



**CITY OF KIRKLAND**  
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**MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Tracey Dunlap, Deputy City Manager

**Date:** April 21, 2021

**Subject:** FIRE IMPACT FEE ADOPTION

**RECOMMENDATION:**

City Council adopts the ordinance implementing Fire Impact Fees effective July 1, 2021. The ordinance adds a new Chapter 27.10, "Fire Impact Fees," to Title 27 of the Kirkland Municipal Code.

**BACKGROUND DISCUSSION:**

Council received a briefing on the results of the Fire Impact Fee study at the April 6, 2021 City Council meeting. The rate study report prepared by the City's consultant FCS Group (Attachment 1) contains the underlying calculations for the proposed Fire Impact Fee. Based on direction received at that meeting, staff is presenting an ordinance that, if approved, would implement the Fire Impact Fee effective July 1, 2021. The proposed fee schedule is summarized in the table below.

Land Use Type	Total Fee	Unit of Development	Growth by 2035	Existing Component Revenue	Future Component Revenue
Commercial	\$ 1.40	per Sq. Ft.	889,766	\$ 332,614	\$ 910,885
Office & Industrial	0.07	per Sq. Ft.	4,831,614	118,363	198,977
Schools	0.53	per Sq. Ft.	551,102	79,533	214,989
Health Care	3.24	per Sq. Ft.	450,269	394,105	1,065,320
Government	3.03	per Sq. Ft.	71,559	58,562	158,301
Single-Family	1,019.38	per Dwelling Unit	3,511	841,610	2,737,444
Multifamily	412.92	per Dwelling Unit	10,153	1,590,558	2,601,849
<b>Total Revenue Generated</b>				<b>\$ 3,415,346</b>	<b>\$ 7,887,764</b>

The presentation on April 6 also included a comparison of residential fees to other jurisdictions, which is included on the following page.

City	SFR	MFR
Shoreline	\$ 2,311	\$ 2,002
Issaquah	2,213	2,485
<b>Kirkland</b>	<b>1,019</b>	<b>413</b>
Renton	830	965
Redmond	128	217
Sammamish	N/A	N/A
Bellevue	N/A	N/A

SFR=single family residential; MFR=multifamily residential

### *Fire Impact Fee Elements*

The fire impact fee would apply to both residential and commercial development. The fee would not be applied to changes of use of an existing building unless the existing structure was replaced, expanded or significantly redeveloped.

Section 27.10.050 of the ordinance also provides all the exemptions from the fire impact fee that are currently authorized by state law. Buildings or structures constructed as shelters that provide emergency housing for people experiencing homelessness and emergency shelters for victims of domestic violence are exempted. Accessory dwelling units are also exempted. Low-income housing is exempted from 80% of the required fire impact fee which is the maximum exemption allowed by state law.

Development activities of human services agencies which meet the human services needs of the community such as providing employment assistance, food, shelter, clothing, or health services for low- and moderate-income residents may also apply for an impact fee exemption. Under state law, if the City grants this discretionary exemption, the impact fee amount not collected from human services agencies must still be paid by the City from other public funds.

### *Next Steps*

Should the Council adopt the Fire Impact Fee on May 4, the next step would be for staff to return to Council with the additional information requested about parks and transportation impact fees at the April 6 meeting and seek additional direction on the following schedule:

- Parks Impact Fee Follow Up and Policy Questions – June
  - Should the Park Impact Fee be increased and, if so, to what level?
  - Should a non-residential Park Impact Fee be implemented?
  - What date should the new fees be effective?
- Transportation Impact Fee Follow Up and Policy Questions – July
  - Should the Transportation Impact Fees be changed based on the study results?
  - What date should the new fees be effective?

# City of Kirkland, WA

## FIRE AND PARKS IMPACT FEE UPDATE

Final Report  
December 2020

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## Section I. INTRODUCTION

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The City of Kirkland, Washington (City) is a growing city with increasing demands for parks facilities. To help offset the costs that these demands place upon the City, the City imposes a Parks Impact Fee of \$4,391 for a single-family home, and \$3,338 for a multi-family dwelling unit. This fee was intended to recover an equitable share of system costs from growth, recognizing both the investments in infrastructure that the City has made and the future investments that the City will have to make to provide capacity to serve growth. The parks impact fee was last studied in 2015, and the City Council adopted Park Impact fees based on this study, which became effective in 2016. The fees have been indexed to inflation over the intervening time period and have thus increased every year. In 2020, the City contracted with FCS GROUP to update the fee. In addition, the City requested an initial impact fee for its fire and emergency medical services, which is included in this report. The scope of work also included updating the City's Transportation Impact Fee, but finalizing that work has been put on hold pending updates to the City's Transportation Management Plan (TMP) expected in 2021. Those results will be summarized in a separate report when the new information has been incorporated.

Consistent with these objectives, this study included the following key elements:

- **Overview of Washington Laws and Methodology Alternatives.** We worked with City staff to examine previous impact fee methodologies and evaluate alternative approaches in compliance with Washington law.
- **Develop Policy Framework.** We worked with City staff to identify, analyze, and agree on key policy issues and direction.
- **Technical Analysis.** In this step, we worked with City staff to resolve technical issues, isolate the recoverable portion of existing and planned facilities costs, and calculate fee alternatives. The most important technical consideration involves the identification and inclusion of planned capacity-increasing project costs.
- **Documentation and Presentation.** In this step, we presented preliminary findings to the City Council and summarized findings and recommendations in this report.

