



Waco Impact Fee Study

CITY COUNCIL

AUGUST 18, 2020

Agenda

1

Water & Wastewater Impact Fees

2

Roadway Impact Fees

3

Schedule and Next Steps

Program Development Process

- ✓ Develop Land Use Assumptions*
- ✓ Develop Capital Improvement Plan/
Prepare Land Use and CIP Report*
- ✓ Public Hearing 1: Land Use and CIP
- ✓ Conduct Impact Fee Calculations/
Prepare Impact Fee Technical Report*
- Public Hearing 2: Impact Fee Calculations
- Consider Adoption of Impact Fee Ordinance

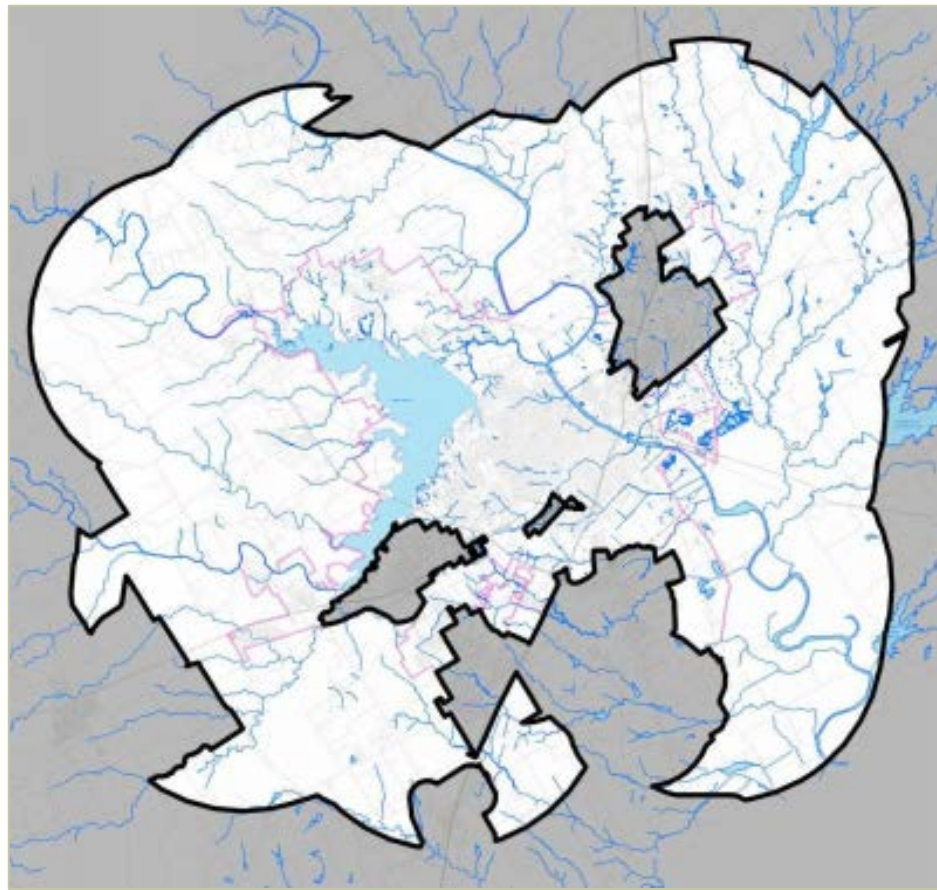
***Coordination with City Staff, CIAC, and Developers**

Water & Wastewater Impact Fees

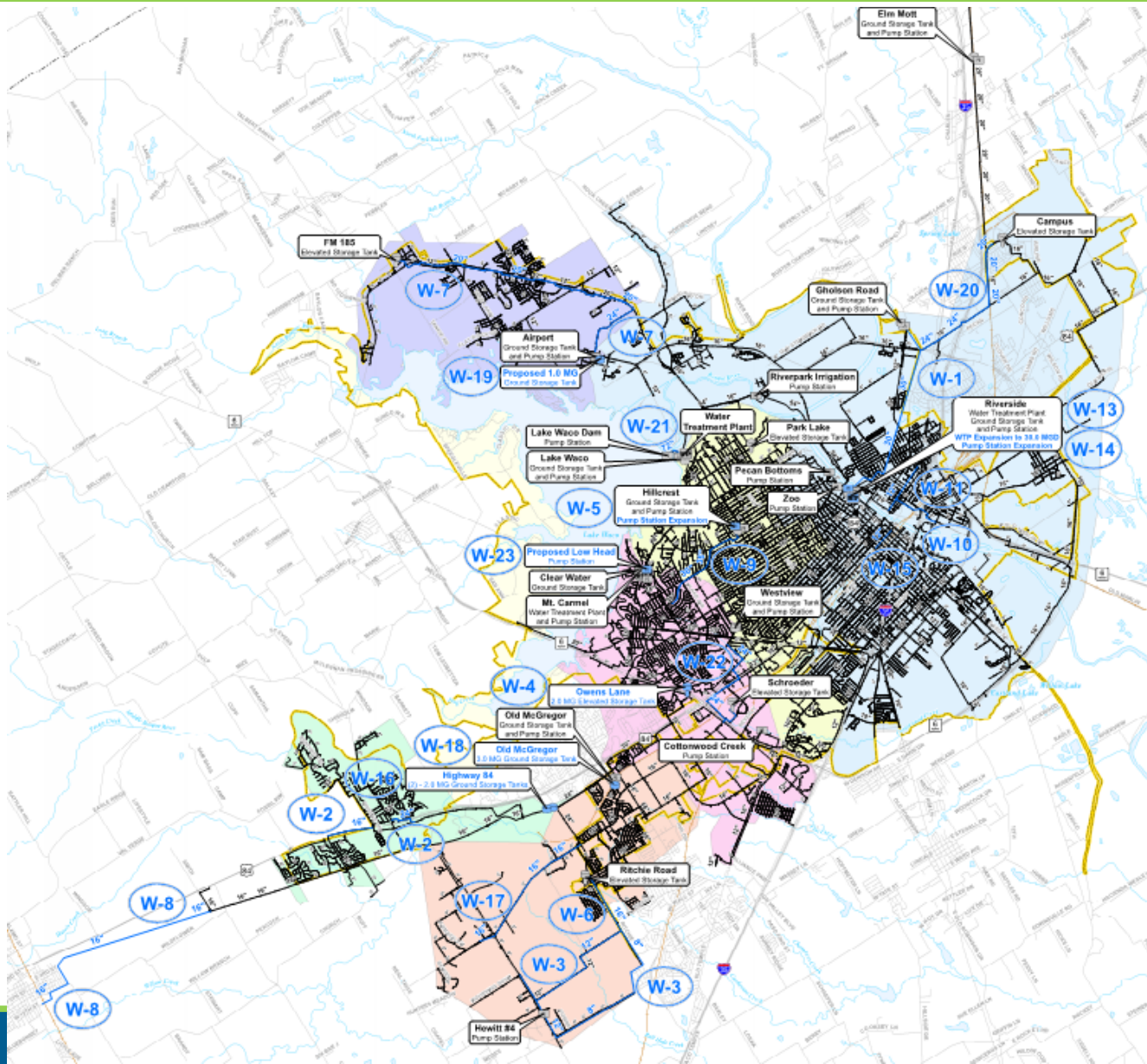
Study Area/Service Area

- The city limits AND extraterritorial jurisdiction (ETJ) for water and wastewater

