RAFTELIS

REVISED DRAFT MEMO

TO: Alameda County Water District
FROM: Raftelis Financial Consultants
DATE: 11/28/18
RE: Facilities Connection Charges Calculation Methodology

This memorandum (memo) provides a brief overview of the regulatory requirements and objectives of capacity charges, a general overview of the methodologies used to calculate them, and the step-by-step process through which Raftelis calculated capacity charges, or Facilities Connection Charges (FCC), for the Alameda County Water District (ACWD or District).

1.1 OBJECTIVE AND REGULATORY REQUIREMENTS

The primary objective of establishing a full cost-recovery capacity charge is to provide an equitable means by which new (or increased) system users can pay for the costs of the potable water facilities required to serve them. Capacity charges, referred to as facilities connection charges by ACWD, must be established based on a reasonable relationship to the needs and benefits brought about by the development (or required increase in capacity). The basic statutory standards governing water and wastewater capacity charges are embodied in California Government Code Section 66000 et seq. In particular, Government Code Section 66013 contains requirements specific to determining water and wastewater capacity charges including this direction found in Section 66013 (a):

> *"Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount the fee or charge in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue."*

Section 66013 (c) also includes requirements about how capacity charge revenue must be accounted for, specifically:

> *"A local agency receiving payment of a charge as specified in paragraph (3) of subdivision (b) shall deposit it in a separate capital facilities fund with other charges received, and account for the charges in a manner to avoid any commingling with other moneys of the local agency, except for investments, and shall expend those charges solely for the purposes for which the charges were collected."*

1.2 CALCULATION METHODOLOGIES

The process of calculating capacity charges has two primary steps: determining the cost of capital improvements related to new service connections and allocating those costs equitably to various types of connections.

A combination of two widely-used methods was employed to calculate the components of the District's capacity charges or Facilities Connection Charges (FCCs). The methodologies are used to determine the best measure of the unit cost of water capacity needed to serve the demand created by new connections to the District's water system.

- In instances where infrastructure has been built in advance of growth and there is excess capacity available to be utilized by new connections, the **equity buy-in methodology** is used. Under this methodology, growth funds its share of project costs that were previously funded by existing customers or financed through the issuance of debt.
- The **incremental costs methodology** uses the District's long-term capital improvement plan (CIP) to determine growth's share of planned projects. Projects solely involving routine maintenance or replacement of existing facilities are not included in the charges, except in cases where replacement projects provide capacity needed to serve growth.[1] For instance, projects that improve the District's ability to serve growth were analyzed by the District and the percentage of project costs that are included in the charges for each project are based on the relative benefit the project provides to new connections, as determined by the District.

1.3 EQUITY BUY IN METHODOLOGY

One of the challenges of providing water services is that infrastructure needed must be developed in advance of growth and cannot be easily constructed in discrete increments. This means that current users often must pay upfront for infrastructure requirements that can accommodate current and future development. In addition, the level of service definition associated with water can be challenging, as water service must meet regulatory requirements associated with drinking water. Also determining capacity can be problematic as water use can fluctuate monthly and customers have significantly changed their consumption patterns. To account for these factors, Raftelis has used the equity buy-in approach based on equivalent meter units.

The equity buy-in approach rests on the premise that new customers are entitled to service at the same price as existing customers. However, existing customers have already developed most if not all of the facilities that will serve new customers, including the costs associated with

[1] Growth in terms of capacity includes new connections from development plus a small percentage of existing development that may need to upsize water capacity and get a larger meter. In these instances, a net FCC will be applied capturing the cost increment between the existing meter size and the upsized meter size. This growth in capacity needs from existing development has also been included in the District's growth projections.

financing those services. Under this approach, new customers pay an amount equal to the net investment already made by existing users. This net equity investment, or value of the system, is then divided by the current demand of the system – number of customers (or equivalent meter units) – to determine the buy-in cost per equivalent meter unit (EMU). The goal of the equity buy-in is to maintain this level of service as growth occurs; the equity per equivalent meter unit of the system does not increase nor decrease as development occurs.

The value of the existing system is calculated by determining the value of the District's in-ground assets and subtracting the District's outstanding debt principal. Raftelis calculated the District's asset value using the replacement cost less depreciation (RCLD) method. This method inflates the District's individual asset values using the Engineering News-Record (ENR) San Francisco Region so that all assets are valued in current dollars regardless of purchase year. Raftelis also used each asset's useful life and a straight-line depreciation formula to subtract out the depreciated value of each asset. Using this method, Raftelis found that the RCLD value of the current system is $569,303,492. The District provided Raftelis with its total outstanding debt principal, which amounts to $75,520,000. The resulting total existing System Value calculation is $493,783,492 as shown below in Table 1.

