## ATTACHMENT V

## City of Hayward

 Study

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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 <br> Unit |
| :--- | ---: |
| Residential | $\$ 4,416.39$ dwelling unit |
| 0 Bedrooms | $\$ 6,915.18$ dwelling unit |
| 1 Bedroom | $\$ 12,474.13$ dwelling unit |
| 2 Bedrooms | $\$ 21,783.71$ dwelling unit |
| 3 Bedrooms | $\$ 30,301.40$ dwelling unit |
| 4 or more Bedrooms | $\$ 7.88$ square foot |
| Nonresidential | $\$ 9.72$ square foot |
| Office/Other Commercial | $\$ 0.78$ square foot |
| Retail | $\$ 9.00$ square foo $\dagger$ |
| Industrial | $\$ 2.87$ square foot |
| Government |  |
| Education |  |

## 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.

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## 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 $\S \S 66000-66025$ 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 it's 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 $(2)$ | $\mathbf{2 2 , 0 7 8}$ | $\mathbf{0 . 6 \%}$ |  |  |

(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 ${ }_{(2)}$ | $\mathbf{1 3 , 0 5 5}$ | $\mathbf{0 . 7 \%}$ |  |

(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

|  | $\mathbf{2 0 1 8}$ | $\mathbf{c}$ 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 | $\mathbf{7 6 , 8 4 5}$ | $\mathbf{8 9 , 9 0 0}$ | $\mathbf{0 . 7 \%}$ |

(1) $C A G R=$ Compound Annual Growth Rate
(2) FIRE = Finance, Insurance and Real Estate
(3) $T C U=$ 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 <br> Growth Full <br> 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) Equivalent Population $=$ Equivalent Population Coefficient $x$ Full Population
(4) 2018-2040 Growth Full Population $=2040$ Full Population - 2018 Full Population.
(5) 2018-2040 Growth Equivalent Population $=2040$ Equivalent Population - 2018 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) $\begin{gathered}\text { Existing Acres } \\ \text { of Parks }\end{gathered} \div \begin{gathered}\text { Current Equivalent } \\ \text { Population }\end{gathered}=\begin{gathered}\text { Current Level of } \\ \text { Service Ratio }\end{gathered}$

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 | $\mathbf{1 , 0 5 2 . 6}$ |

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

| InventoryCurrent <br> Equivalent <br> Population Level of Service Ratio |
| :--- |
| $1,052.6$ acres $\div 211,172=4.98$ 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) Current Level of $\begin{gathered}\text { Service Ratio }\end{gathered} \times \begin{gathered}\text { Growth of Equivalent } \\ \text { Population }\end{gathered}=\begin{gathered}\text { Park Acres } \\ \text { to Serve Growth }\end{gathered}$

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 <br> Growth | Total Park <br> Acres Needed <br> 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.

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 <br> Acres Needed <br> for Growth | Reserve <br> Capacity | Park Acres <br> Needed for <br> Growth |  |
| 139.1 | - | 54.9 | $=$ |

## 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.

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 | $\$ \mathbf{2 , 0 6 0 , 9 3 0}$ |

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

## 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.

| Investment |
| :---: |
| (5) Needed |
| for Growth |$+$| ParkIn - Lieu |
| :---: |
| Fee Fund |
| Balance |$+$| Park Impact |
| :---: |
| Fee Program |
| Administration |$=$| Investment |
| :---: |
| to by Paid |
| by Growth |

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 inlieu 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 | $(\$ 229,738)$ |
| 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 | $\$ 168, \mathbf{2 9 7}, \mathbf{3 7 7}$ |

## 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) $\begin{gathered}\text { Investment to be } \\ \text { Paid by Growth }\end{gathered} \div \begin{gathered}\text { Growth of Equivalent } \\ \text { Population }\end{gathered}=\begin{gathered}\text { Growth Cost per } \\ \text { Equivalent Population }\end{gathered}$

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 <br> Paid by Growth | 2018-2040 <br> Growth | Growth Cost per <br> Equivalent <br> Population |  |
| $\$ 168,297,377$ | $\div 27,902$ | $=$ | $\$ 6,031.64$ |