Water/Wastewater



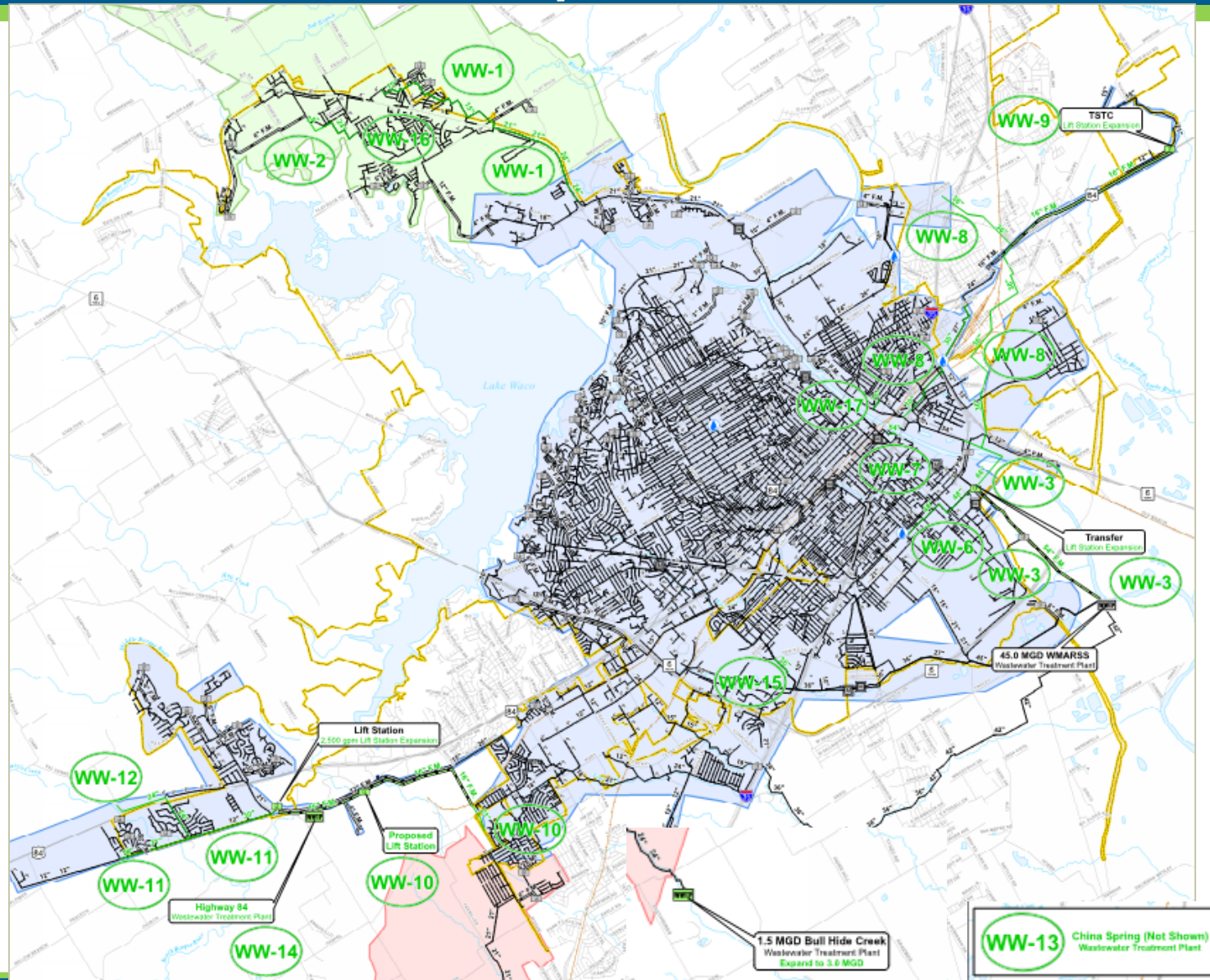
Water Impact Fee CIP



Water Impact Fee CIP

Proj. No.	Description of Project	Percent Utilization			Capital Cost	10-Year (2020-2030)
		2020	2030	2020-2030		
W-1	Riverside to Gholson 30-inch Water Line	50%	75%	25%	\$12,242,880	\$3,060,720
W-2	Highway 84 Water Line Improvements	30%	60%	30%	\$1,442,652	\$432,796
W-3	Spring Valley Water Lines	10%	80%	70%	\$3,848,268	\$2,693,787
W-4	Owen Lane 2.0 MG Elevated Storage Tank	75%	95%	20%	\$3,858,015	\$771,603
W-5	Hillcrest Pump Station Expansion	90%	95%	5%	\$12,902,096	\$645,105
W-6	16-inch Ritchie Road Water Line	30%	80%	50%	\$787,155	\$393,577
W-7	China Spring Water Line	50%	75%	25%	\$16,199,650	\$4,049,913
W-8	McGregor-Waco-Woodway Connection 16" Water Line	0%	30%	30%	\$1,500,000	\$450,000
W-9	Water Transmission Improvements	5%	15%	10%	\$8,000,000	\$800,000
W-10	Peach Street 16-inch Water Line	25%	60%	35%	\$3,500,000	\$1,225,000
W-11	Elm Street 12-inch Water Line	15%	50%	35%	\$1,800,000	\$630,000
W-12	Impact Fee Study	0%	100%	100%	\$124,073	\$124,073
W-13	Riverside Water Treatment Plant Expansion	40%	60%	20%	\$10,363,510	\$2,072,702
W-14	Riverside Pump Station Expansion	40%	60%	20%	\$11,000,000	\$2,200,000
W-15	Downtown Mary Avenue to 5th Street	30%	60%	30%	\$3,000,000	\$900,000
W-16	Pressure Plane 6 Water Storage	40%	90%	50%	\$5,000,000	\$2,500,000
W-17	Chapel Road 24-inch Water Line	5%	50%	45%	\$5,000,000	\$2,250,000
W-18	Old McGregor 3.0 MG Ground Storage Tank	60%	80%	20%	\$4,500,000	\$900,000
W-19	Airport 1.0 MG Ground Storage Tank	50%	75%	25%	\$2,500,000	\$625,000
W-20	20/24-inch Water Line in Pressure Plane 1	30%	60%	30%	\$14,000,000	\$4,200,000
W-21	72-inch Parallel Raw Water Line	75%	85%	10%	\$8,000,000	\$800,000
W-22	16/24-inch Water Line in Pressure Plane 3	50%	75%	25%	\$7,289,740	\$1,822,435
W-23	Low Head Pump Station at Mt. Carmel WTP	80%	90%	10%	\$5,000,000	\$500,000
TOTAL					\$141,858,038	\$34,046,711

Wastewater Impact Fee CIP



Wastewater Impact Fee CIP

Proj. No.	Description of Project	Percent Utilization			Capital Cost	10-Year (2020-2030)
		2020	2030	2020-2030		
WW-1	FM 1637 12/15/21/24-inch Wastewater Line	50%	75%	25%	\$5,773,963	\$1,443,491
WW-2	China Spring 24-inch Wastewater Line	50%	70%	20%	\$14,000,000	\$2,800,000
WW-3	Transfer Lift Station, Force Main, and 66-inch Gravity Line	70%	100%	30%	\$45,500,000	\$13,650,000
WW-4	Impact Fee Study	0%	100%	100%	\$124,073	\$124,073
WW-5	Bull Hide Wastewater Treatment Plant Expansion to 3.0 MGD	30%	50%	20%	\$18,000,000	\$3,600,000
WW-6	Brazos Basin: Gurley Ave	40%	60%	20%	\$7,000,000	\$1,400,000
WW-7	54-inch Wastewater Line at Lake Brazos Park	85%	95%	10%	\$1,000,000	\$100,000
WW-8	Belmead Interceptor / Lacy Lakeview Interceptor	50%	65%	15%	\$16,000,000	\$2,400,000
WW-9	TSTC Lift Station Expansion and Force Main	35%	55%	20%	\$8,000,000	\$1,600,000
WW-10	Cloice Creek and Church Road Lift Stations, Force Mains, and 21-inch	45%	75%	30%	\$10,000,000	\$3,000,000
WW-11	Highway 84 30-inch Wastewater Line	45%	75%	30%	\$6,000,000	\$1,800,000
WW-12	Highway 84 24-inch Wastewater Line	10%	50%	40%	\$4,000,000	\$1,600,000
WW-13	China Spring Wastewater Treatment Plant	50%	95%	45%	\$35,000,000	\$15,750,000
WW-14	Highway 84 Wastewater Treatment Plant	40%	80%	40%	\$35,000,000	\$14,000,000
WW-15	New Quest Wastewater Line	15%	40%	25%	\$600,000	\$150,000
WW-16	24-inch Wastewater Line	50%	70%	20%	\$934,274	\$186,855
WW-17	Bridge 18-inch Wastewater Line	25%	45%	20%	\$650,000	\$130,000
TOTAL					\$207,582,310	\$63,734,419

Service Unit Equivalents (SUE)

Meter Size	Meter Type	Maximum Flow Rate (gpm) ⁽¹⁾	Service Unit Equivalent
5/8"	Displacement	15	1.00
1"	Displacement	40	2.67
1.5"	Class II Turbine	100	6.67
2"	Class II Turbine	160	10.67
3"	Class II Turbine	350	23.33
4"	Class II Turbine	630	42.00
6"	Class II Turbine	1,400	93.33
8"	Class II Turbine	2,400	160.00
10"	Class II Turbine	3,800	253.33

(1) Maximum flow rate is based on Table 5-3 in AWWA Manual M6.

Projected Service Units

Meter Size	2020		2030		Growth in Service Units
	Meters	Service Units	Meters	Service Units	
5/8"	42,697	42,697	50,443	50,443	7,746
1"	2,893	7,715	3,315	8,840	1,125
1.5"	1,355	9,033	1,553	10,353	1,320
2"	521	5,557	597	6,368	811
3"	188	4,387	215	5,017	630
4"	97	4,074	111	4,662	588
6"	31	2,893	35	3,267	373
8"	10	1,600	11	1,760	160
10"	3	760	3	760	0
Total	47,795	78,716	56,283	91,470	12,753

Impact Fee Calculations

- Only percent of project utilized in the 10-year period is eligible
- Impact fees calculated by dividing eligible CIP by growth in service units

$$\text{Impact Fee per Service Unit} = \frac{\text{IFCIP Cost - Credit}}{\text{New Service Units}}$$