Table 1: Value of Existing System

Total Assets Value:	$569,303,492
Less Total Outstanding Debt Principal	$75,520,000
Value of Existing System	**$493,783,492**

The District's total number of EMUs was calculated in a three-step process.

First, the District considers each single-family residence (SFR) to be one (1) EMU. Consistent with current District policy for FCC calculations, which is to factor out the fire flow component of single family residences, the count of existing Single Family Residential meters includes single family residential accounts with 5/8", ¾", 1" and 1.5" single family residential meters.[2] Based on data provided by the District, Raftelis found that at the end of fiscal year (FY) 2018 there were 72,979 SFRs in the District's service area. Since each SFR is one EMU, there are 72,979 EMUs from SFRs in the District's service area.[3]

Second, the District considers each MFR to be 0.84 EMU. MFRs with outdoor irrigation needs have in recent years used 84% as much water as SFRs with outdoor irrigation uses at peak times

[2] The 5/8" meter was the District's standard size residential meter until residential fire sprinkler systems were required for fire suppression and the District assumes residential water use per account based on standard residential use for all residential meter sizes up to 1.5" meter size. Although District practice predates it, the 2010 California Building Standards Codes published July 1, 2010, with an effective date of January 1, 2011 included building code adoption of the addition of residential fire sprinklers in all new one-and two-family dwellings and townhouse construction statewide.

[3] There are 19 existing 2" residential meters. These meters are treated as non-residential meters for FCC calculations by District policy and are therefore included in the calculations as 2" non-residential meters.

of use.[4] The District conservatively estimates that there are 38,800 existing MFR residences in the District's service area. The number of MFR EMUs is calculated by multiplying the number of MFR units by 0.84, this calculation yields the result of 32,592 MFR EMUs in the District's service area.

The third step is to calculate the number of non-residential EMUs in the District's service area. This is done by using meter capacity ratios of different sizes to compare meters of different sizes to a standard reference meter. A capacity ratio is the ratio of a meter's safe operating capacity in comparison to a standard reference meter. The standard reference meter used in this analysis was a 5/8" meter which is assigned a ratio factor of 1. A 5/8" meter has a safe operating capacity of 20 gallons per minute (gpm).[5] By way of example, a ¾" meter is rated to 30 gpm and thus is allocated 1.5 ratio factor as compared to a 5/8" meter, as 30 divided by 20 is equal to 1.5.

Table 2 shows the number of the District's non-residential EMUs. The number of EMUs for each meter size is calculated by multiplying the capacity ratio by the number of meters of that size. For example: there are eight 8" meters, and an 8" meter has a capacity ratio of 80 EMUs, so 8×80=640 EMUs. Those eight 8" meters correspond to 640 EMUs.

Table 2: Non-Residential EMUs

Meter Size	Safe Operating Capacity	Capacity Ratio	Number of Meters	Number of EMUs
5/8"	20	1	1,335	1,335
3/4"	30	1.5	1,792	2,688
1"	50	2.5	1,118	2,795
1.5"	100	5	1,251	6,255
2"	160	8	2,030	16,240
3"	350	17.5	154	2,695
4"	600	30	77	2,310
6"	1350	67.5	30	2,025
8"	1600	80	8	640
10"	2400	120	1	120
Total			**7,796**	**37,103**

[4] Based on analysis provided by the Water Resources Planning Division of ACWD received on Nov. 26, 2018. The analysis compared a sample of multi-family housing units including irrigation meters to single family housing units (which include an irrigation component) during peak water use months of July – October for 2016 and 2017 as a proxy for maximum capacity use. Units constructed since 2015 were purposefully chosen to reflect new stricter plumbing codes.

[5] Safe maximum operating capacities by meter size can be found in the 2017 AWWA M1 Manual in table B2. All values in Table 2 are taken from that table. The District currently does not have adopted FCCs for 10" meters and above. Any requested connection of that size or greater would be subject to a separate analysis of capacity needs conducted by the District.

Adding these three numbers gives the District's total number of EMUs. This is shown in Table 3; using this methodology we found that the District has 141,122 EMUs.