## 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 <br> per Equivalent <br> Population |  | Equivalent <br> Population per Unit | Park Impact <br> Fee per Unit |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Residential |  |  |  |  |  |
| O Bedrooms | $\$ 6,031.64$ | $\times$ | 0.73 | dwelling unit $=$ | $\$ 4,416.39$ |
| 1 Bedroom | $\$ 6,031.64$ | $\times$ | 1.15 | dwelling unit $=$ | $\$ 6,915.18$ |
| 2 Bedrooms | $\$ 6,031.64$ | $\times$ | 2.07 | dwelling unit $=$ | $\$ 12,474.13$ |
| 3 Bedrooms | $\$ 6,031.64$ | $\times$ | 3.61 | dwelling unit $=$ | $\$ 21,783.71$ |
| 4 or more Bedrooms | $\$ 6,031.64$ | $\times$ | 5.02 | dwelling unit $=$ | $\$ 30,301.40$ |
| Nonresidential |  |  |  |  |  |
| Office/Other Commercial | $\$ 6,031.64$ | $\times$ | 0.0013 | square foot $=$ | $\$ 7.88$ |
| Retail | $\$ 6,031.64$ | $\times$ | 0.0016 | square foot $=$ | $\$ 9.72$ |
| Industrial | $\$ 6,031.64$ | $\times$ | 0.0001 | square foot $=$ | $\$ 0.78$ |
| Government | $\$ 6,031.64$ | $\times$ | 0.0015 | square foot $=$ | $\$ 9.00$ |
| Education | $\$ 6,031.64$ | $\times$ | 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 A1 ${ }^{2}$ 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.

[^1]Exhibit A1. Resident and Employee Hours in Location

|  | Residents and Employees <br> Days per <br> Week at <br> Location (1) | Hours per Day <br> at Location (1) | Percent of Time Category <br> at Location (1) | Hours in <br> Location per <br> 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) $T C U=$ 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)

|  | $\begin{array}{l}\text { Visitors } \\ \text { Hours per } \\ \text { Lay at } \\ \text { Location }(1)\end{array}$ |  | $\begin{array}{c}\text { Visitors per } \\ \text { Employee (2) }\end{array}$ |
| :--- | :---: | ---: | ---: | \(\left.\begin{array}{c}Visitor Hours in <br>

Location per <br>
Employee (3)\end{array}\right]\)
(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 hours $^{3}$. 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.

[^2]Exhibit A3. Equivalent Population Coefficients

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

(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 $\div$ 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 <br> Equivalent <br> Population (1) | \% Total (2) | Coefficient (3) | Weighted <br> Coefficient <br> $(4)$ |
| :--- | :---: | :---: | :---: | :---: |
| 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 | $\mathbf{7 , 5 2 9}$ | $\mathbf{1 0 0 . 0 \%}$ |  | 0.8849 |
| Retail (5) |  |  |  | $\mathbf{2 . 0 0 3 5}$ |
| $\quad$ 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 |
| $\quad$ TCU | 263 | $3.5 \%$ | 0.6004 | 0.0209 |
| Industrial | $\mathbf{1 , 4 7 4}$ | $\mathbf{1 9 . 6 \%}$ |  | $\mathbf{0 . 0 8 0 6}$ |
| Government (5) |  |  |  | $\mathbf{0 . 7 0 6 0}$ |
| Education (5) |  |  |  | $\mathbf{0 . 5 3 5 7}$ |

(1) From Exhibit 4.
(2) Percent Total $=$ Growth of Equivalent Population $\div$ 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 Uni |  |
| :--- | :---: |
| Number of <br> Bedrooms | Persons per <br> Dwelling Unit |
| None | 0.78 |
| 1 | 1.22 |
| 2 | 2.21 |
| 3 | 3.85 |
| 4 or more | 5.36 |
| Total | $\mathbf{3 . 1 1}$ |

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 Survey ${ }^{4}$, 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 <br> per <br> Employee | Employees <br> per Square <br> 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) | $\mathbf{9 0 0}$ | $\mathbf{0 . 0 0 1 1}$ |

(1) Employees per square foot $=1 \div$ 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.

[^3](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 <br> Equivalent <br> Population <br> $(1)$ |  | Employees <br> \% Total (2) <br> per Square <br> Foot (3) | Weighted <br> Employees <br> per Square <br> 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 | $148)$ | $-0.6 \%$ | 0.0021 | 0.0000 |
| Office/Other Commercial | $\mathbf{7 , 5 2 9}$ | $\mathbf{1 0 0 . 0 \%}$ |  | $\mathbf{0 . 0 0 1 5}$ |
| Retail (5) |  |  |  | $\mathbf{0 . 0 0 0 8}$ |
| $\quad$ 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 | $\mathbf{1 , 4 7 4}$ | $\mathbf{1 0 0 . 0 \%}$ |  | $\mathbf{0 . 0 0 1 6}$ |
| Government (5) |  |  |  | $\mathbf{0 . 0 0 2 1}$ |
| Education (5) |  |  |  | $\mathbf{0 . 0 0 0 9}$ |

