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Final proposal scheduled for April 9, 2024 UC meeting and public hearing

RESOLUTION NO. nnn-W

A RESOLUTION OF THE HILLSBORO UTILITIES COMMISSION ESTABLISHING UPDATED FEES AND SYSTEM DEVELOPMENT CHARGES

WHEREAS, the Utilities Commission is authorized by the Hillsboro City Charter and Hillsboro Municipal Code Subchapter 2.28 to manage the City of Hillsboro water system; and

WHEREAS, the Utilities Commission established certain system development charges (SDCs) by Resolution No. 240-W, effective May 11, 2021, which SDCs are currently in place; and

WHEREAS, the Hillsboro Utilities Commission adopted a comprehensive Water Master Plan in June 11, 2019 by Resolution No. 234-W; and

WHEREAS, the objective of the Water Master Plan was to identify and define capital improvement needs that will enable the City to satisfactorily serve future populations and development within a defined service area for a 50-year planning period; and

WHEREAS, the Water Master Plan includes Table 8-1 - Capital Improvement Program, a list of projects and cost estimates to establish the total needed funding for capital improvements, which subsequently has been updated and serves as the City's Water Capital Improvement Plan (CIP) for purposes of calculating System Development Charges (SDCs) as required by Oregon Revised Statutes (ORS) 223.309 and Hillsboro Municipal Code (HMC) Subchapter 38; and

WHEREAS, the Commission retained HDR Engineering, Inc. (HDR) to perform an analysis and draft a report for the Commission to update water SDCs based upon the new CIP while relying upon the existing methodology for calculation of the charges. The report, entitled the "City of Hillsboro Water System Development Charge Study", January 2024 (HDR Report) is attached hereto as Exhibit G. The HDR Report sets forth recommended calculations and amounts to be charged for reimbursement fees and improvement fees; and

WHEREAS, the Commission hereby determines that the City should not collect the full amount calculated as eligible to be charged for the improvement fee portion of the SDC, in order to more fairly apportion the responsibility for paying the cost of needed system improvements as between new development and ratepayers. The Commission has the discretion under the law to charge less than the maximum allowable SDC. In support of this determination, the Commission obtained an Issue Paper entitled "Rate Impacts of Various System Development Charges Levels," prepared by HDR in its capacity as consulting engineer; and

WHEREAS, pursuant to ORS 223.304 and HMC 3.28.050, written notice of the adoption of the proposed modification was mailed to interested persons more than 90 days prior to the Utilities

Commission public hearing to consider the revised SDCs, and notice was posted in accordance with Utilities Commission policy; and

WHEREAS, the Utilities Commission conducted a public hearing on April 9, 2024 to consider the proposed SDCs and determined that adoption of the recommended new charges - the calculation of which incorporates a reduction so that the SDC represents a charge that is about eighty-six percent (86%) of the otherwise lawful maximum SDC that could be approved for retail SDCs and one-hundred percent (100%) for wholesale SDCs - is in the public interest and will result in collection of sufficient revenue to fund the projects identified in the new CIP; and

WHEREAS, in order to provide revenue with which to expand treatment facilities, impoundment, pumping facilities, transmission systems and service mains in the City, and areas outside the City now being served by the system, and to meet the costs of service installations, it is necessary to establish water connection fees and service installation fees for all users of water services such as will more nearly reflect the costs to the Commission for providing and maintaining such services.

NOW THEREFORE, THE CITY OF HILLSBORO UTILITIES COMMISSION RESOLVES AS FOLLOWS:

Section 1: The Commission hereby adopts the HDR Report as its calculations in support of the revised SDCs adopted herein. The resulting charges are about eighty-six percent (86%) of the otherwise maximum allowable charge for retail SDCs and one-hundred percent (100%) for wholesale SDCs, determined by the Commission to be a reasonable mechanism to balance the responsibility for paying the cost of needed improvements as between new development and ratepayers. All calculation results have been rounded to the nearest whole dollar.

Section 2: The methodology for calculation of the new SDC consists of the same elements as those adopted by the Commission in Resolution No. 240-W with updates as noted below and results in the charges adopted by this Resolution. These elements are as follows:

- a. The SDC is calculated for a 5/8-inch by 3/4-inch meter. The SDC for larger meter sizes up to 2 inches is determined by multiplying the SDC for a 5/8-inch by 3/4-inch meter by a weighting factor. The weighting factor adopted by the Commission is the American Water Works Association Meter Capacity Ratio for displacement-type meters.
- b. The SDC for meters larger than 2 inches for all customers except Industrial customers is determined by multiplying the SDC for a 5/8-inch by 3/4-inch meter by a weighting factor. The weighting factor adopted by the Commission is the American Water Works Association Meter Capacity Ratio for displacement-type meters. For meters larger than 2 inches for Industrial customers, the SDC is determined based on the customer's anticipated water usage. Anticipated peak day water usage will be divided by the peak day system design flow per day per Meter Equivalent (ME) to determine the peak day MEs. Anticipated average daily water usage will be divided by average day system design flow per day per ME to determine average day MEs. The peak and average day usage will

be based on the previous three-year average of actual non-residential use and then adjusted to align the calculation to equal to or greater than the rate increase percentage for a 5/8-inch by 3/4-inch meter. The anticipated peak day water usage is assumed to be 1.5 times the average day usage unless a different peaking factor is demonstrated by the applicant.

- c. For multi-family complexes that require a meter larger than 2 inches, the meter size will be calculated using the method in Section 2.b. if anticipated usage is provided by the applicant, or the projected average usage will be calculated using the number of units multiplied by 225 gallons per unit.
- d. Residential Fire Sprinkler SDC Program shall be operated as follows. The Commission authorizes the Water Department Director to enter into residential SDC Deferral Agreements at the Director's discretion with Property Owners where the terms of Resolution 205-W are present to accommodate the installation of a new fire suppression sprinkler system (from a five-eighths by three-quarter or a three-quarter inch meter to a one-inch meter). The Water Department Director will report on at least an annual basis to the Commission about the status of this program, the agreements made under this program, and any potential supply or service impact on the City's water system.
- e. The applicable SDC is calculated in the manner described in 2a through 2d for all metered connections, whether for Residential, Industrial, Multi-Family, Public Users, Non-Profit, Commercial, Irrigation, or Wholesale purposes. All calculation results have been rounded to the nearest whole dollar and adjusted to align charges to American Water Works Association Meter Capacity Ratios.

Section 3: Connection Fees, Service Installation Fees, Design Review and Construction Inspection Fees, and Extraterritorial Application Fees shall be charged as follows. No Service purchased for purposes other than residential, commercial, and industrial, such as irrigation, will be refundable under a developer contract regardless of the location. Backflow requirements will be strictly enforced as stated in Resolution No. 193-W or its successor resolution.

- a. Connection Fees: The Commission hereby adopts the charges for Connection Fees for water services to be used for retail water service which shall be charged only where the Commission has paid any of the cost of installing the water line, in the instances where there are contracts with a developer due to advances for construction costs of water line extensions, and where developer contracts were in effect but have expired, and such Connection Fees shall be as set forth in Section 4.
- b. Service Installation Fees: The Commission hereby adopts Service Installation Fees that shall be charged, in addition to Connection Fees, for all water meters which will, as nearly as possible, reflect the actual cost of the installation of the water service connection, and Service Installation Fees shall be as set forth in Section 4.
- c. Design Review and Construction Inspection Fees: The Commission hereby adopts Design Review and Construction Inspection Fees that shall be charged, in addition to a Service

Installation Fee, for all Irrigation water meters, which will, as nearly as possible, reflect the actual cost, and Design Review and Construction Inspection Fees shall be as set forth in Section 4.

- d. Extraterritorial Application Fee: The Commission hereby adopts an Extraterritorial Application Fee that shall apply to meters outside the City's corporate limits, for such additional services as application processing and review, publication and mailing of public notices, etc., as set forth in Section 4. In the event the customer wishes to make the installation, only Design Review and Construction Inspection Fee plus the extraterritorial application fee will be charged as a Service Installation Fee. The system the customer would install must be pre-approved before being covered.

Section 4: The Commission hereby adopts the following Fees and System Development Charges (rounded to whole dollars), which are set forth on the following Exhibits, attached hereto and incorporated herein by this reference:

- a. Exhibit A: Fees and System Development Charges: City of Hillsboro Retail
- b. Exhibit B: Fees and System Development Charges: Upper System Retail
- c. Exhibit C: Wholesale System Development Charge: City of Cornelius
- d. Exhibit D: Wholesale System Development Charge: City of Gaston & L.A. Water Cooperative
- e. Exhibit E: Fees and System Development Charges (SDC): City of Hillsboro Irrigation
- f. Exhibit F: Fees and System Development Charges (SDC): Upper System Irrigation
- g. Exhibit G: City of Hillsboro Water System Development Charge Study, January 2024
- h. Exhibit H: Issue Paper – Rate Impacts of Various System Development Charges Levels

Section 5: Repeal. This Resolution repeals as of July 1, 2024, Resolution No. 240-W and all previous resolutions or parts of resolutions in conflict with this Resolution.

Section 6: The new Fees and SDCs adopted by this Resolution shall take effect on July 1, 2024. In order to implement the new charges, the rates in effect immediately prior to July 1, 2024, will apply for customers who apply for a building permit including building plans prior to the effective date of this Resolution and who actually pick up and pay for the building permit prior to January 1, 2025.

