develop new trails at a LOS standard equal to the estimated existing service level serving existing Western County residents.

Relationship Between the Use of the Fee and the Type of Development

The development of new residential land uses in the unincorporated Western County will generate additional demand for trail facilities and the associated need for development of such facilities. The proposed Western County Trails component of the Recreation Development Fee will be used to develop trails at the levels required to meet the demand created by new residential development.

A reasonable relationship therefore exists between the use of the Western County Trails fee component of the Recreation Development Fee and the residential development on which the fee is imposed because the fee will be used to fund trail facilities used by new unincorporated Western County residents.

Relationship Between the Need for a Facility and the Type of Project

Each new residential development project will generate additional demand for trails and an associated need for trail facilities. To maintain the unincorporated Western County's existing LOS, the unincorporated Western County must develop commensurate miles of trail facilities to serve the population generated by new development, scaled to the number of new residents generated by the typical unit in each residential land use calculation.

A reasonable relationship therefore exists between the need for trail facilities and new residential projects on which the Western County Trails fee component of the Recreation Development Fee is imposed because the specific trail facilities are necessary to accommodate new unincorporated Western County residents that will use those facilities.

Relationship Between the Amount of the Fee and the Cost of or Portion of Facility Attributed to Development on Which Fee Is Imposed

The amount of trail facilities needed to meet new resident demand for each residential land use category has been estimated by applying the trail cost per user to the appropriate number of persons per household for single-family and multifamily residential units.

A reasonable relationship therefore exists between the amount of the Western County Trails fee component and the cost of developing trail facilities attributed to the residential development on which the Western County Trails fee component is imposed because the cost is calculated based on the demand generated by new development for trail facilities as measured by the amount of persons served generated by each residential development type.

Regional Facility

Purpose of the Fee

The purpose of the Regional Facility fee component of the proposed Recreation Development Fee is to fund Western County new growth's proportional share of a regional recreation facility in the Western County.

Use of the Fee

The proposed Regional Facility component will be used to fund new growth's share of a regional recreation facility in the Western County.

Relationship Between the Use of the Fee and the Type of Development

The development of new residential land uses in the unincorporated Western County will generate demand for a regional recreation facility and the associated need for development of such facilities. The proposed Regional Facility component of the Recreation Development Fee will be used to pay for unincorporated Western County new growth's proportional share of such facility created by new residential development.

A reasonable relationship therefore exists between the use of the Regional Facility fee component of the Recreation Development Fee and the residential development on which the fee is imposed because the fee will be used to fund the proportional share of regional recreation facilities used by new unincorporated Western County residents.

Relationship Between the Need for a Facility and the Type of Project

Residents of new residential development projects will contribute to the need for regional recreation facilities. New regional recreation facilities will need to be sized to accommodate future unincorporated Western County growth. To accommodate the community's unmet needs for a new regional recreation facility, new unincorporated Western County growth will need to pay for its proportional share of costs, based on new growth's share of total population in Western County in 2037.

A reasonable relationship therefore exists between the need for regional recreation facilities and new residential projects on which the Regional Facility fee component of the Recreation Development Fee is imposed because a regional recreation facility is necessary to accommodate new unincorporated Western County residents that will use those facilities.

Relationship Between the Amount of the Fee and the Cost of or Portion of Facility Attributed to Development on Which Fee Is Imposed

Future growth's share of regional recreation facilities costs is based on new development's share of total recreation users by 2037. New growth's estimated percentage share of regional recreation facility costs are divided among all future users to generate a facility cost per future resident. The cost of regional recreation facilities needed to meet new resident demand for each residential land use category has been estimated by applying the facility cost per user to the appropriate number of persons per household for single-family and multifamily residential units.

A reasonable relationship therefore exists between the amount of the Regional Facility fee component and the cost of developing a regional facility attributed to the residential development on which the Regional Facility fee component is imposed because the cost is

calibrated to the number of users generated by each new single-family or multifamily residential unit.

Administration Component

The administration component of the Recreation Development Fee helps offset County costs associated with fee program administration and implementation, consisting of credit and reimbursement agreement negotiations and implementation, credit and reimbursement tracking, annual reporting requirements, periodic updates to the Nexus Study, coordinating fee revenue distribution to Park Districts, managing the RFP process for fee revenue distribution, and other related costs. Collection and implementation of the Recreation Development Fee, including the constituent fee components described above, is reliant on funding from the Administration fee component.

For each residential land use, the Administration fee component is calculated as 2 percent of the total of all other Recreation Development Fee components. Costs of the Administration fee component therefore are based on each fee component, and associated nexus findings for the Administration fee are established by the nexus findings for each fee component above.

4. IMPLEMENTATION AND ADMINISTRATION

Fee Program Adoption and Update

The proposed Recreation Development Fee for the County will become effective 60 days following the County's adoption of this Recreation Fee Nexus Study and adoption of the ordinance authorizing collection of the proposed Recreation Development Fee.

The Recreation Development Fee analysis will be reviewed periodically to ensure that current development trends and other pertinent information, such as changes to population per-unit factors, are reflected in this Nexus Study. The fees presented in this Nexus Study are based on the best available cost estimates and demographic information at this time. If costs change significantly in either direction or if other funding to construct the facilities identified in this Nexus Study becomes available, an update to the Nexus Study may be necessary. The fee will also need to be updated periodically in accordance with State statutes. This Nexus Study contains cost estimates in 2018 dollars.

Fee Collection and Distribution

The Recreation Development Fee will be collected at building permit issuance from developers of residential property located in the unincorporated Western County who do not have fee credits available to use. This Nexus Study proposes the County collects the Recreation Development Fee and distributes fee component revenues in the following manner:

- **Neighborhood and Community Parks Component.** The County will continue to pass through Neighborhood and Community Parks fee component revenues to the Park Districts when development occurs within the corresponding Benefit Zone. This will now apply to Bear River Recreation and Park District, Oak Tree Community Park District, and Western Gateway Recreation and Park District. The County will continue to issue RFPs to receive Neighborhood and Community Parks fee component revenues for fees collected from development that occurs in the Grass Valley/Nevada City Benefit Zone and the Twin Ridges Benefit Zone. The Cities of Grass Valley and Nevada City still will be eligible to apply for fee revenues through this process.
- **Western County Trails Component.** The County will issue RFPs to recreation service providers to develop trail facilities in the Western County. The Cities of Grass Valley and Nevada City will be eligible to apply for fee revenues through this process.
- **Regional Facility Component.** The County will maintain an account for the Regional Facility fee component revenues. The County or other entity will use the fee revenues, in combination with other funds to cover the cost of existing service unmet demand, for planning, design, and construction of a new regional recreation facility.

In addition to the fee components collected above, an administration fee will be applied at 2 percent of the combined Recreation Development Fee components.

