



# Stege Sanitary District Connection Charge and SPASPA Impact Fee Study

Final Report  
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## TABLE OF CONTENTS

SECTION 1: INTRODUCTION AND EXECUTIVE SUMMARY .....	1
1.1 Background .....	1
1.2 Legal Requirements .....	1
1.3 Connection Fee/Impact Fee Study Process.....	2
1.4 Proposed Fees .....	2
SECTION 2: LEGAL REQUIREMENTS AND METHODOLOGY .....	4
2.1 Legal Requirements .....	4
2.2 Methodologies .....	5
SECTION 3: CAPACITY THROUGH BUILDOUT .....	6
3.1 Fixture Unit Basis .....	6
3.2 Capacity Through Buildout.....	8
SECTION 4: COST OF CAPACITY .....	9
4.1 SPASPA Cost of Capacity .....	9
4.2 Districtwide Cost of Capacity .....	10
SECTION 5: FEE COMPARISON .....	12
5.1 Proposed Fees .....	12
5.2 Annual Review.....	13

## LIST OF TABLES

Table 1: Proposed Districtwide Connection Fee .....	3
Table 2: Proposed Combined Districtwide Connection Fee and SPASPA Impact Fee .....	3
Table 3: Fixture Units Per Typical 2 Bathroom House .....	6
Table 4: Fixture Units Per Typical 1 Bathroom House .....	7
Table 5: Fixture Unit Count Through Buildout.....	8
Table 6: SPASPA Impact Fee Calculation.....	9
Table 7: Adjustment % for Pipeline Buy-in .....	10
Table 8: Districtwide Connection Charge Calculation.....	11
Table 9: Proposed Districtwide Connection Fee.....	12
Table 10: Proposed Combined Districtwide Connection Fee and SPASPA Impact Fee .....	13

## LIST OF ACRONYMS

BART – Bay Area Rapid Transit  
 DU – dwelling unit  
 EDU – equivalent dwelling unit  
 FU – plumbing fixture unit  
 LF – linear feet  
 RCNLD – replacement cost new less depreciation  
 SF – single family  
 SPASPA – San Pablo Ave Specific Plan Area  
 Sq – square feet  
 Stege SD – Stege Sanitary District

## **SECTION 1: INTRODUCTION AND EXECUTIVE SUMMARY**

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### **1.1 Background**

The purpose of this report is to update the sewer connection fee and impact fee charged by the Stege Sanitary District (Stege SD or District) to new development connecting to the sewer system. Connection fees (also called impact fees or capacity fees) are one-time hookup fees intended to recover the capital cost of facilities needed to serve new development. Connection and impact fees do not collect revenues to cover the costs of maintenance, operations, or repairs. Instead, these on-going costs are recovered through District rates and charges billed annually to customers on the property tax roll. Stege SD currently has two capital facilities fees: a Districtwide connection fee and an impact fee for new development in the San Pablo Avenue Specific Plan Area (SPASPA).

#### **1.1.1 SPASPA Impact Fee**

The San Pablo Avenue Specific Plan Area is a development area within the City of El Cerrito along San Pablo Avenue spanning from the El Cerrito Plaza BART (Bay Area Rapid Transit) station to just north of the del Norte BART station. The City of El Cerrito adopted the San Pablo Avenue Specific Plan in September 2014 and new development is projected to include about 3,400 dwelling units, 162,000 square feet of commercial space, and 260 hotel rooms. Existing sewer pipelines located in the SPASPA and pipelines downstream of the SPASPA are insufficiently sized to serve the projected development and must be upsized. The cost of these localized improvements is recovered in the SPASPA impact fee. The impact fee is only charged to new development in the SPASPA. New development outside of the SPASPA is not charged the impact fee.