## Section II. IMPACT FEE LEGAL OVERVIEW

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Impact fees are enabled by state statutes, authorized by local ordinance, and constrained by the United States Constitution. Impact fees allow cities to recover some of the cost of expanding public facilities necessitated by growth. These fees allow “growth to pay for growth” in a fair and equitable manner. Impact fees have a specific definition and associated constraints in the state of Washington. Impact fees are allowed under RCW 82.02.050 through 82.02.110 and are permitted for:

- Public streets and roads
- Publicly owned parks, open space, and recreation facilities
- School facilities
- Fire protection facilities

The statute provides specific guidance on the permissible methodology for calculating impact fees. This guidance can be broken down into three major categories:

**1. Eligibility Requirements.** RCW 82.02.050(3) states that impact fees:

- a. Shall only be imposed for system improvements that are reasonably related to the new development;
- b. Shall not exceed a proportionate share of the costs of system improvements that are reasonably related to the new development; and;
- c. Shall only be used for system improvements that will reasonably benefit the new development.

These requirements, which exist to protect developers, ensure that impact fees are based on—and spent for—capacity that will directly or indirectly serve new development. That is why careful scrutiny is given to the included project list. Moreover, the impact fee that a developer pays must represent that particular development’s fair share of required capacity. That is why developments pay a unique fee based on land use, anticipated occupancy, and size.

Additionally, RCW 82.02.050(5) states that “Impact fees may be collected and spent only for the public facilities . . . which are addressed by the capital facilities plan element of a comprehensive land use plan.” This means that if a project is not listed in the adopted capital facilities plan element, then it is not eligible to be included in impact fee calculations.

**2. Cost Basis.** RCW 82.02.060(1) outlines the cost basis of impact fee calculations, stating that the basis must consider:

- a. The cost of public facilities necessitated by new development;
- b. An adjustment to the cost of the public facilities for past or future payments made or reasonably anticipated to be made by new development to pay for particular system improvements in the form of user fees, debt service payments, taxes, or other payments earmarked for or pro-ratable to the particular system improvement;

- c. The availability of other means of funding public facility improvements;
- d. The cost of existing public facilities improvements; and
- e. The methods by which public facilities improvements were financed.

This means that adjustments to the impact fee cost basis must be made for the amount of outstanding debt that was or will be used to pay for capital facility improvements, as well as other methods of funding public facilities improvements.

3. **Customer Base.** The costs determined to be eligible must be proportionately allocated across the projected customer base.

## Section III. FIRE IMPACT FEE

The City does not currently have a fire impact fee. Therefore, instead of an update using an existing methodology, a new methodology must be applied. This study uses the *buy in plus growth method*, meaning that the impact fee is comprised of two separate parts: the existing cost component and the future cost component. Conceptually, this recognizes that the new customer is not fully served by the existing system, as evidenced by the need to make additional expansion investments. An expansion charge is added to this existing system charge by dividing the expansion portion of future capacity investments by the projected growth. The existing cost component consists of the existing system cost, divided by the existing customer base *plus* the future growth served. The future cost component consists of the capacity expanding portion of future projects, divided by *only* future growth served. These two components are then added together to create the fire impact fee. This methodology is shown in **Exhibit 1**.



Each of these components requires explanation and is examined in detail below.

### III.A. EXISTING SYSTEM COST

The existing system cost is simply the cost of the City's existing assets used to provide fire and EMS services. This primarily consists of fire apparatus (including engines, aid cars, and marine units), miscellaneous equipment, and fire stations that are currently in service. The included assets are shown in **Exhibit 2** and **3**.



**Exhibit 2  
Fire Apparatus**

Veh #	Acquisition		Original Cost
	Date	Useful Life	
F-612	2003	18	\$ 355,048
F-613A	2005	18	169,694
F-213	2006	8	58,314
F-613B	2006	18	233,605
F403B	2007	17	4,814
F-613C	2007	17	632
F-216	2008	8	66,368
F-318A	2010	8	188,990
F-614A	2010	18	542,752
F-614B	2010	18	244
F-318B	2011	8	1,243
F-614C	2011	18	2,163
F-319A	2012	8	197,374
F-615A	2012	18	269,200
F-319B	2013	8	330
F-615B	2013	18	311,091
F-320	2014	8	211,243
F-321	2014	8	211,455
F-507A	2014	8	2,403
F-615C	2014	17	2,947
F-322A	2015	8	225,148
F-323A	2015	8	225,148
F-507B	2015	18	1,215,767
F-616A	2015	18	603,529
Marine-1	2015	10	38,690
Marine-2	2015	10	38,690
F-318C	2016	8	40,359
F-319C	2016	8	40,359
F-322B	2016	8	42,739
F-323B	2016	8	42,769
F-507C	2016	8	1,349
F-616B	2016	8	23
F-617	2017	18	665,441
F 617	2018	18	22,418
F214X	2006	8	26,964
F222	2014	8	31,265
F223	2014	8	31,265
F224	2014	8	31,265
F225	2014	8	31,265
<b>Included Total</b>			<b>\$ 6,184,368</b>

The total apparatus cost is \$6.2 million. The other major component of the City's assets is its fire stations, which total \$8.5 million.

**Exhibit 3**  
**City Fire Stations**

Station	Year Acquired	Original Cost
Fire Station #21	1998	\$ 1,352,826
Fire Station #22	1980	662,700
Fire Station #26	1994	1,588,088
FS#25 (FD41 Annex)	2011	1,078,600
Fire Station #25 Renovation	2018	3,653,513
FS#27 (FD41 Annex)	2011	213,700
<b>Total</b>		<b>\$ 8,549,428</b>

Combined with \$379,317 in included miscellaneous equipment, the total existing cost component can be calculated as shown in **Exhibit 4** below and totaling \$15,113,113.