Fee Exemptions

The following types of development specifically are exempt from the Recreation Development Fee:

- All federal and State agencies, public school districts, special districts, and the County will be exempt from the fee program, unless other arrangements or agreements are established with the County.
- Any replacement or reconstruction of any structure that is damaged or destroyed as a result of fire, flood, explosion, wind, earthquake, riot, or other calamity, or act of God. If the building replaced or reconstructed exceeds the documented total floor area of the damaged/destroyed building, the excess square footage is subject to the Recreation Development Fee. If a structure is replaced with an alternative land use, such as replacing a commercial building with residential units, no exemption shall apply.
- Residential accessory structures that do not increase covered building square footage such as open decks and pools.

Fee Credits and Adjustments

Some developers may opt to build specific park facilities under a turn-key agreement with the County and appropriate Park District, if applicable. In the case of such an agreement, the County will approve the design for the facilities to be constructed by the developer. On approval by the County, the developer may receive fee credits against the park development component or reimbursements from park fees collected based on the portion of their fee obligation that is met through the direct construction of facilities.

Developers that dedicate land for neighborhood and community park improvements may also be eligible for a credit against the land acquisition component of the fee.

Periodic Inflation Adjustment and Fee Review

The Recreation Development Fee is subject to automatic annual inflation adjustments, periodic updates, a 5-year review requirement, and annual reporting. The purpose of each update is described in this section.

Automatic Inflation Adjustments

The Recreation Development Fee shall be automatically adjusted annually to account for the inflation of construction and acquisition costs. The Recreation Development Fee will be adjusted annually on July 1st of each year beginning in 2020. The adjustment will be based on the 20-City Construction Index as reported in the ENR for the 12-month period ending in March of the year of the adjustment.

Periodic Updates

The Recreation Development Fee is subject to adjustment based on significant changes in developable land, cost estimates, or other funding sources. The County should review the

Recreation Development Fee on a periodic basis to determine if any adjustments to the fees are warranted. This review should include:

- Changes to population per-unit factors.
- Changes in facility development costs
- Changes in the cost to update or administer the fees.
- Changes in costs because of inflation.
- Changes in assumed development.
- Changes in other funding sources.

Any proposed changes to the Recreation Development Fee based on the periodic review must be presented to the County BOS before any adjustment of the fees.

Five-Year Review

Fees will be collected from new development in the unincorporated Western County immediately; use of these funds, however, may need to wait until a sufficient fund balance can be accrued. According to Government Code Section 66006, the County is required to deposit, invest, account for, and expend the fees in a prescribed manner. The fifth fiscal year following the first deposit into the fee account or fund, and every 5 years thereafter, the County is required to make all of the following findings with respect to that portion of the account or fund remaining unexpended:

- Identify the purpose for which the fee is to be put.
- Demonstrate a reasonable relationship between the fee and the purpose for which it is charged.
- Identify all sources and amounts of funding anticipated to complete financing of incomplete facility improvements.
- Designate the approximate dates on which the funding referred to in the above paragraph is expected to be deposited in the appropriate account or fund.

The County must refund the unexpended or uncommitted revenue portion of the fee for which a need could not be demonstrated in the above findings, unless the administrative costs exceed the amount of the refund.

Annual Reporting

The Mitigation Fee Act requires that a fee collecting entity account for every fee that they collect under its terms. Funds collected for each capital facility or service shall be deposited in separate accounts and not commingled with any other funds for other impact fees. While funds are accruing for individual capital facilities, the entity must keep track of each fund and provide an annual report. If the entity fails to accurately account for the collected fees, the entity can be required to refund the fees.

Within 180 days after the last day of the fiscal year, the County must make available the following information:

- A brief description of the type of fee in each account of fund.
- The amount of the fee.
- The beginning and ending balance of the account or fund.
- The amount of fees collected and the interest earned.
- An identification of each public improvement on which fees were expended and the amount of each expenditure.
- An identification of the approximate date by which the construction of the public improvement will commence
- A description of any inter-fund transfer or loan and the public improvement on which the transferred funds will be expended.
- The amount of refunds made and any allocation of unexpended fees that are not refunded.

At the next regularly scheduled public meeting not less than 15 days after making the above information available to the public, the County must review the information provided.

Administration Component

The Administration component of the Recreation Development Fee constitutes an additional fraction of the total cost estimates (currently estimated at 2 percent). The purpose of that charge is to cover the cost of preparing the Nexus Study, along with periodic updates, as well as funding the administrative costs related to the development impact fee program such as the costs of accounting and audits, investing, and planning. The fees are payable at the time of building permit for new development. No fees are to be collected from existing development unless the existing development was subject to prior agreements requiring fee funding for future improvements.

District Consolidation Considerations

The County is separately undergoing a process to evaluate the provision of park and recreation services in the County, which includes consideration of various governance organization and service provision alternatives. Should Park Districts reorganize in the future, there may be implications for the Recreation Development Fee program. If Park Districts reorganize or consolidate but existing Benefit Zone designations remain in place, changes to the applicable fees may not be necessary. Fee collection and distribution may change depending if areas not currently serviced by a Park District annex into an existing Park District or form a new Park District. Park Districts may opt to adopt a different LOS standard, or facility need, which may require fee calculations to change accordingly.

It is important to note that the proposed Recreation Development Fee provides funds only for capital expenditures necessary to provide recreation facilities to serve new unincorporated Western County residents. Park Districts or the County will need to establish appropriate funding mechanisms to fund the operation and maintenance of new park facilities, trails, or a regional facility.

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"2012-2016 American Community Survey 5-Year Estimates," Table B25032: Tenure by Units in Structure, US Census Bureau, 2017.

"2012-2016 American Community Survey 5-Year Estimates," Table B25033: Total Population in Occupied Housing Units by Tenure by Units in Structure, US Census Bureau, 2017.



APPENDICES:

- Appendix A: Recreation Benefit Zone
Park Inventory Information
- Appendix B: Demographics Information
- Appendix C: Park and Recreation Facility Cost Data
- Appendix D: Esri Overview



APPENDIX A: Recreation Benefit Zone Park Inventory Information

Table A-1	Grass Valley/Nevada City Recreation Benefit Zone Existing Level of Service (2 pages)	A-1
Table A-2	Oak Tree Recreation Benefit Zone Existing Level of Service.....	A-3
Table A-3	Bear River Recreation Benefit Zone Existing Level of Service (2 pages)	A-4
Table A-4	Western Gateway Recreation Benefit Zone Existing Level of Service.....	A-6

Table A-1
County of Nevada
Parks and Recreation Facilities Fee Study
Grass Valley/Nevada City Recreation Benefit Zone Existing Level of Service