#### **1.1.2 Districtwide Connection Fee**

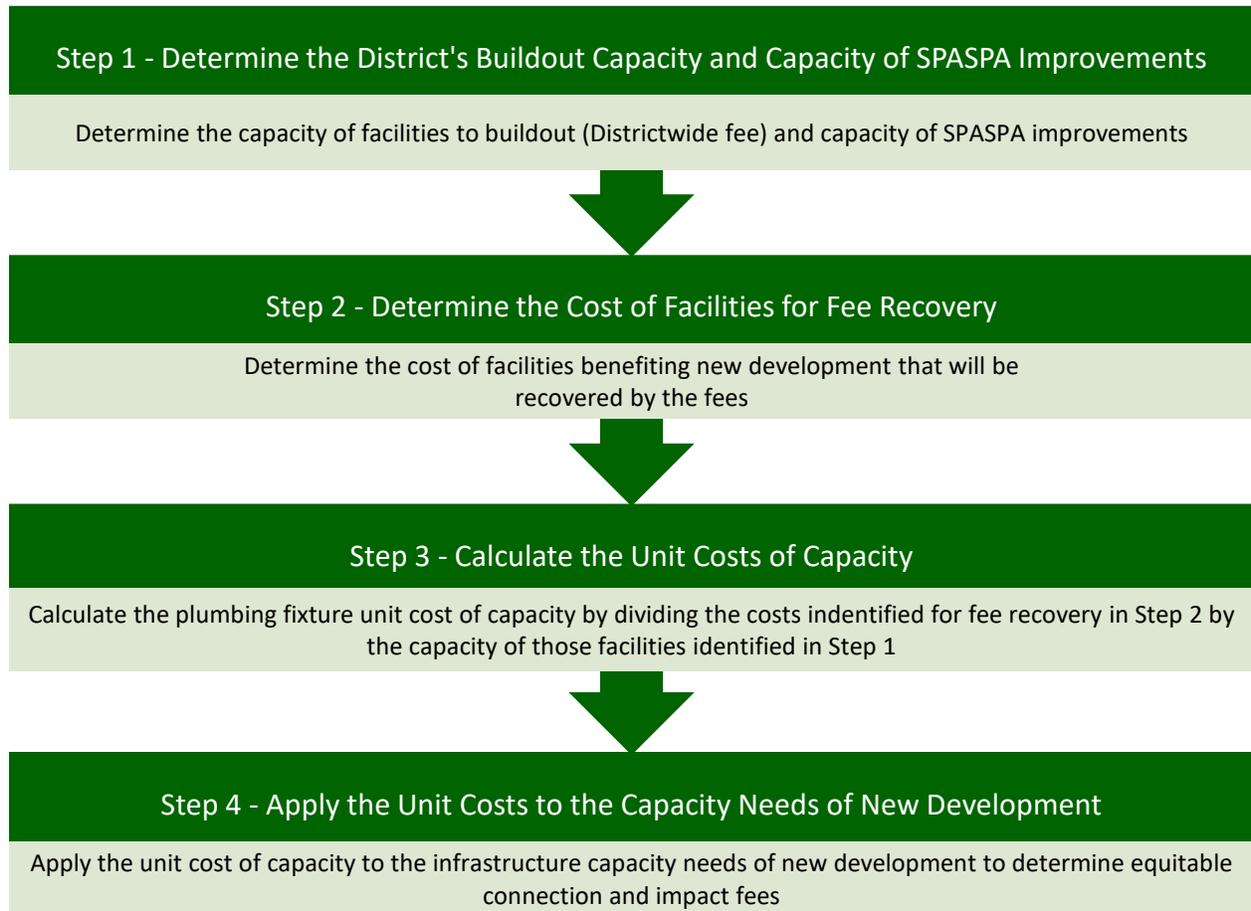
All new development within Stege SD's service area pays the Districtwide connection fee. The connection fee is charged to both SPASPA and non-SPASPA development. The Districtwide connection fee recovers new development's proportional share of general District facilities (such as lift stations, the Administrative Building, cleaning equipment and vehicles, etc.). The pipelines in or downstream of the SPASPA that are scheduled to be upsized are excluded from the Districtwide connection fee calculation.

