Location Number: _____
Account Number: _____
Permit Number: _____

Pagosa Area Water and Sanitation District
100 Lyn Ave. / P.O. Drawer 4610, Pagosa Springs, CO 81157
PHONE: (970) 731-2691 FAX: (970) 731-2693

2018 COMMERCIAL WATER METER SIZING WORKSHEET

Date: _____

Name of Property Owner: _____

Name of Contact Person: _____

Name of Business (if applicable): _____

Property Location

Street Address: _____

Subdivision: _____ Block: _____ Lot: _____

EACH Type of Fixture	Number of Fixtures in Bldg 1	+	Number of Fixtures in Bldg 2	+	Number of Fixtures in Bldg 3	=	Total Fixtures	x	Fixture Unit Multiplier (choose ONE per row)		=	Total Fixture Unit Value
									General Use	Heavy Use Asembly		
Shower		+		+		=		x	2.0		=	
Bathroom sink, each set of faucets		+		+		=		x	2.0		=	
Toilet		+		+		=		x	2.5	4.0	=	
Urinal		+		+		=		x	3.0	5.0	=	
Clothes Washing Machine, domestic (8 lb)		+		+		=		x	3.0		=	
Clothes Washing Machine, domestic (15 lb)		+		+		=		x	4.0		=	
Dental unit, cuspidor		+		+		=		x	1.0		=	
Clinic sink		+		+		=		x	8.0		=	
Bar / Hand Sink		+		+		=		x	3.0		=	
Dishwasher, domestic		+		+		=		x	1.5		=	
Kitchen sink, hotel or restaurant		+		+		=		x	4.0		=	
Kitchen sink, domestic		+		+		=		x	1.5		=	
Laundry / Utility / Mop Sink		+		+		=		x	2.0		=	
Service Basin		+		+		=		x	3.0		=	
Washfountain, circular spray		+		+		=		x	4.0		=	
Drinking fountain or water cooler		+		+		=		x	0.5	0.8	=	
Hose bibb - **FIRST**		+		+		=		x	2.5		=	
Hose bibb, **EACH ADDITIONAL**		+		+		=		x	1.0		=	
Lawn sprinkler, each full head		+		+		=		x	1.0		=	
Other (Describe)		+		+		=		x			=	
Other (Describe)		+		+		=		x			=	
For explanations, see 1997 Uniform Plumbing Code & 2006 International Plumbing Code										**FUY Subtotal :**		

Other Water Requirements: See Table E103.3(3)

Fixture Description: _____ GPM: _____ Number: _____ Calculated Fixture Units: _____
Fixture Description: _____ GPM: _____ Number: _____ Calculated Fixture Units: _____
Fixture Description: _____ GPM: _____ Number: _____ Calculated Fixture Units: _____

Fixture Unit Value (FUY) **FUY Total:**

I affirm that the information given is correct. I acknowledge that the approval given for minimum meter size and maximum water capacity is based solely on the information provided above, and such determination is at the discretion of the Pagosa Area Water and Sanitation District. Any deviation under construction will require resubmission of corrected data for determination of adequacy of meter size.

Required Signatures:

Signature (Design Engineer) _____ Date Signed _____

Signature (Owner/Agent) _____ Date Signed _____

See Page 2 for Instructions

Location Number: _____

Account Number: _____

Permit Number: _____

Instructions for completion of the PAWSD Commercial or Multi-Family Water Meter Sizing Worksheet

Matrix to Determine Meter Size and Water Demand

Complete the columns of the matrix by supplying the quantity and type of fixtures being added, remaining, and/or removed. (Note: Relocated fixtures are considered "remaining" since there is no change in demand.) Accuracy of the fixture count is necessary to determine the appropriate meter size and Equivalent Units.

Fixtures in New Structure, if column is provided on pg 1

In the "Fixtures in New Structure" column, list the number of new fixtures or the number of fixtures being added to an existing project under the approriate fixture type.

Fixtures in Existing Structure, if column is provided on pg 1

In the "Fixtures in Existing Structure" column, list the number of fixtures that will remain or that will be relocated during the construction phase of the project.

Fixtures Removed, if column is provided on pg 1

In the "Fixtures Removed" column, list the number of fixtures that are actually being removed which will create a reduction in the water demand. Note: Replacing a sink with a new sink or a hose bibb with a new hose bibb, etc. does not constitute "Removed." They are considered as "Fixtures in Existing Structure" (unless replacement is by fixtures of lower-flow capacity).

Other Water Requirements

There are some process water demands that are not listed, such as car washes. Each of these will be assigned a fixture unit count based upon its GPM demand. Make sure this information is provided.

