City of Mesa
Water Resources Department
City Council Study Session

Water & Wastewater
Capacity Fee

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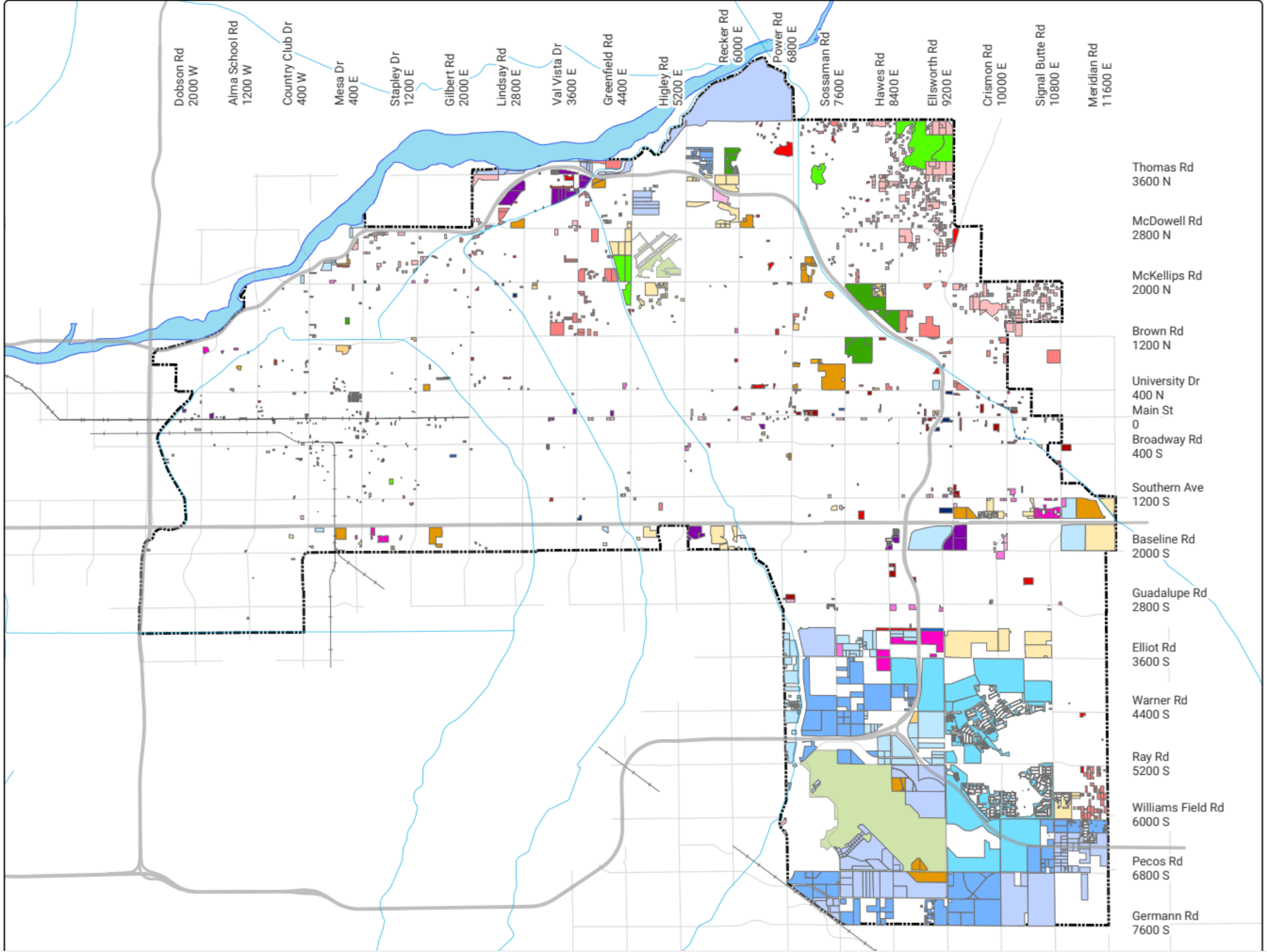
Presentation Overview

- 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”



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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

