

City of Hayward

Parks Development Impact Fee Nexus Study

Discussion Draft

November 6, 2019

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Prepared for:





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that are important to decision makers.*

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INTRODUCTION

The purpose of this study is to provide technical documentation to support the establishment of development impact fee rates in the City of Hayward, California for parks and recreation facilities as authorized by the Mitigation Fee Act (Government Code Section 66000 (AB1600)). Throughout this study the term “parks” is used as the short name that means parks, open space and recreation facilities, including land and developments.

Summary Maximum Allowable Development Impact Fee Rates

Park impact fees are paid by new development to help pay a portion of the costs required to build capital facilities needed to serve new development. Impact fee rates for new development are based on and vary according to the type of land use. The following table summarizes the maximum allowable park development impact fee rates for each land use category.

Exhibit 1. City of Hayward Maximum Allowable Park Development Impact Fee Rates

Type of Development	Park Impact Fee per Unit
Residential	
0 Bedrooms	\$4,416.39 dwelling unit
1 Bedroom	\$6,915.18 dwelling unit
2 Bedrooms	\$12,474.13 dwelling unit
3 Bedrooms	\$21,783.71 dwelling unit
4 or more Bedrooms	\$30,301.40 dwelling unit
Nonresidential	
Office/Other Commercial	\$7.88 square foot
Retail	\$9.72 square foot
Industrial	\$0.78 square foot
Government	\$9.00 square foot
Education	\$2.87 square foot

Development Impact Fees v. Other Developer Contributions

Development impact fees are a charge paid by new development to reimburse local governments for the capital cost of public facilities that are needed to serve new development and the people who occupy or use the new development. Throughout this study, the term “developer” is used as a shorthand expression to describe anyone who is obligated to pay impact fees, including builders, owners or developers.

Local governments charge impact fees for several reasons 1) to obtain revenue to pay for some of the cost of new public facilities; 2) to implement a public policy that new development should pay a portion of the cost of facilities that it requires, and that existing development should not pay all of the cost of such facilities; and 3) to assure that adequate public facilities will be constructed to serve new development.

The development impact fees described in this study do not include any other forms of developer contributions or exactions for parks to serve growth. The development impact fees described in this study do not include “fees specified in Section 66477, fees for process applications for governmental regulatory actions or approvals, fees collected under development agreements adopted pursuant to Article 2.5 (commencing with Section 65864) of Chapter 4, or fees collected pursuant to agreements with redevelopment agencies that provide for the redevelopment of property in furtherance or for the benefit of a redevelopment project for which a redevelopment plan has been adopted pursuant to the Community Redevelopment Law (Part 1 (commencing with Section 33000) or Division 24 of the Health and Safety Code).”¹

Organization of the Study

This development impact fee nexus study contains five chapters:

- **Introduction:** provides a summary of the maximum allowable development impact fee rates for land use categories, and other introductory materials.
- **Statutory Basis and Methodology:** summarizes the statutory requirements for development of impact fees and describes the compliance with each requirement.
- **Mitigation Fee Act Nexus Findings:** outlines the findings of the nexus study as required by State law.
- **Growth Estimates:** presents estimates of population and employment in Hayward because impact fees are paid by growth to offset the costs of parks, open space and recreation facilities that will be needed to serve new development.
- **Park Development Impact Fees:** presents the maximum allowable impact fees for parks in the City of Hayward. This chapter includes the methodology used to develop the maximum allowable fees, and the calculation of maximum allowable fees. The methodology is designed to comply with the requirements of California State Law.

¹ Government Code § 66000 (b)

STATUTORY BASIS AND METHODOLOGY

This chapter summarizes the statutory requirements for development impact fees in the State of California and describes how the City of Hayward's park development impact fees comply with the statutory requirements.

The Mitigation Fee Act, adopted in AB1600 in 1987, authorizes local governments in California to charge development impact fees. Government Code §§ 66000-66025 contain the provisions that authorize and describe the requirements for development impact fees.

The following synopsis of the most significant requirements of the law includes citations to the Government Code as an aid to readers who wish to review the exact language of the statutes. Many of the statutory requirements are fulfilled in calculation of the parks impact fee in the fifth chapter of this study. Some of the statutory requirements are fulfilled in other ways, as described below.

Types of Public Facilities

Public facilities under the Mitigation Fee Act include “public improvements, public services, and community amenities,” (*Gov. Code § 66000 (d)*). This study contains impact fees for parks.

Types of Improvements

Impact fee revenue can be used for the capital cost of public facilities. Impact fees cannot be used for operating or maintenance expenses or for the costs attributable to existing deficiencies (*Gov. Code § 66001 (g)*). The cost of public facilities that can be paid for by impact fees include costs attributable to serve the needs of growth, or increased demand due to development. Impact fees may also be used to “refurbish existing facilities to maintain the existing level of service or achieve an adopted level of service that is consistent with the general plan (*Gov. Code § 66001 (g)*).

Benefit to Development and Proportionate Share

Impact fees must be reasonably related to and must have a reasonable relationship to the needs for public facilities of new development (*Gov. Code § 66001 (a)*).

There are three tests of the benefit provided to development by impact fees: 1) reasonably related to expenditure, 2) reasonably related to need, and 3) proportionate share.

Reasonably Related to Expenditure

Two provisions of the Mitigation Fee Act which are addressed by the City of Hayward municipal code and adopted Capital Improvements Program comply with the requirement that expenditures are reasonably related to the development that paid the impact fee. First, The City of Hayward must comply with annual accounting requirements which require the City to identify the improvements constructed with the impact fee funds collected, including the total cost of the improvements constructed and the fees expended to construct the improvement (*Gov. Code § 66006*). Additionally, the City of Hayward has an adopted Capital Improvements Program which identifies the public facilities for which park impact fees will be used. Secondly, the Mitigation Fee Act requires that if any portion of a fee is unexpended or uncommitted within five years of deposit, the City must comply with the following accounting requirements or must refund the fee.

- Identify the purpose for which the fee will be used
- Demonstrate a reasonable relationship between the fee and new development charged
- Identify all sources and amounts of funding anticipated to complete any incomplete improvements
- Designate the approximate date by which the funding needed will be deposited into the appropriate account

If the City has adequate funding for planned parks capital improvements, then an approximate date when the costs for the planned improvements will be incurred must be specified (*Gov. Code §§ 66001 (d)-(f)*).

These requirements indicate that impact fee revenue must be expended or obligated within five years, thus requiring the impact fees to be used to benefit the feepayer and not held by the City.

Reasonably Related to Need

There are many ways to fulfill the requirement that impact fees be reasonably related to development's need for public facilities, including personal use and use by others in the family or business enterprise (direct benefit), use by persons or organizations who provide goods or services to the fee-paying property (indirect benefit), and geographical proximity (presumed benefit). These measures of relatedness are implemented by the following techniques:

- Impact fees are charged to properties that need or benefit from new public facilities. The City of Hayward with the Hayward Area Recreation and Park District (HARD) provides its infrastructure to all kinds of property throughout the City, regardless of the type of use of

the property. Therefore, impact fees have been calculated for all types of property.

- The relative needs of different types of growth are considered in establishing fee amounts (for example, different impact values for different types of land use). The fifth chapter uses different numbers of persons per dwelling unit for residential development and the number of employees and visitors for non-residential development.

