

City of Mesa

Water Resources Department

City Council Study Session

Water & Wastewater

Capacity Fee

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September 11, 2025

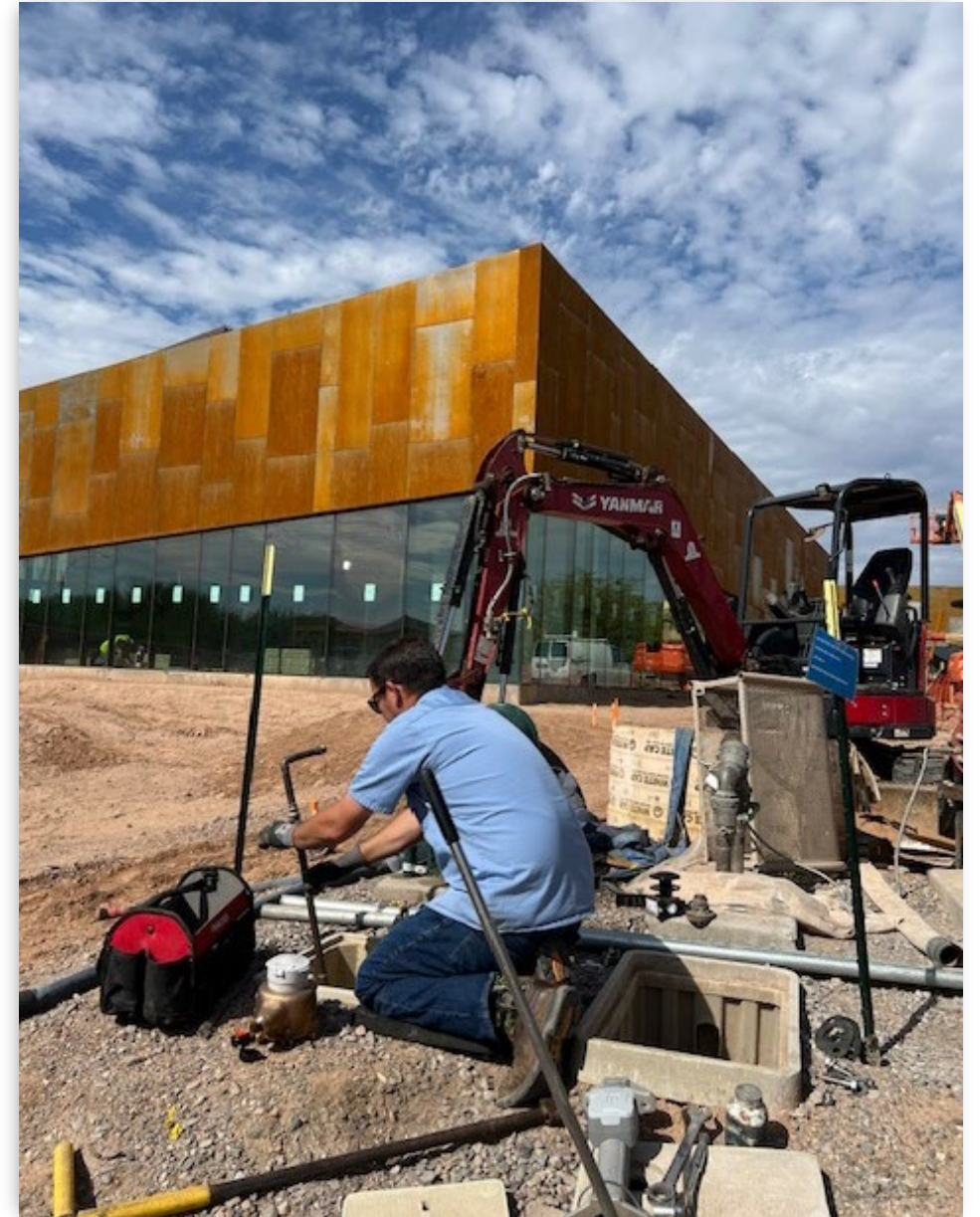
Presentation Overview

- What is a Capacity Fee
- How is the Capacity Fee calculated
- What type of projects will the fee fund



What is a Capacity Fee

- Capacity fees are a one-time charge for a new or upsized connection to the water and/or wastewater system as authorized by A.R.S. § 9-511.01
- The fee is designed to recover the growth-related portion of the cost of constructing any additional water and wastewater system capacity
- Fees will be directed to the “Utility Capacity Fee Fund”



