RESOLUTION NO. 2021-10

RESOLUTION OF THE BOARD OF DIRECTORS OF THE WEST VALLEY WATER DISTRICT ADOPTING THE DISTRICT'S 2021 DEVELOPMENT IMPACT FEE STUDY PURSUANT TO GOVERNMENT CODE SECTION 66013 ET SEQ.

WHEREAS, the Board of Directors ("Board") of West Valley Water District ("Water District"), recognizes that the Water District will experience future growth creating a demand for future service to the Water District's service area; and

WHEREAS, the Water District's Water Service Rules and Regulations refer to the term "Development Impact Fees" as "Capacity Charges"; and

WHEREAS, "Capacity Charges" are referenced and defined in Government Code Section 66013 (b)(3); and

WHEREAS, the Board authorized Robert D. Niehaus, Inc. to undertake a study for the purpose of determining the following: (1) costs for construction and improvements to be funded as additional demand occurs; (2) recommending a revised Capacity Charge (sometimes known or referred to as "Development Impact Fee") to reflect and account for said increases; and

WHEREAS, the Board of the Water District desires to adopt the 2021 Development Impact Fee Study to establish a reasonable nexus between the following: (1) new development and the existing and/or new public facilities which will be operated and maintained to service new development; (2) any supply or capacity contracts for rights or entitlements, real property interest and entitlements; and (3) other rights of the Water District involving capital expense relating to its use of existing or new public facilities; and

WHEREAS, the 2021 Development Impact Fee Study calculates the Capacity Charge to be levied for each new Equivalent Dwelling Unit (EDU) within the Water District's service area and to provide a mechanism for persons or property connecting to the Water District's water system to pay their proportional share of Water District facilities in existence or to be constructed; and

WHEREAS, the 2021 Development Impact Fee Study includes costs for drilling and equipping wells, wellhead treatment, pipelines, reservoirs, booster pump stations, expansion of the Oliver P. Roemer Water Filtration Facility and other appurtenances as identified in the 2020 Water Facilities Master Plan; and

WHEREAS, on May 20th, 2021 the Board approved the 2021 Development Impact Fee Study dated April 22nd, 2021, prepared by Robert D. Niehaus, Inc.; and

WHEREAS, the Board of the Water District wishes to appropriately adjust the Water District's Capacity Charges for new connections as set forth in the Robert D. Niehaus, Inc. 2021 Development Impact Fee Study, Option 2 or any other option approved by the Board; and

WHEREAS, the Board of the Water District wishes to update the Capacity Charges annually by 3.37% to keep pace with the construction cost inflation; and

WHEREAS, the Water District shall conduct a review of the Capacity Charges every four to five years or when significant changes in the physical system, planned capital projects, pace of development or other major changes occur; and

WHEREAS, the Board of the Water District desires to make the necessary findings to approve and implement the 2021 Development Impact Fee Study, all as authorized and required by law.

NOW, THEREFORE, BE IT RESOLVED, the Board of Directors of the West Valley Water District hereby finds, determines, resolves and orders as follows:

1. Each of the above recitals are true and correct, as is each of the findings and determinations as properly adopted by the Board of the Water District.

2. The effective date of the increases adopted herein shall be May 22nd, 2021.

3. The form of the 2021 Development Impact Fee Study presented at this meeting is hereby approved. The General Manager of the Water District is hereby authorized to implement or cause the implementation of the 2021 Development Impact Fee Study prepared by Robert D. Niehaus, Inc. and hereby adopts the new Development Impact Fee also known as "Capacity Charges" to recover sufficient revenues to accommodate necessary system capacity growth within the Water District's boundaries.

4. This resolution supersedes Resolution 2021-6.

ADOPTED, SIGNED, AND APPROVED THIS 22nd DAY OF MAY, 2021.

AYES:	**DIRECTORS:**
NOES:	**DIRECTORS:**
ABSENT:	**DIRECTORS:**
ABSTAIN:	**DIRECTORS:**

_____
Channing Hawkins,
President of the Board of Directors
of West Valley Water District

ATTEST:

_____
Peggy Asche
Board Secretary

APPROVED AS TO FORM:

_____
Robert Nacionales Tafoya
General Counsel

WEST VALLEY WATER DISTRICT

2021 Development Impact Fee Study

Final Report

April 22nd, 2021

West Valley Water District

WEST VALLEY WATER DISTRICT
2021 DEVELOPMENT IMPACT FEE STUDY

FINAL REPORT

Prepared for:

West Valley Water District
855 W. Base Line
Rialto, CA 92377

Prepared by:

ROBERT D. NIEHAUS, INC.
140 East Carrillo Street
Santa Barbara, CA 93101
(805) 962-0611

RDN Project Number 300

April 22, 2021, 2021
Ms. Linda Jadeski
Engineering Services Manager
West Valley Water District
855 W. Base Line
Rialto, CA 92377

Subject: 2021 Water Development Impact Fee Study

Dear Ms. Linda Jadeski,

Robert D. Niehaus, Inc. (RDN) is pleased to provide this 2021 Development Impact Fee Study Report (Report) for the West Valley Water District (WVWD or District). This study includes an extensive review of the District's current fees, determination of applicable approach, development of fee calculation methodologies, and derivation of optional fees for the District's consideration. When the District makes its final decision between the three optional fees, please consider the following:

1. Do the fees equitably reimburse the current customers for their investment in oversizing the system to accommodate future growth
2. Do the fees unduly burden new customers or will they hinder development
3. Will the fees collected fully offset the costs of building for new development

Most of the information used in the fee calculation was taken from the 2020 Water Facilities Master Plan (2020 WFMP) created by AKEL Engineering Group in April, 2020.

The Report also includes a comprehensive revenue analysis, and rate comparison analysis. We hope that these additional analyses will help the District determine the most suitable fees.

It has been an absolute pleasure and honor to work with your District. We thank you and other District Staff as well as the Board of Directors for the support provided during this study.

Respectfully submitted,

Robert D. Niehaus, Ph.D.

Managing Director/Principal Economist

Ichiko Kido, MBA

Program Manager/Sr. Financial Analyst

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EXECUTIVE SUMMARY

Purpose of Study

Robert D. Niehaus (RDN) was engaged by West Valley Water District (WVWD, District) to review and calculate Development Impact Fees that are fair and equitable to the District's existing and future customers. WVWD last updated its fees in 2012. The fees now require an update to accurately reflect the current asset value and costs of future expansion projects.

The primary goal of this study is to establish cost-based Development Impact Fees that achieve the District's goal to equitably fund the expansion related capital costs for the water system. The revenue generated from Development Impact Fees is a critical funding source for the expansion related capital projects. The established charges should also equitably reimburse existing customers for their investment in oversizing of infrastructure to accommodate future customers by minimizing the need for long-term debt and capital funding, which results in lower monthly rates.

RDN began the study by reviewing the District's current fees developed by Engineering Resources of Southern California (ERSC) and implemented by the District in 2012. RDN reviewed all methodologies used in the 2012 study and considered the following objectives to guide our approach and recommendations:

- Ensure compliance with state regulations regarding Development Impact Fees,
- Update the current Development Impact Fee or recommend new fees for new water connections based on increased capacity required to serve new development,
- Evaluate the current fire capacity charges and recommend new or updated charges for the new connections with fire requirements,
- Provide a revenue analysis of recommended Development Impact Fees and Fire Capacity Charges,
- Compare the District's fees with other local water agencies and cities in the region,
- Update miscellaneous charges; frontage charge, fire flow testing fee, plan check and investigation fee, overhead charge, and release of overlying right-of-way and easements fee.

Current Development Impact Fee

The District's current Development Impact Fees were designed by ERSC in 2012 utilizing the information presented in the 2012 Water Master Plan. ERSC assessed the fees based on each Equivalent Dwelling Unit (EDU), which represented a customer account with a 3/4 inch or smaller water meter. The fee was developed by summing the total costs of the existing and future water facilities divided by the ultimate number of EDUs at buildout. ERSC included the major backbone of infrastructure in the fee calculation such as supply facilities, transmission system, storage, and operation facilities. Additionally, the cost of financing on interest and bonds are included in the valuation of the assets.

Table 1 shows the current Development Impact Fees and fire service capacity charges by meter size.