0 5000 10000 ft

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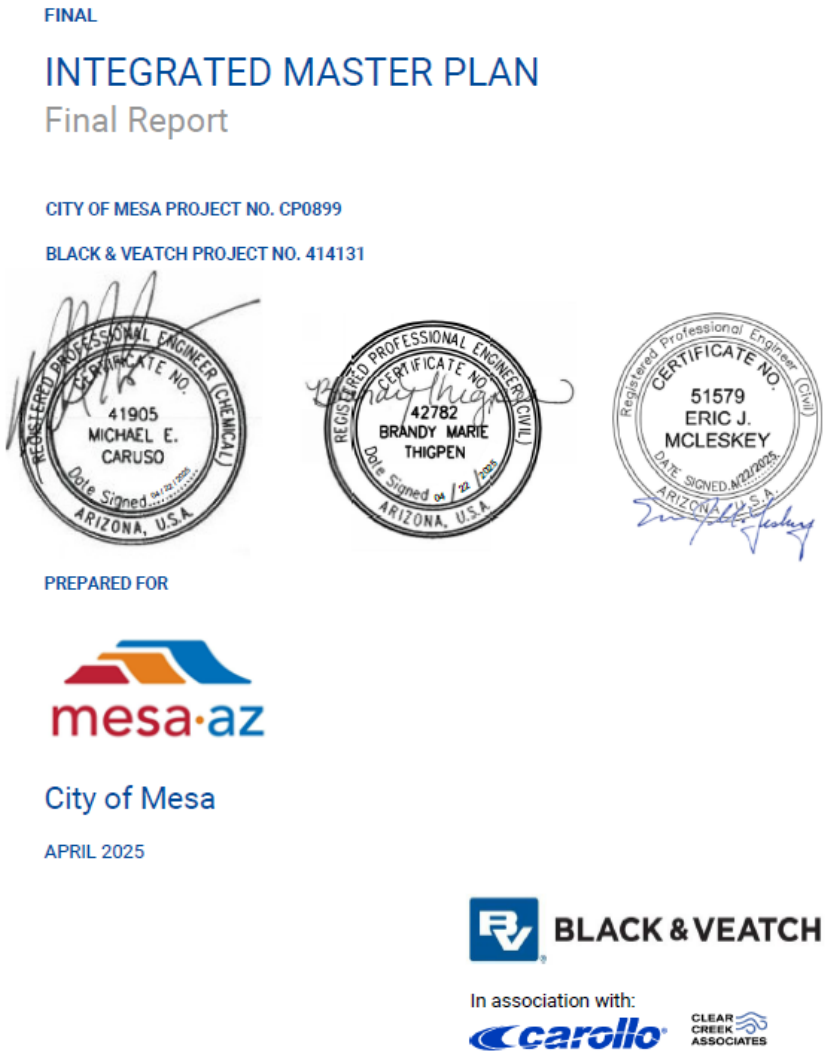
Figure 2-8
Vacant/Underdeveloped Land Use Classification

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



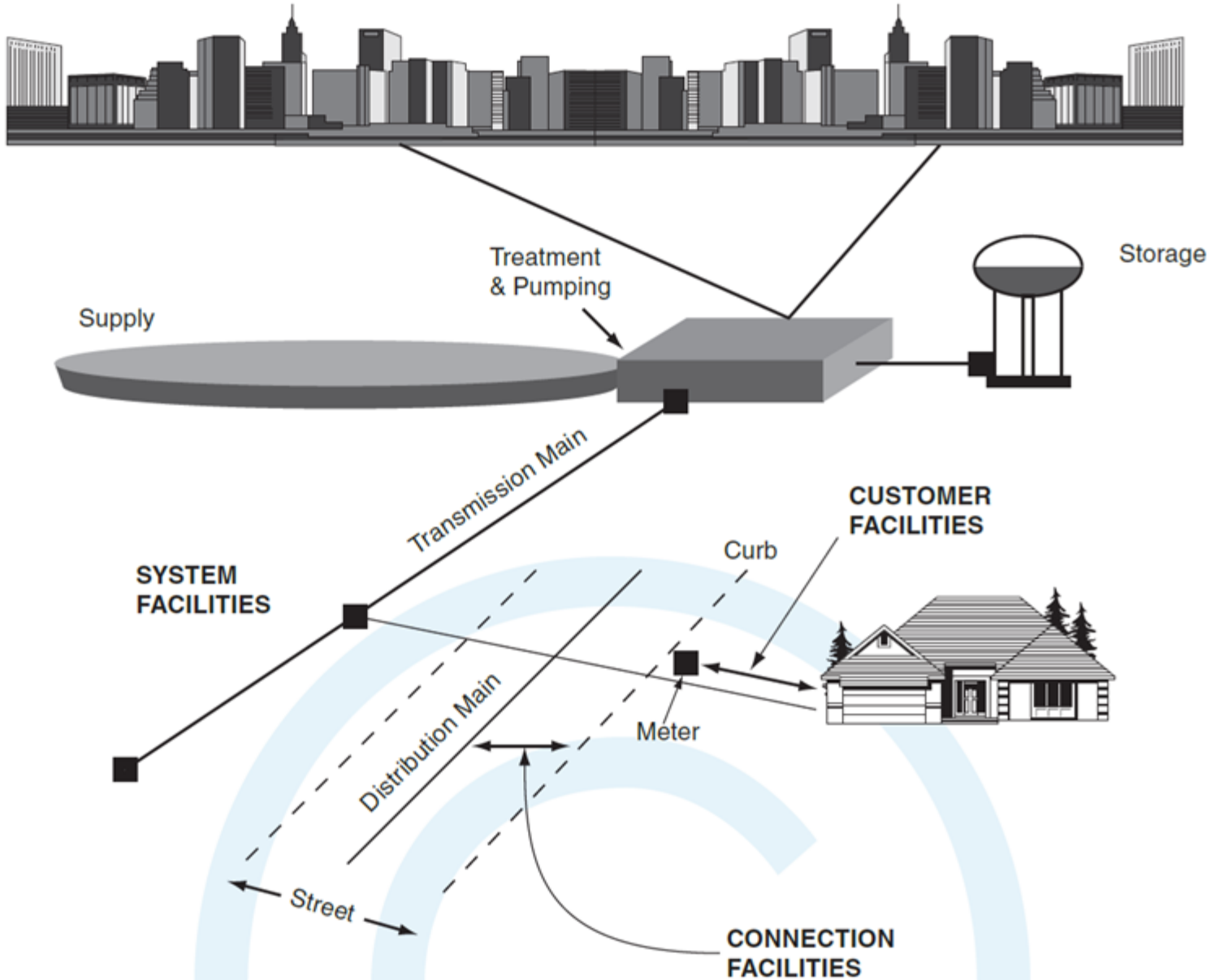


Figure VI.1-1 Typical water system components

Capacity Fee Calculation

Capacity Cost  System Capacity  Unit Cost

Unit Cost  Service Unit  ¾” 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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