Table 3: Total EMUs

SFR EMUs	72,979
MFR EMUs	32,592
Non-Residential EMUs	37,103
Total	**142,674**

Dividing the calculated total existing system value from Table 1 by the number of EMUs from Table 3 gives the equity buy-in capacity charge for 1 EMU. This calculation is shown in Table 4, rounded to the nearest dollar.

Table 4: Equity Buy-In Charge per EMU

Value of Existing System:	$493,783,492
Current Demand (EMUs)	142,674
Equity Buy-In Charge (Per EMU)	**$3,461**

1.4 INCREMENTAL COST METHODOLOGY

The incremental portion of a capacity charge is meant to recover the capital costs associated with growth. The cost of infrastructure needed to accommodate growth was provided by the District. The total capital cost of growth is spread out to all new connecting meters based on capacity for residential and non-residential use.

The incremental cost of the District's capacity charge is calculated by dividing the cost of all growth-related capital improvement program (District growth-related CIP) costs by the estimated number of projected connecting EMUs. This analysis uses the District's growth-related CIP for years between fiscal year (FY) FY 2019 and FY 2042. The total of the District's uninflated growth-related CIP from FY 2019 to FY 2042 is $150,182,407. This amount is reduced by the District's current Facilities Improvement Fund (FIF) balance, since FIF funds are earmarked specifically for capital costs tied to growth. The District's FIF balance as of July 30, 2018 was $55,140,916. Table 5 shows the calculation of the incremental cost, which is arrived at by subtracting the FIF Fund balance from total growth CIP.

Table 5: Incremental Cost

Total Growth CIP:	$150,182,407
(LESS) FIF Fund Balance:	$55,140,916
Incremental Cost	**$95,041,491**

Raftelis calculated the per Equivalent Meter Unit (EMU) incremental cost by dividing the total incremental cost by the projected number of connecting EMUs. The District provided Raftelis with data to estimate the number of connecting EMUs between FY 2018 and FY 2042. Raftelis used the District's projected growth in connections for FY 2019. The projections for FY 2019 to FY 2042 were based on Association of Bay Area Governments (ABAG) growth projections and the growth projections of the three planning departments of the three cities within the ACWD service area (Union City, Newark and Fremont) for years beyond FY 2019.

The District took these growth projections and allocated them evenly across future years for its planning purposes.[6] As a result of this "smoothing" the total projected number of units doesn't exactly match the ABAG and planning department growth projections. Smoothing was achieved by taking the average number of connections across the 21-year period, then multiplying the (rounded) average by the number of years. Raftelis augmented these projections by adding the District's estimated connections in FY 2019 from its Financial Planning Model.

Applying the approach described above to District estimates Raftelis projected that there would be 4,178 new SFR connections added between FY 2018 and FY 2042. Keeping in mind that that each SFR is 1.0 EMU, we used 4,178 for the number of additional SFR EMUs. Raftelis estimated MFR connections in a similar fashion resulting in the equivalent of 12,631 additional MFR units connecting between FY 2018 and FY 2042. As mentioned above, the District treats each MFR connection as 0.84 EMUs, and 12,631 multiplied by 0.84 is 10,610 MFR EMUs. The District has a third residential category for residential dormitory units, calculated at 0.6 EMUs. Residential dormitory units are not included in the ABAG or city planning department growth projections, so no residential dormitory units were included in the projections of new residential units. However, the District proposes to retain this FCC category to maintain an equitable charge structure which recognizes these very low impact residential units.

The District estimated that there would be 640 new non-residential connections added between FY 2018 and FY 2042. The District predicted that these connections would be 2" equivalent meters. According to Table 2 each 2" equivalent meter is 8.0 EMUs. We calculated the number of non-residential connecting EMUs by multiplying the 640 additional meters by the 8.0 capacity ratio, resulting in 5,120 non-residential EMUs.

Table 6 shows the total number of additional EMUs for the incremental cost calculations.

Table 6: Projected Growth EMUs

SFR EMUs	4,178
MFR EMUs	10,610
Non-Residential EMUs	5,120
Growth EMUs (2018 – 2042)	**19,908**

[6] These projections were provided to Raftelis in an email on September 20, 2018 titled "RE: ACWD Depreciation Schedule" from Michael Yee, in an Excel spreadsheet titled "FIF Growth Projections."

The incremental cost portion of the FCC is calculated by dividing the total incremental cost from Table 5 by the number of additional EMUs in Table 6. This calculation is shown in Table 7, rounded to the nearest dollar.