Grass Valley/ Nevada City

Item	Benefit Zone Population [1]	Existing Level of Service		
		Amount [2]	Amount per 1,000 Residents	Residents per Facility (Rounded)
Assumption	40,006			
Equivalent Park Acres				
County/Park District				
Brighton Park (Minnie Park) [3]		2.00		
Alexander Park [3]		1.00		
Memorial Park [3]		8.40		
Mautino Park [3]		12.90		
Elizabeth Daniels Park [3]		0.10		
Glenn Jones Park [3]		2.00		
Condon Park [3]		76.00		
Tobiassen Field [4]		1.00		
Calanan Park [4]		1.00		
Pioneer Park [4]		15.00		
Ott's Assay Office [4]		0.08		
Subtotal of County/Park District		119.48	2.99	
School District				
Park Avenue Alternative High School		1.53		
Union Hill		1.60		
Chicago Park		3.20		
Grass Valley Charter School at Hennessy [3]		1.50		
Sierra College [3]		1.60		
Nevada Union High School		25.00		
Gold Run [4]		1.50		
Deer Creek [4]		3.70		
Seven Hills Middle School [4]		4.50		
Nevada City Elementary [4]		0.11		
Subtotal of School District		44.24		
Adjusted Subtotal of School District Facilities [5]		22.56	0.56	
Total Park Equivalent Acres		142.04	3.55	

Table A-1
County of Nevada
Parks and Recreation Facilities Fee Study
Grass Valley/Nevada City Recreation Benefit Zone Existing Level of Service

Grass Valley/ Nevada City

Item	Benefit Zone Population [1]	Existing Level of Service		
		Amount [2]	Amount per 1,000 Residents	Residents per Facility (Rounded)
Assumption	40,006			
Existing Facilities				
Playground		11	0.27	3,600
Dog Park		1	0.02	40,000
Skate Park		1	0.02	40,000
Softball Fields		6	0.15	6,700
Swimming Pool		3	0.07	13,300
Tennis Courts		10	0.25	4,000
Recreation Hall		1	0.02	40,000
Boy Scout Lodge		1	0.02	40,000
Public Restrooms		8	0.20	5,000
Museums		2	0.05	20,000
Disc Golf Course		1	0.02	40,000
Horseshoe Pits		8	0.20	5,000
Arboretum		1	0.02	40,000
Bocce Ball Court		1	0.02	40,000
Par Course		2	0.05	20,000
Community Building		3	0.07	13,300
Wildlife Viewing Area		1	0.02	40,000
Historical Site		1	0.02	40,000
Baseball Fields		4	0.10	10,000
Basketball Court		6	0.15	6,700
Handball Court		1	0.01	78,400
Multipurpose Field		2	0.05	19,600
Track		1	0.03	39,200
Soccer Field		3	0.07	13,300
Garden		1	0.01	78,400
Greenhouse		1	0.01	78,400
Amphitheater		1	0.01	78,400

gv nc los

Source: County of Nevada, Park and Recreation Capital Improvement Impact Fee Study, November 1997; Nevada County Recreation and Parks Services Municipal Services Review, 2006; Nevada County Recreation District Sphere of Influence Updates 2014; US Census American Community Survey; EPS.

[1] Includes estimated population within the incorporated cities of Grass Valley and Nevada City, and the population included in the unincorporated areas of the Grass Valley/Nevada City Recreation Benefit Zone. The population in incorporated cities is included in this case because a majority of park facilities that serve the unincorporated communities of this area exist within incorporated cities, therefore, the existing level of service should incorporate the populations inclusive of incorporated cities.

Estimated population based on US Census data retrieved using ESRI software. See Table 7 for detail.

[2] The facilities and park land acreage reflected in this summary are based on existing County park and recreation documents and input from various stakeholders. These figures are approximate and may not be precise.

[3] Located within the City of Grass Valley.

[4] Located within the City of Nevada City.

[5] Reflects the equivalent park acres available for public use as calculated in the 1997 Nexus Study.

**Table A-2
County of Nevada
Parks and Recreation Facilities Fee Study
Oak Tree Recreation Benefit Zone Existing Level of Service**



Item	Benefit Zone Population [1]	Existing Level of Service		
		Amount [2]	Amount per 1,000 Residents	Residents per Facility (Rounded)
Assumption	2,338			
Equivalent Park Acres [3]				
County/Park District				
Oak Tree Community Park		11.50		
North San Juan Community Center		2.22		
North San Juan Firehouse		1.00		
Subtotal of County/Park District		14.72	6.30	
School District				
San Juan Ridge Family Resource		1.70		
Grizzly Hill School		2.00		
Subtotal of School District		3.70		
Adjusted Subtotal of School District Facilities [4]		1.89	0.81	
Total Park Equivalent Acres		16.61	7.10	
Existing Facilities				
Community Building		2	0.86	1,200
Library		1	0.43	2,300
Basketball Court		3	1.28	800
Playground		2	0.86	1,200
Multipurpose Field		2	0.86	1,200
Track		1	0.43	2,300
BBQ Pavilion		1	0.43	2,300

of los

Source: County of Nevada, Park and Recreation Capital Improvement Impact Fee Study, November 1997; Nevada County Recreation and Parks Services Municipal Services Review, 2006; Nevada County Recreation District Sphere of Influence Updates 2014; US Census American Community Survey; EPS.

- [1] Estimated population based on US Census data retrieved using ESRI software. See Table 7 for detail.
- [2] The facilities and park land acreage reflected in this summary are based on existing County park and recreation documents and input from various stakeholders. These figures are approximate and may not be precise.
- [3] Proposed Oak Tree Recreation Benefit Zone equivalent park acres are based on aerial review of all existing parkland included in the 1997 Nexus Study.
- [4] Reflects the equivalent park acres available for public use as calculated in the 1997 Nexus Study.

Table A-3
County of Nevada
Parks and Recreation Facilities Fee Study
Bear River Recreation Benefit Zone Existing Level of Service

Bear River

Item	Benefit Zone Population [1]	Existing Level of Service		
		Amount [2]	Amount per 1,000 Residents	Residents per Facility (Rounded)
Assumption	23,777			
Privately Accessible Equivalent Park Acres [3]				
Lake of the Pines Facilities				
Sun Terrace Park		0.60		
Hazel Park		1.60		
Shadow Cove Park		0.80		
Shady Point Park		0.70		
Southshore Boat Launch		4.80		
Green Valley Park		0.80		
Huck Finn Park		1.50		
Subtotal Lake of the Pines Facilities		10.80		
Publicly Accessible Equivalent Park Acres				
County/Park District				
Higgins Community Center		4.00		
Shaffarzick Park		3.67		
Mathis Pond		1.00		
Subtotal of County/Park District		8.67	0.36	
School District				
Magnolia Junior High		6.10		
Alta Sierra School		2.00		
Bear River High School		10.20		
Clear Creek Elementary School		3.50		
Ready Springs Elementary School		1.42		
Subtotal of School District		23.22		
Adjusted Subtotal of School District Facilities [4]		11.84	0.50	
Total Publicly Accessible Park Equivalent Acres		20.51	0.86	