Section 7: As required by State Law and the Hillsboro Municipal Code, a credit for amounts previously paid will be provided when a new SDC is calculated for a customer development. The credit so computed will not exceed the calculated new SDC. No refund will be made on account of such credit.

Section 8: The Commission directs staff to adjust the SDC and fees each calendar year as authorized by ORS 223.304(8)(b) and HMC 3.28.050. The amount of the adjustment shall be the change, as calculated by staff, in the Engineering News Record Construction Cost Index for the Seattle area for the twelve-month period ending in November of the year prior to the effective date of the SDC adjustment. The adjustments shall be effective July 1st of each year.

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Section 9: This Resolution takes effect immediately upon adoption by the Utilities Commission.

ADOPTED by the Utilities Commission of the City of Hillsboro, Oregon this 9th day of April, 2024.

Chair

Attest: _____
Commission Recorder

Date: _____

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Exhibit A: Fees and System Development Charges (SDC): City of Hillsboro Retail

Residential, Multi-Family, Public Users, Non-Profit, and Commercial
Rates for Customers Inside the City of Hillsboro, Effective July 1, 2024

Service Connection Type	Connection Fee	Service Installation Fee	SDC	Administrative Fee	Total Charge
5/8 x 3/4 inch	\$1,384	\$414	\$13,881	\$37	\$15,716
3/4 inch	\$1,427	\$582	\$20,822	\$37	\$22,868
1 inch	\$1,471	\$749	\$34,703	\$37	\$36,960
1 1/2 inch	\$1,673	\$1,211	\$69,405	\$37	\$72,326
2 inch	\$2,192	\$2,365	\$111,048	\$37	\$115,642
3 inch	\$4,385	*	\$208,215	\$37	\$212,637
4 inch	\$8,771	*	\$347,025	\$37	\$355,833
6 inch	\$13,851	*	\$694,050	\$37	\$707,938
8 inch	\$23,084	*	\$1,110,480	\$37	\$1,133,601
10 inch*	\$33,184	*	\$1,596,315	\$37	\$1,629,536

Notes:
 *3-inch and larger meters/service connections are the responsibility of the customer.
 3/4 inch service is only available for purchase by Single Family Residential.
 Connection fees are charged only in instances when the Water Department installs a service line from the distribution main to the meter.
 For meters larger than 10": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents.
 For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee. Subject to negotiation as to availability. Please call the Water Dept. at 503-615-6702 for a quote.
 These fees are subject to change at the discretion of the Utilities Commission.
 These fees apply to meter purchases for Hillsboro Retail Customers.

SDC Calculation: Meters larger than 10 inch

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$11,707) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$2,174) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$37 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$11,707	1.00	\$ 11,707
Average daily	\$2,174	1.00	\$ 2,174
Subtotal			\$ 13,881
Administrative fee			\$ 37
SDC and Administrative Charge			\$ 13,918

Exhibit A: Fees and System Development Charges (SDC): City of Hillsboro Retail					
Industrial					
Rates for Customers Inside the City of Hillsboro, Effective July 1, 2024					
Service Connection Type	Connection Fee	Service Installation Fee	SDC	Administrative Fee	Total Charge
5/8 x 3/4 inch	\$1,384	\$414	\$13,881	\$37	\$15,716
3/4 inch	N/A	N/A	N/A	N/A	
1 inch	\$1,471	\$749	\$34,703	\$37	\$36,960
1 1/2 inch	\$1,673	\$1,211	\$69,405	\$37	\$72,326
2 inch	\$2,192	\$2,365	\$111,048	\$37	\$115,642
3 inch	\$4,385	+SDC to be calculated (minimum \$208,215 SDC)			
4 inch	\$8,771	+SDC to be calculated (minimum \$347,025 SDC)			
6 inch	\$13,851	+SDC to be calculated (minimum \$694,050 SDC)			
8 inch	\$23,084	+SDC to be calculated (minimum \$1,110,480 SDC)			
10 inch and larger	\$33,184	+SDC to be calculated (minimum \$1,596,315 SDC)			
Notes:					
3-inch and larger meters/service connections are the responsibility of the customer.					
3/4 inch service is only available for purchase by Single Family Residential.					
Connection fees are charged only in instances when the Water Department installs a service line from the distribution main to the meter.					
For meters larger than 2": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents.					
For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee. Subject to negotiation as to availability. Please call the Water Dept. at 503-615-6702 for a quote.					
These fees are subject to change at the discretion of the Utilities Commission.					
These fees apply to meter purchases for Hillsboro Retail Customers.					
SDC Calculation: Meters 3 inch and larger					
The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$11,707) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$2,174) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$37 administrative fee is added.					
SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC		
Peak daily	\$11,707	1.00	\$ 11,707		
Average daily	\$2,174	1.00	\$ 2,174		
Subtotal			\$ 13,881		
Administrative fee			\$ 37		
SDC and Administrative Charge			\$ 13,918		

Exhibit B: Fees and System Development Charges (SDC): Upper System Retail

Residential, Multi-Family, Public Users, Non-Profit, and Commercial

Rates for Customers in the Upper System, Effective July 1, 2024

Service Connection Type	Connection Fee	Service Installation Fee	SDC	Administrative Fee	Extraterritorial Application Fee	Total Charge
5/8 x 3/4 inch	\$2,076	\$621	\$9,496	\$23	\$302	\$12,518
3/4 inch	\$2,141	\$873	\$14,245	\$23	\$302	\$17,584
1 inch	\$2,207	\$1,124	\$23,741	\$23	\$302	\$27,396
1 1/2 inch	\$2,510	\$1,817	\$47,482	\$23	\$576	\$52,407
2 inch	\$3,288	\$3,548	\$75,972	\$23	\$576	\$83,407
3 inch	\$6,578	*	\$142,447	\$23	\$576	\$149,624
4 inch	\$13,157	*	\$237,412	\$23	\$576	\$251,168
6 inch	\$20,777	*	\$474,824	\$23	\$576	\$496,200
8 inch	\$34,626	*	\$759,719	\$23	\$576	\$794,944
10 inch*	\$49,776	*	\$1,092,096	\$23	\$576	\$1,142,471

Notes:

*3-inch and larger meters/service connections are the responsibility of the customer.

3/4 inch service is only available for purchase by Single Family Residential.

Connection fees are charged only in instances when the Water Department installs a service line from the distribution main to the meter.

For meters larger than 10": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents. For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee. Subject to negotiation as to availability.

Please call the Water Dept. at 503-615-6702 for a quote.

These fees are subject to change at the discretion of the Utilities Commission.

These fees apply to meter purchases for Hillsboro Upper System Retail Customers.

SDC Calculation: Meters larger than 10 inch

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$8,602) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$894) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$23 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$8,602	1.00	\$ 8,602
Average daily	\$894	1.00	\$ 894
Subtotal			\$ 9,496
Administrative fee			\$ 23
SDC and Administrative Charge			\$ 9,519

Exhibit B: Fees and System Development Charges (SDC): Upper System Retail

Industrial

Rates for Customers in the Upper System, Effective July 1, 2024

Service Connection Type	Connection Fee	Service Installation Fee	SDC	Administrative Fee	Extraterritorial Application Fee	Total Charge
5/8 x 3/4 inch	\$2,076	\$621	\$9,496	\$23	\$302	\$12,518
3/4 inch	N/A	N/A	N/A	N/A	N/A	
1 inch	\$2,207	\$1,124	\$23,741	\$23	\$302	\$27,396
1 1/2 inch	\$2,510	\$1,817	\$47,482	\$23	\$576	\$52,407
2 inch	\$3,288	\$3,548	\$75,972	\$23	\$576	\$83,407
3 inch	\$6,578	+SDC to be calculated (minimum \$142,447 SDC)				
4 inch	\$13,157	+SDC to be calculated (minimum \$237,412 SDC)				
6 inch	\$20,777	+SDC to be calculated (minimum \$474,824 SDC)				
8 inch	\$34,626	+SDC to be calculated (minimum \$759,719 SDC)				
10 inch and larger	\$49,776	+SDC to be calculated (minimum \$1,092,096 SDC)				

Notes:

3-inch and larger meters/service connections are the responsibility of the customer.
 3/4 inch service is only available for purchase by Single Family Residential.
 Connection fees are charged only in instances when the Water Department installs a service line from the distribution main to the meter.
 For meters larger than 2": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents. For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee. Subject to negotiation as to availability. Please call the Water Dept. at 503-615-6702 for a quote.
 These fees are subject to change at the discretion of the Utilities Commission.
 These fees apply to meter purchases for Hillsboro Upper System Retail Customers.

SDC Calculation: Meters 3 inch and larger

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$8,602) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$894) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$23 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$8,602	1.00	\$ 8,602
Average daily	\$894	1.00	\$ 894
Subtotal			\$ 9,496
Administrative fee			\$ 23
SDC and Administrative Charge			\$ 9,519

Residential, Multi-Family, Public Users, Non-Profit, Commercial, and Irrigation Wholesale Rates for the City of Cornelius, Effective July 1, 2024

Service Connection Type	SDC	Administrative Fee	Total Charge
5/8 x 3/4 inch	\$2,802	\$4	\$2,806
3/4 inch	\$4,203	\$4	\$4,207
1 inch	\$7,005	\$4	\$7,009
1 1/2 inch	\$14,010	\$4	\$14,014
2 inch	\$22,416	\$4	\$22,420
3 inch	\$42,030	\$4	\$42,034
4 inch	\$70,050	\$4	\$70,054
6 inch	\$140,100	\$4	\$140,104
8 inch	\$224,160	\$4	\$224,164
10 inch*	\$322,230	\$4	\$322,234

Notes:
 For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee.
 For meters larger than 10": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents.
 Subject to negotiation as to availability. These fees are subject to change at the discretion of the Utilities Commission. These fees apply to meter purchases for Cornelius Wholesale customers.

