Water Meter Sizing
Guideline

Issue Date:	JULY 17, 2007; Revised 2026
Code/Section:	2024 Uniform Plumbing Code (UPC) 610.1; 2024 International Plumbing Code (IPC) 604.1; 2024 International Residential Code (IRC) P2903.1
Developed By:	Planning & Development Department, and Water Services Department

POLICY: Water meters shall be sized in accordance with the following table. The columns list the **maximum** allowable gallons per minute (gpm) and associated water supply fixture units allowed for any given meter size and type. Project designs which exceed the listed gpm unit values must be upsized to the next larger meter. Select the larger meter when comparing meters based on fire flow to ones based on fixture units. City of Phoenix's Water and Wastewater Design Standards Manual controls new ¾" tap and ¾" meter use and ¾" meter upgrades.

Column 1	Column 2	Column 3		Column 4	
METER SIZE & DESCRIPTION	**WSD & P&D MAXIMUM ALLOWABLE G.P.M.**	**MAXIMUM FLUSH TANK FIXTURE UNITS**		**MAXIMUM FLUSH VALVE FIXTURE UNITS**	
		UPC	**IPC/IRC**	**UPC**	**IPC/IRC**
3/4" x 3/4"	20	30	21	0	0
1"	50	127	129	48	50
1-1/2"	100	380	375	245	245
2"	160	692	696	631	625
3" COMPOUND	320	1,926	1,955	1,926	1,955
4" COMPOUND	500	3,620	3,728	3,620	3,728
6" COMPOUND	1,000	8,300	(1)	8,300	(1)
8" COMPOUND	1,600	14,500	(1)	14,500	(1)

(1) The design method of the IPC is limited to 593 GPM maximum.
(2) Irrigation meters can be ¾"
(3) Existing ¾" taps and ¾" meters may remain as long as they meet the fixture unit requirement in above table

NOTES FOR TABLE USE

1. **Column 1** identifies meter sizes and types available from the city of Phoenix. Use of water meters 6-inches and larger requires special advance consultation with Water Services Department (WSD) to determine availability, meter cost, and delivery schedule. Turbine (Turbo) water meters are designed to accommodate large demands within a narrow range of fluctuating flow as those associated with industrial type development. These meters are not shown in the table above but are still available on a case-by-case basis and their use will be determined by WSD Engineering division in conjunction with P&D Plumbing Section staff.
2. **Column 2** is the design water meter flow rate as determined by the Water Services and the Planning & Development Departments. This column is used to determine meter size based on fire sprinkler or domestic demand flow rates.
3. **Column 3** is the maximum number of fixture units permitted on a water meter when the plumbing fixtures are predominantly flush tank type water closets and urinals. Values based on 2024 Uniform Plumbing Code (UPC), 2024 International Plumbing Code (IPC) or 2024 International Residential Code (IRC), whichever is applicable.

For more information about this publication, contact Planning & Development at (602) 262-7811.To request a reasonable accommodation, please contact Saneeya Mir, (602) 686-6461, Saneeya.Mir@phoenix.gov TTY: Use 7-1-1.

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4. **Column 4** is the maximum number of fixture units permitted on a water meter when the plumbing fixtures are predominantly flush valve type water closets and urinals, based on 2024 UPC, 2024 IPC or 2024 IRC, whichever is applicable.

5. **All** new service taps for buildings including all single-family residential lots shall be a minimum of 1-inch in size. New ¾-inch taps may be installed for landscape irrigation or other approved special uses only.

6. **A** separate landscape irrigation tap and meter is required for irrigated areas over 10,000 square feet, or 1,000 gallons or more per day (Phoenix City Code Section 37-53(b)(1)).

7. **Combination** Fire/Domestic/Landscape meters are prohibited. Each demand requires a separate service connection. Combination Fire/Domestic meters are allowed for single family residential, single lot development.

8. **A** single service line and a “Master Meter” can be used for two or more buildings located on the same lot or for apartment developments, trailer courts or similar projects covering one lot. In these “Master Meter” applications where an assured continuous supply must be maintained, the domestic development demand can be split and two
(4) meters may be used, each with its own service connection to the city main and then manifolded on the customer side of the meter. Beyond meeting the need to provide an uninterrupted supply to a development, the manifolding of more than two (2) meters shall be prohibited.

9. **New** service connections shall be limited in size to 50% of the service main diameter. On looped mains there shall be a limited number of service connections comparable to the equivalent existing main capacity. On dead end mains the service connections shall be limited to half that of the looped mains.

10. **Impact Fees, WRA, and DOF**. Impact Fees, Water Resource Acquisition (WRA), and Development Occupation Fees (DOF) vary by area and are based on the water meter size, not the tap size. Please contact the Impact Fee Team at impactfees@phoenix.gov for any development fee questions or estimate requests.

    Questions about water meter sales, tap, and service fees and installations should be addressed to the Planning & Development Engineering Counter, (602) 262-6551.

    Questions about Impact Fees should be addressed to the Planning & Development Impact Fee Manager, (602) 495-5455.