**Exhibit 4**  
**Existing Cost Component**

Asset Category	Cost
Apparatus	\$ 6,184,368
Miscellaneous Equip.	379,317
Stations	8,549,428
<b>Existing Cost Component</b>	<b>\$ 15,113,113</b>

### III.B. CUSTOMER BASE

The next step is to calculate the existing customer base. The City provided the number of dwelling units in the City in 2015, along with the area (in square feet) of various nonresidential land use types. Based on the City's comprehensive plan, anticipated development by 2035 and annual growth rates could be calculated as shown in **Exhibit 5**. Using the compound annual growth rate, the total amount of development in 2019 could be interpolated. Development in 2019 is the existing customer base, and the estimated development between 2020 and 2035 is the future customer base.

**Exhibit 5**  
**Development**

Land Use	Measurement	2015 Existing	Additional 2035 Development	Compound Annual Growth Rate	2019 Development
Commercial	Sq. Ft.	4,063,759	889,766	0.99%	4,227,905
Office & Industrial	Sq. Ft.	8,799,061	4,831,614	2.21%	9,604,008
Schools	Sq. Ft.	2,468,850	551,102	1.01%	2,570,371
Health Care	Sq. Ft.	2,017,135	450,269	1.01%	2,100,081
Government	Sq. Ft.	320,571	71,559	1.01%	333,753
Single-Family	Dwelling Unit	20,451	3,511	0.80%	21,109
Multifamily	Dwelling Unit	17,086	10,153	2.36%	18,756

The City provided response data from 2019, categorized by land use type. This was used to calculate the 2019 incident generation rate, or the number of incidents generated by each unit of development, as shown in **Exhibit 6**.

**Exhibit 6**  
**2019 Incident Generation Rate**

Land Use	Measurement	2019 Development	2019 Incidents	2019 Incident Generation Rate
Commercial	Sq. Ft.	4,227,905	936	0.00022
Office & Industrial	Sq. Ft.	9,604,008	169	0.00002
Schools	Sq. Ft.	2,570,371	220	0.00009
Health Care	Sq. Ft.	2,100,081	1,092	0.00052
Government	Sq. Ft.	333,753	162	0.00049
Single-Family	Dwelling Unit	21,109	2,903	0.13754
Multifamily	Dwelling Unit	18,756	2,157	0.11500
<b>Total</b>			<b>7,640</b>	

Assuming that incident generation rates across land use types remain the same, an incident forecast for 2035 can be prepared, as shown in **Exhibit 7**.

**Exhibit 7**  
**Incident Forecast**

Land Use	Measurement	2015 Existing	2035 Development	2019 Incident Generation Rate	2035 Incident Forecast
Commercial	Sq. Ft.	4,063,759	4,953,525	0.00022	1,097
Office & Industrial	Sq. Ft.	8,799,061	13,630,675	0.00002	240
Schools	Sq. Ft.	2,468,850	3,019,952	0.00009	259
Health Care	Sq. Ft.	2,017,135	2,467,404	0.00052	1,283
Government	Sq. Ft.	320,571	392,130	0.00049	191
Single-Family	Dwelling Unit	20,451	23,962	0.13754	3,296
Multifamily	Dwelling Unit	17,086	27,239	0.11500	3,133
<b>Total</b>					<b>9,497</b>

The annual number of incidents is expected to grow by 1,857 incidents between 2019 and 2035 (9,497 – 7,640 = 1,857). This results in a *growth eligibility percentage* of 19.56 percent.

$$1,857 \div 9,497 = 19.56\%$$

Unlike other City services, it is difficult to assign future investments as 100 percent growth related. Apparatus are mobile, and most of the growth within the City is projected to be infill and redevelopment. Thus, future projects will be assumed to serve both existing development and future growth. This means that future system investments will only be 19.56 percent eligible for inclusion in the future cost component.

### III.C. FUTURE COST COMPONENT

The City provided a capital improvement plan (CIP) that included both funded and unfunded projects. However, after discussions with City staff, it was determined that the unfunded portion of the CIP should be included in the impact fee cost basis only if the City's Proposition #1 levy failed at

the November 2020 election. The levy passed, so the projects listed in the unfunded portion of the CIP will be funded with levy funds instead, and not included in the impact fee study. The included CIP projects are shown in **Exhibit 8**.

**Exhibit 8  
Future Projects**

Project Number	Project Title	Prior Year(s) (not included)	2019-2024 Total	Impact Fee Eligibility	Impact Fee Eligible Cost
<b>FIRE</b>					
PSC 06300	Air Fill Station Replacement		<b>86,200</b>	19.56%	16,857
PSC 06600	Thermal Imaging Cameras		<b>93,400</b>	19.56%	18,265
PSC 07100	Self Contained Breathing Apparatus (SCBA)		<b>1,017,600</b>	19.56%	198,999
PSC 07600	Personal Protective Equipment		<b>1,320,500</b>	19.56%	258,233
PSC 08000	Emergency Generators	120,000	<b>120,000</b>	19.56%	46,934
PSC 08100	Fire Station 26 Training Prop		<b>290,000</b>	19.56%	56,712
PSC 08200	Water Rescue Craft Storage & Lift		<b>87,900</b>	19.56%	17,189
<b>FACILITIES</b>					
PSC 30021	Fire Station 24 Land Acquisition	4,437,530	<b>5,737,530</b>	19.56%	1,989,804
PSC 30022	Fire Station 24 Replacement	10,133,300	<b>16,890,908</b>	19.56%	5,284,772
<b>Total Funded Public Safety Projects</b>		<b>\$ 14,690,830</b>	<b>\$ 25,644,038</b>		<b>\$ 7,887,764</b>

The future cost to be included is \$25.6 million. When multiplied by the growth eligibility percentage calculated above, the future cost basis is \$7.9 million.