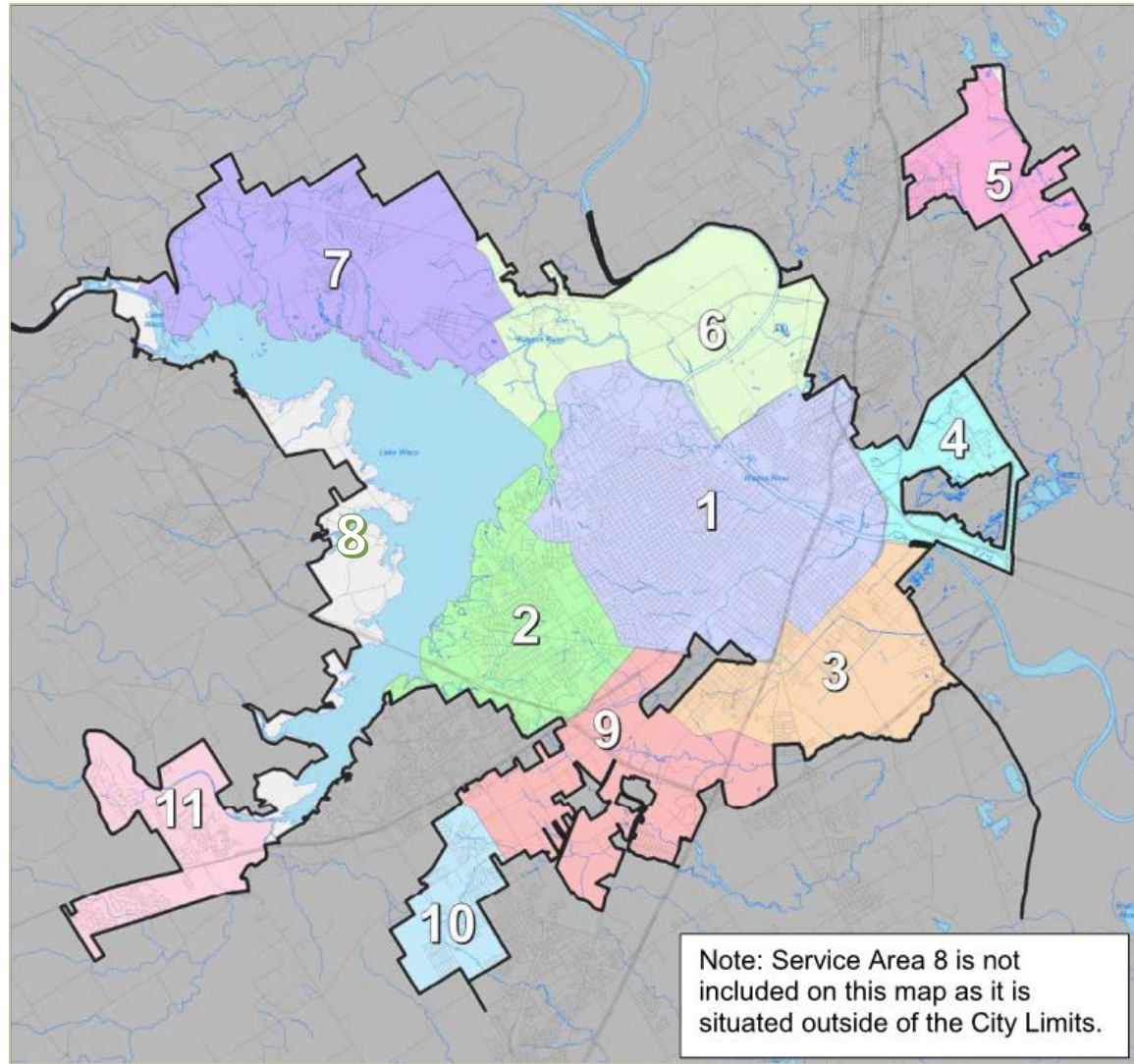
Water/Wastewater Impact Fee

		Water	Wastewater
1	Total Eligible Capital Improvement Costs	\$34,046,711	\$63,734,419
2	Recoverable Cost for Impact Fee Planning Period	\$17,023,355	\$31,867,209
3	Financing Costs (From Financial Analysis)	\$6,531,589	\$15,091,715
4	Interest Earnings (From Financial Analysis)	(\$541,910)	(\$1,371,302)
5	Total Eligible Impact Fee Costs	\$23,013,034	\$45,587,622
6	Growth in Service Units	12,753	12,753
7	Maximum Impact Fee per Service Unit	\$1,804	\$3,574

Roadway Impact Fees

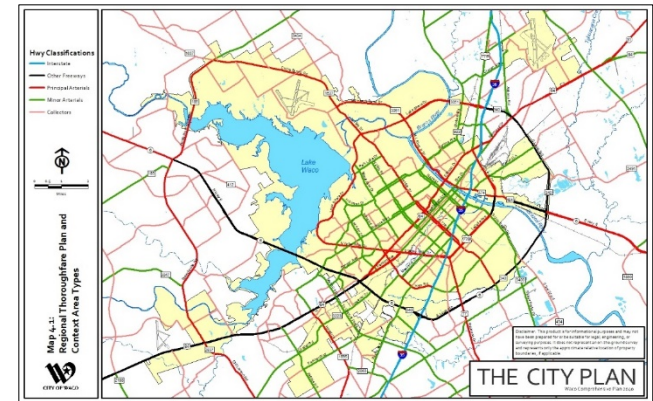
Roadway Service Areas

- 11 SAs identified
- Within city limits
- Fees must be spent in the service area in which they are captured



Roadway CIP Development

- Identification of eligible projects from Thoroughfare Plan
- Focus on capacity enhancements
- Forecast of 10-year demands
- Evaluation of projects to address 10-year need
 - MPO Project Coordination
 - City Capital Project Planning
 - City Staff Input
 - Project achievability
- CIP presented to Developer Committee (Dec 4, 2019), CIAC (January 22, 2020) and City Council Public Hearing (Mar 16, 2020)



VMT Forecast

Vehicle-Mile Trip Generation by Service Area, Waco Impact Fee

Based on 2020-2030 Land Use Assumptions dated June 2019

Total Vehicle-Mile Generation Summary

Service Area	Residential Growth Vehicle-Miles	Basic Emp Growth Vehicle-Miles	Service Emp Growth Vehicle-Miles	Retail Emp Growth Vehicle-Miles	Total Growth Vehicle-Miles
1	7,258	1,279	4,412	2,998	15,947
2	1,408	248	1,864	1,130	4,650
3	2,810	390	493	600	4,293
4	525	33	47	45	650
5	54	1,479	94	23	1,650
6	1,229	296	388	89	2,002
7	2,666	355	399	459	3,879
8	0	0	0	0	0
9	1,907	5,986	1,354	1,720	10,967
10	2,272	120	165	79	2,636
11	1,514	356	152	72	2,094
Total	21,643	10,542	9,368	7,215	48,768

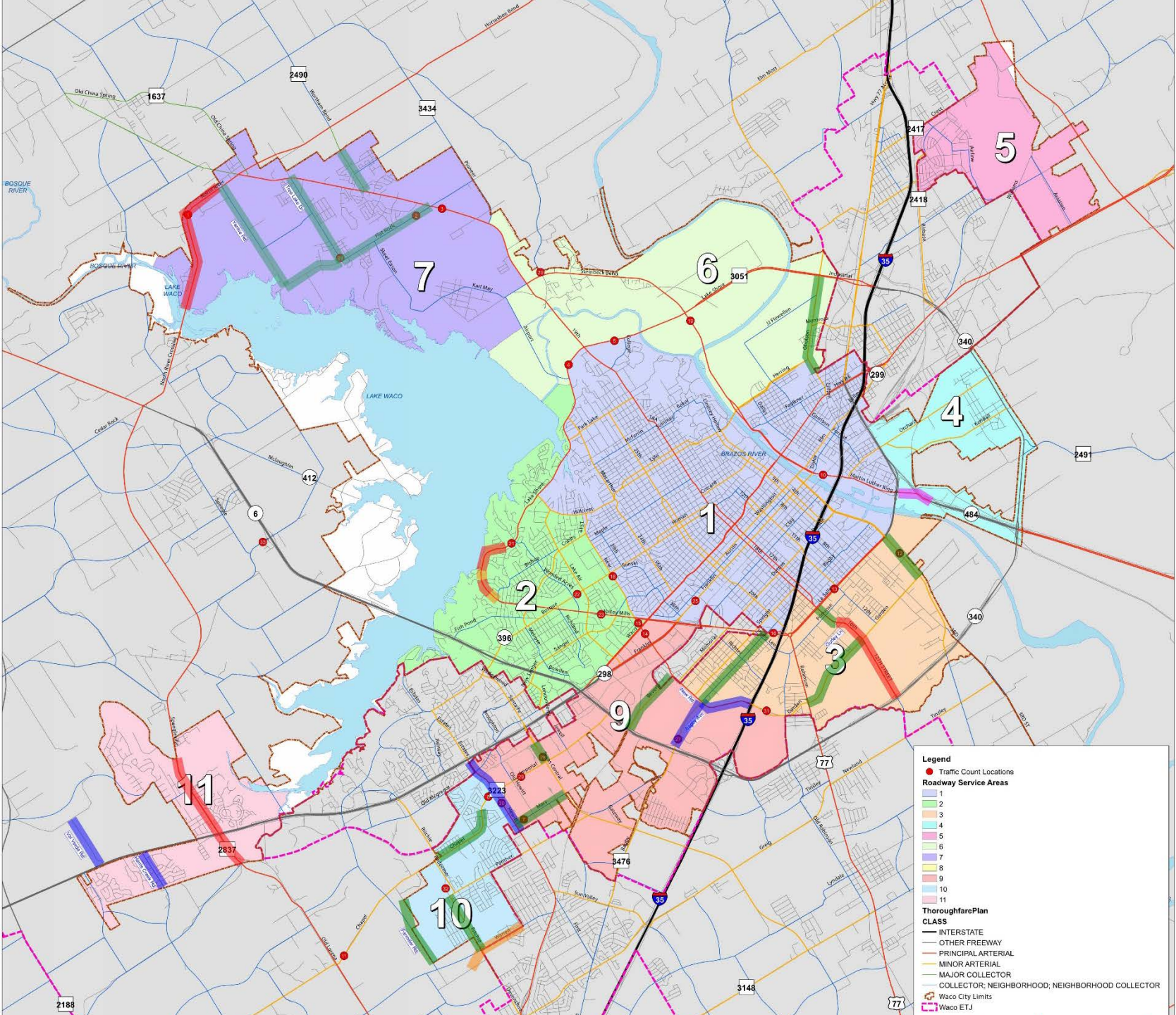


- ADD 4 LANES
- ADD 2 LANES
- ADD 1 LANE

DRAFT Roadway Impact Fee Capital Improvements Plan



0 0.5 1 2
Miles



CIP Costing

- Project cost estimate worksheets
- Costing:
 - Construction – 42 cost estimate worksheets
 - Engineering - 9% of construction
 - ROW - \$1.00/sf
- Review by Walker Partners

