



Right Size Water Meter - Instructions

The Water Customer Data Sheet is available as a self-calculating Microsoft Excel spreadsheet to help determine demand and select meter without need for using charts or applying Pressure Adjustment Factors.

Irrigation

Irrigation areas must be divided into zones, with a maximum irrigation demand of 25 GPM. Provide a detailed irrigation plan and calculations with appropriately designed zones.

Fixed Demand

Provide detailed description and backup for this demand.

Meter Selection

The Town has standardized water meters and only accepts Neptune positive displacement or ultrasonic meters with a R450 meter interface unit.

Town of Burlington Water Customer Data Sheet																																																																																							
Customer:	Type of Occupancy:	[Redacted]																																																																																					
Building Address:	By:	[Redacted]																																																																																					
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Select Meter Size/type: [Redacted] 0 GPM																																																																																							

Figure 4-5 Water customer data sheet Adapted from AWWA Manual M22

Download the Water Meter spreadsheet at Burlington.org, go to [Public Works Department](#), select [Permits & Applications](#), then [Water Meter](#).

Water Customer Data Sheet Instructions using Microsoft Excel spreadsheet

1. Use Drop-down box to select *Residential* or *Commercial* application.
2. *Combined Fixture Value Total* auto calculated from fixture count.
3. *Water Demand* is auto calculated based on Figure 4-2 or 4-3
4. Use Drop-down box to select *Pressure Adjustment Factor* (data from Table 4-1.)
5. *Customer Peak Demand* is auto calculated (Water Demand x Pressure Factor)
6. Add *Irrigation* demand (provide detailed design & calculations)
7. Add *Fixed Load* demands. (provide detailed description and backup)
8. *Total Fixed Demand* is auto calculated.
9. Use Drop-down box to select meter based on meter *Maximum Operating Capacity* that matches *Total Fixed Demand*.

Table 4-1 Pressure Adjustment Factors

Working Pressure at Meter Discharge (psi)	Pressure Adjustment Factor
35	0.74
40	0.80
50	0.90
60	1.00
70	1.09
80	1.17
90	1.25
100	1.34

Adapted from AWWA Manual M22 table 4-1

Neptune Water Meter Components

Register	E-Coder absolute encoder
Water Meters	T-10 Positive Displacement TRU/FLO Compound
Meter Interface	R450 (MIU)

Neptune Water Meter Operating Characteristics

Meter Type	Max. Operating (gpm)	Operating Range (gpm)	Low Flow (gpm)
Positive Displacement			
5/8"	20	1 - 20	1/8
3/4"	30	2 - 30	1/4
1"	50	3 - 50	3/8
1 1/2"	100	5 - 100	3/4
2"	160	8 - 160	1
Ultrasonic			
5/8"	25	0.1 - 20	0.05
1"	55	0.4 - 55	0.25
3"	500	0.5 - 450	1/2
4"	1250	1 - 1000	3/4
6"	2000	2 - 2000	1