SDC Calculation: Meters larger than 10 inch

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$2,405) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$397) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$4 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$2,405	1.00	\$ 2,405
Average daily	\$397	1.00	\$ 397
Subtotal			\$ 2,802
Administrative fee			\$ 4
Wholesale portion of SDC and Administrative Charge			\$ 2,806

Exhibit C: Fees and System Development Charges (SDC): City of Cornelius

Industrial Wholesale Rates for the City of Cornelius, Effective July 1, 2024

Service Connection Type	SDC	Administrative Fee	Total Charge
5/8 x 3/4 inch	\$2,802	\$4	\$2,806
3/4 inch	\$4,203	\$4	\$4,207
1 inch	\$7,005	\$4	\$7,009
1 1/2 inch	\$14,010	\$4	\$14,014
2 inch	\$22,416	\$4	\$22,420
3 inch	+SDC to be calculated (minimum \$42,030 SDC)		
4 inch	+SDC to be calculated (minimum \$70,050 SDC)		
6 inch	+SDC to be calculated (minimum \$140,100 SDC)		
8 inch	+SDC to be calculated (minimum \$224,160 SDC)		
10 inch and larger	Fees set by negotiation with Commission. SDC to be calculated (minimum \$322,230 SDC)		

Notes:
 For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee.
 For meters larger than 2": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents.
 Subject to negotiation as to availability. These fees are subject to change at the discretion of the Utilities Commission. These fees apply to meter purchases for Cornelius Wholesale customers.



SDC Calculation: Meters 3 inch and larger

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$2,405) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$397) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$4 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$2,405	1.00	\$ 2,405
Average daily	\$397	1.00	\$ 397
Subtotal			\$ 2,802
Administrative fee			\$ 4
Wholesale portion of SDC and Administrative Charge			\$ 2,806

Exhibit D: Fees and System Development Charges (SDC): Gaston and LA Water
 Residential, Multi-Family, Public Users, Non-Profit, Commercial, and Irrigation Wholesale
 Rates for the City of Gaston and the LA Water Cooperative
 Effective July 1, 2024

Service Connection Type	SDC	Administrative Fee	Total Charge
5/8 x 3/4 inch	\$7,094	\$4	\$7,098
3/4 inch	\$10,641	\$4	\$10,645
1 inch	\$17,735	\$4	\$17,739
1 1/2 inch	\$35,470	\$4	\$35,474
2 inch	\$56,752	\$4	\$56,756
3 inch	\$106,410	\$4	\$106,414
4 inch	\$177,350	\$4	\$177,354
6 inch	\$354,700	\$4	\$354,704
8 inch	\$567,520	\$4	\$567,524
10 inch*	\$815,810	\$4	\$815,814

Notes:
 For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee.
 For meters larger than 10": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents.
 Subject to negotiation as to availability. These fees are subject to change at the discretion of the Utilities Commission. These fees apply to meter purchases for Gaston and LA Water Wholesale customers.

SDC Calculation: Meters larger than 10 inch

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$6,103) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$991) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$4 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$6,103	1.00	\$ 6,103
Average daily	\$991	1.00	\$ 991
Subtotal			\$ 7,094
Administrative fee			\$ 4
Wholesale portion of SDC and Administrative Charge			\$ 7,098

Exhibit D: Fees and System Development Charges (SDC): Gaston and LA Water

Industrial Wholesale Rates for the City of Gaston and the LA Water Cooperative
Effective July 1, 2024

Service Connection Type	SDC	Administrative Fee	Total Charge
5/8 x 3/4 inch	\$7,094	\$4	\$7,098
3/4 inch	\$10,641	\$4	\$10,645
1 inch	\$17,735	\$4	\$17,739
1 1/2 inch	\$35,470	\$4	\$35,474
2 inch	\$56,752	\$4	\$56,756
3 inch	+SDC to be calculated (minimum \$106,410 SDC)		
4 inch	+SDC to be calculated (minimum \$177,350 SDC)		
6 inch	+SDC to be calculated (minimum \$354,700 SDC)		
8 inch	+SDC to be calculated (minimum \$567,520 SDC)		
10 inch and larger	Fees set by negotiation with Commission. SDC to be calculated (minimum \$815,810 SDC)		

Notes:

For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee.

For meters larger than 2": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents.

Subject to negotiation as to availability. These fees are subject to change at the discretion of the Utilities Commission. These fees apply to meter purchases for Gaston and LA Water Wholesale customers.

SDC Calculation: Meters 3 inch and larger

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$6,103) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$991) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$4 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$6,103	1.00	\$ 6,103
Average daily	\$991	1.00	\$ 991
Subtotal			\$ 7,094
Administrative fee			\$ 4
Wholesale portion of SDC and Administrative Charge			\$ 7,098

Exhibit E: Fees and System Development Charges (SDC): City of Hillsboro Irrigation

Irrigation Customers Inside the City of Hillsboro, Effective July 1, 2024

Service Connection Type	Connection Fee	Design and Inspection Fee	Service Installation Fee	SDC	Administrative Fee	Total Charge
5/8 x 3/4 inch	\$1,384	\$288	\$414	\$13,881	\$37	\$16,004
1 inch	\$1,471	\$288	\$749	\$34,703	\$37	\$37,248
1 1/2 inch	\$1,673	\$288	\$1,211	\$69,405	\$37	\$72,614
2 inch	\$2,192	\$288	\$2,365	\$111,048	\$37	\$115,930
3 inch	\$4,385	\$288	*	\$208,215	\$37	\$212,925
4 inch	\$8,771	\$288	*	\$347,025	\$37	\$356,121
6 inch	\$13,851	\$288	*	\$694,050	\$37	\$708,226
8 inch	\$23,084	\$288	*	\$1,110,480	\$37	\$1,133,889
10 inch*	\$33,184	\$288	*	\$1,596,315	\$37	\$1,629,824

Notes:
 *3-inch and larger meters/service connections are the responsibility of the customer.
 On contractor installed meters larger than 2": Only the design and inspection fee will be charged as a service installation fee. The system the customer installs must be pre-approved by the Utilities Commission, and the physical condition must be approved before covered. Backflow requirements will be strictly enforced as stated in Resolution #193-W or its successor Resolution. Connection fees are charged only in instances when the Water Department installs a service line from the distribution main to the meter.
 For meters larger than 10": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents. For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee.
 Subject to negotiation as to availability. Please call the Water Dept. at 503-615-6702 for a quote. These fees are subject to change at the discretion of the Utilities Commission. These fees apply to meter purchases for Hillsboro Retail Irrigation Customers.

SDC Calculation: Meters larger than 10 inch

The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$11,707) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$2,174) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$37 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$11,707	1.00	\$ 11,707
Average daily	\$2,174	1.00	\$ 2,174
Subtotal			\$ 13,881
Administrative fee			\$ 37
SDC and Administrative Charge			\$ 13,918

Irrigation Customers in the Upper System, Effective July 1, 2024

Service Connection Type	Connection Fee	Design and Inspection Fee	Service Installation Fee	SDC	Administrative Fee	Extraterritorial Application Fee	Total Charge
5/8 x 3/4 inch	\$2,076	\$288	\$621	\$9,496	\$23	\$302	\$12,806
1 inch	\$2,207	\$288	\$1,124	\$23,741	\$23	\$302	\$27,684
1 1/2 inch	\$2,510	\$288	\$1,817	\$47,482	\$23	\$576	\$52,695
2 inch	\$3,288	\$288	\$3,548	\$75,972	\$23	\$576	\$83,695
3 inch	\$6,578	\$288	*	\$142,447	\$23	\$576	\$149,912
4 inch	\$13,157	\$288	*	\$237,412	\$23	\$576	\$251,456
6 inch	\$20,777	\$288	*	\$474,824	\$23	\$576	\$496,488
8 inch	\$34,626	\$288	*	\$759,719	\$23	\$576	\$795,232
10 inch*	\$49,776	\$288	*	\$1,092,096	\$23	\$576	\$1,142,759

Notes:

*3-inch and larger meters/service connections are the responsibility of the customer.
 On contractor installed meters larger than 2": Only the design and inspection fee will be charged as a service installation fee. The system the customer installs must be pre-approved by the Utilities Commission, and the physical condition must be approved before covered. Backflow requirements will be strictly enforced as stated in Resolution #193-W or its successor Resolution.
 Connection fees are charged only in instances when the Water Department installs a service line from the distribution main to the meter. For meters larger than 10": Calculation is based on estimated average day and maximum day demands expressed in 5/8" x 3/4" meter equivalents. For a meter that also includes fire protection service, the applicable minimum SDC will be for the meter size that would be needed without fire protection service, as determined by the Water Director or designee.
 Subject to negotiation as to availability. Please call the Water Dept. at 503-615-6702 for a quote. These fees are subject to change at the discretion of the Utilities Commission. These fees apply to meter purchases for Hillsboro Upper System Retail Irrigation Customers.