### **1.2 Legal Requirements**

California Government Code Sections 66013, 66016, and 66022 describe the legal requirements pertaining to establishing connection fees and impact fees. Absent a 2/3 vote, fees must be proportional to the cost of providing facilities to serve new development. Essentially, public agencies must identify facilities that benefit growth and determine a fair value or cost of those facilities. The cost of facilities attributable to new development must be proportional to the capacity used by new development.

### 1.3 Connection Fee/Impact Fee Study Process

The fee study process is summarized in the figure below.



### 1.4 Proposed Fees

The current and proposed fees are provided in Table 1 and Table 2. Stege SD calculates its development fees on a fixture unit basis. The cost per fixture unit is proposed to increase for the SPASPA fee and decrease for the Districtwide fee.

Stege SD's current policy for the Districtwide fee is to charge each new residential dwelling for 19 fixture units. Current policy does not distinguish between single family and multi-family dwelling units.

It is recommended that the single family fee be adjusted to reflect 26 fixture units based on a review of typical home sizes and amenities<sup>1</sup> and the multi-family fee be adjusted to reflect 17 fixture units. The Districtwide single family fee will increase from \$2,146 to \$2,854 and the multi-family fee will decrease from \$2,146 to \$1,866.

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<sup>1</sup> Based on homes sales since 2013 as tracked by the East Bay Municipal Utility District for the Private Sewer Lateral Program. One average, single family homes sold over this time period had 1.9 bathrooms.

**Table 1: Proposed Districtwide Connection Fee Connection Charge and SPASPA Impact Fee Study Stege Sanitary District**

	Current		Proposed	
<b>COST PER FIXTURE UNIT</b>				
Districtwide Fee	\$112.95		\$109.78	
<b>SINGLE FAMILY DWELLING UNIT</b>				
Districtwide Fee	\$2,146	19 FU	\$2,854	26 FU
<b>MULTI-FAMILY DWELLING UNIT</b>				
Districtwide Fee	\$2,146	19 FU	\$1,866	17 FU

Table 2 shows the total fees for new development in the SPASPA. New development outside of the SPASPA will pay the fees shown in Table 1. SPASPA residential fees are not based on a pre-set number of plumbing fixtures. Instead, the number of fixtures and SPASPA impact fees are calculated on the particulars of each new development.

**Table 2: Proposed Combined Districtwide Connection Fee and SPASPA Impact Fee Connection Charge and SPASPA Impact Fee Study Stege Sanitary District**

	Current		Proposed	
<b>COST PER FIXTURE UNIT</b>				
SPASPA Fee	\$217.89		\$241.84	
Districtwide Fee	<u>\$112.95</u>		<u>\$109.78</u>	
Total	\$330.84		\$351.62	
<b>SINGLE FAMILY DWELLING UNIT</b>				
SPASPA Fee	\$4,140	19 FU [1]	\$6,288	26 FU [1]
Districtwide Fee	<u>\$2,146</u>	19 FU	<u>\$2,854</u>	26 FU
Total	\$6,286		\$9,142	
<b>MULTI-FAMILY DWELLING UNIT</b>				
SPASPA Fee	\$3,704	17 FU [1]	\$4,111	17 FU [1]
Districtwide Fee	<u>\$2,146</u>	19 FU	<u>\$1,866</u>	17 FU
Total	\$5,850		\$5,978	

1 – Example fixture counts shown. Actual fees and fixture counts will be determined based on the particulars of each new development

## SECTION 2: LEGAL REQUIREMENTS AND METHODOLOGY

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This section provides a review of the economic and legal foundations for connection fees and impact fees. The basic economic philosophy behind imposition of connection or impact fees is that the costs of providing service should be paid for by new connections receiving the benefits of that service so that no one group subsidizes any other group (such as existing ratepayers subsidizing improvements that only benefit new development in SPASPA). In establishing any fee or charge, achieving equity is one of the primary goals. In the case of connection or impact fees, this goal has been expressed in the form of “growth should pay for growth.”

