



TECHNICAL GUIDELINE       INTERPRETATION       MODIFICATION

<b>ISSUE DATE:</b>	JULY 17, 2007; Revised 7/18/13, Revised 3/24/14
<b>CODE/SECTION:</b>	2012 Uniform Plumbing Code (UPC) 610.1; 2012 International Plumbing Code (IPC) 604.1; 2012 International Residential Code (IRC) P2903.1
<b>APPROVED:</b>	Technical Review Team
<b>DEVELOPED BY:</b>	Planning & Development Department, 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. The Water Meter Sizing Table is also available in the city's Water and Wastewater Design Standard's Manual.

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
		5/8" x 3/4"	20	30	21
3/4" x 3/4"	30	54	53	13	14
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.

**NOTES FOR TABLE USE**

- 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 PDD Plumbing Section staff.
- Column 2** is the design water meter flow rate as determined by the Water Services and the Planning & Development Departments.
- 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 2012 Uniform Plumbing Code (UPC), 2012 International Plumbing Code (IPC) or 2012 International Residential Code (IRC), whichever is applicable.

For more information or for a copy of this publication in an alternate format, contact Planning & Development at (602) 262-7811 voice / (602) 534-5500 TTY.

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 2012 UPC, 2012 IPC or 2012 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.
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 (2) 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. **DOF Fees.** Development Occupation Fees (DOF) are \$600.00 for water and \$600.00 for sewer for all single-family residential properties regardless of water meter or tap sizes: and \$360.00 per unit water and \$360.00 per unit sewer for multi family uses. DOF fees for all other uses are based on the water meter size, not the tap size
11. **WRA Fees.** Water Resource Acquisition (WRA) fees vary by area and are based on the water meter size, not the tap size.

**Guidelines for Landscape meters only**

- |  |                                  |
|--|----------------------------------|
| <b>a)</b> Tracts in subdivisions   | WRA applies (DOF does not apply) |
| <b>b)</b> Hotel/Motel  | WRA applies                      |
| <b>c1)</b> Adding LS to a new or existing single family residence-<br>(WRA applies if meter is increased in size to include landscape for existing residence). | WRA applies                      |
| <b>c2)</b> Multi-family  | WRA does NOT apply               |
| <b>d)</b> Residential or Commercial vacant lot   | WRA applies                      |
| <b>e)</b> New or existing Commercial   | WRA applies                      |

12. **Impact Fees.** Impact fees vary by area and are based on the water meter size, not the tap size. Questions about fixture unit calculations should be addressed to:  
For single family residential: Planning & Development Residential Permit Counter, (602) 262-7884.  
For all other uses: Planning & Development Regional Teams (602) 495-0258

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.