### III.D. IMPACT FEE CALCULATION

All the cost bases of the impact fee have now been calculated. However, as the impact fee will be charged based on individual land use type, each cost component must be distributed across the various land use types. This is done on the percentage of incidents in the relevant year (2019 for the current cost basis and 2035 for the future cost basis). **Exhibit 9** shows the distribution and resulting impact fee for apparatus costs.

**Exhibit 9  
Apparatus Fee Calculation**

Land Use Type	Unit of Development	2019 Incident Breakdown	Cost Basis: \$ 6,184,368	2035 Development	Fee
Commercial	Sq. Ft.	936	12.25%	\$ 757,740	4,953,525 \$ 0.15
Office & Industrial	Sq. Ft.	169	2.21%	136,642	13,630,675 0.01
Schools	Sq. Ft.	220	2.88%	178,344	3,019,952 0.06
Health Care	Sq. Ft.	1,092	14.29%	883,735	2,467,404 0.36
Government	Sq. Ft.	162	2.12%	131,318	392,130 0.33
Single-Family	Dwelling Unit	2,903	38.01%	2,350,415	23,962 98.09
Multifamily	Dwelling Unit	2,157	28.24%	1,746,174	27,239 64.11
<b>Total</b>		<b>7,640</b>	<b>100.00%</b>	<b>\$ 6,184,368</b>	

**Exhibit 10** shows the distribution and resulting impact fee for fire stations and miscellaneous equipment costs.

**Exhibit 10**  
**Stations and Miscellaneous Equipment Fee Calculation**

Land Use Type	Unit of Development	2019 Incidents	2019 Incident Breakdown	Cost Basis \$8,928,745	2035 Development	Fee
Commercial	Sq. Ft.	936	12.25%	\$ 1,093,995	4,953,525	\$ 0.22
Office & Industrial	Sq. Ft.	169	2.21%	197,278	13,630,675	0.01
Schools	Sq. Ft.	220	2.88%	257,486	3,019,952	0.09
Health Care	Sq. Ft.	1,092	14.29%	1,275,901	2,467,404	0.52
Government	Sq. Ft.	162	2.12%	189,592	392,130	0.48
Single-Family	Dwelling Unit	2,903	38.01%	3,393,435	23,962	141.62
Multifamily	Dwelling Unit	2,157	28.24%	2,521,057	27,239	92.55
<b>Total</b>		<b>7,640</b>	<b>100.00%</b>	<b>\$ 8,928,745</b>		

Finally, the future cost basis is distributed in **Exhibit 11**. As the future cost basis is divided only by future growth, the incidents, incident breakdown, and development are different than in **Exhibits 9** and **10**.

**Exhibit 11**  
**Future Projects Fee Calculation**

Land Use Type	Unit of Development	2035 Projected Incidents	2035 Incident Breakdown	Cost Basis \$ 7,887,764	Growth by 2035	Fee
Commercial	Sq. Ft.	1,097	11.55%	\$ 910,885	889,766	\$ 1.02
Office & Industrial	Sq. Ft.	240	2.52%	198,977	4,831,614	0.04
Schools	Sq. Ft.	259	2.73%	214,989	551,102	0.39
Health Care	Sq. Ft.	1,283	13.51%	1,065,320	450,269	2.37
Government	Sq. Ft.	191	2.01%	158,301	71,559	2.21
Single-Family	Dwelling Unit	3,296	34.70%	2,737,444	3,511	779.68
Multifamily	Dwelling Unit	3,133	32.99%	2,601,849	10,153	256.26
<b>Total</b>		<b>9,497</b>	<b>100.00%</b>	<b>\$ 7,887,764</b>		

The total fire impact fee is the sum of these three calculated fees, shown below in **Exhibit 12**.

**Exhibit 12**  
**Fire Impact Fee Schedule**

Land Use Type	Existing Fee Component	Future Fee Component	Total Fee	Unit of Development
Commercial	\$ 0.37	\$ 1.02	\$ 1.40	per Sq. Ft.
Office & Industrial	0.02	0.04	0.07	per Sq. Ft.
Schools	0.14	0.39	0.53	per Sq. Ft.
Health Care	0.88	2.37	3.24	per Sq. Ft.
Government	0.82	2.21	3.03	per Sq. Ft.
Single-Family	239.71	779.68	1,019.38	per Dwelling Unit
Multifamily	156.66	256.26	412.92	per Dwelling Unit

Finally, the calculated fire impact fees can be multiplied by anticipated growth to forecast the revenue the City will receive if it fully adopts the fire impact fee.

**Exhibit 13**  
**Fire Impact Fee Revenue Forecast**

Land Use Type	Total Fee	Unit of Development	Growth by 2035	Existing Component Revenue	Future Component Revenue
Commercial	\$ 1.40	per Sq. Ft.	889,766	\$ 332,614	\$ 910,885
Office & Industrial	0.07	per Sq. Ft.	4,831,614	118,363	198,977
Schools	0.53	per Sq. Ft.	551,102	79,533	214,989
Health Care	3.24	per Sq. Ft.	450,269	394,105	1,065,320
Government	3.03	per Sq. Ft.	71,559	58,562	158,301
Single-Family	1,019.38	per Dwelling Unit	3,511	841,610	2,737,444
Multifamily	412.92	per Dwelling Unit	10,153	1,590,558	2,601,849
<b>Total Revenue Generated</b>				<b>\$ 3,415,346</b>	<b>\$ 7,887,764</b>

The total revenue generated is \$11.3 million. This represents 44% of the 2019-24 CIP shown in **Exhibit 8**.