Table A-3
County of Nevada
Parks and Recreation Facilities Fee Study
Bear River Recreation Benefit Zone Existing Level of Service

Bear River

Item	Benefit Zone Population [1]	Existing Level of Service		
		Amount [2]	Amount per 1,000 Residents	Residents per Facility (Rounded)
Assumption	23,777			
Existing Facilities				
Tennis Courts		7	0.29	3,400
Playgrounds		3	0.13	7,900
Swimming Beach		4	0.17	5,900
Basketball Courts (Outdoor)		9	0.38	2,600
Community Center		1	0.04	23,800
Community Meeting Room		5	0.21	4,800
Baseball Diamond		5	0.21	4,800
Soccer Field		1	0.04	23,800
Track		2	0.08	11,900
Horseshoe Pit		1	0.04	23,800
Restroom Building		5	0.21	4,800
Outdoor Volleyball Courts		1	0.04	23,800
Fishing Pond		1	0.04	23,800
Marina		2	0.08	11,900
Golf Course		3	0.13	7,900
Swimming Pool		2	0.08	11,900
Pond, Wetland, and Wildlife Viewing Area		2	0.08	11,900
Tot-lot Play Equipment		1	0.04	23,800
Multipurpose Field		2	0.08	11,900
Baseball (T-ball) Field		1	0.04	23,800
Gymnasium		3	0.13	7,900
Football Field		1	0.04	23,800

br los

Source: County of Nevada, Park and Recreation Capital Improvement Impact Fee Study, November 1997; Nevada County Recreation and Parks Services Municipal Services Review, 2006; Nevada County Recreation District Sphere of Influence Updates 2014; US Census American Community Survey; Lake of the Pines Homeowners Association; EPS.

- [1] Estimated population based on US Census data retrieved using ESRI software. See Table 7 for detail.
- [2] The facilities and park land acreage reflected in this summary are based on existing County park and recreation documents and input from various stakeholders. These figures are approximate and may not be precise.
- [3] Privately accessible park acreage is not attributed toward the existing level of service for the Recreation Benefit Zone because the facilities are openly available to community residents only, however, the park acreages and facilities are included in this analysis to calculate a discount toward the impact fee for new development within that community.
- [4] Reflects the equivalent park acres available for public use as calculated in the 1997 Nexus Study.

Table A-4
County of Nevada
Parks and Recreation Facilities Fee Study
Western Gateway Recreation Benefit Zone Existing Level of Service

Western Gateway

Item	Benefit Zone Population [1]	Existing Level of Service		
		Amount [2]	Amount per 1,000 Residents	Residents per Facility (Rounded)
Assumption	15,612			
Privately Accessible Equivalent Park Acres [3]				
Lake Wildwood Facilities				
Commodore Park		15.33		
Vista Park		1.18		
Explorer Park		1.24		
Meadow Park		5.34		
Hideaway Park		0.61		
Subtotal Lake Wildwood Facilities		23.70		
Publicly Accessible Equivalent Park Acres				
County/Park District				
Western Gateway Park		87.00		
Subtotal of County/Park District		87.00	5.57	
School District				
New Pleasant Valley		1.70		
Pleasant Valley Elementary School		1.70		
Ready Springs		0.50		
Subtotal of School District		3.90		
Adjusted Subtotal of School District Facilities [4]		1.99	0.13	
Total Publicly Accessible Park Equivalent Acres		88.99	5.70	
Existing Facilities				
Tennis Courts		3	0.19	5,200
Playgrounds		5	0.29	3,500
Softball Fields		4	0.26	3,900
Banquet Room		1	0.06	15,600
Creek Swimming Areas		4	0.26	3,900
Basketball Courts		2	0.13	7,800
Community Building		1	0.06	15,600
Par Course		1	0.06	15,600
Equestrian Arena		1	0.06	15,600
Amphitheater		1	0.06	15,600
Pavilion Stage		1	0.06	15,600
Dog Park		1	0.06	15,600
Bocce Ball Courts		6	0.38	2,600
Disc Golf Course		1	0.06	15,600
Baseball Diamond		1	0.06	15,600
Soccer Field		1	0.06	15,600
Track		1	0.06	15,600

wg /os

Source: County of Nevada, Park and Recreation Capital Improvement Impact Fee Study, November 1997; Nevada County Recreation and Parks Services Municipal Services Review, 2006; Nevada County Recreation District Sphere of Influence Updates 2014; US Census American Community Survey; Lake Wildwood Homeowners Association; EPS.

- [1] Estimated population based on US Census data retrieved using ESRI software. See Table 7 for detail.
- [2] The facilities and park land acreage reflected in this summary are based on existing County park and recreation documents and input from various stakeholders. These figures are approximate and may not be precise.
- [3] Privately accessible park acreage is not attributed toward the existing level of service for the Recreation Benefit Zone because the facilities are openly available to community residents only, however, the park acreages and facilities are included in this analysis to calculate a discount toward the impact fee for new development within that community.
- [4] Reflects the equivalent park acres available for public use as calculated in the 1997 Nexus Study.



APPENDIX B:
Demographics Information

Table B-1 Estimated Population and Household Projections by
 Recreation Benefit Zone (2 pages).....B-1

Table B-2 Population and Household Assumptions.....B-3

Table B-1
County of Nevada
Parks and Recreation Facilities Fee Study
Estimated Population and Household Projections by Recreation Benefit Zone

Item	Scenario 1 - Historical Growth				Scenario 2 - CA DOF Projection		
	2000 [1]	2017	Average Annual Percentage Change	Projected 2037	2017 [2]	Projected 2037 [3]	Average Annual Percentage Change [4]
Total County							
Household Population	91,167	99,995	0.49%	115,763	97,434	109,560	0.39%
Households	36,894	42,443	0.83%	54,349	41,398	46,550	
Persons per Household [2]	2.47	2.36	-	-	2.35	2.35	
Grass Valley and Nevada County Recreation Benefit Zone							
Household Population							
Total Grass Valley/Nevada City Benefit Zone	38,173	40,006	-	-	-	-	-
Less Cities of Grass Valley and Nevada City	(14,958)	(15,512)	-	-	-	-	-
Subtotal of G.V. and N.C. Benefit Zone Population	23,215	24,494	0.26%	25,800	24,494	26,486	-
Households							
Total Grass Valley/Nevada City Benefit Zone	16,017	17,908	-	-	-	-	-
Less Cities of Grass Valley and Nevada City	(6,833)	(7,523)	-	-	-	-	-
Subtotal of G.V. and N.C. Benefit Zone Households	9,184	10,385	0.73%	12,001	10,385	11,230	-
Persons per Household [2]	2.53	2.36	-	2.15	2.36	2.36	-
Twin Ridges Recreation Benefit Zone							
Household Population	266	281	0.26%	296	281	304	-
Households	121	139	0.82%	164	139	150	-
Persons per Household [2]	2.20	2.02	-	1.81	2.02	2.03	-
Oak Tree Recreation Benefit Zone							
Household Population	2,190	2,338	0.33%	2,497	2,338	2,528	-
Households	911	1,042	0.79%	1,220	1,042	1,127	-
Persons per Household [2]	2.40	2.24	-	2.05	2.24	2.24	-