Fixture Unit Multiplier

Each plumbing fixture is given a fixture unit value based upon the 1997 Uniform Plumbing Code. Fixture units are used for water meter sizing purposes. The unit count for each fixture is determined by mulitplying the number of each fixture type by the appropriate number in the multiplier column.

GENERAL USE: Applies to business, commercial, industrial, and assembly occupancies other than those defined under "Heavy Use." Included are the public and common areas in hotels, restaurants, and mulit-dwelling buildings.

HEAVY USE: Applies to toilet facilities in occupancies that place a heavy, but intermittent, time-based demand on water supply system, such as schools, auditoriums, stadiums, race courses, theaters, and similar occupancies where queuing is likely to occur during periods of peak use.

Lawn Sprinkler Heads

Add all 1/4, 1/2, 3/4, and full irrigation heads to determine the total number of **full** sprinkler heads. For example, two 1/4 heads and one 1/2 head will equal one full head.

GPM (Gallons per Minute)

When any water requirement is listed by GPM demand, fixture unit count will be determined by using the 2006 Uniform Plumbing Code Table E103.3(3) - Table For Estimating Demand.

2018 COMMERCIAL & MULTI-FAMILY ACCOUNTS **Revised 01-18-18**

This section to be completedby PAWSD staff.

Required Service Size and Equivalent Units Chart

Fixture Unit Count	Meter Size	* # Equivalent Units	** GPM
0-30	1"	1	50
30.5-52	1"	1.5	50
52.5-127	1"	2.5	50
128-375	1.5"	5	100
376-700	2"	8	180
701-1950	3"	16	320
1951-3700	4"	25	500
3,701-8,200	6"	50	1,000

*EU designation set forth by '97 Uniform & '06 International Plumbing Code.

**With approximate flow of 60 psi at meter

Fixture Count Total (from pg.1): _____

Corresponding Meter Size: _____

Acct Current Meter Size: _____

Corresponding EU: _____

Acct Current EU: _____

Water CIF: $2,658 / EU: _____

Wastewater CIF: $1,017 / EU: _____

Raw Water Acquistion Fee: $1,959 / EU: _____

Monthly Base Rate Service Assessment

Meter Size	EU	***Water	Water/Wastewater
1"	1	$23.50	$55.50
1"	1.5	$35.25	$83.25
1"	2.5	$58.75	$138.75
1.5"	5	$117.50	$277.50
2"	8	$188.00	$444.00
3"	16	$376.00	$888.00
4"	25	$587.50	$1,387.50
6"	50	$1,175.00	$2,775.00

***Includes 2,000 gl/EU.

NOTES / COMMENTS:

Prepared By: _____ Date: _____

PLEASE NOTE: FEE SCHEDULES ARE SUBJECT TO CHANGE

Location Number: _____
Account Number: _____
Permit Number: _____

Appendix E

Table E103.3(3)
Table for Estimating Demand
Supply Systems Predominantly for Flush Tanks

Gal per Minute	Water Supply Fixture Units	Cubic ft per Minutes
3.0	1	0.041040
5.0	2	0.06840
6.5	3	0.86892
8.0	4	1.06944
9.4	5	1.26592
10.7	6	1.4303760
11.8	7	1.577424
12.8	8	1.711104
13.7	9	1.831416
14.6	10	1.951728
15.4	11	2.058672
16.0	12	2.138880
16.5	13	2.205720
17.0	14	2.272560
17.5	15	2.339400
18.0	16	2.906240
18.4	17	2.459712
18.8	18	2.513184
19.2	19	2.566656
19.6	20	2.620128
21.5	25	2.874120
23.3	30	3.114744
24.9	35	3.328632
26.3	40	3.515784
27.7	45	3.702936
29.1	50	3.890088

Gal per Minute	Water Supply Fixture Units	Cubic ft per Minutes
32.0	60	4.277760
35.0	70	4.678800
38.0	80	5.079840
41.0	90	5.480880
43.5	100	5.815080
48.0	120	6.416640
52.5	140	7.018200
57.0	160	7.619760
61.0	180	8.154480
65.0	200	8.689200
70.0	225	9.357600
75.0	250	10.02600
80.0	275	10.69440
85.0	300	11.362800
105.0	400	14.03640
124.0	500	16.57632
170.0	750	22.72560
208.0	1,000	27.80544
239.0	1,250	31.94952
269.0	1,500	35.95992
297.0	1,750	39.70296
325.0	2,000	43.44600
380.0	2,500	50.79840
433.0	3,000	57.88344
525.0	4,000	70.18200
593.0	5,000	79.27224