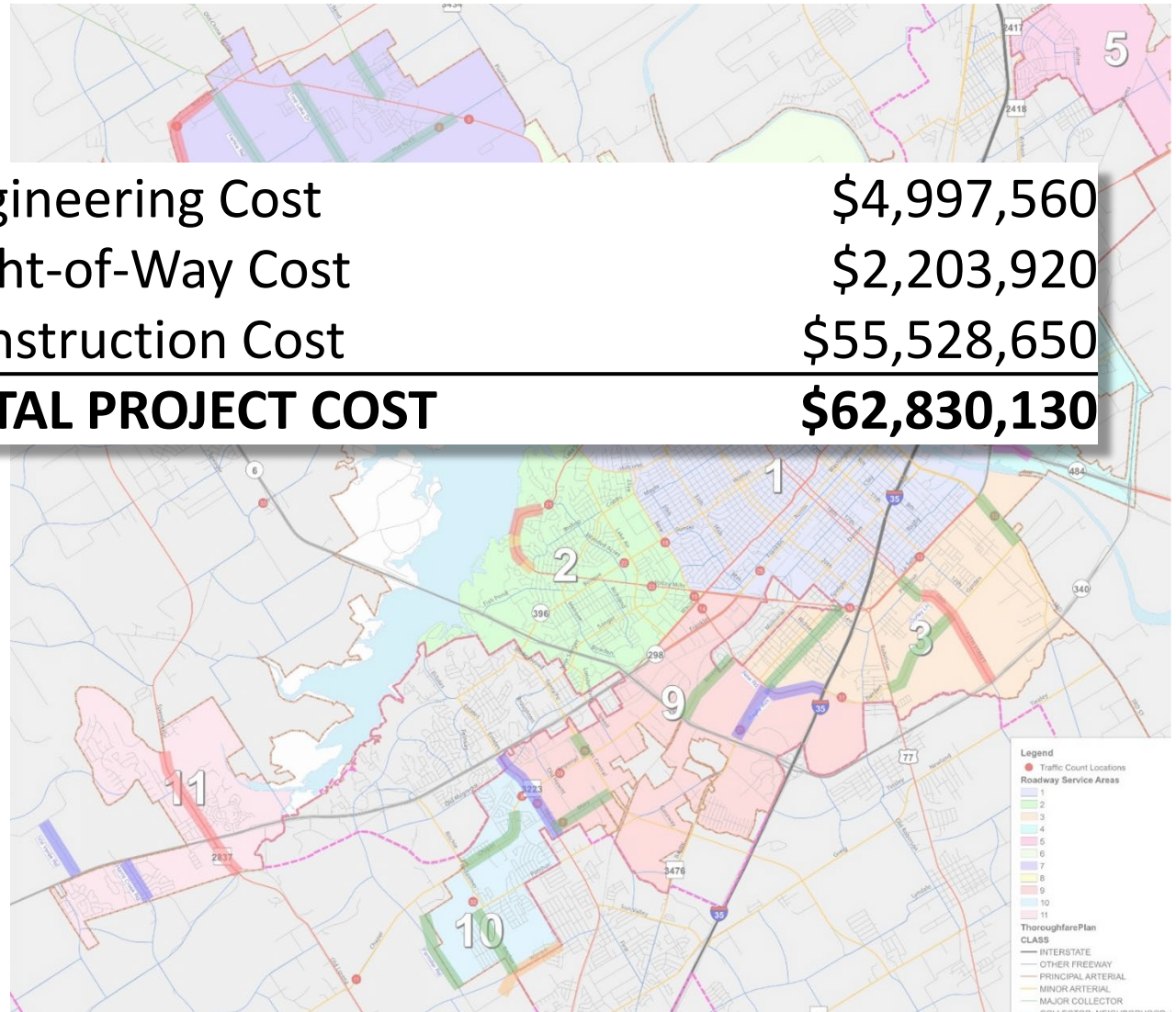
ROADWAY



Roadway CIP Summary

Summary:

Engineering Cost	\$4,997,560
Right-of-Way Cost	\$2,203,920
Construction Cost	\$55,528,650
TOTAL PROJECT COST	\$62,830,130

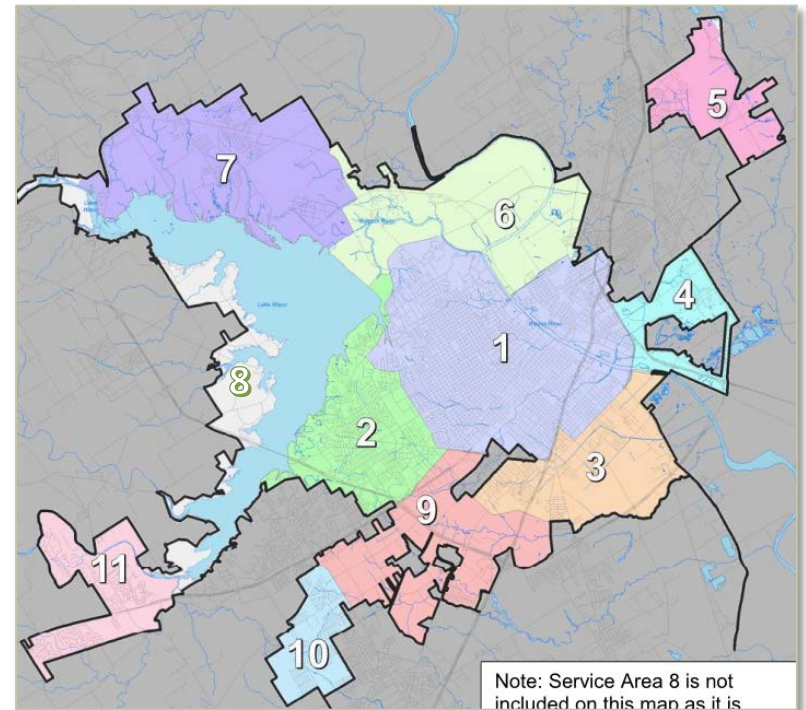


Roadway Impact Fee

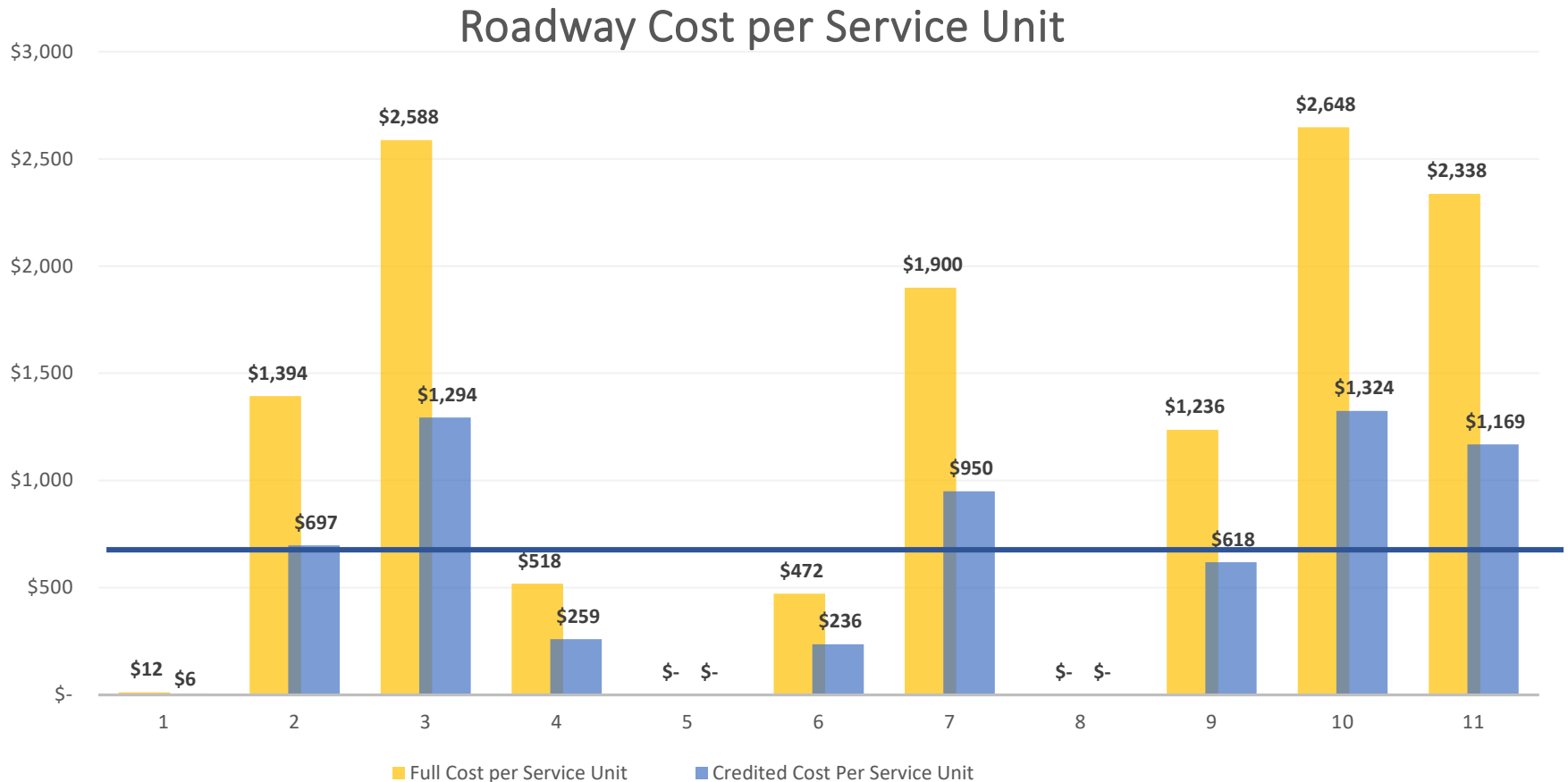
SERVICE AREA:		1	2
1	FNI Project Cost	\$ 204,914	\$ 4,355,135
2	Recoverable Cost for Impact Fee Planning Period	\$ 66,333	\$ 2,102,651
3	Financing Costs (From Financial Analysis)	\$ 39,657	\$ 1,265,970
4	Interest Earnings (From Financial Analysis)	\$ (3,934)	\$ (125,579)
5	Recoverable Cost of Roadway Impact Fee and Financing Costs	\$ 102,056	\$ 3,243,042
6	Growth in Service Units	15,947	4,650
7	Maximum Impact Fee per Service Unit	\$6	\$697

Cost per Service Unit Calculation

Roadway Service Area	Maximum Fee per Service Unit (Vehicle Mile)
1	\$6
2	\$697
3	\$1,294
4	\$259
5	\$0
6	\$236
7	\$950
8	\$0
9	\$618
10	\$1,324
11	\$1,169