Proportionate Share

The proportionate share test means that impact fees can be charged only for the portion of the cost of public facilities that is reasonably related to new development. In other words, impact fees cannot be charged to pay for the cost of reducing or eliminating deficiencies in existing facilities.

Second, the costs of facilities that will benefit new development and existing users must be apportioned between the two groups in determining the amount of the fee. This can be accomplished in either of two ways: 1) by allocating the total cost between new and existing users, or 2) calculating the cost per unit and applying the cost only to new development when calculating impact fees.

Exemptions

Local governments have the discretion to provide exemptions from impact fees. The City's municipal code for impact fees addresses the subject of exemptions. Exemptions do not affect the impact fee rates calculated in this study, as alternative funding sources must be used to offset the loss in fee revenue. As a result, there is no increase in impact fee rates to make up for the exemption.

Reduction in Impact Fee Amounts

Impact fees may be credited for the value of dedicated land, improvements or construction provided by the developer subject to approval and agreement with the City of Hayward.

Capital Improvements Plans

The Mitigation Fee Act indicates that any local agency that requires an impact fee may adopt a capital improvements plan that identifies the capital projects that will be financed by the collected fees (*Gov. Code § 66002*). The City of Hayward annually updates and adopts their ten-year Capital Improvement Program, which identifies the projects for which impact fee funds will be used. Additionally, the Hayward Area Recreation and Parks District has a Capital Improvements Plan which identifies the locations of projects, total costs and anticipated funding sources.

Accounting Requirements

Impact fees must be deposited in a separate capital facilities account or fund, to avoid comingling the funds with other revenues. Interest income earned will also be deposited in the account (*Gov. Code § 66006 (a)*). The City must provide the following information available annually within 180 days of the last day of the fiscal year.

- Description of the type of fee in the account or fund
- Amount of the fee
- Beginning and ending balance of the account or fund
- Amount of fees collected and interest earned
- Each public improvement on which fees were used
- Amount of expenditures on each public improvement
- Percentage of the cost of each public improvement that was funded with fees
- Date public improvement construction will commence if the public improvement is incomplete (*Gov. Code § 66006 (b) (1)*)

The City must also make the following findings every fifth fiscal year for the portion of the fees that remain unexpended:

- Identify the purpose for which the fee will be used
- Demonstrate a reasonable relationship between the fee and the development to which it was charged
- Identify the sources and amounts of funding anticipated to complete incomplete improvements identified for which the fee will be used
- Designate the approximate dates on which the funding is expected to be deposited (*Gov. Code § 66001 (d) (1)*)

Data Sources

The data in this nexus study was provided by the City of Hayward and the Hayward Area Recreation and Parks District unless a different source is specifically cited.

MITIGATION FEE ACT NEXUS FINDINGS

The Mitigation Fee Act requires that the local agency shall identify the purpose of the fee, the use to which the fee will be put, the reasonable relationship of the fee's use and the reasonable relationship of the need for the fee. These nexus findings are described below (*Gov. Code § 66001 (a)*).

Purpose of the Fee

The purpose of the park impact fee is to ensure the development of parks, recreational facilities, trails and open space meet the needs of both the residential and nonresidential population of the City of Hayward as growth

occurs. Growth in the City of Hayward will increase demand for parks and recreation facilities and the park impact fee ensures that new growth is responsible for its proportionate share of the cost of park facilities to serve increased demand due to growth.

Use of the Fee

Revenue generated by the park impact fee will be used to fund the capital cost of park, recreational facilities, trail and open space development to serve growth in the City of Hayward. This will include a wide variety of parks, recreational facilities, trail and open space capital investments, such as land acquisition or improvements of both existing and new parks that increase the capacity of those parks to serve growth. The fee revenue will also be used to cover administration costs of the park impact fee program, including collection, documentation, annual reporting requirements, five-year reporting requirements, Nexus Study updates and other costs. Fee revenue will not be used for maintenance, operation or repair costs or to reduce or eliminate existing deficiencies.

Reasonable Relationship of the Fee's Use

Growth, or new development, in the City of Hayward will increase demand for parks and recreation facilities within the City. Revenue from the park impact fee will be used to fund new capacity in parks and recreation facilities in response to the demands of new development and to maintain the current level of service for new development. The use of the fee is reasonably related to the type of development upon which it is imposed.

Reasonable Relationship of Need for the Fee

Each new development, both residential and nonresidential, generates new demand for parks and recreation facilities, creating an incremental need for new parks and recreation capacity in the City of Hayward. The need for parks and recreation facilities is measured in proportion to the number of persons per dwelling unit or employees per square foot for each residential and nonresidential land use and the current level of service of parks and recreation facilities in the City of Hayward.

Proportionality of the Fee

The maximum allowable park impact fee is directly proportional to the relative increase in new development. The fees are calculated by applying the current level of service provided to the proportionate increase in the population created by new development and the cost estimate for parks and recreation facilities at the currently provided ratio.

GROWTH ESTIMATES

Impact fees are meant to have “growth pay for growth” so the first step in developing an impact fee is to quantify future growth in the City of Hayward. Growth estimates have been prepared for population and employment through the year 2040 in order to match the horizon year of the City’s General Plan.

Exhibit 1 lists Hayward’s population and growth rates from 2010 to 2018 and projections to the year 2040.

Exhibit 1. Population		
	Population	CAGR⁽¹⁾
2010	144,186	
2011	146,357	1.5%
2012	149,965	2.5%
2013	152,491	1.7%
2014	154,641	1.4%
2015	157,409	1.8%
2016	159,465	1.3%
2017	161,455	1.2%
2018	162,030	0.4%
2040	183,533	0.6%
Growth⁽²⁾	22,078	0.6%

(1) CAGR = Compound Annual Growth Rate.

(2) Growth = 2040 Population – 2018 Population.

Source for population:

- for years 2010 to 2018: California Department of Finance Population Estimates for Cities, Counties, and State; and
- for 2040: City of Hayward General Plan.

In addition to residential population growth, Hayward expects businesses to grow. Business development is included in this methodology because Hayward’s parks and recreation system serves both its residential population and employees. City parks provide places for employees and customers to take breaks from work and shopping, including restful breaks or active exercise to promote healthy living.

Exhibit 2 shows employment in Hayward from 2010 to 2018 and projected growth for the year 2040.

Exhibit 2. Employment

	Employment CAGR ⁽¹⁾	
2010	64,134	
2011	65,249	1.7%
2012	67,372	3.3%
2013	68,752	2.0%
2014	70,407	2.4%
2015	72,864	3.5%
2016	74,369	2.1%
2017	75,821	2.0%
2018	76,845	1.4%
2040	89,900	0.7%
Growth⁽²⁾	13,055	0.7%

(1) CAGR = Compound Annual Growth Rate.

(2) Growth = 2040 Employment – 2018 Employment.

Sources for employment:

- for years 2010 to 2017: Bureau of Labor Statistics, Local Area Unemployment Statistics, annual average employment;
- for 2018: Bureau of Labor Statistics, Local Area Unemployment Statistics, average of employment through November 2018 and preliminary employment estimates for December 2018; and
- for 2040: City of Hayward General Plan Background Report.

Exhibit 3 lists employment by industry in Hayward for 2018 and projections for the year 2040.