FCS GROUP also surveyed neighboring jurisdictions to determine how the City's calculated fire impact fees fit into a regional context. The results of this survey are shown in **Exhibit 14**. Fire impact fees are not as common as other types of impact fees, but Kirkland's calculated fee is in line with those imposed by other Western Washington jurisdictions.

**Exhibit 14**  
**Fire Impact Fee Survey**

City	SFR	MFR
Issaquah	\$ 2,213	\$ 2,485
Shoreline	2,187	1,895
<b>Kirkland</b>	<b>1,019</b>	<b>413</b>
Renton	830	965
Redmond	125	149
Sammamish	N/A	N/A
Bellevue	N/A	N/A
Sammamish	N/A	N/A
Vancouver	N/A	N/A

## Section IV. PARKS IMPACT FEE

This section provides the detailed calculations of the maximum defensible parks impact fee. As the City already has an existing parks impact fee, this study uses the same investment-based methodology as was previously used. This approach is based on the total value of the City's park system, divided by the total applicable customer base. One change was made to the previous calculation. This impact fee uses residential equivalents (described below) that is added to the city population to account for the impacts of nonresidential development on City infrastructure.

### IV.A. CUSTOMER BASE

The first step is to calculate the parks capital value per person, or the value of the existing system divided by the user base. The City currently defines the user base of its park system as the City's population. However, an alternative methodology is based on *residential equivalents*, which measures and includes the additional impact of employees of businesses within the City on the parks system. The calculation of residential equivalents is shown below.

#### IV.A.1. Residential Equivalents

To charge parks impact fees to both residential and non-residential developments, we must estimate both (1) how much availability non-residential occupants (i.e., employees) have to use parks facilities and (2) how that availability differs from residential occupants (i.e., residents).

The calculation begins with the most recent data for both population and employment in Kirkland. As shown below, in 2017 (the most recent year for which both population and employment data were available), 86,080 residents lived in Kirkland, and 47,834 employees worked in Kirkland. Of these, 5,484 people both lived and worked in Kirkland, as shown in **Exhibit 15**.

**Exhibit 15**  
**Residents and Employees in Kirkland (2017)**

	Living Inside Kirkland	Living Outside Kirkland	Total
Working inside Kirkland	5,484	42,350	<b>47,834</b>
Working outside Kirkland	39,184		
Not working	41,412		
<b>Total</b>	<b>86,080</b>		

Source: WA OFM Population Statistics, US Census Bureau: OnTheMap Application

Next, we estimate the number of hours per week that each category of person would be available to use the parks facilities in Kirkland. For example, a resident of the City who was not working would have 112 hours per week available to use park facilities (7 days x 16 hours per day). The table below shows FCS GROUP's estimate of maximum time available for use. It is not an estimate of actual use.

**Exhibit 16**  
**Available Hours by Category**

Hours per Week of Park Availability per Person, Residential Demand	Living Inside Kirkland	Living Outside Kirkland
Working inside Kirkland	72	N/A
Working outside Kirkland	72	N/A
Not working	112	N/A
Hours per Week of Park Availability per Person, Non-Residential Demand	Living Inside Kirkland	Living Outside Kirkland
Working inside Kirkland	10	10
Working outside Kirkland	N/A	N/A
Not working	N/A	N/A

Source: FCS GROUP

When the hours of availability above are multiplied by the population and employee counts presented earlier, we can determine the relative parks demand of residents and employees. As shown in **Exhibit 17**, the parks demand of one employee is equivalent to the parks demand of 0.11 resident. Another way of understanding this is that the parks demand of 9.12 employees is equivalent to the parks demand of one resident.

**Exhibit 17**  
**Total Available Hours by Class**

Total Hours per Week of Park Availability, 2017	Residential Hours	Non-Residential Hours	Total Hours
Working inside Kirkland	394,848	478,340	873,188
Working outside Kirkland	2,821,248		2,821,248
Not working	4,638,144		4,638,144
<b>Total</b>	<b>7,854,240</b>	<b>478,340</b>	<b>8,332,580</b>
Hours per resident	91.24		
Hours per employee		10.00	
<b>Employee Residential Equivalent</b>			<b>0.110</b>

Source: Previous tables

## IV.A.2. Growth

The current (2020) demand for parks facilities is 96,121 residential equivalents. That number is the sum of 90,660 residents (based on the Washington State Office of Financial Management's official state population projections), and 5,461 residential equivalents for 49,832 employees. The number of employees is based on the 2017 number of employees, inflated to 2020 based on the City's planning data.

During the forecast period from 2020 to 2024, chosen to match the capital plan, residential population is expected to grow by 983 residents to a total of 91,643 residents. Population growth was forecast at 0.27 percent annually, and growth in employees forecast at 1.37 percent annually. As



shown in **Exhibit 18**, residential equivalents will grow by 1,289 residential equivalents to a total of 97,410 residential equivalents.

**Exhibit 18**  
**Growth in Residential Equivalents**

	2017	2020	2024	Growth from 2020 to 2024
Population	86,080	90,660	91,643	983
Employees	47,834	49,832	52,627	2,795
Residential Equivalent Employees	5,242	5,461	5,768	306
<b>Total Residential Equivalents</b>	<b>91,322</b>	<b>96,121</b>	<b>97,410</b>	<b>1,289</b>

As of the time of this report, the City had not determined whether to use residential equivalents as the customer base, which would allow it to charge nonresidential development, or to retain its current approach and charge only residential development. This report shows each calculation in parallel, so the differences between the two approaches are clear.

