

This is the Marsha WSC tariff, presented in pieces that will have to be assembled in order to have a complete document.

This is a limitation on the size of the files that can be uploaded to the website.

The full document, in properly printable form, is just under 100 megabytes at 254 pages. Broken up into respective parts, this file is just under the 10 megabyte limit of the web service provider.

There is the text body of the tariff.

Then there are images of documents that have to be inserted into the text. These are maps, letters, and some diagrams.

Then there are forms.

Then there are Submittals. These are manufacturer submittal sheets, unmodified and presented for education and reference only, to provide some context of things that are described in the tariff text.

The tariff document, in its full printable form, is available at the PUCT website, under tariff 43329.

The PUCT website is <https://interchange.puc.texas.gov>

Enter 43329 as the control number, and this tariff is item 3.

There is a zip file as part of the filing. It is easier to download the zip file, and print from there

Marsha Water Supply Corporation  
Tariff / Arancel

CCN 12166  
Travis County  
*effective*  
01 March 2024

Member Service  
Handbook

Manual de Servicios  
para Miembros

PUC Tariff 43329

1 **Contact Information and Details**

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3 Mailing Address, and Office:

4  
5 Marsha WSC  
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15  
16 EIN 74-2068667 tax identifier  
17 DUNS 08-827-6188 credit report, used by USDA for funding applications  
18 Texas Comptroller TaxID 17420686671

19  
20 CCN 12166  
21 PWS TX 2270040

22  
23 TCEQ RN 101 199 974 ignore the spaces, only for readability  
24 TCEQ CN 600 644 959

25  
26 PUC Tariff 43329

27  
28 SIC 4941 economic work classifications, used for taxes and labor reports  
29 NAICS 221310

30  
31 Secretary of State filing number 3799 5901 used for filing Periodic Information Reports  
32

## Quick Reference - Charges

Members must own the service property (WC 67.016(d)). Renters and tenants are not members.

Water rates - variable, recalculated monthly to hit target revenue set by the Board. At time of writing, target revenue is \$16,000.00 per month. See Chapter 6 for details.

### Surcharges:

TCEQ/PUC regulatory fee	0.5% of water charges, by statute
Equity construction charge	\$40.00 per meter
Asset management charge	None at time of writing
Capital improvement charge	None at time of writing
Late charge	None
Inaccessible/blocked meter	\$25 first occurrence \$50 second occurrence within 12 month \$75 third occurrence within 12 months \$100 for fourth and subsequent occurrence in 12 mon
Return check charge	\$35.00 or bank charge, whichever is more
Service trip	\$50.00
Information disclosure	cost of effort and materials
Transfer fee	\$25.00
Member application Fee	\$100.00 (this is for paperwork, not membership)
Equity Buy-in Fee	variable, increase by \$40.00 each month, see Chapter 3
City of Austin Capital Recovery	\$1300.00 typical, see Chapter 4
NEW SERVICE INSTALLATION REQUIRES SEPTIC PERMIT, See chapter 4	
Service extension	\$60/linear foot or \$6000/hundred feet

# Real Short Summary for Agency Review

## Marsha WSC

- \* is organized and operated under chapter 67, Water Code
- Originally incorporated 1976 as non-profit under VTCS 1396-01 (BOC chap 22 now)
- Reincorporated 1992 as WSC under VTCS 1434a (WC chap 67 now)
- Restated incorporation 2012 as WSC under WC chap 67
- \* is a federal tax-exempt as a 501(c)(12) entity, granted 27 Dec 2017
- \* is NOT sales tax exempt
- \* is NOT exempt from ad valorem taxes (no well, pump, treatment, or storage)
- \* has a water purchase contract with the City of Austin, which is the sole source of water supply
- \* CCN granted after water purchase contract with City of Austin 1992
- Prior to that time, operated without a CCN (from 1976 continuing into 1992)
- \* neighborhood plat accepted by Travis County 22 Aug 1960
- \* water source 1960s??-1976 was a privately owned well, serving neighborhood
- no history available prior to 1976
- owner sold service property to neighborhood after non-profit incorporation in 1976
- \* does NOT have a well, well pump, treatment, or storage facility
- \* is inside the 2-mile ETJ of the City of Austin
- \* is located in the unincorporated area of Travis County
- \* has a waiver for the Emergency Preparedness Plan required by 87R-SB3 (WC 13.1394)
- \* has 164 retail connections, as of early 2023
- \* is NOT compliant with TCEQ regulations regarding distribution capacity, design, or installation, specifically 30 TAC 290.44(a)(4), (c), (d)(1,5,and 6)
- \* service area is almost fully developed, with an estimated limit of just under 200 connections
- \* CANNOT expand the service area, as the existing CCN is surrounded by Wells Branch MUD and the City of Austin
- \* has NO fireflow capability at all
- \* is located in Travis County ESD #2 (City of Pflugerville Fire Department)
- \* service area does NOT have sewer service. All locations are on-site septic systems (OSSF). Property lots are 1/4-acre, and NOT 1/2-acre required by TCEQ reg 30 TAC 285.4. Travis County permit required for water service (LGC 212.012 and WC 13.2501)

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## About this document

This is not your standard form tariff. It is trying to serve multiple purposes, while still fulfilling the role as a tariff.

This document is intended to serve as a handbook for our Board of Directors, people working as staff, and working with us. We don't have waterworks professional staff, and we don't have full-time staff. The folks who come in and want to help make this thing called MWSC to work, invariably have no background on what a water supply corporation is, how it works, or what our specific history is, and why things are the way they are ("WTF ... Everything is all snafu ... Why?")

As a handbook, there is descriptive background to put context around why we do some things the way that we do them. That background is not typical in a water system tariff. In our case, we need it. This document is an effort to institutionalize our history and our way of doing things. This document reflects the reality of what's in the ground, in our office, and in our board meeting room.

## Updating this document

Times change. Circumstances change. And so this document will change.

Here is some guidance on how to make changes to this document.

This version is written in 2023, using Wordperfect. As a commercial word processing system, it does its job very well. But, like all software products, it is subject to obsolescence. In time, it may not be possible to edit the original source anymore.

This document is being pushed out in published form as a PDF. PDFs are going to be around for a while. Adobe Acrobat is a PDF editor, and there are a number of comparable editors in the software market. Acrobat has a capability to save a PDF in other document formats, including as an editable word processing file. At time of writing, that is specifically as a Microsoft Word document.

So, if there need to be changes, and the original Wordperfect source isn't available or usable, then get the PDF, and save that PDF in as Word source document. And edit that.

An alternative method, is to use an OCR program to scan the PDF and produce text. OmniPage and ABBYYFineReader (which is also a PDF editor) are two such OCR programs. You lose the formatting, but you do get text. Edit the text, reformat as needed, and there you go.

## A note about statutory notations

VTCS - Vernon's Texas Civil Statutes. There is a long story behind this.

Texas codified and reissued the civil statutes in 1925 as the "Texas Revised Civil Statutes of 1925". The code numbered articles sequentially, from 1 to some very big number, with no method adopted for additions or changes. The Texas Legislature would enact things without any guidance on how to update the 1925 Revised Civil Statutes. The Vernon Law Book Company (later bought out, and now owned by Thomson Reuters) was a publishing house specializing in law. Vernon came up with a workable way of shoehorning enacted bills into the code, and so provided a shorthand for enacted law that was adopted in practice by just about everybody. So things like "the 43rd Texas Legislature, 1st called session, chapter 76" could simply be referred to as "VTCS 1434a". Vernon's method of shoehorning things into the code was not consistent, but it did allow people to be able to find things and to consistently reference them.

Legislative references - There are occasionally some references in this tariff to enacted legislation, like 43CS1-76-SB103. That is a shorthand for "the 43rd Texas Legislature, 1st called session, chapter 76, enacted Senate Bill 103". "CS" is "called session", and "R" is "regular session". This notation makes it easier to find legislation on the Texas Legislature Online web site.

WC - Texas Water Code. Mostly references to Chapter 67 (written as WC 67), Chapter 13 (written as WC 13), and Chapter 49 (written as WC 49)

BOC - Texas Business Organizations Code. Chapters are referred to by number, e.g chapter 22 (written as BOC 22)

LGC - Texas Local Government Code, mostly references to Chapter 212 (written as LGC 212)

GC - Texas Government Code, mostly references to Chapter 551 (written as GC 551) and Chapter 552 (written as GC 552)

H&SC - Texas Health and Safety Code, mostly references to Chapter 341

# Chapter 1 - Background

## Section 1.01 - Jurisdiction Shield

Water supply corporations are an odd sort of creature. The Legislature enacted the statute back in 1933, in the depth of the Great Depression, establishing a way for a community, or some collection of folks out somewhere, to pool resources to get themselves water. This presumably is west Texas, in the middle of nowhere, and it's way beyond the means of any individual to get a proper water well, but a group of folks could do it. Great, here's a way. (43CS1-76-SB103)

The only legal entities that Texas recognized at that time, was a corporation (VTCS 1302) and a partnership (aka joint stock company or joint venture, VTCS 6110). A corporation had a legal status for public utilities (VTCS 1416) including water utilities (VTCS 1433) as an entity that a partnership didn't. (If you're really curious, see Texas Revised Civil Statutes of 1925 online.)

So, a corporation it is, with share holders, board of directors, all the usual stuff. And the folks who got together to fund it and benefit from the work, are also the owners. Basically it is a partnership in corporate form. (That form of entity later became known as a co-operative, and Texas didn't recognize co-operatives as a legal entity type until 1975 (64R-318-HB643))

But, this water supply corporation thing is a water utility. Utilities are monopolies, and get regulated by the state to make sure the corporate barons are not gouging prices.

But, a water supply corporation is funded, and owned, by the folks it serves. And they're not going to gouge themselves. They can't, because it is the owners taking money out of one pocket (their wallet), and putting it into another pocket (their corporate ownership). That's what it is to be a non-profit entity. So a water supply corporation is self-regulated and by it's nature cannot make a profit, so therefore the state does not have to really monitor the corporation. Because the corporation provides service only to its members according to mutually agreed terms of service, the corporation has no income. (Texas did not recognize non-profit corporate entities as such until 1959 (56R-162-HB145))

People being people, there are sometimes instances where a water supply corporation and its board are just being plain (insert colorful language here) "unreasonable". In those instances, there needs to be some recourse to say "(expletive) no, you are not doing that". But that only happens when somebody new comes in. Member-owners can fix their internal problems within the corporate framework. Folks outside don't have that recourse. So the state steps in.

The Legislature has defined what a water supply corporation is, and the conditions that give the State the reason to step in and say something. That's in Texas Water Code, chapter 13.

1 Texas Water Code, Chapter 13 [ slightly reformatted for clarity and emphasis ]

2  
3 Sec. 13.001. LEGISLATIVE POLICY AND PURPOSE.

- 4
- 5 (a) This chapter is adopted to protect the public interest inherent in the rates and services  
6 of retail public utilities.
- 7 (b) The legislature finds that:
- 8 (1) retail public utilities are by definition monopolies in the areas they serve;
- 9 (2) the normal forces of competition that operate to regulate prices in a free  
10 enterprise society do not operate for the reason stated in Subdivision (1) of this  
11 subsection; and
- 12 (3) retail public utility rates, operations, and services are regulated by public  
13 agencies, with the objective that this regulation will operate as a substitute for  
14 competition.
- 15 (c) The purpose of this chapter is to establish a comprehensive regulatory system that is  
16 adequate to the task of regulating retail public utilities to assure rates, operations, and  
17 services that are just and reasonable to the consumers and to the retail public utilities.  
18

19 Sec. 13.002. DEFINITIONS. In this chapter:

- 20
- 21 (11) "Member" means **a person who** holds a membership in a water supply or sewer service  
22 corporation and **is a record owner of a fee simple title to property** in an area served by  
23 a water supply or sewer service corporation or a person who is granted a membership  
24 and who either currently receives or will be eligible to receive water or sewer utility  
25 service from the corporation. In determining member control of a water supply or  
26 sewer service corporation, a person is entitled to only one vote regardless of the  
27 number of memberships the person owns.
- 28
- 29 (24) "Water supply or sewer service corporation" means
- 30 \* **a nonprofit corporation**
- 31 \* **organized and operating under Chapter 67**
- 32 \* **that provides potable water service or sewer service for compensation and**
- 33 \* **that has adopted and is operating in accordance with by-laws or articles of**  
34 **incorporation which ensure that it is member-owned and member-controlled.**

35

36 **The term does not include a corporation that provides retail water or sewer service to**  
37 **a person who is not a member**, except that the corporation may provide retail water or  
38 sewer service to a person who is not a member if the person only builds on or develops  
39 property to sell to another and the service is provided on an interim basis before the  
40 property is sold.

41

42

1 Sec. 13.003. APPLICABILITY OF ADMINISTRATIVE PROCEDURE AND TEXAS REGISTER ACT.

2  
3 Chapter 2001, Government Code applies to all proceedings under this chapter except to the  
4 extent inconsistent with this chapter.

5  
6 Sec. 13.004. JURISDICTION OF UTILITY COMMISSION OVER CERTAIN WATER SUPPLY OR SEWER  
7 SERVICE CORPORATIONS.

8  
9 (a) Notwithstanding any other law, **the utility commission has the same jurisdiction** over a  
10 water supply or sewer service corporation that the utility commission has under this  
11 chapter over a water and sewer utility **if the utility commission finds** that the water  
12 supply or sewer service corporation:

13 (1) **is failing to conduct annual or special meetings in compliance with Section**  
14 **67.007; or**

15 (2) **is operating in a manner that does not comply with the requirements for**  
16 **classifications as a nonprofit water supply or sewer service corporation**  
17 **prescribed by Sections 13.002(11) and (24).**  
18  
19



1 How does Marsha WSC satisfy the requirements for the jurisdiction shield? Looking at each of  
2 the statute requirements in turn:

- 3  
4 1. WC 13.004(a)(1) "is failing to conduct annual or special meetings in compliance with  
5 Section 67.007"

6  
7 Our annual meeting (which is also board elections) and special meetings that involve  
8 any kind of balloting, are done with the election being supervised by our Election  
9 Auditor according to the written procedures provided by the board. We get a written  
10 report of the results of balloting.

11  
12 Our Election Auditor since 2011 is the firm of Atchley & Associates LLP, an Austin area  
13 CPA firm.

- 14  
15 2. WC 13.004(a)(2) and WC 13.002(24) "is organized and operating under Chapter 67,  
16 Texas Water Code"

17  
18 Marsha WSC in its Articles of Incorporation is incorporated Chapter 67, Texas Water  
19 Code. Articles of Incorporation are available from the Texas Secretary of State.

- 20  
21 3. WC 13.004(a)(2) and WC 13.002(24) "is a non profit corporation"

22  
23 Marsha WSC is incorporated under WC67, of which WC 67.004 says the Texas Non-  
24 Profit Corporation Act applies. Tracing thru the statutes, it is BOC 22 that applies (see  
25 BOC 1.008(d) and BOC 23 subchapter A for the trace detail)

26  
27 Also, as a nonprofit corporation, Marsha WSC is a Federal 501(c)(12) tax exempt entity.

- 28  
29 4. WC 13.004(a)(2) and WC 13.002(24) "provides potable water service for compensation"

30  
31 Well, this is a tariff. So, yup, that's us. We charge for water usage. See the chapters in  
32 this tariff about water rates and charges.

- 33  
34 5. WC 13.004(a)(2) and WC 13.002(24) "has adopted and is operating in accordance with  
35 by-laws or articles of incorporation which ensure that it is member-owned and  
36 member-controlled"

37  
38 See the Marsha WSC corporate bylaws, and also Chapter 12 of this document (Page  
39 137) . The board of directors is an executive committee of the Members overseeing  
40 administration and operation of the corporation. Final authority rests with the  
41 Members.

1 6. WC 13.004(a)(2) and WC 13.002(11), a member must own property

2  
3 Yup, that's us, again. See also WC 67.016(d), and the chapter in this tariff about  
4 application for service. We need to have a copy of the deed as recorded with Travis  
5 County.

6  
7 7. WC 13.004(a)(2) and WC 13.002(24), is not a corporation that provides retail water  
8 service to a person who is not a member.

9  
10 We provide service only to Members, who must own property (WC 67.016(d)).  
11 Consequently, we bill only Members thru their Member Account. We do not bill by  
12 service location, and therefore cannot be providing service to a person who is not a  
13 member.

14  
15

1 Statute allows opportunity for review by state agencies (at time of writing, that is PUC) in the  
2 following circumstances  
3

4 statute	for what	by who and when
5 WC 13.043(b)	may appeal their water rates	petition by 10% of Members within 90 days of effective date of rate change
6 WC 13.043(g)	may appeal cost to obtain service other than the regular membership or tap fees	applicant within 90 days after notice of costs
7 WC 13.043(g-1)	for a determination of whether the regular membership fee or tap fee required to be paid to obtain service is consistent with the tariff	applicant within 30 days after notice of costs
8 WC 67.011(b)	drought penalties	Member, under terms of WC 13.043(g)

9 Note - there does not seem to be a statutory or regulatory definition of "membership fee".  
10

11 The TRWA definition (from their Sample Tariff) is:  
12

13  
14 Membership Fee – A fee qualified as such under the terms of the tariff and the  
15 bylaws of the Corporation assigned to the real estate designated to receive  
16 service. The membership fee shall be refundable upon termination of service  
17 and surrendering the Membership. The membership fee cannot be more than  
18 12 times the minimum monthly base rate.  
19

20 There is an indirect definition of a "tap fee" in PUC regulation, as follows:  
21

22 16 TAC 24.163(a)(1)(A)

23 The (tap) fee charged by a utility for connecting a residential service applicant's  
24 premises to the system shall be as stated on the approved tariff. In determining  
25 the reasonableness of a tap fee, the commission will consider the actual costs of  
26 materials, labor, and administrative costs for such service connections and road  
27 construction or impact fees charged by authorities with control of road use if  
28 typically incurred and may allow a reasonable estimate of tax liabilities.  
29

1 **Section 1.02 - Definitions**

2  
3 We, MWSC, Corporation, Marsha WSC - Marsha Water Supply Corporation

4  
5 You - generally discernable by context, but usually meant to be “you”, the reader of this  
6 document

7  
8 Austin - City of Austin, Texas

9  
10 business day - any day of the week except Saturday, Sunday, and Federal holidays

11  
12 CCN - "Certificate of Convenience and Necessity", a license issued by Texas agencies for a utility  
13 to function as a service provider within a given geographic region. Water utility CCNs are  
14 governed by Subchapter G, Chapter 13, Texas Water Code. Administration of CCNs are  
15 presently (2023) handled by the Texas PUC.

16  
17 CFR - Code of Federal Regulations. The US federal agency administrative code.

18  
19 Customer - read as "Member"

20  
21 ETJ - Extra Territorial Jurisdiction, the surrounding region outside of the boundary of a  
22 municipality. Texas statutes grant municipalities some limited authority over this region.

23  
24 IPC - International Plumbing Code. Generally referenced as a section citation for a particular  
25 edition (year). For example 2021 IPC 609.2.1, to be read as Section 609.2.1 of the 2021 edition.

26  
27 IRC - International Residential Code. Generally referenced as a section citation for a particular  
28 edition (year). For example 2015 IRC P2902.3.2, to be read as Section P2902.3.2 of the 2015  
29 edition.

30  
31 Member - a person or entity that owns property in the MWSC service area, has paid the  
32 appropriate fees, has a meter providing water service at that property, and has been assigned  
33 a Member Account as described in this tariff (see also WC 13.002(11) for the statutory  
34 definition)

35  
36 Member in good standing - a Member with equity parity to other Members, and is not  
37 delinquent in their billing payments to the point of service termination

38  
39 "notwithstanding" - used in regulations and statutes, best to be read as "without regard to"

40  
41 PUC, PUCT - Public Utility Commission of Texas, a state agency overseeing financial regulation  
42 of Texas utilities. Agency regulations are Title 16, Part 2, chapters 21 thru 28, Texas

1 Administrative Code. Particular reference for water utilities are chapters 22 (Procedural Rules)  
2 and 24 (Water)

3  
4 "Rate" - as defined in WC 13.002(17), means every compensation, tariff, charge, fare, toll,  
5 rental, and classification or any of those items demanded, observed, charged, or collected  
6 whether directly or indirectly by any retail public utility for any service, product, or commodity  
7 described in (the definition of "water and sewer utility", WC 13.002(23)) and any rules,  
8 regulations, practices, or contracts affecting that compensation, tariff, charge, fare, toll, rental,  
9 or classification.

10  
11 tariff - There does not seem to be a statutory definition of tariff. In the more classic definition,  
12 a tariff is a menu or schedule of rates and prices. The term is more typically used as in the  
13 context of WC 13.136, to be a single document that is inclusive of all prices, rules, and  
14 regulations. Note also WC 67.016 has "rates, charges, and conditions of service" which can be  
15 read as "tariff" (and is edited as such in the back of this document). Also note that "rate" as  
16 defined in WC 13.002(17) is pretty much all inclusive, and "tariff" is the document that  
17 describes "rates". So here we are.

18  
19 Water Code

20 Sec. 13.136. FILING TARIFFS OF RATES, RULES, AND REGULATIONS; ANNUAL  
21 FINANCIAL REPORT. (a) Every utility shall file with each regulatory authority  
22 tariffs showing all rates that are subject to the original or appellate jurisdiction  
23 of the regulatory authority and that are in force at the time for any utility  
24 service, product, or commodity offered. **Every utility shall file with and as a**  
25 **part of those tariffs all rules and regulations relating to or affecting the rates,**  
26 **utility service, product, or commodity furnished.**

27  
28 TCAD - Travis County Central Appraisal District (see also WC 13.002(1-a) for statutory definition  
29 of "landowner")

30  
31 TCEQ - Texas Commission on Environmental Quality, a Texas state agency with responsibility  
32 for regulating water operations. Agency regulations are Title 30, Texas Administrative Code.

33  
34 TNRCC - Texas Natural Resource Conservation Commission, predecessor agency to TCEQ

35  
36 TRWA - Texas Rural Water Association, an industry group

37  
38 TWDB - Texas Water Development Board - Texas state agency for providing financial support to  
39 water utilities, and for monitoring water usage. Agency regulations are Title 31, Part 10,  
40 chapters 353 thru 380, Texas Administrative Code.

1 UPC - Uniform Plumbing Code. Generally referenced as a section citation for a particular  
2 edition (year). For example 2024 UPC 604.10.1 , to be read as Section 604.10.1 of the 2024  
3 edition.

4  
5 USDA RD - US Department of Agriculture, Rural Development, a division within a Federal  
6 agency that provides funding to qualifying utilities, including water supply corporations

7  
8 writing - see 88R-SB1778 which added WC 13.152 as follows (lacuna - two bills passed during  
9 the Legislative 88R session that added this same section number, 88R-SB594 and 88R-SB1778)

10  
11 Water Code

12 Sec. 13.152. INITIATION, TRANSFER, OR TERMINATION OF SERVICE.

13 A retail public utility may initiate, transfer, or terminate a customer's retail  
14 water or sewer service on receipt of a customer request by mail, by telephone,  
15 through an Internet website, or through another electronic transmission.

16  
17 WSC - "water supply corporation", a form of Texas corporation, organized under chapter 67,  
18 Texas Water Code, as a non-profit corporation consistent with BOC 22, as described by BOC 23  
19 subchapter A (yes, that is BOC 23 - not a typo)

20

1 **Section 1.03 - Adoption of Tariff**

2  
3 Resolved, by the Board of Directors, that

4  
5 1. This Member Service Handbook, to serve as the tariff, of the Marsha Water Supply  
6 Corporation, providing water service to the Pamela Heights subdivision in Travis County,  
7 is adopted and enacted as the current regulations and policies effective as of  
8 <<proposed effective date of 16 April 2024>>.

9  
10 2. This Member Service Handbook is a complete rewrite and replacement of prior enacted  
11 policy. Any policy contradictory to policy within the Member Service Handbook is  
12 repealed, and is not enforceable.

13  
14 3. Various Member Service Agreements and Water Service Agreements have been put  
15 into place over the years, with differing terms and conditions, potentially contradictory  
16 among the various Agreements, and potentially contradictory with the purposes of the  
17 Corporation.

18  
19 All existing Member Service Agreement and Water Service Agreements, in whatever  
20 form, are to be discontinued as of 31 December 2024. All existing property owners with  
21 water service are to be provided the opportunity to sign the Member Agreement with  
22 Water Service Rider that is contained within the Member Service Handbook.

23  
24 Services that are not covered by a signed Member Agreement with Water Service Rider  
25 before 1 January 2025 will have service discontinued, any presumed membership  
26 canceled, and member equity returned. (WC 67.016(e)(2))

27  
28 4. An official copy of this and all policies or records shall be available during regular office  
29 hours of the Corporation and a copy may be viewed on the Corporation's website. The  
30 Secretary of the Corporation shall maintain the original copy as approved and all  
31 previous copies for exhibit.

32  
33 5. Rules and regulations of state or federal agencies having jurisdiction shall supersede  
34 any terms of this policy. If any section, paragraph, sentence, clause, phrase, word, or  
35 words of this policy are declared unconstitutional or invalid for any purpose, the  
36 remainder of this policy shall not be affected.

37  
38 6. This tariff has been adopted in compliance with the Open Meetings Act, Chapter 551 of  
39 the Texas Government Code.

40  
41 Proposed date of adoption of this resolution is 21 March 2024

1 **Section 1.04 - Method of amendment**

2  
3 The Board will announce any proposed revenue changes, or amendments to this Member  
4 Service Handbook, tariff, Member Application and Agreement, or Water Service Rider over the  
5 course of two consecutive regular Board meetings, to give Members an opportunity to give  
6 their feedback on any proposed changes. After two consecutive regular Board meetings, the  
7 Board may vote to adopt changes that have incorporated consideration of Member feedback.

8  
9 Amendments to the Member Application and Agreement, or to the Water Service Rider, must  
10 themselves be in the form of a Rider to the Member Application and Agreement.

11  
12 The Board may enact Contingency Rate Structures (as described in Chapter 6) at any regular,  
13 special, or emergency board meeting so long as there is not a revenue target change. A  
14 revenue target change is a "rate change", and must have the two consecutive meetings to  
15 allow Members opportunity for feedback.

16  
17 **Section 1.05 - Utility Regulation and WSCs**

18  
19 The history of Texas state-wide utility regulation is very straightforward. There wasn't any.  
20 Municipalities had some limited jurisdiction over local utilities (water, electricity, telephone in  
21 local corporations or cooperatives), but that was about it. That was the situation up until  
22 newsworthy events in the early 1970s that caused some political uproar.

23  
24 In 1975, largely in response to those newsworthy events, the legislature enacted 64R-721-  
25 HB819, which became VTCS 1446c, creating the PUC as of 1 Jan 1976. This was the first state-  
26 wide utility regulatory agency in Texas, and made Texas the last state in these United States to  
27 have such an agency. (Source is the Texas State Historical Association on the history of PUC)

28  
29 PUC was given the job of certifying geographic service areas (called CCNs) and reviewing rates  
30 and services of utilities. All types of utilities, including WSCs. (Note - This implies there was no  
31 such thing as a CCN prior to 1976)

32  
33 In 1979, 66R-57-SB418 specifically removed WSCs from PUC review of rates and services, but  
34 kept WSCs under CCNs. There is a testimony transcript in the bill file that clarifies the intent of  
35 the legislative bill. WSCs are self regulated, in that members choose the board that set the  
36 rates that members pay. There is no need to burden PUC with that work already done. This  
37 mirrors the self-regulation in municipalities, and municipalities are not under PUC oversight  
38 unless they choose to be.

39  
40 In 1985, three water agencies are reorganized by 69R-795-SB249, creating the Texas Water  
41 Development Board, and the Texas Water Commission (TWC). TWC is intended to be a water  
42 utility regulatory agency, like PUC. Water Code chapter 13 is created and cloned from VTCS



1 1446c. WSCs are included, but are given the option to choose by member petition to be  
2 included or excluded from oversight of rates and services, in a manner very similar to that of  
3 municipalities (in WC 13.044, as a House-Senate conference compromise amendment)  
4

5 In 1987, 70R-539-HB1459 is a cleanup bill to the water agency creation, WC 13.043 is rewritten  
6 to include the rates and services review of a WSC if there is a petition by WSC ratepayers. This  
7 is the statute that we have today (2023), in WC 13.043(b) and (g) as it applies to WSCs. (WC  
8 13.044, the compromise amendment, is repealed)  
9

10 In 2003, 78R-512-HB1152 amended WC 67.011 to allow PUC review of drought penalties on  
11 complaint. (Lacuna - two bills amended WC 67.011 in 78R, with different wordings)  
12

13 In 2005, 79R-1057-HB1358 added WC 13.004 to set conditions on when the state has  
14 jurisdiction over WSCs in the same manner as an investor owned utility.  
15

16 In 2013, 83R-171-SB567 moved water utility oversight back to PUC from TCEQ (successor  
17 agency to TWC), but still under the regulatory statutes of WC 13.  
18

19 In 2023, 88R-1051-SB317, added 13.043(g-1) for a WSC member-applicant to appeal  
20 membership and tap fees. This complements WC 13.043(g) for member-applicants.  
21

## 22 **Section 1.06 - Statutory Water Operator and Plans Approval**

23

24 The regulatory history for water operators isn't readily something for including in a tariff. The  
25 historical background is important to understanding how and why MWSC is the way it is, and  
26 because, at time of writing, we don't readily have another place to record this history, this is  
27 being presented here. (Said differently, this doesn't really belong here, but we don't have  
28 another place to institutionalize the information. So, it's here.)  
29

30 From what we can tell from available records, MWSC had its first licensed operator in 1998.  
31

32 In 1945, 49R-178-SB81 is enacted, becoming VTCS 4477-1, establishing sanitation rules for  
33 water systems.  
34

35 Note - 49R-71-SB81 was passed in April 1945. World War II was in progress, in both Europe and  
36 the Pacific. The bill caption/header notes that Texas has grown considerably due to war  
37 production efforts, and steps are needed to enhance the sanitation practices of the state.  
38 Water is only one part of the Act.  
39

40 Context implies there was only local regulation prior to the statute enactment. Reading  
41 VTCS 4477 for years prior does not show any mention of water works. There's a lot on sewage  
42 and septic sanitation, but not for water works.

1 The Act refers to the Texas Water and Sanitation Research Foundation. A search finds that  
2 Foundation sponsored a manual distributed by the Texas State Department of Health that is  
3 titled a "Manual for Water Works Operators". Further searches find editions published in 1938  
4 (278 pages, 1st edition), in 1943 (392 pages, 2nd edition), and in 1951 (509 pages, 3rd edition).  
5 Evidently publication continued, with subsequent editions, as there are references into the  
6 1960s.

7  
8 VTCS 4477-1 Sections 11 and 12 eventually become the current Health and Safety Code  
9 sections 341.033 and 341.035 respectively.

10  
11 VTCS 4477-1 text from 1948 publication of the Texas Civil Statutes (text quoted here is  
12 incomplete, as each section has several subsections)

13  
14 Section 1 has some definitions

15  
16 (e) "Drinking water" - all water distributed by any agency or individual, public or private, for  
17 the purpose of human consumption or which may be used in the preparation of foods  
18 or beverages or for the cleaning of any utensil or article used in the course of  
19 preparation or consumption of food or beverages for human beings. The term "Drinking  
20 Water" shall also include all water supplied for human consumption or used by any  
21 institution catering to the public.

22  
23 (p) "water plant operator" - any person trained in the purification or distribution of a public  
24 water supply who has a practical working knowledge of the chemistry and bacteriology  
25 essential to the practical mechanics of water purification and who is capable of  
26 conducting and maintaining the purification processes in an efficient manner

27  
28 (q) "water supply" - any source or reservoir of water distributed to and used for human  
29 consumption.

30  
31 Section 10

32 (a) All drinking water for public use shall be free from deleterious matter and shall comply  
33 with the standards established therefore by the State Department of Health or the  
34 United States Public Health Service.

35  
36 Section 11

37 (a) No district, municipality, firm, corporation, or individual shall furnish to the public any  
38 drinking water for which any charge is made, unless the production, processing,  
39 treatment, and distribution is at all times under the supervision of a competent water  
40 works operator holding a valid certificate of competency issued under the direction of  
41 the Texas State Department of Health.

1 Section 12

2 (a) Every person, firm, corporation, public or private, contemplating the establishment of  
3 any drinking water supply or sewage disposal system for public use shall, previous to  
4 construction thereof, submit completed plans and specifications therefore to the State  
5 Department of Health and the said Department shall approve same; provided said plans  
6 conform to the water safety and stream pollution laws of this state. The said water  
7 supply or sewage disposal system shall be established only after approval has been  
8 given by the State Department of Health.

9  
10 (b) Any governing body of any municipality or any other agency supplying drinking water or  
11 sewage disposal service to the public desiring to make any material or major changes in  
12 any water or sewerage system that may affect the sanitary features of such utility shall,  
13 before making such changes, give written notice of such intentions to the State  
14 Department of Health.

15  
16 Sidenote - An interesting little bit of history turned up, that seems to indicate that Texas was  
17 one of the very early states to require water works operator licensing. Quoting, with some  
18 slight contextual reformatting, from an article in an AWWA publication:

19  
20 Bingley, W. McLean. "Status of Operator Certification and Training, 1960."  
21 Journal (American Water Works Association) 53, no. 4 (1961): 435–37.  
22 <http://www.jstor.org/stable/41257105>.

23  
24 It is interesting to note that (an interim report of a joint AWWA and CSSE  
25 committee submitted at the 1960 AWWA Annual Conference in Bal Harbour, Fla)  
26 showed that as of May 1960 water operator certification or licensing was  
27 required by state law in ten states and by voluntary action in 25 states. ... A  
28 study of the status of operator certification made in 1952 indicated that at that  
29 time seven mandatory-certification programs existed and sixteen voluntary  
30 plans were functioning.

31  
32 **Section 1.07 - History of Platting**

33  
34 The Pamela Heights subdivision plat was accepted by the Travis County Commissioners Court  
35 on 22 August 1960. The statute governing county plat acceptance was VTCS 2372k (52R-151-  
36 SB321, enacted 1951), which put requirements on roadways in subdivisions. If a plat had lot  
37 lines, a right-of-way of sufficient size, and provision for drainage, it would be acceptable. So  
38 Pamela Heights got lot lines, a 50-ft right-of-ways, dirt roads, and drainage bar ditches.

39  
40 Note VTCS 2372k would be superseded by VTCS 6702-1 in 1983 by the "County Road and  
41 Bridge Act" (68R-288-SB148), which in 1987 would be transformed into chapters of the newly  
42 enacted Local Government Code (70R-149-SB896). County requirements for subdivision plats

1 would become LGC chapter 232.

2  
3 When the first homeowners moved into the subdivision, and didn't have water, the question  
4 arises of "did they ask Austin?". The Interstate I-35 has been, or is in the process of, being built  
5 and Austin has a 6-inch fire line running along the frontage road. That fire line may not have  
6 been there with the first houses built, but it would have been there with later houses. So why  
7 not Austin to provide water, instead of the private well and the spaghetti pipe system?

8  
9 The answer to that question comes back to what we know today as LGC 212.012. At that time,  
10 it was VTCS 974a section 8. This turns out to have a very long history, enacted in 1927 as 40R-  
11 231-SB277. No municipal utility is to be connected to any lot that does not meet the  
12 municipality plat requirements. That applies also to any lot within a 5-mile ETJ. That wording is  
13 effectively unchanged until 1989, when WSCs are added to the statute, and issues with  
14 informal subdivisions and colonias along the international border are being addressed.

15  
16 Pamela Heights was platted according to county requirements (LGC 232 today), and not  
17 municipal requirements (LGC 212 today). The City of Austin, by statute, could not have Austin  
18 municipal utilities provide service.

19  
20 There have been amendments and exceptions added since LGC chapter 212 was created in  
21 1987. The more important one for MWSC is the county-municipal interlocal agreement under  
22 LGC chapter 242, which gives the means to harmonize the plat requirements.



# Chapter 2 - System

## Section 2.01 - Service Area

Marsha WSC provides service to the Pamela Heights Subdivision in Travis County, Texas. Marsha WSC is within the 2-mile ETJ of the City of Austin, but is not within the zoning jurisdiction of the City of Austin.

Online maps of the Marsha WSC service area are accessible from

Public Utility Commission of Texas, The Marsha WSC CCN number is 12166,  
<https://www.puc.texas.gov/industry/water/utilities/map.aspx>

Texas Water Development Board, The Marsha WSC system number is 2270040,  
<https://www3.twdb.texas.gov/apps/waterserviceboundaries>

Hardcopy of maps produced on 17 May 2023 are on the following pages.

NOTE: The online versions are updated more frequently than hardcopy version here.

- 1 Page reserved for 2007 CCN
- 2
- 3 CCN - Certificate of Convenience and Necessity

- 1 Page reserved for 2007 CCN Map
- 2
- 3 CCN - Service Area Map - 2007
- 4



- 1 Page reserved for PUC map of service area
- 2
- 3 PUC Service Area Map
- 4

- 1 Page reserved for TWDB map of service area
- 2
- 3 TWDB Service Area Map
- 4

1 **Section 2.02 - Authority to Use ROW**

2  
3 The question comes up sometimes, what gives us the authority to put water lines in the Travis  
4 County right-of-way (ROW). Answer is from two statutes:

5  
6 Water Code

7 Sec. 49.220. RIGHT TO USE EXISTING RIGHTS-OF-WAY.

8 All districts or water supply corporations are given rights-of-way within, along,  
9 under, and across all public, state, county, city, town, or village roads, highways,  
10 and rights-of-way and other public rights-of-way without the requirement for  
11 surety bond or security; provided, however, that the entity having jurisdiction  
12 over such roads, highways, and rights-of-way may require indemnification. A  
13 district or water supply corporation shall not proceed with any action to change,  
14 alter, or damage a portion of the state highway system without having first  
15 obtained the written consent of the Texas Department of Transportation, and  
16 the placement of any facility of a district or water supply corporation within  
17 state highway right-of-way shall be subject to department regulation.

18  
19 Local Government Code

20 Sec. 552.104. LOCATION OF WATER LINES OUTSIDE MUNICIPAL BOUNDARIES.

- 21 (a) A water corporation or municipality may lay water system pipes, mains,  
22 conductors, or other fixtures through, under, along, across, or over a  
23 public road, a public street, or a public waterway not in a municipality in  
24 a manner that does not inconvenience the public using the road, street,  
25 or waterway.
- 26 (b) A water corporation or municipality proposing under this subchapter to  
27 build a water line along the right-of-way of a state highway or county  
28 road not in a municipality shall give notice of the proposal to:
- 29 (1) the Texas Transportation Commission, if the proposal relates to a  
30 state highway; or  
31 (2) the commissioners court of the county if the proposal relates to a  
32 county road.
- 33 (c) On receipt of notice under Subsection (b), the Texas Transportation  
34 Commission or commissioners court may designate the location in the  
35 right-of-way where the corporation or municipality may construct the  
36 water line.

37  
38 Legal nit - "water corporation" is a term that predates the existence of "water supply  
39 corporation". You have to backtrack into the Texas Civil Statutes of 1925 to get the full  
40 meaning. It does include water supply corporations, and some other entities as well. LGC  
41 552.104 derives from VTCS 1433.

1 **Section 2.03 - Our Story** (At least so far as water, meters, and pipe are concerned)

2  
3 Disclaimer: this is mostly speculation based on very scant documentation. What's presented  
4 here fits what we know, but may not be accurate in the actual events or timing.

5  
6 The year is 1960. The Interstate I-35 is making its way from the drawing board into the ground.  
7 The Pamela Heights subdivision plat is approved by the Travis County Commissioners Court on  
8 22 August 1960. The deed for the subdivision, referencing the approved plat, is recorded with  
9 the Travis County Clerk in October of 1960.