Exhibit 3. Employment by Industry

	2018	2040	CAGR ⁽¹⁾
Services	13,576	17,012	1.0%
Manufacturing	10,717	11,180	0.2%
Government	9,757	8,799	-0.5%
Healthcare	9,151	13,400	1.7%
Retail Trade	7,727	7,326	-0.2%
Wholesale Trade	7,456	7,861	0.2%
Construction & Resources	6,117	9,594	2.1%
Accommodations & Food Service	4,425	6,050	1.4%
TCU	4,369	4,806	0.4%
FIRE	2,653	2,558	-0.2%
Education	899	1,313	1.7%
Total	76,845	89,900	0.7%

(1) CAGR = Compound Annual Growth Rate

(2) FIRE = Finance, Insurance and Real Estate

(3) TCU = Transportation, Communication and Utilities

Sources for employment:

- for 2018: employment by industry is estimated by allocating 2018 total employment from Exhibit 2 by the share of employment by industry from the Hayward General Plan; and
- for 2040: employment by industry is estimated by using growth rates by industry for the Oakland-Hayward-Berkeley MD from the California Employment Development Department and adjusted to projected total 2040 employment from Exhibit 2.

It is clear from Exhibits 1, 2 and 3 that Hayward expects growth of population and businesses in the future, so there is a rational basis for park impact fees that would have future growth pay for parks that are needed to provide appropriate levels of service to new development.

Population and employment are both expected to grow, but they should not be counted equally because employees and visitors spend less time in Hayward than residents, therefore they have less benefit from Hayward's parks. There is a well-established and widely-used technique for accounting for these differences in impact fees and it involves "equivalency." Appendix A describes equivalency and explains how the "equivalent population coefficients" were developed for this study of park impact fees for the City of Hayward. The results allow business to pay its proportionate share of parks for growth based on the "equivalent population" that nonresidential development generates.

Exhibit 4 multiplies the equivalent population coefficients (from Appendix A) by the actual population and employment data from Exhibits 1 and 3 to calculate the "equivalent" population for the base year (2018), the horizon year (2040) and the growth between 2018 and 2040.

Exhibit 4. Growth of Equivalent Population

Land-Use Category	Equivalent Population Coefficient ⁽¹⁾	2018 Base Year Full Population ⁽²⁾	2018 Base Year Equivalent Population ⁽³⁾	2040 Base Year Full Population ⁽²⁾	2040 Horizon Year Equivalent Population ⁽³⁾	2018-2040 Growth Full Population ⁽⁴⁾	2018-2040 Growth Equivalent Population ⁽⁵⁾
Residential	0.94	162,030	151,903	183,533	172,062	21,503	20,159
Nonresidential							
Services	0.51	13,576	6,864	17,012	8,602	3,437	1,738
Manufacturing	0.58	10,717	6,223	11,180	6,493	464	269
Government	0.71	9,757	6,888	8,799	6,212	(958)	(676)
Healthcare	0.98	9,151	8,933	13,400	13,081	4,249	4,148
Retail Trade	2.00	7,727	15,481	7,326	14,677	(401)	(804)
Wholesale Trade	0.62	7,456	4,616	7,861	4,867	406	251
Construction & Resources	0.20	6,117	1,215	9,594	1,906	3,477	691
Accommodations & Food Service	1.04	4,425	4,601	6,050	6,292	1,626	1,690
TCU	0.60	4,369	2,623	4,806	2,886	437	263
FIRE	0.51	2,653	1,341	2,558	1,293	(95)	(48)
Education	0.54	899	482	1,313	703	413	221
Total	N/A	N/A	211,172	N/A	239,074	N/A	27,902

(1) From Appendix A Equivalent Population Coefficients.

(2) From Exhibits 1 and 3.

(3) $\text{Equivalent Population} = \text{Equivalent Population Coefficient} \times \text{Full Population}$.

(4) $2018\text{-}2040 \text{ Growth Full Population} = 2040 \text{ Full Population} - 2018 \text{ Full Population}$.

(5) $2018\text{-}2040 \text{ Growth Equivalent Population} = 2040 \text{ Equivalent Population} - 2018 \text{ Equivalent Population}$.

The totals in Exhibit 4 provide the equivalent population for the purpose of the calculation of park impact fees for Hayward. The total equivalent population for the base year (2018) is 211,172 and the horizon year (2040), is 239,074, therefore equivalent population growth between 2018 and 2040 is 27,902.

PARK IMPACT FEES

Overview

Impact fees for Hayward's parks use an inventory of the City's existing acreage and current equivalent population to determine the current level of service ratio for parks. The current level of service ratio is multiplied by the projected equivalent population growth to estimate the acres of parks needed to serve growth at the current level of service. The cost of park acquisition and development per acre is multiplied by the number of acres needed to serve growth at the current level of service to arrive at the investment in parks needed to serve growth. The investment needed for growth is then adjusted by the value of the remaining park in-lieu fee fund balance and estimated program administration costs to arrive at the investment to be paid by growth. The investment to be paid by growth is divided by the growth in equivalent population to arrive at the growth cost per equivalent population. The amount of the maximum allowable park impact fee is

determined by multiplying the growth cost per equivalent population by the equivalent population per unit for each type of development.

These steps are described below in the formulas, descriptions of variables, exhibits and explanations of calculations for parks impact fees. Throughout the chapter the term “person” is used as the short name that means equivalent population or equivalent person.

Formula 1: Parks Level of Service Ratio

The current level of service ratio is calculated by dividing the existing acreage of Hayward Area Recreation and Park District (HARD) parks in Hayward by the total current equivalent population in Hayward.

$$(1) \frac{\text{Existing Acres of Parks}}{\text{Current Equivalent Population}} = \text{Current Level of Service Ratio}$$

Equivalent population was described above and is explained in Appendix A. There is one new variable that requires explanation: (A) Existing Acres of Parks.

Variable (A): Existing Acres of Parks

The acreage of each park in Hayward, managed by HARD, is listed in Appendix B. The total existing parks acreage includes all existing parks and facilities in the following categories: Local Parks; Community Parks; Special Use Facilities; School Recreation Sites; and Linear Parks, Greenways and Trails. Appendix B additionally includes the total acreage in Hayward and the subtotal by category from the HARD Parks and Recreation Master Plan.

The total existing inventory of parks in the City of Hayward is 1,052.6 acres of parks. Exhibit 5 lists the total existing inventory of parks by category.

Exhibit 5. HARD Park Inventory in Hayward by Park Type, Acres, 2018

Type	Inventory
Local Parks	133.2
Community Parks	63.6
Special Use Facilities	232.4
School Recreation Sites	20.0
Linear Parks, Greenways and Trails	603.4
Total	1,052.6

Exhibit 6 lists the total existing inventory of parks and divides it by the current equivalent population of 211,172 (from Exhibit 4), divided by 1,000 to calculate the current level of service ratio of 4.98 acres of parks per 1,000 equivalent population.

Exhibit 6. Level of Service Ratio

Inventory	Current Equivalent Population	Level of Service Ratio
1,052.6 acres ÷	211,172	= 4.98 acres per 1,000 pop

Formula 2: Total Park Acres to Serve Growth

Impact fees must be related to the needs of growth. The first step in determining growth's needs is to calculate the total number of acres needed to serve growth with the same level of service ratio that benefits the current population. The acres of parks needed for growth are calculated by multiplying the level of service ratio by the equivalent population growth from 2018 to 2040 (divided by 1,000).

$$(2) \frac{\text{Current Level of Service Ratio}}{\text{Service Ratio}} \times \frac{\text{Growth of Equivalent Population}}{\text{Population}} = \frac{\text{Park Acres to Serve Growth}}{\text{to Serve Growth}}$$

There are no new variables used in Formula 2. Both variables were developed in previous formulas and exhibits.

