

Tahoe Truckee Sanitation Agency Connection Fee Study

January 17, 2023





Purpose of the Presentation



Overview of the Connection Fee



Summary of the Connection Fee Study



Questions / Discussion

Purpose of the Presentation

- Provide a summary of the connection fee analysis
 - Updated reserves as of June 30, 2023
 - Reduced fee calculation for Fund 2 reserves
 - Updated assets with August 2023 ENR CCI 20-City Average
 - Review of an EDU
- Gain input and feedback
 - Calculated level of the updated connection fee
 - Level of fee for implementation
- Next steps
 - Set public hearing
 - Notify interested parties
 - Hold public hearing
 - Adopt connection fee at Board desired level

Sewer Connection Fees

Overview

▪ Definition

- A one-time charge required of all new customers or existing customers requesting an increased level of service
- Charge based on the value of the existing level of service plus any new infrastructure needed to serve them

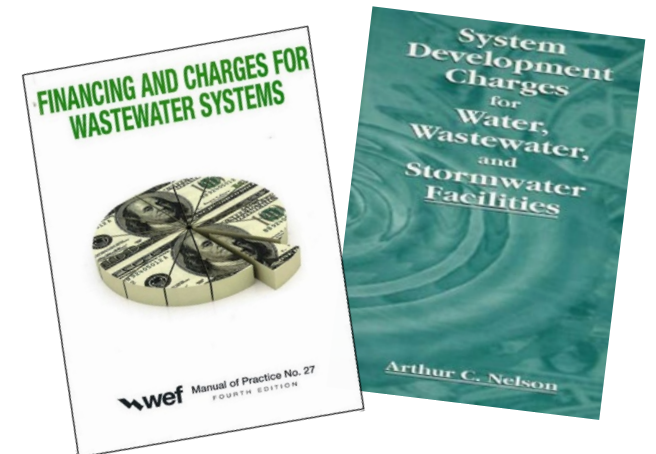
▪ Purpose

- To charge new customers a proportional share of the cost of infrastructure to serve their needs
 - Existing customers have funded current infrastructure

▪ Legal Requirements (California Code (66013, 66016, 66022))

- Requires a reasonable relationship between fee charged and cost associated with providing capacity to the customer

▪ Generally accepted methodologies



Sewer Connection Fees

Formula

$$\frac{\text{Existing Investment (\$)}}{\text{Existing and Future EDUs}} + \frac{\text{Future CIP (\$)}}{\text{Future EDUs}} = \text{Connection Fee \$ per EDU}$$

▪ Value of Existing System:

- Replacement cost new (RCN)
- Less:
 - Developer/grant contributed
 - Assets < \$5,000
 - Outstanding debt principal
 - Capital reserves (Fund 2)
- Plus: Work in Progress

▪ Future CIP:

- Current capital improvement plan
- Proportion to serve growth

▪ EDUs based on system capacity

- Sewer average day demand, per EDU of 200 gpd (**reflects both volume and strength**)
- Total permit capacity of 9.60 MGD

Sewer Connection Fees

System Planning Data

Sewer Connection Fee – EDUs			
Description	Capacity in MGD	Average Daily Flow per EDU	Total EDUs
Existing Flow	6.13	200	30,650
Future Flow	<u>3.47</u>	200	<u>17,350</u>
Permit Total Flow	9.60		48,000

- **Based on 200 gpd/EDU and 9.6 MGD permit capacity**
- **6.13 MGD based on average day flow at the plant**