SDC Calculation: Contractor to purchase and install meters 3 inch and larger

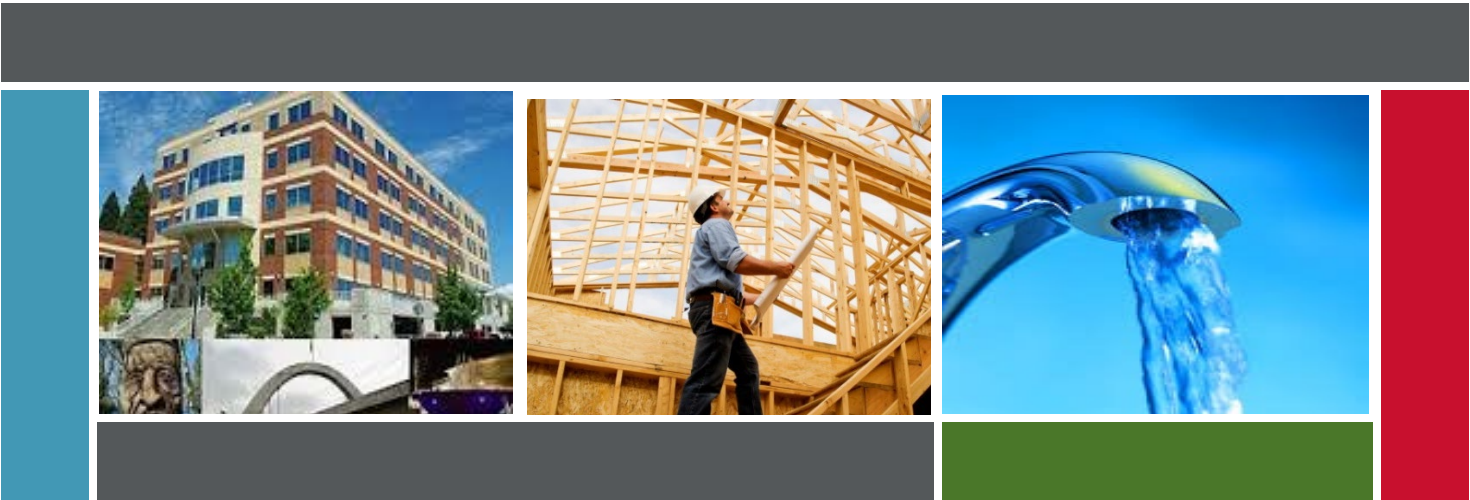
The weighting factor is based on the customer's anticipated water usage. Estimated peak day water usage is divided by peak day flow of 1,113 Gallons/Day/ME, then multiplied by the peak daily SDC (\$8,602) for a 5/8 x 3/4 inch meter. The estimated average day water usage is divided by average day flow of 741 Gallons/Day/ME, then multiplied by the average daily SDC (\$894) for a 5/8 x 3/4 inch meter, then added to the amount for the peak day flow. Then, the \$23 administrative fee is added.

SDC Calculation Per Meter Equivalent (ME)	SDC Fee Per ME	Customer's Estimated ME	Total SDC
Peak daily	\$8,602	1.00	\$ 8,602
Average daily	\$894	1.00	\$ 894
Subtotal			\$ 9,496
Administrative fee			\$ 23
SDC and Administrative Charge			\$ 9,519

**Exhibit G: City of Hillsboro Water System Development Charge Study,
January 2024**
**This is a preliminary draft report. This Report is not final until approved by
the Utilities Commission.**



Draft Report



City of Hillsboro
Water System Development Charge Study
January 8, 2024



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Mr. Lee Lindsey
Business and Administration Manager
City of Hillsboro
150 E. Main Street, Third Floor
Hillsboro, OR 97123

Subject: Water System Development Charge Study Draft Report

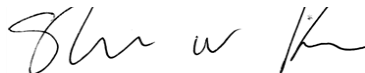
Dear Mr. Lindsey:

HDR Engineering, Inc. (HDR) is pleased to present the draft report on the update of the City of Hillsboro's (City) water system development charges (SDCs). HDR last updated the Water System's SDC in 2019 following an update to the Water System Plan. It is recommended to update SDCs when significant changes in system occurs or if future planning criteria change. The last study established the maximum SDC allowable under Oregon law.


A key objective for the City's SDC study is to provide cost-based fees for new development or for existing customers expanding their capacity needs. The City's asset data, planning documents, engineering data, and a current capital improvement plan were the primary sources for the information contained in this analysis. The update of these SDCs continues the City's policy of balancing the costs and impacts of new development against existing ratepayers.

We appreciate the assistance provided by you and other City staff in the development of this study. More importantly, we appreciate the opportunity to continue our working relationship with the City on this project.

Sincerely yours,
HDR Engineering, Inc.



Shawn Koorn
Project Manager and Associate Vice President



Kevin Lorentzen
Senior Financial Analyst



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Introduction

HDR Engineering, Inc. (HDR) was retained by the City of Hillsboro (City) to update the water system development charges (SDCs). The City’s last SDC study was an update 2019 completed by HDR.

A key objective for the City’s SDC study is to provide cost-based fees for new development or for existing customers expanding their capacity needs. System development charges provide the means of balancing the cost, or funding, requirements for new utility infrastructure between existing customers and new customers. The City’s asset data, planning documents, and engineering data were the primary sources for the information contained in this analysis. General industry recommendations are to adjust these charges annually for changes in construction costs and to review and update the charges every three to five years, or whenever comprehensive planning documents for the systems have been updated. The update of the SDCs continues the City’s policy of balancing the costs and impacts of new development against existing ratepayers.

Overview

In developing this study, the SDCs have been calculated in a manner which conforms to generally accepted rate and fee setting principles, Oregon legal requirements, and are based on the City’s water system planning and design criteria. The calculations also consider the financing mechanisms of capital improvements. Based on the sum of the component costs, the net allowable SDC is determined. Net refers to the aggregate SDC, less any credits for future debt service principal to be paid within a customer’s rates. Allowable refers to the concept that the calculated SDC is the City’s cost-based (i.e., maximum) charge. The City, as a matter of policy, may charge any amount up to the maximum allowable cost-based SDC, a lower amount may be adopted, which has been the past practice of the City in prior SDC studies.

System development charges provide the means of balancing the cost, or funding, requirements for new utility infrastructure between existing customers and new customers.

Current Water System Development Charges

The City currently has water SDCs in place. There are specific fees for the Hillsboro Lower System, Hillsboro Upper System, and Wholesale (Cornelius-lower system, Gaston/LA Water-upper system) customers. Provided below in Table ES-1 is a summary of the SDCs for the retail systems and the wholesale customers for fiscal year 2023-24.

**Table ES-1
Existing Water System Development Charges**

	System Development Charge ^[1]
Hillsboro Lower System ^[2]	
5/8" X 3/4" Service	\$13,095
3/4" Service ^[3]	19,642
1" Service	32,737
1 1/4" Service	65,475
1 1/2" Service	65,475
2" Service ^[4]	104,760
Hillsboro Upper System ^[2]	
5/8" X 3/4" Service	\$12,691
3/4" Service ^[3]	19,036
1" Service	31,727
1 1/4" Service	63,455
1 1/2" Service	63,455
2" Service ^[4]	101,528
Wholesale (5/8" X 3/4" Service)	
Cornelius	\$7,653
Gaston/LA Water	\$8,452

[1] – Fees effective 7-1-23.

[2] – Hillsboro includes Residential, Industrial, Multi-Family, Public Users, Non-Profit, Irrigation, and Commercial.

[3] – 3/4" meter only available for purchase by Single Family Residential. 1-1/4" Service is no longer available.

[4] – 3" and larger are based on estimated average day and maximum day demands expressed in 5/8" X 3/4" meter equivalents.

The City’s present water SDC is based on meter size, which is a generally accepted industry practice. This approach attempts to equate the capacity impact of the size of the meter on the water system. This approach is relatively straight-forward from an administrative perspective, and the more common approach used within the water utility industry is to base water SDCs on meter size.

Calculation of the Water System Development Charge

The process used within this study to determine the City’s water SDC was based on a four-step process. In summary form, these analytical steps were as follows:

1. Determination of system planning criteria
2. Determination of the total equivalent residential units (ERUs)
3. Calculation of the system development charge for system component costs
4. Determination of any system development charge credits

Based on the four-step approach described above, a cost-based water SDC was calculated on an equivalent residential unit (ERU) basis. In very simplistic terms, the City’s water SDC was

calculated by taking the total investment costs and dividing by the total ERUs to determine the cost per ERU.

In developing the total investment costs of the water system, the analysis reviews the asset records of the City and considers both past investments, along with potential future investments needed in the system to provide capacity for customer growth. The valuation process also segregated the assets between source of supply, storage, treatment, transmission, and distribution plant. This valuation process excludes any contributed assets and provides a debt service credit for any outstanding principal debt payments. The City has three distinct systems to their assets. The lower system, including the City of Cornelius (wholesale), the upper system including Gaston/LA Water districts (wholesale), and Barney which benefits both the lower and upper systems. Table ES-2 shows the preliminary results of the study.