10  
11 With a subdivision being platted, and next to an interstate highway, both telephone and  
12 electricity utilities are seeing opportunity. So they go out into what are farm fields, and put in  
13 their poles and wires, and wait for the homeowners to come.

14  
15 And they do come. Records haven't been searched to show how fast, or how many, or when.  
16 While the first lots sold may have electricity and telephone, there is no water.

17  
18 So the first people to move into Pamela Heights are going to have to drill themselves a well in  
19 order to have water. So they get themselves a well, for their household.

20  
21 Then some more folks move into the subdivision. And they don't have water. Being Texas  
22 friendly, neighbor helps out neighbor, and so a neighborhood (of at least two, and later several  
23 more) has water.

24  
25 There are very few details here. Speculation is that when some new owner wants water, the  
26 new owner lays the pipe and puts in his own meter. There is no design to follow, just the  
27 neighborhood lore on what works, where things are, and how they've been put in. Probably  
28 after a few trips to the nearby hardware store (McCoys Building Supplies seems to have been a  
29 popular choice from what we've seen in repairs), the new owner home has running water.

30  
31 In 1976, the folks operating the well decide that the area is not for them anymore, and decide  
32 to move. Not being able to take the well with them, they decide to sell it to the neighborhood.

33  
34 The neighborhood gathers together, decides that "yes, we'll buy it", and in April 1976 forms a  
35 non-profit corporation (under VTCS 1396-01) as Marsha Water Corporation. Putting up \$395  
36 per connection, 27 households put up \$10,665 and become the proud owners of the water  
37 well.

38  
39 In 1984, Travis County got around to paving the then dirt streets that existed.

40  
41 Also in 1984, a new owner comes in, wants to get water, and is told "no, we can't supply you"  
42 (that well was one household back when, and now has a whole neighborhood hanging off it).

1 Being unhappy, that new owner makes a complaint to the state agency for complaints (PUC). In  
2 turn, the PUC contacts the state agency for water, and inquire about who to contact.

3  
4 The state agency for water (Texas Water Commission, since assimilated elsewhere) answers  
5 PUC with the equivalent of "Who?... How do you spell that?... Are you sure? We don't have  
6 anything on file."

7  
8 And thus the microscope of the state agencies is focused on Marsha Water Corporation. And  
9 the agencies are unhappy with what they see.

10  
11 Primarily for the bureaucratic sin of operating a water company without a Certificate of  
12 Convenience and Necessity (CCN), which is basically a license to be a monopoly utility provider.  
13 There are various requirements that go along with that license, and those requirements are  
14 not being met.

15  
16 The state health agency also looked thru the microscope at the well and the water, and was  
17 equally unhappy.

18  
19 Operation of the well was placed under the control of a water operating company  
20 (Envir-O-Spec). A CCN would be issued only when Marsha Water Corporation could provide  
21 water in sufficient quantity and quality to the neighborhood.

22  
23 The records of this time (mid to late 1980s) are sparse. No doubt there would be much  
24 discussion about a new well, but there is no mention.

25  
26 The City of Austin was approached at least twice, in 1986 and 1988. In response to the later  
27 query in 1988, Austin reached into the metaphorical closet, pulled out the proverbial 10-foot  
28 pole, attached a note with documentation referencing LGC 212.012, and said "NO".

29  
30 Evidently the state agencies did not disagree, as the "no" was not rescinded.

31  
32 Presumably purely by coincidence, in 1989 the Legislature amends LGC 212.012, requiring that  
33 water supply corporations follow that statute in the same manner as municipalities. (71R-624-  
34 SB2)

35  
36 Once the law book updates were published and distributed, somebody somewhere came up  
37 with an idea that would seem to work.

38  
39 In February 1991, Marsha Water Corporation, incorporated in 1976 under VTCS 1396-01,  
40 reincorporated as a water supply corporation under VTCS 1434a. And now, in this new guise,  
41 approached the City of Austin once again.

1 This time the City of Austin said "yes", as the now Marsha Water Supply Corporation shared  
2 the same responsibility and liability under LGC 212.012 as the City.

3  
4 In April 1992, Marsha Water Supply Corporation signed a wholesale water purchase contract  
5 for 25 years with the City of Austin. Having now established a source of water of sufficient  
6 quantity and quality, the Texas Water Commission issued a CCN consistent with LGC 212.012  
7 specifically listing all 58 existing service locations as grandfathered under terms of the statute.

8  
9 The state agency microscope went away. The operating company was discontinued. The  
10 neighborhood well was capped, and the property where the well was located was sold off soon  
11 thereafter.

12  
13 From 1990 to 1992, there was a complete turnover of the (now) MWSC board of directors.  
14 Somebody may have gotten a memo about LGC 212.012, the Austin contract, and a little thing  
15 about septic systems. That little detail doesn't really have any impact on pipe in the ground,  
16 but is a tariff item.

17  
18 With the LGC 212.012 amendment came WC 13.2501 that allows water supply corporations to  
19 refuse service. That memo seems to have gotten lost somewhere in the shuffle.

20  
21 The 1992 CCN is very, very specific (see page 30). That point apparently never registered with  
22 the MWSC board of directors.

23  
24 A brief digression here, regarding the Austin water purchase contract.

25  
26 Regulation 30 TAC 285.4(a)(1)(A) requires that septic systems (called "on site septic facilities"  
27 or OSSF) be installed on property of no less than 0.5 acres. Lots in Pamela Heights are 0.25  
28 acres. And everything is septic system. Pamela Heights is laid out with 262 lots. That is at most  
29 131 residences with septic systems. The Austin contract was written with a max usage of  
30 24,000 gallons per day. That coincidentally works as 131 households at 3 persons/household at  
31 60 gpcd to be 23,580 gallons per day.

32  
33 Note that regulations of the time require a 0.6 gpm minimum per connection. A max usage of  
34 24,000 gal/day is 16.67 gpm, which at 0.6 gpm/connection works out to be 27 connections.  
35 And 27 connections happens to be the number of connections listed in the 1976 articles of  
36 incorporation, and not the actual number of connections in service in 1992. The CCN issued in  
37 1992 lists 58 properties, which at 0.6 gpm/connection would have a usage of 50,112 gal/day. A  
38 full 131 connections at 0.6 gpm would be 113,184 gal/day.

39  
40 Now, back to our story.

1 With the Austin contract, there was a master meter installed at Pamela Dr and the I-35  
2 southbound frontage road. This is a 2-inch meter. There is no clear answer on why this was a  
3 2-inch meter. Properly for capacity, it should have been at least a 4-inch for 58 known  
4 connections that are going to have more over the course of the contract. The limitation was  
5 probably cost, as MWSC had to pay for the meter and its installation. In the late 1980s and  
6 early 1990s, MWC and the reincorporated MWSC was broke.

7  
8 From about 1992 thru 2012, the meter service installations were done by the same handful of  
9 people, so there is some consistency in the way that work was done, but it still followed  
10 homeowner lore.

11  
12 In the mid-late 1990s, folks who are furthest from the master meter (Brenda St, especially on  
13 the high ground) are complaining about reduced water pressure. So about 1999, a 3-inch line is  
14 laid along Pamela Dr to supply Brenda St directly from the master meter. To our knowledge,  
15 that 3-inch line does not connect to anything from Marsha St to the endpoint at Brenda St.

16  
17 That solves the pressure problem on Brenda St. Repair work done in the mid 2010s and in early  
18 2020s has revealed that the 3-inch is plain end PVC schedule 40, held together with primer  
19 only. The (insert colorful language here) installers didn't use any glue. (And not gasketed pipe  
20 either)

21  
22 There is 3-inch line installed on Brenda St from Pamela Dr going north to about 15607  
23 Brenda St, and 3-inch line from Pamela Dr going south on Marsha St to Ouida Dr. We don't  
24 know if this was put in by the same (expletive) installers.

25  
26 In 2002, MWSC appears to have adopted the standard form tariff from TNRCC (predecessor  
27 agency of TCEQ)

28  
29 In 2005, Brenda St south from Pamela Dr to Ouida Dr was having some kind of problem, and  
30 basically got re-done, from 15502 down to (what is now) 15300-B Brenda St. This is gasketed  
31 PVC, and all (17 at the time) meters replaced to Austin standard style of installation. Note: so  
32 far as we know, this is the first set of any standard meter installation there has been. Ever.

33  
34 In 2007, the properties on the I-35 frontage road were transferred from MWSC to the City of  
35 Austin. The boundary lines for the CCN were changed. The CCN was reissued, without the LGC  
36 212.012 notations.

37  
38 In 2011, another 300 feet of 3-inch gasketed PVC SDR-21 was installed on Brenda St from (now)  
39 15300-B Brenda to the dead-end at 15130 Brenda St. And about 100-feet of 2-inch  
40 polyethylene tube connecting to the blowoff flush valve at 15301 Brenda. The meters on that  
41 300 feet are also on Austin standard. Specifications for the pipe installation was 5-feet from  
42 the roadway, and 24-inches down. Work was professionally done by Kinney's Commercial.

1 In 2012, MWSC got a tap drill. Our first time ever doing a waterworks style tap, and we haven't  
2 looked back. New meter installations are making the attempt to follow waterworks industry  
3 standards and practices.

4  
5 From 2012 to date, when we have to make repairs, we are using waterworks grade parts to the  
6 extent that we can.

7  
8 In 2012, we filed restated articles of incorporation to be very clearly incorporated under  
9 Chapter 67, Texas Water Code, as a water supply corporation.

10  
11 In 2015, Travis County updated their septic system/OSSF regulations to require that septic  
12 systems be installed on a minimum lot size of 1-acre. MWSC service area lots are all 0.25-acre.  
13 MWSC adopted a new tariff that requires the installation of septic systems for new service  
14 installations to be consistent with LGC 212.012.

15  
16 We received federal tax exempt status as a 501(c)(12) effective 27 Dec 2017.

17  
18 In 2018, we had a new water purchase contract for 30 years with the City of Austin.

19  
20 We started doing meter yoke installations about 2018. The meter yoke installation is intended  
21 to be the MWSC standard meter installation.

22  
23 In 2019, we put in place the "construction charge" to accumulate funds for getting our water  
24 system up to the standards that it is supposed to be. This charge represents the Member  
25 equity in the corporation under WC 67.016.

26  
27 And here we are, today.  
28  
29



1 Page reserved for the 1992 CCN

1 Some observations based on this story:  
2

3 The bulk of the installed distribution pipe was installed probably prior to 1985. It was done by  
4 the homeowners. There was no design, and no common standard. We don't know what we've  
5 got until we dig it up. Nobody kept records or mapped anything back in the day. A simplistic  
6 description of the distribution system is "a backyard irrigation system, writ large".  
7

8 It is unlikely that any distribution line got installed while under agency microscope. It's not  
9 known if there were any new connections made during that time. The owner who made the  
10 complaint in 1984 does have service today, but we don't know the history.  
11

12 We have at least four different kinds of meter installations:

- 13 \* homeowner, using PVC parts typically - this is from first meter thru 2012
- 14 \* Austin standard - almost entirely on south Brenda St, done 2005 as a batch
- 15 \* waterworks industry style - mostly from repairs since 2012
- 16 \* yoke - standard on new installs since 2018, usually - there have been some exceptions  
17

18 Several major issues:

- 19 \* Pamela Heights has a solid limestone ground layer that is only inches from the surface.  
20 The topsoil depth varies from a few inches, to maybe a couple of feet. Installed  
21 distribution pipe was not trenched. Topsoil was scraped away down to the limestone,  
22 pipe laid down, and then covered over. Regulations say minimum cover is 24 inches.  
23 Nope, not here.
  - 24 \* The pipe wasn't properly bedded either. We can tell a professional install from a  
25 homeowner install by the presence or absence of sand bedding. Sand is rare.
  - 26 \* The lack of depth means lack of protection. As the neighborhood has gotten  
27 more populated, vehicles have been crushing the distribution pipes.  
28
- 29 \* Homeowners used retail parts for valves. These are gate valves on the corporation side  
30 of the meter. Retail valves are cheap, because they are 30+% zinc. And we have a major  
31 problem with dezincification. We're seeing a retail gate valve as having a survival  
32 lifetime of about 5 years. Most of these valves were installed decades ago. Touch a gate  
33 valve, and you've got a repair.  
34
- 35 \* There are retail gate valves on street isolation valves also. Same problem with  
36 dezincification. We get one or two use attempts on an isolation valve, and then it's  
37 gone. Repair of an isolation valve is a full system shutdown.

1 **Section 2.04 - System Description**

2  
3 The piping system is primarily PVC, solvent weld, unrestrained, with retail plumbing fittings  
4 and valves, installed without proper bedding. There is approximately 18,000 feet of distribution  
5 pipe installed.  
6

7 Pipe sizes encountered and estimated to be in service (as of May 2023)

8 pipe size (inches)	approximate installed length (feet)	pipe types
9 1	1000 ft, serving about 6 to 10 connections	pvc sch 40 and sdr-21
10 1-1/4	600 ft, serving 4 to 6 connections	pvc sch 40
11 2	10,000 ft, of which about 2,000 ft is galvanized	pvc sch 40, sdr 21 and 26, and galvanized
12 3	6,000 ft, of which 300ft is known sdr-21	pvc sch 40, and sdr-21

13  
14 TCEQ reg 290.44(c) "minimum pipe size", is 2-inch to serve at most 10 connections. The overall  
15 distribution system is not compliant with TCEQ reg 290.44(c).

16  
17 The system overall is not looped (not compliant with TCEQ reg 290.44(d)(6)).

18  
19 There is a limited ability to make repairs on a single street, if the street isolation valves work,  
20 and most such valves don't work due to dezincification of the retail plumbing valves that were  
21 installed. Most repairs, often including even a single meter change-out, require shutting the  
22 entire system off at the master meter. There are perhaps a dozen resilient wedge gate valves  
23 installed that are reliably used.

24  
25 There are no air valves installed. (Not compliant with TCEQ reg 290.44(d)(5))

26  
27 There are two reliably working flush/blowoff valves.

28  
29 There are no storage tanks or treatment facilities.

30  
31 There is no raw water or reclaimed water usage.

32  
33 MWSC does not provide wastewater service.

34  
35 The MWSC water system is substandard and does not meet the TCEQ requirements of 30 TAC  
36 290 Subchapter D. The TCEQ notification letter is attached.

1 Page(s) reserved for TCEQ notice letter  
2  
3



# Chapter 3 - Member Equity

## Section 3.01 - Background

In 1976, the existent community bought out the private well owner, and a non-profit corporation formed by 27 residents for \$10,665. The resident member buy-in fee was \$395.00 from inception in 1976 up until 2019, when the board enacted the system construction charge. During that 43 years, the system was occasionally repaired and expanded as needed, but was substantially unchanged. Most notably, there was no planned replacement or funding for such replacement (Look up "waterworks asset management" for details. It makes tax returns look elementary.). Consequently, the system depreciated into effective financial non-existence. The only assets that existed was whatever funds were on deposit in a bank account.

In 2019, the board put in place a surcharge per tap of \$40.00 to be billed monthly. The funds collected are restricted to replacing and upgrading the existing system so as to have compliance with TCEQ regulations, and sufficient water capacity to provide some kind of fire flow for the neighborhood.

That construction fund surcharge is (at time of writing) the sole member equity. The original \$395 was rolled into that construction fund.

**Because this surcharge is ongoing as a monthly surcharge, there is no fixed number that represents the equity for a member. We can give a snapshot in time, and that's it.**

**Section 3.02 - Expected Equity**

1  
2  
3  
4  
5  
6  
7

Jan 2019 actual	\$0
Jan 2020 actual	\$480
Jan 2021 actual	\$840
Jan 2022 actual	\$1,320
Jan 2023 actual	\$1,800
Jan 2024	\$2,280
Jan 2025	\$2,760
Jan 2026	\$3,240
Jan 2027	\$3,720
Jan 2028	\$4,200
Jan 2029	\$4,680
Jan 2030	\$5,160
Jan 2031	\$5,640
Jan 2032	\$6,120
Jan 2033	\$6,600
Jan 2034	\$7,080
Jan 2035	\$7,560
Jan 2036	\$8,040
Jan 2037	\$8,520
Jan 2038	\$9,000
Jan 2039	\$9,480
Jan 2040	\$9,960
Jan 2041	\$10,440
Jan 2042	\$10,920
Jan 2043	\$11,400
Jan 2044	\$11,880

The board paused collection of the construction charge for 3 months, April thru June, 2020 to ease the financial burden caused by the 2020 Covid pandemic shutdowns.

Add the amount for the month to the January amount to determine the accumulated construction charge.

Jan	\$0
Feb	\$40
Mar	\$80
Apr	\$120
May	\$160
Jun	\$200
Jul	\$240
Aug	\$280
Sep	\$320
Oct	\$360
Nov	\$400
Dec	\$440
Jan next year	\$480

1 **Section 3.03 - Estimated Maximum Equity**

2  
3 However, we can estimate the maximum value of member equity, assuming we will eventually  
4 get a proper system funded, installed, and maintained.

5  
6 The estimates that we have today (mid 2023), is that a new system will cost something on the  
7 order of \$4.8 million (note the number is chosen to make the following math easy, the range is  
8 \$3 to \$5 million)

9  
10 We have at present (mid 2023) about 160 connections.

11  
12 So the math is easy

13  
14  $\text{max member equity} = (\$4.8 \text{ million}) / (160 \text{ connections}) = \$30,000/\text{connection}$

15  
16 This number highlights the fact that small systems are incredibly expensive, because we don't  
17 have the number of connections (or members or customers) to bring that number down.

18  
19 Right now (May 2023), the per connection buy-in is about \$2,000/connection

20  
21 It grows at the rate of  $(\$40/\text{month} \times 12 \text{ months}/\text{year}) = \$480/\text{year}$  per connection

22  
23 It's going to be a long time to reach that maximum member equity.

24  
25 -----

26  
27 For comparison, January 2019 had exactly 160 connections. At \$395.00 per connection, the  
28 total for accumulated member equity would be  $\$395 * 160 = \$63,200$ .

29  
30 There is an estimated back-of-the-envelope calculation of what a minimum equity should be  
31 (section 3.06). For 164 connections, the corresponding member equity would be somewhere  
32 around \$7,719, which is nowhere near the \$395.

33  
34 It is possible to quibble about the cost numbers, but that does not change the point that \$395  
35 is at the very least an order of magnitude short of what it needs to be.

36  
37 The only conclusion is that we are very, very badly undercapitalized. Draw your own  
38 conclusions about the overall management capacity of the board over all those years.



1 **Section 3.04 - TRWA description of member equity and buy-in fee**

2  
3 (This is extracted from the TRWA Sample tariff. Section references are within that tariff.)

4  
5 Equity Buy-In Fee – Each Applicant for new service where a new service tap is necessary shall  
6 be required to achieve parity with the contributions to the construction or acquisition of the  
7 Corporations assets related to capacity that have been made previously by existing Members.  
8 This fee shall be calculated annually after receipt of the system audit and assessed prior to  
9 providing (or reserving service for nonstandard service applicants) on a per service unit basis  
10 for each property and shall be assigned and restricted to that property for which the service  
11 was originally requested. (See Section G. 7., also See Section K, Calculation of Average Net  
12 Equity Buy in Fee)

13  
14 7. Equity Buy-In Fee. In addition to the Membership Fee, each Applicant for new service  
15 that requires a new service tap shall be required to achieve parity with the contributions to the  
16 construction or acquisition of the Corporation's assets related to capacity that have been made  
17 previously by existing Members. This fee shall be assessed immediately prior to providing  
18 service on a per-service unit basis for each service requested and shall be assigned and  
19 restricted to that property for which the service was originally requested. This fee shall be set  
20 aside for future capacity improvements such as line upgrades, new tanks, treatment, or  
21 production. The formula applied to such fee calculated annually after receipt of the system  
22 audit is as follows:

23  
24 Sample Calculation:

25  
26 Total Contributions and Assets of the Corporation minus (-)  
27 Accumulated Depreciation minus (-)  
28 Outstanding Corporation Debt Principle minus (-)  
29 Developer Contributions minus (-)  
30 Grants received divided by  
31 Total Number of Members / Customers equals = Average Net Equity Buy-In Fee

32  
33 ----- ( end of TRWA extract )

34  
35 Note about the TRWA calculation:

36  
37 We have no debt, no developer contribution, and no grant funding. Our existing system has  
38 effectively depreciated out of existence, and we don't yet have an asset management system  
39 for replacement funding. That leaves the TRWA equation to be

40  
41 Net equity buy-in = (Total contributions) / (number of connections)

1 **Section 3.05 - Membership and Equity Buy-In**

2  
3 (This is extracted from a 2023 email exchange with a Member regarding their request for an  
4 explanation of the construction charge, and how long that charge will be in place)

5  
6 In regard to your questions about the Marsha WSC construction charge,

7  
8 The charge is the "member right of participation" described by section 67.016, Texas Water  
9 Code. That's the legal stuff, but what does that mean for Marsha WSC?

10  
11 Here's the background, and the detail.

12  
13 A chapter 67 water supply corporation is a member owned, member controlled, member  
14 benefit cooperative corporation. Financially, that means the corporation looks a lot like a  
15 partnership, where member-partners by statute must own property to have water service  
16 (section 13.002(11 and 24), Water Code, for details).

17  
18 In a partnership, the member-partners contribute funds to a common pot so that the  
19 corporation can do its thing.

20  
21 For Marsha WSC, that thing, is to get the water system infrastructure up to what it is supposed  
22 to be. The existing water infrastructure was installed by homeowners, with no design, and no  
23 consideration to industry standards. The existing system does not meet TCEQ regulations (30  
24 TAC 290.44), and does not provide fire flow at all. We've got 2-inch and 3-inch lines, where we  
25 are supposed to have 6-inch and 8-inch lines.

26  
27 We've gotten engineering estimates on what kind of funding we would need. If there is a spare  
28 \$3 to \$5 million floating around, we'd love to hear about it.

29  
30 We have made application to the Texas Water Development Board (TWDB) for funding thru  
31 the state revolving fund. We have found that effectively there is no chance of getting funding  
32 that way.

33  
34 (Short summary - TWDB uses a point ranking system, with high point scores being funded. Our  
35 top point score will be about 5. We are a purchase water system getting water from the City of  
36 Austin, so no chance of there being any water quality issues. We are in Travis County, with its  
37 corresponding median household income, so we don't qualify as a disadvantaged community.  
38 TWDB ranks disadvantaged communities with a minimum score of 20. Meaning every  
39 disadvantaged community is going to be funded before we are. So it isn't happening that way.)

40  
41 We have looked at funding thru USDA Rural Development, but their funding can only provide  
42 about \$1.5 million (40 year loan at \$6400/mon)

1 So we have to provide our own funding. That's the construction charge, at \$40/mon. It is  
2 charged only to the property owner, as the member-partner, as this funding is solely for the  
3 infrastructure to provide service to their property. It is prohibited from being used for any kind  
4 of operating expenses. Those expenses are paid only by water revenue.

5  
6 And, under WC67.016, the member-partner contribution is refundable on sale of property ("by  
7 sale to the corporation" is a fancy way of saying refund), or conveyed by sale of the property to  
8 a new owner ("to another person or entity as part of the conveyance of real estate").

9  
10 Aside, it is our understanding that water supply corporation memberships should be listed on  
11 TREC Form OP-M, as memberships are personal property and can transfer with the sale of the  
12 property being valued at the member-partner contribution.

13  
14 As for how long that charge will be in place. The answer is "a very long time". We have 160  
15 service connections, each paying \$40/mon (\$6400/mon, which would be our USDA mortgage  
16 payment for 40 years). If we have to fund this entire system by ourselves, we're looking at, say,  
17 \$4.8 million (just to make the math easy)

18  
19  $\$4,800,000 / (160 \text{ connections}) / (\$480\text{yr per connection}) = 62.5 \text{ years.}$

20  
21 To date (mid 2023), each member-partner has about \$2000 in partner contribution. This grows  
22 by \$40 each month.

23  
24 We are just now getting to the point where we can start doing something to get some kind of  
25 upgrade in place.

26  
27 You are welcome to attend our board meetings, every 3rd Thursday of each month (next is 18  
28 May). We meet at Comfort Suites at the intersection of I-35 and Wells Branch Pkwy (located in  
29 the northeast corner of the intersection). The conference room is behind the front desk.  
30 Meeting time is 6:30pm. Agendas are posted to our website ([marshawsc.org](http://marshawsc.org)) three days before  
31 the meeting.

32  
33 We hope this provides some answers for your questions. If not, please let us know, and we'll  
34 try to clarify.

35  
36 Thank you

37  
38 Marsha WSC  
39

**Section 3.06 - Hypothetical System for Minimum Compliance**

This is a hypothetical MINIMUM compliance system, done cheap and cutting a bunch of corners. The numbers here DO NOT consider the administrative overhead of building a system, and certainly DOES NOT have any engineering design behind it. Consider this as a back-of-the-envelope estimation.

The intent is to establish an understanding of what a Member equity buy-in is reasonable and expected. Reminder: small systems are not cheap. At time of writing, we have 164 connections.

How much pipe are we talking about

Street	south of Pamela Dr		north of Pamela Dr	
	length	pipe size	length	pipe size
Brenda St	1200	4	1200	6
Scarlet St	1200	4	1200	4
Patricia St	1200	4	1200	4
Connie St	1200	4	1200	4
Marsha St	1200	4	800	6
Ginger St	800	6	none	
total	6800		5600	

Street	length	Pipe size (inches)
Three Pts Rd	900	6
Pamela Dr	1500	6
Ouida Dr	1800	6
total	4200	

total installed length = 6800 + 5600 + 4200 = 16,600 ft  
 at \$60/linear foot that is = 16600 x 60 = \$996,000 for the pipe alone  
 note that is not making any distinction about pipe size or type

TCEQ regs require 6-inch for at most 250 connections (we'll max out around 200)  
 and 6-inch is the minimum for any kind of fire flow and C-900 pipe size minimum is 4-inch

1 **This hypothetical is for agency review and background**

2  
3 Now, what about valves.

4 We need isolation valves at each intersection.

5 There are 22 lots served on each block (in theory, assuming no subdivision or combining)

6

	valves per intersection			
street	Three Pts Rd	Pamela Dr	Ouida Dr	total
Brenda St	2	3	2	7
Scarlet St	3	3	3	9
Patricia St	3	3	3	9
Connie St	2	3	3	8
Marsha St	none	3	3	6
Ginger St	none	none	2	2
total valves				41
total intersections	4	5	6	

7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18 Note - this is a minimum number of valves at each intersection. It is not using industry best practice.

19 This also does not make any distinction in valve size.

20 4-inch valves have been priced at \$700 each, so  $700 \times 41 = \$28,700$

21  
22  
23  
24 What about fire hydrants? Table above shows 15 intersections. There are two dead-ends that also need hydrants (blowoffs). These are Marsha St north of Pamela Dr, and Ginger St north of Ouida Dr. (Note this is a 600 ft reach for fire hydrants, well beyond the recommendation for any residential separation of 400 ft)

25  
26  
27  
28  
29 That's a total of 17 hydrants. A hydrant has a service valve, and approximately 20 feet of pipe (our ROW is 50ft wide). We're going with a guess of \$5,000 per hydrant.

30  
31  
32 So  $17 \times \$5,000 = \$105,000$  for hydrants

1 **This hypothetical is for agency review and background**

2  
3 What about a meter installation?

4  
5 The description here is a MINIMUM compliance with industry. It DOES NOT reflect any kind of  
6 viable solution to other problems that we are trying to solve (traffic damage, labor costs,  
7 maintenance). This is spending the absolute minimum amount of money up front, and paying  
8 thru the nose on the back end.

9  
10 THIS IS NOT WHAT WE ARE INSTALLING. We're trying to do it right, not cheap. This is cheap.

11  
12 Pricing is from the Ford Meter Box price book of January 2022

meter instllation of 5/8x3/4 meter, with 3/4-inch service line and tap		
what	part	list price as of Jan 2022
tap saddle 4inch C900	Ford FS323-554-CC3	174.01
corporation valve	Ford FB1000-3-G-NL	107.20
insert (qty 4, \$3.16 ea list)	Ford Insert-51	12.64
polyethylene tubing	meets AWWA C-901	
curb valve	Ford B44-333-G-NL	146.72
meter valve	Ford BA43-332W-G-NL	168.17
meter	PD, disc, direct read, gallons 5/8x3/4	60.00
meter coupling	Ford C38-23-3-NL	26.15
union (demarc point)	UNION-3-NL	46.78
meter box	DFW1814FR	67.77 (order 9/09/20)
meter box lid	DFW18AMR-3EQA-LID	21.18 (order 9/09/20)
total		830.62

13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29 For our presently installed connections (164 at time of writing), this is  
30  $830.62 \times 164 = \$136,221.68$   
31 plus tubing for the material costs, and then we have labor also.  
32

1 **This hypothetical is for agency review and background**

2  
3 So our hypothetical minimum compliance system is going to cost us

4

5 pipe	\$996,000.00
6 valves	\$28,700.00
7 meters	\$136,221.68
8 Hydrants	\$105,000.00
9 Total	\$1,265,921.68

10  
11 Not yet accounted for are

- 12  
13 \* 2x 6-inch master meters with backflow preventers (contract requirement)  
14 \* roadway repair, if pipe is laid in the middle of the road

15  
16 That total, divided over our current 164 connections is

17  
18  $(1,265,921.68) / 164 = \$7,719.03$

19  
20 And that is what our absolute minimum equity buy-in should be, if we had compliance with  
21 regulations, and an otherwise properly working water system.

22  
23 Add in the administrative cost, engineering design, and whatever else, and we are looking at a  
24 minimum of \$2.5 to \$3 million.

25  
26 If you know a funding source that can get us on the road to get this system working, please let  
27 us know about it. Otherwise, our construction charge stands as our only means to fund what  
28 we need to do.

# Chapter 4 - Application for Service

## Section 4.01 - Obligations Under Statute

There are two statutory obligations that have to be satisfied. One is for the person making member application. The other is for the property to be provided service.

The obligations for the person is that the person must own property within our CCN service area to have service:

### Water Code

Sec. 13.250. CONTINUOUS AND ADEQUATE SERVICE; DISCONTINUANCE, REDUCTION, OR IMPAIRMENT OF SERVICE. (a) Except as provided by this section or Section 13.2501 of this code, any retail public utility that possesses or is required to possess a certificate of public convenience and necessity **shall serve every consumer within its certified area** and shall render continuous and adequate service within the area or areas.

### Water Code

#### Sec. 13.002 - Definitions

(11) "Member" means a person who holds a membership in a water supply or sewer service corporation and **is a record owner of a fee simple title to property** in an area served by a water supply or sewer service corporation or a person who is granted a membership and who either currently receives or will be eligible to receive water or sewer utility service from the corporation.

The obligations for the property, that it meets certain plat and land use requirements. You have to trace thru LGC 212 to determine what this means for us. It seems to come down to meeting the requirements set forth in the Austin/Travis County Joint Development Code, Title 30.

### Local Government Code

#### Sec. 212.012. CONNECTION OF UTILITIES.

(a) .... , an entity described by Subsection (b) may not serve or connect any land with water, sewer, electricity, gas, or other utility service unless the entity has been presented with or otherwise holds a certificate applicable to the land issued under Section 212.0115.

(b) The prohibition established by Subsection (a) applies only to:

- (4) a water supply or sewer service corporation organized and operating under Chapter 67, Water Code, that provides any of those services;



1  
2 Absent those statutory conditions, we are obligated to refuse service

3  
4 Water Code

5 Sec. 13.2501. CONDITIONS REQUIRING REFUSAL OF SERVICE. The holder of a  
6 certificate of public convenience and necessity shall refuse to serve a customer  
7 within its certified area if the holder of the certificate is prohibited from  
8 providing the service under Section 212.012 or 232.0047, Local Government  
9 Code.

10  
11 ( statute note: LGC 232.0047 got rolled into LGC 212.012 a couple of years after this  
12 statute was enacted. The text was never updated. )

13  
14 **Section 4.02 - What We need**

15  
16 In order to get service:

- 17 1. The applicant must be the owner of the property, as recorded by TCAD. If the property  
18 sale is too recent for TCAD, we will do a search on the Travis County Clerk website to  
19 locate deed information. TCAD reports deed identifying information, which we will use  
20 to get a copy from the Travis County Clerk website.

21  
22 If the property owner is a legal entity that would be registered with the Texas Secretary  
23 of State, we will check the registration to make sure the entity is active and in good  
24 standing with its registration. If not, then we will not accept the application.

25  
26 In the Forms section of this tariff, there is a form for an entity representative to present  
27 their credentials as a signer for the entity.

- 28  
29 2. Submit the completed (legal nit - administratively complete) application paperwork  
30 a. Member Agreement, if the applicant does not already own property in the  
31 service area. If an agreement is on file already, and the applicant submits a new  
32 one, the new one supersedes any and all prior agreements.  
33 b. Water Service Agreement, for the property to have water service  
34 c. Signing Authority, if the applicant is a legal entity (example, is an LLC). We will  
35 verify the entity status with the registration at the Texas Secretary of State. If  
36 the registration is not current/valid, we will refuse the application.  
37 d. Provide a copy of an ID (drivers license, passport, etc to verify who is signing the  
38 paperwork)  
39  
40 3. For a location that already has water service, then this is a transfer of some kind, so  
41 must submit the necessary fees  
42 a. a membership application fee

- b. a transfer fee
- c. an equity buy-in fee as may be needed to come to member parity

4. For a location that does not already have water service, and needs to have a new tap, then so must submit

- a. a membership application fee
- b. an equity buy-in fee as may be needed to come to member parity
- c. **a septic system permit**
- d. Austin capital recovery fee
- e. Meter installation charges
- f. Service extension charges as may be needed

(Legal nit) Items 1, 2, and 3 or 4, must be submitted to be qualified as an "applicant".

After a Member Account has been assigned, and service provided, or service work scheduled for a new installation, then we have to have the following.

1. Within a reasonable time, a customer service inspection (CSI). If we don't get a CSI report within some time limit, we will discontinue service until we get a CSI report.
2. We will need to do an inspection of yard pipe and plumbing installation to confirm
  - a. depth of trenching, (12 inches of cover)
  - b. type of yard pipe (LCRR rules for record keeping) and thermal expansion
  - c. service valve, if we didn't install it
  - d. tracer wire and accessibility
  - e. installation of thermal expansion valve - with meter yoke installations and DCVs
  - f. hose bibb backflow preventer installations

#### **Section 4.03 - New Installation Requires Septic Permit**

[ text from our 2015 tariff ]

For compliance with Travis County and City of Austin ordinances, all new services shall present a permit for the installation and operation of the septic system issued by Travis County.

[ end text from 2015 tariff ]

We have had a complaint made to PUC regarding our tariff requirement for a septic system.

PUC Note: refer to complaint CP2020070080

1 Once a complaint is made, PUC may, or may not, accept any additional complaints for the same  
2 reason.

3  
4 Water Code

5 WC 13.043 (g) An applicant for service from ... a water supply or sewer service  
6 corporation may appeal to the utility commission a decision of the ... water supply or  
7 sewer service corporation affecting the amount to be paid to obtain service other than  
8 the regular membership or tap fees. ... A determination made by the utility commission  
9 on an appeal under this subsection is binding on all similarly situated applicants for  
10 service, and **the utility commission may not consider other appeals on the same issue**  
11 **until the applicable provisions of the tariff of the water supply or sewer service**  
12 **corporation are amended.**

13  
14 Background:

15  
16 Water supply corporations must comply with LGC 212.012, which requires a certificate for plat  
17 compliance before utility (including water) service is allowed. Absent such certification, WSCs  
18 are obligated to refuse to provide service under WC 13.2501.

19  
20 Tracing thru how that certification gets done, eventually leads back to LGC 242, and the  
21 interlocal agreement between a county (Travis County, in this instance) and the city having  
22 extra territorial jurisdiction (City of Austin, in this instance).

23  
24 For MWSC, that is Title 30, the Austin/Travis County Joint Development Code.  
25 In that title,

26  
27 § 30-2-198 - PRIVATE ON-SITE SEWAGE FACILITY.

28  
29 A subdivision that is to be served by private on-site sewage facilities must  
30 comply with the requirements of the authorized agent adopted in accordance  
31 with Texas Administrative Code Title 30, Chapter 285 (On-Site Sewage Facilities).  
32 The authorized agent shall review a preliminary plan or plat and report its  
33 findings to the single office.

34  
35 Source: City Code Section 25-4-198; Ord. 031211-11; Ord. 031211-42.

36  
37 The plat for Pamela Heights subdivision was accepted by Travis County in 1960, and had no  
38 specifications for utility infrastructure. The lots were platted at 0.25 acres.

39  
40 There is a problem here. Everything in Pamela Heights is a septic system (on site septic facility,  
41 or OSSF). TCEQ regs 30 TAC 285.4(a) specify a minimum lot size as 0.5 acres for septic systems.  
42 Travis County has a different requirement as of 2015. At time of writing, Travis County requires

1 1.0 acre for a septic system (Travis County Code 448.032). Travis County is the "authorizing  
2 agent" for septic systems outside of municipalities.

3  
4 The lots in Pamela Heights do not meet the plat requirements for septic systems.

5  
6 If Travis County issues a permit for a septic system for a 0.25 acre lot, then that lot will have  
7 met the plat requirements, and so will satisfy LGC 212.012.

8  
9 **Section 4.04 - Member Agreement and Water Service Riders**

10  
11 (This derives from 7 CFR 1780.44(b) in the USDA RD funding verification process)

12  
13 To be provided service, we MUST have on file, or as part of an application, a signed Member  
14 Application and Agreement for the property owner, AND a Water Service Rider for each service  
15 location.

16  
17 See Forms section of this tariff, page 155, for a Member Application and Agreement.

18  
19 See Forms section of this tariff, page 163, for a Water Service Rider.

20  
21 **Section 4.05 - Membership Fee**

22  
23 Members must own the service property (WC 67.016(d)). Renters and tenants are not  
24 members. Consequently, we do not have a membership fee, as defined by TRWA.

25  
26 Membership Fee – A fee qualified as such under the terms of the tariff and the  
27 bylaws of the Corporation assigned to the real estate designated to receive  
28 service. The membership fee shall be refundable upon termination of service  
29 and surrendering the Membership. The membership fee cannot be more than  
30 12 times the minimum monthly base rate.

31  
32 This definition seems to be aimed at those water supply corporations that do not require  
33 Members to own property under WC 67.016(d). We require that Members own the property in  
34 order to have service, and the equity buy-in fee more than makes up for the membership fee  
35 as defined by TRWA.

36  
37 **Section 4.06 - Member Application Fee**

38  
39 The member application fee is \$100. It is not refundable. This is an administrative fee for  
40 search of TCAD, county clerk, and possibly Secretary of State or other records to verify property  
41 ownership and legal status.