Sewer Connection Fee

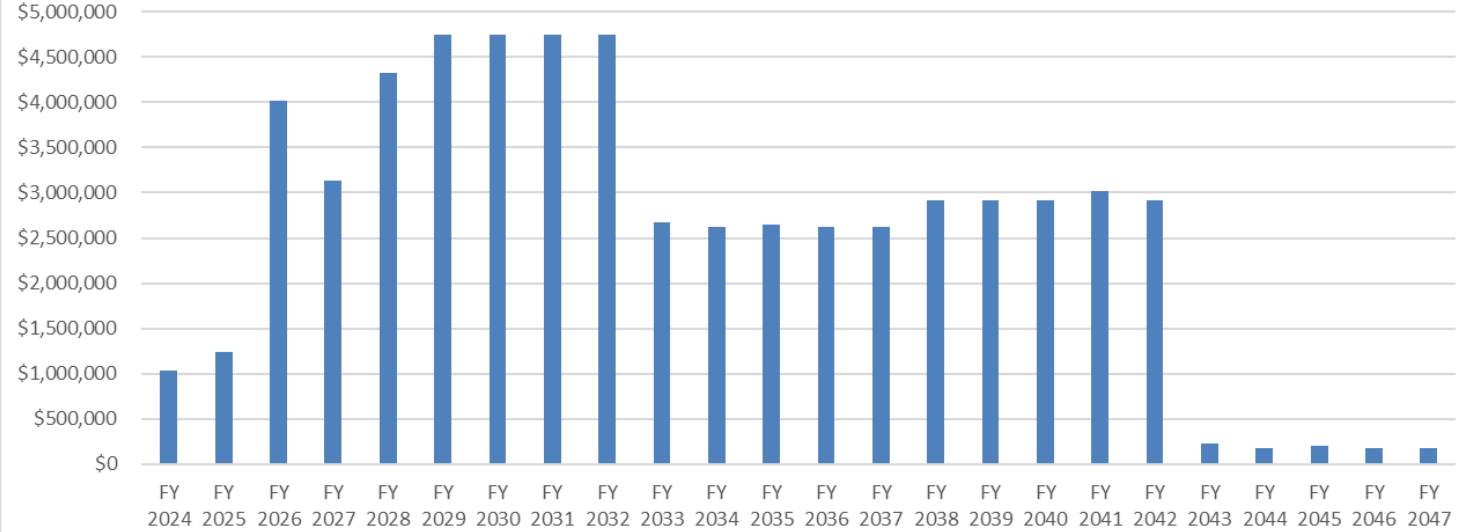
Existing System Calculation

- **Assets as of June 2021**
 - 20-City ENR-CCI for August 1, 2023

	Original Cost (OC)	Replacement Cost New (RCN)
Existing Plant	\$147,212,478	\$363,008,326
Plus: Work in Progress	3,507,039	3,507,039
Less: Contributed Capital	(11,600,000)	(19,615,513)
Less: Outstanding Debt Principal	(3,599,240)	(3,599,240)
Less: Reserves	<u>(17,903,043)</u>	<u>(17,903,043)</u>
Total Existing Plant	\$117,617,234	\$325,397,569
Total Existing and Future EDUs		48,000
Existing Sewer Connection Fee per EDU		\$6,779

Fund 2 CIP and CIP Funding Plan

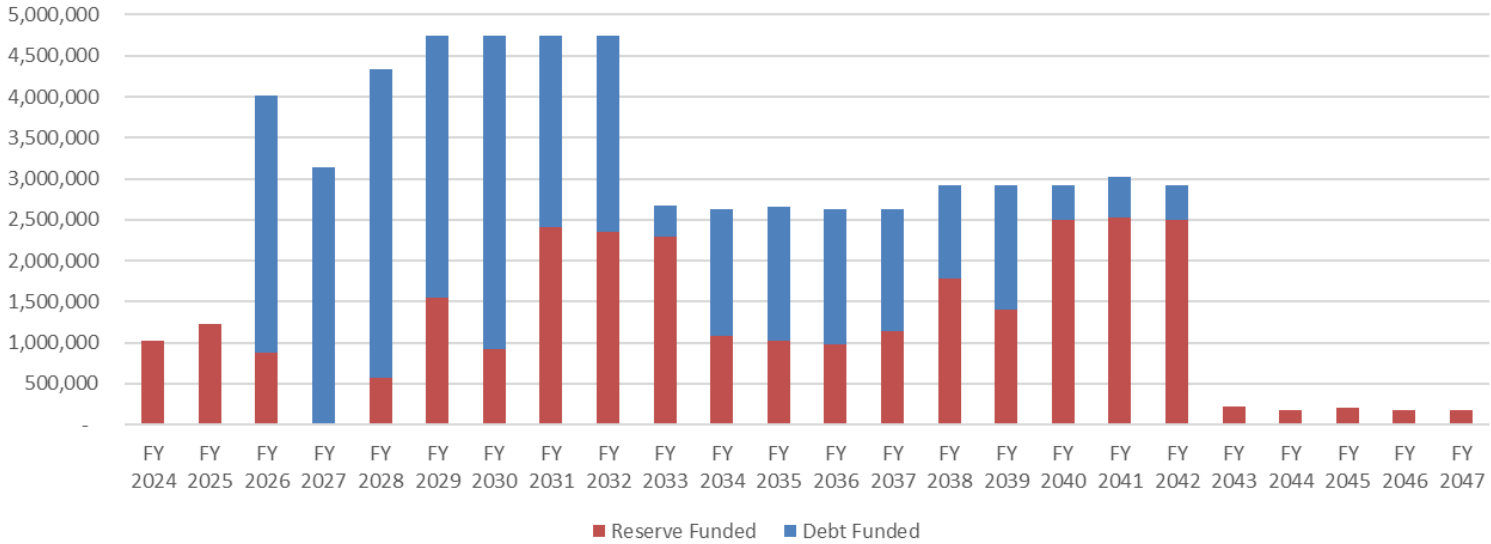
Fund 2 Annual Capital Projects
(Current day \$'s)