*Town of Burlington
Right Size Instructions
Mar.2021*

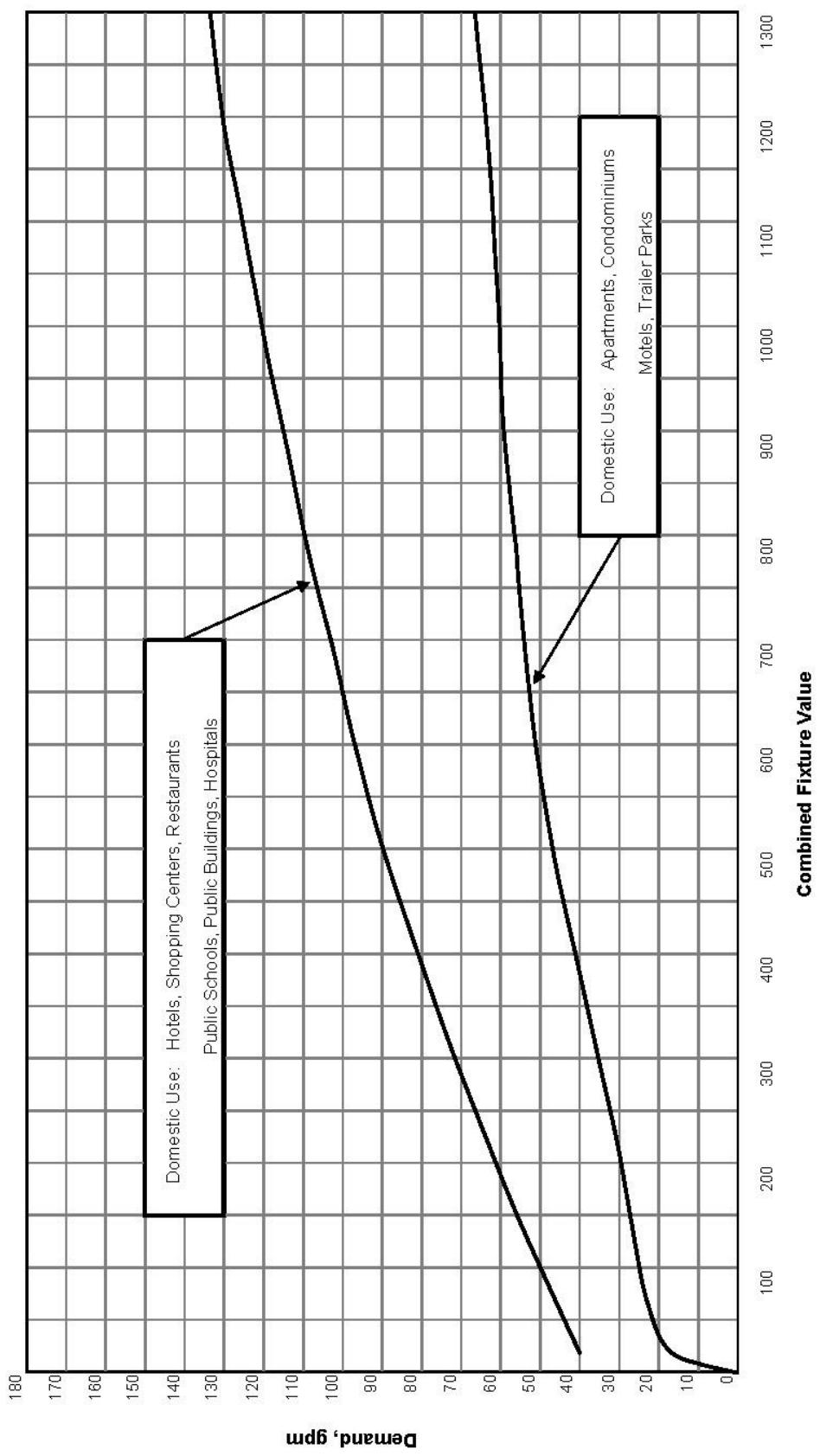


Figure 4-2 Water flow demand per fixture value - low range

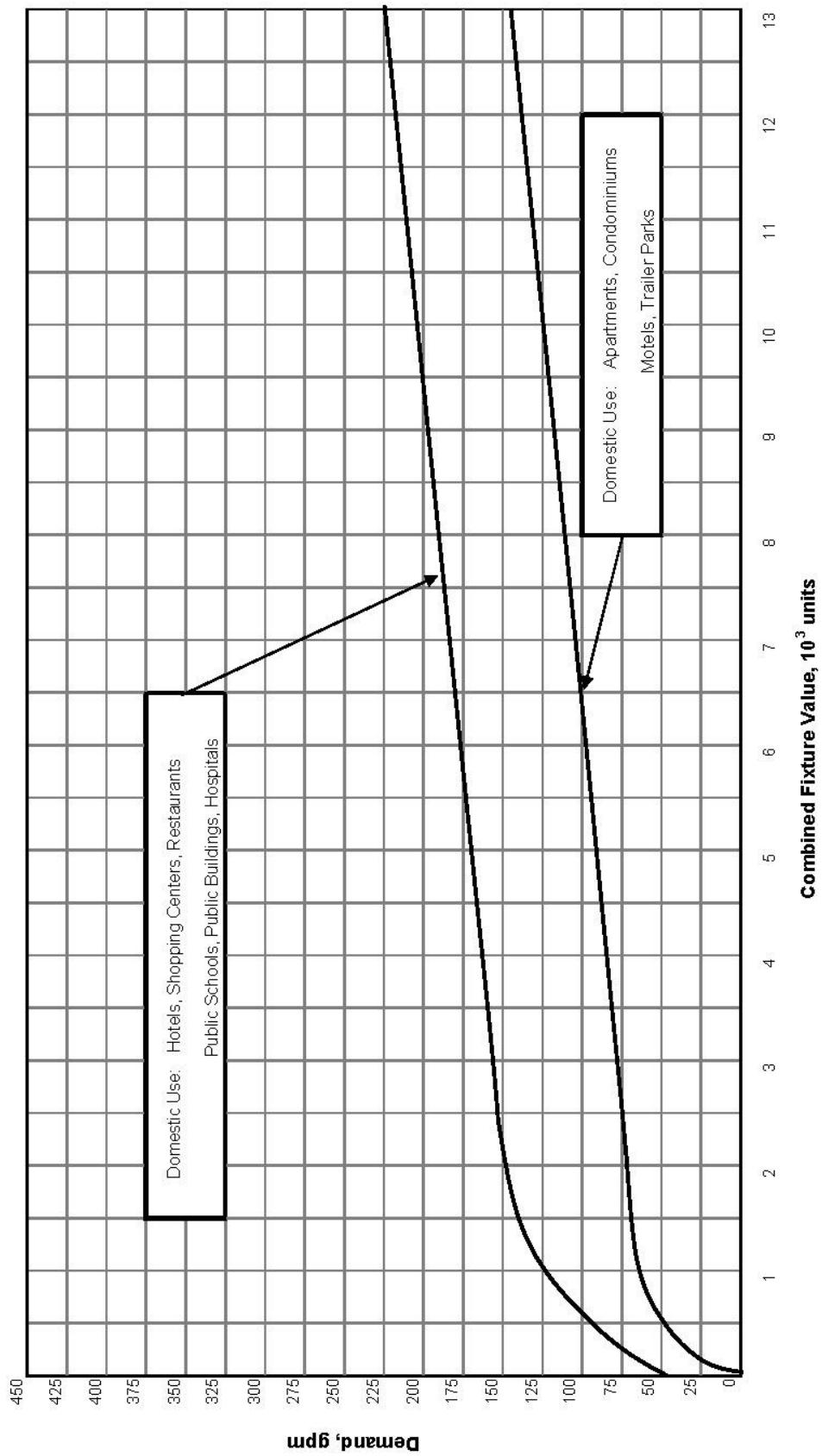


Figure 4-3 Water flow demand per fixture value - High range

**Town of Burlington
Water Customer Data Sheet**

Customer: [REDACTED]
Building Address: [REDACTED]

Type of Occupancy:	_____
(commercial or residential)	
By:	_____
Phone:	_____

Fixture	Value @ 60 PSI	Number of Fixtures	Total Value
Bathtub	8	x	= 0
Bedpan Washers	10	x	= 0
Bidet	2	x	= 0
Dental Unit	2	x	= 0
Drinking Fountain - Public	2	x	= 0
Kitchen Sink	2.2	x	= 0
Lavatory	1.5	x	= 0
Showerhead (Shower Only)	2.5	x	= 0
Service Sink	4	x	= 0
Toilet – Flush Valve	35	x	= 0
- Tank Type	4	x	= 0
Urinal – Pedestal Flush Valve	35	x	= 0
- Wall Flush Valve	16	x	= 0
Wash Sink (Each Set of Faucets)	4	x	= 0
Dishwasher	2	x	= 0
Washing Machine	6	x	= 0
Hose (50 ft Wash Down) - 1/2 in.	5	x	= 0
- 5/8 in.	9	x	= 0
- 3/4 in.	12	x	= 0
Combined Fixture Value Total			= 0

Pressure Adjustment Factor: **1.00**
Water Flow Demand: **0 GPM**

Customer Peak Demand (Press.Adj.Factor) X (Water Flow Demand) = **0 GPM**

Add Irrigation

Irrigation areas must be divided into zones, with a maximum irrigation demand of 25 GPM. Provide a detailed irrigation plan and calculations with appropriately designed zones.

GPM

Added Fixed Load

Provide detailed description and backup for this demand.

0 GPM

TOTAL FIXED DEMAND 0 GPM

Select Meter Size/type:

Figure 4-5 Water customer data sheet *Adapted from AWWA Manual M22*