B-1

Table B-1
County of Nevada
Parks and Recreation Facilities Fee Study
Estimated Population and Household Projections by Recreation Benefit Zone

Item	Scenario 1 - Historical Growth				Scenario 2 - CA DOF Projection		
	2000 [1]	2017	Average Annual Percentage Change	Projected 2037	2017 [2]	Projected 2037 [3]	Average Annual Percentage Change [4]
Total County							
Household Population	91,167	99,995	0.49%	115,763	97,434	109,560	0.39%
Households	36,894	42,443	0.83%	54,349	41,398	46,550	
Persons per Household [2]	2.47	2.36	-	-	2.35	2.35	
Bear River Recreation Benefit Zone							
Household Population	22,037	23,777	0.39%	25,714	23,777	25,711	-
Households	8,692	9,742	0.67%	11,141	9,742	10,534	-
Persons per Household [2]	2.54	2.44	-	2.31	2.44	2.44	-
Western Gateway Recreation Benefit Zone							
Household Population	14,143	15,612	0.53%	17,343	15,612	16,882	-
Households	5,737	6,517	0.75%	7,571	6,517	7,047	-
Persons per Household [2]	2.47	2.40	-	2.29	2.40	2.40	-

pop proj

Source: US Census Bureau, Census 2010 Summary File 1, prepared by Esri Business Analyst Online; CA Dept of Finance; EPS.

- [1] The 2000 population reflects the estimated household population, excluding group quarters population. The 2000 household population for the Recreation Benefit Zones is based on the proportional share countywide household population, or 99.1%.
- [2] CA DOF projections are provided only for countywide population. This analysis is based on the assumption projected households are based on the 2017 estimated population per household.
- [3] The CA DOF 2047 projected population reflects total population, including group quarters. The 2047 projected household population for the County and each Recreation Benefit Zone is based on the County's 2017 household population as a proportion of total population, or 98.8%.
- [4] Data from the California Department of Finance only included countywide population growth. This analysis is based on this same assumed population growth rate for all Benefit Zones.

B-2

Table B-2
County of Nevada
Parks and Recreation Facilities Fee Study
Population and Household Assumptions

Item	Nevada County Population and Household Assumptions [1] [2]														
	Grass Valley			Nevada City			Town of Truckee			Unincorporated Co.			Total County		
	Occupied			Occupied			Occupied			Occupied			Occupied		
	Population	Households	PPH	Population	Households	PPH	Population	Households	PPH	Population	Households	PPH	Population	Households	PPH
Housing Unit by Structure and Tenure [3]															
Owner Occupied															
Single Unit (Attached or Detached)	3,996	2,063	1.94	1,513	703	2.15	9,560	3,658	2.61	49,254	20,292	2.43	64,323	26,716	2.41
2 to 4 Unit in Structure	155	41	3.78	48	31	1.55	87	66	1.32	160	72	2.22	450	210	2.14
5 or More Unit in Structure	47	29	1.62	43	16	2.69	107	80	1.34	106	44	2.41	303	169	1.79
Subtotal Owner Occupied	4,198	2,133	1.97	1,604	750	2.14	9,754	3,804	2.56	49,520	20,408	2.43	65,076	27,095	2.40
Renter Occupied															
Single Unit (Attached or Detached)	3,419	1,243	2.75	823	335	2.46	3,299	1,237	2.67	10,970	4,359	2.52	18,511	7,174	2.58
2 to 4 Unit in Structure	1,226	636	1.93	81	62	1.31	1,047	397	2.64	748	337	2.22	3,102	1,432	2.17
5 or More Unit in Structure	2,871	1,576	1.82	223	134	1.66	964	348	2.77	320	107	2.99	4,378	2,165	2.02
Subtotal Renter Occupied	7,516	3,455	2.18	1,127	531	2.12	5,310	1,982	2.68	12,038	4,803	2.51	25,991	10,771	2.41
Total	11,714	5,588	2.10	2,731	1,281	2.13	15,064	5,786	2.60	61,558	25,211	2.44	91,067	37,866	2.40
Summary of Population by Household															
Single-Family [4]	7,415	3,306	2.24	2,336	1,038	2.25	12,859	4,895	2.63	60,224	24,651	2.44	82,834	33,890	2.44
Multifamily [5]	4,299	2,282	1.88	395	243	1.63	2,205	891	2.47	1,334	560	2.38	8,233	3,976	2.07
Total	11,714	5,588	2.10	2,731	1,281	2.13	15,064	5,786	2.60	61,558	25,211	2.44	91,067	37,866	2.40

Source: American Community Survey (ACS) 2012-2016, US Census Bureau; EPS.

pph acs

[1] Population estimates based on Table B25033: Total Population in Occupied Housing Units by Tenure by Units in Structure, ACS 2012-2016.

[2] Household estimates based on Table B25032: Tenure by Units in Structure, ACS 2012-2016.

[3] Analysis does not include "Other" housing types, including mobile homes, boats, RV, Van, etc.

[4] Includes Single Unit only.

[5] Includes 2 to 4 Unit in Structure and 5 or More Unit in Structure.



APPENDIX C:

Park and Recreation Facility Cost Data

Table C-1	Estimated Park Amenities Costs	C-1
Table C-2	Case Study of Facility Costs	C-2
Table C-3	Nevada County Residential Land Sales (3 pages).....	C-3
Table C-4	Regional Recreational Facility Cost Case Study	C-6

Table C-1
County of Nevada
Parks and Recreation Facilities Fee Study
Estimated Park Amenities Costs

Item	Cost Range [1]			
	Low	High	Average	Median
Basic Improvements				
Basic Amenities per Acre [2]	\$200,000	-		
Restroom	\$110,000	- \$360,000	\$251,000	\$280,000
Other Amenities				
Playground	\$70,000	- \$350,000	\$145,000	\$95,000
Soccer Field	\$60,000	- \$380,000	\$212,000	\$180,000
Bocce Ball Court	\$20,000	- \$130,000	\$78,000	\$80,000
Basketball Court	\$60,000	- \$100,000	\$83,000	\$85,000
Tennis Court	\$60,000	- \$80,000	\$75,000	\$80,000
Dog Park	\$30,000	- \$150,000	\$75,000	\$60,000
Splash/Spray Park	\$290,000	- \$380,000	\$333,000	\$330,000
Adult Baseball Field	\$450,000	- \$450,000	\$450,000	\$450,000
T-Ball Field	\$170,000	- \$180,000	\$175,000	\$175,000
Amphitheatre	\$180,000	- \$180,000	\$180,000	\$180,000
Equestrian Arena	\$90,000	- \$90,000	\$90,000	\$90,000
Skateboard Park	\$90,000	- \$150,000	\$120,000	\$120,000
Disc Golf Course	\$30,000	- \$30,000	\$30,000	\$30,000
Multi-Use Field	\$40,000	- \$70,000	\$55,000	\$55,000

options cost

Source: Various park master plans and nexus studies.