City of Mesa Integrated Master Plan

City Project No. CP0899
 BV Project No. 414131

Legend

- Community Commercial
- Neighborhood Commercial
- Regional Commercial
- General Industrial
- Light Industrial
- Mixed Use/Employment
- Mixed-Use/Community
- Business Park
- Office
- Education
- Public/Semi-Public
- Low Dens Res (0-1 dupa)
- Low Dens Res (1-2 dupa)
- Med Dens Res (2-4 dupa)
- Med Dens Res (4-6 dupa)
- Med Dens Res (6-10 dupa)
- High Dens Res (10-15 dupa)
- High Dens Res (15+ dupa)
- Mixed Use/Res (30% at 15+ dupa)
- Town Center (25% at 15+ dupa)
- Open Space
- Parks

Other Features

- Boundary
- Highways
- Streets
- Canals
- Railroads
- Light Rail Track
- Salt River
- Airport

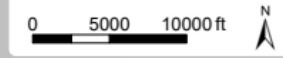
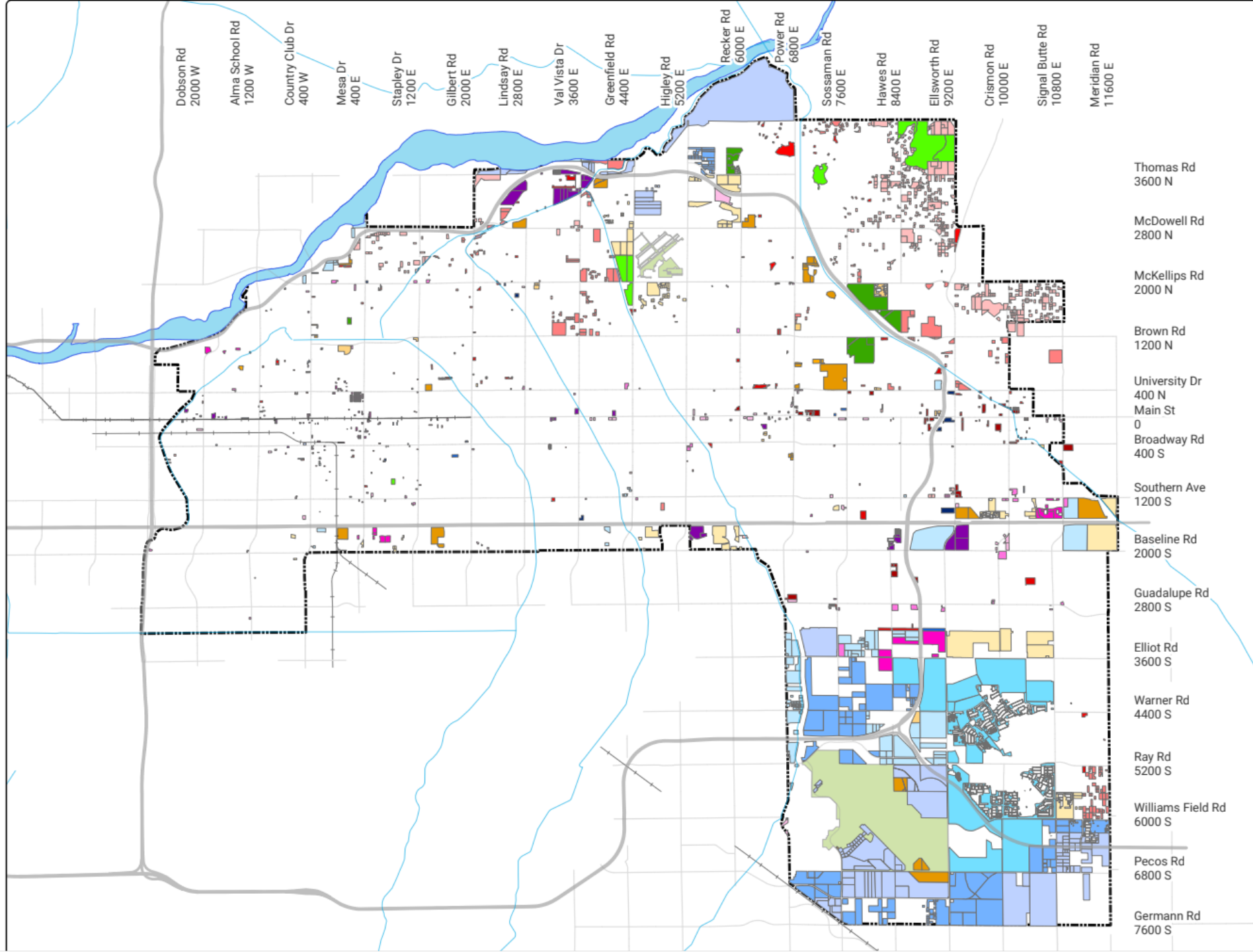