(1) From Exhibit 4.
(2) Percent Total $=$ Growth of Equivalent Population $\div$ 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 <br> Population <br> Coefficient (1) | Population <br> per Unit (2) | Unit | Equivalent <br> Population <br> per Unit (3) |
| :--- | :---: | :---: | :---: | :---: |
| Residential | 0.9375 | 0.78 | dwelling unit | 0.73 |
| O Bedrooms | 0.9375 | 1.22 | dwelling unit | 1.15 |
| 1 Bedroom | 0.9375 | 2.21 | dwelling unit | 2.07 |
| 2 Bedrooms | 0.9375 | 3.85 | dwelling unit | 3.61 |
| 3 Bedrooms | 0.9375 | 5.36 | dwelling unit | 5.02 |
| 4 or more Bedrooms |  |  |  |  |
| Nonresidential | 0.8849 | 0.0015 | square foot | 0.0013 |
| Office/Other Commercial | 2.0035 | 0.0008 | square foot | 0.0016 |
| Retail | 0.0806 | 0.0016 | square foot | 0.0001 |
| Industrial | 0.7060 | 0.0021 | square foot | 0.0015 |
| Government | 0.5357 | 0.0009 | square foot | 0.0005 |
| Education |  |  |  |  |

(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 | $\mathbf{1 3 3 . 2}$ |

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
36.1
Eden Greenway148.0
Hayw ard Plunge Greenway Trail ..... 30.4
Hayward Shoreline Open Space and Trails ..... 349.0
Nuestro Parquecito ..... 2.3
Taper Park ..... 37.6
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 <br> Cost (1) | Acreage | Cost per Acre <br> (2) |
| :--- | :--- | ---: | :--- | ---: | ---: |
| Local Parks, Community Parks, Special Use Facilities | and School | Recreation Sites |  |  |
| 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    $\$ 1,253,307$ <br> Linear Parks, Greenways and Trails     <br> Valley View (EMBUD property) Castro Valley $\$ 6,499,632$ 24.0 $\$ 270,818$ |  |  |  |  |

[^4]Exhibit C2. Parks Development Cost per Acre

| Park | City | Acreage | Cost per Acre |
| :--- | :--- | ---: | ---: |
| (1) |  |  |  |

(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 <br> (1) | \% Total (2) | Average <br> Acquisition <br> Cost per Acre <br> (3) | Weighted <br> Average <br> Acquisition <br> Cost per Acre <br> $(4)$ |
| :--- | :---: | :---: | :---: | :---: |
| Local Parks, Community Parks, <br> Special use Facilities and School <br> Recreation Sites <br> Linear Parks, Greenways and Trails <br> Total | 449.2 | $42.7 \%$ | $\$ 1,253,307$ | $\$ 534,852$ |

(1) Current Acres are from Exhibit 6.
(2) Percent Total $=$ Current Acres by Category $\div$ 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 <br> (1) | \% Total ${ }^{(2)}$ | Average Development Cost per Acre <br> (3) | Weighted Average Development Cost per Acre |
| :---: | :---: | :---: | :---: | :---: |
| 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 $\div$ 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.

## Appendix D. 2010 Level of Service and Level of Service FOR Growth

## Introduction

The City of Hayward is exploring options for the update to the park impact fee, including options for land dedication under the Quimby Act in conjunction with park impact fees under the Mitigation Fee Act. To understand differences in potential options, the City desires the level of service calculations based on the Quimby Act as well as the potential level of service through the mitigation fee act.

## 2010 Level of SERVICE

The legislative body of a city or council may require the dedication of land or in-lieu fees for parks and recreation under the Quimby Act (Government Code Section 66477 (AB 1191)). The land dedication or in-lieu fees can be imposed as a condition for the approval of a parcel subdivision map. Subdivisions containing less than five parcels are exempt under the Quimby Act as are commercial and industrial subdivisions.

Government Code Section 66477 (a)(1)(A) states that "The park area per 1,000 members of the population of the city, county, or local public agency shall be derived from the ratio that the amount of neighborhood and community park acreage bears to the total population of the city, county, or local public agency as shown in the most recent available federal census. The among of neighborhood and community park acreage shall be the actual acreage of existing neighborhood and community parks of the city, county, or local public agency as shown on its records, plans, recreational element, maps, or reports as of the date of the most recent available federal census."

Population in the City of Hayward according to the 2010 federal census was 144,186.

Exhibit 1. City of Hayward Population, 2010-2018 and 2040

|  | 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 $_{(2)}$ | $\mathbf{2 2 , 0 7 8}$ | $\mathbf{0 . 6 \%}$ |  |

(1) CAGR = Compound Annual Growth Rate.
(2) Growth $=2040$ Population -2018 Population.

Source for population:

- for 2010: U.S. Census Bureau, 2010, Profile of General Population and Housing Characteristics
- for years 2011 to 2018: California Department of Finance Population Estimates for Cities, Counties, and State; and
- for 2040: City of Hayward General Plan.