Cost per Service Unit Calculation



Land Use Equivalency Table

Land Use Category	ITE Code	Development Unit	Trip Rate w/ Reductions (PM Peak)	O-D Adjusted Trip Length (mi)	Service Unit Equivalency
RESIDENTIAL					
Single-Family Detached Housing	210	Dwelling Units	0.99	3.23	3.20

Land Use Category	ITE Code	Development Unit	Trip Rate w/ Reductions (PM Peak)	O-D Adjusted Trip Length (mi)	Service Unit Equivalency
RESIDENTIAL					
Single-Family Detached Housing	210	Dwelling Units	0.99	3.23	3.20
Multifamily Housing (Low-Rise)	220	Dwelling Units	0.56	3.23	1.81
Multifamily Housing (Mid-Rise)	221	Dwelling Units	0.44	3.23	1.42
Off-Campus Student Apartment	225	Bedrooms	0.25	0.97	0.24
Mid-Rise Residential with 1st-Floor Commercial	231	Dwelling Units	0.36	2.77	1.00
Senior Adult Housing - Detached	251	Dwelling Units	0.30	2.88	0.86
Assisted Living	254	Beds	0.26	1.48	0.38
Continuing Care Retirement Community	255	Dwelling Units	0.16	2.88	0.46
OFFICE					
General Office Building	710	1,000 Sq Ft GFA	1.15	4.30	4.95
Medical-Dental Office Building	720	1,000 Sq Ft GFA	3.46	3.48	12.04
United States Post Office	732	1,000 Sq Ft GFA	3.36	2.88	9.68
Research and Development Center	760	1,000 Sq Ft GFA	0.49	4.30	2.11
COMMERCIAL/RETAIL					

High-Care Commercial Center Warehouse	230	1,000 Sq Ft GFA	1.37	4.3	3.83
Data Center	160	1,000 Sq Ft GFA	0.09	4.3	0.39
INSTITUTIONAL					
Private School (K-8)	534	Students	0.26	1.41	0.37
Private School (K-12)	536	Students	0.17	1.41	0.24
Charter Elementary School	537	Students	0.14	1.41	0.20
Junior/Community College	540	Students	0.11	1.44	0.16
University/College	550	Students	0.15	1.71	0.26
Church	560	1,000 Sq Ft GFA	0.49	0.85	0.42
Day Care Center	565	Students	0.20	0.56	0.11

- Sub-Categories

Impact Fee Calculation

ROADWAYS - A Two Step Process:

Step 1: Determine number of service units (vehicle-miles) generated by the development using the equivalency table.

No. of Development Units	x	Vehicle-miles per development unit	=	Development's Vehicle-miles
--------------------------	---	------------------------------------	---	-----------------------------

Step 2: Calculate the impact fee based on the fee per service unit for the roadway service area where the development is located.

Development's Vehicle-miles	x	Cost per Vehicle-mile	=	Impact Fee due from Developer
-----------------------------	---	-----------------------	---	-------------------------------

WATER/WASTEWATER:

Determine the service unit equivalency based on the development's meter connection size. Calculate the impact fee based on the fee per service unit.

Service Unit Equivalency	x	Cost per Service Unit	=	Impact Fee due from Developer
--------------------------	---	-----------------------	---	-------------------------------

Impact Fee Calculation

Example: New Development located in Service Area 2 with the collection rates of Roadway at \$697 per vehicle-mile; Water at \$1,804 per service unit; and Wastewater at \$3,574 per service unit.

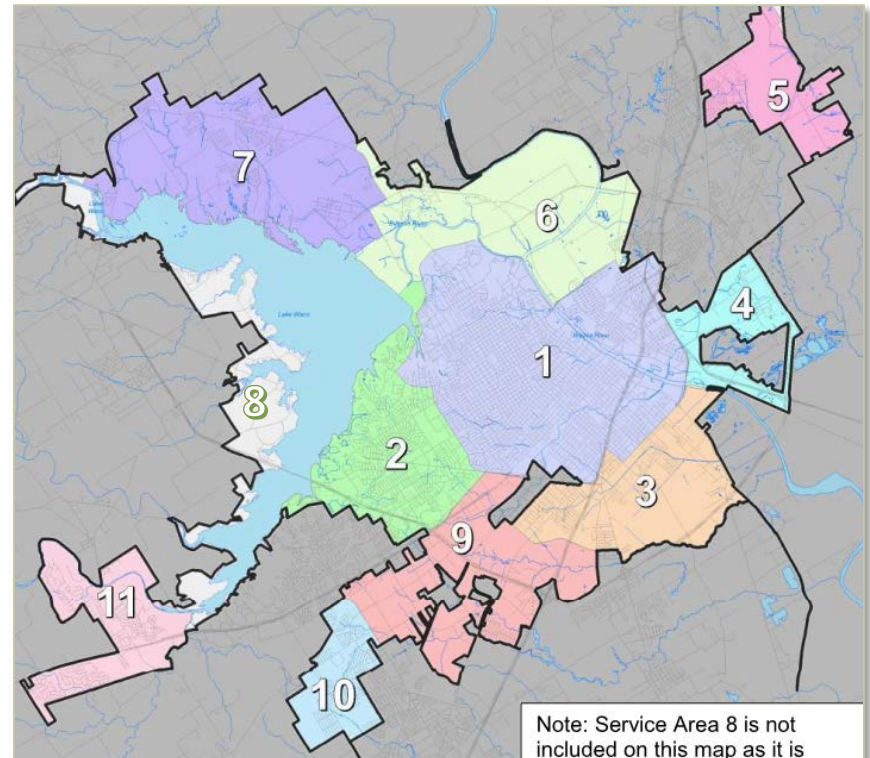
Single-Family Dwelling

Roads:	1 dwelling unit x 3.20 veh-miles/dwelling unit = 3.20 veh-miles	
	3.20 veh-miles x \$697/veh-mile =	\$2,230.40
Water (5/8" Meter):	1.00 service units x \$1,804.52/service unit =	\$1,804.52
Wastewater (5/8" Meter):	1.00 service units x \$3,574.66/service unit =	\$3,574.66
Total Impact Fee:	Roads + Water + Wastewater =	<u>\$7,608.58</u>

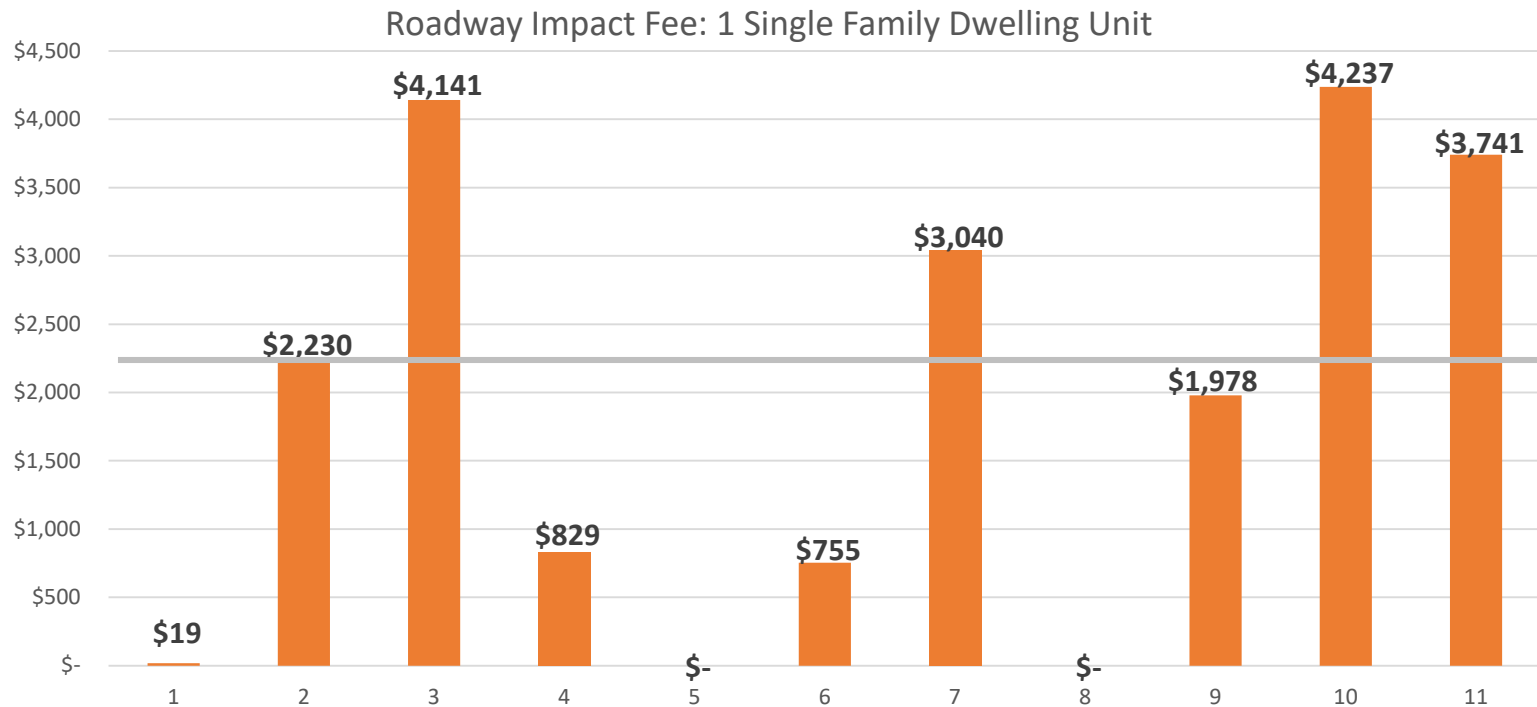
Next Steps

Policy Considerations for Collections

- Uniform Fee (i.e. 10% of max)
- Fee Variation (Water/Wastewater vs. Roads)
- Residential vs. Non-residential
- Special Considerations
 - Incremental Increases
 - Effective Date
 - Target Area Strategies
 - Exempt approved plats
 - Previous Platting