[1] See Table C-2 for a case study of estimated facilities costs based on various Northern California park districts, city or county park planning documents.

[2] Includes turf, irrigation, and paved trails/sidewalks.

Table C-2
 County of Nevada
 Parks and Recreation Facilities Fee Study
 Case Study of Facility Costs [1]

Item	Auburn Recreation and Park District	El Dorado County	Paradise Recreation and Park District	City of Lincoln	City of Folsom	Cordova Recreation and Park District	Sunrise Recreation and Park District	Average (Rounded)	Median (Rounded)
Source Year	2013	2012	2010	2017	2014	2014	2015	-	-
Amenity									
Restroom [2]	\$120,000	\$110,000	\$320,000	\$360,000	\$250,000	\$320,000	\$280,000	\$251,000	\$280,000
Playground	\$80,000	-	\$70,000	\$70,000	\$190,000	\$350,000	\$110,000	\$145,000	\$95,000
Soccer Field [3]	\$180,000	\$300,000	\$380,000	-	\$60,000	\$140,000	-	\$212,000	\$180,000
Bocce Ball Court	\$60,000	-	\$20,000	\$100,000	-	\$130,000	-	\$78,000	\$80,000
Basketball Court	\$100,000	-	-	-	\$80,000	\$60,000	\$90,000	\$83,000	\$85,000
Tennis Court	\$60,000	\$80,000	-	-	\$80,000	\$80,000	-	\$75,000	\$80,000
Dog Park	\$150,000	\$30,000	\$30,000	-	-	-	\$90,000	\$75,000	\$60,000
Splash/Spray Park	\$290,000	-	\$380,000	-	-	-	\$330,000	\$333,000	\$330,000
Adult Baseball Field	-	-	\$450,000	-	-	-	-	\$450,000	\$450,000
T-Ball Field	-	-	-	-	\$170,000	\$180,000	-	\$175,000	\$175,000
Amphitheatre	-	\$180,000	-	-	-	-	-	\$180,000	\$180,000
Equestrian Arena	-	\$90,000	-	-	-	-	-	\$90,000	\$90,000
Skateboard Park	-	\$90,000	-	\$150,000	-	-	-	\$120,000	\$120,000
Disc Golf Course	-	\$30,000	\$30,000	-	-	-	-	\$30,000	\$30,000
Multi-Use Field [6]	-	-	\$70,000	-	-	\$40,000	-	\$55,000	\$55,000

cost case study

Source: Auburn Recreation District Park Specific Master Plan; El Dorado County Parks and Trails Master Plan; Paradise Recreation and Park District Master Plan Update; Lincoln Parks & Recreation 10-year Facilities Plan; Folsom Parks and Recreation Department Parks and Recreation Master Plan; Cordova Recreation and Park District Park Impact Fee Nexus Study; Sunrise Recreation & Park District Master Plan.

[1] All costs reflect 2018 dollars and have been escalated based on the 20-City Average ENR Construction Cost Index. Cost escalation factor-by-year is provided below.

Year	CCI Index	% Increase from 2018
March 2018	10,959	-
March 2017	10,667	2.7%
March 2016	10,242	7.0%
March 2015	9,972	9.9%
March 2014	9,702	13.0%
March 2013	9,456	15.9%
March 2012	9,268	18.2%
March 2011	9,011	21.6%
March 2010	8,671	26.4%

[2] Lincoln: Restroom includes enclosed picnic shelter.

[3] Paradise: Soccer field costs includes lighting.

Table C-3
County of Nevada
Parks and Recreation Facilities Fee Study
Nevada County Residential Land Sales

Address	Sales Date	Area	Sales Price	Lot Acres	Cost per Acre
10701 Jasper Agate Ct	1/9/2017	Nevada City	\$215,000	2.03	\$105,911
15515 Bella Sera Ct	1/15/2017	Grass Valley	\$115,000	1.76	\$65,341
17091 Old Washington Rd	1/23/2017	Nevada City	\$135,000	3.20	\$42,188
10247-Lot 6 Evergreen Ranch Ct	2/6/2017	Grass Valley	\$120,000	2.40	\$50,000
14166 Loma Rica Dr	2/9/2017	Grass Valley	\$140,000	3.01	\$46,512
23664 Darkhorse Dr	2/14/2017	South County	\$125,000	0.64	\$195,313
15286 Wolf Ridge Ct	2/14/2017	South County	\$120,000	1.60	\$75,000
21098 SW Clivus Dr	2/17/2017	South County	\$100,000	1.00	\$100,000
10300 Indian Trails #19 Way	2/22/2017	Nevada City	\$75,000	2.20	\$34,091
13592 Side Bet Dr	2/23/2017	Grass Valley	\$105,000	3.52	\$29,830
13992 Gas Canyon Rd	2/24/2017	Nevada City	\$66,500	0.67	\$99,254
15681 Allison Ranch Rd	2/24/2017	Alta Sierra	\$80,000	1.71	\$46,784
10235-Lot 5 Evergreen Ranch Ct	3/1/2017	Grass Valley	\$145,000	2.40	\$60,417
14029 Rattlesnake Ridge Dr	3/10/2017	Grass Valley	\$105,000	2.04	\$51,471
18637 Joseph Dr	3/13/2017	Alta Sierra	\$37,500	0.72	\$52,083
17391 Brewer Rd	3/17/2017	Alta Sierra	\$35,000	0.80	\$43,750
12771 Lost Lake Rd	3/20/2017	Grass Valley	\$115,000	3.74	\$30,749
12366 Lowhills Rd	3/23/2017	Nevada City	\$45,000	3.72	\$12,097
36903 Thundershower Retreat NA	3/28/2017	High Country/Washington	\$310,000	5.00	\$62,000
12181 Robust Way	3/31/2017	Nevada City	\$110,000	1.50	\$73,333
12221 Robust Way	3/31/2017	Nevada City	\$50,000	1.93	\$25,907
10127 Evergreen Ranch Ct	4/5/2017	Grass Valley	\$150,000	2.64	\$56,818
12128 Shepard Rd	4/5/2017	Penn Valley	\$127,000	4.34	\$29,263
11180 Pittsburg Mine Rd	4/10/2017	Nevada City	\$134,900	1.68	\$80,298
13912 Altair Dr	4/10/2017	Nevada City	\$175,000	1.98	\$88,384
35713 East Rd	4/13/2017	Nevada City	\$36,000	1.84	\$19,565
15355 Tyler Foote Rd	4/20/2017	North San Juan	\$120,000	2.13	\$56,338
14066 Rock Salt Rd	4/21/2017	Grass Valley	\$208,000	4.52	\$46,018
23366 Saint Helena Dr	4/22/2017	Smartsville	\$39,500	3.10	\$12,742
23021 Saint Helena Dr	4/24/2017	Smartsville	\$41,500	4.77	\$8,700
14435 Cattail Ln	4/26/2017	Peardale/Chicago Park	\$130,000	2.62	\$49,618
21695 Morel Ct	5/2/2017	Big Oak Valley	\$55,000	4.00	\$13,750
13210 Woodlake Rd	5/9/2017	Grass Valley	\$90,000	5.00	\$18,000
12105 Shepard Rd	5/12/2017	Big Oak Valley	\$55,000	3.48	\$15,805
21838 Lost Creek Ct	5/16/2017	Smartsville	\$62,000	2.50	\$24,800
14328 Gracie Rd	5/16/2017	Nevada City	\$40,000	2.77	\$14,440
16779 Pasquale Rd	5/18/2017	Nevada City	\$45,000	0.57	\$78,947
18158 Alexandra Way	5/31/2017	Alta Sierra	\$24,200	0.94	\$25,745
12495 Brookview Drive Cir	5/31/2017	Grass Valley	\$57,000	1.70	\$33,529
17276 Harper Ln	6/2/2017	Penn Valley	\$158,000	3.00	\$52,667
99999-Parcel C Blind Shady Rd	6/6/2017	North San Juan	\$79,000	2.50	\$31,600
99999-Parcel D Blind Shady Rd	6/6/2017	North San Juan	\$79,000	2.50	\$31,600
11021 Pittsburg Mine Rd	6/8/2017	Nevada City	\$188,000	2.79	\$67,384
13072 Austin Forest Cir	6/9/2017	South County	\$130,000	0.55	\$236,364
11929 Old Wood Rd	6/28/2017	Nevada City	\$135,000	1.83	\$73,770
14259 Auburn Rd	6/30/2017	Grass Valley	\$79,000	2.03	\$38,916
10750 Murchie Mine Rd	7/3/2017	Nevada City	\$165,000	4.81	\$34,304
11956 Tammy Way	7/10/2017	Alta Sierra	\$22,500	0.54	\$41,667
13625 Pegasus Pl	7/10/2017	Nevada City	\$250,000	2.09	\$119,617