The City of Hayward has reviewed and provided edits to the 2019 inventory of parks to reflect the inventory in 2010. City staff indicated that a 1.0 -acre acquisition was made to expand Greenwood Park after 2010. The most recent calculation of acreage is used for each park, unless City staff provided specific edits. The inventory of parks acres in Hayward totals $1,051.6$ acres in 2010, including all types of parks, comparable with the park impact fee calculations level of service.

Exhibit 2. HARD Local Parks Inventory in the City of Hayward, 2010

| 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 | 2.5 |
| 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 | 132.2 |
| Stonybrook Park | 2.3 |
| Twin Bridges Park | 2.3 |
| Stratford Village Park | 2.3 |
| Schafer Park | 2.1 |
| Bechtel Mini Park | 1.9 |
| Haymont Mini Park | 1.3 |
| La Placita Park | 0.8 |
| Subtotal Local Parks | 0.4 |
|  | 2 |

Exhibit 3. HARD Community Parks, Special Use Facilities, School Recreation Sites and Linear Parks, Greenways and Trails Inventory in the City of Hayward, 2010

| 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. Oliv er Sports Park | 25.6 |
| Children's Park at Giuliana Plaza | 0.2 |
| Douglas Morrison Theater | 0.5 |
| HARD District Office | 3.6 |
| Hayw ard Area Senior Center | 0.2 |
| Hayw ard Community Gardens | 4.8 |
| Hayward Plunge | 1.2 |
| Japanese Gardens | 3.6 |
| Mission Hills of Hayw ard 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 Greenw ay Trail | 30.4 |
| Hayw ard Shoreline Open Space and Trails | 349.0 |
| Nuestro Parquecito | 2.3 |
| Taper Park | 37.6 |
| Subtotal Linear Parks, Greenways and Trails | 603.4 |
| Total | 1,051.6 |

The 2010 level of service ratio is calculated by dividing the existing acreage of Hayward Area Recreation and Park District (HARD) local and community parks and special use facilities by the total 2010 population in Hayward.

$$
\begin{gathered}
2010 \text { Acres } \\
\text { of Parks }
\end{gathered} \div \begin{gathered}
2010 \\
\text { Population }
\end{gathered}=\begin{gathered}
2010 \text { Level of } \\
\text { Service Ratio }
\end{gathered}
$$

Exhibit 4 lists the total 2010 inventory of parks and divides it by the 2010 population of 144,186 , divided by 1,000 to calculate the 2010 level of service ratio of 7.3 acres of parks per 1,000 population.

Exhibit 4. 2010 Level of Service Ratio

| Inventory | 2010 <br> Population | Level of Service Ratio |
| :--- | :---: | :--- |
| $1,051.6$ acres $\div 144,186$ | $=7.3$ acres per 1,000 pop |  |

The Quimby Act requires that the ordinance requiring land dedication and in-lieu fees includes definite standards for determining the land dedication and in-lieu fees. The land dedication required "shall not exceed the proportionate amount necessary to provide three acres of park area per 1,000 persons residing within a subdivision subject to this section, unless the amount of existing neighborhood and community park area, as calculated pursuant to this subdivision, exceeds that limit, in which case the legislative body may adopt the calculation amount as a higher standard not to exceed fiver acres per 1,000 persons residing within a subdivision subject to this section."

## Potential Park Impact Fee Level of Service to be Paid by Growth

The level of service to be funded by growth depends on the level of reduction applied to the maximum fee level if any, as well as any exemptions applied within the park impact fee ordinance. City of Hayward staff has indicated that park impact fee rates may be reduced by up to $30 \%$ from the maximum allowable rate. Additionally, staff have indicated exemptions may be applied to all nonresidential development except industrial. The calculations below documenting the potential level of service to be funded through park impact fees paid by growth provide a comparison between the maximum allowable fee, and reductions of $10 \%, 20 \%$ and $30 \%$, as well as with and without the potential exemptions.

Estimating the potential level of service to be funded by growth starts with estimating the potential park impact fee revenue to be paid by growth. The estimated revenue is calculated by multiplying the growth cost per person by the growth in equivalent population. The growth cost per person is the per equivalent person basis for the park impact fee rates by number of bedrooms
and square foot of nonresidential development. Both the growth cost per person and the estimated growth in equivalent population are documented in the Draft City of Hayward Parks Development Impact Fee Nexus Study.

The potential rate reductions are applied to the growth cost per person. The estimated growth in equivalent population reflects the different exemptions applied. Without assuming exemptions to the park impact fee, the estimated growth in equivalent population is the total growth in equivalent population, which includes both residential population and employees. With exemptions applied, the estimated growth in equivalent population includes growth in equivalent residential population and equivalent industrial population.

$$
\begin{gathered}
\text { Growth Cost per } \\
\text { Equivalent Person }
\end{gathered} \times \begin{gathered}
\text { Growth in } \\
\text { Equivalent Population }
\end{gathered}=\begin{gathered}
\text { Estimated Park Impact Fee } \\
\text { Revenue to be Paid by Growth }
\end{gathered}
$$

Exhibit 5 shows the calculation for the estimated revenue to be paid by growth. The revenue varies between a high of $\$ 168.3$ million to a low of $\$ 91.3$ million depending on the reduction level and exemptions applied.