## IV.B. IMPACT FEE CALCULATION

The next step is to calculate the capital value per person or residential equivalent. This study is based on the previous valuations of the City park system, inflated by the actual rise in property assessed values in Kirkland between 2014 and 2020 (80.74 percent). This is shown in **Exhibit 19**.

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### Exhibit 19a Park System Inventory

Name	2014			2020			
	Land Value	Improvement Value	2014 Total Value	Inflated Land Value	Inflated Improvement Value	Additional CIP Improvements	2020 Total Value
132nd Square Park	\$ 466,000	\$ 2,462,121	\$ 2,928,121	\$ 842,264	\$ 4,450,121	\$ 9,058	\$ 5,301,444
Beach Property	45,000	-	45,000	81,335	-	-	81,335
Brookhaven Park	622,100	24,725	646,825	1,124,405	44,688	-	1,169,093
Carillon Woods	9,634,000	180,920	9,814,920	17,412,823	327,001	-	17,739,824
Cedar View Park	465,500	101,500	567,000	841,361	183,455	-	1,024,815
Cotton Hill Park	803,000	-	803,000	1,451,370	-	-	1,451,370
Crestwoods Park	13,784,500	2,457,493	16,241,993	24,914,579	4,441,756	-	29,356,336
David E. Brink Park	15,379,000	648,124	16,027,124	27,796,534	1,171,442	-	28,967,975
Edith Moulton Park	3,648,000	287,940	3,935,940	6,593,521	520,433	1,878,356	8,992,310
Everest Park	5,812,800	3,918,638	9,731,438	10,506,255	7,082,680	409	17,589,344
Forbes Creek Park	2,852,000	524,875	3,376,875	5,154,803	948,677	-	6,103,480
Forbes Lake Park	1,382,000	-	1,382,000	2,497,874	-	140,602	2,638,476
Heritage Park	16,215,500	2,091,641	18,307,141	29,308,452	3,780,504	-	33,088,956
Heronfield Wetlands	2,128,200	16,100	2,144,300	3,846,582	29,100	-	3,875,682
Highlands Park	1,271,000	351,584	1,622,584	2,297,249	635,465	-	2,932,714
Houghton Beach Park	30,150,000	2,238,895	32,388,895	54,494,147	4,046,656	-	58,540,803
Juanita Bay Park	25,880,200	4,886,922	30,767,122	46,776,764	8,832,790	2,759	55,612,312
Juanita Beach Park	10,752,000	9,210,079	19,962,079	19,433,535	16,646,614	688,569	36,768,717
Juanita Heights Park	1,168,000	5,600	1,173,600	2,111,083	10,122	736,033	2,857,238
Kingsgate Park	1,293,000	5,000	1,298,000	2,337,013	9,037	-	2,346,050
Kiwanis Park	8,282,000	16,000	8,298,000	14,969,172	28,919	-	14,998,091
Lake Ave W Street End Park	5,513,278	12,700	5,525,978	9,964,888	22,954	-	9,987,843
Marina Park	12,000,000	5,573,669	17,573,669	21,689,213	10,074,040	11,798	31,775,051
Mark Twain Park	624,000	874,062	1,498,062	1,127,839	1,579,810	-	2,707,649
Marsh Park	16,950,000	705,526	17,655,526	30,636,013	1,275,192	18,937	31,930,142
McAuliffe Park	2,888,800	523,408	3,412,208	5,221,316	946,026	-	6,167,342
Neil-Landguth Wetland Park	140,000	5,000	145,000	253,041	9,037	-	262,078
North Kirkland Com Ctr Park	3,172,800	7,196,029	10,368,829	5,734,628	13,006,349	-	18,740,977
North Rose Hill Woodlands Park	1,944,000	1,100,505	3,044,505	3,513,652	1,989,091	-	5,502,743
Ohde Avenue Pea Patch	666,000	2,250	668,250	1,203,751	4,067	-	1,207,818
Open Space 1138020240	189,000	-	189,000	341,605	-	-	341,605
Open Space 1437900440	1,000	-	1,000	1,807	-	-	1,807
Open Space 3295730200	1,000	-	1,000	1,807	-	-	1,807
Open Space 3326059150	988,000	-	988,000	1,785,745	-	-	1,785,745
Open Space 6639900214	177,000	-	177,000	319,916	-	-	319,916
Open Space 3326059136	1,060,900	-	1,060,900	1,917,507	-	-	1,917,507
Open Space 2426049132	651,000	-	651,000	1,176,640	-	-	1,176,640
Open Space 2540800430	1,000	-	1,000	1,807	-	-	1,807
Open Space 3261020380	5,000	-	5,000	9,037	-	-	9,037
Open Space 3275740240	1,000	-	1,000	1,807	-	-	1,807
Open Space 3754500950	476,000	-	476,000	860,339	-	-	860,339
Open Space 6619910290	240,000	-	240,000	433,784	-	-	433,784

