WATER CUSTOMER DATA SHEET

PROJECT: _____

ADDRESS: _____

PREPARED BY: _____ DATE: _____

Fixture Type		Fixture Value 60 psi		(1) No. of Fixtures		(2) Total Fixture Value
Bathtub		8	x		=	
Shower (per shower head)		2.5	x		=	
Dental Unit		2	x		=	
Drinking Fountain		2	x		=	
Sink - Lavatory		1.5	x		=	
Sink - Kitchen		2	x		=	
Sink - Utility/Mop		4	x		=	
Toilet - Flush Type*		8	x		=	
- Tank Type		4	x		=	
Urinal*		12	x		=	
Dishwasher		2	x		=	
Washing Machine		6	x		=	
Hose (50-ft Wash Down)	- 1/2 inch	5	x		=	
	- 5/8 inch	9	x		=	
	- 3/4 inch	12	x		=	
Misc: _____			x		=	

(3) **Combined Fixture Total** _____ FU

(4) **Peak Demand** (using top curve in Figure 4-2 or 4-3) _____ gpm

(5) **Pressure Factor** (70 psi typical) 1.09 x _____ = _____ gpm

(6) **Irrigation Demand** (if applicable) _____ gpm

(7) **Miscellaneous Demand** _____ _____ gpm

(8) **TOTAL FIXED DEMAND** _____ **gpm**

Meter Size	Maximum Allowable TOTAL FIXED DEMAND
¾"	Combined Fixture Total up to 16 FU's (24 gpm)
1"	Combined Fixture Total up to 27 FU's (40 gpm)
1 ½"	80 gpm
2"	128 gpm
3"	250 gpm

TABLE IV-7, Highlands Ranch Water and Sewer Standard Specifications manual

(9) Proposed Domestic Tap/Meter Size _____ -inch

(10) Proposed Irrigation Tap/Meter Size _____ -inch

(11) Other: _____ _____ -inch

Form adopted from AWWA M22 Manual, Figure 4-5, copyright 2004

** fixture value modified to accommodate low-flow water efficient fixtures*

IV. DETERMINING WATER TAP AND METER SIZE

The District uses a modified version of the American Water Works Association Manual 22 (copyright 2004) to determine the required tap and meter size. All New Construction and TF – Major projects are required to submit a Water Customer Data Sheet for review and approval. The WCDS is used to determine proposed, and verify adequacy of existing, taps and meters. If existing taps or meters are determined to be undersized they are required to be increased to the appropriate size at the Owners/Developers expense, including the construction cost and difference in tap fee.

Locate the WCDS form from the District's website or the Development Guidelines manual and complete the form as follows:

(1) **No. of Fixtures**: Input the total number of fixtures corresponding to each Fixture Type.

(2) **Total Fixture Value**: For each Fixture Type, multiply the corresponding Fixture Value at 60 psi by (1) No. of Fixtures.

(3) **Combined Fixture Total**: Sum (2) Total Fixture Value for each Fixture Type.

(4) **Peak Demand**: use (3) Combined Fixture Total and the upper curve on AWWA M22 Figure 4.2 or 4.3 to determine Peak Demand. The District mandates the use of the upper figure curves for all Domestic Uses.

(5) **Pressure Factor**: Adjust for pressure by multiplying 1.09 by (4) Peak Demand.

(6) **Irrigation Demand**: The Irrigation Demand is 0 if a separate irrigation tap and meter are provided; otherwise include an irrigation demand equal to the demand of the largest irrigation zone.

(7) **Miscellaneous Demand**: Include any applicable miscellaneous demands not accounted for that would impact the net demand such as car wash, chiller, fountain, or other uses.

(8) **Total Fixed Demand**: Calculate the TFD by summing columns 5-7.

(9) **Proposed Domestic Tap/Meter Size**: Fill in the appropriate domestic Meter Size based on the Maximum Allowable Total Fixed Demand in Table IV-7.

(10) **Proposed Irrigation Tap/Meter Size**: Fill in the appropriate irrigation Meter Size based on the proposed irrigation demands and Maximum Allowable Total Fixed Demand in Table IV-7.

(11) **Other**: Fill in and label any other applicable meters such as a secondary irrigation or car wash tap and meter.