Figure 2-8
Vacant/Underdeveloped
Land Use Classification



How is the Capacity Fee calculated

- The City utilized AWWA's *Principles of Water Rates, Fees, and Charges – Manual of Water Supply Practices M1* in developing the methodology to calculate the capacity fees
- The *incremental cost or marginal cost method* was chosen
- The recently completed 2025 Integrated Master Plan identified projects that added capacity in the next 10 years

FINAL

INTEGRATED MASTER PLAN Final Report

CITY OF MESA PROJECT NO. CP0899

BLACK & VEATCH PROJECT NO. 414131



PREPARED FOR



City of Mesa

APRIL 2025



In association with:



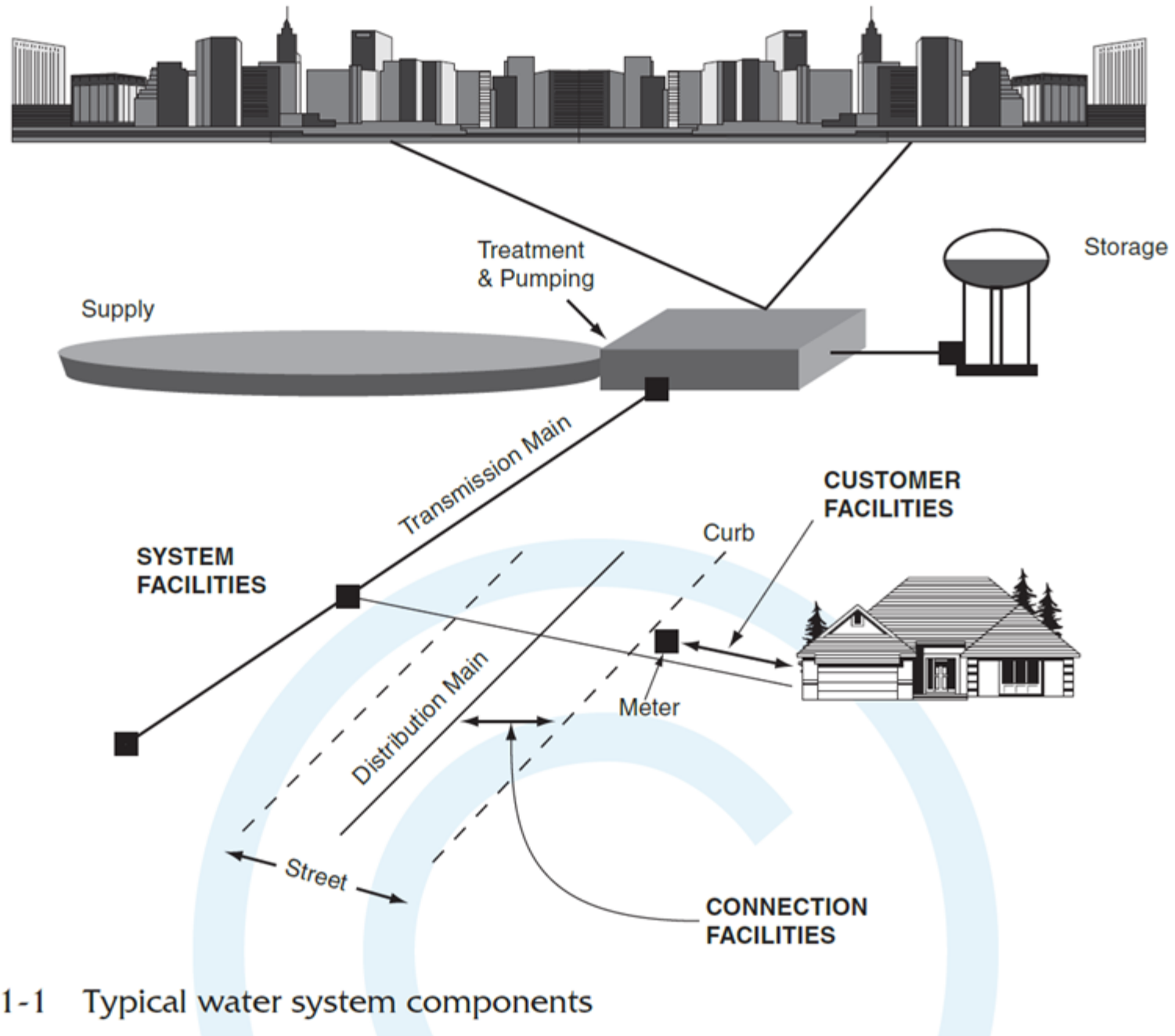


Figure VI.1-1 Typical water system components

Capacity Fee Calculation

$$\text{Capacity Cost} \div \text{System Capacity} = \text{Unit Cost}$$

$$\text{Unit Cost} \times \text{Service Unit} = \frac{3}{4}'' \text{ Equivalent Meter Fee}$$