Exhibit 7 shows the calculation of the total acres of parks needed for growth. The current level of service ratio is calculated in Exhibit 6. The growth in equivalent population is calculated in Exhibit 4. The result is that Hayward needs to add 139.1 acres of parks in order to serve the growth of 27,902 additional people who are expected to be added to the City's existing equivalent population.

Exhibit 7. Total Park Acres Needed for Growth

Level of Service Ratio	2018-2040 Growth	Total Park Acres Needed for Growth
4.98 acres per 1,000 pop x	27,902	= 139.1

Formula 3: Park Acres Needed for Growth

The park acres needed for growth is calculated by subtracting any existing reserve capacity from the total park acres needed to serve growth.

$$(3) \frac{\text{Total Park Acres Needed for Growth}}{\text{Needed for Growth}} - \frac{\text{Reserve Capacity}}{\text{Capacity}} = \frac{\text{Park Acres Needed for Growth}}{\text{for Growth}}$$

Total Park Acres Needed for Growth was described in Formula 2. There is one new variable that requires explanation: (B) Reserve Capacity.

Variable (B): Reserve Capacity

Existing reserve capacity includes any park acres that HARD has acquired in the City of Hayward and is holding in reserve to serve the needs of growth.

HARD and the City of Hayward have acquired 54.9 acres for the future La Vista Park, which will serve the needs of growth through 2040.

Exhibit 8 shows the calculation of the acres of parks that are needed for growth. The total acres of parks needed for growth (from Exhibit 7) is reduced by the value of existing reserve capacity, 54.9 acres, and the result shows that 84.2 acres of additional parks are needed to serve future growth.

Exhibit 8. Park Acres Needed for Growth

Total Park Acres Needed for Growth		Reserve Capacity		Park Acres Needed for Growth
139.1	-	54.9	=	84.2

Formula 4: Investment Needed for Growth

The second step in determining growth's needs is to calculate the total investment in parks needed for growth, or the total cost of parks land acquisition and development to serve growth with the same level of service ratio that benefits the current population. The investment needed for growth is calculated by multiplying the park cost per acre by the number of acres needed to serve growth.

$$(4) \frac{\text{Park Cost per Acre}}{\text{per Acre}} \times \frac{\text{Park Acres Needed for Growth}}{\text{Needed for Growth}} = \frac{\text{Investment Needed for Growth}}{\text{for Growth}}$$

There is one new variable used in Formula 4 that requires explanation: (C) Park Cost per Acre.

Variable (C): Park Cost per Acre

The park impact fees are based on costs per acre for land acquisition and development that will be provided in the City of Hayward by the Hayward Area Parks and Recreation District. The calculations for the weighted average cost per acre for land acquisition and development are shown in Appendix C. Park acquisition costs are based on recent purchases for property appropriate for park development by category in the HARD service area. Park development costs are based on recent cost estimates for park development by category provided by HARD. Exhibit 9 details the weighted average cost per acre for park land acquisition and development.

Exhibit 9. Park Acquisition and Development Cost per Acre

	Cost per Acre
Land Acquisition	\$690,098
Park Development	\$1,370,832
Total	\$2,060,930

Exhibit 10 shows the calculations for the investment needed for growth. The total park cost per acre for land acquisition and development (from Exhibit 9) is multiplied by the additional acres of parks needed for growth (from Exhibit 8) resulting in the investment needed for growth. The result is that the City, in coordination with the Hayward Area Recreation and Park District, will need to invest nearly \$173.5. million in impact fee eligible parks acquisition and development to serve growth through 2040.

Exhibit 10. Investment Needed for Growth

Park Cost per Acre		Park Acres Needed for Growth		Investment Needed for Growth
\$2,060,930	x	84.2	=	\$173,492,446

Formula 5: Investment to be Paid by Growth

The future investment in parks that needs to be paid by growth may be reduced if the City has other revenues that it can invest in its parks and may include an adjustment for the administration costs of the park impact fee program. Additionally, the investment in parks that needs to be paid by growth must be reduced by the current park in-lieu fee fund balance that will be used to pay for the capital costs of parks facilities to serve growth.

The City of Hayward and the Hayward Area Recreation and Parks District have indicated that there are no other sources of funding available to pay for the eligible costs for park acquisition and development to serve growth. The investment to be paid by growth is calculated by adding the investment needed for growth, the total park in-lieu fee fund balance and program administration costs together to arrive at the investment to be paid by growth.

$$\begin{array}{rclcl}
 \text{Investment} & & \text{Park In} - \text{Lieu} & & \text{Park Impact} & & \text{Investment} \\
 (5) \text{ Needed} & + & \text{Fee Fund} & + & \text{Fee Program} & = & \text{to by Paid} \\
 \text{for Growth} & & \text{Balance} & & \text{Administration} & & \text{by Growth}
 \end{array}$$

There are two new variables in Formula 5 that require explanation: (D) Park In-Lieu Fee Fund Balance and (E) Park Impact Fee Program Administration.

Variable (D): Park In-Lieu Fee Fund Balance

The City of Hayward has a remaining fund balance in each of their five existing park in-lieu fee accounts. These existing funds will be used to pay for the park capital facilities to serve new development in Hayward. The total balance across all funds as reported by the City of Hayward is \$8,664,918. The investment needed for growth must be reduced by the available park in-lieu fee fund balance.

Variable (E): Park Impact Fee Program Administration

Park impact fee program administration costs are estimated at 2% of total park costs for the administration of the park impact fee program, consistent with administration cost estimates used in other California jurisdictions. Program administration costs are estimated by multiplying the investment needed for growth from Exhibit 10 by the 2% estimated for program administration, resulting in estimated program administration costs of nearly \$3.5 million.

Exhibit 11 shows the calculation for the investment to be paid by growth. The investment needed for growth (from Exhibit 10), existing park in-lieu fee fund balance and program administration costs are summed together to arrive at the investment to be paid by growth of \$168,297,377.

Exhibit 11. Investment to be Paid by Growth	
	Park Investment
Investment Needed for Growth	\$173,492,446
Park In-Lieu Fee Fund Balance	
Zone A	(\$2,064,920)
Zone B	(\$2,335,758)
Zone C	(\$2,681,902)
Zone D	(\$1,229,738)
Zone E	(\$352,599)
Total Available Park In-Lieu Fee Funds	(\$8,664,918)
Park Impact Fee Program Administration	\$3,469,849
Investment to be Paid by Growth	\$168,297,377

Formula 6: Growth Cost per Equivalent Person

The growth cost per equivalent person is calculated by dividing the investment in parks that is to be paid by growth by the amount of equivalent population growth.

$$(6) \frac{\text{Investment to be Paid by Growth}}{\text{Growth of Equivalent Population}} = \text{Growth Cost per Equivalent Population}$$

There are no new variables used in Formula 6. Both variables were developed in previous formulas.