1  
2 **Section 4.07 - Transfer Fee**

3  
4 The transfer fee for changing service records for an existing service to a new property owner is  
5 \$25.00. It is not refundable.  
6

7 **Section 4.08 - Equity Buy-In Fee**

8  
9 (See the Chapter on Member Equity for details)  
10

11 If the accumulated construction charge for a service location (meter tap) is not at parity with all  
12 other service locations, the member-applicant will be required to pay an "equity buy-in" fee to  
13 bring the accumulated construction charge funds to parity.  
14

15 Note that this is a moving target, as the construction charge is a monthly charge. We may give  
16 the applicant a quote for a dollar amount, which is a snapshot in time. When the applicant has  
17 paid the quoted amount, with all other application requirements being met, and the applicant  
18 is a Member, the new Member will be billed any difference in changes in the buy-in fee.  
19

20 We require that the equity buy-in fee to be paid in full with the Member application. We do  
21 not accept an equity buy-in fee on an installment plan.  
22

23 **Section 4.09 - Customer Service Inspection Fee**

24  
25 TCEQ regulations 30 TAC 290.46(j) require "customer service inspections" on new service  
26 installations, or on substantive changes in existing service locations.  
27

28 Customer Service Inspections are not something that we provide. We'll give you a pointer to a  
29 list, and you pick someone (on that list, or elsewhere) and you pay them accordingly.  
30

31 We will require these inspections

- 32 \* on new service locations (part of the construction permitting)
  - 33 \* on transfer by sale of property to another Member
  - 34 \* on indications of substantive changes to the property or property use
  - 35 \* on indications of a possible backflow event
- 36

37 **Section 4.10 - City of Austin Capital Recovery Fee.**

38  
39 The Wholesale Water Purchase contract between the Corporation and the City of Austin  
40 requires the Corporation to collect a capital recovery fee on each newly installed retail service  
41 connection. This fee is subject to modification from time to time by the Austin City Council and  
42 will be passed thru to the Applicant unmodified by the Corporation. (Note: see also Austin City

1 Code, Title 25, Article 3 (more specifically, section 25-9-311) and the Marsha WSC Wholesale  
2 Water Purchase Contract with the City of Austin)

3  
4 The City of Austin charges a recovery fee based on the plat date of the property requesting  
5 service.

6  
7 The Pamela Heights subdivision was platted in 1960, and for the most part has been  
8 unchanged since that time. If property lots have been merged, or subdivided, then the plat  
9 date of a given lot may be different, and so the charges will be different.

10  
11 This table is unofficial, and is included here for convenience. See the Austin Water web site for  
12 details about impact fees, and the current fee schedule

13

AWU Impact Fee Schedule for Lots Platted		
Plat Date	Zone	Water Fee
Before 1 Oct 2007	Zone DDZ-ETJ	\$1300
Between 1 Oct 2007 and 31 Dec 2013	Zone DDZ-ETJ	\$1800
Between 1 Jan 2014 and 30 Sep 2018	All Zones	\$5400
After 1 Oct 2018	All Zones	\$4700

14  
15  
16  
17  
18  
19  
20 This table extracted from Austin Water web site on 2 June 2023

21  
22  
23 **Section 4.11 - Service Extension - When there is no distribution in front of, or across the**  
24 **street from, a property requesting new service**

25  
26 **Background**

27  
28 The Pamela Heights service area is pretty much built out, with distribution lines available to  
29 almost all properties within the subdivision. There are a few exceptions.

30  
31 These exceptions are:

- 32 \* the very east end of Ouida Drive (2-inch dead end) for a max of about 200 feet
- 33 \* the north end of Ginger Street (2-inch dead end) for a max of about 250 feet,
- 34 \* the south end of Scarlet Street (1-1/4 inch dead end on the west side, and 3-inch dead  
35 end on the east side) for a max of about 100 feet each

36 Note - the pipe sizes on the dead ends, and the distances are best guess, and subject to the  
37 realities that are in the ground. We won't know until we dig it up.

1 Coverage Note - Our service area is surrounded by Wells Branch MUD, and the City of Austin.  
2 They don't extend into our area (nor do they want to), and we don't extend into theirs.

3  
4 Our existing distribution pipeline system is undersized for the number of connections that we  
5 have. We DO NOT comply with TCEQ regs (30 TAC 290.44) regarding minimum pipe sizes.

6  
7 Consequently, we are EXTREMELY RELUCTANT to consider any service extension. What is  
8 presented here is consistent with our system upgrade plans, but has not been reviewed by any  
9 engineering service.

10  
11 There has not been anything resembling a service extension since year 2000 thereabouts. Cost  
12 estimates are based on repairs that have been done over the years.

### 13 14 **Costs and type of installation**

15  
16 If we do any kind of line extension of 20-feet or more (one full length pipe stick), the  
17 installation charge will be \$60/linear foot of pipe.

18 (Digging a trench doesn't care about the pipe size in our case)

19 [that is \$1200/stick installed, or \$6000/hundred-feet]

20 Please note that these costs are subject to change at prevailing commercial rates.

21  
22 When we install pipeline in the right-of-way, it is approximately 5-feet from the edge of  
23 roadway pavement, generally no less than 2-feet from the property line. This avoids street  
24 cuts, and reduces the need for permitting in the Travis County ROW.

25  
26 The upgrade plans (as of 2023) are for the installation of 4-inch C900 pipeline. If we do a  
27 service extension of more than 60 feet (more than 3 full length sticks), this is what we will be  
28 installing. Otherwise we will match the size of the existing dead end pipeline.

# Chapter 5 - Meters

## Section 5.01 - Meter Installation

Our standard meter install is a 5/8x3/4 inch meter. Our maximum size is a 1-inch meter. We use positive displacement (PD) meters because of the dezincification residue that builds up inside the meter. A PD meter will continue to work more or less reliably in those conditions.

We will not install a meter that is larger than half the diameter of the distribution pipe.

Yes, we do have some undersized distribution lines (1-inch and 1-1/4 inch), and we will adamantly decline to connect a new meter to these lines. If you want a new service connection to an undersized line, we are now talking about a service extension because we would have to replace the existing undersized line with something larger.

Meter installations are trying to solve two main problems that we have encountered:

- \* damage from traffic (vehicle running over the meter crushes the lines)
- \* ease of routine maintenance (meter replacement)

To prevent traffic damage, the best method is have the service line pipe (tubing) buried deep, so the meter box can be crushed down around the meter, and not damage either the meter or the service line. That means the service line is coming up from below, rather than being in-line with the meter. That means an angle meter valve.

For proper waterworks maintenance, we need to be able to replace meters at regular service intervals. Our standard right now is to replace a meter when it has recorded 1,000,000 gallons. Other water utilities use the meter warranty period, typically about 6 or 7 years.

Meter replacements for us are a nightmare, and take a crew (minimum two people). To say that is a problem for us, is an understatement. Ideally, we need to be able to do work like this, with one unskilled person, in a matter of a few minutes. In reading thru the Ford Meter Box catalog (or any other waterworks catalog), there are only two ways of doing this. That's a meter yoke, or some kind of meter setter.

We cannot use a meter setter, as those are typically near-custom pieces, that are supplied in specific heights and sizes. We're not able to do that, because of the variety of installations that we have.

That leaves us with using a meter yoke style of installation. We can customize the height by using cut-to-length PVC pipe, and it gives us a standard set of parts and practices. This makes a meter replacement viable for an unskilled person. And that's one unskilled person, and not



1 some kind of trained crew.

2

### 3 **Residential Dual Check Valve**

4

5 We're going to be doing work on our system for a long time (many years). That work means  
6 that we are going to have outages, localized on a street if we can, or entire system shutdowns  
7 otherwise.

8

9 A shutdown produces a vacuum that will pull water from a service connection. That's called  
10 backflow, and is not a good thing. One of the things about a meter yoke installation is that we  
11 can easily include a residential dual check valve (DCV) at the meter to prevent that backflow.

12

13 This does several things

- 14 \* backflow prevention, by design
- 15 \* eliminates the air surge in service lines when water service is restored (no more  
16 explosive pop sound)
- 17 \* keeps the meter from running backwards and giving false readings

18

19 However, there is a downside. There is thermal expansion pressure on the service side that  
20 needs to be released. This can induce cyclic wear on the service line, and eventually produce a  
21 leak that the Member will have to repair. So, when we install a residential DCV, we will have to  
22 give notice that the Member will need to install a pressure relief valve into their premises  
23 water distribution system.

24

25

1 **Section 5.02 - Parts List for Meter Installation**

2  
3 Ford Meter Box parts prices are list price from their January 2023 price book

4  
5 **Tap - Short Side**

6 Tap saddle (presuming short side connection), 3/4-inch service

7 what	part	note	price
8	saddles are 6-inch wide (-W for 2- and 3-inch saddles) tap threading is AWWA/CC thread		
9	2-inch IPS	Ford FS313-238-CC3 2-inch IPS, 6-inch wide, 2-bolt, 1/2in PVC 40/80/SDR	105.42
10	3-inch IPS	Ford FS313-350-CC3 3-inch IPS, 6-inch wide, 2-bolt, 1/2in PVC 40/80/SDR	110.31
11	4-inch C900	Ford FS323-554-CC3 4-inch C900, 2 band, 4 bolt, 5/8in	187.93
12	6-inch C900	Ford FS323-720-CC3 6-inch C900, 2 band, 4 bolt, 5/8in	195.86
13	8-inch C900	Ford FS323-920-CC3 8-inch C900, 2 band, 4 bolt, 5/8in	198.46

14  
15  
16 NARUC account 333

## Corporation Valve

corporation valve, 3/4inch			
corporation valve	Ford FB1000-3-G-NL	3/4in tap, AWWA CC thread, to 3/4 PJ grip CTS	115.78
If the connection needs to go at 90-deg ell bend, then the following parts adapt the corporation valve to an ell-fitting			
90-ell adapter set for corp valve	Ford RA42-33-NL	ring adapter, pack joint to flare, 3/4in	7.40
	Ford SLC-3	copper gasket, 3/4in	3.00
	Ford L04-33S-G-NL	90-ell swivel, flare x PJ grip, 3/4in	71.95
PEX stiffener	Ford INSERT-51	3/4in PEX/poly stiffener 200ct/box	3.41/ea

NARUC account 333

## Tap - Long Side, Street Crossing

For long side - street crossing to existing mains			
for 3/4 PVC crossing street	Ford B47-333-G-NL	ball valve, 3/4 PJ PVC x 3/4 PJ CTS grip	188.08
for 3/4 galvanized crossing street	Ford NG-D5	nut and gasket assembly, 3/4 iron pipe pack joint, complete (replace the PVC PJ on the valve)	11.30
	or Ford NG-D7 - diameter of PVC pipe, need check sizing		13.68
If the connection needs to go at 90-deg ell bend, then the following parts adapt the corporation valve to an ell-fitting			
90-ell adapter set for street crossing valve	Ford RA42-33-NL	ring adapter, pack joint to flare, 3/4in	7.40
	Ford SLC-3	copper gasket, 3/4in	3.00
	Ford L04-33S-G-NL	90-ell swivel, flare x PJ grip, 3/4in	71.95
PEX stiffener	Ford INSERT-51	3/4in PEX/poly stiffener 200ct/box	3.41/ea

NARUC account 333

This description is for a 3/4 PVC street crossing pipe, typically PVC schedule 80. This can sometimes be 1-inch PVC. It can also be galvanized pipe, 3/4 or 1-inch

## Connection - Tap to Curb Valve

Connecting the corporation valve/tap or street crossing valve to the curb stop			
Pipe	PEX-A, C904, CTS, SDR9	3/4 CTS, Rehau Municipex, Uponor, or Sharkbite PEX-A	
pipe encasement	Abbot Rubber T34 1-1/2 ID #T34005004, 50ft	1-1/2inch bilge and drain pipe used as PEX encasement	
locator aid marker tape	Presco B6104B52	undetectable marker tape, blue, 6inch wide Caution Buried Water Line	

NARUC account 333

### Note:

Presco makes the marker flags, and an insertion tool, also detectable marker tape in widths 2, 3, 6 (#D6105B52-457 stock 1000ft), and 12

## Curb Valve

curb valve (curb stop), 3/4-inch			
PEX stiffener	Ford INSERT-51	3/4in PEX/poly stiffener 200ct/box	3.41/ea
curb valve	Ford B44-333-G-NL	ball valve, 3/4in, CTS, PJ grip x PJ grip	158.46
If there connection needs to go at 90-deg ell bend, then the following parts adapt the valve to an ell-fitting			
90-ell adapter set for curb valve	Ford RA42-33-NL	ring adapter, pack joint to flare, 3/4in	7.40
	Ford SLC-3	copper gasket, 3/4in	3.00
	Ford L04-33S-G-NL	90-ell swivel, flare x PJ grip, 3/4in	71.95
PEX stiffener	Ford INSERT-51	3/4in PEX/poly stiffener 200ct/box	3.41/ea
valve box	Bingham and Taylor Eclipse E100 curb box	valve box, 2-3ft extension, 1- inch	

Note: Unless you want to go thru concrete to get to the meter assembly, the curb valve is the "demarc point" for making connection to the distribution line, either the existing system, or the Plan-A or Plan-B system.

Note: also, under NARUC accounting, the output of the curb valve is also a "demarc point".

NARUC account 333 "Services" is for everything feeding into the curb valve, including the valve box.

NARUC account 334 "Meters and Meter Installations" begins at the output of the curb valve

## Connection - Curb Valve to Meter Assembly

Connecting the curb valve to the meter box			
Pipe	PEX-A		
pipe encasement	Abbot Rubber T34 1-1/2 ID #T34005004, 50ft	1-1/2inch bilge and drain pipe used as PEX encasement	
locator aid marker tape	Presco B6104B52	undetectable marker tape, blue, 6inch wide Caution Buried Water Line	

NARUC account 334

## Meter Assembly

meter yoke assembly, 3/4 inch, for 5/8x3/4 meter will also work for 3/4 meter with same lay length as 5/8x3/4 meter (7-1/2 inches)			
PEX stiffener qty 2	Ford INSERT-51	3/4in PEX/poly stiffener 200ct/box	3.41/ea
Yoke	Ford Y502P	cast iron yoke, 3prong support, for 5/8x3/4 meter	28.06
Expander	Ford EC-23W-NL	expansion connection, wrench type	47.96
Meter valve	Ford BA94-323W-G-NL	ball valve, 3/4in, CTS grip PJ x yoke nose	185.04
DCV	Ford HHCA94-323-G-NL	cartridge style angle dual check valve, yoke nose x PJ grip CTS, 3/4in	193.68
yoke nose gaskets qty 2	Ford GT-118	3/4in gasket for 5/8x3/4meter 400 ct/pkg (This is the meter washer)	0.65/ea

The yoke is supported at the proper height by a stand fabricated from 3/4 PVC40 pipe and fittings. Description is elsewhere.

NARUC account 334



## Meter Box and AMR Meter

meter yoke assembly, 3/4 inch, for 5/8x3/4 meter will also work for 3/4 meter with same lay length as 5/8x3/4 meter (7-1/2 inches)			
Meter body	Badger Recordall 25	5/8x3/4 nutating disk water meter, 7-1/2in lay length	
Meter register	Badger HR-E LCD encoder	meter register encoder	
AMR transceiver	Badger Migrateable Endpoint (ME)	meter radio transceiver, 900Mhz freq band	
AMR mounting	Badger Endpoint pipe install kit 64394-003	transceiver mounting kit for meter pit	
meter box and lid	Oldcastle Polymer 1324-18	meter box, polymer concrete, Tier 22 traffic rating (lid), penta head bolts, standard thread, w/bolt retainer lid 50-lbs, body 70-lbs	
	DFW Plastics DFW1324CD-18-BODY DFW1324C-AF3DA-LID DFW1324CD-18-3EDA combo	meter box, plastic, Tier 8 rated bolt down hole (no bolt,extra) rebar in lid, blue lid AMR in the lid	186.06 bdy 83.48 lid

The Oldcastle Polymer meter box is transparent to radio waves. The box body is traffic rated to Tier 22. The box lid comes in two ratings: Tier 15 and Tier 22. Just use Tier 22 to keep things consistent. To achieve the traffic rating, the lid must be bolted to the body, not just set in place. There are two penta-head bolts.

The Oldcastle box body weighs 70 pounds for the 18-inch tall box. The lid weighs 50 pounds (OSHA lifting limit). **This will require use of an AMR meter**

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## Connection - Meter Assembly to Service Valve

Connecting the meter box to the service valve			
Pipe	PEX-A		
pipe encasement	Abbot Rubber T34 1-1/2 ID #T34005004, 50ft	1-1/2inch bilge and drain pipe used as PEX encasement	
locator aid marker tape	Presco B6104B52	undetectable marker tape, blue, 6inch wide Caution Buried Water Line	

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## Service Valve Assembly

property service valve assembly, 3/4-inch			
PEX stiffener	Ford INSERT-51	3/4in PEX/poly stiffener 200ct/box	3.41/ea
service valve	Ford BA41-333W-G-NL	ball valve, angle service valve, 3/4in, CTS PJ grip x FNPT	168.30
Valve handle pick one	Ford HB-34S	handle for ball valve, short version 3-3/8in	10.61
	Ford HH-34	high handle for ball valve	14.54
Pipe nipple pick one	Grainger #1VGU2	3x3/4in red brass nipple, threaded both ends, certified UNS C23000	\$9.58/ea
	Legend #311-084		
union pick one	Ford UNION-3-NL	brass union, 3/4in, FNPT x FNPT	50.52
	Legend #310-144NL		51.92
Valve box body	DFW1017-14-BODY	meter box, 14in high,	CM 53.02
Valve box lid	DFW1017-3EQA-LID	meter box lid, blue	CM 27.52

Plumbing codes set the minimum depth for yard pipe to be 12-inches. The DFW1017 box is 14 inches, with mouseholes for piping at 12 inches.

Note: the DFW 1017 is the least expensive meter box that is available. It's just big enough to hold the valve and the union.

The union is our "repair demarc" point.

1 **Section 5.03 - Meter installation - short side installation**

2  
3 A "short side" installation is where the water distribution line is located in the right-of-way  
4 immediately in front of, or adjacent to, the property to have service. Said another way, there is  
5 no need to have a service line crossing the street.

6  
7 The current cost for installation of a new meter is \$3000.00

8  
9 Here's why.

10  
11 Hardware costs are about \$1500. Details with the meter installation.

12  
13 Labor costs are \$110.00/hr for 12 hours, start to finish. That's \$1320.00

14  
15 Total is \$2820, and we're rounding up to the nearest \$1000.00

16  
17 Regarding the labor cost, it could be less, and it could be a whole lot more. Experience has  
18 shown us that we can do a meter in 8 hours, or 20 hours. There is no way of knowing what it  
19 will be until the pick and shovel hit the dirt, and we find out what is already in the ground.

20  
21 REMINDER - MWSC is a non-standard, undesigned system, installed by home owners, as an  
22 overgrown irrigation system writ large, with next to no records about installation.

23  
24 REMINDER - This is manual labor, no power equipment digging a meter pit. If you hit  
25 something, you have a full, complete system shutdown in order to make the repair.  
26 Consequently, you dig very, very carefully.

27  
28 **Section 5.04 - Meter installation - long side**

29  
30 A long side meter installation requires a street cut as the distribution line is across the street,  
31 and requires digging two meter pits. This is also a two day job: one for the street cut, and one  
32 for the meter pits.

33  
34 These pit locations are the new meter location, and the pit needed to make the tap.

35  
36 Both of these meter locations are a manual dig, with the same risk factors as a new short-side  
37 installation.

38  
39 We have recently (summer 2023) done a street crossing leak repair, which gives us a basis for  
40 making the cost estimate for road work.

41  
42 Extra cost: Travis County requires a utility construction permit. This is a complete unknown to

1 MWSC.

2  
3 Labor cost for digging a new meter pit: Labor costs are \$110.00/hr for 12 hours, start to finish.  
4 That's \$1320.00

5  
6 Labor cost for digging out the tap pit: same, and we're a lot more paranoid about digging the  
7 tap pit than we are about digging out the meter pit. [We know there is a pipe, or something, in  
8 the tap pit, whereas the meter pit should be "clear"]

9  
10 Hardware cost: same hardware costs as for a short side meter installation

11  
12 Total for a long side meter installation:

13 labor meter pit: \$1320 same as a near side meter install

14 labor tap pit: \$1320 same as a near side meter install

15 hardware cost: \$1500 same as a near-side meter install.

16 minimum sub total: \$4140

17 street cut and road: \$3000

18 extra cost: Travis County permit, and related costs

19  
20 You're looking at something on the order of \$5000 to \$8000 total. We'll quote \$7500 and go  
21 from there.

## 22 23 **Section 5.05 - Meter relocation - Widely separated**

24  
25 A widely separated meter location requires digging two meter pits.

26  
27 These pit locations are the new meter location, and the old meter so you can recover hardware

28  
29 Both of these meter locations are a manual dig, with the same risk factors as a new short-side  
30 installation.

31  
32 Aside - we have never done a meter relocation (widely separated, or not), so this is largely an  
33 estimating exercise.

34  
35 Labor cost for digging a new meter pit: Labor costs are \$110.00/hr for 12 hours, start to finish.  
36 That's \$1320.00

37  
38 Labor cost for digging out the existing meter: same, and we're a lot more paranoid about the  
39 digging.

40  
41 Hardware cost: none - there would be a new tap requiring a saddle, corporation valve, and a  
42 cap/plug for the old tap. Those costs are being absorbed in the estimate costs.

1 Total for a widely separated meter relocation:  
2 labor new meter pit: \$1320 same as a near side meter install  
3 labor old meter pit: \$1320 same as a near side meter install  
4 total \$2640

5  
6 We're going to quote this as \$3000 to keep the numbers the same as a new meter installation,  
7 which it kind of really is.

8  
9 REMINDER - we have never done a meter relocation, so this is a best guess

## 10 11 **Section 5.06 - Meter Replacements and Tests**

### 12 13 **General Provisions and Background**

14  
15 Meter replacement and testing is a minefield, due to the very high chance of damage to the  
16 water system. We have four different kinds of installations:

- 17 \* meter yoke
- 18 \* AWWA style meter valve
- 19 \* retail ball valve
- 20 \* retail gate or globe valve

21  
22 What we do is going to depends entirely on what kind of valve is installed in front of the meter.

#### 23 24 **Meter yoke installation**

25  
26 On site meter testing is viable ONLY if the installed meter is a yoke configuration. It's an easy  
27 matter of a few minutes.

#### 28 29 **Industry style meter valve**

30  
31 If the installed meter is not a yoke, AND the corporation valve is an AWWA style meter valve,  
32 we will simply replace the meter because of the inherent pain in trying to reinstall a meter  
33 (same meter, new meter, doesn't matter - you still having to put the damn thing back in).  
34 Count on it taking about 2 hours.

35  
36 Why 2 hours? Because when you take the meter out, the pipes will become misaligned, and  
37 you will have a god-awful time trying to get things realigned so the meter threads will engage.  
38 All the while doing that face-down in a mud pit (because, of course, the house drained back at  
39 you)

1 **Retail Ball Valve**

2  
3 If it is a retail/plumbing ball valve, and it can turn off properly, then we can replace the meter  
4 as we would with an AWWA style meter valve. The same conditions apply. If the ball valve  
5 cannot turn off properly, then we aren't going to touch it. In which case, we'll treat it just like a  
6 gate valve.

7  
8 By properly, we mean the ball valve turns a full 90 degrees/quarter turn. Retail ball valves are  
9 subject to dezincification damage, but that damage usually keeps the valve from turning a full  
10 90 degrees. But if it does turn, then it will turn back okay.

11  
12 **Retail Gate or Globe Valve**

13  
14 If it is a retail gate or globe valve, then all bets are off. We won't touch it for the purpose of a  
15 meter test.

16  
17 If it is a globe valve, it would likely work just fine. But we cannot tell if this is a globe valve or a  
18 gate valve by looking at it (you're face down in a meter pit, trying to determine a very subtle  
19 difference that may or may not be present in the markings on the valve). We aren't going to  
20 take the chance.

21  
22 If it is a gate valve, we're treating it like it was an unexploded munition. We aren't going to  
23 touch it. On-site testing is the only option here.

24  
25 Why? Two words: dezincification failure. That gate valve may turn down and shut off just fine.  
26 And because of dezincification in the valve stem, it will not turn up to open. Congratulations,  
27 you now have an emergency meter repair.

28  
29 Because of the lack of working street isolation valves, a meter repair almost invariably requires  
30 a full system shutdown (160+ connections), and at many hours of manual labor, which we  
31 would have to do "right (expletive) now". We are simply not going to risk that occurrence to  
32 test a meter.

33  
34 **On-site Meter Test and Fee**

35  
36 This is if we can do an on-site test, with a meter yoke installation. We may test a Member  
37 meter on-site by comparison to reference meter. A fee of \$15.00 shall be charged for the  
38 comparison. A service trip fee may also be charged in addition to the test fee if the comparison  
39 shows no difference. If the Member further requests an off-site meter test, the service trip fee  
40 will be deferred, subject to the accuracy of the off-site meter test.

41  
42 The meter test is done with a tandem configuration with a reference meter.

1 [Ford Meter Box catalog, Section F, Tandem Coppersetter or Tandem Resetter (Type A)]

2  
3 If the Member requests an off-site meter test, we will replace the meter with a new meter so  
4 as to keep the service location with service. No meter, no service, that how it works. We don't  
5 do our own off-site testing, so the turnaround time is an unknown but likely measured in days  
6 or parts thereof. So we will replace the meter with a new meter.

7  
8 If this is not a meter yoke installation, but is a AWWA style meter valve or a retail ball, globe, or  
9 gate valve, then we will do a bucket volume test. This is crude, but it will kind of work to  
10 identify any gross problems with the meter.

11  
12 We will take an empty 5-gallon bucket, and fill it to its factory indicated 5-gallon fill mark. If the  
13 meter registers exactly 5 gallons, we will consider the meter to be recording consumption  
14 accurately. In which case the fee is \$15.00. If the meter registers less than 5 gallons, then there  
15 will be no test fee charged, and we will note the meter for replacement. If the meter registers  
16 more than 5 gallons, then there is evidently a leak in the yard pipe, and we cannot do anything  
17 like an accurate test.

#### 18 19 **Off-site Meter Test and Fee**

20  
21 If this is a meter yoke installation, we bill

- 22 \* the charge from the testing facility that we are charged,
- 23 \* plus a meter test fee of \$15.00
- 24 \* if meter tests accurate, then plus a service trip charge

25  
26 If this is not a meter yoke install AND we can turn the water off safely, we bill

- 27 \* the charge from the testing facility that we are charged,
- 28 \* plus the labor to get the meter out and a new meter put in, at a minimum of 2 hours,
- 29 \* plus a service trip charge,
- 30 \* plus a meter test fee of \$15.00





# Chapter 6 - Water Rates

## Section 6.01 - History and Water Rate Structure

### General Rate Calculation Process

This is the general outline, at a very high level, for water rate calculation and billing

-----

cold-start:

enter a data stream of records consisting of consumption (gallons, liters, cubic feet, acre-feet, jugs, teaspoons, or whatever) and classifications of that consumption (billing class and usage class)

produce a profile of that consumption for each class. Historically, this has been the hardest part to do. (RCAP publication "Great Rates" for how to do a profile)

enter revenue requirements for a billing interval (dollar amounts, and how those dollars distribute over the billing classes). This produces the rates for each class

warm-start:

enter the data stream for consumption and billing class for the billing interval. This produces the bills to be sent to the consumers

package those bills and send to the consumers

collect payments

update billing information (amounts paid, balances due, and so on)

let's go do it again... warm or cold?

-----

### Our water rate history

Up until the mid-to-late 1960s, this entire process was done by hand. A few lucky folks in cities or in large corporations could use punch card tabulating machines to semi-automate some of the work.

1 Producing a consumption profile was a god-awful nightmare because of the sheer amount of  
2 data calculation and reduction that had to be done. Consequently, this was something to be  
3 done as seldom as possible (think in years).

4  
5 Things began to change in the late 1960s, with the advent of mainframe computers.  
6 Municipalities and large utilities began to use computers for their profile generation. Still not  
7 simple (it is a lot of punch cards with that consumption data), but the calculations and data  
8 reduction were much, much easier.

9  
10 Small systems on the other hand, still had their rate calculations done by hand, and were  
11 invariably just straight fixed rates, with just one billing class.

12  
13 Not until the mid-to-late 1990s would computers be usable for small systems to do the profile  
14 and rate calculations.

15  
16 Records show that up until about 2002, MWSC used only a flat rate.

17  
18 That was when a TRWA FMT contractor produced a rate structure that MWSC adopted. This  
19 was a 4-tier rate structure for a single billing class. There is no information about how that was  
20 calculated. There is no revenue or consumption data in the records available.

21  
22 In 2013, we did our own rate structure calculation, using an RCAP publication<sup>1</sup> ("Great Rates")  
23 for guidance. Like the TRWA rates, this was a 4-tier rate structure, across two billing classes.  
24 This is the first time that MWSC has had more than one billing class.

25  
26 Then we run into a revenue stream problem, as it's variable. Revenue follows the water  
27 consumption variations over the seasons. And cash-in-hand lags billing by about two months.  
28 And the cash stream is almost entirely out-of-phase with our needs.

29  
30 Our peak time for line breaks is winter. Our least water consumption (and so revenue) is  
31 winter. Our peak water consumption (and so revenue) is summer, and we are in a mad  
32 scramble to fund everything that got put off in winter. Making that situation worse is the fact  
33 that there is no cash reserve to function as a buffer or shock-absorber when something  
34 happens.

35  
36 The comparison was a person with no savings working a job paid by commission. It can be  
37 done, but any mishap, however minor, can set everything back for a long time.

---

<sup>1</sup> "Formulate Great Rates: The Guide to Conducting a Rate Study for a Small System",  
Rural Community Assistance Partnership (RCAP), available for download from rcap.org

1 This situation made it next to impossible to even try to get the MWSC distribution system fixed.

2  
3 Doing our own rate structure calculation was insightful. There is no magic about a "test year".  
4 Using yearly data was simply an artefact of the historical method of producing a consumption  
5 profile (it's painful, so don't do it unless you have to). Doing the rate process pointed out that  
6 the process does not depend on the time interval of the data used to construct the profile.  
7 Historically, it was a year. The interval could just as well be 6-months, 18-months, 3 years, 5  
8 years, or even the billing interval itself. The mathematics of the process doesn't care.

9  
10 All you need is the target revenue and the consumption data over the billing interval, and the  
11 method for distributing that revenue over the consumer billing classes.

12  
13 In 2018, we adopted an entirely new rate structure, effective beginning 2019.

14  
15 People know how to live on a salary, to budget for expenses and to build a savings buffer. The  
16 decision was to fix the revenue each month, effectively putting MWSC on a salary, and getting  
17 away from the variability of the revenue stream. Because consumption changes, that is going  
18 to mean variable rates. We have computers now, and the computers can automate the pain of  
19 the profile generation.

20  
21 So that's what we did. Our billing process recalculates rates each month to hit the revenue  
22 target set by the board. (At time of writing, that is \$16,000 each month)

23  
24 It's the same rate process as described above. Only difference is, we're doing a cold start each  
25 billing cycle, instead of a warm start.

## 26 27 **Change Notices**

28  
29 We don't talk about rate changes. We talk about revenue changes, and describe that in the  
30 context of an average bill ( $\text{average bill} = (\text{revenue target}) / (\text{number of connections})$ ). When  
31 there is a revenue change, we keep it within the change range of the Federal CPI over the last  
32 year, or the PUC water utility Class-D change limit (presently 5%, per WC 13.1872), whichever is  
33 higher. Posted changes are "use it or lose it", and do not accumulate past this last year.

34  
35 Revenue from water rates is only for the day-to-day operational expenses. We use surcharges  
36 for other specialty charges, such as those charges that are imposed on us by outside agencies.  
37 If those external charges are consumption related, those charges will be passed on, as a  
38 consumption based surcharge.

## 39 40 **Fixing the Water System**

41  
42 The rate structure changes we put in place in 2019 put us on a steady financial footing, for day-

1 to-day operations. It does absolutely nothing for fixing our system.

2  
3 In 2016, we contracted with the engineering firm KPFF Inc to work up a conceptual design and  
4 cost estimate for us, of what a proper water system should be, including fire flow capability. It's  
5 a beautiful design, and estimated to cost (at that time) about \$4-million.

6  
7 Wonderful, but how in the (expletive) are we going to pay for something like that?

8  
9 In the absolute worst case scenario, we do it ourselves. (Plan for the worst, and be pleasantly  
10 surprised later, as opposed to being repeatedly disappointed and beaten down). It also allows  
11 us to show that we are making our very best effort on our own when looking for outside  
12 support.

13  
14 Going back to the intent of what a water supply corporation is supposed to be (folks pooling  
15 resources to get water), we needed some kind of surcharge to fund a new distribution system.  
16 This is the construction charge. Keeping with the intent of a water supply corporation, Member  
17 funding thru the construction charge is the Member right of participation, as described in  
18 WC 67.016.

19  
20 The amount of the construction surcharge comes from our sense of what was a practical limit  
21 that some residential Members could pay. These are primarily the older residents, those on  
22 limited and fixed incomes, especially those who have lived in the service area since the  
23 inception of the corporation. As demographics change, and those older residents leave, the  
24 construction charge can be changed. But not yet.

## 25 26 **Section 6.02 - Description and Statute Background**

27  
28 As a water supply corporation, we are not subject to the rate structure requirements under  
29 Water Code chapter 13.

### 30 31 Water Code

32 Sec. 13.181. POWER TO ENSURE COMPLIANCE; RATE REGULATION. (a) Except  
33 for the provisions of Section 13.192, **this (subchapter F)** shall apply only to a  
34 utility and **shall not be applied to** municipalities, counties, districts, or **water**  
35 **supply or sewer service corporations.**

36  
37 What that means, is that as a WSC we can establish pretty much any kind of rate structure that  
38 we choose. The statutory limitation on the rate structure is from WC 13.043(j)

39  
40 WC 13.043. APPELLATE JURISDICTION. (j) In an appeal under this section, the  
41 utility commission shall ensure that every appealed rate is just and reasonable.  
42 Rates shall not be unreasonably

1           \*     preferential,  
2           \*     prejudicial, or  
3           \*     discriminatory  
4       but shall be  
5           \*     sufficient,  
6           \*     equitable, and  
7           \*     consistent  
8       in application to each class of customers.

9  
10       We operate under a fixed revenue variable water rate system. The board sets a target revenue  
11       determined on a cash-needs basis, and the rates are adjusted each month, based on that  
12       month's meter readings, to produce billing to achieve that revenue. We calculate the average  
13       rate (\$/gal) to achieve the target revenue, and then adapt that rate to the several billing  
14       classes.

15  
16       **Section 6.03 - Adopted Rate Structure**

17  
18       We have adopted a rate structure that is divided into two parts: a fixed rate, and a variable  
19       rate. At time of writing, the target revenue is comprised of a 40% fixed, and a 60% variable  
20       rate.

21  
22       The fixed rate is the same for all consumer billing classes. This resembles, but is not the same  
23       as, a "base rate" in more conventional rate structures.

24  
25       The variable rate is divided across the consumer billing classes, with each class being  
26       subdivided into water usage "rate blocks". The blocks are determined in the rate profile such  
27       that consumption is always contained within a rate block. Consumption is never split across  
28       rate blocks.

29  
30       The details of the respective rates are in the following sections.

31  
32  
33       **Section 6.04 - Adopted Fixed Revenue - Block Rates**

34  
35       **Description**

36  
37       Board of Directors adopted Resolution 20180918 item 7, that

- 38  
39       1.     To comply with Member Resolution 20170304-03, service billing shall be divided into  
40       three classes as follows:  
41       a.     Member Residential shall consist of those service accounts for single family  
42       residential by water usage classification where corporate members are residing

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42

- as their home.
  - b. Commercial Residential shall consist of those service accounts that are single family residential by water usage classification that are not Member Residential.
  - c. Commercial shall be any service account that is not Member Residential or Commercial Residential.
2. The revenue to be generated each month shall be a fixed dollar amount to be set by Board resolution.
  3. The average rate shall be the monthly revenue divided by the total number of gallons used by the aggregate of the service accounts.
  4. The initial revenue target for each billing class shall be the total number of gallons consumed by that class multiplied by the average rate.
  5. Revenue from the Member Residential class shall be discounted 20% to comply with Member Resolution 20170304-03.
  6. The combined Commercial and Commercial Residential revenue shall be total gallons of those classes multiplied times the average rate to which will be added the amount discounted from Member Residential revenue.
  7. Revenue from the Commercial Residential class shall be discounted the same percentage as the Member Residential discount of paragraph 5.
  8. The revenue for the Commercial class shall be added with the discounted revenue from the Commercial Residential class.
  9. Member Residential class and Commercial Residential class shall be billed using block rates, as follows:
    - a. Those service accounts with the lowest water consumption shall be grouped together such that their aggregate consumption shall not exceed 25% of the total water consumption within that billing class. These service accounts shall be billed in "Block A" for that billing class.
    - b. Those service accounts with the lowest water consumption that are not included in "Block A" shall be grouped together such that their aggregate consumption shall not exceed 50% of the total water consumption within that billing class. These service accounts shall be billed in "Block B" for that billing class.
    - c. Those service accounts not included in "Block A" or "Block B" shall be billed in "Block C" for that billing class.
  10. Commercial class shall be billed using block rates, as follows:

- 1 a. Those service accounts with the lowest water consumption shall be grouped  
2 together such that their aggregate consumption shall not exceed 50% of the  
3 total water consumption within that billing class. These service accounts shall be  
4 billed in "Block A" for that billing class.  
5 b. Those service accounts not included in "Block A" shall be billed in "Block B" for  
6 that billing class

- 7  
8 11. Revenue derived from "Block A" billing shall be discounted 20% from the average  
9 revenue requirement.  
10  
11 12. "Block B" for Member Residential class and Commercial Residential class shall be billed  
12 using the average rate for that class.  
13  
14 13. The average rate within a class shall be the class revenue divided by the total number of  
15 gallons consumed within that class.  
16  
17 14. The revenue to be produced by each billing block shall be the total gallons within that  
18 block multiplied times the average rate within that class.  
19 15. The revenue for "Block A" for each class shall be discounted by the same percentage as  
20 paragraph 5.  
21  
22 16. For the Member Residential and Commercial Residential classes, the revenue  
23 discounted from "Block A" shall be added to the revenue for "Block C".  
24  
25 17. For the Commercial class, the revenue discounted from "Block A" shall be added to the  
26 revenue for "Block B".  
27  
28 18. Service accounts within each Block within each class shall be billed at a rate equal to the  
29 revenue requirement for that Block divided by the total gallons consumed by the  
30 service accounts within that Block.  
31

### 32 **Leak Adjustment Policy**

33  
34 There is no leak adjustment with this rate structure. If it went thru the meter, it gets billed.  
35  
36  
37



1 Page reserved for block rate diagram

1 **Section 6.05 - Adopted Fixed Revenue - Fixed Rate**

2  
3 **Description**

4  
5 Board of Directors adopted Resolution 20180918 item 7, that

- 6  
7 1. The revenue to be generated shall be a fixed amount set by Board resolution.  
8  
9 2. The average rate shall be revenue divided by the total number of gallons consumed by  
10 service accounts.  
11  
12 3. The amount to be billed to a service account shall be the average rate multiplied by the  
13 number of gallons consumed by that service account.  
14

15 **Leak Adjustment Policy**

16  
17 There is no leak adjustment policy with this rate structure. If it went thru the meter, it gets  
18 billed.  
19

20 **Section 6.06 - Contingency Rate Structures - Background**

21  
22 Our adopted rates are recalculated each month. That means that we are dependent on the  
23 computers, and the people who operate the computers, to properly perform our billing.  
24

25 "(Expletive) happens", and we have to deal with it. Right (Expletive) Now.  
26

27 There is no time to do a rate study. There is no time to call a board meeting and work out what  
28 new rates should be. There is no time to update the tariff, and all the administrative overhead  
29 that goes with that.  
30

31 So, we are including two different contingency rates structures that the Board can adopt on an  
32 emergency basis that will keep us running, while we pick up the pieces from whatever  
33 happened.  
34

35 Both of these contingency rate structures are such that they can be done by hand. A  
36 spreadsheet would be a great help, but a pencil and a calculator will do the job.  
37

38 The first contingency rate structure is a fixed revenue, like our adopted rate structure. It is a  
39 flat rate, based simply on the current consumption.  
40

41 The second contingency rate is a flat rate, but variable revenue. This is a classic water utility  
42 rate. The details for what would be a rate study are included, and are 13 years worth of data.