**Exhibit 19b**  
**Park System Inventory cont.**

Name	2014			2020			
	Land Value	Improvement Value	2014 Total Value	Inflated Land Value	Inflated Improvement Value	Additional CIP Improvements	2020 Total Value
Open Space 7016100600	536,000	-	536,000	968,785	-		968,785
Open Space 7016300061	1,000	-	1,000	1,807	-		1,807
Open Space 7955060320	164,000	-	164,000	296,419	-		296,419
Open Space 9527000610	1,000	-	1,000	1,807	-		1,807
Open Space 1119000270	1,000	-	1,000	1,807	-		1,807
Open Space 3558910830	1,000	-	1,000	1,807	-		1,807
Peter Kirk Park	27,181,400	17,367,453	44,548,853	49,128,597	31,390,532	78,596	80,597,726
Phyllis A Needy - Houghton Nbr	422,000	363,653	785,653	762,737	657,278		1,420,015
Reservoir Park	718,000	150,300	868,300	1,297,738	271,657		1,569,395
Rose Hill Meadows	1,888,000	452,044	2,340,044	3,412,436	817,040		4,229,476
Settler's Landing	1,800,000	506,400	2,306,400	3,253,382	915,285		4,168,667
Snyders Corner Park	772,000	-	772,000	1,395,339	-		1,395,339
South Norway Hill Park	2,553,400	-	2,553,400	4,615,103	-		4,615,103
South Rose Hill Park	450,000	480,721	930,721	813,345	868,872		1,682,217
Spinney Homestead Park	3,896,000	718,878	4,614,878	7,041,764	1,299,324		8,341,088
Street End Park	299,891	-	299,891	542,033	-		542,033
Terrace Park	865,700	397,787	1,263,487	1,564,696	718,974	815	2,284,485
Tot Lot Park	763,000	138,205	901,205	1,379,072	249,796	4,372	1,633,241
Van Alst Park	1,788,000	260,160	2,048,160	3,231,693	470,222		3,701,915
Watershed Park	10,248,900	-	10,248,900	18,524,214	-		18,524,214
Waverly Beach Park	6,605,500	1,761,240	8,366,740	11,939,008	3,183,325	1,301,710	16,424,042
Windsor Vista Park	977,000	-	977,000	1,765,863	-		1,765,863
Wivott Property	131,000	-	131,000	236,774	-		236,774
Yarrow Bay Wetlands	3,209,600	-	3,209,600	5,801,141	-		5,801,141
Cross Kirkland Corridor Trail	1,000,000	4,102,560	5,102,560	1,807,434	7,415,108		9,222,542
2015 Dock Shoreline	-	-	-	-	-	106,060	106,060
2017 Neighborhood Park Land Acq	-	-	-	-	-	1,683,120	1,683,120
2013 Dock Shoreline	-	-	-	-	-	344,061	344,061
Totem Lk/CKC Land Acquisition	-	-	-	-	-	181,569	181,569
2016 Dock Shoreline	-	-	-	-	-	300,184	300,184
OO Denny Park Improvements	-	-	-	-	-	150,605	150,605
Parks Maintenance Center	-	-	-	-	-	10,816,907	10,816,907
PK Pool Liner Replacement	-	-	-	-	-	214,855	214,855
2017 Dock Shoreline	-	-	-	-	-	212,341	212,341
2018 Neighborhood Park Land Acqui	-	-	-	-	-	65,124	65,124
2015 Dock Shoreline	-	-	-	-	-	328	328
Totem Lk/CKC Land Acquisition	-	-	-	-	-	125	125
Totem Lake Park Master Plan Ph. 1	-	-	-	-	-	996,231	996,231
15/17/18 City School Partnership	-	-	-	-	-	161,253	161,253
2018 City-School Partnership	-	-	-	-	-	161,253	161,253
Neighborhood Park Land Acquisi	-	-	-	-	-	3,000	3,000
[extra]	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 265,996,969</b>	<b>\$ 72,120,702</b>	<b>\$ 338,117,671</b>	<b>\$ 480,772,071</b>	<b>\$ 130,353,437</b>	<b>\$ 20,269,029</b>	<b>\$ 631,394,537</b>

As shown, the value of the park system has increased from about \$338 million to \$631 million. This results in an increase in the capital value per person or residential equivalent, as shown in **Exhibit 20**.

**Exhibit 20**  
**Capital Value per Person / Residential Equivalent**

	Previous Study	Current Study (w/o nonresidential)	Current Study (w/nonresidential)
Value of Parks Inventory	\$ 338,118,273	\$ 631,394,537	\$ 631,394,537
Population / Residential Equivalents	82,590	90,660	96,121
<b>Capital Value Per Person / RE</b>	<b>\$ 4,094</b>	<b>\$ 6,964</b>	<b>\$ 6,569</b>

Now that the capital value per resident or residential equivalent has been calculated, the next step is to calculate the value of parks needed for growth. This is the capital value calculated above,

multiplied by the forecasted growth. This represents the total investment that is eligible to be recovered through impact fees.

**Exhibit 21**  
**Value Needed for Growth**

	Previous Study	Current Study (w/o nonresidential)	Current Study (w/nonresidential)
Capital Value per Person / RE	\$ 4,094	\$ 6,964	\$ 6,569
Growth of Population / REs	4,320	983	1,289
<b>Investment Needed for Growth</b>	<b>\$ 17,685,809</b>	<b>\$ 6,843,223</b>	<b>\$ 8,466,310</b>

The investment needed for growth has decreased from the previous study, due to the relatively short remaining planning period, and an anticipated decrease in the population growth rate. However, these values also need to be adjusted for consistency with the CIP. Under Washington state law, impact fees can only recover the growth-related cost of CIP projects that add capacity to the park system. The City provided a list of projects that would be completed through 2024, as well as an estimate of how much of each project would increase the capacity of the park system. This is shown in **Exhibit 22**.