Exhibit 12 shows the calculation of the cost per equivalent person for parks that needs to be paid by growth. The investment in parks to be paid by growth (from Exhibit 11) is divided by the growth in equivalent population (from Exhibit 4). The result shows the cost for parks to be paid by growth is \$6,031.64 per equivalent person.

Exhibit 12. Growth Cost per Equivalent Person

Investment to be Paid by Growth	2018-2040 Growth	Growth Cost per Equivalent Population
\$168,297,377	÷ 27,902	= \$6,031.64

Formula 7: Maximum Allowable Impact Fee per Unit of Development

The maximum allowable amount to be paid by each new development unit depends on the equivalent population coefficient and the population density by development type. The cost per unit of development is calculated by multiplying the growth cost per equivalent person by the equivalent population per unit for each type of development.

There is one new variable used in Formula 7 that requires explanation: (F) equivalent population per unit.

Variable (F): Equivalent Population per Unit

The equivalent population per unit is calculated by multiplying the equivalent population coefficient by the number of persons per unit of development, as shown in Appendix A. For residential development this is the number of persons per dwelling unit estimated from the U.S. Census American Housing Survey, 2017 for the San Francisco-Oakland-Hayward MSA and 2017 U.S. Census American Community Survey One-Year Estimates for the City of Hayward and the San Francisco-Oakland-Hayward MSA. For nonresidential development, this is employees per square foot from the U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey.

Exhibit 13 shows the calculation of the maximum allowable parks impact fee per unit of development. The growth cost per equivalent person of \$6,031.64 from Exhibit 12 is multiplied by the equivalent population per unit (from Exhibit A8) to calculate the impact fee per unit of development for parks.

Exhibit 13. Maximum Allowable Park Impact Fee per Unit of Development

Type of Development	Growth Cost per Equivalent Population	Equivalent Population per Unit	Park Impact Fee per Unit
Residential			
0 Bedrooms	\$6,031.64 x 0.73	dwelling unit =	\$4,416.39
1 Bedroom	\$6,031.64 x 1.15	dwelling unit =	\$6,915.18
2 Bedrooms	\$6,031.64 x 2.07	dwelling unit =	\$12,474.13
3 Bedrooms	\$6,031.64 x 3.61	dwelling unit =	\$21,783.71
4 or more Bedrooms	\$6,031.64 x 5.02	dwelling unit =	\$30,301.40
Nonresidential			
Office/Other Commercial	\$6,031.64 x 0.0013	square foot =	\$7.88
Retail	\$6,031.64 x 0.0016	square foot =	\$9.72
Industrial	\$6,031.64 x 0.0001	square foot =	\$0.78
Government	\$6,031.64 x 0.0015	square foot =	\$9.00
Education	\$6,031.64 x 0.0005	square foot =	\$2.87

APPENDIX A. EQUIVALENT POPULATION COEFFICIENTS AND EQUIVALENT POPULATION PER UNIT

What is “Equivalency”

When governments analyze things that are different from each other, but which have something in common, they sometimes use “equivalency” as the basis for their analysis.

For example, many water and sewer utilities calculate fees based on an average residential unit, then they calculate fees for business users on the basis of how many residential units would be equivalent to the water or sewer service used by the business. This well-established and widely practiced method uses “equivalent residential unit” (ERUs) as the multiplier that uses the rate for one residence to calculate rates for businesses. If a business needs a water connection that is double the size of an average house, that business is 2.0 ERUs, and would pay fees that are 2.0 times the fee for an average residential unit.

Another use of “equivalency” that is used in public sector organizations is “full time equivalent” (FTE) employees. One employee who works full-time is 1.0 FTE. A half-time employee is 0.5 FTE. By adding up the FTE coefficients of all part-time employees, the total is the FTE (full-time equivalent) of all the full and part-time employees.

Equivalency and Park Impact Fees

Equivalency can be used to develop park impact fees that apply to new nonresidential development as well as residential development. Equivalent population coefficients for park impact fees use the same principles as ERUs or FTEs to measure differences among residential population and different kinds of businesses in their availability to benefit from Hayward’s parks. They document the nexus between parks and development by quantifying the differences among different categories of park users.

The analysis that calculates the equivalent population coefficients takes into account several factors and reports the result as a statistic that allows each category of business to include its share of growth based on the “equivalent population” that it generates. The “equivalency” calculation recognizes that employees and visitors have less time in Hayward to benefit from Hayward’s parks (in the same way that part-time employees spend less time on the job than full-time employees).

The equivalent population coefficients are used in two ways. First, they are multiplied by the number of employees in different types of businesses in Hayward to count employees and visitors to businesses as “equivalent

population” in Hayward. This provides a total population of residents, employees and visitors that will be used to calculate the park value per equivalent population. Second, the adjusted park cost per equivalent population is multiplied by the equivalent population coefficients for each business type and the number of persons per dwelling unit to calculate the impact fee for each type of development.

Calculation of Equivalent Population Coefficients for Park Impact Fees

There are two parts to the equivalent population coefficient: (1) employees and residents and (2) visitors.

Exhibit A1² presents the data for the following factors used in analyzing employees and residents: the number of days per week and hours per day that different types of locations are typically in use, the percent of hours that the populations are typically at the location and the resulting number of hours per week that each employee or resident is in their residential or business location in Hayward and therefore proximate to Hayward’s parks.

² The original version of Exhibits A1 through A3 were developed by Dr. Arthur C. Nelson, a leading scholar and researcher in the field of impact fees. The table appeared in Nelson’s 2004 *Planner’s Estimating Guide*. The underlying employee data has been updated to the 2008 edition of *Trip Generation* by the Institute of Transportation Engineers.

Exhibit A1. Resident and Employee Hours in Location

Land-Use Category	Residents and Employees			
	Days per Week at Location ⁽¹⁾	Hours per Day at Location ⁽¹⁾	Percent of Time at Location ⁽¹⁾	Hours in Location per Person ⁽²⁾
Residential Population	7	15.00	75%	78.75
Employee Population				
Services	5	9.00	80%	36.00
Manufacturing	5	9.00	100%	45.00
Government	5	9.00	80%	36.00
Healthcare	7	9.00	100%	63.00
Retail Trade	7	9.00	100%	63.00
Wholesale Trade	5	9.00	100%	45.00
Construction & Resources	5	9.00	25%	11.25
Accommodations & Food Service	7	9.00	100%	63.00
TCU ⁽³⁾	5	9.00	100%	45.00
FIRE ⁽⁴⁾	5	9.00	80%	36.00
Education	5	9.00	100%	45.00

(1) Assumptions from Planner's Estimating Guide.

(2) Hours in Location per Person = (# days per week x # hours per day x % of time at location)

(3) FIRE = Finance, Insurance and Real Estate

(4) TCU = Transportation, Communication and Utilities

Exhibit A2 presents the data for the following factors used in analyzing visitors: the number of days per week that different types of businesses are typically open, the number of hours that visitors are typically at the business location, the number of visitors per employee at different types of businesses and the resulting number of visitor hours per employee that visitors are in the business location in Hayward and therefore proximate to Hayward's parks.