Table 1. Current Development Impact Fees and Fire Service Capacity Charges

Meter Size	Development Impact Fee	Fire Service Capacity Charge
5/8"	$7,009	-
1"	$11,915	$510
1-1/2"	$23,130	$1,025
2"	$37,150	$1,625
3"	$82,005	$3,555
4"	$140,180	$6,105
6"	$292,275	$14,250
8"	$420,540	$24,410
10"	-	$38,660
12"	-	$50,870

Summary of Recommendations

Development Impact Fees are primarily intended to recover both the District's proposed Capital Improvement Program (CIP) costs for expansion identified in the 2020 WFMP, and utility rate payers' prior investment in capital facilities that support land development by providing extra capacity for new connections; however, additional considerations need to be included when designing the fees. For example, excessively high fees could hinder new development from happening. After extensive review of the current fees, 2020 WFMP, District asset lists, and other data provided by the District, RDN created three optional fees for the District to consider. When the District makes its final decision between the three recommended fees, they should assess and balance these considerations:

1. Do the fees unduly burden new customers and will they hinder development?
2. Do the fees equitably reimburse the existing customers for their investment in oversizing the system to accommodate future growth?
3. Will the fees collected fully offset the CIP costs of expansion for new development?

WVWD expects significant customer growth over the next 25 years, with the number of EDUs projected to rise from 32,308 (current) to 49,736 by FY 2046. To accommodate such growth, the 2020 WFMP projects investment of over $255 million in the expansion of local water system infrastructure. RDN predicts that the current fees will generate cumulative revenues of about $130 million between FY 2021 and FY 2046, far below the amount needed to accommodate growth. To remedy this potential revenue shortfall and improve the overall fee design, RDN proposes the following adjustments:

- Include all CIP costs allocated to future customers identified in the 2020 WFMP,
- Escalate the system asset values to today's dollar value by using the Los Angeles Construction Cost Index (CCI) published by Engineering News Record (ENR),

- Identify the current system capacity and the buildout capacity by function to accurately compute fees for the Buy-in component and the Incremental Cost component of the Development Impact Fee,
- Use 670 gallons per day (gpd), the unit of service per Equivalent Dwelling Unit (EDU) identified in the 2020 WFMP where applicable,
- Increase customer equitability by offsetting charges with debt service principal payments, developer funded projects, and Development Impact Fee revenues,
- Develop Fire Capacity Charges by isolating the extra capacity in the system's infrastructure required for fire requirements.

The three optional fees included in this report were developed using industry standard methodologies espoused by American Water Works Association (AWWA) Principles of Water Rates, Fees, and Charges – Manual of Water Supply Practices (M1). The differences in the charges are due to the methodologies used for the system asset valuation. For Option 1, the current system assets are valued at present day replacement costs and depreciated by the remaining useful life of each asset (Replacement Cost Less Depreciation, RCLD). For Option 2, replacement costs are used to value the system assets without depreciating (Replacement Cost New, RCN). For the final option, all the assets other than pipelines are valuated using the RCN method while the value of pipelines are computed separately based on the pipe replacement cost estimates included in the 2020 WFMP. In the third option only pipes of at least 14 inches in diameter were included. Separately calculated pipeline value was added to the other system values to compute Option 3 fees.

Fee calculations inherently have a certain amount of latitude so that fees can reflect local contingencies rather than be intractable in their application. The variations included here primarily represent differences in asset value calculation.

For all three options, RDN used the following formula to compute the base fee of 3/4 inch and smaller meter.

$$\left(\frac{(Replacement\ Cost\ of\ Assets \pm Adjustments)}{Current\ Capacity} \times \frac{gpd}{edu}\right) + \left(\frac{CIP\ Cost\ for\ Expansion}{Added\ Capacity} \times \frac{gpd}{edu}\right)$$

This formula provides for adjustments such as exclusion of the principal on existing debt and revenues collected from Development Impact Fees, and inclusion of the capital reserve balance in the total Buy-in asset value calculation represented by the numerator. The adjusted asset value (allowable asset value) was divided by the current system capacity, resulting in a unit cost of the capacity. The unit cost was multiplied by 670 gpd defined as a per EDU demand in the 2020 WFMP for the base meter. The same calculation was repeated for the CIP cost component and the fees were summed together to compute a total Development Impact Fee per EDU. The following tables show the proposed Development Impact Fees for Options 1, 2, and 3 by meter size. The fees for larger meters were scaled up from the base fee using the AWWA capacity ratios.

Fire Capacity Charge is computed by assessing the extra capacity needed to serve customers in fire emergencies. The 2020 WFMP indicated that the fire requirements only apply to infrastructure associated with storage and pipes. RDN separated the fire service capacity from the total capacity of these systems and applied an applicable

unit of service to calculate the charges. Since the fire capacity is also a requirement of public hydrants, RDN reallocated the share of the public hydrants costs back to the Development Impact Fee calculation.

Option 1 Replacement Cost less Depreciation (RCLD)

In Option 1, the original costs of the District's system assets are escalated to current-day dollars. Accumulated replacement cost depreciation was then subtracted to reflect the remaining useful life of each asset. Fees computed using this methodology are the lowest among all three options. Estimated total cumulative revenue by 2046 under this option is $204 million.

Table 2. Option 1 Proposed Fee Schedule

Meter Size	Development Impact Fee	Fire Service Capacity Charge
5/8"	$11,076	-
1"	$18,497	$1,198
1-1/2"	$36,883	$2,397
2"	$59,035	$3,835
3"	$110,759	$7,191
4"	$184,636	$11,985
6"	$369,161	$23,969
8"	$590,679	$38,351
10"	-	$55,130
12"	-	$103,068

Option 2 Replacement Cost New (RCN)

Option 2 uses the Replacement Cost New (RCN) method to calculate the system asset value. The replacement costs are calculated with the same methodology used for Option 1 but no accumulated depreciation is subtracted from the asset value. This methodology fairly compensates the existing customers for carrying the costs of the excess capacity built into the system which is readily available for new customers to join. The total cumulative revenue by 2046 under this option is $263 million.

Table 3. Option 2 Proposed Fee Schedule

Meter Size	Development Impact Fee	Fire Service Capacity Charge
5/8"	$14,321	-
1"	$23,916	$1,410
1-1/2"	$47,689	$2,820
2"	$76,331	$4,513
3"	$143,209	$8,461
4"	$238,730	$14,102
6"	$477,317	$28,205
8"	$763,736	$45,128
10"	-	$64,871
12"	-	$121,281

Option 3 Replacement Cost New (RCN) plus Pipes

In Option 3, system pipelines were omitted from the asset value calculation and their replacement value was instead calculated using the cost estimate provided by the 2020 WFMP for replacing all pipelines with a diameter of at least 14". The WFMP estimated $15.00 as the cost to replace a diameter inch per linear foot of pipeline. Using this method the pipeline replacement cost was estimated at $154 million. Estimated total cumulative revenue by 2046 under this option is $309 million.

Table 4. Option 3 Proposed Fee Schedule

Meter Size	Development Impact Fee	Fire Service Capacity Charge
5/8"	$16,747	-
1"	$27,968	$1,774
1-1/2"	$55,769	$3,549
2"	$89,264	$5,678
3"	$167,474	$10,646
4"	$279,179	$17,744
6"	$558,191	$35,487
8"	$893,139	$56,780
10"	-	$81,621
12"	-	$152,596

The District currently charges single family dwellings constructed on lots of less than 10,000 sq.ft., which are required to install 1-inch meter to meet fire requirements, a Development Impact Fee of a ¾ inch meter plus a 1 inch meter Fire Capacity Charge instead of paying the fee for the 1 inch meter. RDN accepts this approach to be fair and equitable considering the service requirements for such dwelling units would never exceed those of ¾ inch meter.

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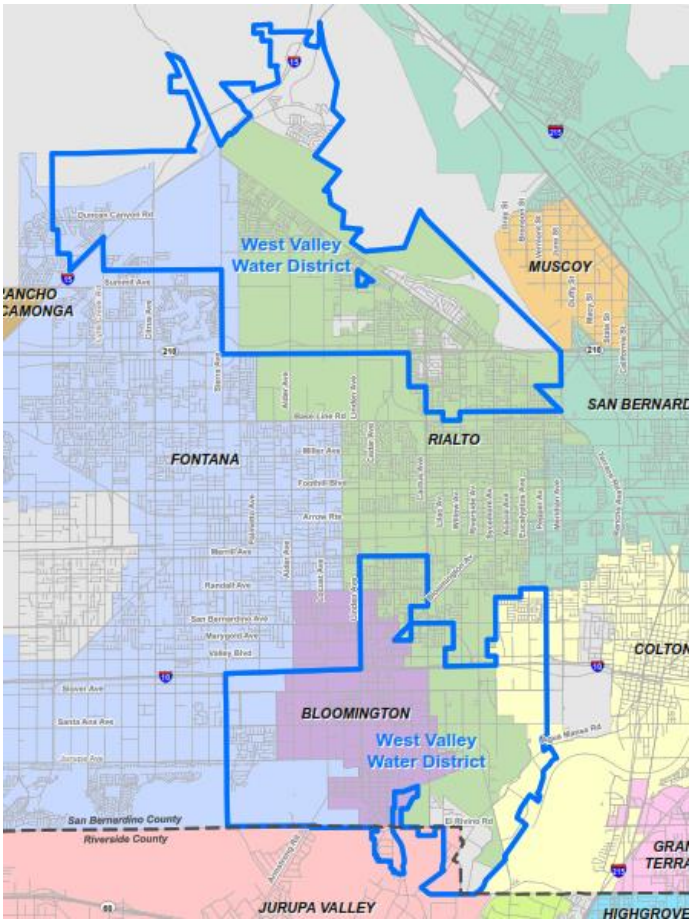
1. INTRODUCTION