Exhibit 5. Estimated Park Impact Fee Revenue to be Paid by Growth

|  | Growth Cost <br> per Person | Estimated Growth <br> in Equivalent <br> Population | Estimated <br> Revenue |  |
| :--- | :---: | :---: | :---: | :---: |
| No Fee Exemptions |  |  |  |  |
| Maximum Allow able Fee | $\$ 6,031.64$ | $x$ | 27,902 | $=\$ 168,297,377$ |
| 10\% Reduction | $\$ 5,428.47$ | $x$ | 27,902 | $=\$ 151,467,639$ |
| 20\% Reduction | $\$ 4,825.31$ | $x$ | 27,902 | $=\$ 134,637,902$ |
| 30\% Reduction | $\$ 4,222.15$ | $x$ | 27,902 | $=\$ 117,808,164$ |
| Staff Recommended Exemptions |  |  |  |  |
| Maximum Allowable Fee | $\$ 6,031.64$ | $x$ | 21,633 | $=\$ 130,481,790$ |
| 10\% Reduction | $\$ 5,428.47$ | $x$ | 21,633 | $=\$ 117,433,611$ |
| 20\% Reduction | $\$ 4,825.31$ | $x$ | 21,633 | $=\$ 104,385,432$ |
| 30\% Reduction | $\$ 4,222.15$ | $x$ | 21,633 | $=\$ 91,337,253$ |

The second step in estimating the potential level of service to be funded by growth is to calculate the estimated number of parks acres that could be funded by growth. The number of acres is calculated by dividing the estimated revenue by the park cost per acre from the Draft City of Hayward Parks Development Impact Fee Nexus Study.

$$
\begin{gathered}
\text { Estimated Park Impact Fee } \\
\text { Revenue to be Paid by Growth }
\end{gathered} \div \begin{gathered}
\text { Park Cost } \\
\text { per Acre }
\end{gathered}=\begin{gathered}
\text { Estimated Park Acres to be } \\
\text { Funded by Growth }
\end{gathered}
$$

Exhibit 6 shows the calculation for the estimated number of park acres to be funded by the park impact fees to be paid by growth. The estimated revenue is divided by the park cost per acre of $\$ 2,060,930$. The number of acres ranges from a high of 81.7 acres to a low of 44.3 acres.

Exhibit 6. Estimated Park Acres to be Funded by Growth

|  | Estimated <br> Revenue | Park Cost per <br> Acre | Estimated Acres <br> to be Funded <br> by Growth |  |
| :--- | :--- | :--- | :--- | :--- |
| No Fee Exemptions |  |  |  |  |
| Maximum Allowable Fee $\$ 168,297,377 \div$ | $\$ 2,060,930$ | $=$ | 81.7 |  |
| $10 \%$ Reduction | $\$ 151,467,639 \div$ | $\$ 2,060,930$ | $=$ | 73.5 |
| $20 \%$ Reduction | $\$ 134,637,902 \div$ | $\$ 2,060,930$ | $=$ | 65.3 |
| $30 \%$ Reduction | $\$ 117,808,164 \div$ | $\$ 2,060,930$ | $=$ | 57.2 |
| Staff Recommended Exemptions |  |  |  |  |
| Maximum Allowable Fee $\$ 130,481,790 \div$ | $\$ 2,060,930$ | $=$ | 63.3 |  |
| $10 \%$ Reduction | $\$ 117,433,611 \div$ | $\$ 2,060,930$ | $=$ | 57.0 |
| $20 \%$ Reduction | $\$ 104,385,432 \div \div \$ 2,060,930$ | $=$ | 50.6 |  |
| $30 \%$ Reduction | $\$ 91,337,253 \div$ | $\$ 2,060,930$ | $=$ | 44.3 |

The final step is to calculate the level of service to be funded by growth. The estimated acres are divided by growth in residential population. The growth in residential population is used for comparison to the level of service standards as described in the General Plan as well as the 2010 level of service as outlined by the Quimby Act.
$\begin{gathered}\text { Estimated Park Acres to be } \\ \text { Funded by Growth }\end{gathered} \div \begin{gathered}\text { Growth in } \\ \text { Population }\end{gathered}=\begin{gathered}\text { Level of Service Ratio to } \\ \text { be Funded by Growth }\end{gathered}$
Exhibit 7 shows the calculation for the level of service ratio to be funded by growth. The level of service ratio depends on the reduction percent applied to the maximum fee level as well as the exemptions applied. The estimated level of service to be funded by growth ranges from a high of 3.7 acres per 1,000 population to a low of 2.0 acres per 1,000 population.