**Exhibit 22**  
**Capital Improvement Program**

Project Number	Project Title	2019-2024 Total	Capacity Share	Eligible Cost
PKC 04900	Open Space, Park Land & Trail Acq Grant Match Program	100,000	100%	\$ 100,000
PKC 06600	Parks, Play Areas & Accessibility Enhancements	1,115,000	0%	-
PKC 08711	Waverly Beach Park Renovation Phase II	515,000	0%	-
PKC 11901	Juanita Beach Park Bathhouse Replacement	1,208,311	13%	157,080
PKC 11903	Juanita Beach Park Playground	366,000	58%	212,280
PKC 12100	Green Kirkland Forest Restoration Program	600,000	0%	-
PKC 13310	Dock & Shoreline Renovations	1,660,000	0%	-
PKC 13330	Neighborhood Park Land Acquisition	5,418,000	100%	5,418,000
PKC 13400	132nd Square Park Playfields Renovation	5,672,200	50%	2,836,100
PKC 13420	132nd Square Park Master Plan	135,000	80%	108,000
PKC 13530	Juanita Heights Park Trail	243,800	100%	243,800
PKC 13902	Totem Lake Park Development - Expanded Phase I	6,159,200	90%	5,543,280
PKC 14200	Houghton Beach & Everest Park Restroom Repl. Design	85,000	0%	-
PKC 14700	Parks Maintenance Center	2,958,351	14%	414,169
PKC 15100	Park Facilities Life Cycle Projects	950,000	0%	-
PKC 15400	Indoor Recreation & Aquatic Facility Study	160,000	100%	160,000
PKC 15500	Finn Hill Neighborhood Green Loop Trail Master Plan	160,000	100%	160,000
PKC 15600	Park Restrooms Renovation/Replacement Program	1,583,000	0%	-
PKC 15700	Neighborhood Park Development Program	1,583,000	100%	1,583,000
<b>Total Funded Park Projects</b>		<b>30,671,862</b>	<b>Total</b>	<b>\$ 16,935,710</b>

The total growth-related portion of the CIP is about \$16.9 million. As this value exceeds the investment needed for growth calculated in **Exhibit 21**, no adjustment is needed to reduce the investment needed for growth -- the adjustment percentage is 100 percent, as shown in **Exhibit 23**.

**Exhibit 23**  
**CIP Adjustment**

	Previous Study	Current Study (w/o nonresidential)	Current Study (w/nonresidential)
Cost of CIP Projects that Add Capacity	\$ 6,857,400	\$ 16,935,710	\$ 16,935,710
Investment Needed for Growth	17,685,809	6,843,223	8,466,310
<b>Adjustment Percentage</b>	<b>39%</b>	<b>100%</b>	<b>100%</b>

The penultimate step is to multiply the adjustment percentage by the capital value per person or residential equivalent calculated in **Exhibit 20**. This is the growth cost per person or residential equivalent, shown in **Exhibit 24**.

**Exhibit 24**  
**Growth Cost per Person / Residential Equivalent**

	Previous Study	Current Study (w/o nonresidential)	Current Study (w/nonresidential)
Capital Value per Person / RE	\$ 4,094	\$ 6,964	\$ 6,569
Adjustment Percentage	39%	100%	100%
<b>Growth Cost per Person / RE</b>	<b>\$ 1,587</b>	<b>\$ 6,964</b>	<b>\$ 6,569</b>

Finally, the growth cost per person or residential equivalent is multiplied by the Kirkland-specific average occupancy rates of various residential units or the residential equivalence (if applicable) to determine the parks impact fee.

**Exhibit 25**  
**Occupancy Rates by Dwelling Unit**

	Previous Study Value	Current Study
Single-Family	2.5	2.5
Multi-Family	1.9	1.7
Residential Suite	N/A	0.9
Residential Equivalence	N/A	0.1

This results in the calculated impact fees shown below.

**Exhibit 26**  
**Impact Fee per Unit of Development**

	Previous Study	Current Study (w/o nonresidential)	Current Study (w/nonresidential)
Single-Family	\$ 3,968	\$ 17,496	\$ 16,501
Multi-family	3,016	11,845	11,172
Residential Suite	N/A	6,268	5,912
Per Employee	N/A	N/A	720

The calculated impact fee represents a sizeable increase over the existing parks impact fee. This is driven primarily by the low growth forecasted within the city through 2024 (based on past projections), as well as the large increase in the assessed value of the parks system. Thus, the high impact fee appropriately reflects the high cost of developing new parks within Kirkland. It should be

reiterated that this represents the *maximum allowable impact fee*, and the City is not under any obligation to adopt the calculated fee.

Finally, FCS GROUP compared the calculated park impact fee to other regional jurisdictions.

**Exhibit 27**  
**Park Impact Fee Survey**

Parks Impact Fee Comparison	Single Family	
	Residence	Multi-Family
<b>Kirkland (calculated maximum)</b>	<b>\$ 16,501</b>	<b>\$ 11,172</b>
Issaquah	9,107	5,591
Sammamish	6,739	4,362
Redmond	4,738	3,289
Kirkland (existing)	4,391	3,338
Shoreline	4,090	2,683
Renton	3,946	2,801
Vancouver	2,379	1,739
Bellevue	N/A	N/A

The calculated maximum for the City (including non-residential) is significantly higher than any other surveyed jurisdiction.

## Section V. INDEXING

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The City already annually indexes its impact fees to the *Engineering News-Record* Construction Cost Index. We recommend that the City continue this practice for its parks impact fee and institute it for its fire and EMS impact fee, as it provides an adjustment which at least partially responds to the cost basis over time. We also recommend that the City continue its practice of periodically updating its impact fees to ensure that they recover the full cost of growth's impacts on City facilities.