District Overview

The West Valley Water District (WVWD or District) is a Special District governed by a five-member Board of Directors which provides water service to a population of 83,902 people through 22,033 connections in San Bernardino and Riverside Counties. The 32 square-mile service area encompasses parts of the Cities of Rialto, Bloomington, Colton, Fontana, Jurupa Valley, and some unincorporated areas in San Bernardino and Riverside Counties. Residential customers make up approximately 93 percent of the District's customers. District facilities include 21 groundwater wells with a pumping capacity of approximately 42,000-acre feet per year (AFY), over 375 miles of pipeline, 25 storage tanks with a total storage capacity of 72 million gallons (MG), and 3,204 fire hydrants. The District's water supply sources include groundwater basins such as Lytle Creek Basin, Bunker Hill Basin, and Rialto Colton Basin, and two sources of surface water including Lytle Creek and the State Water Project. The future water demand used for this study was based on the 2020 WFMP. Figure 1 shows WVWD's current service area.

Figure 1. West Valley Water District Service Area



According to the 2020 WFMP, residentially zoned lands are currently built to 59 percent of the proposed land use capacity, while non-residential zoned lands are developed to 75 percent, this equates to 66 percent of the District's entire service area being built out. WVWD currently levies Development Impact Fees on new or

expanded connections as a condition of development. This charge was established to recover the cost of capacity in District facilities benefitting new development.

"Development Impact Fee" is commonly used terminology to describe system development charges imposed on future customers. There are other names commonly used by utilities such as capacity charges, connection fees, and capital recovery fees. Though they all mean the same and are used for the same purpose, it often creates confusion. In this Report, RDN uses "Development Impact Fee" defining a system development charge, a one-time charge paid by a new water system customer for its system capacity.

Legal Framework

This section of the report describes the legal framework that was considered in the development of the capacity fees to ensure that the calculated capacity fees provide a fair and equitable allocation of costs to current and future customers.

California Code 66001

A fee shall not include the costs attributable to existing deficiencies in public facilities, but may include the costs attributable to the increased demand for public facilities reasonably related to the development project in order to (1) refurbish existing facilities to maintain the existing level of service or (2) achieve an adopted level of service that is consistent with the general plan.

California Code 66008

A local agency shall expend a fee for public improvements, as accounted for pursuant to Section 66006, solely and exclusively for the purpose or purposes, as identified in subdivision (f) of Section 66006, for which the fee was collected. The fee shall not be levied, collected, or imposed for general revenue purposes.

California Code 66013

(a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes Development Impact Fees, 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 of the fee or charge imposed 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.

"Development Impact Fee" means a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged, including supply or capacity contracts for rights or entitlements, real property interests, and entitlements and other rights of the local agency involving capital expense relating to its use of existing or new public facilities. A "Development Impact Fee" does not include a commodity charge.

(c) 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. Any interest income earned from the investment of moneys in the capital facilities fund shall be deposited in that fund.

Economic Framework

The simplest and most succinct economic justification for capacity fees is the idea that "growth-pays-for growth" essentially, that customers who benefit from a service should be the ones who pay for that service. The AWWA Manual M26 states: "the purpose of designing customer-contributed [connection fees] is to prevent or reduce the inequity to existing customers that results when these customers must pay the increase in water rates that are needed to pay for added plant costs for new customers." To effect fair distribution of the value of the system, Development Impact Fees should reflect a reasonable estimate of the cost of providing capacity to new users and not disproportionally burden existing users through a rate increase.

Additionally, according to Neslon[1], "Local public officials are coming to accept that underpricing of facilities leads to their inefficient use. Development is less intense, more spread out, and more wasteful of facilities when it does not have to pay the full cost of the facilities to which it connects and uses." By allowing new development to pay for its full share of the cost of providing new facilities, local officials use market principles to determine when new development is feasible.

Development Impact Fees should also meet rational nexus criteria to assure maximum reasonable acceptance by the development community, local government elected and administrative officials, and courts. At the heart of the rational nexus test is the concept of "proportionate share," which can be defined as that component of the cost of existing and future system improvements that is reasonably related to the demands of new development.

Key Assumptions

Asset values used in this report are escalated to the District's proposed Fee implementation date, thus capturing the system value at the start of fee collection. Growth projections and capacity estimates were calculated using data presented in the 2020 WFMP. Capital projects for expansion scheduled between FY 2018 and FY 2021 were moved to the current asset list upon District confirmation for their execution.

Water Demand per Equivalent Dwelling Unit (EDU)

The water demand per EDU at 670 gallons per day (gpd) was used as a base demand of future customers in the 2020 WFMP, reflecting a decrease in consumption from the previous Water Master Plan, which used 750 gpd per EDU. This is based on the demand of 212 gallons per capita per day (gpcd) multiplied by a typical household size (3.16) in the region. This amount accounts for water losses and occupancy vacancies identified in the 2020 WFMP.

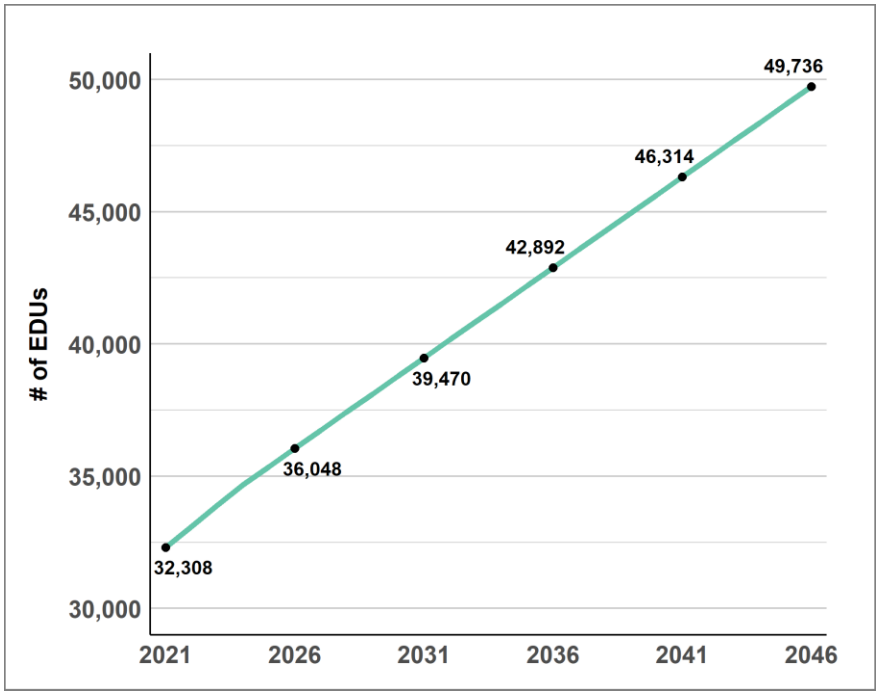
EDU Growth

The projected EDU count for the build-out in the 2020 WFMP is 49,736, which yields an annual growth of 790 EDUs between FY 2020-21 and FY 2023-24 and 684 EDUs per year between FY 2024-25 and FY 2025-46. The current EDU count is estimated at 32,308.

Figure 2 displays projected EDU growth between the current (2021) and buildout (2046).

[1] Nelson, Arthur C. 1995. System development charges for water, wastewater and stormwater facilities. CRC Press.