1 **Section 6.07 - Contingency Rates - Fixed Revenue**

2  
3 **This Contingency Rate is being provided in this tariff so that the board can, by resolution in**  
4 **an emergency, switch to a new rate structure without having to go thru a tariff revision.**

5  
6 **Description**

7  
8 The intent behind these methods is to be able to do the billing by hand, with nothing more  
9 powerful than a very basic spreadsheet (and the ability to understand formulas), or a manual  
10 process, with paper, pencil, and a calculator.

11  
12 This retains the fixed revenue billing for each month.

13  
14 HOWEVER, this completely ignores any concept of billing class, and so people are going to see  
15 some (perhaps extreme) billing changes. Member Residential rates will go up, and Commercial  
16 will come down.

17  
18 How this works:

- 19  
20 1. Determine the gallons consumed for each meter (directly from the reader sheets, or  
21 compare last month's reader sheets to the current reader sheets)
- 22  
23 2. Add up all the gallons consumed for everybody. This is what we (MWSC) used in total.
- 24  
25 3. Calculate: (water rate) = (monthly revenue target) / (total gallons consumed)
- 26  
27 4. For each meter, calculate: (water charge) = (gallons consumed) \* (water rate)
- 28  
29 5. Match each meter to a member account
- 30  
31 6. Calculate member bill:  
32 add meter to the member bill  
33 add construction charge to member bill for that meter  
34 total the charge to the member
- 35  
36 7. Ship the billing

37  
38 All of this can be done in a fairly straightforward manner with a basic spreadsheet.

39  
40 This needs

- 41 \* The reader sheet information, last month and current readings.  
42 \* A list of what member owns which meter

1 **This Contingency Rate is being provided in this tariff so that the board can, by resolution in**  
2 **an emergency, switch to a new rate structure without having to go thru a tariff revision.**

- 3
- 4 \*
- 5 \* A form to be filled out would be good (like the old NCR forms MWSC used in the 1990s)
- 6 \* Prior account balances would be good to have for consistency in billing

7 **Leak Adjustment Policy**

8

9 There is no leak adjustment with this rate structure. This rate structure is billing by  
10 proportional usage.

11

12 **Example**

13

14 Member has water use of 200,000 gallons (presumably from a leak, as their normal usage is  
15 10,000 gallons).

16

17 The collective membership usage is 1,000,000 gallons for this month.

18

19 The revenue target for the month is \$16,000.

20

21 The water rate then is  $\$16,000 / (1,000,000 \text{ gallons}) = 0.016/\text{gal}$

22

23 Member has used 200,000 gallons, so the water charge is  
24  $(200,000 \text{ gallons}) \times (0.016/\text{gal}) = \$3,200$

25

26 This is the Member proportion of the target revenue based on the amount of water consumed

27

28  $(200,000 \text{ gallons}) / (1,000,000 \text{ gallons}) = 0.20$  of total usage

29

30 Water charge is  $(0.20) \times (\$16,000) = \$3,200$

31

32 Member uses, for whatever reason, some x% of the total water, then Member is charged x% of  
33 the target revenue.

34

1 **Section 6.08 - Contingency Rates - Variable Revenue**

2  
3 **This Contingency Rate is being provided in this tariff so that the board can, by resolution in**  
4 **an emergency, switch to a new rate structure without having to go thru a tariff revision.**

5  
6 **Description**

7  
8 The intent behind this method is to be able to do the billing by hand, with nothing more  
9 powerful than a very basic spreadsheet (and the ability to understand formulas), or a manual  
10 process, with paper, pencil, and a calculator.

11  
12 The precalculation is the classic water rate calculation.

- 13  
14 1. Determine the (average annual MWSC consumption) over the last 3 to 5 years  
15  
16 2. The (annual revenue) = 12 \* (monthly revenue target)  
17  
18 3. Calculate: (water rate) = (annual revenue) / (average annual MWSC consumption)

19  
20 And proceed with billing as in the first method.

21  
22 There are some serious downsides to this method.

- 23  
24 1. The revenue billed, and paid by members, is going to swing month-by-month. That  
25 swing will lag water consumption by about two months. The tariff related calculations  
26 will be able to give an estimate of what the revenue intake should be like on a month-  
27 by-month basis. This revenue swing will hurt the ability to get stuff done, as MWSC may  
28 occasionally be short on funds.  
29  
30 2. Same downside with regard to member rates, in that member residential will go up and  
31 commercial will come down.

32  
33 The upside on this method: it can be done with pencil, paper, and a calculator. You don't need  
34 a spreadsheet, or a computer. This is old school stuff.  
35  
36

1 **This Contingency Rate is being provided in this tariff so that the board can, by resolution in**  
2 **an emergency, switch to a new rate structure without having to go thru a tariff revision.**

3  
4 **Leak Adjustment Policy**

5  
6 If a Member has a substantial water leak, then the amount charged for water may be  
7 recalculated as follows:

- 8  
9 \* the Member will be charged an estimated bill (as described elsewhere)  
10 \* the gallons estimated will be subtracted from the amount of water consumed with the  
11 leak  
12 \* the Member will be charged the Austin Water rate for the difference. (We are a  
13 purchase water system, we pay Austin for all water, and we're not footing that charge)

14  
15 **Example:**

16  
17 Member has a water leak, has 200,000 gallons consumed. Normal usage, and what would be  
18 an estimated usage, of 10,000 gallons. Leak overage then is  $200000 - 10000 = 190,000$  gallons

19  
20 Using the \$16,000/month revenue target, with the rate being \$0.018842/gal

21  
22 Then the water charge for the leak  $(200,000 \text{ gallons}) \times (0.018842/\text{gal}) = \$3768.40$

23  
24 With the leak adjustment, we bill

25  
26 10,000 gallons at our rate of 0.018842/gal = 188.42  
27 190,000 gallons at Austin rate of 0.00402/gal = 763.80  
28 \$952.22

29  
30 Plus the usual surcharges

1 **This Contingency Rate is being provided in this tariff so that the board can, by resolution in**  
2 **an emergency, switch to a new rate structure without having to go thru a tariff revision.**

3  
4 **Data - Average Water Consumption**

5  
6  
7 Average Water Consumption for years 2010 thru 2022

8

9	year	gallons
10	2010	10,054,710
11	2011	10,668,260
12	2012	10,001,543
13	2013	10,307,670
14	2014	9,441,660
15	2015	9,357,610
16	2016	9,960,920
17	2017	10,946,810
18	2018	10,301,610
19	2019	9,826,950
20	2020	9,627,410
21	2021	11,376,460
22	2022	10,600,298
23	total	132,471,911
24	average	10,190,200

25  
26

1 **This Contingency Rate is being provided in this tariff so that the board can, by resolution in**  
2 **an emergency, switch to a new rate structure without having to go thru a tariff revision.**

3  
4 **Calculated Water Rates With Average Annual Consumption**

5  
6 This is a calculation aide. For water target revenue that the board decides on, this page can  
7 serve as a guide to what the expected rates would be for that target revenue.

8  
9 This is the calculated water rate of rate = (target revenue per year) / (10,190,200 gallons/year)

10  
11 Water Rate at average  
12 of 10,190,200 gallons per year

13	revenue	revenue	rate/gal	revenue	revenue	rate/gal
14	target	target		target	target	
15	per-month	per-year		per-month	per-year	
16	\$8,000	\$96,000	0.009421			
17	\$9,000	\$108,000	0.010598			
18	\$10,000	\$120,000	0.011776			
19	\$11,000	\$132,000	0.012954	\$21,000	\$252,000	0.024730
20	\$12,000	\$144,000	0.014131	\$22,000	\$264,000	0.025907
21	\$13,000	\$156,000	0.015309	\$23,000	\$276,000	0.027085
22	\$14,000	\$168,000	0.016486	\$24,000	\$288,000	0.028262
23	\$15,000	\$180,000	0.017664	\$25,000	\$300,000	0.029440
24	\$16,000	\$192,000	0.018842	\$26,000	\$312,000	0.030618
25	\$17,000	\$204,000	0.020019	\$27,000	\$324,000	0.031795
26	\$18,000	\$216,000	0.021197	\$28,000	\$336,000	0.032973
27	\$19,000	\$228,000	0.022374	\$29,000	\$348,000	0.034150
28	\$20,000	\$240,000	0.023552	\$30,000	\$360,000	0.035328



1 **This Contingency Rate is being provided in this tariff so that the board can, by resolution in**  
2 **an emergency, switch to a new rate structure without having to go thru a tariff revision.**

3  
4 **Example - Monthly Variation of Billing**

5  
6  
7 This table is for board guidance to have some sense of what the expected revenue would be.  
8 This uses the target revenue of \$16,000/month.

9  
10 Recognize that billing is NOT the same thing as cash-in-hand.  
11 Cash-in-hand occurs about two (2) months after billing.

12  
13

	average	billing at	
	monthly usage	0.018842/gal	
14	Jan	789,400	\$14,873.58
15	Feb	802,400	\$15,118.53
16	Mar	807,300	\$15,210.85
17	Apr	777,600	\$14,651.25
18	May	811,000	\$15,280.56
19	Jun	885,900	\$16,691.80
20	Jul	960,700	\$18,101.16
21	Aug	1,014,600	\$19,116.72
22	Sep	950,600	\$17,910.86
23	Oct	822,200	\$15,491.59
24	Nov	811,600	\$15,291.87
25	Dec	756,900	\$14,261.23
26			
27	total	10,190,200	\$192,000.00

28

1 **Section 6.09 - Billing and Service Classification**

2  
3 We reserve the right to change billing and water service classifications as seems appropriate,  
4 based on our observations of the property and its service characteristics.

5  
6 **Billing Classes**

7  
8 Member Resolutions 20170304-1 and 20170304-3 divided the membership into two classes,  
9 Member Residential and Commercial, with differences in rates and billing.

10  
11 **Member Residential Class and Billing**

12  
13 To be billed in this class, the property must be single family residential that is the Member's  
14 home. They live there, and **the property is used solely as their home**. It is very typical, but not  
15 required, that the property have a homestead property tax exemption.

16  
17 **Commercial Class**

18  
19 If the property is not billed as Member Residential, then it is billed in the Commercial class. The  
20 board divided the Commercial class into two billing subclasses.

21  
22 **Commercial Residential Billing**

23  
24 This is a home that is not Member occupied, and the **property is used solely as a residence**.

25  
26 **Commercial Billing**

27  
28 Property that is not Member Residential, and is not Commercial Residential Billing, is classed as  
29 Commercial.

30  
31 **Determining Water Usage Classification**

32  
33 The following flowchart shows how we determine water usage classification. This flowchart will  
34 tell us if a usage class is residential or not, and the proper billing class is derived from that  
35 usage class.

1 Page reserved for classification flowchart

1 **Water Usage Classes**

2  
3 The water industry, and TWDB, describes water use in different classes. There doesn't seem to  
4 be a consistent definition of these classes, other than a general understanding.

5  
6 **Residential - Single Family (SFR)**

7  
8 A property serving solely as a home, or homes, that is not classified as Multi Family Residential

9  
10 **Commercial (COM)**

11  
12 The property is not residential, and is used as a business

13  
14 **Institutional (INST)**

15  
16 A property used by or for government or religious purposes. There may be a caretaker on site,  
17 but the site is not intended for residential purposes.

18  
19 ----- We do not have any of the following usage classes -----

20  
21 **Residential - Multi Family (MFR)**

22  
23 We are following the PUC master metering definition, as a property with five or more buildings  
24 that are separately metered that serve solely as residences.

25  
26 **Agriculture (AGR)**

27  
28 A commercial property that is in the business of plants, gardening, or other organic business

29  
30 **Industrial (IND)**

31  
32 The property is used as a factory, foundry, or manufacturing site that is a supplier to businesses

33  
34 **Wholesale (WHOL)**

35  
36 Water is being sold to a "downstream" customer or consumer under terms of wholesale  
37 service or contract

38  
39 **Irrigation (IRRI)**

40  
41 Open farm field irrigation, as an agricultural industry



# Chapter 7 - Conservation

## Section 7.01 - Context

The US EPA WaterSense program reports that national averages for water use are

30%	outdoor usage/irrigation
70%	indoor usage
24%	toilets
20%	shower/bath
19%	faucets
17%	washing machines
12%	leaks
8%	other uses

The general conservation guidance, and consequently most regulations, are written with these usage patterns in mind.

The City of Austin conservation rules are typical for municipalities: limits on outdoor watering, even/odd address watering days, and so forth. These typical rules are almost always aimed at that 30% of outdoor use.

1 **Section 7.02 - Wholesale Water Purchase Contract Obligations**

2  
3 On 27 July 2018, MWSC signed a new wholesale water purchase contract with the City of  
4 Austin. That contract places certain obligations on us to comply with the drought rules that  
5 Austin has enacted.

6  
7 2018 AGREEMENT FOR WHOLESAL WATER SERVICE  
8 BETWEEN THE CITY OF AUSTIN AND  
9 THE MARSHA WATER SUPPLY CORPORATION

- 10  
11 3.6 Water Conservation Regulations. Marsha WSC agrees to adopt and  
12 enforce rules within the Marsha WSC Service Area similar to Austin's  
13 emergency and peak day water management provisions set forth in  
14 Chapter 6-4, Article 2, Austin City Code, as amended. In the event of an  
15 ordinance amendment, Austin will give written notice to Marsha WSC in  
16 request that Marsha WSC amend its adoption and enforcement to  
17 include similar provisions. Marsha WSC shall also adopt and enforce  
18 regulations with similar provisions to water conservation ordinances  
19 adopted by Austin City Council and water conservation rule postings for  
20 City Technical Manuals within six months of written notice by the City.  
21
- 22 3.7 Water Conservation Program. Marsha WSC will adopt and enforce a  
23 water conservation program sufficient to meet the requirements of the  
24 Commission water conservation rules, as amended. Marsha WSC shall  
25 also adopt and enforce water conservation measures and goals that  
26 meet or exceed requirements and goals within Austin's water  
27 conservation program, as amended.  
28
- 29 3.8 Timely Adoption of Conservation Plan. All rules, regulations, and  
30 programs to be adopted by Marsha WSC relating to water conservation  
31 program measures, and emergency and peak day water management,  
32 must be adopted within one-year of the Effective Date.  
33
- 34 3.9 Surcharge Provision. If Marsha WSC fails to comply with all the terms of  
35 this Agreement with respect to adopting and enforcing water  
36 conservation measures in ways that are substantial and material, Austin  
37 may impose on Marsha WSC a monthly water surcharge equal to 25% of  
38 Marsha WSC's volumetric rate then in effect, for as long as Marsha WSC  
39 remains out of compliance. Before imposing such a surcharge, Austin will  
40 give Marsha WSC written notice of any such failure, specifying in detail  
41 the alleged non-compliance. Marsha WSC will have 30 days from the  
42 date of the notice to cure the non-compliance.

1 **Section 7.03 - Austin Drought Rules Relevancy**

2  
3 This is extracted from City of Austin resolution 20160505-004, enacting Chapter 6-4 of the  
4 Austin City Code.

5  
6 Drought stage 1 is described in Section 6-4-16, subsections (A) thru (G) - mild  
7 Drought stage 2 is described in Section 6-4-17, subsections (A) thru (J) - moderate  
8 Drought stage 3 is described in Section 6-4-18, subsections (A) thru (L) - severe  
9 Drought stage 4 is described in Section 6-4-19, subsections (A) thru (J) - emergency

10  
11 The subsections of each stage have been rearranged, and grouped together, for clarity and  
12 focus.

13  
14 Relevance of each rule to MWSC is noted. NA is "not applicable", generally because there is no  
15 such facility or function.

16



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27

These are the Austin drought rules that are potentially usable in the MWSC system. The letter identifies the Austin Code subsection where the rule is stated.

Austin DCP Rule	MWSC note	Austin Drought Stage			
		1	2	3	4
A person may not irrigate outdoors at a residential facility or a commercial facility except on a designated outdoor water use day for the location.		b	b	b	a NO
A person may not irrigate outdoors at a residential facility or a commercial facility with a hose-end sprinkler system between the hours of 10:00 a.m. and 7:00 p.m., even if the irrigation occurs on the designated outdoor water use day for the location.		d 10am 7pm	d 10am 7pm	d 7am 10am or 7pm 10pm	b NO
A person may not use or allow the use of water to wash, rinse, or treat any outdoor surface, including but not limited to a sidewalk, driveway, parking area, street, tennis court, patio, or other paved area or outdoor building surface, unless using a hose with a positive shutoff valve or a single, refillable vessel with water. A person commits a separate offense for each outdoor surface washed in violation of this subsection.		g	j	L	g NO

1  
2  
3  
4  
5  
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7  
8  
9  
10  
11  
12  
13

Austin DCP Rule	MWSC note	Austin Drought Stage			
		1	2	3	4
A person may not use or allow the use of water in or related to a chemical lawn treatment unless specifically authorized in accordance with Section 6-4-30(G)(2) (Variance).					i
A person may not use or allow the use of water for watering the ground around a building foundation to prevent or address foundation cracking except as specifically authorized in accordance with Section 6-4-30(G)(1) (Variance)					j

1 These Austin drought rules are not usable by MWSC, as we have no corresponding facility that  
 2 the rule applies to.

Austin DCP Rule	MWSC note	Austin Drought Stage			
		1	2	3	4
5 A person may not irrigate outdoors at a 6 residential facility or a commercial facility 7 with an automatic irrigation system between 8 the hours of 8:00 a.m. and 7:00 p.m., even if 9 the irrigation occurs on the designated 10 outdoor water use day for the location.	NA  no such	c 8am 7pm	c 5am 7pm	c 6am 12mid	NO
11 A person may not operate a patio mister at a 12 commercial facility except between the 13 hours of 4:00 p.m. and midnight.	NA  no such	e 4pm 12mid	i 4pm 12mid	j 4pm 8pm	h NO
14 Operation of a charity car wash is prohibited. 15 It is not a defense to a violation of this 16 section that the charity car wash occurred on 17 the designated outdoor water use day for 18 the location.	NA  no such		e	e	
19 A person may not irrigate a golf fairway 20 unless the irrigation occurs between the 21 hours of midnight and 5:00 a.m. or between 22 the hours of 7:00 p.m. and midnight on the 23 designated outdoor water use day applicable 24 to the property. A person may irrigate a golf 25 course green or tee every other day only if 26 the irrigation of the location is consistent 27 with a noticed exception establishing the 28 schedule for the property submitted on 29 forms required by Austin Water Utility and 30 approved by the director.	NA  no such facility		g	g	
31 The filling of spas is prohibited.	NA no such			h	

1 These Austin drought rules are not usable by MWSC, as we have no corresponding facility that  
 2 the rule applies to.  
 3

Austin DCP Rule	MWSC note	Austin Drought Stage			
		1	2	3	4
5 A person may not operate an ornamental 6 fountain with an aerial emission of water or 7 aerial fall of water greater than four inches 8 other than for aeration necessary to 9 preserve habitat for aquatic life.	NA no such		h	k	
10 A person may not operate a splash pad 11 except during the hours and subject to the 12 restrictions set forth in a rule adopted 13 pursuant this chapter.	NA no such			i	f NO
14 A person may not use or allow the use of 15 water to fill, clean, rinse, supplement, 16 operate or maintain a tub, spa, fountain, 17 pond, pool, or other container, feature, or 18 improvement used, designed, maintained, or 19 intended for aesthetic, athletic, or 20 recreational purpose. This does not apply to 21 the filling of non-aerating birdbaths or 22 animal watering containers.	NA no such				e

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## **Section 7.04 - What We Can Do**

Measures of water use are typically in "gallons per capita per day" (gpcd). Smaller numbers for gpcd are better, as it means less water is being used. The City of Austin has a gpcd of about 120 (at time of writing), down from well over 200 a few years ago.

Our billing (consumer) gpcd is about 50.

From the Austin perspective, our gpcd is about 60.

Why the difference? Leaks. We have an average 17% (or 1 in 6) loss rate over 13 years of records.

Next to nobody waters their yard, or has any kind of outdoor use. Rules on outdoor water use are basically a bureaucratic checklist exercise. Those kinds of rules will not help us with drought conditions, and are little more than an administrative burden for any enforcement action.

There isn't a lot that we can do in terms of outdoor water use to conserve water. If there is going to be any substantive change in consumption, it is going to have to be done indoors. And we don't have any practical means to police indoor usage.

As a reminder, as a WSC we have no ordinance capability. We can do stuff only by contract (service agreement). And we are too small to have any kind of plumbing rebate, and IRS rules prohibit us from working to the benefit of any one member or a group of members, as opposed to ALL members.

At the system level, there are a few things we can do

1. AMR meters
2. Pressure reducing valves installed at meters
3. Installing flow restrictors at meters

Note - refer to the section about Meters and Meter Replacements to understand the system hazards with any meter replacements.

## **Section 7.05 - Notice of Water Conservation**

We will give notice to our Members regarding the establishment of water conservation practices that have been enacted by the board.

1 **Section 7.06 - Penalties and Enforcement**

2  
3 The Texas Water Code, section 67.011(b), empowers water supply corporations to enforce  
4 water conservation practices by assessing reasonable penalties in the utilities' tariffs.

5  
6 The Corporation's Officers are empowered to assess the penalties provided in this tariff on  
7 Members who violate published conservation practices of the Corporation. The Officers may  
8 take this action based upon their own observations or those of a Corporation director,  
9 employee, operator, contractor or other person designated by the Officers to monitor water  
10 conservation practices and/or water rationing violations.

11  
12 The penalty is a fine of \$50 per occurrence as evidenced by a photograph.

13  
14 Note - WC 67.011(b) requires that penalty funds collected be deposited "in a separate account  
15 dedicated to enhancing water supply for the benefit of all the corporation's customers". If the  
16 separate account is a bookkeeping account, then there isn't a problem. But if it is supposed to  
17 be a bank account, then the administrative overhead is very likely going to make collecting any  
18 penalty a waste of time and money.

19  
20 **Section 7.07 - Appeal of Water Conservation Penalties.**

21  
22 Any penalty assessed by the Corporation's Officers for violation of the Corporation's published  
23 water conservation practices must be appealed in writing received at the Corporation's  
24 business office before the close of business on the due date of the water service bill containing  
25 the penalty, or the due date stated on the written notice to the Member assessing the penalty  
26 if not assessed on the monthly service bill.

27  
28 Any appeal, notice of which is not received by the close of business on the due date, shall be  
29 deemed to be waived for untimeliness. An untimely appeal may be considered only upon a  
30 majority vote of board.

31  
32 Note - That means the Member is requesting an item to be on the board agenda. There's lead  
33 time and process for that, per Open Meetings Act rules. This may have a turnaround time of  
34 30+ days (more likely 60 days, for monthly board meetings), which the Member may consider  
35 to be totally unreasonable.

36  
37 The penalties may be appealed to the PUCT in the same manner as provided for the appeal of  
38 new service costs under Texas Water Code § 13.043(g). As a precondition to a PUCT appeal of  
39 any penalty assessed by the Corporation's Officers, the Member assessed the penalty must first  
40 exhaust their rights of appeal to the Corporation's Board of Directors.

1 **Section 7.08 - Conservation Covenant Agreement Contract**

2

3 We can establish a covenant agreement contract with any Member or Member's tenant to  
4 enact conservation practices to establish liability and penalties for non-compliance with the  
5 agreement.

6

## Section 7.09 - Drought Contingency Plan

*Italic text from TCEQ regulations 30 TAC 288.20(a)(1)(A thru J)*

### *Drought Contingency Plans*

*(D) The drought contingency plan must include a description of the information to be monitored by the water supplier, and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.*

*(E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations:*

- (i) reduction in available water supply up to a repeat of the drought of record;*
- (ii) water production or distribution system limitations;*
- (iii) supply source contamination; or*
- (iv) system outage due to the failure or damage of major water system components (e.g., pumps).*

*(G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:*

- (i) curtailment of non-essential water uses; and*
- (ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).*

*(H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.*

*(J) The drought contingency plan must include procedures for the enforcement of mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.*



1 Situation E-1 - Reduction in water supply

2

3 Situation E-1

4 reduction in available water supply up to a repeat of the drought of record

5 Initiation Trigger	City of Austin announcement of their DCP Stage as Austin is the MWSC sole source water provider
6 Authority/Actor/Agent	MWSC President, in concurrence with other Corporate officers, subject to ratification by the Board of Directors
7 Response	Response level as declared by President
8 Public Notification	postcard, email, website announcement
9 Termination Trigger	City of Austin announcement
10 Conservation level	water use reduced 10% from 5-year month-on-month average (Reminder that opportunity for reductions are very limited)

11

12 Basic conservation: don't water concrete or rock, water use with aeration (e.g sprinklers or

13 misters or anything else that is "watering the air") only at night (pre-dawn hours preferred,

14 typically less wind)

15

16 There are three levels of response, depending on the degree of the drought declaration:

17

18 **First level:** Outside water use without aeration is allowed, unless permitted otherwise

19

20 **Second level:** Outside water use without aeration is allowed to maintain life support for

21 animals or to sustain vegetation. All other use is prohibited, unless permitted otherwise

22

23 **Third level:** Outside water use allowed for animal life support only. All other use is prohibited,

24 unless permitted otherwise

1 Situation E-2 - Production or distribution limitations

2

3 Situation E-2

4 water production or distribution system limitations

5 Initiation Trigger	there is a leak, and it can be fixed within a few hours to within one day
6 Authority/Actor/Agent	MWSC President
7 Response	fix the <expletive> leak
8 Termination Trigger	no more leak
9 Public Notification	A message will be sent to the Outage Email List with as much information as available at the time.  Website announcement  Consumers have no water. They will be contacting MWSC to ask why.
10 Comment	Distribution system limitations is unfortunately an almost routine occurrence.  Water production is purchase water contract from the City of Austin. Limitations from Austin are Situation E-1.
11 Conservation level	100% conservation - the system is shut down

12

13 Context - The City of Austin is our sole source provider. If there are production problems, its on

14 Austin to get it fixed, and we are 100% shutdown.

15

16 This Situation then will be concerned only with MWSC distribution problems, expressed more

17 simply as a "line break". Given our present distribution system and the unreliability of our

18 street isolation valves, this will lead to a full 100% system shutdown.

19

Situation E-3 - Supply source contamination

Situation E-3 supply source contamination	
Initiation Trigger	City of Austin announcement; or Coliform report from the monthly sample; or leak with suspected contamination
Authority/Actor/Agent	MWSC President
Response	sectional isolation to the extent possible; AND system shutdown WITHOUT flushing TCEQ notification
Termination Trigger	TCEQ response authorizes resumption of service
Alternative Source	bottled water and/or water hauling services
Service Notification	<p>A message will be sent to the Outage Email List with as much information as available at the time.</p> <p>Website announcement. Email</p> <p>Consumers have no water. They will be contacting MWSC to ask why.</p>
Comment	<p>MWSC is a small system. By the time we are aware of a contamination problem, that contamination will have been spread thru most if not all of our distribution pipelines. Shutdown is the only viable option to stop any contamination. Sectional isolation without flushing is a "Hail Mary" last-best-hope method to avoid having a contamination spread thru the remainder of the distribution system that just might not have been contaminated. There is no directional flushing capability.</p>
Conservation level	100% conservation - the system is shut down

Situation E-4 - Outage due to failure or damage

Situation E-4 system outage due to the failure or damage of major water system components	
Initiation Trigger	we have leak/failure and a bad one - something that will take more than a day to fix
Authority/Actor/Agent	MWSC President
Response	system shutdown TCEQ notification on advice and concurrence of Operator
Termination Trigger	repair the <expletive> leak if TCEQ is notified, TCEQ authorizes restoring service
Alternative Source	bottled water and/or water hauling services
Service Notification	A message will be sent to the Outage Email List with as much information as available at the time.  Website announcement, email  Consumers have no water. They will be contacting MWSC to ask why.
Comment	Situation E-4 is different from E-3 only by the source of the problem. Mechanical failure is E-4, otherwise it is E-3.  MWSC is a small system, not all that unlike an airplane with a single engine. If the engine stops, the plane is going down.
Reminder	MWSC is a purchase water system. We do not have any treatment facilities, pumps, storage tanks, or pressure planes. We have pipe and valves. And that's it.
Conservation level	100% conservation - the system is shut down

1 **Other Elements of the Drought Contingency Plan (30 TAC 288.20)**

2  
3 **Public Notice and Participation (A):**

4  
5 The members and general public are given the opportunity to attend any regularly scheduled  
6 Board of Directors meeting.

7  
8 **Continuing Public Education (B):**

9  
10 Information about the Drought Contingency Plan, and using water efficiently, is included in  
11 billing inserts and on the corporation website.

12  
13 **Regional Planning (C):**

14  
15 The Pamela Heights subdivision is located in Planning Group Region K. As MWSC is a wholesale  
16 customer of the City of Austin, and does not draw on water sources directly, the City of Austin  
17 serves as the Region K representative.

# Chapter 8 - Charges and Policies

## Section 8.01 - Water Charges

Marsha WSC operates on a fixed monthly revenue target, which means that we have variable rates for water consumed in order to achieve that revenue target.

Why: Consider this, that small changes in small numbers make for big percentage swings. A \$3000 change in a month isn't that much, but when the revenue target is \$16,000 a month, that \$3000 is an 18.75% swing, which means that something isn't going to get paid, or some work isn't going to get done, because we don't have the money for it. (Expletive) that. If we are going to have a chance at fixing this system, then we need a reliable revenue stream. If that means variable water rates, then we're doing variable water rates.

Details: The board sets the revenue target every so often, typically yearly. Changes in the revenue target constitute a "change in rates" so far as public notice is concerned.

Water usage charges are calculated

- \* in ten (10) gallon increments for manually read meters,
- \* in 1-gallon increments for AMR meters, or
- \* in the smallest indicated complete measure unit that the meter presents its readings.

Water usage charges are based on monthly meter readings and are calculated from reading date to reading date. Readings used in all billing calculations shall be taken by the Corporation's employees or designated representative.

All assessments and surcharges are to be paid in full by or before the billing due date. Delinquent water charges are due immediately, and if not paid by the billing due date make the Member subject to disconnection.

## Section 8.02 - Construction Charge

(See the Chapter on Member Equity for background)

This is the member right of participation, as described in WC 67.016. It is charged per service connection (per meter or per tap).

The charge is \$40 per connection per month.

The charge and payment is recorded for a specific service location, and represents the Member equity for that service location. (At time of writing, this is the only charge we track by service

1 location, because we have to, as this is refundable Member equity)

2  
3 A Member with several service locations cannot make payment to a specific service location  
4 equity. With multiple service locations, we will apply any construction charge payment equally  
5 across all of the Member service locations. Example, \$10 applied to 3 locations will be  
6 distributed as \$3.33 to each of the locations, with \$0.01 yet to be applied. A Member cannot  
7 say \$5 to this one, \$5 to that one, and \$0/none to the third. That's not happening.

8  
9 Marsha WSC, as described elsewhere, is under funded, under capitalized, and non-compliant  
10 with statute and regulations.

11  
12 In order to gain funds to upgrade the water system, Members of the corporation are being  
13 charged a "construction charge" per connection. These funds are the member right of  
14 participation per section 67.016, Water Code, and are refundable to the member on sale or  
15 transfer of the property having service (WC 67.016(a)(3), "sale to the corporation" is a refund)

16  
17 Construction charge funds are to be used ONLY for upgrading the water system, and are NOT  
18 to be used for routine expenses, or repairs to the existing water system (new stuff only). Funds  
19 collected are held separately, and are released only on authorization by the board.

### 20 21 **Section 8.03 - Surcharges - Generally**

22  
23 There are surcharges that we pass along, and some surcharges that we have. These include,  
24 but are not limited to: construction charge, asset charge, regulatory assessment, drought  
25 charges, excess consumption charges, or whatever else might come up. The board may impose  
26 a surcharge by resolution for a specific purpose for a specific time. Surcharges may be limited  
27 to a specific billing class or classes.

28  
29 In the event any federal, state or local government imposes on the Corporation a "per meter"  
30 fee or an assessment based on a percent of water charges, this fee or assessment will be billed  
31 and collected as a "pass through" charge to the Member.

### 32 33 **Regulatory Assessment**

34  
35 Texas statute, Water Code 5.701(n)(1)(B), requires that we collect a surcharge of 0.5% of water  
36 revenue which is for water consumption charges only as charged by MWSC.

1 Water Code  
2 section 5.701, "Fees", subsection (n)

3 (1) Each provider of potable water or sewer utility service shall collect a  
4 regulatory assessment from each retail customer as follows:

5 (B) A water supply or sewer service corporation as defined in Section  
6 13.002 shall collect from each retail customer a regulatory  
7 assessment equal to one-half of one percent of the charge for  
8 retail water or sewer service.

9  
10 See also TCEQ regulation, 30 TAC 291.76 (d)(2) for the agency regulation and payment.

### 11 **Asset Management Surcharge**

12 We don't have this one yet, but we will. This will be a "per meter" charge.

13  
14 This is the asset management funding charge, to collect funds to replace those portions of the  
15 corporation assets that have worn out, are no longer useful, or have depreciated such that  
16 those assets need to be replaced.

17  
18 The corporation board will determine by resolution what the asset charge should be.

### 19 **Capital Improvement Surcharge**

20 This surcharge is intended to cover, or recover, labor and administrative costs for work done,  
21 or to be done, on the water distribution system. This surcharge can be in place for at most one  
22 year (12 months) for work within a one-year period.

23  
24 This surcharge CANNOT be used to pay for expenses that are to be covered by water charges.

### 25 **Section 8.04 - Assessments**

26 [This wording is almost identical to USDA Model Bylaws,  
27 Form RUS-TX 1780-20  
28 Revision 12-2011  
29 TX PN No. 64 (12/2011) page 15  
30 ARTICLE XVIII, Section 1.

31  
32 This derives from loan covenants in USDA RUS Bulletin 1780-28, rev 2/15/00, section 5(d)  
33 ]

34  
35 If at the end of the fiscal year, or in the event of emergency repairs, the Board of Directors  
36 determines the total amount derived from the collection of water or wastewater charges to be



1 insufficient for the payment of all costs incident to the operation of the Corporation's system  
2 during the year in which such charges are collected, the Board shall make and levy an  
3 assessment against each Member of the Corporation as the Board may determine, so that the  
4 sum of such assessments and the amount collected from water and other charges is sufficient  
5 to fully pay all costs of the operation, maintenance, replacement and repayment on  
6 indebtedness for the year's operations.

7  
8 **Section 8.05 - Late Charges**

9  
10 We do not charge late fees.

11  
12 We have found that late fees are ineffective at encouraging timely payment, and are an  
13 administrative overhead that is just not worth the effort (Having to track billing amounts across  
14 different months, which introduces chances of a billing error).

15  
16 **Section 8.06 - Inaccessible Meter**

- 17  
18 1. If a meter is inaccessible to be read, for reason other than a vehicle blocking  
19 accessibility to that meter, a charge of \$25.00 may be added to the bill for that meter.  
20  
21 2. If a meter is inaccessible to be read because of a vehicle blocking accessibility to that  
22 meter, then  
23  
24 a. if there has been no prior occurrence, a charge of \$25.00 may be added to the  
25 bill;  
26  
27 b. if there has been a \$25.00 charge in the prior calendar year, then a charge of  
28 \$50.00 may be added to the bill in addition to any prior charge;  
29  
30 c. if there has been a \$50.00 charge in the prior calendar year, then a charge of  
31 \$75.00 may be added to the bill in addition to any prior charge;  
32  
33 d. if there has been a \$75.00 charge in the prior calendar year, then a charge of  
34 \$100.00 may be added to the bill in addition to any prior charge;  
35  
36 e. if there has been a \$100.00 charge in the prior calendar year, then a charge of  
37 \$100.00 may be added to the bill in addition to any prior charge.  
38  
39 3. If a meter is found to be inaccessible, a notice will be left at the consumer location  
40 stating that there will be a charge on the bill for an inaccessible meter.  
41  
42 4. A notation will be made on the monthly meter readings about any notice that has been

1 left, so that billing can be determined.

2  
3 5. The amount of the charge will be determined during billing.

4  
5 6. A notice will be placed in the member billing that a charge has been incurred for  
6 inaccessibility to the corporation water meter.

7  
8 7. The corporation may, at its discretion, either remove or relocate the meter once a  
9 charge of \$100.00 has been billed.

10  
11 8. Should the meter need to be removed, coordination with the Travis County Sheriff  
12 office will be done as deemed appropriate to remove "objects within the county  
13 right-of-way" under Travis County Code 482.210(c)(5).

14  
15 9. The corporation is under no obligation to reinstall a removed meter at a location that  
16 has been inaccessible.

17  
18 10. The corporation may install bollards or take other measures to protect accessibility to a  
19 meter, so long as such bollards or measures are in compliance with Travis County Code  
20 482.210(d)(3) [mailbox posts max 4x4, or IPS pipe max 2-inch, bury depth not exceeding  
21 24-inches, not set in concrete]. The corporation may bill the member for the cost of  
22 such protective measures at the meter.

23  
24 Removal or relocation of a meter because of inaccessibility will be billed to the offending  
25 Member as a widely separated meter relocation as described in Section 5.05. The corporation  
26 is under no obligation to have the yard pipe service line reconnected to a reinstalled or  
27 relocated meter.

28  
29 **Section 8.07 - Charges Not Refundable**

30  
31 Unless specifically defined in this Tariff, all fees, rates, and charges shall be non-refundable.

32  
33 **Section 8.08 - Charges for Other Services.**

34  
35 All services outside the normal scope of utility operations that the Corporation may be  
36 compelled to provide at the request of a Member shall be charged to the Member based on  
37 the cost of providing such service.

38  
39 **Section 8.09 - Returned Check Fee**

40  
41 In the event a check, draft, or any other similar instrument is given on behalf of a Member to  
42 the Corporation for payment of services provided for in this Tariff, and the instrument is

1 returned by the financial institution as insufficient or non-negotiable for any reason, the  
2 account for which the instrument was issued shall be assessed a return check charge of \$35.00,  
3 or the bank charge, whichever is higher.  
4

### 5 6 **Section 8.10 - Service Trip**

7  
8 We will charge a trip fee of \$50.00 for any service call or trip to the Member's connection as a  
9 result of a request by the Member or resident (unless the service call is in response to damage  
10 of the Corporation's or another Member's facilities).  
11

### 12 **Section 8.11 - Information Disclosure Fee**

13  
14 All public information except that which has been individually requested as confidential shall  
15 be available to the public for a fee to be determined by the Corporation based on the level of  
16 service and costs to provide such information.  
17

18 To the extent possible, information will be provided in electronic form. The cost for any media  
19 being used for storage that will be given to the requestor can be charged to the requestor.  
20 Requestor pays for the USB thumb drive or whatever physical media that is used.  
21

22 If the request is for material that is available in electronic form, that material will be provided  
23 only in electronic form. The requestor will be shouldering the responsibility and cost for  
24 printed reproduction.  
25

26 If the request is for material that is only available in printed or hardcopy form, we will have the  
27 material transferred to electronic form, and then presented to the requestor in electronic  
28 form.  
29

### 30 **Section 8.12 - Payment Methods**

31  
32 The Corporation accepts the following methods of payment:  
33

- 34 1. Money Order
  - 35 2. Check
- 36

37 If payment is to restore service after a service termination because of non-payment, then we  
38 will not accept a personal check, but will require a cashier's check, or a money order.  
39

40 Payments must be made out as payable to "Marsha WSC" or to one of the MWSC doing-  
41 business-as names. We will decline to accept two-party checks or money orders.  
42

1 The Corporation does not accept payment in cash.

2  
3 At some time in the future, we are going to have electronic payment. This will be a contract  
4 service, as we don't have the capability or capacity to do our own electronic payment  
5 processing. Contract services have fees that go with them. We would have these fees as part of  
6 our routine expense, and figured into our revenue requirements. We would not charge fees for  
7 making electronic payments.