Example Projects – Next 5 Years

- Disinfection Project - \$4.5M
- Digestion Improvement Project - \$3.1M
- Equipment/Vehicle Warehouse - \$2.5M
- Primary/Secondary Treatment Rehab Project - \$1.4M

Fund 2 Capital Funding Approach
(Current day \$'s)



Sewer Connection Fee

Future Improvement Calculation

	Replacement Cost New (RCN)
Future Plant	
TRI	\$6,919,200
WRP	17,396,600
Total Future Plant (TRI and WRP)	<u>\$24,315,800</u>
Future EDUs	17,350
Future Sewer Connection Fee per EDU	\$1,401
WRP New Facilities	\$37,500,000
Total Existing and Future EDUs	48,000
New Facility Sewer Connection Fee per EDU	\$781
Future Sewer Connection Fee per EDU	<u>\$2,182</u>

Sewer Connection Fee Calculation

- **Sum of existing and future is \$8,961**
- **Current Fee is \$5,000**
 - Maintained existing fee level at conclusion of 2018/19 fee study

Existing Sewer Connection Fee per EDU	\$6,779
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Future Sewer Connection Fee per EDU	\$2,182
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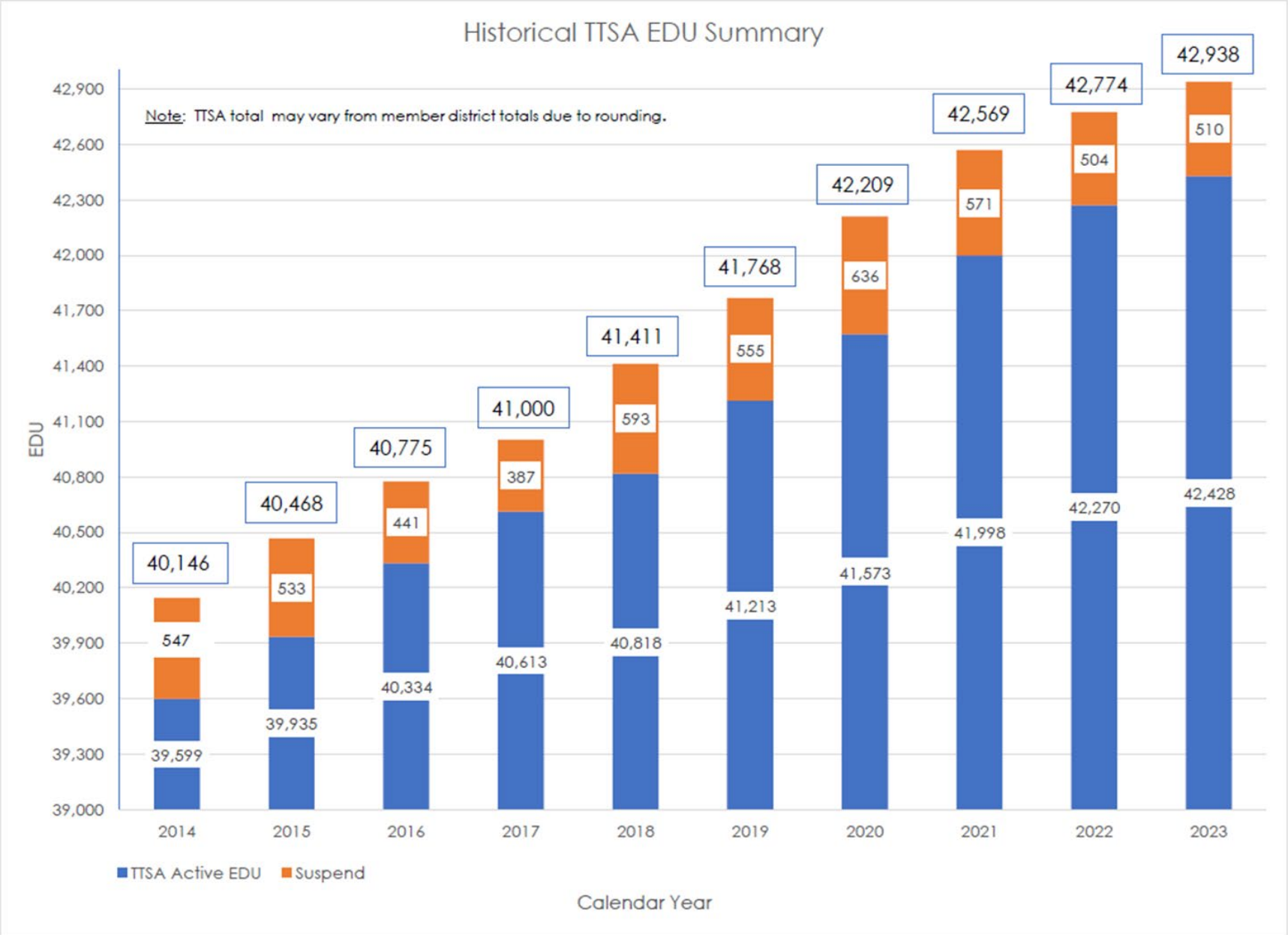
Maximum Allowable Sewer Connection Fee per EDU	\$8,961
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Adopted 2019 Sewer Connection Fee per EDU	\$5,000
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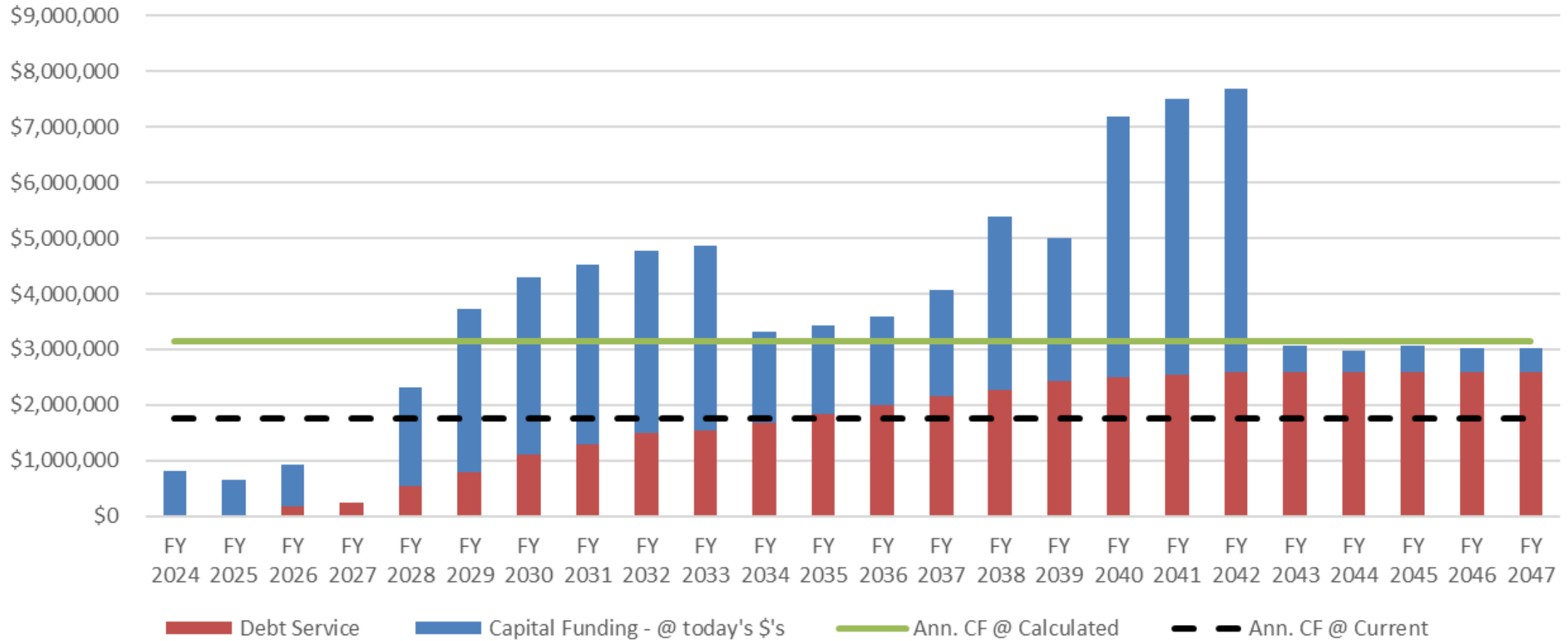
\$ Difference	\$3,961
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% Difference	79.2%
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Current and Historical EDU Growth