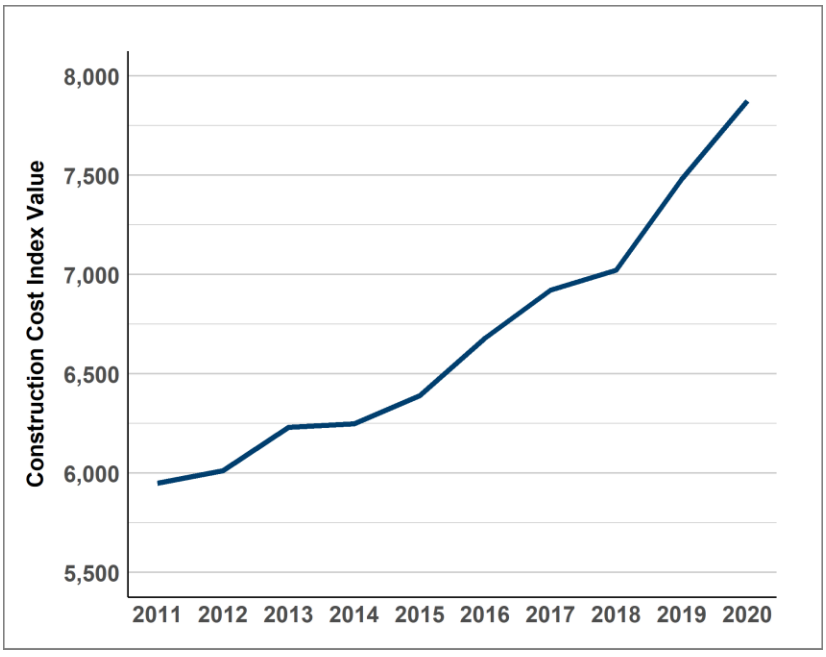
Figure 2. Projected EDU Growth, Current (2021) to Buildout (2046)



Construction Cost Index

RDN escalated the costs of replacing existing system assets using the Los Angeles Construction Cost Index (CCI) published by Engineering News Record (ENR). The CCI is based on current costs for construction inputs such as labor, steel, cement and lumber in the Los Angeles area. System assets were escalated at a rate of 1.8% per year based on the 10-year average percent change in the Los Angeles CCI. Figure 3 shows the indexed change in construction costs between 2011 and the current (2021).

Figure 3. Historic Los Angeles Construction Cost Index



Equivalent Meter Ratios

Capacity requirements placed on the water system can be measured by the size of installed meters which receive services from the system. The safe operating flow (or capacity) of a particular size of meter is essentially the limiting factor in terms of the demand that can be exerted on the water system through the meter. The ratio of the safe operating capacity of various sizes of meters relative to the capacity of a base meter may be used to determine appropriate charges for the larger meter sizes[2]. It is the District's policy to consider all meters that are 3/4-inch and smaller as a base meter (equal to one equivalent meter). The capacity ratio for larger meters is calculated using the meter capacity requirements provided in the AWWA M1.

Table 5. AWWA Equivalent Meter Ratios

Meter Size	Meter Capacity Ratio
5/8" & 3/4"	1.0
1"	1.7
1-1/2"	3.3
2"	5.3
3"	11.7
4"	20.0
6"	41.7
8"	60.0
10"	76.7
12"	143.3

[2] From "Principles of Water Rates, Fees, and Charges" by American Water Works Association, 2017, Seventh Edition, Appendix B, p. 385.

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2. METHODOLOGY

The three optional Development Impact Fees were developed using guidelines set forth by the AWWA M1. The two primary methods outlined in the M1 used to calculate Development Impact Fees are the Buy-in and the Incremental Cost methods. The Buy-in method recovers the cost of capacity in those portions of the existing system in which there is still capacity available. The Incremental Cost method is a calculation of the Incremental Costs of additional system capacity needed to add to serve new development. There is also a hybrid approach in which these two methods are combined. The combined approach is most often used when the system has some capacity left to take on new customers but additional capacity is also needed to serve projected growth in the planning horizon. RDN determined that the combined approach is most appropriate for the WVWD's fee calculation. In this section each method is described in detail and the rationale is provided for selecting the combined approach for the District's Development Impact Fee calculation.

Buy-in Method

Under the Buy-in method, new development purchases a share of capacity proportionate to the development's estimated demand. This method is typically used when the existing water system has the capacity to accommodate increased demand without large investment in capital projects. There are four generally accepted methods used to determine the existing system value:

- **Original Cost** – asset cost in the year of construction
- **Original Cost less Depreciation** – original cost subtracting the accumulated depreciation of system assets
- **Replacement Cost New (RCN)** – original cost escalated to current dollars using a construction cost index. This method reflects the cost of replicating the existing system.
- **Replacement Cost New less Depreciation (RCLD)** – replacement cost new of existing system subtracted by the accumulated depreciation. This method reflects the current costs of replacing system assets while adjusting the valuation to reflect the remaining life of current assets.

Figure 4 provides a visual representation of a situation where the Buy-in method best applies. In this example, the commuter bus (water system) has a capacity to seat 10 passengers (system capacity). Of the 10 total seats, eight are taken (existing customers), but there are two extra seats available ready for the new passengers (new customers). A new passenger, who wants to buy a seat on the bus, is expected to pay one tenth of the total value of the bus to secure his/her seat. This method rests on the premise that existing customers have been maintaining not only their share of the system capacity that they use but also for the extra capacity that is not currently being used. New customers therefore should reimburse existing customers for the additional contribution they have made to maintain the extra capacity.

The Buy-in method is used when there is sufficient capacity left in the existing system to accommodate new development over the planning period, and the goal of this method is to achieve capital equity between existing and new customers.

Figure 4. Buy-in Methodology

Incremental Cost Method

While the Buy-in method is used when the system has sufficient capacity for additional development, the Incremental Cost method is most appropriate when current system capacity is not capable of serving new development without significant investment in new facilities. Under this methodology all of the costs of future system expansion are allocated to new customers. This method requires a detailed long-term capital improvement plan (CIP) that clearly identifies the proportion of project cost contributing to expansion of the system. As shown in Figure 5, using the same bus analogy, when the bus is full (at capacity), new passengers must purchase additional cargo for them to secure a seat so that existing customers would not be burden by the Incremental Costs. This method rests on the premise "growth pays for growth."

Figure 5. Incremental Cost Method

Combined Approach

For systems that have the capacity to serve new development in the short-run but require investment in capacity-expanding facilities in the long-run, a combination of Buy-in and Incremental Cost methods is considered. Development Impact Fees developed under the combined method reflect the value of the existing system and expansion related CIPs. In Figure 6 the new passengers are expected to share the costs associated with the available seats in the original section of the bus and extension of the bus that is added to increase additional availability of seats.

Figure 6. Combined Cost Method

Proposed Approach

According to the 2020 WFMP, the current system holds some remaining capacity to accommodate new customers. Residentially zoned lands are currently built to 59 percent of the proposed land use capacity, while non-residential zoned lands are developed to 75 percent, this equates to only 66 percent of the District's entire service area being built out. However, the District anticipates rapid expansion of roughly 17,000 additional EDUs over the 2021-2046 period. RDN recommends Development Impact Fees for the District be calculated based on the combined approach. This approach captures the significant investment made into the existing system by current customers and the cost of capital improvement projects scheduled for expansion. Figure 7 displays the summarized formula used to calculate the District's fees under the combined approach.

Figure 7. Combined Approach, Development Impact Fee Calculation Methodology for WVWD

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3. FEE CALCULATION

RDN first evaluated which assets are eligible for inclusion in the Development Impact Fee calculation. It is common fee setting practice to only include the asset value of the backbone infrastructure in the system. To calculate the Development Impact Fees, RDN allocated each asset between eight major service functions using the pertinent asset value and system capacity specific to each function. The functions include source of supply, treatment, storage, pumping, pipes, general plant, water rights, and land. Asset values under all three options were adjusted by taking out the assets funded by developers, grants, and other non-rate funding sources. Additionally, adjustments were to the system asset values to avoid double charging new customers for costs they will inherit in their rates once they joined the system. The capital reserve fund was then included in the asset list as a viable asset. The asset value after these adjustments is denoted as "allowable asset value" in this Report. The allowable asset value is divided by the corresponding system capacity, resulting in a unit cost of the capacity. The unit cost was multiplied by 670 gpd defined as per EDU demand in the 2020 WFMP, or other unit of services per EDU applicable to the specific function. The same calculation was repeated for the Incremental Cost component and the fees were summed together to compute a total Development Impact Fee per EDU. The following section describes each of these components in detail.

System Value

Current System Asset Valuation (Buy-in Component)

The District provided RDN with a comprehensive fixed asset list containing nearly 2,000 items with acquisition dates between 1961 and 2020. The asset list included information such as asset number, system function, useful life, and original purchase date of each asset.

Optional Methodologies for System Asset Valuation

The three methods used to calculate asset value are referred as Replacement Cost less Depreciation (RCLD, Option 1), Replacement Cost New (RCN, Option 2), and Replacement Cost New with alternate cost evaluation for pipes (RCN+Pipes, Option 3). While each option results in a slightly different asset value, they are all accepted by the AWWA and general fee setting practice.