### 2.1 Legal Requirements

In California, Government Code Section 66013, 66016, and 66022 address the implementation of connection fees (also called capacity fees or development impact fees). Government Code 66013 states:

(a) Notwithstanding any other provisions of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount the fee or charge 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.

(b) As used in this section

- (1) “Sewer connection” means the connection of a building to a public sewer system.
- (2) “Water connection” means the connection of a building to a public water system, as defined in subdivision (e) of Section 4010.1 of the Health and Safety Code.
- (3) “Capacity charges” means charges for facilities in existence at the time the charge is imposed or charges for new facilities to be constructed in the future which are of benefit to the person or property being charged.
- (4) “Local agency” means a local agency as defined in Section 66000.

(c) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion imposing a fee or capacity charge subject to this section shall be brought pursuant to Section 66022.

## **2.2 Methodologies**

There are several industry standard methodologies for calculating development fees. The buy-in method is recommended for the Districtwide fee and the incremental method is recommended for the SPASPA fee.

### **2.2.1 Buy-in Method**

The buy-in concept is most appropriate for infrastructure such as the Stege SD collection system that was constructed to accommodate new connections through buildout. This method is based on the premise that new development is entitled to service at the same price as existing ratepayers. New development pays an amount equal to the investment already made by existing ratepayers in the facilities to achieve parity. Once a new connection has paid its fee, the new connection becomes equivalent to existing ratepayers and shares the responsibility for existing facilities via the payment of service charges. The value of existing facilities is calculated using the reproduction cost new less depreciation (RCNLD) method.

### **2.2.2 Incremental Cost Method**

When new development connects to the collection system, it either uses reserve capacity available in existing facilities or requires new capacity that must be added to the system to accommodate its needs. Under the incremental method, new development pays the marginal cost for new facilities necessary to provide service to it. The goal of this method is to minimize or eliminate the need to increase service charges in order to provide for system expansion. The incremental method is the recommended method for the SPASPA development because the cost of facilities is the construction cost to upsize pipelines in the SPASPA and downstream of the SPASPA. The retrofits solely benefit the SPASPA and would not be needed absent new development.

## SECTION 3: CAPACITY THROUGH BUILDOUT

### 3.1 Fixture Unit Basis

The District currently assesses connection and impact fees on a fixture unit basis. For the Districtwide fee, it is assumed that the typical residential home has 19 fixture units. However, based on typical home sizes, it is likely that the typical new single family dwelling unit is a two bathroom home and has 26 plumbing fixture units as shown below.

**Table 3: Fixture Units Per Typical 2 Bathroom House  
Connection Charge and SPASPA Impact Fee Study  
Stege Sanitary District**

Fixture Type	Equivalent Fixture Count		Typical Residence # of Fixtures		# of Equivalent Fixture Units per Typical Dwelling
Bathtub or Bath/Shower	2	x	2	=	4
Bidet	2				
Clothes Washer, Domestic	3	x	1	=	3
Dishwasher, Domestic	2	x	1	=	2
Drinking Fountain (per head)	0.5				
Floor Drain	2				
Floor Sink	3				
Food waste grinder, Commercial	3				
Lavatory in sets of two or three	2				
Lavatory, single	1				
Shower multi-head each additional	1				
Shower single-head trap	2				
Sink	3	x	3	=	9
Sink, Mop	3				
Toilet	4	x	2	=	8
Urinal	2				
Water Closet	4				
Watercooler (per head)	0.5				
Other	1				
Total Equivalent Fixture Units					26

Note: Homes sales data since 2013 as tracked by the East Bay Municipal Utility District indicates that single family homes sold over this time period had an average of 1.9 bathrooms.

Per the District’s Sewer Rate Study (April 2019), the average annual single family residential flow is 47,574 gallons or about 130 gallons per day. Divided by 26 fixture units, the average flow per fixture unit is 5 gallons per day.

The majority of new dwelling units in the SPASPA are expected to be multi-family apartments, condominiums, and/or townhomes and will likely have one bathroom per dwelling unit. It is estimated that the typical multi-family dwelling unit will have 17 plumbing fixtures as shown below.