Table 7: Incremental Cost Charge per EMU

Incremental Cost	$95,041,491
Growth EMUs (2018 – 2042)	19,908
Incremental Cost Capacity Charge (Per EMU)	**$4,774**

1.5 COMPREHENSIVE METHODOLOGY

A comprehensive methodology of calculating capacity charges is used in situations where the Agency is substantially built out yet also has some remaining growth-related CIP needs. The District is in this situation. The comprehensive FCC for each EMU can be calculated by adding the equity buy-in capacity charge from Table 4 to the incremental cost capacity charge from Table 7. This is shown in Table 8.

Table 8: Comprehensive Facilities Connection Charge

Equity Buy-In Capacity Charge (Per EMU)	$3,461
Incremental Cost Capacity Charge (Per EMU)	$4,774
Comprehensive Capacity Charge (Per EMU)	**$8,235**

1.6 CHARGES BY EQUIVALENT METER UNIT OR METER SIZE

The charges shown in Table 4, Table 7, and Table 8 are for only 1.0 EMU, i.e., an SFR connection. Recall that this charge is calculated based on a 5/8" meter but includes ¾", 1", and 1.5" residential connections consistent with District policy and planning that typical single family residential water use is consistent among these meter sizes. Charges for MFR connections are calculated by multiplying those charges by 0.84. This is shown in Table 9, rounded to the nearest dollar.

Table 9: Capacity Charges for MFRs

Equity Buy-In Capacity Charge (Per MFR)	$2,907
Incremental Cost Capacity Charge (Per MFR)	$4,010
Comprehensive Capacity Charge (Per MFR)	**$6,917**

The District currently has a separate charge for Dormitory connections. Although no Dormitory connections are currently projected, the resulting charges if any new Dormitory uses are built

are calculated by multiplying the charges in Table 8 by 0.6. This calculation is shown in Table 10, rounded to the nearest dollar.

Table 10: Capacity Charges for Dormitories

Equity Buy-In Capacity Charge (Per Dormitory)	$2,077
Incremental Cost Capacity Charge (Per Dormitory)	$2,864
Comprehensive Capacity Charge (Per Dormitory)	**$4,941**

Charges for non-residential meters larger than 5/8" are calculated by multiplying the charge by the capacity ratios shown in Table 2. Non-residential capacity charges for all meter sizes are shown in

Table 11.

Table 11: Capacity Charges for Non-Residential Meters

Meter Size	Capacity Ratio	Equity Buy-In	Incremental Cost	Comprehensive Capacity Charge
5/8"[7]	1	$3,461	$4,774	$8,235
3/4"	1.5	$5,192	$7,161	$12,353
1"	2.5	$8,653	$11,935	$20,588
1.5"	5	$17,305	$23,870	$41,175
2"	8	$27,688	$38,192	$65,880
3"	17.5	$60,568	$83,545	$144,113
4"	30	$103,830	$143,220	$247,050
6"	67.5	$233,618	$322,245	$555,863
8"	80	$276,880	$381,920	$658,800

1.7 PHASE IN AND FUTURE ADJUSTMENT OF FACILITIES CONNECTION CHARGES

Previously, the FCC was calculated using the incremental approach only. At the April 26th, 2018 District Board Workshop the equity buy-in approach component was introduced and preliminary calculations for both the equity buy-in and the incremental components were presented. The equity buy-in component is new to the District capacity charge calculations and represents an increase in total capacity charge. The District requested a multi-year phase-in of the total FCC. This phase-in steps in the charge at 20 percent of the difference between the current charge and the proposed charge per year over five years. Table 12 shows the resulting residential FCC schedule for the next five years assuming a five-year phase-in with 20 percent

[7] Smallest size meter currently installed is ¾".

increments of the total difference in charges being added in each fiscal year, e.g., 20 percent in FY 2019, 40 percent in FY 2020, 60 percent in FY 2021, 80 percent in FY 2022, reaching 100 percent of the charge in FY 2023.

Table 12: Phased in FCC for SFR, MFR and Dormitory Units

FCC	Current	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
SFR	$6,862	$7,137	$7,411	$7,686	$7,960	$8,235
MFR	$5,490	$5,775	$6,061	$6,346	$6,632	$6,917
Dorm	$4,119	$4,283	$4,448	$4,612	$4,777	$4,941

Table 13 shows the phased-in charges by meter size for non-residential connectors.