Exhibit 7. Estimated Level of Service to be Funded by Growth

|  | Estimated Acres to be Funded by Growth |  | Population Growth |  | Estimated Level of Service Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Fee Exemptions |  |  |  |  |  |  |
| Maximum Allowable Fee | 81.7 | $\div$ | 22,078 | = | 3.7 | acres per 1,000 population |
| 10\% Reduction | 73.5 | $\div$ | 22,078 | = | 3.3 | acres per 1,000 population |
| 20\% Reduction | 65.3 | $\div$ | 22,078 | = | 3.0 | acres per 1,000 population |
| 30\% Reduction | 57.2 | $\div$ | 22,078 | = | 2.6 | acres per 1,000 population |
| Staff Recommended Exemptions |  |  |  |  |  |  |
| Maximum Allowable Fee | 63.3 | $\div$ | 22,078 | = | 2.9 | acres per 1,000 population |
| 10\% Reduction | 57.0 | $\div$ | 22,078 | = | 2.6 | acres per 1,000 population |
| 20\% Reduction | 50.6 | $\div$ | 22,078 | = | 2.3 | acres per 1,000 population |
| 30\% Reduction | 44.3 | $\div$ | 22,078 | = | 2.0 | acres per 1,000 population |

## Overall Level of Service

The total level of service to be provided with the park impact fees does not match the level of service to be provided by growth because the City of Hayward has an existing inventory of $1,052.6$ acres. Additionally, the City has reserve revenue from previously collected park in-lieu fees of $\$ 8.7$ million and 54.9 acres of park land reserved for growth. The overall level of service also accounts for the cost of program administration as well.

The overall level of service is calculated in much the same way as the level of service to be funded by growth with a few additional steps. The first step of the calculation is to multiply the growth cost per equivalent person by the growth in equivalent population to which the fee will be applied.

## $\begin{gathered}\text { Growth Cost per } \\ \text { Equivalent Person }\end{gathered} \times \begin{gathered}\text { Growth in } \\ \text { Equivalent Population }\end{gathered}=\begin{gathered}\text { Estimated Park Impact Fee } \\ \text { Revenue to be Paid by Growth }\end{gathered}$

Exhibit 8 shows the calculation for the estimated revenue to be paid by growth. The revenue varies between a high of $\$ 168.3$ million to a low of $\$ 91.3$ million depending on the reduction level and exemptions applied.

## Exhibit 8. Estimated Park Impact Fee Revenue to be Paid by Growth

|  | Growth Cost <br> per Person | Estimated Growth <br> in Equivalent <br> Population | Estimated <br> Revenue |  |
| :--- | :---: | :---: | :---: | :---: |
| No Fee Exemptions |  |  |  |  |
| Maximum Allowable Fee | $\$ 6,031.64$ | $x$ | 27,902 | $=\$ 168,297,377$ |
| 10\% Reduction | $\$ 5,428.47$ | $x$ | 27,902 | $=\$ 151,467,639$ |
| 20\% Reduction | $\$ 4,825.31$ | $x$ | 27,902 | $=\$ 134,637,902$ |
| 30\% Reduction | $\$ 4,222.15$ | $x$ | 27,902 | $=\$ 117,808,164$ |
| Staff Recommended Exemptions |  |  |  |  |
| Maximum Allowable Fee $\$ 6,031.64$ | $x$ | 21,633 | $=\$ 130,481,790$ |  |
| 10\% Reduction | $\$ 5,428.47$ | $x$ | 21,633 | $=\$ 117,433,611$ |
| 20\% Reduction | $\$ 4,825.31$ | $x$ | 21,633 | $=\$ 104,385,432$ |
| 30\% Reduction | $\$ 4,222.15$ | $x$ | 21,633 | $=\$ 91,337,253$ |

The second step is to account for any revenue held in reserve to pay for parks acres for growth as well as program administration costs.

$$
\begin{aligned}
& \text { Estimated Park } \\
& \text { Impact Fee Revenue } \\
& \text { to be Paid by Growth }- \text { Lieu } \\
& \text { Fee Fund } \\
& \text { Balance }
\end{aligned}-\begin{gathered}
\text { Park Impact } \\
\text { Fee Program } \\
\text { Administration }
\end{gathered}=\begin{gathered}
\text { Estimated Revenue } \\
\text { to Fund Parks } \\
\text { for Growth }
\end{gathered}
$$

Exhibit 9 shows the calculation for the estimated revenue to fund parks to serve growth.