**Table 4: Fixture Units Per Typical 1 Bathroom House  
Connection Charge and SPASPA Impact Fee Study  
Stege Sanitary District**

<b>Fixture Type</b>	<b>Equivalent Fixture Count</b>		<b>Typical Residence # of Fixtures</b>	<b>=</b>	<b># of Equivalent Fixture Units per Typical Dwelling</b>
Bathtub or Bath/Shower	2	x	1	=	2
Bidet	2				
Clothes Washer, Domestic	3	x	1	=	3
Dishwasher, Domestic	2	x	1	=	2
Drinking Fountain (per head)	0.5				
Floor Drain	2				
Floor Sink	3				
Food waste grinder, Commercial	3				
Lavatory in sets of two or three	2				
Lavatory, single	1				
Shower multi-head each additional	1				
Shower single-head trap	2				
Sink	3	x	2	=	6
Sink, Mop	3				
Toilet	4	x	1	=	4
Urinal	2				
Water Closet	4				
Watercooler (per head)	0.5				
Other	1				
	<b>Total Equivalent Fixture Units</b>				<b>17</b>

### 3.2 Capacity Through Buildout

The capacity through buildout is calculated in Table 5. The number of existing connections is taken from the Sewer Rate Study (April 2019). Each single family and commercial equivalent dwelling unit (EDU) represents 26 fixture units (i.e. the number of plumbing fixture units in a single family home). Each multi-family home is assumed to have 17 fixture units. The SPASPA impact fee will be charged based on the particulars of each new development such that not every multi-family dwelling will be charged for exactly 17 fixture units. However, for planning purposes, 17 fixture units and 26 fixture units are assumed per multi-family and single family dwelling unit, respectively.

The future development estimate shown in Table 5 is taken from the Sewer Capacity Charge for the San Pablo Avenue Specific Plan Area Memorandum (October 19, 2017) plus additional connections that were not originally envisioned in the 2017 memo. By 2040, it is estimated that new SPASPA connections will make up 13% of the District's total connections.

**Table 5: Fixture Unit Count Through Buildout  
Connection Charge and SPASPA Impact Fee Study  
Stege Sanitary District**

Connections	Count		Fixture Units per du/ 1,000 sq ft/ room	Total Equivalent Fixture Units	% of Build- out
Existing Connections					
SF Residential	11,321	EDUs	26.0	294,350	59%
Multi-Family Residential	2,977	EDUs	17.0	50,601	10%
Commercial	3,597	EDUs	26.0	<u>93,522</u>	<u>19%</u>
Total Existing				438,473	87%
Future Development (SPASPA)					
Multi-Family Residential	3,371	Dwelling Units	17.0	57,307	11%
Commercial [1]	162,364	sq ft	20.0	3,247	0.6%
Hotel [2]	260	rooms	10	<u>2,600</u>	<u>0.5%</u>
Total Growth				63,154	13%
Total Buildout				501,627	100%

SF – Single Family

1 - based on 100 gallons per day per 1,000 sq ft used by the Central Contra Costa Sanitary District; one FU = 5 gallons per day of flow

2 - based on one bath/shower, one sink, one toilet, plus 10% margin for other hotel facilities, rounded up

## SECTION 4: COST OF CAPACITY

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This section calculates the cost of capacity for the Districtwide facilities and SPASPA facilities. The value of the sewer infrastructure for the two fees is divided by the buildout capacity to calculate unit costs expressed as \$/fixture unit. The cost per fixture unit is then multiplied by the number of fixture units per new connection to calculate the total connection fee or impact fee.