Exhibit A2. Visitor Hours in Location (per Employee)

Land-Use Category	Visitors		
	Hours per Day at Location ⁽¹⁾	Visitors per Employee ⁽²⁾	Visitor Hours in Location per Employee ⁽³⁾
Residential Population	na	na	na
Employee Population			
Services	1	1.2948	6.4740
Manufacturing	1	0.7560	3.7800
Government	1	4.6605	23.3025
Healthcare	2	1.3572	19.0008
Retail Trade	1	15.0424	105.2968
Wholesale Trade	1	1.4004	7.0020
Construction & Resources	1	1.0872	5.4360
Accommodations & Food Service	1	3.4788	24.3516
TCU	1	1.0872	5.4360
FIRE	1	1.2948	6.4740
Education	na	na	na

(1) Assumptions from Planner's Estimating Guide.

(2) Visitors per Employee from Planner's Estimating Guide. This does not include tourists for which no data is available that measures tourists per employee by type of business.

(3) Visitor Hours in Location per Employee = (# days per week x # hours per day x # visitors per employee).

Exhibit A3 presents the last step in calculating the equivalent population coefficient for different types of businesses and residential populations. Employee hours are added to visitor hours per employee for each type of business. The total is divided by 84 hours per week. Parks are considered a "daytime" public facility that is assumed to be available 12 hours per day, 7 days per week for a total of 84 hours³. The result of this calculation is the daytime equivalent population coefficient for each type of business and resident. The daytime equivalent population per unit is used in Exhibit 4 to calculate the current and forecasted and growth in equivalent population.

³ By way of comparison, police and fire facilities are considered to be "24-hour" public facilities, therefore 24 x 7= 168 hours for their equivalent population coefficient calculations.

Exhibit A3. Equivalent Population Coefficients

Land-Use Category	Total		
	Total Hours in Location ⁽¹⁾	Daytime Hours ⁽²⁾	Daytime Equivalent Population Coefficient ⁽³⁾
Residential Population	78.7500	84	0.9375
Employee Population			
Services	42.4740	84	0.5056
Manufacturing	48.7800	84	0.5807
Government	59.3025	84	0.7060
Healthcare	82.0008	84	0.9762
Retail Trade	168.2968	84	2.0035
Wholesale Trade	52.0020	84	0.6191
Construction & Resources	16.6860	84	0.1986
Accommodations & Food Service	87.3516	84	1.0399
TCU	50.4360	84	0.6004
FIRE	42.4740	84	0.5056
Education	45.0000	84	0.5357

(1) *Total Hours in Location = Hours in Location per Person (from Exhibit A1) + Visitor Hours in Location per Employee (from Exhibit A2).*

(2) *Daytime Equivalent Population Coefficient = Total Hours in Location per Employee ÷ Daytime Hours (84).*

As noted previously, the equivalent population coefficient is multiplied by the employment and population in Hayward to calculate the total equivalent population in Hayward as shown in Exhibit 4.

Calculation of Equivalent Population per Unit

In order to convert the growth cost per equivalent person to the maximum allowable impact fee rate per unit of development, it is necessary to calculate a measure of equivalent population per unit of development. Exhibit A8 shows the calculation of the equivalent population per unit.

For the first step in the equivalent population per unit, the equivalent population coefficients for nonresidential development are combined into five more general weighted average land use categories. Exhibit A4 presents the calculation of the weighted coefficients for each land use category.

Exhibit A4. Weighted Average Equivalent Population Coefficients

Land-Use Category	Growth of Equivalent Population (1)	% Total (2)	Coefficient (3)	Weighted Coefficient (4)
Services	1,738	23.1%	0.5056	0.1167
Healthcare	4,148	55.1%	0.9762	0.5379
Accommodations & Food Service	1,690	22.5%	1.0399	0.2335
FIRE	(48)	-0.6%	0.5056	-0.0032
Office/Other Commercial	7,529	100.0%		0.8849
Retail (5)				2.0035
Manufacturing	269	3.6%	0.5807	0.0208
Wholesale Trade	251	3.3%	0.6191	0.0207
Construction & Resources	691	9.2%	0.1986	0.0182
TCU	263	3.5%	0.6004	0.0209
Industrial	1,474	19.6%		0.0806
Government (5)				0.7060
Education (5)				0.5357

(1) From Exhibit 4.

(2) Percent Total = Growth of Equivalent Population ÷ Total Growth of Equivalent Population by Land Use Category.

(3) From Exhibit A3.

(4) Weighted Coefficient = % Total x Coefficient. The weighted coefficient by Land Use Category is the sum of individual subcategory weighted coefficients.

(5) Coefficients for Retail, Government and Education are from Exhibit A3.

The weighted average equivalent population coefficients by land use category from Exhibit A4 and the residential population coefficient from Exhibit A3 are multiplied by a measure of population per unit.

The measure of population per unit for residential development types is the number of persons per dwelling unit, calculated for the number of bedrooms per dwelling unit, from zero to four or more bedrooms shown in Exhibit A5. Analysis used the number of housing units by number of bedrooms and number of people per unit from the 2017 U.S. Census American Housing Survey for the San Francisco-Oakland-Hayward MSA and the total population in occupied housing units and the average persons per household from the 2017 U.S. Census American Community Survey One-Year Estimates.

Exhibit A5. Persons per Dwelling Unit

Number of Bedrooms	Persons per Dwelling Unit
None	0.78
1	1.22
2	2.21
3	3.85
4 or more	5.36
Total	3.11

The measure of population per unit for nonresidential development is the square feet per employee for each type of development based on the U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey⁴, converted to square feet per employee by industry, shown in Exhibit A6.

Exhibit A6. Square Feet per Employee and Employees per Square Foot

	Square Feet per Employee	Employees per Square Foot ⁽¹⁾
Services ⁽²⁾	780	0.0013
Manufacturing ⁽³⁾	1,193	0.0008
Government ⁽⁴⁾	473	0.0021
Healthcare ⁽⁵⁾	546	0.0018
Retail Trade ⁽⁶⁾	1,243	0.0008
Wholesale Trade ⁽⁷⁾	1,843	0.0005
Construction & Resources ⁽⁴⁾	473	0.0021
Accommodations & Food Service ⁽⁸⁾	1,212	0.0008
TCU ⁽⁴⁾	473	0.0021
FIRE ⁽⁴⁾	473	0.0021
Education ⁽⁹⁾	1,124	0.0009
Weighted Average ⁽¹⁰⁾	900	0.0011

(1) Employees per square foot = 1 ÷ square feet per employee.

(2) Services is the average square feet per employee from the Services and Office activity categories.

(3) Manufacturing is matched to the square feet per employee from the Other category.

(4) Government, Construction & Resources, TCU and FIRE were matched to the Office activity category.

(5) Healthcare is matched to the Health Care activity category.

(6) Retail Trade is matched with the Mercantile category.

(7) Wholesale Trade is matched with the Warehouse and Storage activity category.

(8) Accommodations & Food Service is the average of the Lodging and Food Service activity categories.

⁴ Sourced from the U.S. Energy Information Administration Commercial Buildings Energy Consumption Survey,
<https://www.eia.gov/consumption/commercial/data/2012/bc/cfm/b1.php>.

(9) Education is matched to the Education category.

(10) The weighted average square feet per employee is weighted by current employment by industry from Exhibit 3.

The square feet per employee are combined into more general land use categories, following the desired structure for the impact fee rates as shown in Exhibit A7. The employees per square feet (from Exhibit A6) are combined into a weighted average square feet per employee, weighted on equivalent population growth by category from Exhibit 4.