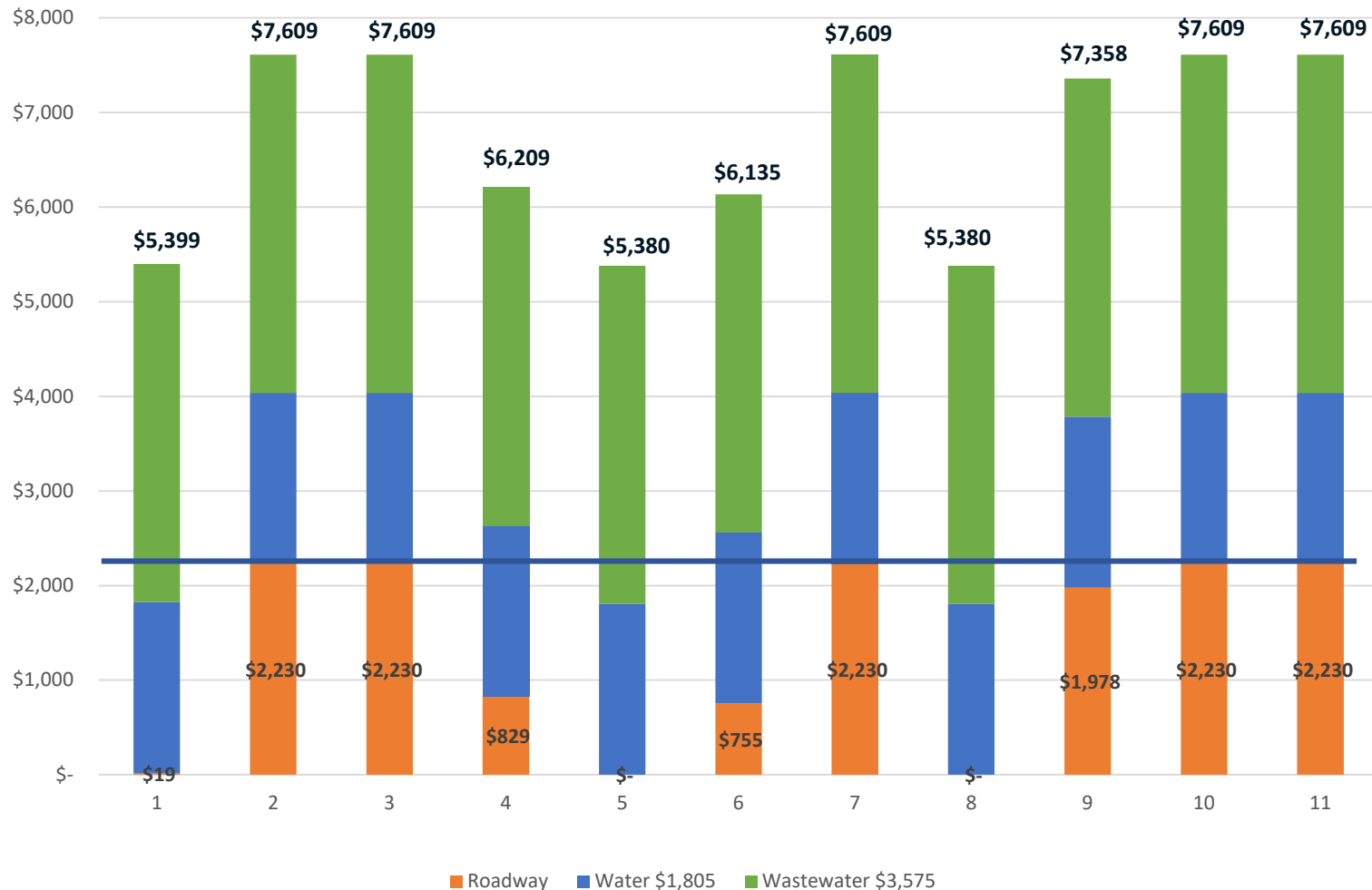


Roadway – Single Family Home

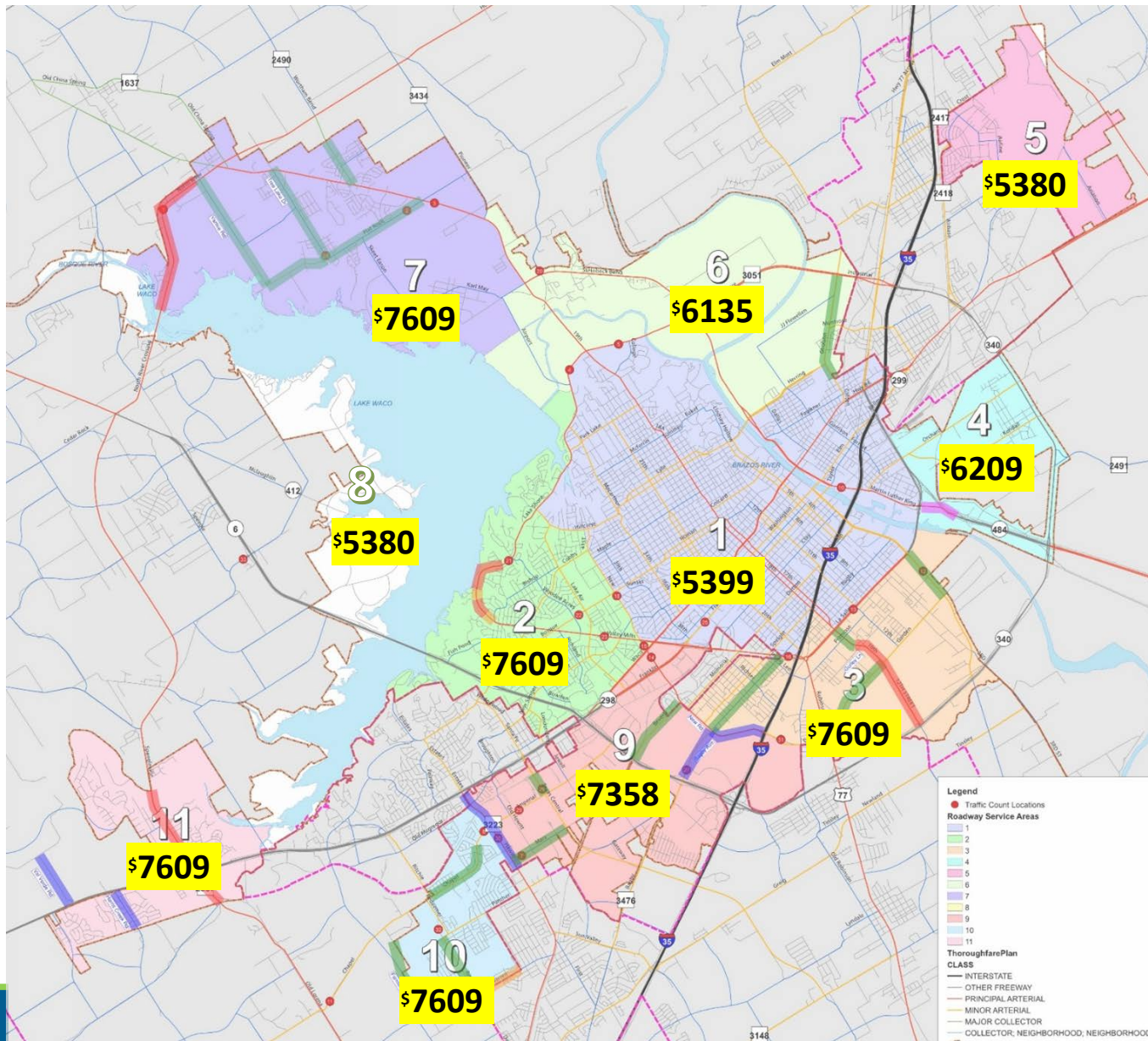


Single Family Home by Roadway SA

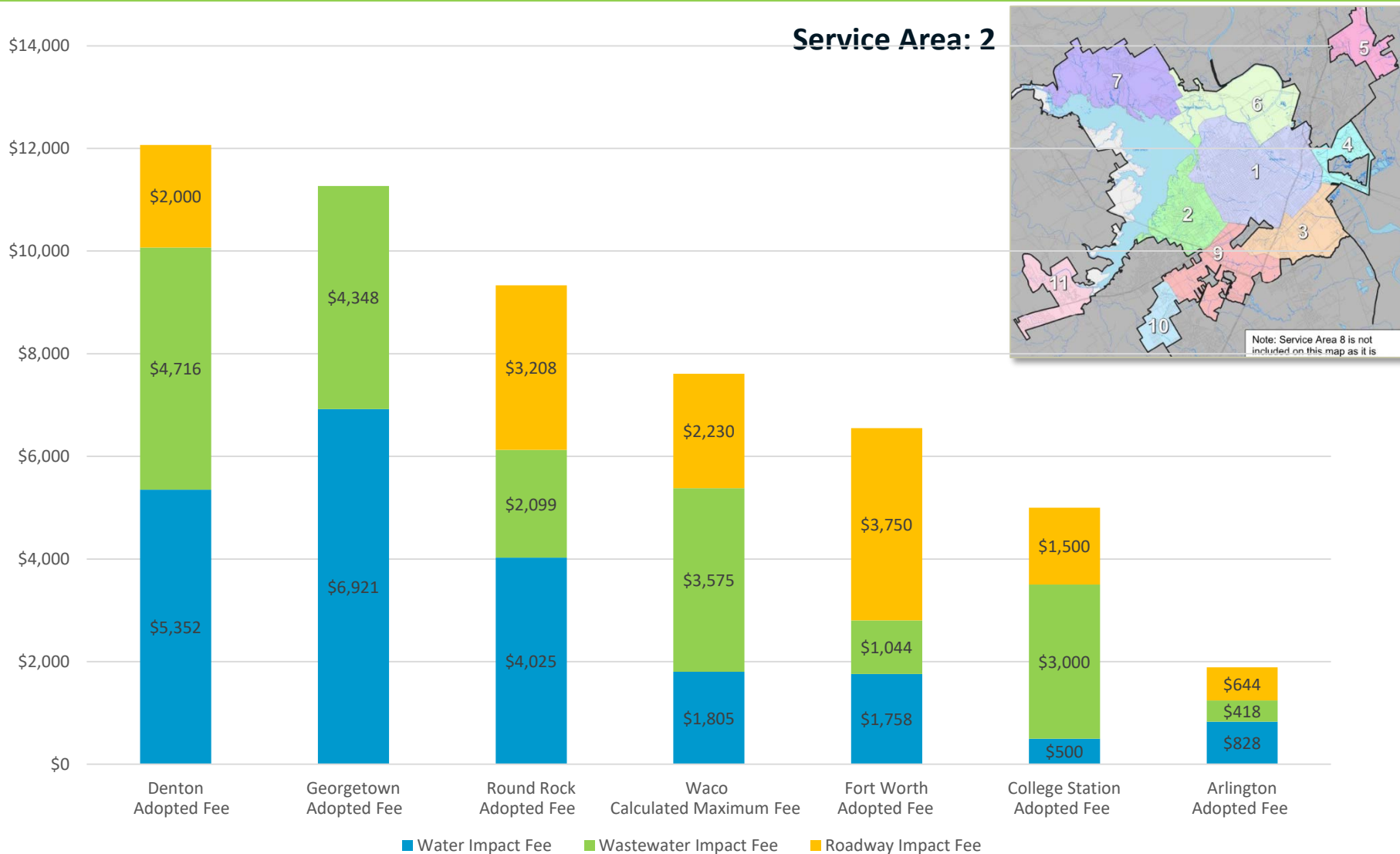
Roadway Service Area: 2



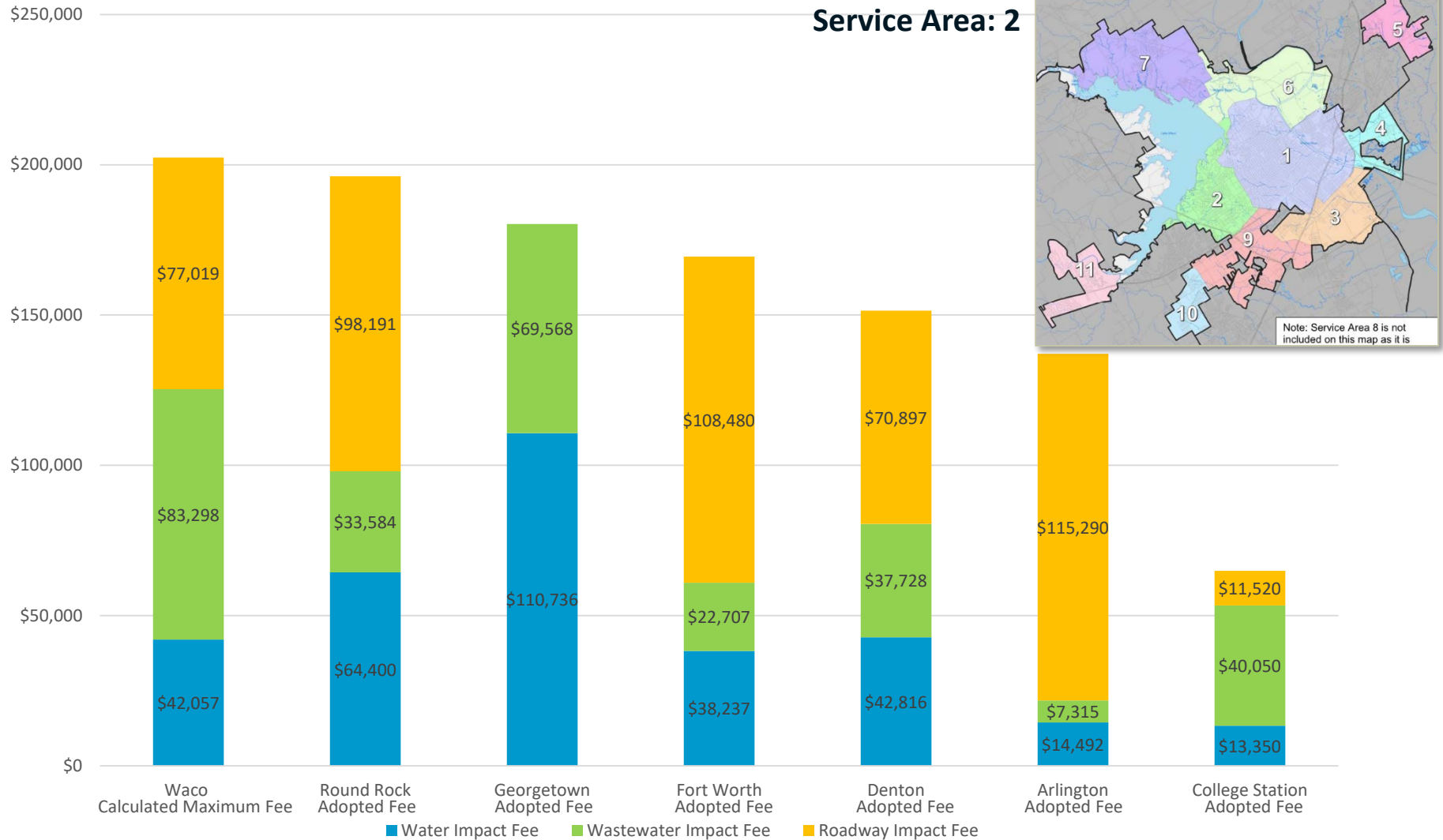
Total Impact Fee – 1 SF Residential



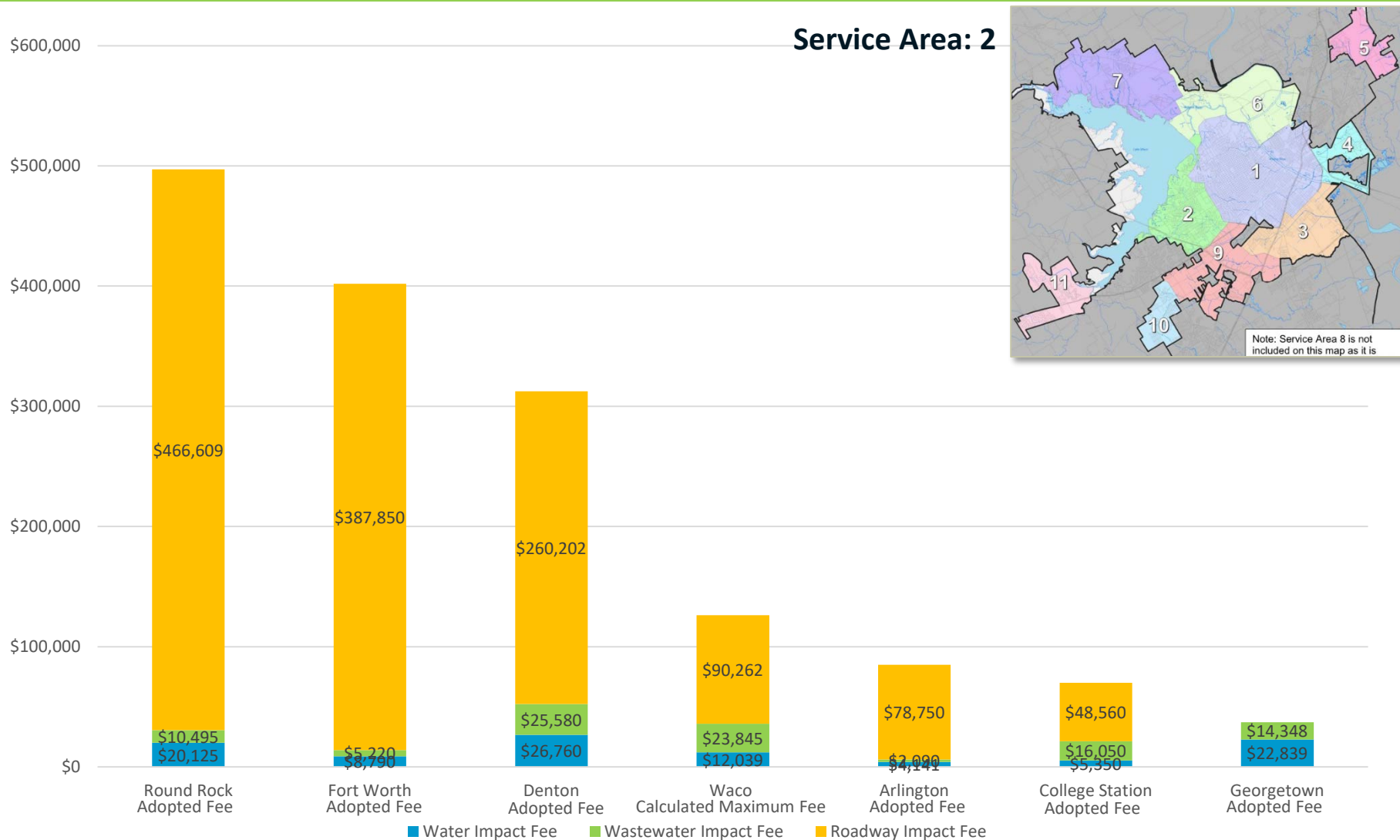