## Exhibit 9. Estimated Park Impact Fee Revenue to Fund Parks to Serve Growth

|  | Estimated Acres to be Funded by Growth | Park In-Lieu Fee Fund Balance | Park Impact Fee Program Administration |  | Estimated Revenue to Fund Parks for Growth |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No Fee Exemptions |  |  |  |  |  |
| Maximum Allow able Fee | \$168,297,377 + | \$8,664,918 - | \$3,469,849 | = | \$173,492,446 |
| 10\% Reduction | \$151,467,639 + | \$8,664,918 - | \$3,469,849 | = | \$156,662,708 |
| 20\% Reduction | \$134,637,902 + | \$8,664,918 - | \$3,469,849 | = | \$139,832,970 |
| 30\% Reduction | \$117,808,164 + | \$8,664,918 - | \$3,469,849 | = | \$123,003,233 |
| Staff Recommended Exemptions |  |  |  |  |  |
| Maximum Allow able Fee | \$130,481,790 + | \$8,664,918 - | \$3,469,849 | $=$ | \$135,676,859 |
| 10\% Reduction | \$117,433,611 + | \$8,664,918 | \$3,469,849 | = | \$122,628,680 |
| 20\% Reduction | \$104,385,432 + | \$8,664,918 - | \$3,469,849 | = | \$109,580,501 |
| 30\% Reduction | \$91,337,253 + | \$8,664,918 - | \$3,469,849 | = | \$96,532,322 |

The third step is to calculate the estimated number of acres to be funded through the estimated revenue to fund parks to serve growth.

$$
\begin{gathered}
\text { Estimated Revenue to } \\
\text { Parks for Growth }
\end{gathered} \div \begin{gathered}
\text { Park Cost } \\
\text { per Acre }
\end{gathered}=\begin{gathered}
\text { Estimated Park Acres } \\
\text { for Growth }
\end{gathered}
$$

Exhibit 10 shows the calculation of the estimated acres for growth. The estimated acres for growth ranges from a high of 84.2 to a low of 46.8 , depending on the level of fee reduction and exemptions applied.

Exhibit 10. Estimated Park Acres for Growth

|  | Estimated <br> Revenue to Fund <br> Parks for Growth | Park Cost <br> per Acre | Estimated <br> Acres for <br> Growth |
| :--- | ---: | :--- | :---: |
| No Fee Exemptions |  |  |  |
| Maximum Allowable Fee | $\$ 173,492,446 \div$ | $\$ 2,060,930=$ | 84.2 |
| $10 \%$ Reduction | $\$ 156,662,708 \div$ | $\$ 2,060,930=$ | 76.0 |
| $20 \%$ Reduction | $\$ 139,832,970 \div$ | $\$ 2,060,930=$ | 67.8 |
| $30 \%$ Reduction | $\$ 123,003,233 \div$ | $\$ 2,060,930=$ | 59.7 |
| Staff Recommended Exemptions |  |  |  |
| Maximum Allowable Fee | $\$ 135,676,859 \div$ | $\$ 2,060,930=$ | 65.8 |
| $10 \%$ Reduction | $\$ 122,628,680 \div$ | $\$ 2,060,930=$ | 59.5 |
| $20 \%$ Reduction | $\$ 109,580,501 \div$ | $\$ 2,060,930=$ | 53.2 |
| $30 \%$ Reduction | $\$ 96,532,322 \div$ | $\$ 2,060,930=$ | 46.8 |

The next step is to account for the acres held in reserve to serve growth in order to arrive at the total acres for growth.

$$
\begin{gathered}
\text { Estimated Park Acres } \\
\text { for Growth }
\end{gathered}+\begin{gathered}
\text { Reserve } \\
\text { Acres }
\end{gathered}=\begin{gathered}
\text { Total Park Acres } \\
\text { for Growth }
\end{gathered}
$$

Exhibit 11 shows the calculation for the total park acres for growth accounting for the 54.9 acres held in reserve to serve growth.

Exhibit 11. Total Park Acres for Growth

|  | Estimated Acres for Growth |  | Reserve Acres |  | Total Acres for Growth |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No Fee Exemptions |  |  |  |  |  |
| Maximum Allowable Fee | 84.2 | + | 54.9 | = | 139.1 |
| 10\% Reduction | 76.0 | + | 54.9 | = | 130.9 |
| 20\% Reduction | 67.8 | + | 54.9 | = | 122.7 |
| 30\% Reduction | 59.7 | + | 54.9 | = | 114.6 |
| Staff Recommended Exemptions |  |  |  |  |  |
| Maximum Allowable Fee | 65.8 | + | 54.9 | = | 120.7 |
| 10\% Reduction | 59.5 | + | 54.9 | = | 114.4 |
| 20\% Reduction | 53.2 | + | 54.9 | = | 108.1 |
| 30\% Reduction | 46.8 | + | 54.9 | = | 101.7 |

Next, in calculating the overall level of service for the full population in 2040, the current parks acres are added to the total acres for growth.
$\begin{gathered}\text { Total Park Acres } \\ \text { for Growth }\end{gathered}+\begin{gathered}\text { Current } \\ \text { Acres }\end{gathered} \quad \begin{gathered}\text { Total Park } \\ \text { Acres }\end{gathered}$
Exhibit 12 shows the calculation for the total park acres, adding together the total acres for growth and the current inventory of park acres.