Option 1 (Buy-in Component - RCLD)

The RCLD method accounts for the system assets in present value, while also accounting for proportional devaluation via depreciation. The asset value was depreciated by the remaining useful life of each asset as presented in the master asset list. This method provides an asset value reflective of the current state of the system and most accurately represents the present-day value of the system into which new customers are buying. The Buy-in component of allowable asset value under Option 1 amounts to approximately $40 million.

Table 6. Replacement Cost less Depreciation Asset Value

Asset Function	RCLD	Capacity Revenue Adj.	Debt Service	Captial Reserves	Allowable Asset Value
Source of Supply	$17,863,144	$9,433,929	$5,294,442	$3,607,971	$6,742,743
Treatment	$10,000,651	$5,281,570	$2,964,085	$2,019,916	$3,774,913
Storage	$15,750,219	$8,318,046	$4,668,194	$3,181,205	$5,945,184
Pumping	$6,972,761	$3,682,473	$2,066,651	$1,408,348	$2,631,986
Pipes	$39,437,936	$20,828,064	$11,688,977	$7,965,614	$14,886,510
General Plant	$4,680,871	$2,472,074	$1,387,360	$945,435	$1,766,873
Water Rights	$8,211,003	$4,336,416	$2,433,652	$1,658,446	$3,099,380
Land	$2,212,968	$1,168,718	$655,900	$446,972	$835,322
Total	**$105,129,554**	**$55,521,289**	**$31,159,261**	**$21,233,907**	**$39,682,911**

Option 2 (Replacement Cost New – RCN)

Option 2 uses the RCN method to calculate system value. Under this methodology the allowable asset value reflects the cost of replacing the backbone system in today's dollars. Each asset's original cost is multiplied by the percent change in LA CCI between the asset's purchase date and the implementation date of the new fees. The RCN method does not account for accumulated depreciation of assets, meaning that even fully depreciated asset is valued at full replacement cost. Allowable asset value under Option 2 totals approximately $175 million.

Table 7. Replacement Cost New Allowable Asset Value

Asset Function	RCN I	Capacity Revenue Adj.	Debt Service	Captial Reserves	Allowable Asset Value
Source of Supply	$28,045,868	$6,465,562	$3,628,557	$2,472,730	$20,424,479
Treatment	$50,278,562	$11,590,983	$6,505,009	$4,432,928	$36,615,498
Storage	$39,062,352	$9,005,251	$5,053,863	$3,444,024	$28,447,262
Pumping	$19,903,377	$4,588,431	$2,575,086	$1,754,828	$14,494,687
Pipes	$71,587,072	$16,503,347	$9,261,890	$6,311,643	$52,133,477
General Plant	$10,432,746	$2,405,116	$1,349,782	$919,828	$7,597,675
Water Rights	$11,922,077	$2,748,460	$1,542,471	$1,051,138	$8,682,285
Land	$9,604,338	$2,214,139	$1,242,603	$846,789	$6,994,385
Total	**$240,836,391**	**$55,521,289**	**$31,159,261**	**$21,233,907**	**$175,389,748**

Option 3 (Replacement Cost New – RCN plus Pipe Valuation

In Option 3, the replacement cost of pipelines was calculated separately using a different methodology from the RCN for the other functions. In Option 3, the replacement cost of pipes was calculated using the cost estimate per diameter inch of $15.00 found in the 2020 WFMP. The District currently maintains approximately 482,000 feet of pipelines which are at least 14" in diameter. RDN included only the pipes which are 14" and larger in this calculation because they represent the backbone of water main infrastructure. Table 8 presents the size of pipes and their linear footages included in the replacement cost calculation.

Table 8. RCN II Alternate Water Main Valuation

Pipeline Diameter	Linear Feet	Unit Cost Per LF	Total Cost
14-in	2,746	$210	$576,576
16-in	132,898	$240	$31,895,424
18-in	59,136	$270	$15,966,720
20-in	69,062	$300	$20,718,720
22-in	42	$330	$13,939
24-in	141,662	$360	$50,998,464
30-in	55,968	$450	$25,185,600
36-in	2,534	$540	$1,368,576
Baseline Feeder	9,963	$720	$7,173,345
Total	**474,012**		**$153,897,364**

The Base Line Feeder (BLF) is owned by several agencies and is broken down to four phases reflecting the time of project execution. WVWD owns 48.00% of Phase I & II and 33.33% of Phase III & IV. The total portion of the BLF owned by the District is thus 9,963 linear feet.

Following this alternate water main valuation and the three adjustments, the total allowable asset value under Option 3 is calculated at $261 million.

Table 9. Replacement Cost New with Alternate Pipe Valuation Allowable Asset Value

Asset Function	RCN II	Capacity Revenue Adj.	Debt Service	Captial Reserves	Allowable Asset Value
Source of Supply	$28,045,868	$4,767,604	$2,675,641	$1,823,352	$22,425,976
Treatment	$50,278,562	$8,547,008	$4,796,691	$3,268,771	$40,203,634
Storage	$39,062,352	$6,640,330	$3,726,639	$2,539,569	$31,234,952
Pumping	$19,903,377	$3,383,437	$1,898,828	$1,293,983	$15,915,094
Pipes	$153,897,364	$26,161,489	$14,682,164	$10,005,362	$123,059,074
General Plant	$13,831,959	$2,351,337	$1,319,601	$899,260	$11,060,281
Water Rights	$11,922,077	$2,026,671	$1,137,394	$775,093	$9,533,105
Land	$9,667,526	$1,643,413	$922,304	$628,517	$7,730,326
Total	**$326,609,084**	**$55,521,289**	**$31,159,261**	**$21,233,907**	**$261,162,441**

Adjustments

Outstanding Debt Principal

The first adjustment RDN made is crediting new customers for the outstanding debt principal amount that has not yet been paid by the existing customers. The District currently makes payments on three loans: water participation rights, debt service used to fund construction of WVWD's Hydroelectric Plant, and the Series 2016A bond. These three debts have a cumulative outstanding principal of $31.2 million as of FY 2020-21. New customers will start making payments through their water rates once they join the system, thus it is necessary to subtract the amount

from the fee calculation to avoid new customers paying once with a new connection, and paying again on their water bill.

Revenues from Development Impact Fees

Previously collected Development Impact Fee revenue was subtracted from the District's total asset value because the revenue was not generated through existing customers' rates. These revenues should not be included in the asset value calculation because the fee a new customer pays is embedded into the property purchase price, which comes with the water service and related infrastructure. The value of this investment will continue to be included in the value of the house, thus the revenue generated from such fees should not be recoverable either through water rates nor future Development Impact Fees. When the customer sells the property, the value of the investment will be passed onto the next owner through the sale. The basic principle of Development Impact Fee calculation is that allowable system asset value should capture only the direct contributions made by the existing customers through rates. Development Impact Fee revenue represents a facet of property value rather than direct customer investment to the system. WVWD provided RDN with a comprehensive list of Development Impact Fee revenue between FY 1985 to FY 2020, totaling roughly **$55.5 million**.

Capital Reserves

The third and final adjustment is the addition of the District's Capital Reserves to the asset value calculation. The reserves are treated as an asset because they were contributed by existing customers through rates and are available to pay for capital and operating costs of the water system, from which future customers will benefit. The District's current capital reserve balance is **$21.2 million**. This amount was added to the calculation as an allowable system asset value.

Capital Improvement Projects for Expansion (Incremental Cost Component)

To calculate the Incremental Cost component, RDN utilized the extensive capital improvement plan in the 2020 WFMP for the planning period (FY2019 – FY2046). Similar to the method used for the Buy-in component, RDN first assigned the CIP projects to one of seven system functions including source of supply, treatment, pumping, valves, pipes, storage, and land. All scheduled CIPs in the 2020 WFMP were clearly classified as either existing or future (expansion) projects. RDN confirmed with the District that the future projects are all expansion related, thus should be included in the fee calculation. RDN also checked the status of the project execution. The fully executed projects scheduled between FY 2019 and FY 2021 in the 2020 WFMP were moved to the current asset list while the projects, which were scheduled but not yet executed, were kept in the future projects. The cost of expansion related capital improvement projects totaled $255 million. Table 10 shows the total expansion costs for each system function included in the asset value calculation.