### 8 9 **Section 8.13 - Payments Not in Good Order**

10  
11 Payments received that are not in good order (will be refused by the bank upon any attempt to  
12 deposit the payment) will not be considered as a received payment.

13  
14 All insufficient fund checks, accounts closed or money orders that have had a "stop payment  
15 order" issued for payment of a water bill will be deemed delinquent as if no payment was  
16 received and the meter is subject to Disconnection With Notice provisions.

17  
18 Redemption of the returned instrument shall be made by money order, or certified check on or  
19 before the date specified in the notice. Failure to meet these terms shall initiate disconnection  
20 of service.

### 21 22 **Section 8.14 - Overpayments As Credit on Account**

23  
24 Overpayments will be recorded as a credit on the account, and applied to future charges as a  
25 regular payment. An overpayment will not be refunded to the Member unless requested in  
26 writing by the Member.

### 27 28 **Section 8.15 - Posting of Payments**

29  
30 All payments shall be posted against previous balances prior to posting against current billings.  
31 Further, payments are posted to regulatory assessments, surcharges, water usage charges, and  
32 all other charges, in that order, proceeding from the oldest charge to the most recent.

33  
34 Payments are posted to accounts as of the 20th of the month.

### 35 36 **Section 8.16 - Indigent Care Policy**

37  
38 (This derives from loan covenants in USDA RUS Bulletin 1780-28, rev 2/15/00, section 5(c))

39  
40 The Corporation is a retail public water utility and not a credit or lending institution. All water  
41 service shall be provided on a non-preferential, non-discriminatory basis to all qualified  
42 applicants upon timely payment of all applicable fees and charges. No special exceptions or

1 classes of Members shall be recognized.

2  
3 **Section 8.17 - Billing Dates, Due Dates, Delinquent Bills**

4  
5 The Corporation billing date is the 28th of each month, and will mail bills on the 28th or the  
6 first practical working day afterwards. All bills shall be due and payable upon receipt and are  
7 past due beyond the 20th of the following month. A bill is delinquent if not paid on or before  
8 the due date. Payments made by mail will be considered late if **received** in the office after the  
9 due date.

10  
11 If the past due date for the regular or final billing is on a weekend or holiday, the past due date  
12 noted on the bill is still in effect. For all disputed payment deadlines, the mailing date recorded  
13 by the Corporation shall be the official mailing date and the payment receipt date recorded by  
14 the Corporation shall be the official payment receipt date.

15  
16 Utilities Code 182.002 gives a residential Member, of age 60 or older, who requests a later due  
17 date have the option to have their bill due date changed to be the 25th day after the billing  
18 date. For us, that means a billing of Member Residential as their sole service location, can have  
19 their due dates set as follows:

21	billing date	due date	billing date	due date
22	28 Jan	22 Feb	28 Jul	22 Aug
23	28 Feb	25 Mar	28 Aug	22 Sep
24	28 Mar	22 Apr	28 Sep	23 Oct
25	28 Apr	23 May	28 Oct	22 Nov
26	28 May	22 Jun	28 Nov	23 Dec
27	28 Jun	23 Jul	28 Dec	22 Jan

28  
29 **Section 8.18 - Member Deposits**

30  
31 The Corporation reserves the right to require a deposit under the terms of this tariff. And we  
32 don't pay interest on the deposit.

33  
34 **Section 8.19 - Billing Cycle Changes**

35  
36 [ there has got to be a story and a lawyer behind this boilerplate ]

37  
38 The Corporation reserves the right to change its billing cycles as it may deem appropriate.

39  
40 **Section 8.20 - Back-Billing**

41  
42 The Corporation may back-bill a Member for up to four (4) years (48 months) for meter error,

1 incorrect meter readings, or error in computing a Member's bill. Back-billing shall not extend  
2 beyond current Membership except in cases involving the transfer of a Membership  
3 conditioned upon payment of delinquent obligations by the Transferee.  
4

5  
6 **Section 8.21 - Disputed Bills**

7  
8 In the event of a dispute between the Member and the Corporation regarding any bill, the  
9 Corporation shall investigate, and report the results in writing to the Member. All disputes  
10 under this section must be submitted to the Corporation, in writing, prior to the due date  
11 posted on said bill except in cases involving the transfer of a Membership conditioned on  
12 payment of delinquent obligations by the Transferee.  
13

14 **Section 8.22 - Meter Readings**

15  
16 Each Member's meter will be read once a month by the Corporation's agents or contractors.  
17 These meters will be read as nearly as possible on the corresponding day of each meter reading  
18 period, but may be read at other than monthly intervals if the circumstances warrant.  
19

20 Marsha WSC water meters shall be read on the following dates, subject to weather. Should a  
21 date be on a Saturday, Sunday, or federal holiday, the meter reader may choose to read  
22 meters on the nearest business day before or after the date.  
23

24	21 Jan	21 Jul
25	20 Feb	21 Aug
26	22 Mar	21 Sep
27	22 Apr	21 Oct
28	22 May	20 Nov
29	21 Jun	20 Dec

30  
31 This reading schedule follows a 30 or 31 day interval between readings, and precedes the  
32 Marsha WSC billing cycle which begins on the 24th of each month. Meter readings must be  
33 provided to Marsha WSC before the 24th of each month.  
34

35 **Section 8.23 - Estimated Meter Readings**

36  
37 For the month when a Member meter is unreadable, the Member shall be billed for an amount  
38 of water consumed that corresponds to the average consumption for that Member meter. The  
39 billing shall have a notice that the water consumption is estimated. Average consumption is the  
40 rolling average of consumption over the preceding 12 months.  
41

42 The intent of this policy is to provide as near a normal billing for water consumed as is possible,

1 and avoid having the Member pay for the total of all consumption in a single large billing at a  
2 later time. [It also reduces the skew in our water consumption numbers, and in rate  
3 calculations]

4  
5  
6 **Section 8.24 - Inoperative Meters**

7  
8 Water meters found inoperative will be repaired or replaced within a reasonable time. If a  
9 meter is found not to register for any period, unless bypassed or tampered with, the  
10 Corporation may make an estimated reading.

11  
12 **Section 8.25 - Bill Adjustment Due To Meter Error**

13  
14 The Corporation may test off-site any Member's meter upon written request of the Member.  
15 See the Meter Replacement and Test portion of this tariff for details about meter testing.

16  
17 The accuracy standards of the American Water Works Association shall apply. A test fee as  
18 prescribed in this tariff for off-site testing shall be imposed. In the event the test results  
19 indicate that the meter is faulty or inaccurate, the test fee shall be waived, and a billing  
20 adjustment may be made as far back as six (6) months. The billing adjustment shall be made to  
21 the degree of the meter's inaccuracy as determined by the test.

22  
23 **Section 8.26 - Bill Adjustment Due to Meter Reading Error**

24  
25 When a meter reading error occurs, the estimated billing will be determined as follows.

26  
27 For the last known good meter reading, determine the number of gallons consumed since that  
28 reading and the current meter reading. Divide that number of gallons by the number of days  
29 between the last known good reading and the current reading to determine the average  
30 consumption per day. Recompute the water charge for any intervening billing cycles using that  
31 average daily consumption, using the water rates determined for each respective billing cycle.  
32 Accumulate any differences in charges, and apply credit or charge to the corrected billing.

33  
34 We are not recomputing the water rates for each billing cycle. The administrative burden is just  
35 too high.

36  
37 **Section 8.27 - Payments at Business Office**

38  
39 All payments for utility service shall be delivered or mailed to the Corporation's business office  
40 or payment drop box. If the business office fails to receive payment prior to the time of noticed  
41 disconnection for non-payment of a delinquent account, service will be terminated as  
42 scheduled. **Corporation service crews shall not be allowed to collect payments on Member**

1 **accounts in the field.**

2  
3 **Section 8.28 - Deferred Payment Arrangement**

4  
5 We may offer a deferred payment plan to a Member because of weather, leak, or other  
6 extraordinary external circumstances. We cannot accept a payment plan from a tenant unless  
7 that tenant is an authorized agent of the Member.

8  
9 The Corporation may offer a deferred payment plan to a Member residing in our service area  
10 who cannot pay an outstanding balance in full and is willing to pay the balance in reasonable  
11 installments as determined by the Corporation.

12  
13 The Corporation may not offer a deferred payment plan for an outstanding balance to a  
14 Member with multiple service locations or to a Member not residing in our service area, except  
15 by resolution of the board. (That is getting borderline to extending credit to a commercial  
16 entity, and that is not someplace we want to be. We don't have an ability to assess commercial  
17 credit risk. That is something best left to a professional lender.)

18  
19 Failure to make required and timely payments as provided in any deferred payment agreement  
20 will void that agreement and service will be discontinued. Non-payment of any amount under  
21 an additional deferred payment agreement will cause service to be discontinued immediately  
22 and service will not be restored until the account is paid in full and all other charges resulting  
23 from the disconnection of service are fully paid.

24  
25 **Section 8.29 - Late Payment Notice, and Termination Notice**

26  
27 A Member will be issued a late payment notice in the next billing cycle if full payment has not  
28 been received by the billing due date.

29  
30 A Member will be issued a service termination notice if full payment is not received by the  
31 billing due date, and the Member was issued a late payment notice in the preceding billing  
32 cycle.

33  
34 A full payment is considered to be not less than 95% of the amount due for amounts due of  
35 \$100.00 or more, and not more than \$5.00 from the amount due for amounts due of less than  
36 \$100.00.

37  
38 A Member will have service terminated typically within a week following the due date for the  
39 billing in which the Member was issued a service termination notice, unless the Member has  
40 established a payment plan, or has made payment in full by the due date. (Due date is the  
41 20th, so termination is by or before the 27th.)





# Chapter 9 - Damage and Liability

## Section 9.01 - Equipment Damage

If the Corporation's facilities or equipment have been damaged by

- \* tampering,
- \* by-passing,
- \* installing unauthorized taps,
- \* reconnecting service without authority, or
- \* other service diversion,

a fee shall be charged equal to the actual costs for all labor, material, and equipment necessary for repair, replacement, and other Corporation actions.

This fee shall be charged and paid before service is re-established.

If the Corporation's equipment has not been damaged, a fee equal to the actual costs for all labor, material, equipment, and other actions necessary to correct service diversions, unauthorized taps, or reconnection of service without authority shall be charged.

All components of this fee will be itemized, and a statement shall be provided to the Member.

If the Corporation's facilities or equipment have been damaged due to negligence or unauthorized use of the Corporation's equipment, right-of-way, or meter shut-off valve, or due to other acts for which the Corporation incurs losses or damages, the Member shall be liable for all labor and material charges incurred as a result of said acts or negligence.

Note that there may be civil and criminal penalties that may be applicable as well.

Refer to WC 49.228 (text in Section 9.03), Texas Penal Code 28.03, and 40 USC 300i-1

## Section 9.02 - Meter Tampering and Diversion.

For purposes of these Sections, meter-tampering, by-passing, or diversion shall all be defined as tampering with the Corporation's service equipment, by-passing the same, or other instances of diversion, such as:

- a. removing a locking or shut-off device used by the Corporation to discontinue service or re-establishing service after disconnection by any means,
- b. physically disorienting the meter,
- c. attaching objects to the meter to divert service or to bypass,

- 1 d. inserting objects into the meter,
- 2
- 3 e. and other electrical and mechanical means of tampering with, by-passing, or diverting
- 4 service,
- 5

6 The burden of proof of meter-tampering, bypassing, or diversion is on the Corporation.  
7 Photographic evidence or any other reliable and credible evidence may be used, however any  
8 evidence must be accompanied by a sworn affidavit by the Corporation's staff regarding  
9 meter-tampering. (See chapters 18 and 132, Civil Practice and Remedies Code, regarding  
10 affidavits and evidence)

11  
12 A court finding of meter tampering may be used instead of photographic or other evidence, if  
13 applicable.

14  
15 Unauthorized users of services of the Corporation may be prosecuted to the extent allowed by  
16 law under the Texas Penal Code 28.03.

17  
18 **Section 9.03 - Damage Liability**

19  
20 Member shall be liable for any damage or injury to utility-owned property or personnel shown  
21 to be caused by the Member, his invitees, his agents, his employees, or others directly under  
22 his control.

23  
24 Water Code

25 Sec. 49.228. DAMAGE TO PROPERTY. A person who wilfully destroys, defaces,  
26 damages, or interferes with district or water supply corporation property is  
27 guilty of a Class B misdemeanor.

28  
29  
30 Note use of the word "wilfully" - it establishes intent, and not an accident. There must be  
31 some way to establish intent, like ignoring obvious signage. Lawyers make their money on  
32 details like this.

33  
34 **Section 9.04 - Damage Covenant Agreement Contract**

35  
36 We can establish a covenant agreement contract with any Member or non-Member to protect  
37 the water system infrastructure and to establish liability and penalties for non-compliance with  
38 the agreement.

# Chapter 10 - Member Yard Service Piping

## Section 10.01 - Installation Authorized

No person, other than the properly authorized agent of the Corporation, shall be permitted to tap or make any connection with the mains or distribution pipes of the Corporation's water system, or make any repairs or additions to or alterations in any tap, pipe, or other fixture connected with the water service pipe.

Unauthorized work is subject to Equipment Damage Fees as described in this tariff.

## Section 10.02 - Meter Location and Member Responsibility

The Corporation will set meters at a point as near as possible adjacent to the Member's property line consistent with ease of access to and with safety and maintenance of the meter. The Member is responsible for constructing his service line from the point of water consumption to the demarcation point. The Member shall own and maintain his own Member service line. Any leak or defect in the Member's service line must be repaired immediately in order to avoid possible contamination or hazard to the public water supply. Failure to accomplish timely repair will result in the termination of service until remedied.

## Section 10.03 - Declaration of Corporation Property

[ there has got to be a story and a lawyer behind this boilerplate ]

All meters, water lines, and other equipment furnished by the Corporation (excepting the Member's individual service lines from the demarcation point to Member's point of consumption) are and shall remain the sole property of the Corporation, and nothing contained herein or in a contract/application for service shall be construed to reflect a sale or transfer of any such meters, lines, or equipment to any Member. All tap and extension charges shall be for the privilege of connecting to the water lines and for installation, not purchase, of the meters and lines.

## Section 10.04 - Access to Meter

The Member shall provide access to the meter as **per service agreement**. If access to the meter is hindered or denied and so preventing the reading of the meter, an estimated bill shall be rendered to the Member for the month; and a notice shall be sent to the effect that access could not be gained. If access is denied after proper notification to the Member, then service may be discontinued with no further notice. The Member will be billed actual costs for any work that may be needed to gain access to the meter.

1 **Section 10.05 - Access to Premises**

2  
3 The Corporation will have the right of access to the Member's premises at all times reasonable  
4 for the purpose of

- 5 \* installing, testing, inspecting or repairing water mains or other equipment used in
- 6 connection with its provision of water service, or
- 7 \* for the purpose of removing its property and disconnecting lines, or
- 8 \* for all other purposes necessary to the operation of the utility system including
- 9 inspecting the Member's plumbing for code, plumbing or tariff violations.

10  
11 The Member shall allow the Corporation and its personnel access to the Member's property to  
12 conduct any water quality tests or inspections required by law.

13  
14 Unless necessary to respond to equipment failure, leak or other condition creating an  
15 immediate threat to public health and safety or the continued provision of adequate utility  
16 service to others, such entry upon the Member's property shall be during normal business  
17 hours.

18  
19 The Member may require any Corporation representative, employee, contractor, or agent  
20 seeking to make such entry to identify themselves, their affiliation with the Corporation, and  
21 the purpose of their entry.

22  
23 These restrictions do not apply to access to the Corporation's easements. Corporate personnel  
24 and designated agents shall have un-restricted access to Corporate easements at all times.

25  
26 **Section 10.06 - Right to Inspect Plumbing**

27  
28 The Corporation has the right to inspect the private plumbing of any Member to insure that it  
29 is maintained in a safe condition and operated in compliance with state health and safety  
30 regulations. Concurrent with this right is the obligation to inspect Corporation-owned facilities,  
31 including reading meters at any time to insure compliance with tariffs and drought  
32 management plans.

33  
34 **Section 10.07 - Usage Demarcation**

35  
36 For purposes of billing, the Member will be charged for all water delivered to the output side  
37 of the meter, without regard to the repair demarcation.

38  
39 Background: If there is damage between the output of the meter, and the repair demarcation,  
40 we have no way of being able to tell who is responsible for what amount of water used. The  
41 only reason for the distinction in demarcation points is who is able to make the repairs without  
42 causing further damage to the system or without creating a potential hazard to the water

1 system. The presumption is that the corporate side of the repair demarcation is damage  
2 resistant and is comparatively easy to repair with waterworks grade parts (meaning we can  
3 turn water off reliably and make the fix).

#### 4 5 **Section 10.08 - Repair Demarcation**

6  
7 Note context - We have 4 different types of meter installations, each with a different kind of  
8 demarcation point.

9  
10 We have a variety of meter installations. The general principle of a repair demarcation point is  
11 the location of disassembly and reassembly for making a repair on the discharge side of the  
12 meter. This may be

- 13 \* the meter spud nut on the discharge side of the meter (see Meter Testing for
- 14 conditions and warnings)
- 15 \* the first pack joint installed downstream from the meter (AWWA style installations)
- 16 \* in a meter yoke installation, the union that is in the service box with the service valve,
- 17 or in the absence of a union, then the output of the service valve
- 18 \* a union

19  
20 The Corporation's ownership and maintenance responsibility of water supply and metering  
21 equipment shall end at the repair demarcation point.

22  
23 All water usage registering upon and/or damages occurring to the metering equipment owned  
24 and maintained by the Corporation shall be subject to charges as determined by the  
25 Corporation's Tariff.

#### 26 27 **Section 10.09 - Water Service Location**

28  
29 Potable water supply piping, water discharge outlets, backflow prevention devices, or similar  
30 equipment shall not be located so as to make possible the submergence of such equipment in  
31 any contaminated or polluted substance.

#### 32 33 **Section 10.10 - Service Valve**

34  
35 The Member's use of the Corporation's curb stop, meter valve, or other similar valve on the  
36 intake side of the meter is prohibited. Any damage to the Corporation's equipment shall be  
37 subject to service charges.

#### 38 39 **MWSC Installed Valve**

40  
41 In a meter yoke installation, we will provide a service valve on the Member's side of the meter  
42 for purposes of isolating the Member's service pipeline and plumbing facilities from the

1 Corporation's water pressure.

2  
3 For repairs to existing meter installations, we may, at our discretion, provide a service valve or  
4 a union or both.

### 5 6 **Member Installed Valve**

7  
8 If the Member installs or replaces the service valve, we will STRONGLY recommend that the  
9 valve being installed be dezincification resistant.

10  
11 For gate valves, there are very, very few products that meet the dezincification requirement.  
12 We have found only two products:

13  
14 Nibco T-113LF

15 Mueller Waterworks H-10914N (in the waterworks catalog, listed as a curb stop)

16  
17 In checking for dezincification resistance, the essential component is the valve stem. The body  
18 of the valve is of less concern. The valve failure mechanism is the valve stem itself.

19  
20 For ball valves, there is a slightly wider selection. There isn't a direct failure mode, but there is  
21 an indirect mode of just having the flow get clogged up by zinc residue. There are  
22 dezincification resistant ball valves. One such product is

23  
24 Milwaukee Valve UPBA-400

### 25 26 **Submittals and Dezincification**

27  
28 A general rule for determining if a valve is dezincification resistant is to find out if there is a  
29 "submittal sheet" for the valve. If there is not, then the valve is a retail bottom tier bulk sale  
30 valve, made as cheaply as possible. That means it's got a lot of zinc. Like 30% or more zinc.  
31 Absence of a submittal sheet is a fail.

32  
33 If the valve does have a "submittal sheet", the sheet should have the specifications for how the  
34 valve is made. Absence of any alloy composition information on the submittal sheet is a fail.  
35 You want to look for a "UNS number". This is a "unified numbering system" for brass and  
36 bronze alloys. You can look up the UNS number at the copper.org web site

37  
38 <https://alloys.copper.org/>

39  
40 which will tell you more than you ever wanted to know about that particular kind of brass or  
41 bronze. What we are interested in is the chemical composition of a particular alloy.

1 The chemical composition is reported in percentages. Everything together totals up to 100%.  
2 "Rem" is remainder, and is (  $Rem = 100 - \text{sum of everything else}$ ). The detail we are after, is  
3 how much zinc (Zn is the symbol) there is in the alloy. To be dezincification resistant, the Zn  
4 entry should be 15 or less.

5  
6 Example, UNS C23000, called "red brass", has a Zn content of Rem, which turns out to be 15.  
7 We can use this okay.

8  
9 Contrast that to UNS C27000, called "yellow brass", has Zn content of Rem, which turns out to  
10 be 35. This is a hard fail. This is also typical of the brass that you get at the hardware stores,  
11 sometimes marked "not for underground use". The zinc content is why. Put this in the ground,  
12 and dezincification will turn pipe into a paper thin tube over time.

### 13 14 **Section 10.11 - Yard Water Service Piping**

15  
16 Yard water service pipe and fittings shall be of materials compatible with the International  
17 Plumbing Code, current edition, and limited to

- 18 \* PVC, with proper allowances for thermal expansion,
- 19 \* polyethylene as certified to AWWA C901,
- 20 \* PEX as certified to AWWA C904,
- 21 \* copper pipe or tubing of types K or L, or
- 22 \* other approved materials.

23  
24 Galvanized piping and fittings are prohibited, as these are subject to dezincification.

25  
26 Member service pipeline installation is the responsibility of the Member-applicant. The  
27 pipeline will be rated to a minimum of 160 psi at 73F, and covered by no less than 12 inches of  
28 earth. ( 2015 IPC 305.4 and 2015 IPC 605.3, 2024 UPC 609.1)

### 29 30 **Installation Note - PVC**

31  
32 We strongly advise AGAINST using a PVC male threaded adapter, as these invariably will break  
33 at the base of the threads, and leave the PVC threads inside the fitting that the PVC was  
34 threaded into. Consider this to be the karmic equivalent of the expression "you're screwed".  
35 You will need a nipple extractor corresponding to the pipe size to be able to remove the  
36 broken off PVC threads from the fitting.

37  
38 Instead of using a male threaded adapter, we recommend the use of a PVC Schedule 80  
39 threaded nipple, some 4 to 6 inches long, and using a regular coupling to connect the PVC yard  
40 pipe.



1 **Installation Note - PEX, polyethylene, and copper**

2  
3 Sharkbite (brand) fittings can be used, but the manufacturer installation guide for underground  
4 use must be followed, wrapping the Sharkbite fitting with self-fusing silicone tape. The intent  
5 of the wrap is to reduce dezincification and corrosion of the fitting.

6  
7 Note that other push-fit fittings may or may not be suitable for underground use. Read the  
8 packaging very, very carefully.

9  
10 **Section 10.12 - Tracer Wire required on new installations**

11  
12 Put in tracer wire, or detectable tape, or some other way of being able to locate the yard pipe

13  
14 2021 IPC 609.2.1 Tracer wire for nonmetallic piping. (This is first instance in IPC)  
15 An insulated tracer wire listed for the purpose or other approved conductor  
16 shall be installed adjacent to underground nonmetallic piping serving as a water  
17 service for a hospital. Access shall be provided to the tracer wire or the tracer  
18 wire shall terminate above ground at each end of the nonmetallic piping. The  
19 tracer wire size shall be not less than 18 AWG and the wire insulation type shall  
20 be suitable for direct burial.

21  
22 2024 UPC 604.10.1 Tracer Wire. (First instance in 2015 UPC 604.10.1)  
23 Plastic materials for building supply piping outside underground shall have an  
24 electrically continuous corrosion-resistant blue insulated copper tracer wire, or  
25 other approved conductor installed adjacent to the piping. Access shall be  
26 provided to the tracer wire, or the tracer wire shall terminate above-ground at  
27 each end of the nonmetallic piping. The tracer wire size shall be not less than 14  
28 AWG, and the insulation type shall be suitable for direct burial.

29  
30 **Section 10.13 - Plumbing Code Compliance**

31  
32 As the Corporation's certified service area is within the City of Austin ETJ, the Member shall  
33 comply

- 34 \* with the City of Austin Plumbing Code (Austin City Code, chapter 25-12), current  
35 edition, or  
36 \* with the International Plumbing Code, current edition, or  
37 \* with the International Residence Code, current edition.

38  
39 When there is a contradiction between codes, the stricter code will control.

40  
41 Service may be discontinued without further notice when installations of new facilities or  
42 repair of existing facilities are reported by a certified inspector to be in violation of this

1 regulation until such time as the violation is corrected.

2  
3 **Section 10.14 - Compliance with Regulations**

4  
5 (This derives from Texas Health and Safety Code (H&SC) 341.033, combined with regulations  
6 and plumbing code requirements)

7  
8 The Member shall be responsible for compliance with all utility, local, and state codes,  
9 requirements, and regulations concerning on-site service and plumbing facilities.

- 10  
11 1) All connections shall be designed to ensure against back flow or siphonage into the  
12 Corporation's water supply.  
13  
14 2) The use of pipe and pipe fittings that contain more than 0.25% lead or solder and flux  
15 that contain more than 0.2% lead is prohibited for any plumbing installation or repair of  
16 any residential or non residential facility providing water for human consumption and  
17 connected to the Corporation's facilities. (TCEQ reg 30 TAC 290.44(b), 2015 IPC 605.2.1,  
18 2024 UPC 604.2)

19  
20 Service shall be discontinued without further notice when installations of new facilities or  
21 repair of existing facilities are found to be in violation of this regulation until such time as the  
22 violation is corrected (specific H&SC 341.033(g))  
23



# Chapter 11 - Cross Connection and Backflow

## Section 11.01 - Septic Clearance

All septic lateral lines shall be kept to a distance of at least ten (10) feet from the Corporation water lines. (TCEQ reg 30 TAC 290.44(e)(8))

## Section 11.02 - Cross Connections Prohibition

No other water service will be used by the Member on the same service installation in conjunction with the utility's service, either by means of a crossover valve or any other connection. Member shall not connect, or allow any other person or party to connect, onto any water lines on his premises.

## Section 11.03 - Prohibition of Multiple Connections to A Single Tap

Said more simply, service does not cross property lot lines.

No more than one (1) residential, commercial, or industrial service connection is allowed per meter. Any unauthorized submetering or diversion of service is subject to disconnection of service.

Also, cross reference to prohibition on resale of water, and (30 TAC 290.44(d)(4) - requires a meter at **each** residence)

Prohibition as stated by Uniform Plumbing Code

### 2024 UPC 204.0 Definitions

Building Supply. The pipe is carrying potable water from the water meter or another source of water supply to a building or other point of use or distribution on the lot.

### 2024 UPC 609.6 Location.

Except as provided by Section 609.7, no building supply shall be located in a lot other than the lot that is the site of the building or structure served by such building supply.

### 2024 UPC 609.7 Abutting Lot.

Nothing contained in this code shall be construed to prohibit the use of an abutting lot to:

(1) Provide access to connect a building supply to an available public water

1 service where proper cause and legal easement not in violation of other  
2 requirements have been first established to the satisfaction of the  
3 Authority Having Jurisdiction.

- 4 (2) Provide additional space for a building supply where the proper cause,  
5 transfer of ownership, or change of boundary not in violation of other  
6 requirements have been first established to the satisfaction of the  
7 Authority Having Jurisdiction. The instrument recording such action shall  
8 constitute an agreement with the Authority Having Jurisdiction, which  
9 shall clearly state and show that the areas so joined or used shall be  
10 maintained as a unit during the time they are so used. Such an  
11 agreement shall be recorded in the office of the County Recorder as a  
12 part of the conditions of ownership of said properties, and shall be  
13 binding on heirs, successors, and assigns to such properties. A copy of  
14 the instrument recording such proceedings shall be filed with the  
15 Authority Having Jurisdiction.

16  
17 **Section 11.04 - Returned Water Prohibition and Backflow Prevention**

18  
19 (Source is Texas Health and Safety Code, chapter 341)

20  
21 No connection shall be allowed which allows water to be returned to the public drinking water  
22 supply.

23  
24 The Corporation may install a residential dual check valve as part of the meter. Ownership and  
25 maintenance of such a check valve would remain with the Corporation.

26  
27 No Member service connection backflow prevention device shall be permitted to be installed  
28 in the Member's plumbing without notice to and approval by the Corporation. [we don't have  
29 to authorize things like hose bibb vacuum breakers]

30  
31 All Members with irrigation systems must install backflow prevention devices that have been  
32 approved and installed as directed by the Austin Plumbing Code and TCEQ regulations 30 TAC  
33 344

34  
35 TCEQ rules [ 30 TAC 290.44(h) ] require that the backflow prevention device be tested upon  
36 installation by a licensed backflow prevention device tester. Any backflow prevention devices  
37 so installed shall be inspected annually by a licensed backflow prevention device inspector and  
38 a written report of such inspection delivered to the Corporation. A copy of the test report must  
39 be provided to the Corporation.

1 **Section 11.05 - Presumed Backflow Event**

2  
3 If the meter for the service connection reading indicates a negative usage, that negative usage  
4 will be taken as a backflow event if the reading is confirmed to be correct and not a mis-read  
5 meter. [ 30 TAC 290.44(h)(1)(A) ]

6  
7 We can conduct a Customer Service Inspection to determine if a hazardous condition exists,  
8 and to determine the cause of the negative meter reading.

9  
10 Absent an inspection, we must presume that a hazardous condition exists, and the service  
11 location is subject to disconnection without notice.

12  
13 **Section 11.06 - Backflow Preventer Inspection Report**

14  
15 Per TCEQ regulations 30 TAC 290.44(h)(4), inspections of installed service connection backflow  
16 prevention equipment are required annually, with the inspection report being provided to us  
17 for our records.

18  
19 Absent a timely filed inspection report, the service location is subject to disconnection with  
20 notice.

21  
22 **Section 11.07 - In-ground Irrigation Systems Health Hazard**

23  
24 TCEQ regulations 30 TAC 344.51(d)(2) specify that in-ground irrigation systems in the presence  
25 of septic systems (OSSF) are inherently a health hazard, and must be separated from the  
26 potable water supply by an RPZ (reduced pressure zone) backflow preventer. (Example in  
27 Submittals is a Watts LF009)

28  
29 Everything in our service area is septic, so then for every in-ground irrigation system, it has got  
30 to have an RPZ.

31  
32 **Section 11.08 - Backflow Preventer General Requirements**

33  
34 Extracted from Resolution 20180515-02, with clarifications and examples

- 35  
36 1. As TCEQ regulations 30 TAC 290.44(h) and 30 TAC 290.47(f) set general requirements  
37 for backflow preventers, the technical details are not specified in the regulations.  
38  
39 2. Hose bibbs [listed in 30 TAC 290.47(f)] on property that is solely single family residential  
40 that are not potentially a health hazard shall have a atmospheric vacuum breaker that  
41 meets ASSE 1011 (example in Submittals, Apollo Valves model HBV2). This is the  
42 minimum requirement for hose bibbs under TCEQ regulation 30 TAC 290.47(f) and

1 plumbing code [2015 IPC 608.15.4.2]. Atmospheric vacuum breakers are subject to  
2 installation limitations as follows.

- 3
- 4 a. The hose bibb must be located at least 6-inches above the highest point of any  
5 downstream usage. [2015 IPC 608.15.4 and 2015 IRC P2902.3.2] This implies  
6 that outdoors this is no less than waist high, or about 30 to 36 inches.
- 7
- 8 b. The hose bibb must not be subject to back pressure from any source. That's why  
9 6-inches above point of use, as a column of water produces pressure at the rate  
10 of approximately 0.5 psi/ft. So 6-inches will give 0.25 psi pressure.
- 11
- 12 c. There must be no valves located downstream from the hose bibb. Fast action  
13 valves produce a back pressure water hammer shock wave and subsequent  
14 pressure spike. This may be a water conservation problem with a hose trigger  
15 nozzle. The repeated cycling will cause the vacuum breaker to fail.
- 16

17 Reality of this is that outdoor/patio hose bibbs must be 30 to 36 inches above grade,  
18 and never, ever going to be used with a hose trigger nozzle (that's a water conservation  
19 problem that wasn't considered when the industry backflow prevention rules were  
20 written). That's just not going to happen, so outdoor/patio hose bibbs are going to have  
21 to be compliant with the next paragraph.

22

- 23 3. Hose bibbs on property that is solely single family residential but not meeting the  
24 criteria of paragraph 2 above shall have a hose connection backflow preventer that  
25 meets ASSE 1052 (example in Submittals, Apollo Valves model HBDUC, lead free ).
- 26
- 27 4. Commercial property or property not solely single family residential that is not a  
28 potential health hazard (for example, an office or other facility without chemicals or  
29 paints) shall have a dual check valve assembly installed at the service connection. The  
30 assembly shall meet ASSE 1015 (example in Submittals, Watts model LF007). All exterior  
31 hose bibbs on such property shall have a hose connection backflow preventer that  
32 meets ASSE 1052 as described in paragraph 3 above.
- 33
- 34 5. All other property is presumed to have a potential health hazard, and shall have a  
35 reverse pressure assembly installed at the service connection. The assembly shall meet  
36 ASSE 1013 (example in Submittals, Watts model LF009). Any hose bibbs on such  
37 property shall have a hose connection backflow preventer that meets ASSE 1052 as  
38 described in paragraph 3 above.
- 39
- 40 6. As noted in the section preceding this, all in-ground irrigation systems are presumed to  
41 be a health hazard, and so are required to have a reverse pressure assembly, meeting  
42 the requirements for paragraph 5 above.

1  
2  
3  
4  
5  
6  
7

**Section 11.09 - Compliance Covenant Agreement Contract**

We can enter into a covenant agreement contract with any Member or non-Member to establish conditions that diminish the possibility of future hazards, correct any existent hazards, and to establish penalties for non-compliance.





# Chapter 12 - Protesting Rates and Charges

## Section 12.01 - Regarding Revenue and Rates

Marsha WSC is a member owned, member controlled, member benefit, cooperative corporation. Members have the right established in the corporation Bylaws to call for a membership meeting, and by resolution to change any part of this tariff, any rate established by this tariff, any revenue target established by the board, and to replace any or all of the board.

Nobody likes having their rates go up. As a Texas Water Code chapter 67 water supply corporation, final authority on water rates does not reside with the Board of Directors. That final authority resides with the member-property owners.

The board puts in place new rates, or some other matter, and some element of the Members finds the action to be inappropriate ("we don't like it", for whatever reason). The Members have several options available to them:

1. Accept the board action.
2. "Lobby the Board" for something different. This means talking with the Board as a whole, or the Directors individually to come up with some other way of getting things done.
3. Become a Director, and revise or rescind the board action. Board elections are an annual event. Being an election, the results are uncertain, and the time lag from discontent to being elected can be almost a full year. The lag in particular may not be acceptable to the unhappy Members.
4. Call a Special Meeting of the Membership, to revise or rescind the board action. Calling such a meeting does not need Board approval, but must be done according the Corporation's bylaws. Note that any member resolution on the board action will still have to answer the question about how to act on whatever the board was trying to do.
5. If bylaws permit, or by resolution of the board or of the Members, form a joint board and Member committee to review and propose revision of revenue and rates if the board action was about revenue or rates.
6. If bylaws permit, engage in alternative dispute resolution under the Civil Practice and Remedies Code. Most particularly, under chapter 173. Be aware that there are likely to be expenses with this that Members will be paying, either directly or indirectly.

1 7. Petition the Texas PUC for a rate review if the board action was regarding water rates.  
2 This is the only option that has a time limit. Both board and Members need to  
3 understand that either directly or indirectly, there are legal expenses in this process,  
4 and that the Members will, in some form, be paying those costs. Water supply  
5 corporations do not have outside income (that's why they are eligible for tax-exempt  
6 status), and expenses have to be paid somehow. See the tariff section on the  
7 Jurisdiction Shield for the background.

8  
9 **Section 12.02 - Appeals Regarding Charges**

10  
11 Any applicant or Member required to pay for any costs not specifically set forth in this tariff  
12 shall be entitled to a written explanation of such costs prior to payment and/or  
13 commencement of construction. If the applicant or Member does not believe that these costs  
14 are reasonable or necessary, the applicant or Member shall have the right to appeal such costs  
15 within 90 days to the Corporation's Board of Directors at a regular meeting at which such  
16 appeal can be included in the standard public notice of that meeting.  
17

# Chapter 13 - Corporation Membership

## Section 13.01 - Background Context

We regard being a Member of the Corporation as being comparable to being a partner in a partnership (using Chapters 151 and 152, Business Organizations Code as guides)

The member equity, and so the equity buy-in fee and the construction surcharge, are funds that would correspond to a partner "capital account".

Business Organizations Code

Sec. 151.001. DEFINITIONS. In this title:

(1) "Capital account" means the amount computed by:

- (A) adding the amount of a partner's original and additional contributions of cash to a partnership, the agreed value of any other property that that partner originally or additionally contributed to the partnership, and allocations of partnership profits to that partner; and
- (B) subtracting the amount of distributions to that partner and allocations of partnership losses to that partner.

However, as the Corporation is a non-profit, and has no distributions, those elements of the capital account definition have no meaning.

A corporation member-partner is providing funds for the corporation to be able to provide water service to the member-partner's property, which in turn will presumably increase the value of that property to the member-partner.

## Section 13.02 - Applicant Eligibility

Eligibility to be a member-partner shall not guarantee service to the Applicant; however, qualification for service is a prerequisite to eligibility for Applicants. Property ownership is required to be a member-partner as the Applicant right of participation. (WC 67.016(d))

## Section 13.03 - Member-Applicant is Legal Entity

If the Member-Applicant is a legal entity registered with the Texas Secretary of State, that registration must be kept active and in good standing with state agencies for the Member-Applicant to be provided service. Should the Corporation discover that the Member-Applicant is no longer active or in good standing, a service disconnection notice that includes notice of Member Account liquidation will be sent to the Member and the legal entity Registered Agent

1 on file with the Texas Secretary of State.

2  
3 **Section 13.04 - Statement of Non-Discrimination**

4  
5 Being a corporate member-partner and having service is provided to all Applicants who comply  
6 with the provisions of this Tariff regardless of race, creed, color, national origin, sex, disability,  
7 or marital status.

8  
9 **Section 13.05 - Member Account**

10  
11 Upon qualification as a member-partner, and payment of the required fees, the Corporation  
12 shall create a Member Account for the Applicant.

13  
14 The Member Account shall entitle the Member to one (1) connection at one service location to  
15 the Corporation's water utility service. A Member may have more than one service location,  
16 and all locations owned by the Member shall be provided service only under the Member  
17 Account.

18  
19 The Member Account also entitles the Member to one (1) vote in conducting of the affairs of  
20 any Membership meeting of the Corporation as prescribed by the Corporation Bylaws. (Texas  
21 Water Code, section 13.002(11) and 67.016)

22  
23 Note: When a Member has more than one service location, we do occasionally get requests to  
24 bill service locations separately. We won't do that, as it could jeopardize our recognition as a  
25 water supply corporation (WC 13.002(11) and (24), and WC 13.004), and it avoids equity  
26 ownership questions.

27  
28 If a Member does want a separate billing for a service location, then their alternative is to place  
29 that location in the name of a separate entity (family member, or legal entity like an LLC), and  
30 have the new entity apply for service as a new property-owning Member with a new Member  
31 Account.

32  
33 **Section 13.06 - Sale of Property**

34  
35 When a Member sells their service property, the Member gets their service location equity  
36 refunded, subject to outstanding charges as described in this tariff.