### 4.1 SPASPA Cost of Capacity

The San Pablo Avenue Specific Plan Area Memorandum (October 19, 2017) developed a construction cost estimate for the SPASPA improvements. Pipelines accounted for in the SPASPA fee are insufficient to convey the flow of the proposed development. \$14.9 million in retrofits are needed to upsize 22,592 linear feet (LF) of existing lines. Since 2017, another development has connected in the SPASPA that was not originally anticipated in the SPASPA memo. In addition to the 22,592 LF identified in 2017, the 11795 San Pablo Ave, Wall Ave Multi-family Development will require the upsizing of 570 LF at a cost of about \$339,000. Deducted from these costs is about \$311,000 in impact fees already paid. The total cost of SPASPA capacity is \$14.93 million and is divided by the fixture unit count from Table 5 net of fixture units already paid. The proposed cost per fixture unit is about \$242.

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**Table 6: SPASPA Impact Fee Calculation  
Connection Charge and SPASPA Impact Fee Study  
Stege Sanitary District**

<b>Asset</b>	<b>Cost</b>
SPASPA Improvement Cost	\$14,900,000
11795 San Pablo Ave, Wall Ave Multi-family Development	\$339,264
Net of SPASPA fees already paid	<u>(\$310,610)</u>
Total Cost	\$14,928,654
SPASPA Fixture Units	63,154
Less SPASPA Fixture Units Already Paid	<u>(1,425)</u>
Total Fixture Units	61,729
Cost per Fixture Unit	\$241.84
Cost per Single Family Unit (26 Fixture Units)	\$6,287.84
Cost per Multi-Family Unit (17 Fixture Units)	\$4,111.28
Current Cost per Fixture Unit	\$217.89

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## 4.2 Districtwide Cost of Capacity

As described above, the SPASPA fee recovers the cost of upsizing existing District pipelines serving the SPASPA. Pipelines accounted for in the SPASPA fee must be deducted from the Districtwide fee to avoid double charging for the same facilities. It is estimated that the SPASPA pipelines make up about 3% of the District total, see Table 7.

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**Table 7: Adjustment % for Pipeline Buy-in  
Connection Charge and SPASPA Impact Fee Study  
Stege Sanitary District**

<b>Category</b>	<b>Linear Feet</b>	
Existing Pipelines [1]	775,191	A
Less Planned SPASPA Improvements [2]	<u>(23,162)</u>	
Net pipelines for buy-in	752,029	B
Net pipelines as % of total existing	97.0%	B/A

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1 - Sewer model inventory file

2 - Deduction for pipelines that are included in the SPASPA impact fee

Table 8 calculates the Districtwide connection fee. As described, the Districtwide fee is based on a buy-in to existing facilities at their current value. Current facilities are described in Stege SD's fixed asset list. The original cost of assets less accumulated depreciation (i.e. book value) was escalated to current dollars based on the Engineering News Record's Construction Cost Index for San Francisco. The value of pipelines was reduced by 3% to account for the SPASPA lines being replaced. The total buy-in value of Districtwide facilities is about \$55 million. This amount divided by the buildout fixture units calculated in Table 5 results in a fee of about \$110 per fixture unit.

**Table 8: Districtwide Connection Charge Calculation  
 Connection Charge and SPASPA Impact Fee Study  
 Stege Sanitary District**

<b>Asset</b>	<b>Replacement Cost New Less Depreciation</b>
Pipelines (775,191 LF)	\$25,683,539
Adjustment	97.0%
Adjusted Pipelines for buy-in (752,029 LF)	\$24,916,138
Adjustment Pipelines for buy-in	\$24,916,138
Manholes	\$419,289
Standard Pipeline Replacements & Rehab	\$26,604,153
Pump Stations	\$37,901
Admin Building & Office Equip	\$2,588,350
Vehicles	<u>\$502,273</u>
Total Buy-in	\$55,068,105
Buildout Fixture Units	501,627
Cost per Fixture Unit	\$109.78
Cost per Single Family Unit (26 Fixture Units)	\$2,854.28
Cost per Multi-Family Unit (17 Fixture Units)	\$1,866.26
Current Cost per Fixture Unit	\$112.95