Attachment: AWWA M22 Figures 4.2 and 4.3

WATER TAP AND METER SIZING – Figures 4-2 and 4-3

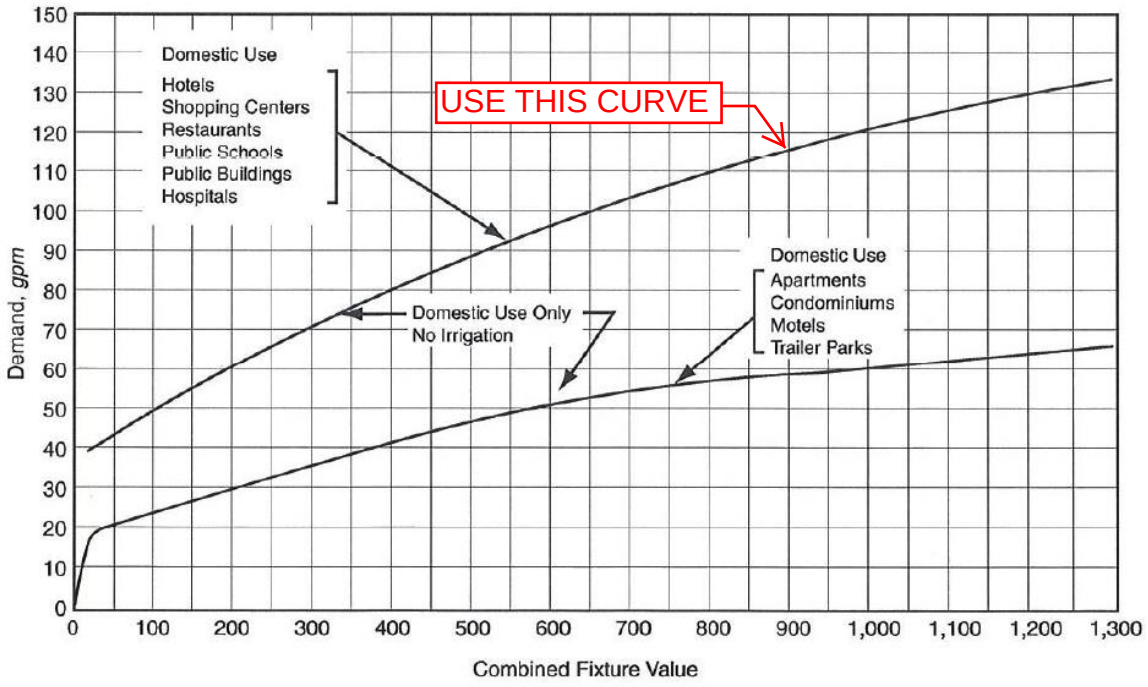

Figure 4-2 Water flow demand per fixture value—low range

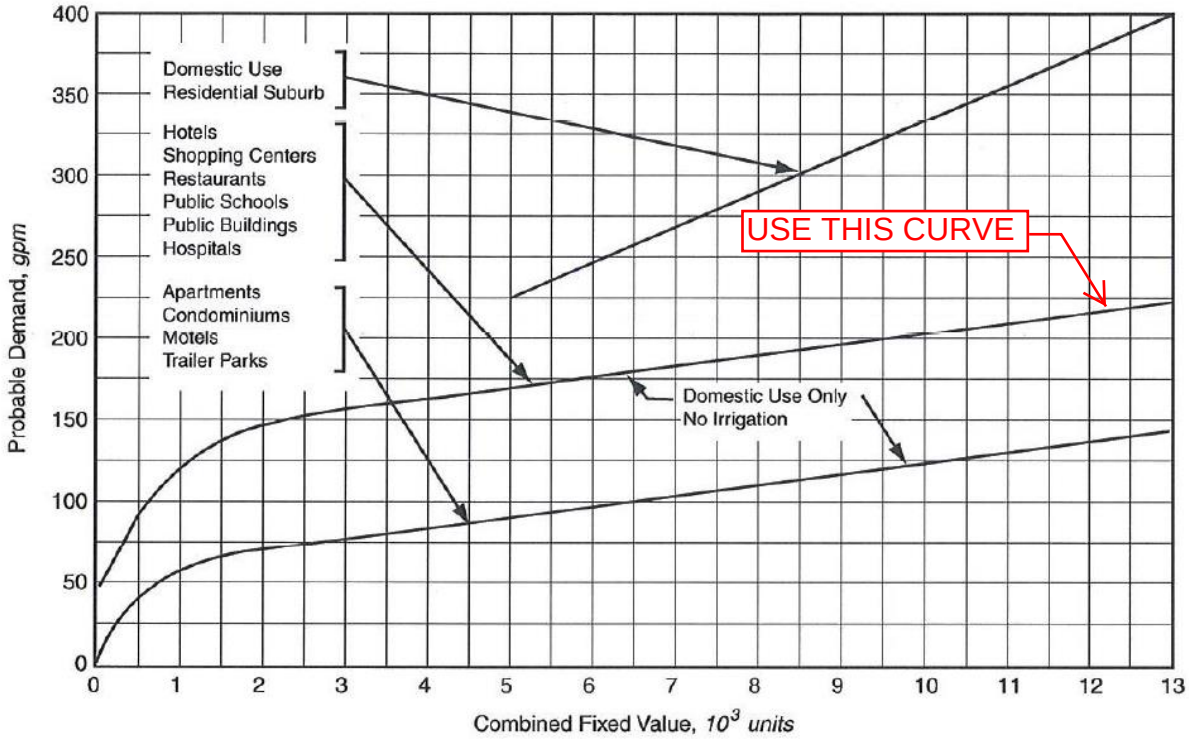

Figure 4-3 Water flow demand per fixture value—high range