37  
38 The Member will give us notification, in writing or in electronic form, of their request to  
39 discontinue service. At that point, we need to know:

- 40 \* the Member Account number  
41 \* the service location  
42 \* the effective date

- 1 \* with a sale or transfer, who we can expect to be making application as a new Member
- 2 \* address for a final billing
- 3 \* was Membership included in the sale of the property, or is a refund of the member
- 4 equity on order

5  
6 Note: transfer of Membership as part of the sale is done with Texas Real Estate Commission  
7 (TREC) Form OP-M. We will be needing to see that form.

8  
9 If Member equity for that property was not part of the sale, the final billing will be deducted  
10 from the member equity refund. The refund will be sent to the address of the final billing.

11  
12 If there are no remaining service addresses on the Member Account, then the Member  
13 Account will be closed.

### 14 **Section 13.07 - Liquidation Due to Delinquency**

15  
16  
17 When the amount of the delinquent charges owed by the Member equals the Member  
18 Account equity, the Member Account equity shall be liquidated and the Membership cancelled  
19 and transferred back to the Corporation. All service locations associated with the Member  
20 Account will be disconnected without further notice. (Delinquent accounts have already had  
21 notice, likely a lot of it.)

22  
23 In the event the Member leaves a balance due, the Corporation may liquidate as much of the  
24 Member's equity as necessary to satisfy the balance due the Corporation, provided proper  
25 notice has been given. The Corporation may collect any remaining account balances by  
26 initiation of legal action.

27  
28 Note: the way that rates are constructed, and the size of the member equity, there is not likely  
29 to be any remaining account balance due (our equity accounts are large). The delinquent  
30 Member will find their membership canceled, and they will receive a correspondingly reduced  
31 member refund check.

### 32 **Section 13.08 - Cancellation Due to Policy Non-Compliance**

33  
34  
35 The Corporation may cancel a Membership anytime a Member fails to comply with policies of  
36 the Corporation, including but not limited to Member's failure to provide proof of ownership of  
37 the property from which the Membership arose. (Texas Water Code 67.016)

38  
39 Note: there must be a solid documentation trail of notice and of established policy.  
40 Cancellation due to non-compliance looks like it can be a legal minefield.

1 Substituting "tariff" for "rates, charges, and conditions of service" in  
2 WC 67.016

- 3 (e) The corporation may cancel a person's or other entity's stock,  
4 membership, or other right of participation if the person or entity fails  
5 to:  
6 (1) meet the conditions for water or sewer service prescribed by the  
7 corporation's published "tariff"; or  
8 (2) comply with any other condition placed on the receipt of water or  
9 sewer service under the stock, membership, or other right of  
10 participation.  
11

12 The Member Agreement, and Water Service Rider, should both make explicit statement about  
13 Member and property keeping compliance with tariff. And we need those signed agreements  
14 on file.

15  
16 Canceled Membership means they get their equity back. Until that happens, they are still a  
17 Member, and subject to Corporation bylaws and tariff.

18  
19 The best solution at this point would be a covenant agreement contract that says "don't do  
20 whatever you did" that produced this mess in the first place. That contract should establish  
21 penalties and limitations.

22  
23 If somebody gets membership canceled, and wants service restored, they are coming back as a  
24 new service applicant, and so have PUC status (they can complain, and PUC can step in).

25  
26 **Section 13.09 - Re-assignment of Cancelled Membership**

27  
28 The Corporation, upon cancellation of Membership under the provisions of this Tariff, may  
29 re-assign the Membership rights thereby granted to any person who satisfactorily  
30 demonstrates eligibility of Membership, including but not limited to proof of ownership of the  
31 property from which the Membership arose. (Texas Water Code 67.016)  
32

33 **Section 13.10 - Membership and Bankruptcy Proceedings**

34  
35 (Cancellation and Re-Assignment of Membership as a Result of Bankruptcy Proceedings)

36  
37 Upon notice of the filing of a petition in bankruptcy, the Corporation may require the posting  
38 of a deposit or other form of security, acceptable to the Corporation, as a condition for  
39 continuing utility service.  
40  
41

1 Unless special circumstances require otherwise, the amount of security shall equal twice the  
2 average amount of monthly charges for the proceeding twelve (12) months, or twice the  
3 maximum charge over those 12 months, whichever is greater.  
4

5 The Corporation shall not require the payment of any security prior to the expiration of twenty  
6 (20) days following the date on which the petition is filed. Failure to provide this security by the  
7 date specified may result in disconnection according to the Disconnection With Notice  
8 provisions of this Tariff, with a copy of the notice to the bankruptcy Trustee.  
9

### 10 **Section 13.11 - Owners of Rental Property.**

11  
12 The Member, renting or leasing property designated to receive service according to the terms  
13 of this Tariff to other parties, is responsible for all charges due the Corporation.  
14

15 Under no circumstances shall the Corporation bill a renter/lessee in behalf of a Member.  
16

17 A renter/lessee may not enter into a payment arrangement on behalf of a Member without  
18 being properly designated as an agent of the Member.  
19

20 Note - See the Jurisdiction Shield section for the part of the rationale of this section. Also, there  
21 is the question of the ownership of the funds that are being contributed to the Member  
22 Account. If a tenant is contributing funds to the Member Account, what happens to those  
23 funds when the tenant leaves, or the Member sells the property? That is an administrative and  
24 legal question that we simply choose to avoid in its entirety.  
25

### 26 **Section 13.12 - Renter/Lessee**

27  
28 Membership in the Corporation is based on property ownership of the property to which water  
29 service is to be provided. A renter/lessee is not eligible for membership, but may receive water  
30 service through the property owner's Membership. Responsibility for payment of services  
31 remains with the Member.  
32

### 33 **Section 13.13 - Caregiver Billing**

34  
35 Marsha WSC as a water supply corporation, will only bill Members for service.  
36

37 However, there are instances when a Member may be unable to manage their affairs due to  
38 illness, disability, or other reasons. In those instances, a caregiver may be given authority to  
39 receive a water bill to allow the caregiver to monitor the utility billing.  
40

41 Giving authority to a caregiver to receive a copy of the billing DOES NOT obligate the caregiver  
42 to pay the bill. The Member, or designated agent, has that responsibility. A caregiver is NOT an



1 agent for the Member.

2  
3 The Member will continue to receive, and will remain responsible for, the water bill. The  
4 caregiver simply receives a copy for informational purposes.

5  
6 For a rental property, a Member may want to have a billing sent to the tenant. This typically  
7 would only happen when the Member has only one service location. The bill is for the Member  
8 account, which may include more than one service location. We WILL NOT break out billing by  
9 service location. For a rental property, who pays the bill is a contract issue between the  
10 landlord and tenant. Marsha WSC cannot, and will not, bill a tenant on behalf of a landlord.

### 11 **Section 13.14 - Agent or Power of Attorney**

12  
13  
14 We will provide a copy of billing to a Member agent, either someone with a power of attorney,  
15 a family relation who is declared by the Member to be their agent-representative, or a  
16 property management agent with whom the Member has contracted for their service.

17  
18 An agent under power of attorney must provide a certification of that power of attorney as  
19 provided in chapter 751, Texas Estates Code. Absent that certification, Marsha WSC is not  
20 obligated to accept the power of attorney as being valid.

### 21 **Section 13.15 - Resale of Water Prohibited**

22  
23  
24 Our water purchase contract with the City of Austin prohibits us, and anyone we serve, from  
25 reselling water. If that happens, we will terminate service of the Member with notice.

26  
27 If this is in conjunction with water being provided to additional locations (multiple connections  
28 to a single tap), we are going to presume it is for resale. It is up to the Member to prove  
29 otherwise.

### 30 **Section 13.16 - Member Account and Multiple Service Locations**

31  
32  
33 A Member may have several service locations associated with their Member Account.

34  
35 Payments by a Member, or on behalf of a Member, are paid to the Member Account, and will  
36 not be distributed to a specific service location.

37  
38 If a Member with several locations is delinquent in payment, and sells a service location  
39 property, with a corresponding equity refund, that refund will be applied to the Member  
40 Account delinquency, and any remaining funds will be sent to the Member as with a canceled  
41 membership. Any remaining funds will not be considered as an overpayment.

# Chapter 14 - Denial and Disconnection of Service

## Section 14.01 - What is Disconnection of Service

"Disconnection" means that we go out into the field, and turn off, and lock out if possible, the meter at a service location.

Because we have four different kinds of meter installations, we cannot always do a meter lock-out. This is only true of homeowner style installed meters that have used retail valves as the corporation meter valve. Industry style meter valves all have lockout wings that allow a meter to be turned off and a lock installed.

## Section 14.02 - Service Trip, Disconnect, and Reconnect Fee.

We will charge a trip fee of \$50.00 for the purpose of disconnecting, reconnecting, or collecting payment for services.

## Section 14.03 - Service Disconnection Notice

Service disconnection notices for non-payment shall be mailed with the regular billing. If payment is not received by the due date, service may be disconnected with no further notice. See also Section 8.17 regarding billing and due dates, and Section 8.29 regarding service notices.

## Section 14.04 - Disconnection on Holidays and Weekends

Unless a dangerous condition exists or the Member requests disconnection, service shall not be disconnected on a day, or on a day preceding a day, when we are not available to the public for the purpose of making collections and reconnecting service. A "dangerous condition" is one which creates an immediate threat to human health or safety or immediate damage to property of the Corporation, neighboring landowners or others.

## Section 14.05 - Disconnection for Ill and Disabled

The Corporation may not discontinue service to a delinquent residential Member permanently residing in an individually metered dwelling unit when that Member establishes that discontinuance of service will result in some person at that residence becoming seriously ill or more seriously ill if service is discontinued.

We are a small community. We know our neighbors. Bring the situation to the board. We'll get it worked out.

1 Note: this is Member Residential billing. Commercial Residential billing is a matter between the  
2 property owning Member, and the tenant. The Member has responsibility for paying the bill.

3  
4 **Section 14.06 - Denial of Service**

5  
6 The Corporation may deny service for the following reasons:

- 7
- 8 a. Failure of the Member or Applicant to complete all required forms and pay all required  
9 fees and charges.
  - 10  
11 b. Failure of the Member or Applicant to comply with rules, regulations, policies, and  
12 by-laws of the Corporation.
  - 13  
14 c. Existence of a hazardous condition at the Member or Applicant's property that would  
15 jeopardize the welfare of the Members of the Corporation upon connection.
  - 16  
17 d. Failure of Member or Applicant to provide representatives or employees of the  
18 Corporation reasonable access to property for which water service has been requested.
  - 19  
20 e. Failure of Member or Applicant to comply with all governmental rules and regulations  
21 of the Corporation's Tariff on file with the state regulatory agency governing the service  
22 applied for by the Member or Applicant.
  - 23  
24 f. Failure of Member or Applicant to provide proof of ownership, to the satisfaction of the  
25 Corporation, of property for which service has been requested.
  - 26  
27 g. Member or Applicant's service facilities are known to be inadequate or of such  
28 character that satisfactory service cannot be provided.
  - 29  
30 h. In reconnecting service, the Corporation finds that it does not have on file a signed  
31 Water Service Agreement or a Member Agreement.
- 32

33 **Member or Applicant Recourse**

34  
35 In the event the Corporation refuses to serve a Member or Applicant under the provisions of  
36 these rules, the Corporation must notify the Member or Applicant, in writing, of the basis of its  
37 refusal. The Member or Applicant may file for an appeal, in writing, with the Corporation's  
38 Board of Directors.

1 **Section 14.07 - Disconnection With Notice**

2  
3 Water utility service may be disconnected for any of the following reasons after proper  
4 notification has been given:.

- 5  
6 a. Failure to pay a delinquent account for utility service or failure to comply with the  
7 terms of a deferred payment agreement;  
8  
9 b. Violation of the Corporation's rules pertaining to the use of service in a manner which  
10 interferes with the service of others or the operation of non-standard equipment if a  
11 reasonable attempt has been made to notify the Member and the Member is provided  
12 with a reasonable opportunity to remedy the situation;  
13  
14 c. Failure of the Member to comply with the terms of the Corporation's Service  
15 Agreement, Tariff, Bylaws, or Special Contract provided that the Corporation has given  
16 notice of said failure to comply and Member has failed to comply within a specified  
17 amount of time after notification.  
18  
19 d. Failure to provide access to the meter under the terms of this Tariff.  
20  
21 e. Failure to provide access to the property at which water service is received when there  
22 is reason to believe that a hazardous condition or policy violation exists for which access  
23 is necessary to verify. We must presume that a hazard exists  
24  
25 f. Misrepresentation by any Member or Applicant of any fact on any form, document, or  
26 other agreement required to be executed by the Corporation.  
27  
28 g. Failure of a Member to re-apply for service upon notification by the Corporation that  
29 Member no longer meets the terms of the service originally applied for under the  
30 original service application.  
31  
32 h. There exist multiple connections for a single tap.  
33  
34 i. Absent a timely filed backflow prevention equipment inspection report.  
35 30 TAC 290.44(h)(4)(C)  
36

1 **Section 14.08 - Disconnection Without Notice**

2  
3 Water utility service may be disconnected without notice for any of the following conditions:

- 4  
5 a. A known dangerous or hazardous condition exists for which service may remain  
6 disconnected for as long as the condition exists, including but not limited to a public  
7 health nuisance as defined in Texas Health and Safety Code Sections 341.011 or  
8 343.011.

9  
10 If there is reason to believe a dangerous or hazardous condition exists, the Corporation  
11 may conduct a customer service inspection (CSI) to verify the hazardous condition and  
12 may notify the local county health office.

13  
14 The Corporation will disconnect without notice if the Member refuses to allow access  
15 for the purpose of confirming the existence of such condition and/or removing the  
16 dangerous or hazardous condition (30 TAC 290.46(i) and 290.46(j)).

17  
18 Service will be restored

- 19 \* when a CSI confirms no health hazard exists,  
20 \* the health hazard has been removed or repaired, or  
21 \* the health hazard has been isolated from the Corporation's water system by the  
22 installation of a backflow prevention device.

- 23  
24 b. Service is connected without authority by a person who has not made application for  
25 service or who has reconnected service without authority following termination of  
26 service for nonpayment;

- 27  
28 c. In instances of tampering with the Corporation's meter or equipment, by-passing the  
29 meter or equipment, or other diversion of service.

- 30  
31 d. A threat to perform or actual performance of:  
32 (a) bodily injury to any Corporation employee, agent or representative or  
33 (b) damage to any Corporation property.

34  
35 The display of any firearm or other weapon in a confrontational, menacing or  
36 threatening manner shall be deemed to be a threat to perform bodily injury regardless  
37 of the condition of said firearm or weapon.

38  
39 We may pursue action under Penal Code 22.07 for an act of terrorism.

- 40  
41 e. At the direction of the City of Austin.

1 f. There is evidence of a Member yard line break and the premises is apparently  
2 unoccupied.

3  
4 g. A line leak on the member's side of the meter is considered a potentially hazardous  
5 condition. If the Corporation conducts a CSI and discovers that the line leak has created  
6 a hazardous condition, the Corporation will provide the member up to five (5) business  
7 days, or another time period determined reasonable under the circumstances, to repair  
8 the line prior to disconnection of service.

9  
10 Note: Where reasonable, given the nature of the reason for disconnection, a written statement  
11 providing notice of disconnection and the reason therefore shall be posted at the place of  
12 common entry or upon the front door of each affected residential unit as soon as possible after  
13 service has been disconnected.

#### 14 **Section 14.09 - Disconnection Prohibited**

15  
16 Utility service may not be disconnected for any of the following reasons:

- 17  
18  
19 a. Failure of the Member to pay for merchandise or charges for non-utility service  
20 provided by the Corporation, unless an agreement exists between the Member and the  
21 Corporation whereby the Member guarantees payment of non-utility service as a  
22 condition of service;
- 23  
24 b. Failure of the Member to pay for a different type or class of utility service unless a fee  
25 for such service is included in the same bill.
- 26  
27 c. Failure of the Member to pay charges arising from an underbilling occurring due to any  
28 misapplication of rates more than six (6) months prior to the current billing;
- 29  
30 d. Failure of the Member to pay the account of another Member as guarantor thereof,  
31 unless the Corporation has in writing the guarantee as a condition precedent to service;
- 32  
33 e. Failure of the Member to pay charges arising from an underbilling due to any faulty  
34 metering, unless the meter has been tampered with or unless such underbilling charges  
35 are due under the Inoperative Meter section of this tariff.
- 36  
37 f. Failure of the Member to pay estimated bill other than a bill rendered pursuant to an  
38 approved meter reading plan, unless the Corporation is unable to read the meter due  
39 to circumstances beyond its control;
- 40  
41 g. In response to a request for disconnection by an Member of rental property occupied  
42 by a renter or lessee who is authorized by the owning Member to be billed on behalf of

1 the Member, and the renter's account is not scheduled for disconnection under the  
2 Rules for Disconnection of Service in this Tariff. (Property Code 92.008)

- 3  
4 h. Failure of the Member to pay a bill due during an Extreme Weather Emergency if the  
5 Member has requested, accepted, and is in compliance with the terms of a deferred  
6 payment schedule.

7  
8 PUC regulation

9 16 TAC 24.173(b)(2)

10 Extreme weather emergency--a period beginning when the previous day's  
11 highest temperature in an area did not exceed 28 degrees Fahrenheit and the  
12 temperature is predicted to remain at or below that level for the next 24 hours  
13 according to the nearest National Weather Service reports for that area. For  
14 purposes of this section, an extreme weather emergency is over on the second  
15 business day the temperature exceeds 28 degrees Fahrenheit.

16

# Chapter 15 - Agency Filings

We are required to file a copy of this tariff with the PUC, for informational purposes only.

Water Code

Sec. 13.136. FILING TARIFFS OF RATES, RULES, AND REGULATIONS;

(c) Every water supply or sewer service corporation shall file with the utility commission tariffs showing all rates that are subject to the appellate jurisdiction of the utility commission and that are in force at the time for any utility service, product, or commodity offered. Every water supply or sewer service corporation shall file with and as a part of those tariffs all rules and regulations relating to or affecting the rates, utility service, product, or commodity furnished. The filing required under this subsection shall be for informational purposes only.

The Texas PUC has an on-line filing system, accessible

<https://interchange.puc.texas.gov/filer>

Our tariff "control number" is 43329

Include a cover letter to identify what changes there are from previous filings.

You can query the PUC online system at

<https://interchange.puc.texas.gov/>





# Forms

1  
2  
3



- 1 Member Application and Agreement
- 2
- 3

1  
2  
3

- 1 Water Service Rider
- 2
- 3

1  
2  
3

- 1 Signing as Agent or Representative
- 2
- 3





- 1 Notice of Installation of DCV at Meter
- 2
- 3



- 1 Caregiver/Tenant Mailing Authorization
- 2
- 3



- 1 Notice - Application for New Service
- 2
- 3



1 Notice - Attention - Marsha WSC is not a municipal utility  
2  
3





- 1 Notice - Late Payment
- 2
- 3



- 1 Notice - Service Termination
- 2
- 3



- 1 Payment Plan
- 2
- 3



1 Marsha WSC Limited Power of Attorney  
2  
3





1 Statutory Certification of Durable Power of Attorney by Agent  
2  
3



## Regulations and Statutes

1  
2  
3  
4  
5  
6  
7  
8  
9

Included here are the relevant regulations and statutes that are referenced in the tariff. These have been edited and/or reformatted for emphasis and clarity.

However, note that things can change, so what is included here is not official. The material presented here is for convenience, not standing.



1 30 TAC 290.44(a) thru (d) - Water Distribution

2  
3 TITLE 30  
4 ENVIRONMENTAL QUALITY  
5 PART 1  
6 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
7 CHAPTER 290  
8 PUBLIC DRINKING WATER  
9 SUBCHAPTER D  
10 RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS  
11

12 RULE §290.44 Water Distribution

- 13  
14 (a) Design and standards. **All potable water distribution systems including pump stations, mains, and both ground and elevated storage tanks, shall be designed, installed, and constructed in accordance with current American Water Works Association (AWWA) standards with reference to materials to be used and construction procedures to be followed. In the absence of AWWA standards, commission review may be based upon the standards of the American Society for Testing and Materials (ASTM), commercial, and other recognized standards utilized by licensed professional engineers.**
- 15  
16  
17  
18  
19  
20  
21  
22 (1) All newly installed pipes and related products must conform to American  
23 National Standards Institute/NSF International (ANSI/NSF) Standard 61 and must  
24 be certified by an organization accredited by ANSI.  
25
- 26 (2) All plastic pipes for use in public water systems must also bear the NSF  
27 International Seal of Approval (NSF-pw) and have an ASTM design pressure  
28 rating of at least 150 pounds per square inch (psi) or a standard dimension ratio  
29 of 26 or less.  
30
- 31 (3) No pipe which has been used for any purpose other than the conveyance of  
32 drinking water shall be accepted or relocated for use in any public drinking  
33 water supply.  
34
- 35 (4) **Water transmission and distribution lines must be installed in accordance with  
36 the manufacturer's instructions. However, the top of the waterline must be  
37 located below the frost line and in no case shall the top of the waterline be  
38 less than 24 inches below ground surface.**  
39
- 40 (5) The hydrostatic leakage rate shall not exceed the amount allowed or  
41 recommended by AWWA formulas.  
42

1 (b) Lead ban. { See elsewhere in this tariff }

2  
3 (c) **Minimum waterline sizes.** The minimum waterline sizes are for domestic flows only and  
4 do not consider fire flows. Larger pipe sizes shall be used when the licensed  
5 professional engineer deems it necessary. It should be noted that the required sizes are  
6 based strictly on the number of customers to be served and not on the distances  
7 between connections or differences in elevation or the type of pipe. No new waterline  
8 less than two inches in diameter will be allowed to be installed in a public water system  
9 distribution system. These minimum line sizes do not apply to individual customer  
10 service lines.  
11

Maximum Number of Connection	Minimum Line Size (inches)
10	2
25	2.5
50	3
100	4
150	5
250	6
>250	8 and larger

12  
13  
14  
15  
16  
17  
18  
19  
20  
21 (d) Minimum pressure requirement. The system must be designed to maintain a minimum  
22 pressure of 35 psi at all points within the distribution network at flow rates of at least  
23 1.5 gallons per minute per connection. When the system is intended to provide fire  
24 fighting capability, it must also be designed to maintain a minimum pressure of 20 psi  
25 under combined fire and drinking water flow conditions. The distribution system of  
26 public water systems that are also affected utilities must be designed to meet the  
27 requirements of §290.45(h) of this title (relating to Minimum Water System Capacity  
28 Requirements).

29  
30 (1) **Air release devices shall be installed in the distribution system at all points**  
31 **where topography or other factors may create air locks in the lines.** Air release  
32 devices shall be installed in such a manner as to preclude the possibility of  
33 submergence or possible entrance of contaminants. In this respect, all openings  
34 to the atmosphere shall be covered with 16-mesh or finer, corrosion-resistant  
35 screening material or an acceptable equivalent.

36  
37 (2) [ not relevant to Marsha WSC - single pressure plane ]

1  
2  
3  
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9  
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11  
12  
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14  
15  
16  
17  
18  
19

- (3) [ no service connections require booster pumps ]
- (4) Each community public water system shall provide accurate metering devices at each residential, commercial, or industrial service connection for the accumulation of water usage data. A water system that furnishes the services or commodity only to itself or its employees when that service or commodity is not resold to or used by others is exempt from this requirement.
- (5) **The system shall be provided with sufficient valves and blowoffs so that necessary repairs can be made without undue interruption of service over any considerable area and for flushing the system when required. The engineering report shall establish criteria for this design.**
- (6) **The system shall be designed to afford effective circulation of water with a minimum of dead ends. All dead-end mains shall be provided with acceptable flush valves and discharge piping. All dead-end lines less than two inches in diameter will not require flush valves if they end at a customer service. Where dead ends are necessary as a stage in the growth of the system, they shall be located and arranged to ultimately connect the ends to provide circulation.**



3  
4 **30 TAC 290.44(h) - Backflow, siphonage.**

- 5  
6 (1) No water connection from any public drinking water supply system shall be allowed to  
7 any residence or establishment where an actual or potential contamination hazard  
8 exists unless the public water facilities are protected from contamination.  
9
- 10 (A) At any residence or establishment where an actual or potential contamination  
11 hazard exists, additional protection shall be required at the meter in the form of  
12 an air gap or backflow prevention assembly. The type of backflow prevention  
13 assembly required shall be determined by the specific potential hazard  
14 identified in §290.47(f) of this title (relating to Appendices).  
15
- 16 (B) At any residence or establishment where an actual or potential contamination  
17 hazard exists and an adequate internal cross-connection control program is in  
18 effect, backflow protection at the water service entrance or meter is not  
19 required.  
20
- 21 (i) An adequate internal cross-connection control program shall include an  
22 annual inspection and testing by a licensed backflow prevention  
23 assembly tester on all backflow prevention assemblies used for health  
24 hazard protection.  
25
- 26 (ii) Copies of all such inspection and test reports must be obtained and kept  
27 on file by the water purveyor.  
28
- 29 (iii) It will be the responsibility of the water purveyor to ensure that these  
30 requirements are met.  
31
- 32 (2) No water connection from any public drinking water supply system shall be connected  
33 to any condensing, cooling, or industrial process or any other system of nonpotable  
34 usage over which the public water supply system officials do not have sanitary control,  
35 unless the said connection is made in accordance with the requirements of paragraph  
36 (1) of this subsection. Water from such systems cannot be returned to the potable  
37 water supply.  
38
- 39 (3) Overhead bulk water dispensing stations must be provided with an air gap between the  
40 filling outlet hose and the receiving tank to protect against back siphonage and  
41 cross-contamination.  
42

1 (4) All backflow prevention assemblies that are required according to this section and  
2 associated table located in §290.47(f) of this title shall be tested upon installation by a  
3 licensed backflow prevention assembly tester and certified to be operating within  
4 specifications. Backflow prevention assemblies which are installed to provide protection  
5 against health hazards must also be tested and certified to be operating within  
6 specifications at least annually by a licensed backflow prevention assembly tester.

7  
8 (A) Backflow prevention assembly testers shall have completed an executive  
9 director-approved course on cross-connection control and backflow prevention  
10 assembly testing, pass an examination administered by the executive director,  
11 and hold a current license as a backflow prevention assembly tester.

12  
13 (i) Backflow prevention assembly testers are qualified to test and repair  
14 assemblies on any domestic, commercial, industrial, or irrigation service.

15  
16 (ii) Backflow prevention assembly testers may test and repair assemblies on  
17 firelines only if they are permanently employed by an Approved Fireline  
18 Contractor. The Texas Department of Insurance's State Fire Marshal's  
19 Office requires that any person performing maintenance on firelines  
20 must be employed by an Approved Fireline Contractor.

21  
22 (B) Gauges used in the testing of backflow prevention assemblies shall be tested for  
23 accuracy annually in accordance with the University of Southern California's  
24 Manual of Cross-Connection Control or the AWWA's Recommended Practice for  
25 Backflow Prevention and Cross-Connection Control (AWWA Manual M14). Public  
26 water systems shall require testers to include test gauge serial numbers on the  
27 Backflow Prevention Assembly Test and Maintenance Report (commission Form  
28 20700), and ensure testers have gauges tested for accuracy.

29  
30 (C) A test report must be completed by the recognized backflow prevention  
31 assembly tester for each assembly tested. The signed and dated original must be  
32 submitted to the public water supplier for recordkeeping purposes. Any form  
33 which varies from the format specified in commission Form 20700 must be  
34 approved by the executive director prior to being placed in use.

35  
36 (5) The use of a backflow prevention assembly at the service connection shall be  
37 considered as additional backflow protection and shall not negate the use of backflow  
38 protection on internal hazards as outlined and enforced by local plumbing codes.

39  
40 (6) At any residence or establishment where there is no actual or potential contamination  
41 hazard, a backflow prevention assembly is not required

1 30 TAC 290.45(f) - Minimum Water System Capacity Requirements

2  
3 TITLE 30  
4 ENVIRONMENTAL QUALITY  
5 PART 1  
6 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
7 CHAPTER 290  
8 PUBLIC DRINKING WATER  
9 SUBCHAPTER D  
10 RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS  
11 RULE §290.45  
12 Minimum Water System Capacity Requirements

13  
14 **(f) Purchased water systems. The following requirements apply only to systems which**  
15 **purchase treated water to meet all or part of their production, storage, service pump,**  
16 **or pressure maintenance capacity requirements.**

- 17  
18 (1) The water purchase contract must be available to the executive director in order  
19 that production, storage, service pump, or pressure maintenance capacity may  
20 be properly evaluated. For purposes of this section, a contract may be defined  
21 as a signed written document of specific terms agreeable to the water purchaser  
22 and the water wholesaler, or in its absence, a memorandum or letter of  
23 understanding between the water purchaser and the water wholesaler.  
24  
25 (2) The contract shall authorize the purchase of enough water to meet the monthly  
26 or annual needs of the purchaser.  
27  
28 (3) The contract shall also establish the maximum rate at which water may be  
29 drafted on a daily and hourly basis. In the absence of specific maximum daily or  
30 maximum hourly rates in the contract, a uniform purchase rate for the contract  
31 period will be used.  
32  
33 **(4) The maximum authorized daily purchase rate specified in the contract, or a**  
34 **uniform purchase rate in the absence of a specified daily purchase rate, plus**  
35 **the actual production capacity of the system must be at least 0.6 gpm per**  
36 **connection.**

37  
38 [ Austin can provide, but we cannot distribute as pipes are too small ]

39  
40 [ 160 connections at 0.6 gpm is 96gpm, which is beyond capability for 2-inch ]  
41

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**(5) For systems which purchase water under direct pressure, the maximum hourly purchase authorized by the contract plus the actual service pump capacity of the system must be at least 2.0 gpm per connection or provide at least 1,000 gpm and be able to meet peak hourly demands, whichever is less.**

[ Austin can provide, but we cannot distribute as pipes are too small ]

[ 160 connections at 2 gpm is 320 gpm, which is way beyond capability for 2-inch line ]

(6) The purchaser is responsible for meeting all production requirements. If additional capacity to meet increased demands cannot be attained from the wholesaler through a new or amended contract, additional capacity must be obtained from water purchase contracts with other entities, new wells, or surface water treatment facilities. However, if the water purchase contract prohibits the purchaser from securing water from sources other than the wholesaler, the wholesaler is responsible for meeting all production requirements.

[ Austin meets all production requirements. What we have is distribution limitation ]

(7) All other minimum capacity requirements specified in this section and §290.46(x) and (y) of this title shall apply.

[ 30 TAC 290.46(x) does not apply to us ]

[ 30 TAC 290.46(y) is fire hydrant flow standards, and we have NO fire flow capability at all.

1 Water Code 13.002 - Definitions

2 [ slightly reformatted and edited for clarity and emphasis ]

3  
4 Water Code

5 Sec. 13.002. DEFINITIONS. In this chapter:

6  
7 (1-a) "Landowner," "owner of a tract of land," and "owners of each tract of land" include  
8 multiple owners of a single deeded tract of land **as shown on the appraisal roll of the**  
9 **appraisal district established for each county** in which the property is located.

10  
11 [ For us, that is the Travis County Central Appraisal District, tcad.org ]

12  
13 (11) "Member" means a person who holds a membership in a water supply or sewer service  
14 corporation and **is a record owner of a fee simple title to property** in an area served by  
15 a water supply or sewer service corporation or a person who is granted a membership  
16 and who either currently receives or will be eligible to receive water or sewer utility  
17 service from the corporation. In determining member control of a water supply or  
18 sewer service corporation, a person is entitled to only one vote regardless of the  
19 number of memberships the person owns.

20  
21 [ Legal nit - we bill members, and only members or their designated agents ]

22  
23 (24) "Water supply or sewer service corporation" means a nonprofit corporation organized  
24 and operating under Chapter 67 that provides potable water service or sewer service  
25 for compensation and that has adopted and is operating in accordance with by-laws or  
26 articles of incorporation which ensure that it is member-owned and  
27 member-controlled. **The term does not include a corporation that provides retail**  
28 **water or sewer service to a person who is not a member**, except that the corporation  
29 may provide retail water or sewer service to a person who is not a member if the  
30 person only builds on or develops property to sell to another and the service is  
31 provided on an interim basis before the property is sold.

32  
33 [ Legal nit - Water Code 67 requires the use of an Election Auditor, as an independent  
34 third party to report election results. The results report from the auditor is our  
35 documentary evidence (proof) that we hold elections according to our bylaws and  
36 election procedures ]

1 Water Code 13.043 - Appellate Jurisdiction

2 **WATER CODE**  
3 **TITLE 2. WATER ADMINISTRATION**

4  
5 **SUBTITLE B. WATER RIGHTS**  
6 **CHAPTER 13. WATER RATES AND SERVICES**

7  
8 **SUBCHAPTER A. GENERAL PROVISIONS**

9  
10 [ Edited for the portions that are applicable to water supply corporations. Reformatted for  
11 readability and emphasis. Statute text updated thru 88R-SB317, effective 18 June 2023]

12  
13 Sec. 13.043. APPELLATE JURISDICTION.

14  
15 (b) **Ratepayers** of the following entities **may appeal** the decision of the governing body of  
16 the entity affecting **their water**, drainage, or sewer **rates** to the utility commission:

17  
18 (1) a nonprofit water supply or sewer service corporation created and operating  
19 under Chapter 67;

20  
21 (c) **An appeal** under Subsection (b) **must be initiated** by filing a petition for review with the  
22 utility commission and the entity providing service **within 90 days after the effective**  
23 **day of the rate change ...**

24  
25 **The petition must be signed by** the lesser of 10,000 or **10 percent of those ratepayers**  
26 whose rates have been changed and who are eligible to appeal under Subsection (b).

27  
28 (d) **In an appeal** under Subsection (b) of this section, **each person receiving a separate bill**  
29 **is considered a ratepayer**, but one person may not be considered more than one  
30 ratepayer regardless of the number of bills the person receives. The petition for review  
31 is considered properly signed if signed by a person, or the spouse of a person, in whose  
32 name utility service is carried.

33  
34 (e) In an appeal under Subsection (b), the utility commission shall hear the appeal de novo  
35 and shall fix in its final order the rates the governing body should have fixed in the  
36 action from which the appeal was taken.

37  
38 The utility commission

- 39 \* may establish the effective date for the utility commission's rates at the original  
40 effective date as proposed by the service provider,  
41 \* may order refunds or allow a surcharge to recover lost revenues, and  
42 \* may allow recovery of reasonable expenses incurred by the retail public utility in

1 the appeal proceedings.

2  
3 The utility commission may consider only

- 4 \* the information that was available to the governing body at the time the
- 5 governing body made its decision and
- 6 \* evidence of reasonable expenses incurred by the retail public utility in the
- 7 appeal proceedings.

8  
9 The rates established by the utility commission in an appeal under Subsection (b)

10 remain in effect

- 11 \* until the first anniversary of the effective date proposed by the retail public
- 12 utility for the rates being appealed or
- 13 \* until changed by the service provider,
- 14 whichever date is later, unless the utility commission determines that a financial
- 15 hardship exists.

16  
17 (g) **An applicant for service** from ... a water supply or sewer service corporation **may**

18 **appeal** to the utility commission **a decision** of the ... water supply or sewer service

19 corporation **affecting the amount to be paid to obtain service** other than the regular

20 membership or tap fees.

21  
22 In addition to the factors specified under Subsection (j), in an appeal brought under this

23 subsection the utility commission shall determine whether the amount paid by the

24 applicant

- 25 \* is consistent with the tariff of the water supply or sewer service corporation and
- 26 \* is reasonably related to the cost of installing on-site and off-site facilities to
- 27 provide service to that applicant.

28  
29 If the utility commission finds the amount charged to be clearly unreasonable, it shall

30 establish the fee to be paid for that applicant.

31  
32 **An appeal** under this subsection **must be initiated within 90 days** after the date written

33 notice is provided to the applicant or member of the decision of a ... water supply or

34 sewer service corporation **relating to the applicant's initial request for that service.**

35  
36 **A determination made by the utility commission on an appeal under this subsection is**

37 **binding on all similarly situated applicants for service, and the utility commission may**

38 **not consider other appeals on the same issue until the applicable provisions of the**

39 **tariff of the water supply or sewer service corporation are amended.**

40  
41  
42 (g-1) **An applicant for service** from a water supply or sewer service corporation **may appeal**

1 to the utility commission **for a determination of whether the regular membership fee**  
2 **or tap fee** required to be paid to obtain service **is consistent with the tariff** of the water  
3 supply or sewer service corporation.  
4

5 **If the utility commission finds that the fee is inconsistent with the tariff** of the water  
6 supply or sewer service corporation, **the utility commission shall issue an order**  
7 requiring the water supply or sewer service corporation **to charge the applicant an**  
8 **amount consistent with the tariff.**

9  
10 **An appeal** under this subsection **must be initiated not later than the 30th day** after the  
11 date the water supply or sewer service corporation provides the applicant with the cost  
12 of obtaining service.  
13

14 (h) The utility commission may, on a motion by the utility commission or by the appellant  
15 under Subsection (a), (b), or (f), establish interim rates to be in effect until a final  
16 decision is made.  
17

18 (j) **In an appeal** under this section, the utility commission shall ensure that **every appealed**  
19 **rate** is just and reasonable. Rates shall not be unreasonably

20 \* preferential,  
21 \* prejudicial, or  
22 \* discriminatory

23 but shall be

24 \* sufficient,  
25 \* equitable, and  
26 \* consistent

27 in application to each class of customers.  
28

29 The utility commission shall use a methodology that preserves the financial integrity of  
30 the retail public utility. ...



1 Water Code 67.011 - Powers of Corporation in Certain Counties

2  
3 statute, Water Code, (warning - lacuna - there are two versions of this statute)

4 also population threshold unchanged by 88R-HB4559

5 Google search says Travis County population is 1,290,000 as of 2020 (search 5 May 2023)

6  
7 [ this has been reformatted somewhat for readability, and to provide emphasis and clarity ]

8  
9 Sec. 67.011. POWERS OF CORPORATION IN CERTAIN COUNTIES.

10 (a) In a county with a population of less than 3.3 million, a corporation may:

11  
12 (1) own, hold, lease, or otherwise acquire water wells, springs, or other sources of  
13 water supply;

14  
15 (2) build, operate, and maintain pipelines to transport water or wastewater;

16  
17 (3) build and operate plants and equipment necessary to distribute water or to  
18 treat and dispose of wastewater;

19  
20 (4) sell water or provide wastewater services to a political subdivision, a private  
21 corporation, or an individual; and

22  
23 (5) **establish and enforce reasonable customer water conservation practices and**  
24 **prohibit excessive or wasteful uses of potable water.**

25  
26 (b) **A corporation may enforce customer water conservation practices under Subsection**  
27 **(a)(5) by assessing reasonable penalties as provided in the corporation's tariff.**

28  
29 **A penalty may be appealed [to the PUCT] in the same manner as provided for appeal**  
30 **of new customer service costs under Section 13.043(g).**

31  
32 **In an appeal, the commission shall approve a corporation's penalty if the commission**  
33 **determines**

34 \* **that the penalty is clearly stated in the tariff,**

35 \* **that the penalty is reasonable, and**

36 \* **that the corporation has deposited the penalty in a separate account**  
37 **dedicated to enhancing water supply for the benefit of all the corporation's**  
38 **customers.**

1 Water Code 67.016 - Transfer or Cancellation of Right of Participation

2  
3 [ slightly reformatted, and edited for emphasis and clarity]

4 [ "tariff" substituted for "rates, charges, and conditions of service" for clarity]

5  
6 Water Code

7 Sec. 67.016. TRANSFER OR CANCELLATION OF STOCK, MEMBERSHIP, OR OTHER RIGHT OF  
8 PARTICIPATION.

9  
10 (a) A person or entity that owns

11 \* any stock of,

12 \* is a member of, or

13 \* has some other right of participation in

14 a corporation may not sell or transfer that stock, membership, or other right of  
15 participation to another person or entity except:

16  
17 (1) by will to a person who is related to the testator within the second degree by  
18 consanguinity;

19  
20 (2) by transfer without compensation to a person who is related to the owner of  
21 the stock or other interest within the second degree by consanguinity; or

22  
23 (3) **by transfer without compensation or by sale to the corporation.**

24  
25 (b) Subsection (a) does not apply to a person or entity that transfers the membership or  
26 other right of participation to another person or entity **as part of the conveyance of**  
27 **real estate** from which the membership or other right of participation arose.