Benchmarking – Single Family Home



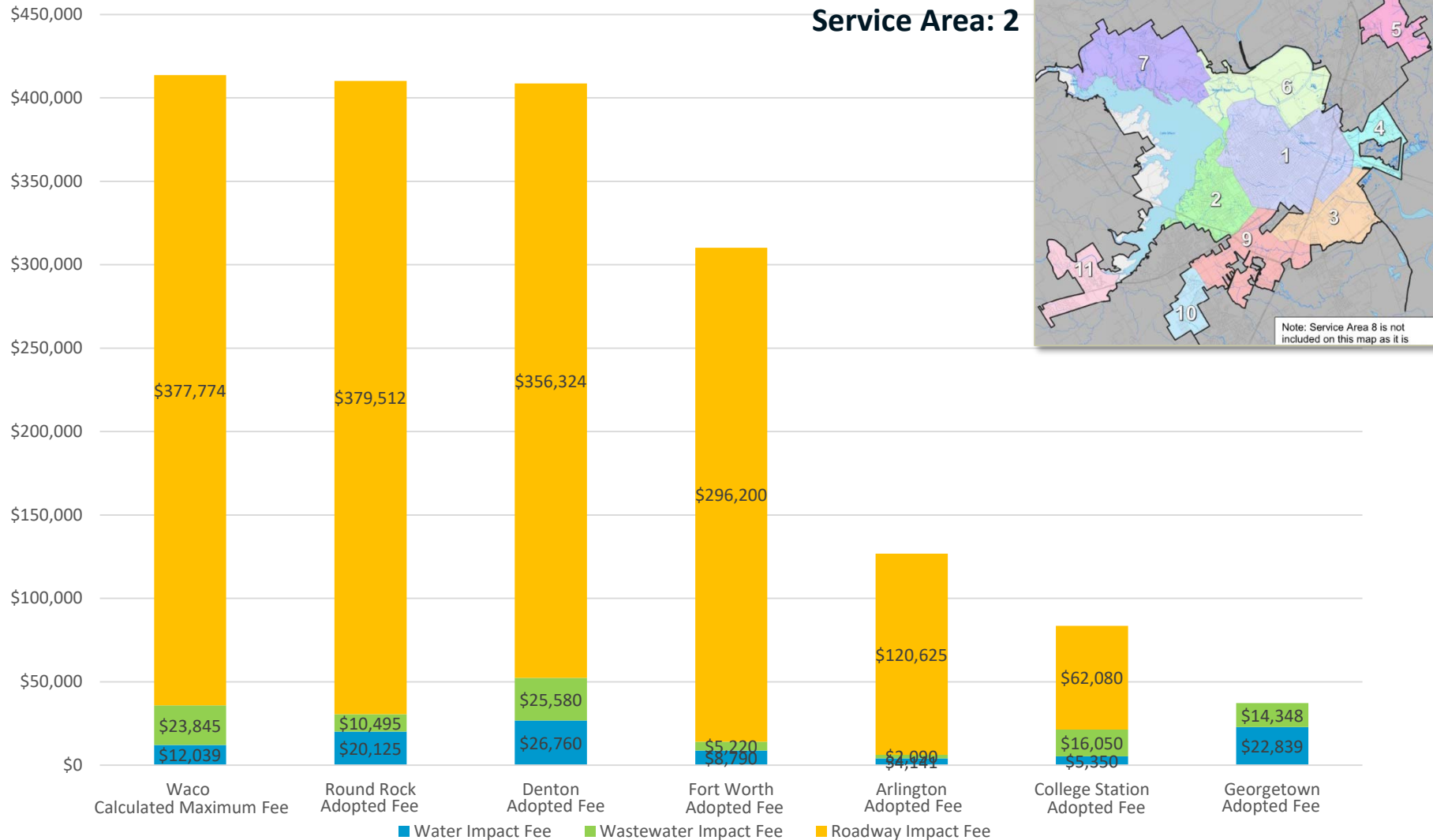
Benchmarking – Hotel



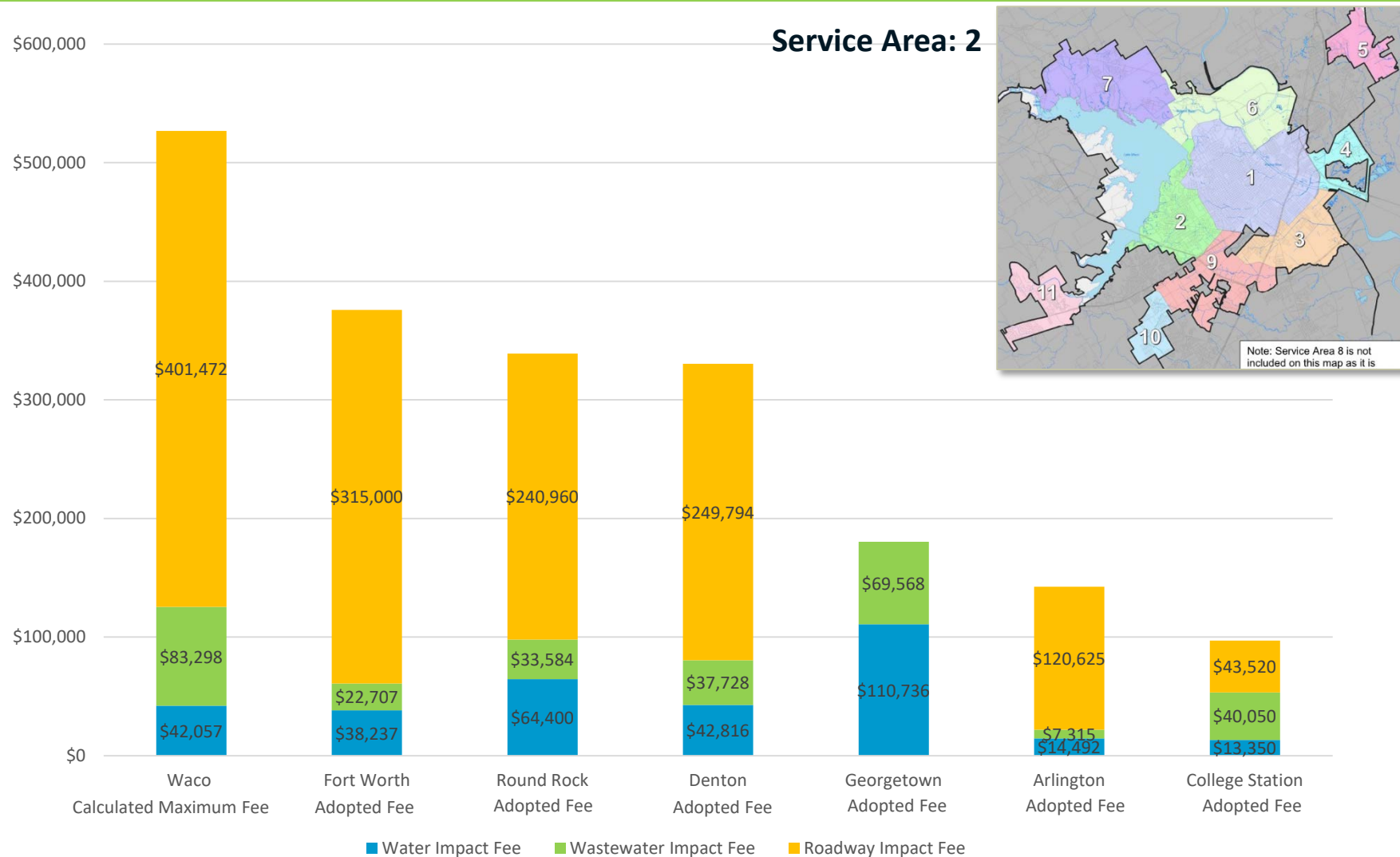
Benchmarking – Grocery Store



Benchmarking – 200,000 SF Light Industrial

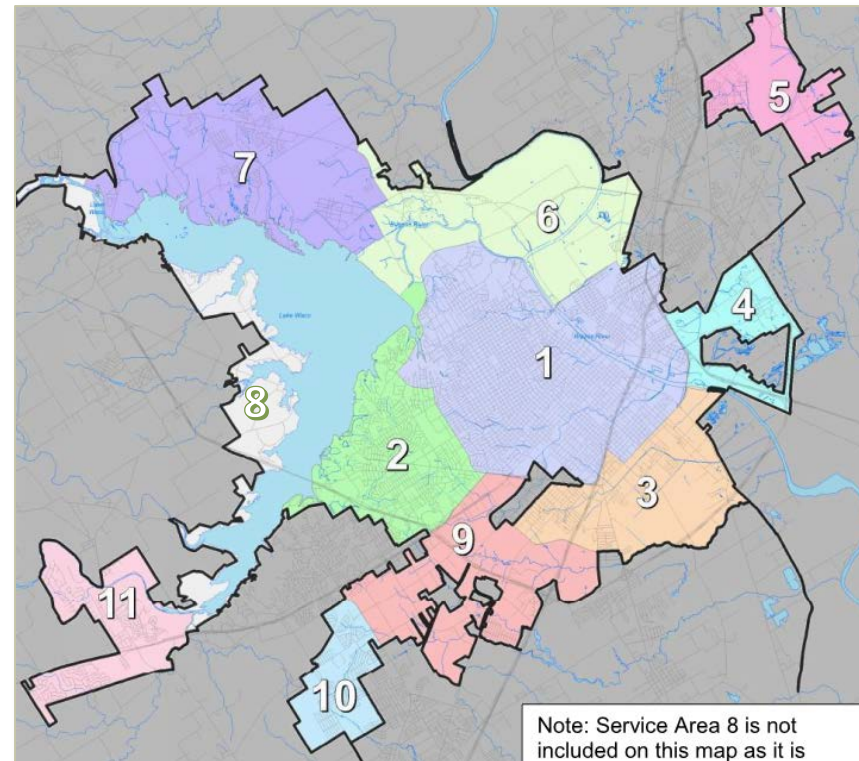


Benchmarking – 200,000 SF Heavy Industrial



Policy Considerations for Collections

- Uniform Fee (i.e. 10% of max)
- Fee Variation (Water/Wastewater vs. Roads)
- Residential vs. Non-residential
- Special Considerations
 - Incremental Increases
 - Effective Date
 - Target Area Strategies
 - Exempt approved plats
 - Previous Platting



Questions & Discussion