Table C-3
County of Nevada
Parks and Recreation Facilities Fee Study
Nevada County Residential Land Sales

Address	Sales Date	Area	Sales Price	Lot Acres	Cost per Acre
17429 Brewer Rd	7/11/2017	Alta Sierra	\$94,000	0.77	\$122,078
10690 Cement Hill Rd	7/12/2017	Nevada City	\$425,000	4.41	\$96,372
14245 Bowman Lake Rd	7/12/2017	High Country/Washington	\$85,000	5.00	\$17,000
17411 Brewer Rd	7/17/2017	Alta Sierra	\$45,000	0.79	\$56,962
10796 Banner Lava Cap Rd	7/17/2017	Nevada City	\$149,000	1.30	\$114,615
14121 Wayland Rd	7/28/2017	Peardale/Chicago Park	\$75,000	4.20	\$17,857
14296 Greenwood Cir	8/1/2017	Nevada City	\$100,000	1.50	\$66,667
13056 Austin Forest Cir	8/25/2017	South County	\$132,000	0.62	\$212,903
11217 Alta Sierra Dr	8/28/2017	Alta Sierra	\$55,000	0.50	\$110,000
254 Jill St	8/31/2017	Grass Valley	\$93,000	1.12	\$83,036
10264 Zangol Pl	8/31/2017	McCourtney	\$239,000	2.00	\$119,500
16926 Oak Hollow Cir	9/1/2017	Nevada City	\$95,000	0.59	\$161,017
115 Picadilly Ln	9/5/2017	Grass Valley	\$95,000	0.53	\$179,245
16518 Bristow Ct	9/5/2017	Alta Sierra	\$149,000	2.87	\$51,916
15908 Banner Quaker Hill Rd	9/12/2017	Nevada City	\$65,000	0.52	\$125,000
23235 Darkhorse Dr	9/12/2017	South County	\$110,000	1.34	\$82,090
12956 Slate Creek Rd	9/12/2017	Nevada City	\$55,000	4.47	\$12,304
16202 Annie Dr	9/14/2017	Alta Sierra	\$55,000	2.00	\$27,500
11001 N Ponderosa Way	9/15/2017	Rough and Ready	\$100,000	4.54	\$22,026
14675 Empress Mine Ct	9/18/2017	Nevada City	\$165,000	4.92	\$33,537
16147 Big Sky Rd	9/21/2017	North San Juan	\$82,000	4.60	\$17,826
17112 Country Cir	9/29/2017	Nevada City	\$156,000	5.00	\$31,200
18471 Blue Ridge Rd	10/2/2017	Nevada City	\$129,000	4.80	\$26,875
16378 Patricia Way	10/3/2017	Alta Sierra	\$20,000	0.86	\$23,256
14240 Tahoe View Dr	10/16/2017	Peardale/Chicago Park	\$105,000	3.13	\$33,546
13664 Haas Ct	10/18/2017	Grass Valley	\$125,000	3.00	\$41,667
11466 Scotts Flat Dam Road Rd	10/27/2017	Nevada City	\$152,000	5.00	\$30,400
23686 Eaglepoint Ct	10/30/2017	South County	\$120,000	0.58	\$206,897
16467 Irene Ct	11/21/2017	Alta Sierra	\$73,000	0.50	\$146,000
12458 Discovery Way	11/28/2017	Nevada City	\$70,000	3.08	\$22,727
11024 Pittsburg Mine Rd	12/6/2017	Nevada City	\$128,000	2.18	\$58,716
13365 Brady Rd	12/27/2017	Grass Valley	\$145,000	5.00	\$29,000
11277 Alta Sierra Dr	12/29/2017	Alta Sierra	\$85,250	0.50	\$170,500
13908 Garden Bar Rd	1/5/2018	South County	\$160,000	3.90	\$41,026
23667 Darkhorse Dr	1/9/2018	South County	\$90,000	0.82	\$109,756
16258 Gold Bug Rd	1/16/2018	Nevada City	\$28,000	0.70	\$40,000
10224 Carriage Rd	1/24/2018	Grass Valley	\$103,500	3.00	\$34,500
12047 Snowbourne Dr	1/31/2018	Nevada City	\$127,500	2.50	\$51,000
10412 Ponderosa Way	2/6/2018	Rough and Ready	\$69,000	3.55	\$19,437
18000 Blue Tent School Rd	2/9/2018	Nevada City	\$56,000	3.00	\$18,667
13408 Evergreen Dr	2/20/2018	Nevada City	\$99,000	0.55	\$180,000
22838 Sniper Ln	2/23/2018	Smartsville	\$42,500	2.52	\$16,865
10483 Devonshire Cir	3/1/2018	Penn Valley	\$120,000	1.07	\$112,150
13726 Wildwood Heights Dr	3/5/2018	Penn Valley	\$78,500	5.00	\$15,700
18021 Gamble Ln	3/6/2018	Alta Sierra	\$40,000	1.88	\$21,277
11660 Blackledge Rd	3/7/2018	Penn Valley	\$90,000	4.98	\$18,072
10410 Valley Dr	3/9/2018	Rough and Ready	\$122,000	1.60	\$76,250
15231 Tyler Foote Crossing Rd	3/16/2018	Nevada City	\$79,300	0.51	\$155,490
17557 Anona Ct	3/16/2018	Alta Sierra	\$27,500	1.17	\$23,504
16244 Dry Creek Ln	3/19/2018	Grass Valley	\$99,000	3.03	\$32,673