28  
29 (c) **The transfer** of stock, a membership, or another right of participation under this section  
30 **does not entitle** the transferee to water or sewer **service unless each condition** for  
31 water or sewer service **is met** as provided in the corporation's published "tariff".

32  
33 A transfer and service application must be completed on the corporation's standardized  
34 forms and filed with the corporation's office in a timely manner.

35  
36 The conditions of service may not require a personal appearance in the office of the  
37 corporation if the transferee agrees in writing to accept the "tariff".

38  
39 (d) **The corporation may make water or sewer service provided as a result of stock, a**  
40 **membership, or another right of participation in the corporation conditional on**  
41 **ownership of the real estate designated to receive service and from which the**  
42 **membership or other right of participation arises.**

- 1 (e) The corporation may cancel a person's or other entity's stock, membership, or other  
2 right of participation if the person or entity fails to:  
3  
4 (1) meet the conditions for water or sewer service prescribed by the corporation's  
5 published "tariff"; or  
6  
7 (2) comply with any other condition placed on the receipt of water or sewer service  
8 under the stock, membership, or other right of participation.  
9  
10 (f) Consistent with Subsection (a), the corporation may reassign canceled stock or a  
11 canceled membership or other right of participation to a person or entity that has legal  
12 title to the real estate from which the canceled membership or other right of  
13 participation arose and for which water or sewer service is requested.  
14  
15 (g) Notwithstanding Subsection (a), the corporation shall reassign canceled stock or a  
16 canceled membership or other right of participation to a person or entity that acquires  
17 the real estate from which the membership or other right of participation arose  
18 through judicial or nonjudicial foreclosure. The corporation may require proof of  
19 ownership resulting from the foreclosure.  
20  
21 (h) Service provided following a transfer under Subsection (f) or (g) is made subject to  
22 compliance with the conditions for water or sewer service prescribed by the  
23 corporation's published "tariff".  
24

25 Added by Acts 1997, 75th Leg., ch. 166, Sec. 2, eff. Sept. 1, 1997.

1 Utilities Code 182, Subchapter A - Payment Date of Utility Bill for Elderly  
2 **UTILITIES CODE**

3  
4 **TITLE 4. DELIVERY OF UTILITY SERVICES**

5  
6 **SUBTITLE B. PROVISIONS REGULATING DELIVERY OF SERVICES**

7  
8 **CHAPTER 182. RIGHTS OF UTILITY CUSTOMERS**

9  
10 **SUBCHAPTER A. PAYMENT DATE OF UTILITY BILL FOR ELDERLY INDIVIDUAL**

11  
12 Sec. 182.001. DEFINITIONS. In this subchapter:

- 13  
14 (1) "Elderly individual" means an individual who is 60 years of age or older.  
15  
16 (2) "Utility" means an electric, gas, **water**, or telephone utility operated by a public or  
17 private entity.  
18

19 Sec. 182.002. DELAY OF BILL PAYMENT DATE FOR ELDERLY INDIVIDUAL.

- 20  
21 (a) On request by an elderly individual, a utility shall delay without penalty the payment  
22 date of a bill for providing utility service to that individual until the 25th day after the  
23 date the bill is issued.  
24  
25 (b) **This subchapter applies only to an elderly individual who:**  
26  
27 (1) **is a residential customer; and**  
28  
29 (2) **occupies the entire premises for which a delay is requested.**  
30

31 Sec. 182.003. REQUEST FOR DELAY. An elderly individual may request that the utility  
32 implement the delay under Section 182.002 for:

- 33  
34 (1) the most recent utility bill; or  
35  
36 (2) the most recent utility bill and each subsequent utility bill.  
37

38 Sec. 182.004. PROOF OF AGE. A utility may require an individual requesting a delay under this  
39 subchapter to present reasonable proof that the individual is 60 years of age or older.  
40  
41  
42

1 Sec. 182.005. CERTAIN UTILITIES NOT AFFECTED. This subchapter does not apply to a utility  
2 that:

- 3
- 4 (1) does not assess a late payment charge on a residential customer;
  - 5
  - 6 (2) does not suspend service before the 26th day after the date of the bill for which  
7 collection action is taken; and
  - 8
  - 9 (3) is regulated under Title 2.

10

11

12 [ MWSC is not regulated under Utility Code, Title 2, and so does not qualify - so the subchapter  
13 DOES apply ]

14

1 Utilities Code 182, Subchapter B - Disclosure of Customer Information

2 **UTILITIES CODE**

3  
4 **TITLE 4. DELIVERY OF UTILITY SERVICES**

5  
6 **SUBTITLE B. PROVISIONS REGULATING DELIVERY OF SERVICES**

7  
8 **CHAPTER 182. RIGHTS OF UTILITY CUSTOMERS**

9  
10 **SUBCHAPTER B. DISCLOSURE OF CUSTOMER INFORMATION**

11  
12 Sec. 182.051. DEFINITIONS. In this subchapter:

- 13  
14 (1) [ not relevant to us ]
- 15  
16 (2) "Governmental body" has the meaning assigned by Section 552.003, Government Code.
- 17  
18 (3) "Government-operated utility" means a governmental body or an entity governed by a  
19 governmental body that, for compensation, provides **water**, wastewater, sewer, gas,  
20 garbage, electricity, or drainage service.
- 21  
22 (4) "Personal information" means an  
23 \* individual's address,  
24 \* telephone number, or  
25 \* social security number.

26  
27 [ "Governmental body" is defined in  
28 GC 552.003 (1)(A)(ix) the governing body of a nonprofit corporation organized under Chapter  
29 67, Water Code, that provides a water supply or wastewater service, or both, and is exempt  
30 from ad valorem taxation under Section 11.30, Tax Code; ]

31  
32 [ we are NOT exempt from ad valorem taxes ]

33  
34 Sec. 182.052. DISCLOSURE OF PERSONAL INFORMATION.

- 35 (a) Except as provided by Section 182.054, a government-operated utility may not disclose  
36 personal information in a customer's account record, or any information relating to  
37 \* the volume or units of utility usage or  
38 \* the amounts billed to or collected from the individual for utility usage, unless  
39 the customer requests that the government-operated utility disclose the  
40 information.

2 **PROPERTY CODE**

3  
4 **TITLE 8. LANDLORD AND TENANT**

5  
6 **CHAPTER 92. RESIDENTIAL TENANCIES**

7  
8 **SUBCHAPTER A. GENERAL PROVISIONS**

9  
10 **Sec. 92.008. INTERRUPTION OF UTILITIES.**

- 11
- 12 (a) A landlord or a landlord's agent may not interrupt or cause the interruption of utility  
13 service paid for directly to the utility company by a tenant unless the interruption  
14 results from bona fide repairs, construction, or an emergency.
- 15
- 16 (b) Except as provided by this section, **a landlord may not interrupt** or cause the  
17 interruption of **water**, wastewater, gas, or electric service **furnished to a tenant by the**  
18 **landlord as an incident of the tenancy** or by other agreement unless the interruption  
19 results from bona fide repairs, construction, or an emergency.
- 20
- 21 (c) , (d), and (e) Repealed
- 22
- 23 (f) If a landlord or a landlord's agent violates this section, the tenant may:
- 24
- 25 (1) either recover possession of the premises or terminate the lease; and
- 26
- 27 (2) in addition to other remedies available under law, recover from the landlord an  
28 amount equal to the sum of the tenant's actual damages, one month's rent plus  
29 \$1,000, reasonable attorney's fees, and court costs, less any delinquent rents or  
30 other sums for which the tenant is liable to the landlord.
- 31
- 32 (g) A provision of a lease that purports to waive a right or to exempt a party from a liability  
33 or duty under this section is void.
- 34
- 35 (h) thru (r) are concerned with electric service
- 36
- 37

1 Property Code 93.002 - Interruption of Utilities (Commercial)

2 **PROPERTY CODE**

3  
4 **TITLE 8. LANDLORD AND TENANT**

5  
6 **CHAPTER 93. COMMERCIAL TENANCIES**

7  
8 **Sec. 93.002. INTERRUPTION OF UTILITIES, REMOVAL OF PROPERTY, AND EXCLUSION OF**  
9 **COMMERCIAL TENANT.**

10  
11 (a) A landlord or a landlord's agent may not interrupt or cause the interruption of utility  
12 service paid for directly to the utility company by a tenant unless the interruption  
13 results from bona fide repairs, construction, or an emergency.

14  
15 [ note - this differs from the residential service termination by not prohibiting a landlord  
16 from discontinuing service to an occupied commercial property.]

17  
18 (b) [ not relevant ]

19  
20 (c) [ not relevant ]

21  
22 (d) [ not relevant ]

23  
24 (e) [ not relevant ]

25  
26 (f) [ not relevant ]

27  
28 (g) [ not relevant ]

29  
30 (h) A lease supersedes this section to the extent of any conflict.  
31  
32





# Submittals

## Copyright Notice and Fair Use

Manufacturer submittal sheets are typically copyrighted "all rights reserved".

Manufacturer submittal sheets are being provided here as guidance only. This tariff makes reference to a number of parts and requirements that have very specific technical requirements. The people who need to know those details will most likely have no experience or guidance on what to do with those requirements, what the products look like, or have a clue on what the use or function of the product is for. The manufacturer submittal sheets presented here are for education and reference.

Also, the manufacturer submittals here are product suggestions, not requirements. An equivalent product that does the same job, will be equally acceptable.

Marsha WSC does not have any financial interest in any of these products.



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Apollo Valves - Hose Connection Vacuum Breakers



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4

Legend Valve - T-15, Lead Free Bronze Wye Strainer



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Milwaukee Valve - Model UPBA400, Bronze Ball Valve



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3

Nibco - Model T-113-LF, Lead Free Bronze Gate Valve

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2

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Sharkbite - Model TER-1, Thermal Expansion Relief Valve, part 25704LF



1  
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Watts - Series LF8, Hose Connection Vacuum Breakers



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Watts - Series LF007, Backflow Preventer, Double Check Valve Assembly



1  
2

1  
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Watts - Series LF009, Backflow Preventer, Reduced Pressure Zone

1  
2  
3



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3  
4

Zurn-Wilkins - Model 600XLDM, Pressure Reducing Valve (PRV)



1  
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4

Zurn-Wilkins - Model BVECXL, Integral Thermal Expansion Relief Valve





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Tracer Wire - Copperhead Copper Clad Steel

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Tracer Wire - Copperhead - Access Point



# Texas Commission On Environmental Quality

**By These Presents Be It Known To All That**

**Marsha Water Supply Corporation**

having duly applied for certification to provide water utility service for the convenience and necessity of the public, and it having been determined by this commission that the public convenience and necessity would in fact be advanced by the provision of such service by this Applicant, is entitled to and is hereby granted this

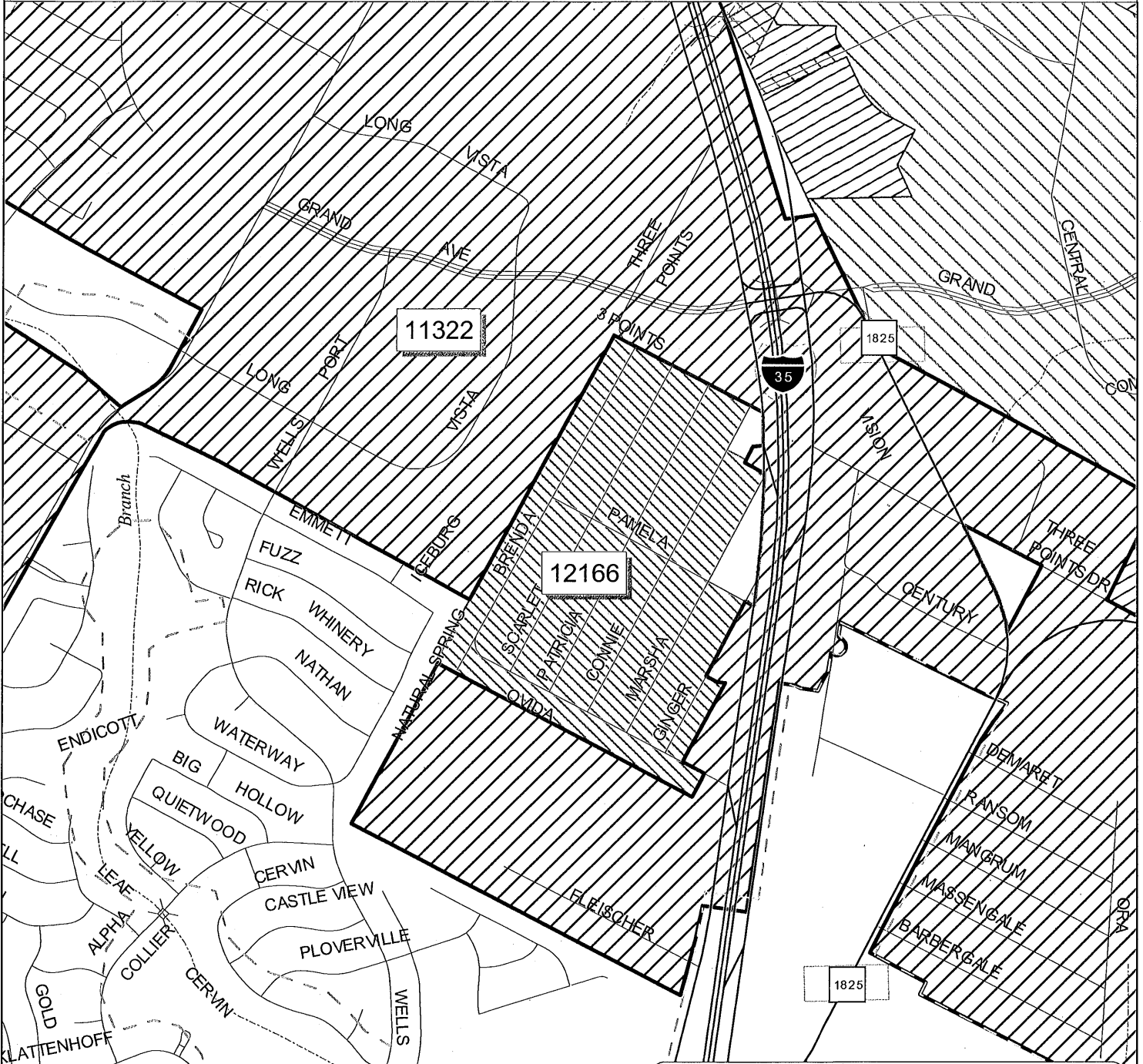
## **Certificate of Convenience and Necessity No. 12166**

to provide continuous and adequate water utility service to that service area or those service areas in Travis County as by final Order or Orders duly entered by this Commission, which Order or Orders resulting from Application Nos. 35405-C are on file at the Commission offices in Austin, Texas; and are matters of official record available for public inspection; and be it known further that these presents do evidence the authority and the duty of Marsha Water Supply Corporation to provide such utility service in accordance with the laws of this State and Rules of this Commission, subject only to any power and responsibility of this Commission to revoke or amend this Certificate in whole or in part upon a subsequent showing that the public convenience and necessity would be better served thereby.





Issued at Austin, Texas, this NOV 13 2007

*Buddy Cox*  
\_\_\_\_\_  
For the Commission


City of Austin / Marsha Water Supply Corporation 13.248 Agreement  
 Portion of Water Service Area  
 Application No. 35405-C (Transferred a Portion of CCN No. 12166 from Marsha WSC)  
 Travis County



**Water CCN Service Areas**

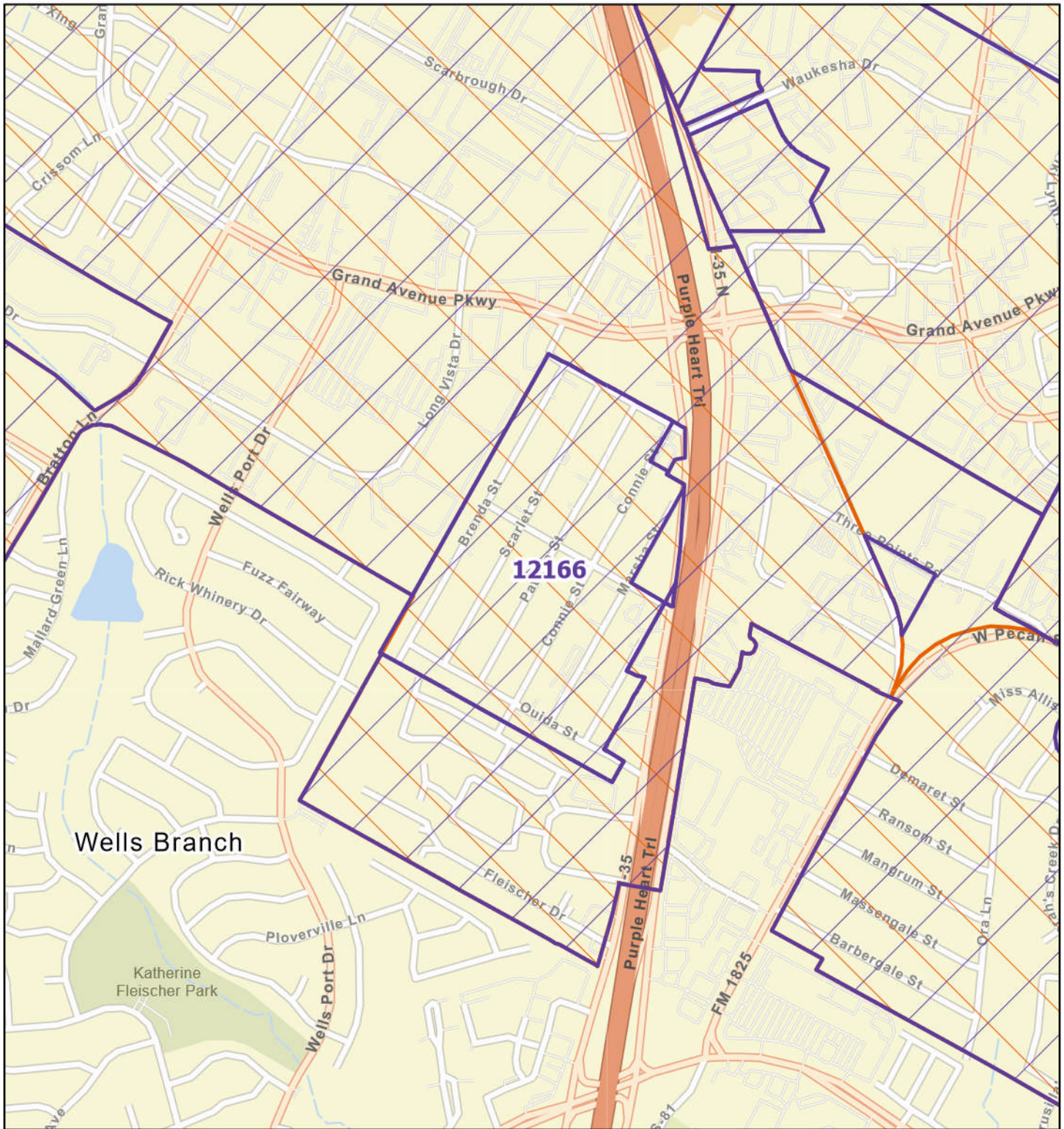
-  11322 - CITY OF AUSTIN
-  12166 - MARSHA WSC
-  11144 - MANVILLE WSC
-  11471 - WINDERMERE UTILITY CO INC.

1000 0 1000 Feet  
 1 inch = 1,000 feet





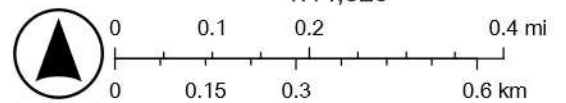
Map by S. Jaster 12/29/2006  
 Data path: s:\ud\ccn\ccn\_working\ccn.shp  
 Project path: c:\gis\projects\applications\35405-c.apr

# ArcGIS Web Map



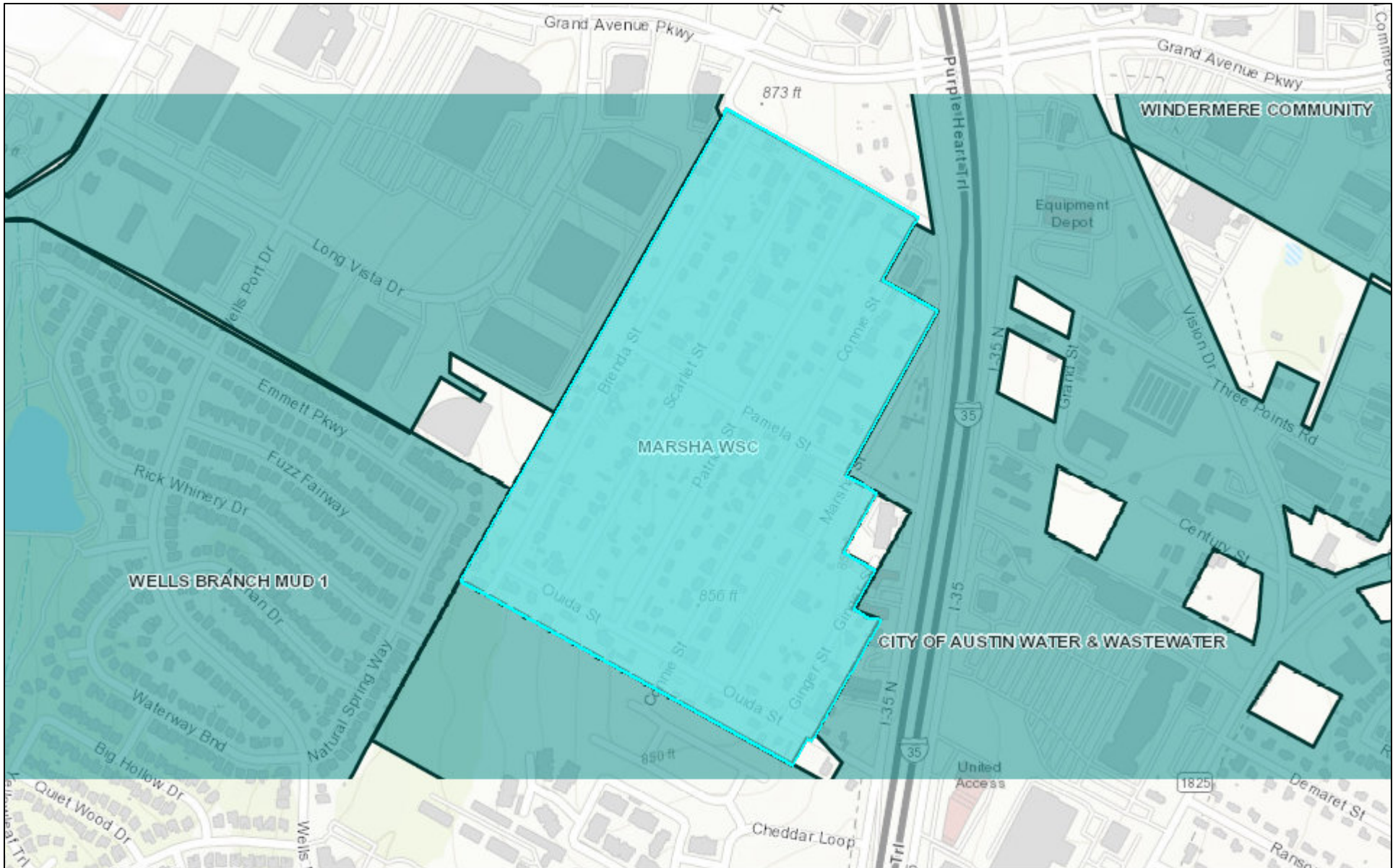
May 17, 2023

-  Water CCN Service Areas
-  Sewer CCN Service Areas



1:14,520

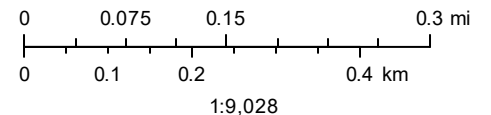
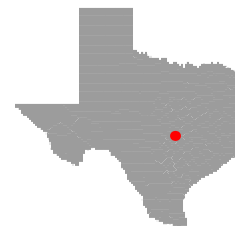
# Marsha WSC Service Area



**Texas Water Development Board**

May 17, 2023

The data in the Texas Water Service Boundary Viewer represents the best available information provided by the Texas Water Development Board (TWDB) and third-party cooperators of the TWDB and is believed to be accurate and reliable. However, the TWDB provides information via this web site as a public service. Neither the State of Texas nor the TWDB assumes any legal liability or responsibility or makes any guarantees or warranties as to the accuracy, completeness or suitability of the information or boundaries for any particular purpose. These service boundaries and info provided in the application do not alter legal boundaries as regulated by the Public Utility Commission and the Texas Commission on Environmental Quality. This material is based upon work supported by the U.S. Geological Survey under Cooperative Agreement No. G17AC0016.



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS TEXAS WATER DEVELOPMENT BOARD

# TEXAS WATER COMMISSION



## CERTIFICATE OF CONVENIENCE AND NECESSITY

To Provide Water Service Under V.T.C.A., Water Code  
and Texas Water Commission Substantive Rules

Certificate No. 12166

### I. Certificate Holder:

Name: Marsha Water Corporation

Address: 15305 Marsha Street  
Austin, Texas, 78728

### II. General Description and Location of Service Area:

The area covered by this certificate is located approximately 13 miles north of downtown Austin, Texas on Interstate Highway 35. This certificated service area is limited to the following existing connections in the Pamela Heights Subdivision:

Block 1, Lot 3  
Block 2, Lots 3, 6, 10 and 13  
Block 3, Lots 2 and 11  
Block 4, Lots 6, 15, 16 and 19  
Block 5, Lots 4, 5, 6, 9 and 14  
Block 6, Lots 1, 4, 6, 9, 12, 17 and 19  
Block 7, Lots 3 and 10  
Block 8, Lots 1, 6, 11 and 21  
Block 9, Lots 1, 2, 6, 8, 10, 11, 12, 16, 18 and 21  
Block 10, Lots 5, 8, 9, 18 and 19  
Block 11, Lots 3, 4, 7, 9, 11, 13 and 19  
Block 13, Lots 7, 11 and 20  
Block 14, Lots 7 and 13  
Block 15, Lots 6 and 8

The Pamela Heights Subdivision is bounded on the east by Interstate Highway 35, on the south by Ouida Drive, on the west by Brenda Street, and on the north by an unnamed county in Travis County, Texas.

### III. Certificate Maps:

The certificate holder is authorized to provide water service in the area identified on the Commission's official water service area map, WRS-227, maintained in the offices of the Texas Water Commission, 1700 North Congress, Austin, Texas with all attendant privileges and obligations.

EVIDENCE R D. 2 of 2



Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



PWS\_2270040\_CO\_20161013\_Plan Ltr

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

October 13, 2016

Mr. Randall Raemon  
15504 Brenda Street  
Austin, Texas 78728

Re: Marsha WSC - Public Water System ID No. 2270040  
85% Planning Report  
Engineer Contact Telephone: (512) 803-8725  
Plan Review Log No. P-08252016-152  
Travis County, Texas

CN600644959; RN101199974

Dear Mr. Raemon:

On August 25, 2016, the Texas Commission on Environmental Quality (TCEQ) received 85% planning report with your letter dated August 23, 2016 for the above referenced public water system. Your report stated that the water system receives 24,000 gallons per day (= 16.67 gpm) treated water from City of Austin. According to your report, the water system currently has 160 connections.

Based on information submitted, the water system **does not meet** the requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 - Rules and Regulations for Public Water Systems as listed below. Please provide the following additional information showing how the water system will meet the requirements:

1. The water purchase contract shall meet the minimum water capacity requirements as required in 30 TAC Section 290.45(f). For purchased water system the water system must meet the following requirements:
  - a. The water purchase contract must be available to the executive director in order that production, storage, service pump, or pressure maintenance capacity may be properly evaluated. For purposes of this section, a contract may be defined as a signed written document of specific terms agreeable to the water purchaser and the water wholesaler, or in its absence, a memorandum or letter of understanding between the water purchaser and the water wholesaler.
  - b. The contract shall authorize the purchase of enough water to meet the monthly or annual needs of the purchaser.
  - c. The contract shall also establish the maximum rate at which water may be drafted on a daily and hourly basis. In the absence of specific maximum daily or maximum hourly rates in the contract, a uniform purchase rate for the contract period will be used.

- d. The maximum authorized daily purchase rate specified in the contract, or a uniform purchase rate in the absence of a specified daily purchase rate, plus the actual production capacity of the system must be at least 0.6 gpm per connection.
- e. For systems which purchase water under direct pressure, the maximum hourly purchase authorized by the contract plus the actual service pump capacity of the system must be at least 2.0 gpm per connection or provide at least 1,000 gpm and be able to meet peak hourly demands, whichever is less.
- f. The purchaser is responsible for meeting all production requirements. If additional capacity to meet increased demands cannot be attained from the wholesaler through a new or amended contract, additional capacity must be obtained from water purchase contracts with other entities, new wells, or surface water treatment facilities. However, if the water purchase contract prohibits the purchaser from securing water from sources other than the wholesaler, the wholesaler is responsible for meeting all production requirements.

**The water system may request approval to meet alternative capacity requirements (ACR) in lieu of the minimum capacity requirements in accordance with 30 TAC Section 290.45(g). For additional assistance regarding ACR, please contact Technical Review Oversight Team (TROT) or visit the website as indicated in item No. 4.**

- 2. As required in 30 TAC Section 290.44(c), the minimum waterline sizes to serve more than 150 connections shall be 6-inches as shown below in the table. The minimum waterline sizes are for domestic flows only and do not consider fire flows. Larger pipe sizes shall be used when the licensed professional engineer deems it necessary. It should be noted that the required sizes are based strictly on the number of customers to be served and not on the distances between connections or differences in elevation or the type of pipe. No new waterline less than two inches in diameter will be allowed to be installed in a public water system distribution system. These minimum line sizes do not apply to individual customer service lines.

Maximum Number of Connections	Minimum Line Size (Inches)
10	2
25	2.5
50	3
100	4
150	5
250	6
>250	8 and larger

**Based on the information provided, the water system has maximum 3-inch waterline sizes to serve existing 160 connections which do not meet the minimum waterline size requirements. The water system may request exception regarding this requirement. Please see item No. 4 regarding exception requests.**

- 3. According to planning report, the existing water distribution system is proposed to be modified in future. Before any modifications to the existing distribution system is made, the water system must submit sealed engineering plans and specifications for review and approval in accordance with 30 TAC Section 290.39(d).

4. If compliance with TCEQ requirements cannot be met, a written exception request for each rule may be submitted to TROT. The exception must be substantiated by carefully documented data. The request for an exception shall precede the submission of engineering plans and specifications for a project for which an exception is requested. For addition assistance exception requests, please contact TROT at 512-239-4691 (main line) or visit the following website:

<http://www.tceq.texas.gov/drinkingwater/trot/exception>

The submittal consisted of capacity report with existing conditions study narrative and concept plan narrative.

We will retain these documents for **100 calendar days** from the date of this letter. Revisions or additional information must be submitted to the TCEQ (Plan Review Team, MC-159) within that time or the entire package must be resubmitted for review. Please refer to the Plan Review Team's Log No. **P-08252016-152** in all correspondence for this project.

**Please Note:** In order to determine if a new source of water or a new treatment process results in corrosive or aggressive finished water that may endanger human health, we are requesting additional sampling and analysis of lead, alkalinity (as calcium carbonate), calcium (as calcium carbonate) and sodium in addition to the required chemical test results for public water system new sources. We are requiring these additional sampling results as listed in our currently revised checklists (Public Well Completion Data Checklist for Interim Use - Step 2 and Membrane Use Checklist - Step 2) which can be found on TCEQ's website at the following address:

<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

Please include these additional sampling results in well completion submittals, membrane use submittals, and other treatment process submittals.

New surface water sources will need to also include lead, total dissolved solids, pH, alkalinity (as calcium carbonate), chloride, sulfate, calcium (as calcium carbonate) and sodium with the analysis required in 30 TAC Section 290.41(e)(1)(F).

Please complete a copy of the most current Public Water System Plan Review Submittal form for any future submittals to TCEQ. Every blank on the form must be completed to minimize any delays in the review of your project. The document is available on TCEQ's website at the address shown below. You can also download the most current plan submittal checklists and forms from the same address.

<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

For future reference, you can review part of the Plan Review Team's database to see if we have received your project. This is available on TCEQ's website at the following address:

<https://www.tceq.texas.gov/drinkingwater/planrev.html/#status>

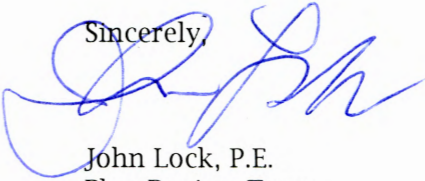
You can download the latest revision of 30 TAC Chapter 290 - [Rules and Regulations for Public Water Systems](#) from this site.

Mr. Randall Raemon  
Page 4  
October 13, 2016

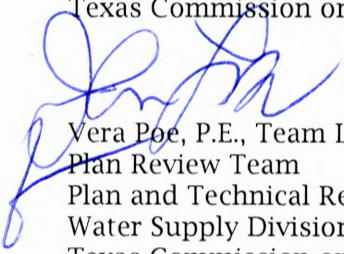
If you have any questions concerning this letter or need further assistance, please contact Pritesh Tripathi at (512)239-3794 or by email at [pritesh.tripathi@tceq.texas.gov](mailto:pritesh.tripathi@tceq.texas.gov) or by correspondence at the following address:

Plan Review Team, MC-159  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Sincerely,



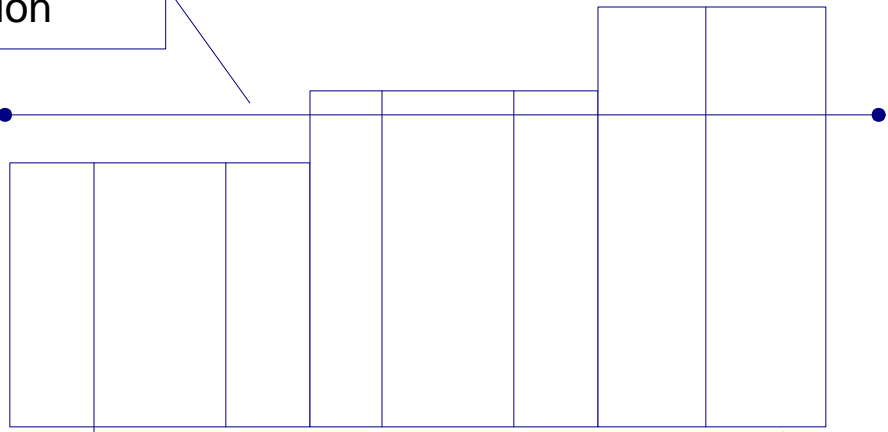
John Lock, P.E.  
Plan Review Team  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality



Vera Poe, P.E., Team Leader  
Plan Review Team  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality

VP/JL/PT/av

Average cost per gallon



Total Water Usage for one reading cycle, broken out by billing class:

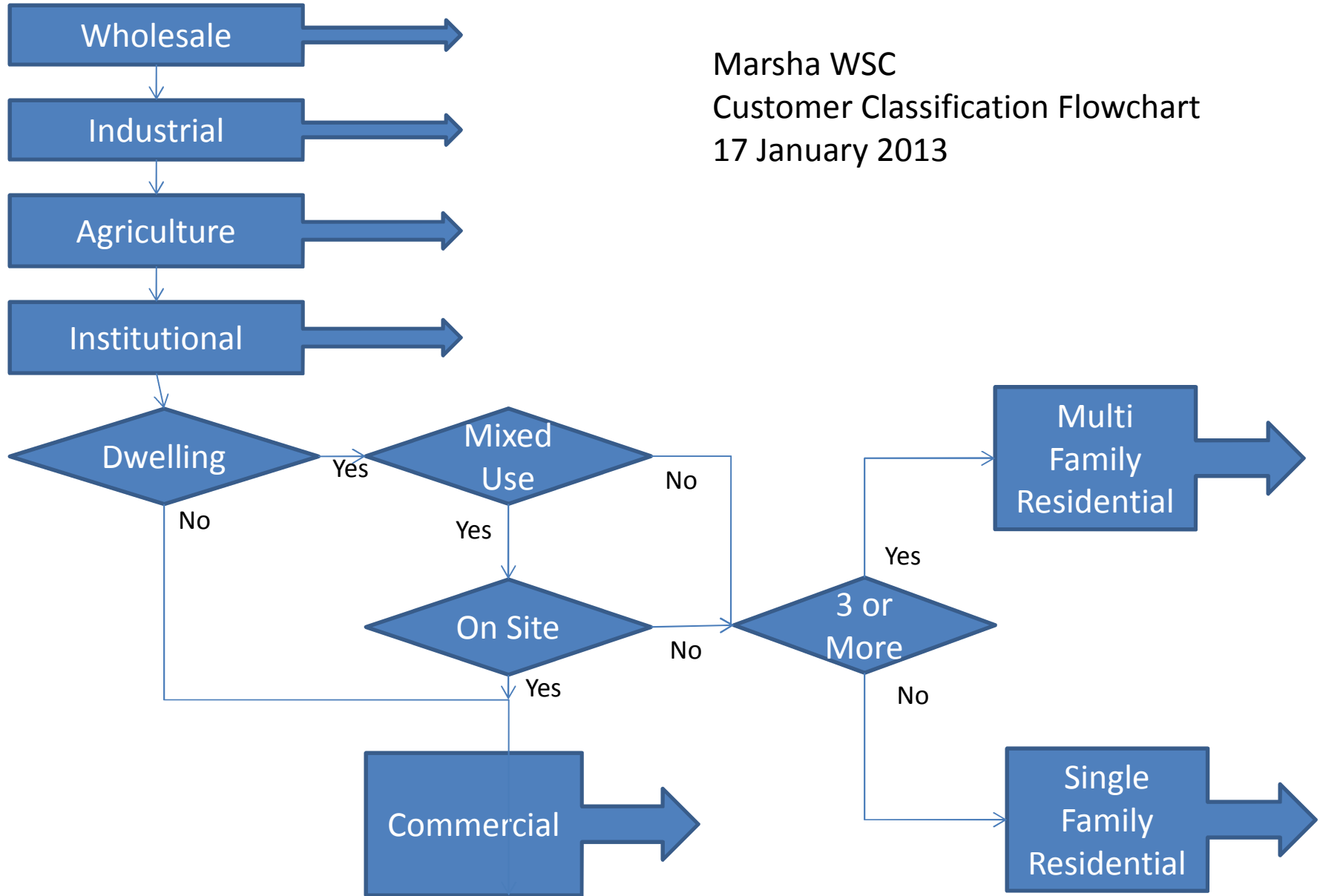
1. Member Residential
2. Commercial Residential
3. Commercial (all others)

Member Residential in 3 tiers  
1. Low 25%  
2. Mid 50% range  
3. High 25%

Commercial Residential in 3 tiers  
1. Low 25% of usage  
2. Mid 50% range (26-74)  
3. High 25% of usage

Commercial Usage in 2 tiers  
Low 50% and High 50%

Marsha WSC  
Customer Classification Flowchart  
17 January 2013



1 Marsha Water Supply Corporation  
2 Member Application and Agreement

3  
4 **Article 1 - Definitions**

5  
6 Corporation, Marsha WSC, us, we - Marsha Water Supply Corporation  
7  
8 you - the Member-Applicant, entering into this agreement  
9

10 **Article 2 - Member-Applicant**  
11

12 Member-Applicant 13 Please print (so we can read your writing)	
14 Name	
15 Postal Mailing Address	
16 City, State, and Zip Code	
17 Telephone	
18 Email	
19 Telephone and email are private, and are not subject to public release 20 21	

22 **Qualifications to apply to be a Member**

- 23 1. You must own property within the Marsha WSC service area  
24 2. You must have submitted this Member Application and Agreement.  
25 3. You must have submitted a Water Service Rider for each service location for your  
26 property within our service area  
27 4. You must be at financial parity with other Members of the Corporation  
28 5. You must have paid the necessary application fees  
29

30 **Qualifications to continue being a Member**

- 31 1. Keep compliance with the Tariff and Bylaws of the Corporation  
32 2. Keep financial parity with the other Members of the Corporation  
33 3. You must have this Member Application and Agreement on file with the Corporation  
34 4. You must have on file, for each service location that you own, a Water Service Rider.  
35

1 **Article 3 - Marsha Water Supply Corporation**

2  
3 Marsha WSC is a corporation that is organized and operating under Chapter 67 of the Texas  
4 Water Code. We are a non-profit, federal 501(c)(12) tax-exempt entity, administered by a  
5 board of directors that is elected by the corporation's Members from among the membership.  
6

7 Said another way, we are a member-owned, member-controlled, member-benefit, cooperative  
8 corporation. While our general structure resembles a general partnership or a cooperative, for  
9 legislative historical reasons, we are a corporation. The Board of Directors is an executive  
10 committee of the Membership, overseeing the administration and operation of the water  
11 system.  
12

13 While we are a retail public utility as defined by statute, state agencies have extremely limited  
14 oversight on the conduct of the Corporation. By statute, that oversight is largely relegated to  
15 the Members.  
16

17 **Article 4 - Member Responsibilities**

18  
19 Being a Member of the Corporation means accepting certain responsibilities, and performing  
20 certain duties on behalf of the Corporation.  
21

22 **1. Compliance with the Corporation Bylaws and Tariff.**

23  
24 The Corporation has adopted policies and procedures to comply with statutory and regulatory  
25 requirements pertaining to being a retail public utility that provides water service, being a  
26 Texas non-profit corporation, and being a federal tax-exempt entity. Those policies and  
27 procedures are institutionalized in our structure thru our adopted corporate bylaws and our  
28 tariff.  
29

30 As a Member, you are expected to follow those policies and procedures as described in the  
31 bylaws and tariff.  
32

33 To that end, the Corporation Bylaws, as may be amended from time to time, are incorporated  
34 into this Member Application and Agreement by reference.  
35

36 Also, to that end, the Corporation Tariff, as may be amended from time to time, are  
37 incorporated into this Member Application and Agreement by reference.  
38

39 (Both the Bylaws and the Tariff are available on the corporation web site, [marshawsc.org](http://marshawsc.org))  
40

41 **2. Protection of the water system**

42  
43 As a Member, you have both a responsibility to protect the Marsha WSC water system.  
44



1 Due to the existent nature of the Marsha WSC water system, and its informal construction,  
2 that responsibility may entail taking an active role to take steps to protect the system. Those  
3 steps may, for example, include: posting signs about shallow pipes, restricting or preventing  
4 parking in certain areas, or adding additional cover material over pipe locations.