Exhibit A7. Weighted Average Employees per Square Foot

	Growth of Equivalent Population (1)	% Total (2)	Employees per Square Foot (3)	Weighted Employees per Square Foot (4)
Services	1,738	23.1%	0.0013	0.0003
Healthcare	4,148	55.1%	0.0018	0.0010
Accommodations & Food Service	1,690	22.5%	0.0008	0.0002
FIRE	(48)	-0.6%	0.0021	0.0000
Office/Other Commercial	7,529	100.0%		0.0015
Retail (5)				0.0008
Manufacturing	269	18.3%	0.0008	0.0002
Wholesale Trade	251	17.0%	0.0005	0.0001
Construction & Resources	691	46.9%	0.0021	0.0010
TCU	263	17.8%	0.0021	0.0004
Industrial	1,474	100.0%		0.0016
Government (5)				0.0021
Education (5)				0.0009

(1) From Exhibit 4.

(2) Percent Total = Growth of Equivalent Population ÷ Total Growth of Equivalent Population by Land Use Category

(3) From Exhibit A6.

(4) Weighted Employees per Square Foot = % Total x Employees per Square Foot. Weighted employees per square foot by Land Use Category is the sum of individual subcategory weighted employees per square foot.

(5) Employees per Square Foot for Retail, Government and Education are from Exhibit A6.

Exhibit A8 shows the calculation for the equivalent population per unit. The equivalent population coefficient, from Exhibit A4 is multiplied by the population per unit from Exhibits A5 and A7, resulting in the equivalent population per unit.

Exhibit A8. Equivalent Population per Unit

Type of Development	Equivalent Population Coefficient ⁽¹⁾	Population per Unit ⁽²⁾	Unit	Equivalent Population per Unit ⁽³⁾
Residential				
0 Bedrooms	0.9375	0.78	dwelling unit	0.73
1 Bedroom	0.9375	1.22	dwelling unit	1.15
2 Bedrooms	0.9375	2.21	dwelling unit	2.07
3 Bedrooms	0.9375	3.85	dwelling unit	3.61
4 or more Bedrooms	0.9375	5.36	dwelling unit	5.02
Nonresidential				
Office/Other Commercial	0.8849	0.0015	square foot	0.0013
Retail	2.0035	0.0008	square foot	0.0016
Industrial	0.0806	0.0016	square foot	0.0001
Government	0.7060	0.0021	square foot	0.0015
Education	0.5357	0.0009	square foot	0.0005

(1) *Equivalent Population Coefficient from Exhibit A4.*

(2) *Population per unit from Exhibits A5 and A7.*

(3) *Equivalent Population per Unit = Equivalent Population Coefficient x Population per Unit.*

The equivalent population per unit is multiplied by the growth cost per equivalent person in Exhibit 12 to calculate the maximum allowable park impact fee rates for residential and nonresidential development in Hayward.

APPENDIX B. INVENTORY OF EXISTING PARKS

The 2019 Hayward Area Recreation and Park District Parks Master Plan provides a detailed inventory of existing acres throughout the HARD service area, including a detailed inventory of parks in the City of Hayward as of 2018. The parks system in Hayward currently consists of 1,052.6 acres of parks in total. This includes 133.2 acres of Local Parks, 63.6 acres of Community Parks, 232.4 acres of Special Use Facilities, 20.0 acres of School Recreation Sites and 603.4 acres of Linear Parks, Greenways and Trails.

Exhibit B1. HARD Local Parks Inventory in the City of Hayward, 2018

Park Name	Acres
Sorensdale Park	12.7
J.A. Lewis Park	12.6
Centennial Park	11.6
Bidwell Park	10.5
Cannery Park	8.9
Birchfield Park	5.8
Gordon E. Oliver Eden Shores Park	5.6
Old Highlands Park	5.6
Canyon View Park	5.4
Rancho Arroyo Park	4.8
Palma Ceia Park	4.5
Christian Penke Park	4.2
Ruus Park	4.1
College Heights Park	3.9
Greenwood Park	3.5
Eldridge Park	3.4
Silver Star Veterans Park	3.3
Jalquin Vista Park	3.2
Gansberger Park	2.9
Longwood Park	2.9
Fairway Greens Park	2.5
Spring Grove Park	2.3
Stonybrook Park	2.3
Twin Bridges Park	2.1
Stratford Village Park	1.9
Schafer Park	1.3
Bechtel Mini Park	0.8
Haymont Mini Park	0.4
La Placita Park	0.2
Subtotal Local Parks	133.2

Detailed parks inventory from Table 3-1 of the Draft HARD Parks and Recreation Master Plan.

**Exhibit B2. HARD Community Parks, Special Use Facilities, School
Recreation Sites and Linear Parks, Greenways and Trails Inventory in the
City of Hayward, 2018**

Park Name	Acres
Kennedy Park	14.5
Memorial Park	2.9
Mt. Eden Park	14.1
Southgate Park	8.8
Tennyson Park	9.6
Weekes Park	13.7
Subtotal Community Parks	63.6
Alden E. Oliver Sports Park	25.6
Children's Park at Giuliana Plaza	0.2
Douglas Morrison Theater	0.5
HARD District Office	3.6
Hayward Area Senior Center	0.2
Hayward Community Gardens	4.8
Hayward Plunge	1.2
Japanese Gardens	3.6
Mission Hills of Hayward Golf Course	57.8
Shoreline Interpretive Center	0.4
Skywest Golf Course	126.5
Southgate Community Center	0.3
Sunset Park/Swim Center	6.7
Weekes Park Community Center	1.0
Subtotal Special Use Facilities	232.4
Stonebrae Elementary School	9.1
Bret Harte Play Field	5.0
El Rancho Verde Park	3.3
Brenkwitz High School	2.6
Subtotal School Recreation Sites	20.0
Eden Greenway	36.1
Greenbelt Riding & Hiking Trail	148.0
Hayward Plunge Greenway Trail	30.4
Hayward Shoreline Open Space and Trails	349.0
Nuestro Parquecito	2.3
Taper Park	37.6
Subtotal Linear Parks, Greenways and Trails	603.4
Total	1,052.6

Detailed parks inventory from Table 3-1 of the Draft HARD Parks and Recreation Master Plan.

APPENDIX C. PARKS LAND ACQUISITION AND DEVELOPMENT COST PER ACRE

Park impact fees are based on a total cost of parks that are needed to serve growth with the same level of service ratio that benefits the current population. In order to provide a defensible and accurate estimate for the cost of park land acquisition and park development cost per acre, the Hayward Area Recreation and Park District provided information on recent land purchases, as well as recent cost estimates for park development, by park category, detailed in Exhibits C1 and C2. All acquisition and development costs for previous years are adjusted to reflect 2019 dollars using a 3% inflation rate, as provided by HARD staff.

Local Parks, Community Parks, Special use Facilities and School Recreation Sites are combined into a single category for the costs of land acquisition. HARD staff provided feedback that the types of land required for these three categories of parks are similar. Linear Parks, Greenways and Trails have very different acquisition costs, as demonstrated by the acquisition cost for the Valley View property.