Table 13: Phased-In Capacity Charges for Non-Residential Connectors

FCC	Current	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
3/4''	$10,293	$10,705	$11,117	$11,529	$11,941	$12,353
1''	$17,153	$17,840	$18,527	$19,214	$19,901	$20,588
1.5''	$34,308	$35,681	$37,055	$38,428	$39,802	$41,175
2''	$54,892	$57,090	$59,287	$61,485	$63,682	$65,880
3''	$120,076	$124,883	$129,691	$134,498	$139,305	$144,113
4''	$205,845	$214,086	$222,327	$230,568	$238,809	$247,050
6''	$463,151	$481,693	$500,236	$518,778	$537,320	$555,863
8''	$548,919	$570,895	$592,871	$614,848	$636,824	$658,800

The charges in tables 12 and 13 are shown in constant (uninflated) dollars. The District plans to adopt a five-year schedule of FCCs by clearly identifying the process for increasing the charge annually, including selection of an appropriate inflation adjustment factor.

Raftelis' approach assumes that the equity-buy in portion of the comprehensive charge will be phased in, while the incremental portion will be adopted all at once. The equity buy-in portion of the charge in each fiscal year can be calculated by subtracting the incremental portion of the charge from that year's phased-in charge amount. For example, the total incremental cost portion of a buy-in charge for a 3/4" non-residential meter is $7,161, so the equity buy-in portion would be the difference between the total charge and the incremental portion. In FY 2019 the total phased-in charge is $10,705, and $10,705 less $7,161 is $3,544, which is the equity buy-in portion for the 3/4" charge. This calculation is shown for residential and non-residential connections in Table 14.

Table 14: Phased-In Equity Buy-In Portion of Capacity Charges for Residential and Non-Residential Connections

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
SFR	$2,363	$2,637	$2,912	$3,186	$3,461
MFR	$1,765	$2,051	$2,336	$2,622	$2,907
Dorm	$1,419	$1,584	$1,748	$1,913	$2,077
3/4''	$3,544	$3,956	$4,368	$4,780	$5,192
1''	$5,905	$6,592	$7,279	$7,966	$8,653
1.5''	$11,811	$13,185	$14,558	$15,932	$17,305
2''	$18,898	$21,095	$23,293	$25,490	$27,688
3''	$41,338	$46,146	$50,953	$55,760	$60,568
4''	$70,866	$79,107	$87,348	$95,589	$103,830
6''	$159,448	$177,991	$196,533	$215,075	$233,618
8''	$188,975	$210,951	$232,928	$254,904	$276,880

Table 15 (on the following page) combines results shown in Table 12 through Table 14 to show the Phased-In FCCs in FY 2019 through FY 2023, with each component broken out. The bolded lines show the comprehensive FCC which is calculated by adding that year's incremental portion to that year's equity buy-in portion.

In addition, the total charges in Table 15 will be adjusted by CCI on an annual basis. To calculate the annual FCC increase, the two components of the base FCC, equity buy-in and incremental, will first be adjusted (increased or decreased) each year by applying the Engineering News-Record Cost of Construction Index (ENR CCI) for the San Francisco Bay Area (July to July). The following equation shows a hypothetical example of this process, using a 3% inflationary factor to inflate for a SFR FCC in FY 2020. (Calculations are rounded to the nearest whole dollar.)

$$\$7,411 \times 1.03 = \$7,633$$

For FY 2021 and out, the comprehensive FCC would be inflated on a compounded basis using Table 15 values as the base per year. As an example, if FY 2021 inflation was 4%, then assuming the above mentioned 3% inflation in FY 2020, the FY 2021 SFR FCC would be:

$$\$7,686 \times 1.03 \times 1.04 = \$8,233$$

Note the 4% inflation factor would not simply be applied to the previous year's $7,633 since the equity buy-in component is being phased in per year.

Table 15: Phased-In FCC for Residential and Non-Residential Connections Broken Out by Component