Table ES-2 Maximum Allowable Water System Development Charges						
Meter Size	Weighting Factor^[1]	Hillsboro Lower System^[2]	Hillsboro Upper System^[2]	Wholesale Lower Cornelius	Wholesale Upper Gaston/LA Water	
Proposed:						
5/8" X 3/4" Service	1.00	\$16,162	\$11,057	\$2,802	\$7,094	
3/4" Service ^[3]	1.50	24,243	16,586	4,203	10,641	
1" Service	2.50	40,405	27,643	7,005	17,735	
1-1/4" Service ^[3]	3.13	50,506	34,553	8,756	22,169	
1 1/2" Service	5.00	80,810	55,285	14,010	35,470	
2" Service ^[4]	8.00	129,296	88,456	22,416	56,752	
3" Service ^[4]	15.00	242,430	165,855	42,030	106,410	
4" Service ^[4]	25.00	404,050	276,425	70,050	177,350	
6" Service ^[4]	50.00	808,100	552,850	140,100	354,700	
8" Service ^[4]	80.00	1,292,960	884,560	224,160	567,520	
10" Service ^[4]	115.00	1,858,630	1,271,555	322,230	815,810	
Current SDC (5/8"X3/4" Service) ^[5]		\$13,095	\$12,691	\$7,653	\$8,452	

[1] – AWWA Meter Equivalency Ratios.

[2] – Hillsboro retail includes Residential, Industrial, Multi-Family, Public Users, Non-Profit, Irrigation, and Commercial.

[3] – 3/4" meter only available for purchase by Single Family Residential. 1-1/4" Service is no longer available.

[4] – 3" and larger Industrial meter services are based on estimated average day and maximum day demands expressed in 5/8" X 3/4" meter equivalents.

[5] - Current Fees effective 7-1-23.

The implementation of the 2019 study results were adopted at 93% of the maximum allowable SDC. For this study, the City has determined that the approach for this study is to adopt SDCs for the Hillsboro retail and Upper System at 85.9% of the maximum allowable SDC and adopting 100% of the maximum allowable for wholesale customers Cornelius and Gaston/LA.

The proposed SDCs are presented in Table ES-3. Further detail of the net allowable and 85.9% calculation is provided in Section 3 of this report.

Table ES-3 Proposed System Development Charges ⁵ at 85.9% of Maximum for Retail and the Upper System and 100% for Wholesale						
Meter Size	Weighting Factor ^[1]	Hillsboro Lower System ^[2]	Hillsboro Upper System ^[2]	Wholesale Lower Cornelius	Wholesale Upper Gaston/LA Water	
Proposed:						
5/8" X 3/4" Service	1.00	\$13,881	\$9,496	\$2,802	\$7,094	
3/4" Service ^[3]	1.50	20,822	14,245	4,203	10,641	
1" Service	2.50	34,703	23,741	7,005	17,735	
1-1/4" Service ^[3]	3.13	43,378	29,677	8,756	22,169	
1 1/2" Service	5.00	69,405	47,482	14,010	35,470	
2" Service ^[4]	8.00	111,048	75,972	22,416	56,752	
3" Service ^[4]	15.00	208,215	142,447	42,030	106,410	
4" Service ^[4]	25.00	347,025	237,412	70,050	177,350	
6" Service ^[4]	50.00	694,050	474,824	140,100	354,700	
8" Service ^[4]	80.00	1,110,480	759,719	224,160	567,520	
10" Service ^[4]	115.00	1,596,315	1,092,096	322,230	815,810	
Current SDC (5/8"X3/4" Service) ^[5]		\$13,095	\$12,691	\$7,653	\$8,452	

[1] – AWWA Meter Equivalency Ratios.

[2] – Hillsboro retail includes Residential, Industrial, Multi-Family, Public Users, Non-Profit, Irrigation, and Commercial.

[3] – 3/4" meter only available for purchase by Single Family Residential. 1-1/4" Service is no longer available.

[4] – 3" and larger Industrial services are based on estimated average day and maximum day demands expressed in 5/8" X 3/4" meter equivalents. The amounts in Table ES-3 are minimum charges for Industrial service.

[5] – Current Fees effective 7-1-23. Proposed Fees effective 7-1-24.

Conclusions and Recommendations

Based on our review and analysis of the City’s water system assets, capital plans, updated Master Plans, and financing approach for the development of the SDCs, HDR makes the following recommendations:

- The City should adopt the water SDCs for new connections to the system which are no greater than the net allowable SDCs as set forth in this report.
- The adopted SDCs should be updated annually by using industry accepted indices such as the local construction cost index from the Engineering News Record Construction Cost Index (ENR-CCI) for no more than six years before a complete update of the charge is again undertaken. This industry practice can keep the charge relatively current with construction pricing practices.

- The City should update the actual calculations for the SDCs at such time when a new capital improvement plan, public facilities plan, comprehensive system plan, or a comparable plan is approved or updated by the City.

Summary

The water SDCs developed and presented in this report are based on City-specific data and information of the City's water system, the value of the existing assets, past financing of the system and generally accepted methodologies and principles. The SDCs will provide multiple benefits to the City and will continue the City's practice of establishing equitable and cost-based SDCs for new customers connecting to the City's water system. This report has provided a detailed review of the City's water SDCs. The charges are cost-based and HDR would recommend the adoption of these SDCs.

1 Overview of System Development Charges

1.1 Introduction

An important starting point in reviewing and establishing cost-based SDCs is to have a basic understanding of the purpose of these charges, along with the criteria and general methodology that is most often used to establish them. Presented in this section of the report is an overview of SDCs and the criteria and general methodology that is used to develop cost-based SDCs.

1.2 Defining System Development Charges

The first step in establishing cost-based SDCs is to gain a better understanding of the definition of a SDC. At some utilities, SDCs may be referred to as impact fees, connection fees, capacity fees, plant investment fees, etc. Regardless of the name used for these fees, their overall policy objective is identical; balancing the costs or impacts of growth and development against the impacts to existing ratepayers.

Within industry technical literature, and for the purposes of this report, an SDC is defined as follows:

“System development charges (system development charges) are one-time charges paid by new development to finance construction of public facilities needed to serve them.”¹

Simply stated, SDCs are a contribution of capital to either reimburse existing customers for the available capacity in the existing system, or help finance planned future growth-related capacity improvements. Regardless of the label used to identify them, their objective is the same. That is, these fees are intended to provide funds to the utility to finance all or a part of the capital improvements needed to serve and accommodate new customer growth. Absent those charges, many utilities would likely be unwilling to build growth-related facilities, that is burden existing rate payers with the entire cost of growth-related capacity expansion.

Through the implementation of cost-based and equitable system development charges, existing customers will not be unduly burdened with the cost of new development.

1.3 Economic Theory and System Development Charges

SDCs are generally imposed as a condition of service. The objective of a SDC is not to generate money for a utility, but to ensure that all customers seeking to connect to the utility’s system bear an equitable share of the cost of excess capacity that existing customers have invested in the existing system and any future growth-related expansions. Through the implementation of cost-based and equitable SDCs, existing customers will not be unduly burdened with the cost of

¹ Arthur C. Nelson, System Development Charges for Water, Wastewater, and Stormwater Facilities, Lewis Publishers, New York, 1995, p. 1

new development.

By establishing cost-based SDCs, the City will be taking an important step in assuring adequate infrastructure to meet growth-related needs, and more importantly, providing this required infrastructure to new customers in a cost-based, fair and equitable manner.

1.4 Overview of the System Development Charge Methodology

Within the generally accepted SDC methodologies, there are different steps undertaken. These steps are as follows:

1. Determination of system planning criteria
2. Determination of equivalent dwelling units (EDU, RCE, or ERU)
3. Calculation of system component costs
4. Determination of any credits

The first step in establishing SDCs is the determination of the system planning criteria. For a water utility this implies calculating the amount of water required by a single-family residential customer. For water systems, water demand per equivalent residential unit (ERU) is most often used since this represents the basis for system design. In the case of the City, an ERU was defined and calculated for both the lower and upper systems, as per gallon of water per day for a 5/8" X 3/4" meter. The American Water Works Association (AWWA) has a standardized method for determining meter equivalencies for larger meter sizes based on the 5/8" X 3/4"-inch meter equivalency.

Once the system planning criteria is determined, the total number of equivalent residential units on the system or total ERUs can be determined. Depending on the method used to define an ERU, it will need to be calculated based on utility specific data. For example, if a 5/8" X 3/4"-inch meter is defined as one ERU, then the number of meters, by size, are used to establish the total number of ERUs. The capacity of larger sized meters are placed in the context of a 5/8" X 3/4"-inch meter, or the definition of an ERU. For example, a 2" meter has the flow capacity of 160 gallons per minute (gpm). By comparison, a 5/8" X 3/4" meter has the flow capacity of 20 gpm. Therefore, from a flow capacity perspective, a 2" meter is the equivalent of 8.00 – 5/8" X 3/4"-inch meters.

Once the number of ERUs has been determined, a component-by-component (e.g., source-of-supply, storage, transmission, distribution) analysis is undertaken to determine the component SDC in cost per ERU. Individual system components are analyzed separately for the water system given that the planning criteria differ for the development of the various system components. The calculation of the component SDC includes both historical assets (reimbursement fee) and planned future assets (improvement fee). The reimbursement to existing customers is accomplished by the fact that without SDCs, rates would otherwise be higher than they are with SDCs. Once the total cost of the capital infrastructure is determined, it is then divided by the appropriate number of ERUs the infrastructure will serve to develop the cost per ERU for the specific system component.

Each system component has two elements, a reimbursement, and an improvement. The reimbursement element consists of the existing system components with available capacity while the improvement element consists of future system upgrades to meet future growth/expansion needs. After each system component is analyzed and a cost per ERU is determined, the cost per ERU for each of the system components is added together to determine the reimbursement and improvement SDC. The combined reimbursement and improvement SDC provide the “gross SDC” calculated before any credits for debt service.