Exhibit C1. Parks Land Acquisition Cost per Acre

Property	City	Acquisition Cost⁽¹⁾	Acreage	Cost per Acre⁽²⁾
<i>Local Parks, Community Parks, Special Use Facilities and School Recreation Sites</i>				
Bidwell School Property	Hayward	\$6,300,000	5.3	\$1,188,679
Mateo Properties	San Leandro	\$2,700,000	1.4	\$1,888,112
Via Toledo	San Lorenzo	\$2,262,271	2.0	\$1,148,361
Boston Road Property	Hayward	\$788,075	1.0	\$788,075
Average Cost per Acre				\$1,253,307
<i>Linear Parks, Greenways and Trails</i>				
Valley View (EMBUD property)	Castro Valley	\$6,499,632	24.0	\$270,818

(1) Data on purchase price provided by HARD staff. This reflects the purchase price for each property inflated to 2019 dollars based on a 3% inflation rate provided by HARD staff.

(2) Cost per acre = Acquisition Cost ÷ Acreage.

Exhibit C2. Parks Development Cost per Acre

Park	City	Acreage	Cost per Acre (1)
Local Parks			
Via Toledo Park (2)	San Lorenzo	2.0	\$2,100,000
West Evergreen (3)	San Jose	1.0	\$1,223,000
Stojanovich Family Park (3)	Campbell	1.1	\$1,033,094
Commodor (3)	San Jose	2.5	\$1,012,186
N Rengstorff (3)	Mountain View	1.0	\$1,008,000
31 St & Alum Rock (3)	San Jose	1.7	\$834,300
Porto Park (3)	Elk Grove	1.3	\$546,364
Average Cost per Acre			\$1,108,135
Community Parks			
Memorial Park (Design & Construction) (4)	Hayward	2.9	\$1,738,943
Del Monte (3)	San Jose	4.2	\$1,123,323
San Lorenzo Community Park Renovation (5)	San Lorenzo	30.9	\$1,118,719
Weekes Community Park Renovation (6)	Hayward	13.7	\$990,633
Creekside Sports Park (3)	Los Gatos	3.0	\$785,686
McClatchy Park (3)	Sacramento	3.8	\$732,661
Vista Montana (3)	San Jose	5.0	\$668,669
Springlake N3 (3)	Santa Rosa	7.0	\$484,078
La Vista Park (6)	Hayward	54.9	\$390,715
Cordelia Park - Phase 3 (3)	Fairfield	8.5	\$398,845
Corderos Park (3)	Vacaville	7.2	\$227,287
Valley Oak Park (3)	Sacramento	9.3	\$232,319
Average Cost per Acre			\$740,990
Special Use Facilities			
Hayward Area Senior Center Renovation (7)	Hayward	0.26	\$15,480,845
Hayward Community Gardens - Phase 1 (2)	Hayward	2.0	\$619,756
Kennedy Park (2)	Hayward	13.3	\$1,353,383
Average Cost per Acre			\$5,817,995
School Recreation Site			
Canyon Middle School Sports Complex (8)	Castro Valley		\$764,909
Creekside Middle School Sports Complex (8)	Castro Valley		\$764,909
El Rancho Verde Park (6)	Hayward	3.3	\$1,655,647
Average Cost per Acre			\$1,061,822
Trails (9)			
Pen Creek - Reach 1 (3)		0.3	\$3,132,899
Iron Horse Trail (3)		0.4	\$3,928,709
San Tomas Spur (3)		1.1	\$3,388,770
Cross Alameda Trail (10)		0.5	\$6,490,440
Wavecrest Trail (10)		0.3	\$1,615,935
Average Cost per Acre			\$3,711,351

(1) Cost per Acre provided by HARD staff. Details for each specific project are noted below. All development costs are converted to 2019 dollars from the year of development assuming a

- 3% inflation rate provided by HARD staff.
- (2) Data provided by HARD staff.
 - (3) Data provided by HARD staff, sourced from Callander Associates Landscape Architecture.
 - (4) Data sourced from the adopted 2017-2020 CIP, inflated to 2019 dollars. This includes only the portion of the project focused on design and construction of new improvements and does not include the costs for a renovation master plan.
 - (5) Data sourced from the adopted 2017-2020 CIP, inflated to 2019 dollars. This includes only the portion of the project focused on design and construction of new improvements as outlined in Phase 1 and Phase 2.
 - (6) Data sourced from the adopted 2017-2020 CIP, inflated to 2019 dollars. This includes only the portion of the project focused on design and construction of new improvements.
 - (7) Data provided by HARD staff. Costs were provided per square foot, which were converted to acres for consistency.
 - (8) Cost per acre estimates provided by HARD staff. The costs provided were used to develop the overall cost estimates in the 2017-2020 adopted CIP, inflated to 2019 dollars using an assumed 3% inflation rate provided by HARD staff.
 - (9) Cost for trails provided in cost per linear foot. Linear feet were converted to acres assuming an average trail width of six feet.
 - (10) Data provided by HARD staff, sourced from PlaceWorks Inc.

The average cost per acre for parks acquisition and development by category are weighted by current acres by type in order to arrive at a development cost reflective of the cost for parks acquisition and development to serve growth at the same level of service as the existing population. Exhibits C3 and C4 demonstrate the calculations to arrive at a weighted average cost per acre for parks acquisition and development.

Exhibit C3. Weighted Average Park Acquisition Cost per Acre

Park Type	Current Acres (1)	% Total (2)	Average Acquisition Cost per Acre (3)	Weighted Average Acquisition Cost per Acre (4)
Local Parks, Community Parks, Special use Facilities and School Recreation Sites	449.2	42.7%	\$1,253,307	\$534,852
Linear Parks, Greenways and Trails	603.4	57.3%	\$270,818	\$155,246
Total	1,052.6	100.0%		\$690,098

- (1) Current Acres are from Exhibit 6.
- (2) Percent Total = Current Acres by Category ÷ Total Acres.
- (3) Average Acquisition Cost per Acre from Exhibit C1.
- (4) Weighted Average Acquisition Cost per Acre = % Total x Average Acquisition Cost per Acre.
Total Weighted Average Acquisition Cost per Acre is the sum of Weighted Average Cost per Acre by category.

Exhibit C4. Weighted Average Park Development Cost per Acre

Park Type	Current Acres (1)	% Total (2)	Average Development Cost per Acre (3)	Weighted Average Development Cost per Acre (4)
Local Parks	133.2	12.7%	\$1,108,135	\$140,228
Community Parks	63.6	6.0%	\$740,990	\$44,772
Special Use Facilities	232.4	22.1%	\$5,817,995	\$1,284,535
School Recreation Sites	20.0	1.9%	\$1,061,822	\$20,175
Trails (5)	6.1	0.6%	\$3,711,351	\$21,350
Open Space (6)	597.3	56.7%	\$0	\$0
Total	1,052.6	100.0%		\$1,370,832

(1) Current Acres from Exhibit 6.

(2) Percent Total = Current Acres by Category ÷ Total Acres.

(3) Average Development Cost per Acre from Exhibit C2.

(4) Weighted Average Development Cost per Acre = % Total x Average Development Cost per Acre. Total Weighted Average Acquisition Cost per Acre is the sum of Weighted Average Cost per Acre by category.

(5) Trails represent the portion of the Linear Parks, Greenways and Trails category that are developed as trails. Estimates are based on the miles of trails for each park within the category, converted to acres based on an assumed average trail width of six feet.

(6) Open Space represents the remaining undeveloped portion of the Linear Parks, Greenways and Trails category. Development costs are assumed at \$0 per acre.