## SECTION 5: FEE COMPARISON

### 5.1 Proposed Fees

Table 9 and Table 10 compare the Districtwide and SPASPA current and proposed fees. The cost per fixture unit is proposed to increase for the SPASPA and decrease for the Districtwide fee. The increase to the SPASPA fee is due to the change in estimated fixture units through buildout. The prior study assumed that each residential dwelling unit would have an average of 19 fixture units. This study assumes the SPASPA dwelling units will be multi-family homes and have 17 fixture units per dwelling. The actual SPASPA fee charged to each connection will be determined based on the fixture unit count of each development. 17 fixture units per multi-family dwelling was used for planning purposes to estimate the District’s buildout capacity. This change results in the SPASPA pipeline replacement costs being recovered from a smaller base of fixture units which increases the cost per fixture unit.

Most new connections are expected to be multi-family dwelling units located in the SPASPA. The SPASPA portion of the total fee for multi-family dwellings is proposed to increase reflecting the adjustment to the fixture unit cost. The Districtwide portion of the total fee is proposed to decrease reflecting the downward adjustment to the fixture unit cost and the reduction in fixture units from 19 to 17. Stege SD’s current policy charges both single family and multi-family residential dwellings for 19 fixture units for the Districtwide fee. It is recommended that the District adjust its development fee policies to charge multi-family dwellings for fewer fixture units. Unlike the SPASPA fees, the Districtwide fee is not assessed individually for each new connection. Instead, each new single family connection is proposed to be charged for 26 fixture units and each new multi-family connection is proposed to be charged for 17 fixture units.<sup>2</sup>

**Table 9: Proposed Districtwide Connection Fee  
Connection Charge and SPASPA Impact Fee Study  
Stege Sanitary District**

	Current		Proposed	
<b>COST PER FIXTURE UNIT</b>				
Districtwide Fee	\$112.95		\$109.78	
<b>SINGLE FAMILY DWELLING UNIT</b>				
Districtwide Fee	\$2,146	19 FU	\$2,854	26 FU
<b>MULTI-FAMILY DWELLING UNIT</b>				
Districtwide Fee	\$2,146	19 FU	\$1,866	17 FU

<sup>2</sup> The number of single family dwelling fixture units was based on home sales data since 2013

**Table 10: Proposed Combined Districtwide Connection Fee and SPASPA Impact Fee Connection Charge and SPASPA Impact Fee Study Stege Sanitary District**

	Current		Proposed	
<b>COST PER FIXTURE UNIT</b>				
SPASPA Fee	\$217.89		\$241.84	
Districtwide Fee	<u>\$112.95</u>		<u>\$109.78</u>	
Total	\$330.84		\$351.62	
<b>SINGLE FAMILY DWELLING UNIT</b>				
SPASPA Fee	\$4,140	19 FU [1]	\$6,288	26 FU [1]
Districtwide Fee	<u>\$2,146</u>	19 FU	<u>\$2,854</u>	26 FU
Total	\$6,286		\$9,142	
<b>MULTI-FAMILY DWELLING UNIT</b>				
SPASPA Fee	\$3,704	17 FU [1]	\$4,111	17 FU [1]
Districtwide Fee	<u>\$2,146</u>	19 FU	<u>\$1,866</u>	17 FU
Total	\$5,850		\$5,978	

1 – Example fixture counts shown. Actual fees and fixture counts will be determined based on the particulars of each new development

## 5.2 Annual Review

It is recommended that the Districtwide fee be reviewed annually and potentially be updated based on the change in the Engineering News Record’s Construction Cost Index over the prior year. Suggested language for implementing this policy is:

Each year, commencing on     (m/d/y)     and continuing thereafter on each     (m/d)    , the connection fee shall be adjusted by an increment based on the change in the Engineering News Record Construction Cost Index for San Francisco over the prior year.

However, the Board of Directors may at its option determine, by resolution adopted prior thereto, that such adjustment shall not be effective for the next succeeding year, or may determine other amounts as appropriate.

The connection fee should also be reviewed in detail when updated information, such as a revised master plan or capital improvement program, is obtained, but not less than every five years.