The Basic SDC Calculation is:

Replacement cost of the Water System/Existing and Future ERU = Reimbursement SDC

Future Expansion Eligible Capital Projects/Future ERU = Improvement SDC

When reviewing the above simplified calculation of a SDC it is important to understand the ERU calculation is important to the result of the SDC as the divisor, in that the higher the number of ERUs results in a lower SDC, or the lower the number of ERUs the higher SDC. As can be seen the determination of the ERUs is critical to the development of the SDC calculation.

Water systems are typically built with reserve capacity to accommodate future growth. This reserved capacity is funded by existing rate payers. The reimbursement portion of the SDC is intended to pay back, or reimburse, existing rate payers for future customers capacity requirements. The improvement portion of the SDC is intended to provide funding for future capital projects that provide additional capacity for new customers. The Oregon Revised Statute that dictates how the reimbursement and improvement portions of the SDC must be used. Specifically, the Oregon Revised Statute (ORS) 223.307 states:

“Authorized expenditure of system development charges. (1) Reimbursement fees may be spent on capital improvements associated with the system for which the fees are assessed including expenditures relating to repayment of indebtedness. (2) Improvement fees maybe spent only on capacity increasing capital improvements, including expenditures related to repayment of debt for such improvements. An increase in system capacity may be established if a capital improvement increases the level of performance or service provided by existing facilities or improves new facilities. The portion of the improvements funded by improvement fees must be related to the need for increased capacity to provide service for future users.”

The last step in the calculation of the SDC is the determination of any credits. This is generally a calculation to assure that customers are not paying twice – once through SDCs and then again within the rates via a debt service payment.

At the conclusion of these SDC calculations, a cost-based SDC per ERU is derived. From this cost-based fee per ERU, a schedule of SDCs may be developed for each utility reflective of the characteristics of the utility’s customers. For example, the schedule of water SDCs are typically based on meter size (i.e., capacity).

1.5 Disclaimer

HDR, in its calculation of the SDCs presented in this report, has used generally accepted SDC principles and methodologies. This should not be construed as a legal opinion with respect to Oregon law as it pertains to these fees. HDR recommends that the City have its legal counsel review the SDCs as set forth and recommended in this report to ensure compliance with Oregon law.

1.6 Summary

This section of the report has provided an overview of SDCs; the basis for establishing the fees, considerations in establishing a nexus, or the linkage, between the SDCs and the burden development places on the system and the steps typically taken in the development of the technical analyses. The next section of the report provides a brief overview of the legal considerations in establishing SDCs, particularly as they relate to Oregon law.

2 Legal Implications for System Development Charges

2.1 Introduction

An important consideration in establishing SDCs is the legal requirements at the state or local level. The legal requirements often establish the methodology around which the SDCs must be calculated or how the funds must be used. Given that, it is important for the City to understand these legal requirements. This section of the report provides an overview of the legal requirements for establishing SDCs under Oregon State law. This summary represents HDR's understanding of the relevant Oregon State law as it relates to establishing SDCs. It in no way constitutes a legal interpretation of the state's law by HDR.

2.2 Legal Requirements Under Oregon State Law

In establishing SDCs, an important requirement is that they be developed and implemented in conformance with applicable laws and legal requirements. Many states have established specific laws regarding the establishment, calculation, and implementation of SDCs. The main objective of most state laws is to assure that these fees are established in such a manner that they are fair, equitable, and cost-based. In other cases, state legislation may have been needed to provide the legislative powers to the utility to establish the charges.

The Oregon State Legislature passed ORS 223.97 to 223.314, which sets forth requirements for calculations of system development charges for water systems.

The purpose of Oregon law for the determination of SDCs is to provide a uniform framework for the imposition of SDCs by local governments for specified purposes, and to establish that such fees be used only for capital improvements. Specifically, the requirement for the calculation of SDCs in Oregon is found in ORS 223.297 to 223.314. Capital improvements as defined under Oregon law are as follows:

- Water supply, treatment and distribution;
- Sewer collection, transmission, treatment and disposal;
- Drainage and flood control;
- Transportation; and
- Parks and recreation.

An SDC may include a reimbursement fee, an improvement fee, or a combination thereof. As defined under Oregon law, "improvement fee" means a fee for the costs associated with capital improvements to be constructed. "Reimbursement fee" means a fee for costs association with capital improvements already constructed or under construction.

As defined under Oregon law, the methodology setting forth the calculations for reimbursement fees and improvement fees must make the following considerations:

“233.304 Determination of amount of system development charges; methodology; credit allowed against charge; limitation of action contesting methodology for imposing charge; notification request.

- (1)(a) Reimbursement fees must be established or modified by ordinance or resolution setting forth a methodology that is, when applicable, based on:
 - (A) Ratemaking principles employed to finance publicly owned capital improvements;*
 - (B) Prior contributions by existing users;*
 - (C) Gifts or grants from federal or state government or private persons;*
 - (D) The value of unused capacity available to future system users or the cost of the existing facilities; and*
 - (E) Other relevant factors identified by the local government imposing the fee.**
- (b) The methodology for establishing or modifying a reimbursement fee must:
 - (A) Promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities.*
 - (B) Be available for public inspection.**
- (2) Improvement fees must:
 - (a) Be established or modified by ordinance or resolution setting forth a methodology that is available for public inspection and demonstrates consideration of:
 - (A) The projected cost of the capital improvements identified in the plan and list adopted pursuant to ORS 223.309 that are needed to increase the capacity of the systems to which the fee is related; and*
 - (B) The need for increased capacity in the system to which the fee is related that will be required to serve the demands placed on the system by future users.**
 - (b) Be calculated to obtain the cost of capital improvements for the projected need for available system capacity for future users.**
- (3) A local government may establish and impose a system development charge that is a combination of a reimbursement fee and an improvement fee, if the methodology demonstrates that the charge is not based on providing the same system capacity.”*

The Oregon law further defines the ability to adjust the fee based on a documented index.

- (8) A change in the amount of a reimbursement fee or an improvement fee is not a modification of the system development charge methodology if the change in amount is based on:*

- (a) *A change in the cost of materials, labor or real property applied to projects or project capacity as set forth on the list adopted pursuant to ORS 223.309; or*
- (b) *The periodic application of one or more specific cost indexes or other periodic data sources. A specific cost index or periodic data source must be:*
 - (A) *A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;*
 - (B) *Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and*
 - (C) *Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.”*

In addition to the definitive requirements of the establishment of a SDC as an improvement fee and/or reimbursement fee, other requirements under Oregon law are as follows:

- The SDC must be based on an approved capital improvement plan, public facilities plan, master plan, or comparable plan which lists the capital improvements that may be funded with the improvement fee revenues and the estimated costs and timing for each improvement.
- Proper administrative review procedures must be followed in the enactment of an SDC resolution or ordinance.
- SDC funds must be spent only on facilities for which they were collected.
- A proper accounting system must be established which provides for an annual accounting of SDCs showing the total amount of revenue collected and the projects that were funded.
- The SDC may be annually adjusted based on an annual, recognized, published index if incorporated as part of methodology and in a separate ordinance.

2.3 Summary

This section of the report reviewed the legal basis for establishing SDCs in the State of Oregon. This summary represents HDR’s understanding of the relevant Oregon State law as it relates to establishing SDCs. It in no way constitutes a legal interpretation of the state’s law by HDR. The next section of the report provides a detailed discussion of the specific calculation of the water SDC for the City.

3 Development of the System Development Charge

3.1 Introduction

This section of the report presents the key assumptions and details used in calculating the City's water SDC. The calculation of the City's water SDC is based on City-specific fixed asset and accounting records, capital improvement plan (CIP), and the City's recently updated Water Master Plan. The City provided other financial and accounting information that was used within this analysis.

The water SDC calculation is based on the value of the system in place with capacity available for growth (i.e., the reimbursement fee component), and future capacity projects. (i.e., the Improvement fee component). The reimbursement component and the improvement component are added together, less the applicable debt credit, resulting in the total net allowable SDC. This section of the report presents the key assumptions and details used in the calculation of the City's water SDCs.

3.2 Overview of the City's Water System

The City of Hillsboro owns and operates a municipal drinking water system that serves approximately 28,000 service connections within the City and approximately 660 service connections outside of the City. The water system includes both partial and full ownership of facilities that provide direct and wholesale water to two main service areas. The City of Hillsboro service areas include the primary service area (*Lower* or City Hillsboro System) and the secondary service area (Upper System). The City System is served by wholesale water purchased from the Joint Water Commission (JWC) and served internally to its members at "cost" with no mark-up. The JWC is a collective water supply agency formed under an ORS 190 agreement between Cities of Hillsboro, Forest Grove and Beaverton, and the Tualatin Valley Water District (TVWD). The City is also in the process of constructing a new water supply facility called the Willamette Water Supply Project (WWSP). The WWSP is also a partnership with the TVWD and City of Beaverton. The City of Cornelius is a wholesale customer of the City of Hillsboro and receives service directly from the JWC transmission line (lower system). The Upper System is served by a small water treatment plant that provides retail drinking water to nearly 2,700 customers and provides wholesale drinking water to the City of Gaston and the LA Water Cooperative (upper system).

3.3 Present Water System Development charges

The City's present water SDC is based on the size of meter connecting to the City's water system is provided below in Table 3-1.