Table 10. Capital Improvement Costs for Expansion by System Function

Function	Total Expansion
Source of Supply	$13,441,800
Treatment	$82,966,400
Pumping	$31,226,000
Valves	$520,000
Pipes	$69,048,473
Storage	$55,631,000
Land	$2,346,000
Total	**$255,179,673**

System Capacity

System capacity was measured individually for each function in order to compute a unit cost for system capacity. RDN assessed the current system capacity for the Buy-in component and the additional capacity expected to be produced by capital expansion for the Incremental Cost component. RDN also computed the capacity of the system required for the fire service in order to develop Fire Capacity Charges. A Fire Capacity Charge is computed by assessing the extra capacity needed to serve in times of fire emergencies. In the 2020 WFMP, it indicated that the fire requirements only apply to two functions, storage and pipes. The fire capacity serves the capacity demand placed by private fire protection service accounts and public hydrants. After the asset costs of the fire capacity was identified, RDN reallocated the costs of the public hydrants back to the Development Impact Fee calculation. The 2020 WFMP indicated that the storage fire capacity requirement for the current and future combined is 5.58 million gallons (mg). The District's storage capacity is currently 72.1 percent of the total capacity at the build-out. RDN applied this percentage to the total requirement of 5.58 mg to estimate the current fire capacity in the system. The remaining capacity was allocated to the Incremental Cost component as additional capacity produced by the CIPs for expansion. Fire capacity for pipes were computed by taking the difference in the water demand between Peak Hour Day (PHD) and Peak Day Demand (PDD). Based on this calculation RDN allocated approximately 60 percent of the total cost to the Development Impact Fee calculation and the remaining 40 percent to the Fire Capacity Charge calculation. RDN assumed that the current system pipes are sufficient to serve the District's existing customers and additional pipes scheduled to be installed will accommodate new development's required demand. Each of these costs are then divided by the current EDUs or the additional EDUs for the Buy-in and the Incremental Cost component, respectively. The capacity of other system functions such as general plant, water rights, and land are calculated using the current EDUs for the current capacity and the EDU growth between the current and the build-out for the Incremental Cost component.

Unit of Service

Once the unit costs were calculated for the source of supply, treatment, and pumping functions, they were multiplied by the unit of service (670 mgd) to compute the base fee for each function. RDN computed gallons of water available for each EDU for the storage function at the current capacity by taking the current total capacity less the fire capacity and dividing it by the current EDUs. For the Incremental Cost component, RDN used the

average of water availability per EDU at two points in time, the current period and build-out, and defined it as a unit of service for the storage function.

Fee Calculation

Fee calculations inherently have a certain amount of latitude so that fees can reflect local contingencies rather than be intractable in their application. The variations included here primarily signify differences in asset value calculation for the Buy-in component. Regardless of the ultimate methodology the District selects, the formula used to compute the base fee remains the same.

$$\left(\frac{(Replacement\ Cost\ of\ Assets \pm Adjustments)}{Current\ Capacity} \times \frac{gpd}{edu}\right) + \left(\frac{CIP\ Cost\ for\ Expansion}{Added\ Capacity} \times \frac{gpd}{edu}\right)$$

Buy-in Component | **Incremental Cost Component**

Table 11, Table 12, and Table 13 present a summary of Development Impact Fee and Fire Capacity Charge calculation for the Buy-in components by option.

Buy-in Component

Table 11. Option 1 (RCLD) Fee Calculation – Buy-in

Asset Function	Allowable Asset Value	Current Capacity	Capacity for Fire Service	Unit Cost	Unit of Service	Fire Unit of Service	Unit	Development Impact Fee per EDU	Fire Capacity Charge per EDU	Reallocation of Public Fire Costs	Total Development Impact Fee
Source of Supply	$6,742,743	41,500,000		$0.16	670		GPD	$108.86			
Treatment	$3,774,913	43,000,000		$0.09	670		GPD	$58.82			
Storage	$5,945,184	66,637,117	4,022,883	$0.08	2,063	41	Gallons	$173.54	$3.49		
Pumping	$2,631,986	45,402,240		$0.06	670		GPD	$38.84			
Pipes	$14,886,510	33,900,000	23,730,000	$271.04	1	46	EDU	$271.04	$45.51		
General Plant	$1,766,873	32,308		$54.69	1		EDU	$54.69			
Water Rights	$3,099,380	32,308		$95.93	1		EDU	$95.93			
Land	$835,322	32,308		$25.86	1		EDU	$25.86			
Total	**$39,682,911**							**$827.57**	**$49.00**	**$176.78**	**$1,004.36**

Table 12. Option 2 (RCN) Fee Calculation – Buy-in

Asset Function	Allowable Asset Value	Current Capacity	Capacity for Fire Service	Unit Cost	Unit of Service	Fire Unit of Service	Unit	Development Impact Fee per EDU	Fire Capacity Charge per EDU	Reallocation of Public Fire Costs	Total Development Impact Fee
Source of Supply	$20,424,479	41,500,000		$0.49	670		GPD	$329.74			
Treatment	$36,615,498	43,000,000		$0.85	670		GPD	$570.52			
Storage	$28,447,262	66,637,117	4,022,883	$0.40	2,063	41	Gallons	$830.38	$16.68		
Pumping	$14,494,687	45,402,240		$0.32	670		GPD	$213.90			
Pipes	$52,133,477	33,900,000	23,730,000	$949.20	1	159	EDU	$949.20	$159.39		
General Plant	$7,597,675	32,308		$235.16	1		EDU	$235.16			
Water Rights	$8,682,285	32,308		$268.74	1		EDU	$268.74			
Land	$6,994,385	32,308		$216.49	1		EDU	$216.49			
Total	**$175,389,748**							**$3,614.13**	**$176.07**	**$635.25**	**$4,249.38**

Table 13. Option 3 (RCN plus Pipes) Fee Calculation – Buy-in

Asset Function	Allowable Asset Value	Current Capacity	Capacity for Fire Service	Unit Cost	Unit of Service	Fire Unit of Service	Unit	Development Impact Fee per EDU	Fire Capacity Charge per EDU	Reallocation of Public Fire Costs	Total Development Impact Fee
Source of Supply	$22,425,976	41,500,000		$0.54	670		GPD	$362.06			
Treatment	$40,203,634	43,000,000		$0.93	670		GPD	$626.43			
Storage	$31,234,952	66,637,117	4,022,883	$0.44	2,063	41	Gallons	$911.75	$18.31		
Pumping	$15,915,094	45,402,240		$0.35	670		GPD	$234.86			
Pipes	$123,059,074	33,900,000	23,730,000	$2,240.56	1	376	EDU	$2,240.56	$376.23		
General Plant	$11,060,281	32,308		$342.34	1		EDU	$342.34			
Water Rights	$9,533,105	32,308		$295.07	1		EDU	$295.07			
Land	$7,730,326	32,308		$239.27	1		EDU	$239.27			
Total	**$261,162,441**							**$5,252.33**	**$394.54**	**$1,423.50**	**$6,675.83**

Table 14 shows the summary calculation for the Incremental Cost component.

Incremental Cost Component

Table 14. CIPs for Expansion (Incremental Cost)

System Function	Total Expansion	Current Capacity	Capacity for Fire Service	Unit Cost	Unit of Service	Fire Unit of Service	Unit	Development Impact Fee per EDU	Fire Capacity Charge per EDU	Reallocation of Public Fire Costs	Total Development Impact Fee
Source of Supply	$13,441,800	35,100,000		GPD	$0.38	670		$256.58			
Treatment	$82,966,400	35,100,000		GPD	$2.36	670		$1,583.69			
Pumping	$31,226,000	62,553,600		GPD	$0.50	670		$334.46			
Valves	$520,000	19,900,000	13,930,000	GPD	$17.50	1	$4.53	$17.50	$4.53	$4.53	
Pipes	$69,048,473	19,900,000	13,930,000	GPD	$2,323.89	1	$601.80	$2,323.89	$601.80	$601.80	
Storage	$55,631,000	27,350,000	1,557,117	Gallons	$1.92	2,001	$33.13	$3,850.74	$63.75	$63.75	
Land	$2,346,000	17,478		EDU	$134.23	1		$134.23			
Total	**$255,179,673**							**$8,501.09**	**$670.08**	**$1,570.48**	**$10,071.57**

Figure 8 presents the optional fees by option. The Incremental Cost component is the same for all options but the Buy-in component varies depending on the methodology used to calculate system asset value. Option 1 used Replacement Cost less Depreciation (RCLD) for the Buy-in component of the fee calculation, the Option 2 fee is calculated using Replacement Cost New (RCN), and Option 3 fee used Replacement Cost New plus a separate valuation for the system main replacement costs. Figure 9 shows the proposed Fire Capacity Charge for each option.