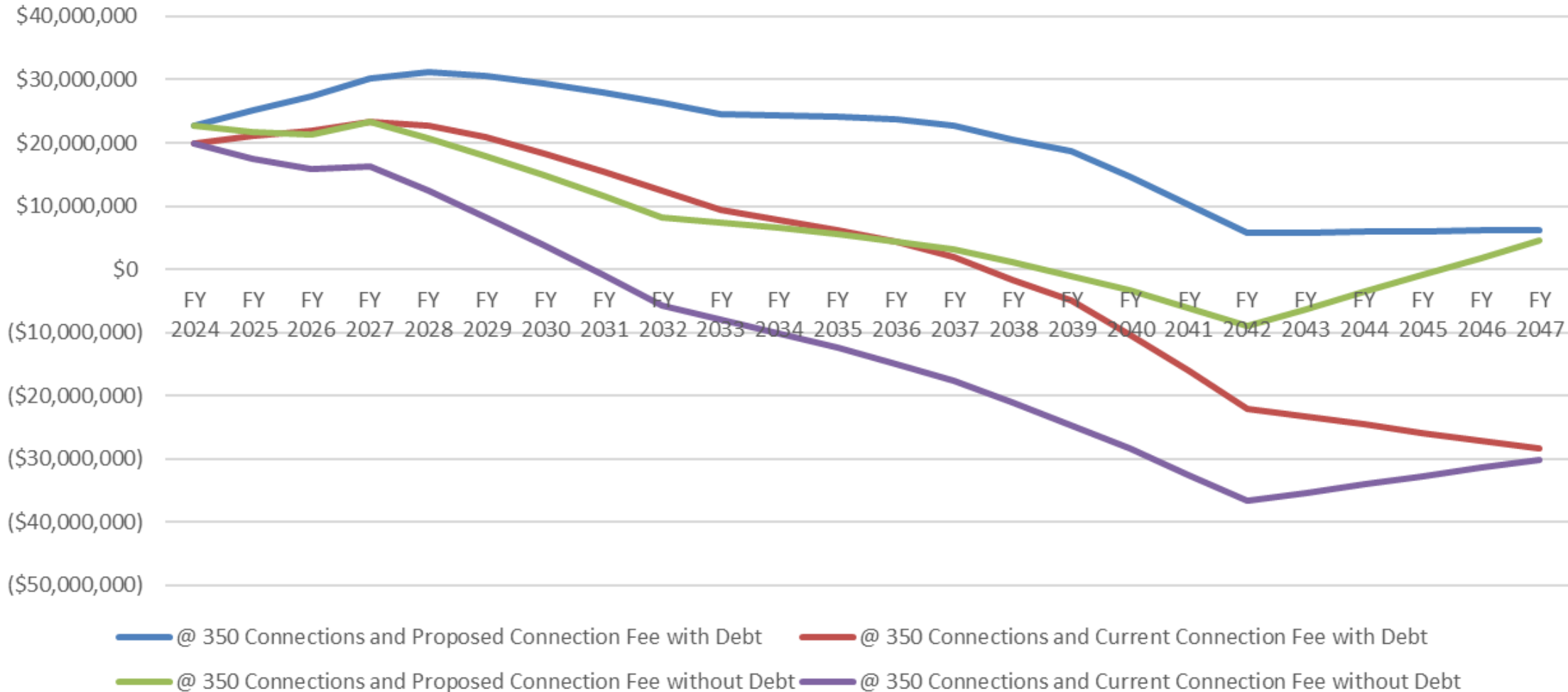


Comparison of Connection Fee Estimated Revenues and Expenses (@ 350 connection/year)



- Expenses reflect use of Fund 2 reserves (capital funding) and annual debt service expense for financing capital improvements
 - Debt service assumption assumes 30 years @ 4.5% interest and total borrowing of ~\$42 Mil in escalated \$'s
- Revenues based on projected average connections (EDUs) of 350 per year based on last 8-year average

Projected Fund 2 Ending Balance



Connection fee calculation is not a cash flow analysis, it is based on the value of the existing and future capacity

Sewer Connection Fees

Implementation - Residential

Type of Connection	Units	Present Connection Fee [1]	Calculated Connection Fee [2]
Residential			
Minimum	Per living unit	\$1,500	\$2,690
Plus: Square footage	Per square footage	\$1.75/sq. ft.	\$3.14/sq. ft.
Additions (Not an ADU)			
Greater than 500 square feet	Per square footage	\$1.75/sq. ft.	\$3.14/sq. ft.
500 square feet or less		Exempt	Exempt
Accessory Dwelling Unit			
Minimum	Per living unit	\$1,500	\$2,690
Plus: Square footage	Per square footage	\$1.75/sq. ft.	\$3.14/sq. ft.
500 square feet or less		Exempt	Exempt

[1] \$5,000 per unit (\$1,500 + (\$1.75 X 2,000 sq. ft.) = \$5,000; Ordinance 1-2019

[2] \$8,961 per unit (\$2,690 + (\$3.14 X 2,000 sq. ft.) = \$8,961

Sewer Connection Fees

Exhibit A