**Table 3-1
Current Water System Development Charges**

	System Development Charge ^[1]
Hillsboro Lower System ^[2]	
5/8" X 3/4" Service	\$13,095
3/4" Service ^[3]	19,642
1" Service	32,737
1 1/4" Service ^[3]	65,475
1 1/2" Service	65,475
2" Service ^[4]	104,760
Hillsboro Upper System^[2]	
5/8" X 3/4" Service	\$12,691
3/4" Service ^[3]	19,036
1" Service	31,727
1 1/4" Service ^[3]	63,455
1 1/2" Service	63,455
2" Service ^[4]	101,528
Wholesale (5/8" X 3/4" Service)	
Cornelius	\$7,653
Gaston/LA Water	\$8,452

[1] – Fees effective 7-1-23.

[2] – Hillsboro includes Residential, Industrial, Multi-Family, Public Users, Non-Profit, Irrigation, and Commercial.

[3] – 3/4" meter only available for purchase by Single Family Residential. 1-1/4" Service is no longer available.

[4] – 3" and larger are based on estimated average day and maximum day demands expressed in 5/8" X 3/4" meter equivalents.

As shown in Table 3-1, the City follows general industry practice where the water SDC is based on the size of meter connecting to the water system. This approach equates the capacity impact of the size of the meter on the water system. This approach is relatively straight-forward from an administrative perspective, and the more common approach used within the water utility industry to base water SDCs on meter size.

3.4 Calculation of the City’s Water System Development Charges

As discussed in Section 2, the process of calculating SDCs is based on a four-step process. In summary form, these steps are as follows:

1. Determination of system planning criteria
2. Determination of the total equivalent residential units (ERUs)
3. Calculation of the system development charge for system component costs
4. Determination of any system development charge credits

Each of these steps is discussed in more detail below.

3.4.1 System Planning Criteria – Defining an Equivalent Residential Unit

In the development of SDCs, an equivalent residential unit (ERU) is a commonly used planning criterion. Essentially, an equivalent residential unit is the common denominator for assessing customers and placing their demands into a common unit of measurement (i.e., a customer with a 2” meter is the equivalent of 8.0 residential customers with a 5/8” X 3/4” meter). Within this water SDC study, the total costs are divided by the total ERUs to determine the cost per ERU. From that cost per ERU, a customer, for example, demanding eight (8) ERUs of capacity would be assessed a total SDC equal to 8 ERU’s x the per unit \$/ERU. As one can see, the definition of an ERU carries through both in the calculation of the SDC, but also in the administration and assessment of that fee.

For purposes of this study, ERUs were calculated, or defined, for both the lower and upper water systems. A key factor in calculating the ERUs was the establishment of the peak day gallons per household. Peak day gallons per household was calculated by first establishing the current average day gallons per household which was estimated using 2022 customer data provided by the City. The next step is to include the system unaccounted for water losses and then multiplied by the peak day to average day ratio assumed for residential customers. Table 3-2 shows the peak day gallons per day for the lower system of 803 gallons per day and the upper system of 1,129 gallons per day. Further details can be found in the technical appendix, Exhibit 3.

Table 3-2 Summary of the Planning Criteria for Lower and Upper Systems		
Planning Criteria Description	Lower System Planning Criteria	Upper System Planning Criteria
Total Gallons per Dwelling Unit	534	751
Peak Day Factor (peak day/average day ratio)	1.50	1.50
Peak Gallons per Day	803	1,129

3.4.2 Determination of the Total Equivalent Residential Units (ERUs)

For this study both existing and buildout ERUs are necessary to calculate the SDC. The number of ERUs is determined by dividing the existing peak day and the buildout peak day by the peak gallons per day in table 3-2. For this calculation buildout was assumed to be 2060. A summary of the existing and future ERUs are presented below in Table 3-3. Details of the determination of ERUs are provided in Exhibit 3 of the technical appendix.

Table 3-3 Calculation of Existing and Forecasted Equivalent Residential Units					
Customer Class	Hillsboro Lower System	Hillsboro Upper System	Wholesale Lower /Cornelius	Wholesale Upper Gaston/LA	Total
Peak Day Demand gpd	803	1,129	803	1,129	
Existing					
Peak Day (MGD)	41.59	0.74	1.85	1.06	45.24
Existing ERUs	51,795	655	2,304	939	55,693
Future					
Peak Day (MGD)	35.80	0.70	2.16	0.70	39.36
Future ERUs	44,585	124	2,690	619	48,514
Total					
Peak Day (MGD)	77.39	1.44	4.01	1.76	84.64
Total ERUs	96,380	1,275	4,994	1,558	104,207
Plus Lower/Upper ERUs	<u>0</u>	<u>0</u>	<u>96,380</u>	<u>1,275</u>	<u>97,655</u>
Total ERUs	96,380	1,275	101,374	2,833	104,207

A summary of the existing and future ERUs are presented below in Table 3-4. Details of the determination of ERUs are provided in Exhibit 3 of the Technical Appendix.

Table 3-4 Water System Equivalent Residential Units	
Description	Calculated ERUs
Equivalent Residential Units - 2023	55,693 ERUs
Equivalent Residential Units - Future	<u>48,514 ERUs</u>
Total Future and Existing ERUs	104,207 ERUs

Given the development of the total water ERUs, the focus can shift to the calculation of the SDC for each plant component. This aspect of the analysis is discussed below.

3.4.3 Calculation of the Water System Development Charge for the Major System Components

The next step of the analysis is to review both the existing system assets, along with planned future CIP to determine the reimbursement and improvement capacity components per ERU. This approach follows current Oregon law as well as reflecting American Water Works Association (AWWA) defined generally accepted SDC methodologies. Furthermore, this methodology is appropriate, when there is still capacity available in the existing system assets and capacity expansion needed in the future. The City’s system is split into three major systems of the Lower, Upper, and Barney. New to this SDC calculation is the inclusion of the Willamette

Water Supply Project (WWSP) and the related debt. Each asset was reviewed for customer level of service and grouped into lower, lower and Cornelius, Upper, and Upper Gaston/LA. Each of the City’s systems were organized by type of service function of source of supply, storage, treatment, transmission, and distribution. Further detail can be found in Exhibit 1 of the Technical.

A brief discussion of the development of the water SDC is provided below.

REIMBURSEMENT FEE – To calculate the value of the existing assets for the reimbursement fee component, the City’s methodology considered each asset and the direct benefit to both retail, wholesale, and the lower and upper systems. The objective of the reimbursement methodology is that the future users contribute an equitable share of the cost of the utility’s existing facilities.

The City provided an asset listing for the various existing components and their installation dates as of 2022. The study used replacement cost by taking the original cost of each asset and escalating the cost to today by the Engineering News Record Construction Cost Index for December 2023. This methodology complies with the legal requirements for the establishment of the reimbursement component of the fee. This also brings the assets to current fee levels since the fee has been adjusted by inflation since 2019. It should be noted that this is the same methodology the City used in the previous water SDC analysis.

The assets were divided by system and by functional component. The total for each system component was divided by the number of ERUs for the system component capacity expansion resulting in a total maximum allowable Reimbursement SDC per ERU. Provided in Table 3-5 is the summary of the maximum allowable reimbursement fee.

Table 3-5 Calculated Net Allowable Water System Development Charge Reimbursement Fee (\$000)					
Customer Class	Hillsboro Lower System	Hillsboro Upper System	Wholesale Lower /Cornelius	Wholesale Upper Gaston/LA	All
Reimbursement Fee					
Existing System	\$621,230	\$3,871	\$154,129	\$10,386	\$105,017
Less: Debt Principal	<u>(88,390)</u>	<u>(272)</u>	<u>(5,271)</u>	<u>(1,222)</u>	<u>0</u>
Net Existing System	\$532,840	\$3,599	\$148,859	\$9,164	\$105,017
Existing and Future Equivalent Dwelling Units	96,380	1,275	101,374	2,833	104,207
Total Reimbursement Fee per ERU	\$5,528	\$2,821	\$1,469	\$3,235	\$1,008

DEBT SERVICE COMPONENT – The next step in calculating the water SDC was to determine if a credit for payment on debt service is applicable for the utility’s outstanding and future planned

loans and bonds. Credits for debt service payments paid through customer rate revenue are determined to prevent charging the customer twice for debt, once through rates and once through SDCs. By determining a debt credit, customers pay for debt financed infrastructure through their monthly utility rates and those costs are removed from the SDC calculation. The remaining principal portion of the debt associated with the assets was deducted from the total eligible asset value prior to calculating the SDC. This inclusion of a debt service credit avoids double charging the customer for the asset value in the existing or reimbursement component of the SDC, and in the debt service component of the rates.

The City currently has a 2012 Water Refunding Revenue Bond and Salem Water Rights that matures in 2024. To fund the construction of the WWSP, the City issued \$48 million in bonds in 2019 as well as a Water Infrastructure Finance and Innovation Act (WIFIA) loan of which the City has included \$45 million in principal outstanding as of June 2022. The outstanding principal for these issues was split between retail and wholesale based on the benefit derived from each system for these improvements. Exhibit 4 of the Technical Appendix shows further detail on the development of the debt service credit.

IMPROVEMENT FEE – An important requirement for a SDC study is the connection between the anticipated future growth on the system and the needed facilities required to accommodate that growth.