FCC Phase In	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Residential FCCs					
SFR Incremental Portion	$4,774	$4,774	$4,774	$4,774	$4,774
SFR Equity Buy-In Portion	$2,363	$2,637	$2,912	$3,186	$3,461
SFR Comprehensive FCC	**$7,137**	**$7,411**	**$7,686**	**$7,960**	**$8,235**
MFR Incremental Portion	$4,010	$4,010	$4,010	$4,010	$4,010
MFR Equity Buy-In Portion	$1,765	$2,051	$2,336	$2,622	$2,907
MFR Comprehensive FCC	**$5,775**	**$6,061**	**$6,346**	**$6,632**	**$6,917**
Dorm Incremental Portion	$2,864	$2,864	$2,864	$2,864	$2,864
Dorm Equity Buy-In Portion	$1,419	$1,584	$1,748	$1,913	$2,077
Dorm Comprehensive FCC	**$4,283**	**$4,448**	**$4,612**	**$4,777**	**$4,941**
Non-Residential FCCs					
3/4'' Incremental Portion	$7,161	$7,161	$7,161	$7,161	$7,161
3/4'' Equity Buy-In Portion	$3,544	$3,956	$4,368	$4,780	$5,192
3/4'' Comprehensive FCC	**$10,705**	**$11,117**	**$11,529**	**$11,941**	**$12,353**
1'' Incremental Portion	$11,935	$11,935	$11,935	$11,935	$11,935
1'' Equity Buy-In Portion	$5,905	$6,592	$7,279	$7,966	$8,653
1'' Comprehensive FCC	**$17,840**	**$18,527**	**$19,214**	**$19,901**	**$20,588**
1.5'' Incremental Portion	$23,870	$23,870	$23,870	$23,870	$23,870
1.5'' Equity Buy-In Portion	$11,811	$13,185	$14,558	$15,932	$17,305
1.5'' Comprehensive FCC	**$35,681**	**$37,055**	**$38,428**	**$39,802**	**$41,175**
2'' Incremental Portion	$38,192	$38,192	$38,192	$38,192	$38,192
2'' Equity Buy-In Portion	$18,898	$21,095	$23,293	$25,490	$27,688
2'' Comprehensive FCC	**$57,090**	**$59,287**	**$61,485**	**$63,682**	**$65,880**
3'' Incremental Portion	$83,545	$83,545	$83,545	$83,545	$83,545
3'' Equity Buy-In Portion	$41,338	$46,146	$50,953	$55,760	$60,568
3'' Comprehensive FCC	**$124,883**	**$129,691**	**$134,498**	**$139,305**	**$144,113**
4'' Incremental Portion	$143,220	$143,220	$143,220	$143,220	$143,220
4'' Equity Buy-In Portion	$70,866	$79,107	$87,348	$95,589	$103,830
4'' Comprehensive FCC	**$214,086**	**$222,327**	**$230,568**	**$238,809**	**$247,050**
6'' Incremental Portion	$322,245	$322,245	$322,245	$322,245	$322,245
6'' Equity Buy-In Portion	$159,448	$177,991	$196,533	$215,075	$233,618
6'' Comprehensive FCC	**$481,693**	**$500,236**	**$518,778**	**$537,320**	**$555,863**
8'' Incremental Portion	$381,920	$381,920	$381,920	$381,920	$381,920
8'' Equity Buy-In Portion	$188,975	$210,951	$232,928	$254,904	$276,880
8'' Comprehensive FCC	**$570,895**	**$592,871**	**$614,848**	**$636,824**	**$658,800**

1.8 REVENUE PROJECTION OF CONNECTION CHARGES

Raftelis projected the amount of revenue generated by the equity buy-in portion of the FCC. This calculation was done by multiplying the phased in portion of the buy-in portion of the FCC, shown in Table 14, by the number of projected connections in each fiscal year. The projected revenue for each class of customer (SFR, MFR, Non-Residential) is shown in uninflated dollars in Table 16. These projections are only estimates and should be used with caution. (Totals in Table 16 do not add exactly due to rounding.)

Table 16: Projected Revenue from Equity Buy-In Capacity Charges

Equity Buy-In Revenue	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024 & Beyond
SFR	$245,710	$511,617	$564,889	$618,162	$671,434	$671,434
MFR	$1,018,451	$1,177,021	$1,340,887	$1,504,752	$1,668,618	$1,668,618
Non-Residential	$188,976	$632,856	$698,784	$764,712	$830,640	$830,640
Total	**$1,453,138**	**$2,321,494**	**$2,604,560**	**$2,887,626**	**$3,170,692**	**$3,170,692**

2.1 FACILITIES REIMBURSEMENT CHARGES

The District currently charges a Facilities Reimbursement Charge (FRC). This is a capacity charge designed to provide reimbursement funds for developers who install offsite water mains, oversized water mains, or other capital infrastructure with excess capacity beyond what is needed for their development project and which benefit others[i]. Funds from the FRC are deposited into a separate fund called the Installer's Reimbursement Account (IRA[ii]). Raftelis agrees with the District staff's decision to propose the elimination of the FRC due to the changing nature of new development (mostly infill) at this time.

[i] District Resolution 17-010, Section 12 (b)
[ii] District Resolution 17-010, Section 15 (b)