Exhibit 12. Total Park Acres

|  | Total Acres for <br> Growth | Current <br> Acres | Total Park <br> Acres |  |
| :--- | :---: | :---: | :---: | :---: |
| No Fee Exemptions |  |  |  |  |
| Maximum Allowable Fee | 139.1 | $+1,052.6$ | $=$ | $1,191.7$ |
| $10 \%$ Reduction | 130.9 | $+1,052.6$ | $=$ | $1,183.5$ |
| $20 \%$ Reduction | 122.7 | $+1,052.6$ | $=$ | $1,175.3$ |
| $30 \%$ Reduction | 114.6 | $+1,052.6$ | $=$ | $1,167.2$ |
| Staff Recommended Exemptions |  |  |  |  |
| Maximum Allowable Fee 120.7 $+1,052.6$ $=$ $1,173.3$ <br> $10 \%$ Reduction 114.4 $+1,052.6$ $=$ $1,167.0$ <br> $20 \%$ Reduction 108.1 $+1,052.6$ $=$ $1,160.7$ <br> 30\% Reduction 101.7 $+1,052.6$ $=$ $1,154.3$ |  |  |  |  |

The final step is to calculate the estimated level of service. The calculation divides the total park acres by the total 2040 population to arrive at the estimated level of service. The level of service depends on the percent reduction applied to the maximum level of the fee as well as any exemption applied. The resulting level of service ranges between a high of 6.5 acres per 1,000 population and 6.3 acres per 1,000 population.

Exhibit 13. Estimated Total Level of Service

|  | Total Park Acres |  | Total Population |  |  | mated Level of Service Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No Fee Exemptions |  |  |  |  |  |  |
| Maximum Allowable Fee | 1,191.7 | $\div$ | 183,533 |  | 6.5 | acres per 1,000 population |
| 10\% Reduction | 1,183.5 | $\div$ | 183,533 |  | 6.4 | acres per 1,000 population |
| 20\% Reduction | 1,175.3 | $\div$ | 183,533 |  | 6.4 | acres per 1,000 population |
| 30\% Reduction | 1,167.2 | $\div$ | 183,533 | = | 6.4 | acres per 1,000 population |
| Staff Recommended Exemptions |  |  |  |  |  |  |
| Maximum Allowable Fee | 1,173.3 | $\div$ | 183,533 |  | 6.4 | acres per 1,000 population |
| 10\% Reduction | 1,167.0 | $\div$ | 183,533 |  | 6.4 | acres per 1,000 population |
| 20\% Reduction | 1,160.7 | $\div$ | 183,533 |  | 6.3 | acres per 1,000 population |
| 30\% Reduction | 1,154.3 | $\div$ | 183,533 | = | 6.3 | acres per 1,000 population |

## SUMMARY

In 2010 the City of Hayward had a level of service of 7.3 parks per 1,000 population, using the 2010 inventory of parks acres and the 2010 Census population. Quimby allows cities to require land dedication or in-lieu fees up to five acres per 1,000 population, if the current level of service exceeds that rate. Quimby land dedication and in-lieu fees apply only to subdivisions of more than five parcels.

The park impact fees calculated based on the current level of service and accounting for the collected in-lieu fees and reserve acres ask growth to pay for the equivalent of 3.7 acres per 1,000 population at the maximum park impact fee rate and without any exemptions. If the City applies a $30 \%$ reduction to the fee rates and exempt all nonresidential development except industrial, the park impact fee rates will ask growth to pay for the equivalent of 2.0 acres for growth.

The park impact fees combined with park acres already purchased to serve growth and collected in-lieu fees as well as the administrative costs, would provide an overall level of service of 6.5 acres per 1,000 population at the maximum level. The estimated level of service assumes no park capacity increases outside of the park impact fees and reserve capacity. If the City applies a $30 \%$ reduction to the fee rates and exempt all nonresidential development except industrial, the overall level of service will be 6.3 acres per 1,000 population.


[^0]:    ${ }^{1}$ Government Code § 66000 (b)

[^1]:    ${ }^{2}$ 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.

[^2]:    ${ }^{3}$ By way of comparison, police and fire facilities are considered to be " 24 -hour" public facilities, therefore $24 \times 7=168$ hours for their equivalent population coefficient calculations.

[^3]:    ${ }^{4}$ 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.

[^4]:    (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 $\div$ Acreage.