The City’s capital plan is an updated plan based on the 2019 Master Plan. 30 years of the updated plan was included in the improvement calculation. The Capital Plan has \$2.1 billion in projects, of which \$369 million were identified as growth related and eligible for SDC funding. The capital plan includes major projects related to the Willamette Water Supply System totaling \$457 million, of which \$274 million or about 60% are related to growth. To determine the SDC for the improvement portion of the SDC the future projects were listed. The total for each system component was divided by the number of ERUs for the system component capacity expansion resulting in a total maximum allowable Improvement SDC per ERU. Table 3-6 below provides a summary of the calculation of the improvement fee component of the SDC.

Table 3-6
Calculated Net Allowable Water System Development Charge Improvement Fee (\$000)

Customer Class	Hillsboro Lower System	Hillsboro Upper System	Wholesale Lower /Cornelius	Wholesale Upper Gaston/LA	All
Improvement Fee					
Source of Supply	\$254,524	\$708	\$15,357	\$3,532	\$0
Storage	51,942	0	0	0	0
Treatment	0	0	0	0	0
Distribution	<u>42,694</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net Future System	\$349,160	\$708	\$15,357	\$3,532	\$0
Future Equivalent Dwelling Units	44,585	620	47,275	1,239	48,514
Improvement Fee per ERU	\$7,832	\$1,142	\$325	\$2,851	\$0

3.5 Net Allowable Water System Development Charge

The methodology used to establish the water SDC is a combined approach. The combined approach adds the reimbursement fee component and the improvement fee component together, and accounts for any existing debt credit resulting in a net allowable SDC. A summary of these calculations is provided in Table 3-7.

Table 3-7
Calculated Net Allowable Water System Development Charge Reimbursement and Improvement Fee

Customer Class	Hillsboro Lower System	Hillsboro Upper System	Wholesale Lower /Cornelius	Wholesale Upper Gaston/LA	All
Reimbursement Fee per ERU	\$5,528	\$2,821	\$1,469	\$3,235	\$1,008
Improvement Fee per ERU	<u>7,832</u>	<u>1,142</u>	<u>325</u>	<u>2,851</u>	<u>0</u>
Total Fee per ERU	\$13,360	\$3,963	\$1,794	\$6,086	\$1,008
Plus: L.Corn /U.GastonLA	1,794	6,086			
Plus: All	<u>1,008</u>	<u>1,008</u>	<u>1,008</u>	<u>1,008</u>	
Max. Allow. SDC per ERU	\$16,162	\$11,057	\$2,802	\$7,094	
Current SDC (5/8"X3/4") [1]	\$13,095	\$12,691	\$7,653	\$8,452	

[1] – Fees effective 7-1-23.

Based on the sum of the component costs calculated above, the net allowable water SDC can be determined. Net refers to the gross SDC, after including the credit for any debt service credits. Allowable refers to the concept that the calculated SDC shown in Table 3-7 is the City's cost-

based SDC. The net allowable charge per ERU is \$16,162 for Hillsboro Retail, \$11,057 for Upper Retail, \$2,802 for Cornelius (lower), and \$7,094 for Gaston/LA (upper). This compares to the City’s current SDC of \$13,095, \$12,691, \$7,653, and \$8,452 respectively.

The Cornelius and Gaston/LA Wholesale SDC calculations was lower than the current adopted SDC due primarily to an assessment that future capital infrastructure will benefit the Wholesale customer less than what was previously assumed. This change in assumption shifted the improvement fee from the Wholesale SDC rates to the Upper and Lower Retail SDC.

As a matter of policy, the City may charge any amount up to the allowable SDC, but not over that amount. Charging an amount greater than the allowable SDC would not meet the practical basis of a cost-based SDC related to the benefit derived by the customer.

In 2019 the SDC was implemented at 93% of the maximum allowable to minimize the increases in SDCs to lessen the impact on new construction. The years following 2019 the SDC was adjusted annually equal to the Engineering News Record Construction Cost Index (ENR -CCI) to keep up with inflation. For this study the City has chosen to again minimize the impact to new development by only implementing 85.9% of the maximum allowable SDC for the Upper and Lower systems. However, the calculated wholesale SDCs were less than the current adopted SDC so no reduction is proposed for Wholesale. Table 3-8 is a summary of the proposed SDC with the at 85.9% net allowable charge for the Lower and Upper System. A detail of the net allowable SDC for the City is in the Technical Appendix.

Table 3-8 Proposed System Development Charge					
Customer Class	Hillsboro Lower System	Hillsboro Upper System	Wholesale Lower /Cornelius	Wholesale Upper Gaston/LA	All
Max. Allow. SDC per ERU	\$16,162	\$11,057	\$2,802	\$7,094	
Adjustment Factor	85.9%	85.9%	100%	100%	
Proposed SDC per ERU ^[1]	\$13,881	\$9,496	\$2,802	\$7,094	
Current SDC (5/8”X3/4”) ^[1]	\$13,095	\$12,691	\$7,653	\$8,452	

[1] – Current Fees effective 7-1-23. Proposed Fees effective 7-1-24.

These fees are determined by multiplying the SDC for a 5/8” X 3/4” meter (i.e., 1 ERU) by the meter capacity weighting factors. The weighting factors are derived based on the American Water Works Association (AWWA) safe operating capacities for the type and size of meter. The safe operating capacity of each meter is divided by the safe operating capacity for a 5/8” X 3/4” displacement-type meter to determine the weighting factor for each meter. For example, the safe operating flow capacity of a 2” meter is 160 gallons per minute or 8.0 times the safe operating flow capacity of a 5/8” X 3/4” meter at 20 gallons per minute (160 gpm ÷ 20 gpm = 8.0 times greater capacity). Stated another way, the capacity that a customer has with a 2” meter is

equivalent to the capacity of eight single-family homes (i.e., a 5/8" X 3/4" metered customer). Table 3-9 shows the proposed water SDC by meter size after applying the 85.9% of the maximum allowable charge to the Upper and Lower Hillsboro systems.

Table 3-9 Existing and Proposed Water System Development Charges ⁵					
Meter Size	Weighting Factor ^[1]	Hillsboro Lower System ^[2]	Hillsboro Upper System	Wholesale Lower Cornelius	Wholesale Gaston/LA Water
Proposed:					
5/8" X 3/4" Service	1.00	\$13,881	\$9,496	\$2,802	\$7,094
3/4" Service ^[3]	1.50	20,822	14,245	4,203	10,641
1" Service	2.50	34,703	23,741	7,005	17,735
1-1/4" Service ^[3]	3.13	43,378	29,677	8,756	22,169
1 1/2" Service	5.00	69,405	47,482	14,010	35,470
2" Service	8.00	111,048	75,972	22,416	56,752
3" Service ^[4]	15.00	208,215	142,447	42,030	106,410
4" Service ^[4]	25.00	347,025	237,412	70,050	177,350
6" Service ^[4]	50.00	694,050	474,824	140,100	354,700
8" Service ^[4]	80.00	1,110,480	759,719	224,160	567,520
10" Service ^[4]	115.00	1,596,315	1,092,096	322,230	815,810
Current SDC (5/8"X3/4" Service) ^[5]		\$13,095	\$12,691	\$7,653	\$8,452

[1] – AWWA Meter Equivalency Ratios.

[2] – Hillsboro retail includes Residential, Industrial, Multi-Family, Public Users, Non-Profit, Irrigation, and Commercial.

[3] – 3/4" meter only available for purchase by Single Family Residential. 1-1/4" Service is no longer available.

[4] – 3" and larger Industrial services are based on estimated average day and maximum day demands expressed in 5/8" X 3/4" meter equivalents. The amounts in Table 3-9 are minimum charges for Industrial service.

[5] – Current Fees effective 7-1-23. Proposed Fees effective 7-1-24.

The net allowable charge per ERU for Hillsboro Retail shows a small increase from the current SDC. The Upper, Cornelius (lower), and Gaston/LA (upper) shows a decrease.

3.6 Key Assumptions of the Water System Development Charge

In developing the SDCs for the City’s water system, a number of key assumptions were utilized. These are as follows:

- The City’s asset records, as of June 2022, were used to determine the existing water plant assets.
- The ENR construction cost index was based on the December 2023 index to bring the original cost of assets to replacement cost.
- Contributions in aid of construction were deducted from the value of the existing assets.

- The City provided the capital improvement plan (CIP) for future improvements and adjusted projects based on current information.
- The City determined the portion of future improvements that were growth-related (i.e., SDC eligible).
- The City's recent Water Master Plan was used in evaluating the number of equivalent residential units.
- The methodology used is the combined methodology. The reimbursement fee and improvement fee components are added together for a net allowable SDC.

3.7 Consultant's Recommendations

Based on our review and analysis of the City's water system, HDR recommends the following:

- The City should revise and update its water SDC for new connections to the schedule of SDCs which are no greater than the net allowable SDCs as set forth in this report.
- The adopted SDCs should be updated annually by the ENR construction cost index for the Hillsboro area if available or the Seattle area, for no more than six years before a complete update of the fee is undertaken. This practice will keep the fees current with construction pricing practices.
- The City should update the actual calculations for the SDCs based on the methodology approved by the resolution or ordinance setting forth the methodology for SDCs at such time when a new capital improvement plan, public facilities plan, comprehensive system plan, or a comparable plan is approved or updated by the City, or every six years.

3.8 Summary

The water SDCs developed and presented in this section of the report are based on the planning and engineering design criteria of the City's water system, the value of the existing assets, update future capital improvements from the recent Water Master Plan, and generally accepted ratemaking principles. Adoption of the proposed water SDCs will provide multiple benefits to the City and will create equitable and cost-based charges for new customers connecting to the City's water system.



Technical Appendix