Capacity Costs

Table 1 – Water Capacity Projects

Water Treatment Plants	\$	200,703,730
Pump Stations	\$	16,890,013
Pipelines	\$	13,765,000
Groundwater Wells	\$	89,121,111
Misc - Master Planning	\$	355,342
Water Total	\$	320,835,196

Table 2 – Wastewater Capacity Projects

Lift Stations	\$	7,226,205
Pipelines	\$	67,793,535
Misc - Master Planning	\$	179,552
Wastewater Total	\$	75,199,292

Water Service Units

Table 3 – Water Service Unit

Water Service Unit	
Number of 3/4" Meters	128,873
Annual Water Demand for all 3/4" Meter Customers (gallons/year)	12,070,875,000
Annual Water Demand per Average 3/4" Meter Customer (gallons/year)	93,665
Average Daily Water Demand per 3/4" Meter Customer (gpd)	257
Average Day Demand to Max Day Demand Peaking Factor	1.50
Max Day Water Demand per 3/4" Meter (gpd)	385

Wastewater Service Units

Table 4 – Wastewater Service Unit

Wastewater Service Unit	
Number of 3/4" Meters	128,873
90% of monthly average of 3 Lowest Winter Months Meter Demand (gallons/month)	720,834,000
Average Monthly Wastewater flow per 3/4" Meter Customer (gallons/month)	5,593
Average Daily Wastewater flow per 3/4" Meter Customer (gpd)	186
Average Day to Max Day Wastewater Flow Factor	1.10
Max Day Wastewater Flow per 3/4" Meter (gpd)	205

Water & Wastewater Capacity Fee Calculation

Table 5 – Water Capacity Fee Calculation

Water Capacity Fee Calculation	
Capacity Cost	\$320,835,196
System Capacity (gpd)	16,000,000
Unit Cost (\$/gpd)	\$20.05
Service Unit (gpd)	385
3/4" Equivalent Meter Fee	\$7,719

Table 6 – Wastewater Capacity Fee Calculation

Wastewater Capacity Fee Calculation	
Capacity Cost	\$75,199,292
System Capacity (gpd)	8,524,900
Unit Cost (\$/gpd)	\$8.82
Service Unit (gpd)	205
3/4" Equivalent Meter Fee	\$1,809

Capacity Fee Table by Meter Size

Table 8 – Capacity Fee Table

Meter Size	Max Continuous Flow (gpm)	Multiplier	Water	Wastewater	Total
0.75"	30	1.00	\$7,719	\$1,809	\$9,528
1"	50	1.67	\$12,864	\$3,015	\$15,880
1.5"	100	3.33	\$25,729	\$6,030	\$31,759
2"	160	5.33	\$41,166	\$9,649	\$50,814
3"	320	10.67	\$82,331	\$19,297	\$101,629
4"	800	26.67	\$205,829	\$48,243	\$254,072
6"	1,500	50.00	\$385,929	\$90,456	\$476,385
8"	3,500	116.67	\$900,501	\$211,065	\$1,111,566
10"	5,500	183.33	\$1,415,072	\$331,673	\$1,746,746

Fee Comparison for a ¾” Meter

Table 9 – Fee Comparison (based on ¾” meter)

	Water	Wastewater	Total
Phoenix - Northwest Area	\$20,442	\$8,951	\$29,393
Gilbert - GWRP Area	\$14,136	\$4,467	\$18,603
Phoenix - Estrella Area	\$8,099	\$6,599	\$14,698
Chandler	\$5,331	\$8,984	\$14,315
Flagstaff	\$8,146	\$4,086	\$12,232
Proposed Mesa	\$7,719	\$1,809	\$9,528
Scottsdale	\$5,003	\$2,696	\$7,699
Glendale	\$3,330	\$3,795	\$7,125
Tempe	\$2,472	\$1,994	\$4,466
Existing Mesa	\$0	\$0	\$0

Conclusions

- Proposed Capacity Fee eases financial burden on all rate payers
- Protects existing customers from the cost of new growth
- Frees up capital funds to spend on needed life cycle replacement projects





NEXT STEPS

- September 22** - City Council Action on Notice of Intent
- November 17** - Introduction of Capacity Fee Ordinance
- December 1** - City Council Action on Capacity Fee
- January 1** - Effective Date of Capacity Fee



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