Figure 8. Comparison of Development Impact Fees by Option

Figure 9. Comparison of Fire Capacity Charge by Option

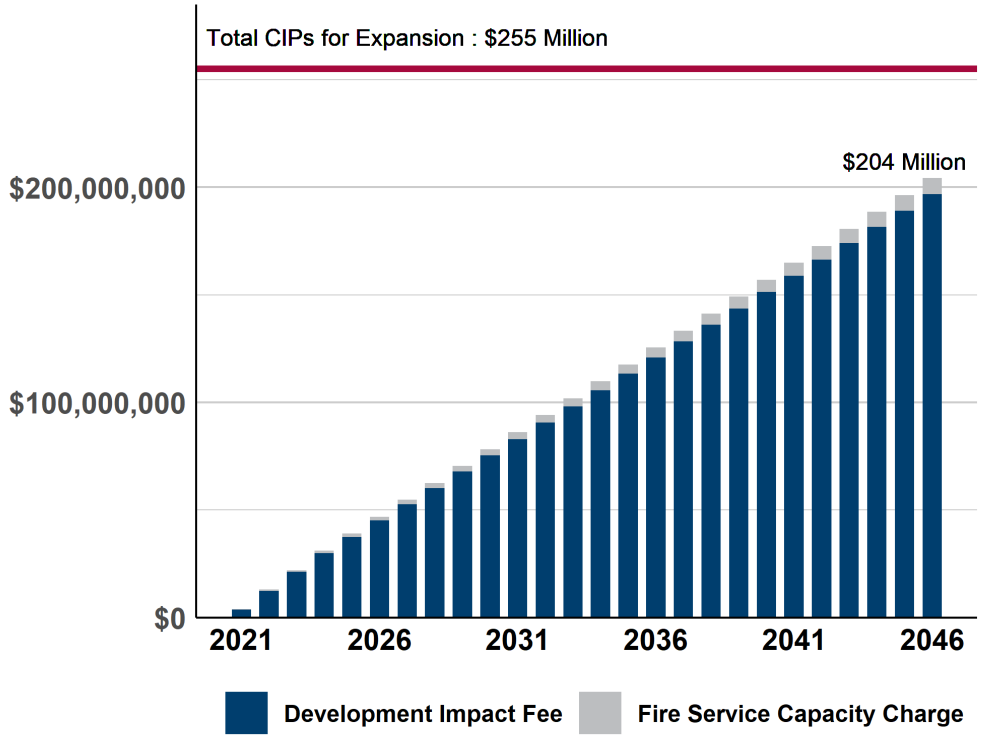
Option 1 (RCLD)

The Development Impact fee calculation under Option 1 for the base meter (3/4-inch and smaller) resulted in $11,076. Larger meters are scaled upward using the AWWA capacity ratio. The smallest meter size for the Fire Capacity Charges is 1-inch. This option will generate approximately $197 million cumulative revenues from Development Impact Fees and an additional $7 million from Fire Capacity Charge revenues, totaling $204 million by FY 2046.

Table 15. Option 1 Development Impact Fees and Fire Capacity Charges by Meter Size

Meter Size	Safe Maximum Operating Flow	System Demand Factor	Development Impact Fee	Fire Service Capacity Charge
5/8" & 3/4"	30 gpm	1.0	$11,076	-
1"	50 gpm	1.7	$18,497	$1,198
1-1/2"	100 gpm	3.3	$36,883	$2,397
2"	160 gpm	5.3	$59,035	$3,835
3"	350 gpm	11.7	$110,759	$7,191
4"	600 gpm	20.0	$184,636	$11,985
6"	1250 gpm	41.7	$369,161	$23,969
8"	1800 gpm	60.0	$590,679	$38,351
10"	2300 gpm	76.7	-	$55,130
12"	4300 gpm	143.3	-	$103,068

Figure 10. Forecasted Revenues under Option 1 by Type



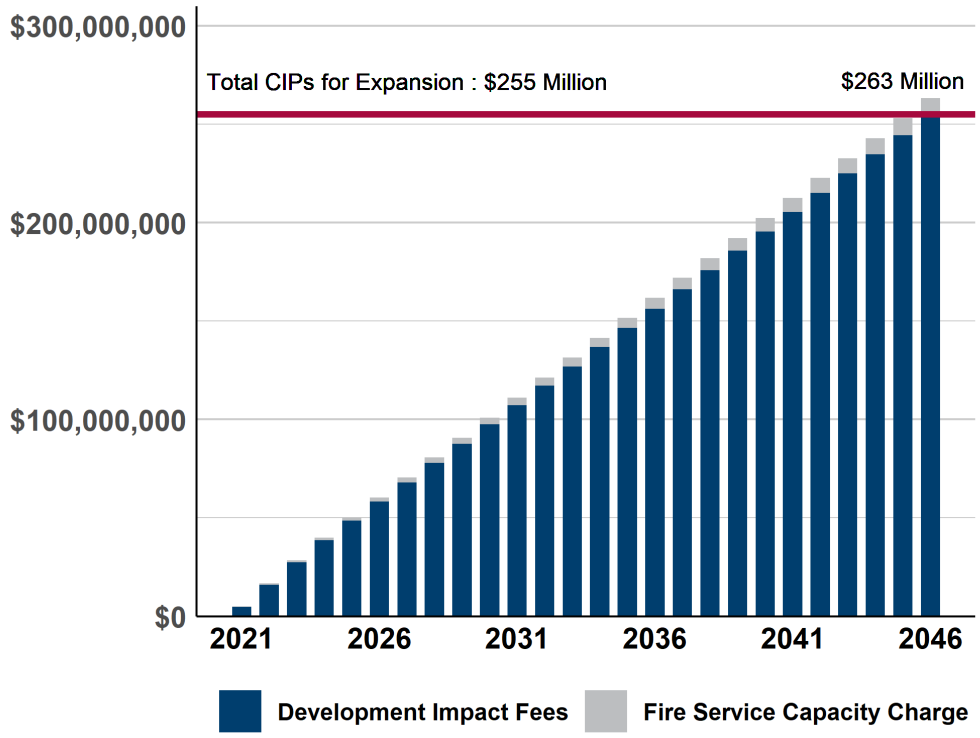
Option 2 (RCN)

The Development Impact fee calculation for the base meter (3/4-inch and smaller) under Option 2 resulted in $14,321. This option will generate approximately $254 million cumulative revenues from Development Impact Fees and an additional $9 million from the Fire Service Capacity Charge revenues, totaling $263 million by FY 2046.

Table 16. Option2 Development Impact Fees and Fire Capacity Charges by Meter Size

Meter Size	Safe Maximum Operating Flow	System Demand Factor	Development Impact Fee	Fire Service Capacity Charge
5/8" & 3/4"	30 gpm	1.0	$14,321	-
1"	50 gpm	1.7	$23,916	$1,410
1-1/2"	100 gpm	3.3	$47,689	$2,820
2"	160 gpm	5.3	$76,331	$4,513
3"	350 gpm	11.7	$143,209	$8,461
4"	600 gpm	20.0	$238,730	$14,102
6"	1250 gpm	41.7	$477,317	$28,205
8"	1800 gpm	60.0	$763,736	$45,128
10"	2300 gpm	76.7	-	$64,871
12"	4300 gpm	143.3	-	$121,281

Figure 11. Forecasted Revenues under Option 2



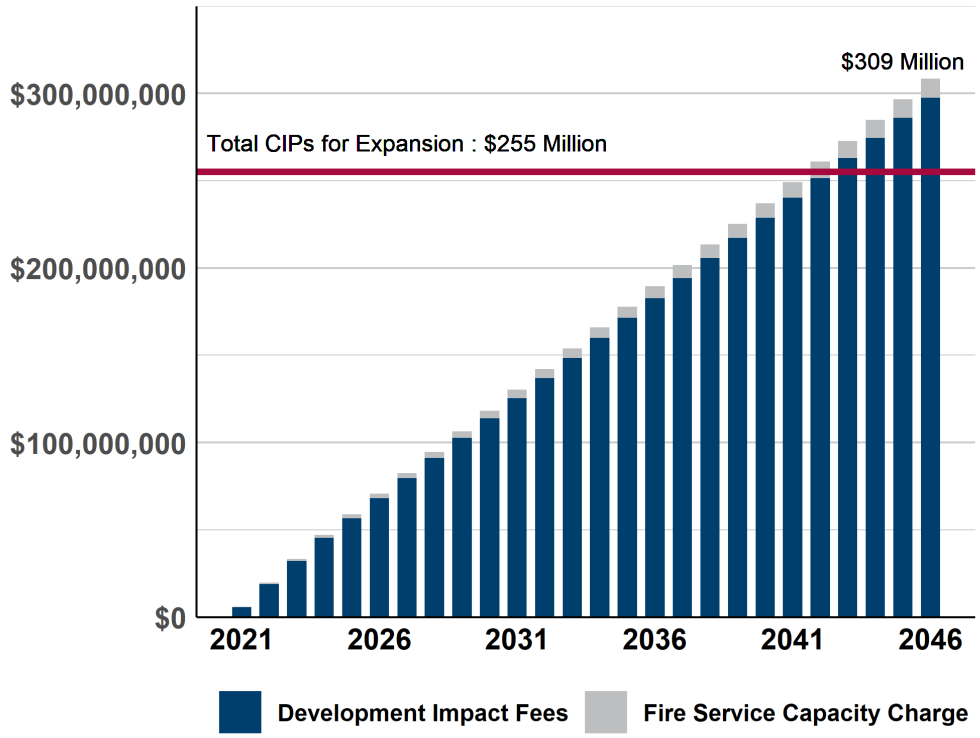
Option 3 (RCN plus Pipes)

Option 3 yields a Development Impact Fee of $16,747 per EDU and a Fire Service Capacity Charge of $1,774 per EDU. This option is expected to generate $297 million from the Development Impact Fees and another $11 million from Fire Service Capacity Charges, which totals $309 million by FY 2046.