Connection Type	TTSA Code	Units	Equivalent EDU Ratio	Existing Per Unit Charge (\$)	Calculated Per Unit Charge (\$)
Beauty/Barber Shop	A	# of service chairs	0.50	2,500.00	4,481.00
Commercial Establishments (1) (unless otherwise noted)	B	# of fixture units	0.10	500.00	896.00
Dump Station	D	# of stations	1.00	5,000.00	8,961.00
Restaurant or Bar	F	# of seats inside	0.10	500.00	896.00
	Z	# of seats outside	0.04	175.00	314.00
	Z	# of seats banquet	0.04	175.00	314.00
Grocery	G	# of fixture units	0.15	750.00	1,344.00
Industrial User	I	as calculated pursuant to Table A-2		5,000.00	8,961.00
Car Washes	J	# of bays, Automatic	1.50	7,500.00	13,442.00
		# of bays, Automatic - Recycled	1.20	6,000.00	10,754.00
		# of bays, Self-Serve	1.00	5,000.00	8,961.00
		# of bays, Self-Serve - Recycled	0.80	4,000.00	7,169.00
Campsite with Sewer Connection	K	# of sites	0.50	2,500.00	4,481.00
Laundromat	L	# of washing machines	1.00	5,000.00	8,961.00
Motel or Hotel Unit	M	# of units	0.50	2,500.00	4,481.00
Motel or Hotel Unit with Kitchen	N	# of units	0.66	3,300.00	5,914.00
Swimming Pool or Spa	P	# of P units, see table A-1		100.00	179.00
Campsite without Sewer Connection	Q	# of sites	0.38	1,875.00	3,360.00
Residential Unit (2)	R	# of units		1,500.00	2,690.00
		plus # square feet of living area		1.75	3.14
Other	S	As Determined by General Manager		TBD	TBD
Assembly Hall	T	# of seats	0.01	50.00	90.00