Table C-3
County of Nevada
Parks and Recreation Facilities Fee Study
Nevada County Residential Land Sales

Address	Sales Date	Area	Sales Price	Lot Acres	Cost per Acre
12763 Masters Ct	3/21/2018	South County	\$164,000	1.25	\$131,200
17080 Norlene Way	3/26/2018	Alta Sierra	\$61,250	1.57	\$39,013
17076 Norlene Way	3/26/2018	Alta Sierra	\$61,250	1.67	\$36,677
14128 Lee Ln	3/26/2018	Nevada City	\$250,000	3.87	\$64,599
14432 Genasci Ranch Ct	4/9/2018	Nevada City	\$465,000	3.96	\$117,424
17682 Norlene Way	4/18/2018	Alta Sierra	\$49,000	0.53	\$92,453
12075 Newtown Lot #3 Rd	4/26/2018	Nevada City	\$118,000	4.00	\$29,500
22551 Pleasant Valley Rd	4/27/2018	North San Juan	\$105,000	4.77	\$22,013
19920 Wildwood West Dr	5/9/2018	Penn Valley	\$68,000	5.00	\$13,600
11277 Alta Sierra Dr	5/18/2018	Alta Sierra	\$96,000	0.50	\$192,000
13028 Robin Rd	5/18/2018	Nevada City	\$175,000	2.42	\$72,314
17021 Rock Creek Rd	5/24/2018	Nevada City	\$86,000	2.66	\$32,331
21159 Snow Mountain Rd	5/24/2018	Nevada City	\$125,000	5.00	\$25,000
12587 Madrone Forest Dr	5/30/2018	Nevada City	\$135,000	2.00	\$67,500
23510 Darkhorse, Lot 170 Dr	5/31/2018	South County	\$127,000	0.55	\$230,909
634 Town Talk Rd	5/31/2018	Grass Valley	\$380,000	1.19	\$319,328
17832 Norlene Way	6/6/2018	Alta Sierra	\$39,500	0.58	\$68,103
10407 S Ponderosa Way	6/11/2018	Rough and Ready	\$161,500	3.01	\$53,654
12699 McCourtney Rd	6/12/2018	Grass Valley	\$90,000	4.71	\$19,108
23350 Darkhorse Dr	6/18/2018	South County	\$110,500	0.63	\$175,397
13836 Gemini Ct	6/29/2018	Nevada City	\$156,000	2.27	\$68,722
15956 Gibboney Ln	7/3/2018	Grass Valley	\$195,000	3.15	\$61,905
13028 Somerset Dr	7/10/2018	Grass Valley	\$220,000	1.50	\$146,667
10167 Shekinah Hill Rd	7/19/2018	Nevada City	\$175,000	3.01	\$58,140
11405 Penn View Ln	7/20/2018	Penn Valley	\$89,900	3.65	\$24,630
12018 Casci Ct	7/30/2018	Nevada City	\$99,000	2.35	\$42,128
21379 Leslie Dr	8/7/2018	Grass Valley	\$55,000	0.68	\$80,882
17895 Maybert Rd	8/15/2018	High Country/Washington	\$120,000	1.92	\$62,500
10334 Indian Trail Rd	8/31/2018	Nevada City	\$139,000	2.90	\$47,931
15120 Sunnyvale Ln	9/7/2018	Grass Valley	\$166,000	5.00	\$33,200
15442 Cascade Dr	9/12/2018	Nevada City	\$59,000	0.55	\$107,273
13058 Jupiter Dr	9/14/2018	Grass Valley	\$50,000	1.67	\$29,940
13106 Jupiter Dr	9/14/2018	Grass Valley	\$55,000	1.67	\$32,934
12977 Lowhills Rd	9/26/2018	Nevada City	\$155,000	4.74	\$32,700
23222 Darkhorse Dr	10/18/2018	South County	\$80,000	0.87	\$91,954
11387 Meadow View Way	10/19/2018	Rough and Ready	\$120,000	2.60	\$46,154
10491 Woods Ravine Ct	10/22/2018	Nevada City	\$144,500	1.50	\$96,333
Weighted Average			\$113,037	2.43	\$46,485
Median					\$48,775
Median (Rounded)					\$50,000

land sales

Source: Nevada County MetroList Services listings as of 10/30/2018.

Table C-4
County of Nevada
Parks and Recreation Facilities Fee Study
Regional Recreational Facility Cost Case Study

Item	Estimated Cost
Truckee-Donner Recreation and Park District	
Aquatic Center	\$7,198,271
Recreation Center	\$24,235,000
City of Elk Grove	
Aquatic Center	\$30,800,000
City of West Sacramento	
Recreation and Aquatic Center	\$16,500,000
Esparto Community Park and Aquatic Center	
	\$7,400,000

regional fac comp

Source: Truckee-Donner Recreation and Park District;
City of Elk Grove; City of West Sacramento; County of Yolo.



APPENDIX D:
Esri Overview

ESRI OVERVIEW

About Esri

Esri is an international supplier of geographic information system (GIS) software, web GIS and geodatabase management applications.

About Esri Business Analyst Online

Esri Business Analyst is a web-based solution that applies GIS technology to extensive demographic, consumer spending, and business data to deliver on-demand analysis, presentation-ready reports and maps.

With Business Analyst, users can analyze current-year estimates and five-year projections of demographic data and extensive consumer spending and business data. With this data, one can generate reports and maps for a study area.

Esri updates the data annually so that one has access to the most current and accurate data. Because Business Analyst is hosted by Esri, one doesn't have to worry about managing data or technology updates.

With Business Analyst, one can:

- Analyze trade areas.
- Identify new store locations.
- Find new customers.
- Refine marketing messages.
- Evaluate sites.
- Reveal untapped markets.