Table 17. Option 3 Development Impact Fees and Fire Capacity Charges by Meter Size

Meter Size	Safe Maximum Operating Flow	System Demand Factor	Development Impact Fee	Fire Service Capacity Charge
5/8" & 3/4"	30 gpm	1.0	$16,747	-
1"	50 gpm	1.7	$27,968	$1,774
1-1/2"	100 gpm	3.3	$55,769	$3,549
2"	160 gpm	5.3	$89,264	$5,678
3"	350 gpm	11.7	$167,474	$10,646
4"	600 gpm	20.0	$279,179	$17,744
6"	1250 gpm	41.7	$558,191	$35,487
8"	1800 gpm	60.0	$893,139	$56,780
10"	2300 gpm	76.7	-	$81,621
12"	4300 gpm	143.3	-	$152,596

Figure 12. Option 3 Revenue Analysis



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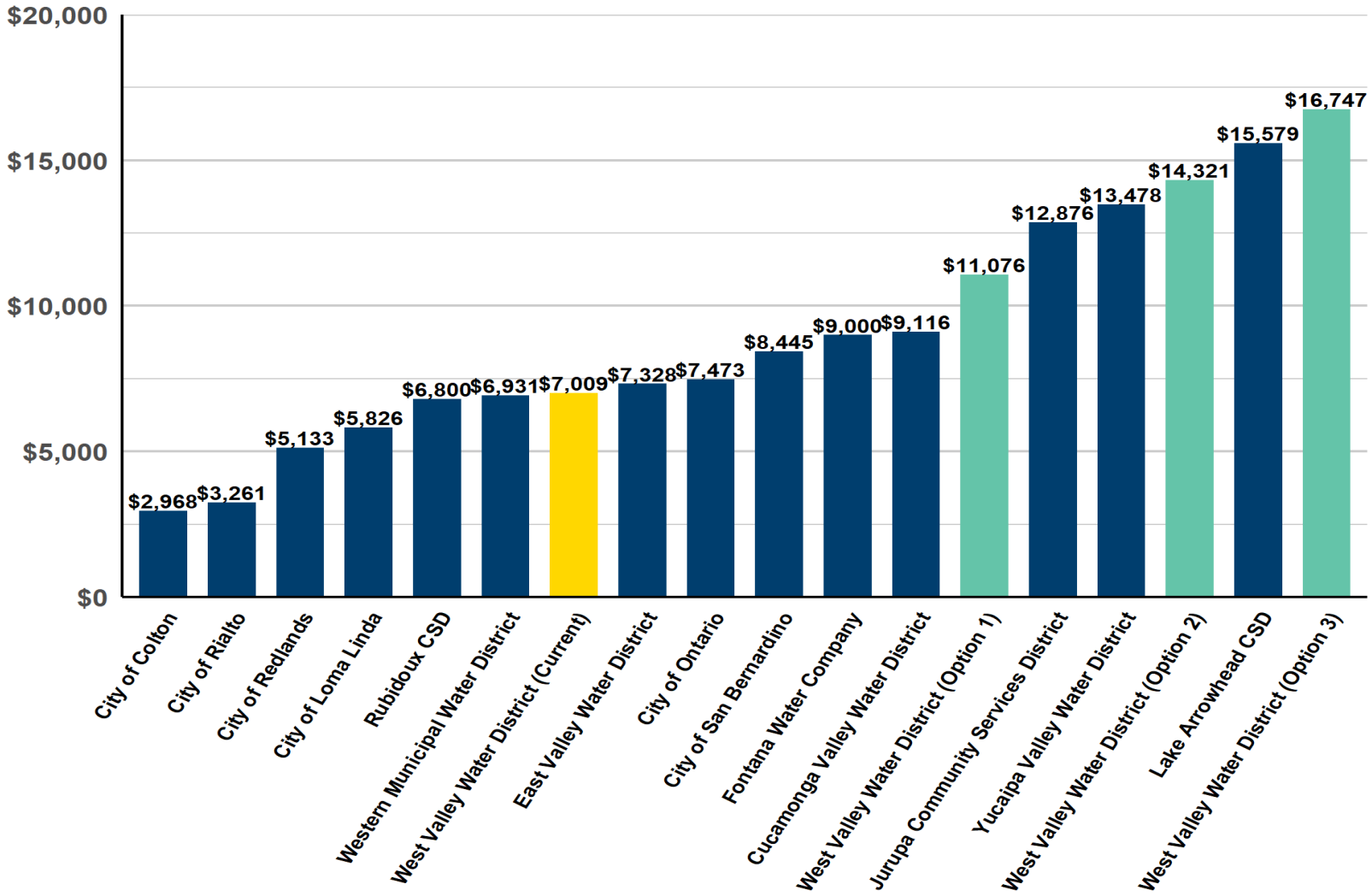
4. FEE COMPARISON SURVEY

There are significant differences in the Development Impact Fees among the neighboring communities of WVWD. Each agency has its own unique objectives and circumstances to consider and account for when setting this type of fee. For example, a system with sufficient capacity left to take on new customers for their planning period most likely will only use an approach which includes the Buy-in method when calculating the fee. The fees computed using this method is typically lower than the fees computed with the Incremental Cost method. Alternately, WVWD expects significant growth and needs to invest heavily in capital projects to accommodate its growing demand. Thus, it follows that the District must have a higher Development Impact Fee to offset the greater investment planned for future growth.

As presented in the Methodology section of this report there are many acceptable and defensible methods to compute the fee, which also contributes to the large variance among agencies. The following figure displays the current and proposed Development Impact Fees for the District compared to neighboring agencies' currently implemented fees.

Figure 13. Fee Comparison



5. FINAL RECOMMENDATIONS

The District's planned capital improvement project scheduled between FY 2021 and FY 2046 totals $255 million. Development Impact Fee revenue is restricted and must be used strictly to fund most or all expansion-related capital costs. Without sufficient funding sourced from new development, funding the District's growth through water rates could place massive burden on the current ratepayers. At the District's request, RDN produced three optional fees ranging from $11,076 to $16,955 which all conform to State guidelines. All of the proposed fees will significantly increase Development Impact Fee revenues for the District compared to the current fee of $7,009. In summary the three options presented in this report accomplish the outlined goals to varying degrees:

- Option 1:
    - Uses the replacement cost less depreciation (RCLD) methodology
    - **Accounts** for system depreciation and has the **lowest impact** on new development
    - **Does not** recover enough revenues to fund all of the expansion related CIPs, consequently current customers will need to fill the gap in revenues through rate increases
- Option 2:
    - Uses the replacement cost new (RCN) methodology which does not account for system depreciation
    - Recovers **sufficient** revenues to accommodate necessary system capacity growth through 2046
- Option 3:
    - Uses RCN method but additionally calculates the value of water pipes by using engineering estimates for total cost to replace the current mains of 14" and bigger
    - Recovers **sufficient** revenues to fund all necessary CIPs for expansion
    - Puts a **significant burden** on new development, which may hinder long-term growth

RDN recommends the District implement Option 2. This option results in a Development Impact Fee of $14,321. This option is expected to generate sufficient revenue to cover the entire CIP cost estimated for expansion, and have some additional revenue to offset some of the CIP costs for the existing assets. Additionally, using a higher fee could hinder development, which could simply move to a different location if the cost to build significantly greater than neighboring agencies.

RDN recommends that the District update the Development Impact Fee each year to keep pace with construction cost inflation. The District can apply the annual increase (or decrease) in the ENR Los Angeles CCI. Additionally, we recommend that WVWD conduct a review the fee every four to five years or when there are significant changes in the physical system, planned capital projects, pace of new development, or other major changes.


RDN