(1) Refer to Appendix A-1

(2) Connection Fees for Residential living space additions greater than 500 sq.ft. where sewer connection is already established will be charged \$3.08/sq.ft.

Sewer Connection Fees

Exhibit A - 1 Plumbing Fixture Units

Description	Fixture Units Public
Bathtub or combination bath/shower	2
Clothes washer, domestic	3
Dental unit, cuspidor	1
Dishwasher, domestic, independent drain	2
Drinking fountain (each head)	0.5
Food waste disposer, commercial	3
Floor drains, emergency	0
Floor drains (each)	2
Shower, single-head trap	2
Multi-head, each additional	1
Lavatory	1
Lavatory in sets	2
Sink (bar)	2
Sink (commercial with food waste)	3
Sink (exam room)	1
Sink (domestic, with or w/out food waste disposer, dishwasher, or both)	2
Sink (laundry)	2
Sink (service or mop basin)	3
Sink (washup, flushing rim)	6
Sink (washup, each set faucets)	2
Urinal	2
Toilet (1.6 gpf, any type)	4
Toilet (>1.6 gpf, any type)	6
Swimming Pool "P" Units	
0 - 25,000 gallons	23
25,001 - 50,000 gallons	46
50,001 - 75,000 gallons	69
75,000 - 100,000 gallons	92
100,000 gallons and over	115
Spa "P" Units	
0 - 1,000 gallons	16
1,001 - 2,500 gallons	39
2,501 - 5,000 gallons	78
5,001 gallons and over	116

Multiple Use Credit	
(Applies to Multiple Use Fixtures Only)	
# of Restaurant Seats	# Fixture Unit Credits
0-50	12*
51-100	15
101-200	21
201-300	27
301-400	33
401-500	39
501-600	45
601-700	51
701-800	57
801-900	63
901-1000	69
1001-1100	75
1101-1200	81
Over 1201	Individually Reviewed and Rated

*The above listed table represents the minimum business fixture units for each incremental seat count.

Exhibit A - 2 Industrial Charge

Flow:	<u>Maximum Daily Flow (gallons per day)</u>	=	EDU _{Flow}	
	200 gallons per day			
COD:	<u>Composite Sample COD Concentration (milligrams per liter)</u>	X	EDU _{Flow}	= EDU _{COD}
	805 milligrams per liter			
TSS:	<u>Composite Sample TSS Concentration (milligrams per liter)</u>	X	EDU _{Flow}	= EDU _{TSS}
	362 milligrams per liter			
TDS:	<u>Composite Sample TDS Concentration (milligrams per liter)</u>	X	EDU _{Flow}	= EDU _{TDS}
	428 milligrams per liter			
TN:	<u>Composite Sample TN Concentration (milligrams per liter)</u>	X	EDU _{Flow}	= EDU _{TN}
	78 milligrams per liter			
TP:	<u>Composite Sample TP Concentration (milligrams per liter)</u>	X	EDU _{Flow}	= EDU _{TP}
	8.4 milligrams per liter			

Next Steps

- Gain feedback and input on the Connection Fee
 - Overall approach
 - Updates to the calculation
 - Calculated level and proposed fee level
- Finalize technical analyses
- Finalize written report
- Present final recommendations to the Board (Jan 2024)
 - Board accepts the connection fee study
 - Sets public hearing date (Feb 2024)
 - Hold public hearing and adopt connection fee if desired

Thank You
and Discussion