5  
6 On your property that has water service, you need to have backflow prevention measures in  
7 place. This includes outdoor hose bibb protection, and regular inspection and reporting of  
8 other backflow prevention devices and assemblies that you may have.

9  
10 All properties in the Pamela Heights subdivision make use of on-site septic facilities (OSSF). You  
11 have the responsibility to make sure your facility is functioning properly, and is maintained  
12 safely.

13  
14 You have a responsibility not to be a public nuisance, as described by the Texas Health and  
15 Safety Code, and by the corresponding parts of the Travis County Code. This includes taking  
16 measures to mitigate fire hazards, mosquito hazards, traffic hazards, and other general health  
17 hazards.

### 18 19 **3. Your role in the Corporation (voting, serving on the board)**

20  
21 As a Member, you do have a role in the corporation. You have a responsibility to vote on issues  
22 that are presented to the Membership. You have a responsibility to bring issues before the  
23 corporation board and the membership.

24  
25 As a Member, by statute you have one vote. Your voting ability is by your account, and not by  
26 service location, or the number of Water Service Riders attached to the Agreement.

27  
28 If you choose to do so, you can be a candidate for election to the corporation board of  
29 directors, and if elected, to serve on the board.

### 30 31 **4. Contributing (pay your bill, providing support/resource as possible)**

32  
33 As a Member, you must maintain financial parity with other Members. You do this with your  
34 equity buy-in fee, and later contributions to the construction and replacement of the water  
35 system. If you do not maintain financial parity, your account will not be in good standing and  
36 your ability to vote on corporate matters will be limited.

37  
38 As a Member, you have the responsibility for the financial state of the corporation. This means  
39 that you pay in a timely manner for the charges that are posted to your Member Account.

40  
41 Also, you have the responsibility to review the financial state of the corporation, to ensure that  
42 the corporation is operating properly, and to the benefit of its Members.

43  
44 If you have skills, materials, or resources that could be of beneficial use of the corporation, you

1 have a responsibility to make the corporation aware of the availability of those skills, materials,  
2 or resources. This availability is one of the central elements of what it is to be a cooperative  
3 corporation; Members working together.

#### 5. A note on rental properties

7 Marsha WSC provides water service ONLY to Members. By statute, to be a Member, you must  
8 own property. What that means, is that property where you do not reside, is going to be some  
9 kind of commercial property, which means it has a lease and likely also has a tenant. That  
10 tenant IS NOT a Member, and we cannot provide service to a tenant. You, as owner of the  
11 property, can provide service under lease contract terms with that tenant.

13 If this is a residential property, recognize that you are providing water service to a tenant  
14 under Section 92.008, Texas Property Code.

16 If this is a (non-residential) commercial property, then you are providing water service to the  
17 tenant under Section 93.002, Texas Property Code.

#### 6. Enforcement and Lack of Compliance

21 Marsha WSC is a small entity, without professional staff, and generally without full-time staff.  
22 As a result, our ability to ensure enforcement of the terms of this Agreement is limited. There  
23 may be times when we are unable to properly enforce the terms of this Agreement. That does  
24 not mean that we will not enforce this Agreement. We do not, and will not, engage in selective  
25 or discriminatory enforcement.

27 Non-compliance with the terms of this Agreement may result in a loss of service at a water  
28 service location, or may result in this Member Agreement being canceled.

#### 7. Change of Address

32 As a Member, you have the responsibility to notify us when your postal mailing address  
33 changes, your telephone number changes, or your email address changes.

35 Our good faith efforts to notify you is limited to the information that you provide to us. We will  
36 not make an effort to track you down.

#### 8. Notice of Sale

40 Your Member status is contingent on your ownership of property described in the Water  
41 Service Riders attached to this Agreement.

43 Should you sell the property, you must also

1. Notify the buyer of your Member status in the Corporation

2. Notify the buyer that water service requires being a Member of the Corporation
3. Notify the buyer that they must be at financial parity to have service thru an equity buy-in fee.
4. Notify the Corporation that the property is being sold.
5. Confirm that your contact information is up to date so that your Member equity can be refunded to you in a timely manner.

## **9. Status of Legal Entity**

If you, as a Member-Applicant, are a legal entity (example, a corporation, LLC, partnership), then you must maintain your legal existence throughout your membership. If your legal entity existence becomes inactive or otherwise unrecognized under Texas law, your membership in the Corporation will be canceled.

## **Article 5 - Marsha WSC Responsibilities**

### **1. Statement of non-discrimination**

Membership in the Corporation and service is provided to all Applicants who comply with the provisions of the corporation tariff regardless of race, creed, color, national origin, sex, disability, or marital status.

### **2. Act to the benefit of the Members and the community**

Marsha WSC must act to the benefit of ALL Members and the Member community.

### **3. Water quality and protection**

We, as a retail public utility providing water service, have the responsibility to ensure compliance with Chapter 341, Texas Health and Safety Code.

That means we provide potable drinking water of quality that complies with regulations as issued by the Texas Commission on Environmental Quality (TCEQ), or successor agencies.

That also means that we take measures to ensure that the water we provide is not contaminated by water backflow events or cross connections.

### **4. Damage Liability.**

The Corporation is not liable for damages caused by service interruptions, events beyond its control, and for normal system failures. The limits of liability of the Corporation is the extent of the cost of service provided. By acceptance of Membership, the Member consents to waiver of such liability.

1 **5. Work in the Right of Way**

2  
3 Texas statutes give us the authority to put the water system pipe and appurtenances in the  
4 roadway right of way. That right of way is owned by Travis County. If you have, or later install,  
5 some artefact in the right of way that interferes with our ability to do work in the right of way,  
6 we will make a reasonable effort to avoid damage to the artefact. However, circumstances may  
7 require that we remove the artefact, possibly in a destructive manner. The Corporation will not  
8 be responsible for any damage done to an artefact in the right of way.

9  
10 **Article 6 - Legal Nits**

11  
12 **1. Severability**

13  
14 If any part of this agreement is found to be invalid, the remainder of the agreement still stands.

15  
16 **2. Jurisdiction and Dispute Resolution**

17  
18 In the event of a dispute, the first course of action, to bring the matter to the corporation  
19 board of directors.

20  
21 Corporation bylaws provide Members the opportunity to have annual, special, or regular  
22 meetings to vote issues that are important to the Members.

23  
24 If a Member has some manner of issue, and is unable to get the matter resolved by the  
25 corporation board of directors, the Member does have recourse to bring the matter before the  
26 membership in a membership meeting.

27  
28 If a Member does not get a satisfactory resolution thru a membership meeting, then there is  
29 the use of alternative dispute resolution as provided by the corporate bylaws.

30  
31 And if there really, really want to push the point, then there is legal action thru the courts. The  
32 jurisdiction is Travis County, Texas.

33  
34 **3. Supersede all prior agreements**

35  
36 There have been prior Member Application and Agreements, and prior Water Service  
37 Agreements, in any number of formats and wording, used by the corporation over the years.  
38 The variation creates inconsistency and opportunity for unfair treatment between the  
39 corporation and its Members.

40  
41 This Member Application and Agreement, and its associated Water Service Riders, supersedes  
42 all prior agreements in whatever form.

43  
44 **4. Water Service Rider Required**

1 This Member Application and Agreement is incomplete without there being at least one,  
2 possibly more, Water Service Rider being attached to this Agreement.

3  
4 **5. Complete Agreement**

5  
6 This Member Application and Agreement, and the attached Water Service Rider for each  
7 service location, constitutes the entire agreement for membership and service between the  
8 corporation and the Member-Applicant.

9  
10 **6. Effective Date**

11  
12 This Member Application and Agreement is effective when executed by both the Member-  
13 Applicant and the corporation representative.

14  
15 The associated Water Service Rider is effective when executed by both the Member-Applicant  
16 and the corporation representative.

17  
18 **7. Multiple Copies**

19  
20 This Member Application and Agreement, with its attached Water Service Riders, may be  
21 executed in multiple copies, each of equal dignity.

22  
23 **8. Amendment**

24  
25 This Member Application and Agreement and its associated Water Service Riders is subject to  
26 amendment in the manner described in the corporation tariff.

27  
28 As the undersigned Member-Applicant, I am affirming that I meet the qualifications listed to  
29 apply for Membership in Marsha WSC. I understand that if I have misrepresented any of the  
30 qualifications, then my application will be rendered invalid, and that Membership will be  
31 denied. Also, I am stating that I am agreeing to the terms of this agreement.

32  
33 This Member Application and Agreement submitted by

34  
35 \_\_\_\_\_ Member Applicant

36  
37 on this date \_\_\_\_\_

38  
39 and accepted by

40  
41 \_\_\_\_\_ for Marsha WSC

42  
43 on this date \_\_\_\_\_  
44

1 **Marsha Water Supply Corporation**  
2 **Water Service Rider**

3  
4  
5 **Article 1 - Member-Applicant**

6 7 Please Print 8 (so we can read your writing)	
9 Name	
10 Account Number 11 if known	
12	
13 Water Service Address	

14  
15 You, as a corporation Member or Member-Applicant, are applying for water service to be  
16 provided at the given water service address.

17  
18 **Article 2 - Conditions for Service**

19  
20 For an existing meter installation, you have

- 21 1. Submitted a Member Application and Agreement, and have been accepted as a
- 22 Member of the corporation
- 23 2. Transferred service from the prior owner
- 24 3. Completed a "Customer Service Inspection" as required by TCEQ regulations
- 25 30 TAC 290.46(j)

26  
27 For a new meter installation (no prior water service), you have:

- 28 1. Submitted a Member Application and Agreement, and have been accepted as a
- 29 Member of the corporation
- 30 2. **Have been granted a septic permit from Travis County. Permit number \_\_\_\_\_**
- 31 3. Completed a "Customer Service Inspection" as required by TCEQ regulations
- 32 30 TAC 290.46(j)

33  
34 **Article 3 - Meter Location and Service Valve**

35  
36 In the case of a new meter installation, the corporation will decide the location of the meter, in  
37 consultation with the Member-Applicant. The meter location may be limited by the location of  
38 the corporation distribution lines.

39  
40 The meter and the service line from the tap to the meter is the property of the corporation.

1 For new installations, the corporation will install a service valve downstream of the meter, and  
2 the Member-Applicant will connect their yard pipe to that service valve.

3  
4 The Member-Applicant may install their own service valve, subject to approval by the  
5 corporation. (We have a problem with dezincification, and want to make sure the service valve  
6 will remain functional over time.)

7  
8 The Member-Applicant grants permission for the Corporation to install a service valve, or if  
9 need be, a backflow preventer, on the property at a location as near as practical to the  
10 property line adjacent to the meter.

#### 11 12 **Article 4 - Access to the Meter**

13  
14 The Member-Applicant will take measures to make sure that the meter is accessible at all  
15 times, and is protected from vehicle traffic. To be accessible, there must be a clear space of  
16 five (5) feet radially, centered on the meter.

17  
18 If the meter is not accessible, the corporation may, at its discretion, take such measures as  
19 necessary to have access. Such measures may include towing any vehicle that is hindering  
20 access to the meter.

#### 21 22 **Article 5 - Installation of Yard Pipe**

23  
24 Yard water service pipe and fittings shall be of materials compatible with the International  
25 Plumbing Code, current edition, and limited to

- 26 \* PVC, with proper allowances for thermal expansion,
- 27 \* polyethylene as certified to AWWA C901,
- 28 \* PEX as certified to AWWA C904,
- 29 \* copper pipe or tubing of types K or L, or
- 30 \* other approved materials.

31  
32 Galvanized piping and fittings are prohibited, as these are subject to dezincification.

33  
34 Member service pipelines shall be installed by the Member-Applicant and shall be rated to a  
35 minimum of 160 psi at 73F, and covered by no less than 12 inches of earth. ( 2015 International  
36 Plumbing Code sections 305.4 and 605.3, and also 2024 Uniform Plumbing Code section 609.1)

37  
38 Tracer wire of not less than 14 AWG, will be installed with the yard pipe on new installations.

#### 39 40 **Article 6 - Compliance Inspection**

41  
42 For new meter installations, we will need to do an inspection of yard pipe and plumbing  
43 installation to confirm

- 44 a. depth of trenching to provide at least 12-inches of cover to the yard pipe

- b. type of yard pipe and necessary allowance for thermal expansion
- c. service valve, if we didn't install it
- d. tracer wire or tracer tape and accessibility
- e. installation of thermal expansion valve with meter yoke installations and DCVs
- f. hose bibb backflow preventer installations

**Article 7 - Limitation on Service**

Water service provided thru a meter for the service location, will supply water only for that location. Water that passes thru the meter will not cross property boundaries.

**Article 8 - Regulatory Requirements**

The following is taken, with some light customizing editing, from the Texas Commission on Environmental Quality (TCEQ) regulations 30 TAC 290.47(b). The following points, numbered I thru IV, are not subject to amendment except as amended from time to time by TCEQ or its successor agencies.

----- begin regulatory text -----

- I. PURPOSE. Marsha WSC is responsible for protecting the drinking water supply from contamination or pollution which could result from improper system construction or configuration on the retail connection owner's side of the meter. The purpose of this service agreement is to notify each Member of the restrictions which are in place to provide this protection. The public water system enforces these restrictions to ensure the public health and welfare. Each retail Member must sign this agreement before the Marsha WSC will begin service. In addition, when service to an existing retail connection has been suspended or terminated, the water system will not re-establish service unless it has a signed copy of this agreement.
- II. RESTRICTIONS. The following unacceptable practices are prohibited by State regulations.
  - A. No direct connection between the public drinking water supply and a potential source of contamination is permitted. Potential sources of contamination shall be isolated from the public water system by an air-gap or an appropriate backflow prevention device.
  - B. No cross-connection between the public drinking water supply and a private water system is permitted. These potential threats to the public drinking water supply shall be eliminated at the service connection by the installation of an air-gap or a reduced pressure-zone backflow prevention device.
  - C. No connection which allows water to be returned to the public drinking water



1 supply is permitted.

2  
3 D. No pipe or pipe fitting which contains more than 0.25% lead may be used for the  
4 installation or repair of plumbing at any connection which provides water for  
5 human use.

6  
7 E. No solder or flux which contains more than 0.2% lead can be used for the  
8 installation or repair of plumbing at any connection which provides water for  
9 human use.

10  
11 III. SERVICE AGREEMENT. The following are the terms of the service agreement between  
12 Marsha WSC and Member.

13  
14 A. Marsha WSC will maintain a copy of this agreement as long as the Member  
15 and/or the premises is connected to Marsha WSC.

16  
17 B. The Member shall allow his property to be inspected for possible cross-  
18 connections and other potential contamination hazards. These inspections shall  
19 be conducted by Marsha WSC or its designated agent prior to initiating new  
20 water service; when there is reason to believe that cross- connections or other  
21 potential contamination hazards exist; or after any major changes to the private  
22 water distribution facilities. The inspections shall be conducted during the  
23 Marsha WSC's normal business hours.

24  
25 C. Marsha WSC shall notify the Member in writing of any cross- connection or  
26 other potential contamination hazard which has been identified during the  
27 initial inspection or the periodic reinspection.

28  
29 D. The Member shall immediately remove or adequately isolate any potential  
30 cross-connections or other potential contamination hazards on his premises.

31  
32 E. The Member shall, at his expense, properly install, test, and maintain any  
33 backflow prevention device required by Marsha WSC. Copies of all testing and  
34 maintenance records shall be provided to Marsha WSC.

35  
36 IV ENFORCEMENT. If the Member fails to comply with the terms of the Service Agreement,  
37 (Item III above) Marsha WSC shall, at its option, either terminate service or properly  
38 install, test, and maintain an appropriate backflow prevention device at the service  
39 connection. Any expenses associated with the enforcement of this agreement shall be  
40 billed to the Member.

41  
42 ----- end regulatory text -----

43  
44 **Article 9 - Noncompliance**

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32

If the Member-Applicant is not compliant with the terms set forth in this Water Service Rider, the corporation may, at its discretion, either turn off, lock out, or physically remove the meter at the service location and charge the Member-Applicant as given in the corporation tariff.

**Article 10 - Legal Nits**

This Water Service Rider is valid when attached to the Member Application and Agreement of the Member-Applicant.

As the undersigned Member-Applicant, I am affirming that I meet the qualifications listed to apply for Membership in Marsha WSC. I understand that if I have misrepresented any of the qualifications, then my application will be rendered invalid, and that Membership will be denied. Also, I am stating that I am agreeing to the terms of this agreement.

This Water Service Rider submitted by

\_\_\_\_\_ Member Applicant

on this date \_\_\_\_\_

and accepted by

\_\_\_\_\_ for Marsha WSC

on this date \_\_\_\_\_

**MARSHA WATER SUPPLY CORPORATION  
SIGNING AS AGENT OR REPRESENTATIVE  
FOR  
MEMBER AGREEMENT OR WATER SERVICE AGREEMENT**

The entity that you are representing	
Your Name	
What is your authority to act on behalf of the entity that you are representing?	

The entity is:		Attach a copy of your authority to act on behalf of the entity
An individual or family under a joint membership	<input type="checkbox"/>	1. Power of attorney.
Partnership	<input type="checkbox"/>	1. The representative must be a partner, or have a power of attorney sufficient to bind the partnership.
mutual or Corporation associations	<input type="checkbox"/>	1. Officer or other person designated by corporate bylaws, or corporate resolution to be representative 2. Affidavit of the existence of the association
WSC or Sewer Service Corporation	<input type="checkbox"/>	1. Officer or other person designated by corporate bylaws, or corporate resolution to be representative
Corporation or legal entity under Texas Bus Org Code	<input type="checkbox"/>	1. Officer or other person designated by corporate bylaws, or corporate resolution to be representative
Joint Stock company	<input type="checkbox"/>	1. Notarized affidavit of the existence of the association, and 2. Officer or designated person by corporate bylaws, or corporate resolution to be representative
Association	<input type="checkbox"/>	1. Notarized affidavit of the existence of the association, and 2. Officer or designated person by corporate bylaws, or corporate resolution to be representative
Trust	<input type="checkbox"/>	1. The representative must be a trustee, or have power of attorney, and 2. Affidavit describing the trust, to include name and date of the trust, the trustees, and postal address for contacting the trust.

**HAVE YOU ATTACHED A COPY OF YOUR AUTHORITY TO SIGN?**

## Credentials of Applicant

(Reference BOC 6, subchapter D, section 6.151 et seq)

Memberships in the name of another corporation may be voted by such officer, agent or proxy as the by-laws of such corporation may prescribe, or, in the absence of such provision, as the board of directors of such corporation may determine.

Memberships held by an administrator, executor, guardian or conservator may be voted by him, either in person or by proxy, without a transfer of such memberships into the name or the administrator, etc.

Memberships standing in the name of a trustee may be voted by him, either in person or by proxy, but no trustee shall be entitled to vote any memberships held by him without a transfer of such memberships and certificates into his name.

Memberships standing in the name of a receiver may be voted by such receiver, and memberships held by or under the control of a receiver may be voted by such receiver without the transfer thereof into his name if authority to do so is contained in an appropriate order of the court by which such receiver was appointed.

A member whose membership is mortgaged, pledged, or otherwise encumbered shall be entitled to vote such membership until the membership has been transferred into the name of the holder of the encumbrance.

Address: \_\_\_\_\_

new water meter, serial \_\_\_\_\_

Marsha WSC has installed a new water meter at your address, with a residential dual check valve (DCV) backflow preventer.

This means that when there is a system shutdown, you should no longer experience a vacuum suction if you open a faucet while the water is draining from the water distribution system.

However, this also prevents any water expansion due to heating from being pushed back to the water meter. This can lead to a pressure buildup inside your home water pipes which could cause a leak.

The recommended solution to prevent a pressure buildup causing a leak, is to install a "thermal expansion relief valve". This is typically installed on the cold water supply line to the water heater.

Enclosed is a specification sheet for such a relief valve. You are free to choose a valve from any manufacturer. The sheet enclosed is simply an example of what to look for.

If you have any questions, please contact us, and we'll do our best to answer.

# Marsha Water Supply Corporation

15504 Brenda St., Austin, Texas 78728 Telephone: 512-803-8725

## CAREGIVER/TENANT MAILING

Marsha WSC has enacted a policy allowing for a caregiver or renter/tenant to receive to receive a copy of the water bill.

By statute, Marsha WSC as a water supply corporation, can only bill property owners/corporate members for service. However, there are instances when a property owner/member may be unable to manage their affairs due to illness, disability, or other reasons. In those instances, a caregiver may be given authority to receive a water bill to allow the caregiver to monitor the utility billing.

For a rental property, a property owner/member may want to have a billing sent to the tenant.

If you want to set up a caregiver/tenant mailing, please fill out and return this form to Marsha WSC with your payment, or by mail to

Marsha WSC  
15504 Brenda St  
Austin TX 78728-3901

**NOTICE: Giving authority to a caregiver/tenant to receive a copy of the billing DOES NOT obligate the caregiver/tenant to pay the bill. The property owner/member, or designated legal authority under a power of attorney, has that responsibility. For a rental property, who pays the bill is a contract issue between the landlord and tenant. Marsha WSC cannot, and will not, bill a tenant on behalf of a landlord.**

The property owner/member will continue to receive, and will remain responsible for, the water bill. The caregiver/tenant simply receives a copy for informational purposes.

Marsha WSC Account Number: \_\_\_\_\_

Caregiver/Tenant Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Property Owner/Member Signature \_\_\_\_\_

Date \_\_\_\_\_

## Application for New Water Service

If you are wanting to have water service at a lot that has not had service before, then a meter and a service supply line must be installed, and capital recovery fees paid.

Marsha WSC is within the Extra-Territorial Jurisdiction (ETJ) of the City of Austin, and is a wholesale customer to Austin Water Utility. Marsha WSC is obligated by City ordinance and by contract to collect capital recovery fees on behalf of the City of Austin.

The amount of the Austin capital recovery fee depends on when the lot was platted.

Plat Date	City of Austin Capital Recovery Fee
before 1 October 2007	\$1300.00
Between 1 Oct 2007 and 31 Dec 2013	\$1800.00
1 Jan 2014 to 30 Sep 2018	\$5400.00
1 Oct 2018 to date	\$4700.00
Information taken from Austin Water web site. Check there for the official and up to date recovery fees	

Marsha WSC has it's own capital expense fees, as established by the corporation tariff adopted 1 February 2024.

Tariff section	description	fee
5.04	tap fee	\$1500.00 hardware plus 12 hours labor at prevailing rates
Note that this is for "short side" service where the distribution supply line is located on the same side of the street as the lot to be provided service. "Long side" service with a street crossing has additional requirements.		

Also, for new service with a new building, we must have a copy of the Travis County construction permit, with septic service. The Travis County permit is a **GO/NO-GO** requirement placed on Marsha WSC by the Texas Local Government Code chapter 212. (Tariff, chapter 4)

Please note that the City of Austin and Travis County have adopted a joint development code (referred to as Chapter 30 in the respective jurisdiction ordinances and codes). Section 30-2-174 and 30-2-175 place limitations on lot sizes, and on lots located on streets without curbs and gutters. If Travis County does issue a construction permit, Marsha WSC will consider the requirements of Chapter 30 to have been met.

## **Requirements for Long-Side Service**

Where the Marsha WSC distribution line is located across the street from a lot with an existing meter, a new meter must be installed and connected to that distribution line. To make that connection, the distribution line must be tapped, and a service supply line must cross the street to the new meter.

To make that connection, the street must be cut, a trench dug, the service supply line placed into the trench, and the connection made to the new meter.

This work must be performed by a qualified utility contractor, who will get a "utility permit" from Travis County to make the street cut and do the necessary trenching in the street and lay the service supply pipe.

The Marsha WSC tariff, adopted 1 February 2024, places the responsibility on the property owner/customer to select, and pay, the contractor who will perform the work to Marsha WSC standards and specifications. All work done is subject to inspection by Marsha WSC.



## ATTENTION

So that there is no misunderstanding, we at Marsha WSC need to make clear some things about how we operate as a utility.

Marsha WSC is not a municipal utility, and we do not operate like a municipal utility.

Marsha WSC is a co-op. We are a member owned, member controlled, member benefit cooperative corporation. We are more akin to a home owners association than being like a municipal utility.

By law, our members must be property owners. This is what makes us appear similar to a home owner association. We can provide service only to member-owners.

If your property is a rental property or leased to a tenant, we cannot bill your tenant. We must bill you directly, or bill your designated legal representative. How you bill your tenant for water service is a matter of contract between you and your tenant.

## ATENCIÓN

Para que no haya malentendidos, en Marsha WSC debemos dejar en claro algunas cosas sobre cómo operamos como una utilidad.

Marsha WSC no es una utilidad municipal, y no operamos como una utilidad municipal.

Marsha WSC es una cooperativa. Somos una corporación cooperativa de beneficio a los miembros, controlada por los miembros. Nos parecemos más a una asociación de propietarios que a una utilidad municipal.

Por ley, nuestros miembros deben ser dueños de propiedades. Esto es lo que nos hace parecer similares a una asociación de propietarios. Podemos proporcionar servicio solamente a los miembros propietarios.

Si su propiedad es una propiedad de alquiler o arrendada a un inquilino, no podemos facturar a su inquilino. Debemos facturarle directamente o facturar a su representante legal designado. Cómo factura a su inquilino por el servicio de agua es una cuestión de contrato entre usted y su inquilino.

# Marsha Water Supply Corporation

15504 Brenda St., Austin, Texas 78728 Telephone: 512-803-8725

## LATE PAYMENT NOTICE

<<billing date>>

<<attn>>

<<name>>

<<deliveraddr>>

<<city>> <<state>> <<zip5>><<zipplus>>

Ref: Member account <<memberaccount>>

Dear Sir/ Madam:

Your account is past due. If the full payment of \$<<amountdue>> is not paid by the 20th, service for your account will be listed for disconnection.

Sincerely,

Marsha Water Supply Corporation

Ref: Cuenta de miembro <<memberID>>

Estimado Señor / Señora:

Su cuenta está vencida. Si el pago total de \$<<amountdue>> no se paga antes del día 20, el servicio de su cuenta aparecerá en la lista para ser desconectado.

# Marsha Water Supply Corporation

15504 Brenda St., Austin, Texas 78728 Telephone: 512-803-8725

## TERMINATION NOTICE

<<billing date>>

<<attn>  
<<name>  
<<deliveraddr>  
<<city> <<state> <<zip5><<zipplus>

Ref: Water Service for Account Number: <<memberaccount>

We did not receive your payment last month, and haven't received your payment in the full amount due this month. You have until the 20th to make payment in full for \$<<amountdue>

IF YOU DO NOT MAKE PAYMENT BY THE 20th THEN SERVICE WILL BE DISCONNECTED IN THE WEEK FOLLOWING. THIS IS YOUR ONLY NOTICE OF SERVICE DISCONNECTION.

### **Water service on this account will be terminated for non-payment.**

<<service1>  
<<service2>  
<<service3>  
<<service4>  
<<service5>

### **IF SERVICE IS DISCONNECTED**

**A fee of \$100.00 will be charged to your account for each service address that is turned off.**

### **WHAT YOU NEED TO DO TO RE-ESTABLISH SERVICE**

1. **Pay** the total amount due \$<<amountdue> by **MONEY ORDER** or **CASHIERS CHECK** (No personal checks, and no cash). Be sure to include your account number on your payment.
2. Put your payment into the Marsha WSC drop box at 15504 Brenda St.
3. Email [marshawsc@gmail.com](mailto:marshawsc@gmail.com) or call/text 512-803-8725 with a message that payment for account <<memberaccount> is in the drop box.
4. **AFTER WE VERIFY PAYMENT**, we will restore service by the next business day.

# Marsha Water Supply Corporation

15504 Brenda St., Austin, Texas 78728 Telephone: 512-803-8725

## TERMINACIÓN AVISO

<<biling date>>

<<attn>>

<<name>>

<<deliveraddr>>

<<city>> <<state>> <<zip5>><<zipplus>>

Ref: Servicio de agua para número de cuenta: <<memberaccount>>

No recibimos su pago el mes pasado y no hemos recibido su pago por el monto total adeudado este mes. Tienes hasta el día 20 para realizar el pago total de \$ <<amountdue>>

SI NO REALIZA EL PAGO ANTES DEL DÍA 20, EL SERVICIO SE DESCONECTARÁ EN LA SEMANA SIGUIENTE. ESTE ES SU ÚNICO AVISO DE DESCONEXIÓN DEL SERVICIO.

### **El servicio de agua en esta cuenta ha sido cancelado por falta de pago.**

<<service1>>

<<service2>>

<<service3>>

<<service4>>

<<service5>>

### **SI EL SERVICIO SE DESCONECTA**

**Se aplicará un cargo de \$ 100.00 a su cuenta por cada dirección de servicio que se desactive.**

### **LO QUE HAY QUE HACER PARA RESTABLECER SERVICIO**

1. **Pagar** el monto total a pagar \$ <<amountdue>> por giro postal o cheque de caja (No se aceptan cheques personales, y no en efectivo). Asegúrese de incluir su número de cuenta en su pago.
2. Ponga su pago en el buzón de Marsha WSC en 15504 Brenda St.
3. Correo marshawsc@gmail.com o llame / texto 512-803-8725 con un mensaje que el pago de <<memberaccount>> se encuentra en el buzón.
4. DESPUÉS que verificar el pago, vamos a restablecer el servicio en el siguiente día hábil.

Marsha WSC  
DEFERRED PAYMENT AGREEMENT

By execution of this Agreement, the undersigned Member agrees to payment of outstanding debt for water utility service as set forth below:

Member agrees to pay \$\_\_\_\_\_per month, in addition to current monthly water utility service rates, fees, and charges, as set forth in the Corporation's Tariff, until the account is paid in full. Any fees normally assessed by the corporation on any unpaid balance shall apply to the declining unpaid balance.

Failure to fulfill the terms of this Agreement shall institute the Corporation's disconnection procedures as set forth in the Corporation's Tariff unless other satisfactory arrangements are made by the Member and approved by the Corporation's authorized representative.

\_\_\_\_\_  
Member

\_\_\_\_\_  
Date

\_\_\_\_\_  
WSC Corporation Official

\_\_\_\_\_  
Title

Marsha Water Supply Corporation  
Limited Power of Attorney

I, \_\_\_\_\_, hereafter referred to as Principal, as a member of record of Marsha Water Supply Corporation (Marsha WSC), and the owner of one or more properties in the Marsha WSC service area, having the Marsha WSC Account Number of \_\_\_\_\_

grant unto \_\_\_\_\_, hereafter referred to as Agent,

who has the mailing address of \_\_\_\_\_

this limited and revocable durable power of attorney. **This power of attorney is not affected by subsequent disability or incapacity of the principal.**

This power of attorney gives the Agent authority to act on behalf of the Principal

1. To act as a member of Marsha WSC - to receive notice, to attend Marsha WSC meetings, to vote, to assign a proxy for voting as may be allowed by corporation bylaws, to serve as director, to exercise all rights as a member of the corporation
2. To contract with Marsha WSC for outstanding debt that is incurred to the Principal's account thru a payment plan that is binding to the Principal
3. To authorize Marsha WSC to perform work on property that is served by Marsha WSC
4. To convey an easement to Marsha WSC on property that is served by Marsha WSC

This power of attorney DOES NOT give Agent authority

1. To delegate authority given by this power of attorney to any other person or entity, except for assigning a proxy for voting.
2. Other than the authority specifically given above

This power of attorney ends

1. If the Principal is no longer a member of Marsha WSC
2. If Agent is tenant of the Principal in the Marsha WSC service area and the tenancy ends
3. If the Principal acquires additional service location within the Marsha WSC service area
4. Upon written notice of revocation by the Principal
5. Upon notice of resignation, or apparent abandonment, by the Agent

The Agent has duty to

1. Act as fiduciary in behalf of the Principal
2. Timely inform the Principal of any actions taken by Agent
3. Maintain the Principal's membership in Marsha WSC in good standing

Consideration between Principal and Agent is a separate matter between them, and is not relevant to the authority and limitations set forth in this power of attorney.

The State of Texas,

County of \_\_\_\_\_,

Before me (notary) \_\_\_\_\_ on this day

personally appeared \_\_\_\_\_, known to me

or proved to me through (means of identification) \_\_\_\_\_

to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, A.D., \_\_\_\_\_.

(Seal)

## CERTIFICATION OF DURABLE POWER OF ATTORNEY BY AGENT

I, \_\_\_\_\_ (agent), certify under penalty of perjury that:

1. I am the agent named in the power of attorney validly executed by  
\_\_\_\_\_  
(principal) ("principal")  
on \_\_\_\_\_ (date), and the power of attorney is now in full force and effect.
2. The principal is not deceased and is presently domiciled in  
\_\_\_\_\_  
(city and state/territory or foreign country).
3. To the best of my knowledge after diligent search and inquiry:
  - a. The power of attorney has not been revoked by the principal or suspended or terminated by the occurrence of any event, whether or not referenced in the power of attorney;
  - b. At the time the power of attorney was executed, the principal was mentally competent to transact legal matters and was not acting under the undue influence of any other person;
  - c. A permanent guardian of the estate of the principal has not qualified to serve in that capacity;
  - d. My powers under the power of attorney have not been suspended by a court in a temporary guardianship or other proceeding;
  - e. If I am (or was) the principal's spouse, my marriage to the principal has not been dissolved by court decree of divorce or annulment or declared void by a court, or the power of attorney provides specifically that my appointment as the agent for the principal does not terminate if my marriage to the principal has been dissolved by court decree of divorce or annulment or declared void by a court;
  - f. No proceeding has been commenced for a temporary or permanent guardianship of the person or estate, or both, of the principal; and
  - g. The exercise of my authority is not prohibited by another agreement or instrument.
4. If under its terms the power of attorney becomes effective on the disability or incapacity of the principal or at a future time or on the occurrence of a contingency, the principal now has a disability or is incapacitated or the specified future time or contingency has



occurred.

5. I am acting within the scope of my authority under the power of attorney, and my authority has not been altered or terminated.
6. If applicable, I am the successor to \_\_\_\_\_ (predecessor agent), who has resigned, died, or become incapacitated, is not qualified to serve or has declined to serve as agent, or is otherwise unable to act. There are no unsatisfied conditions remaining under the power of attorney that preclude my acting as successor agent.
7. I agree not to:
  - a. Exercise any powers granted by the power of attorney if I attain knowledge that the power of attorney has been revoked, suspended, or terminated; or
  - b. Exercise any specific powers that have been revoked, suspended, or terminated.
8. A true and correct copy of the power of attorney is attached to this document.
9. If used in connection with an extension of credit under Section 50(a)(6), Article XVI, Texas Constitution, the power of attorney was executed in the office of the lender, the office of a title company, or the law office of \_\_\_\_\_.

Date: \_\_\_\_\_, 20\_\_.

\_\_\_\_\_ (signature of agent)

# Submittals

## Copyright Notice and Fair Use

Manufacturer submittal sheets are typically copyrighted "all rights reserved".

Manufacturer submittal sheets are being provided here as guidance only. This tariff makes reference to a number of parts and requirements that have very specific technical requirements. The people who need to know those details will most likely have no experience or guidance on what to do with those requirements, what the products look like, or have a clue on what the use or function of the product is for. The manufacturer submittal sheets presented here are for education and reference.

Also, the manufacturer submittals here are product suggestions, not requirements. An equivalent product that does the same job, will be equally acceptable.

Marsha WSC does not have any financial interest in any of these products.



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO#:	
Rep:	
Wholesale Dist.:	

## DESCRIPTION

The Apollo® Models HBV2 LF, HBVAF2 LF, HBDUC, and HBDUC LF Hose Connection Vacuum Breakers are designed to prevent cross-connection caused by back-siphonage. The Apollo® Model HBDUC Hose Bibb Dual Check Backflow Preventer also prevents backflow due to low head back-pressure.

## FEATURES

### HBV2 LF(38LF-314)

- Tamper-Proof Protection
- Corrosion Resistant
- Manual Drain Feature
- Apollo International™
- Lead Free to NSF/ANSI 372

### HBVAF2 LF (38LF-414)

- For Wall And Yard Hydrant Application
- Tamper-Proof Protection
- Corrosion Resistant
- Lead Free to NSF 372
- Anti-Freeze Automatic Drain Feature
- Apollo International™

### HBDUC (38/38LF-304-02)

- Corrosion Resistant Body and Checks
- Low Head Loss
- Easy to Install with Break-Away Set Screw
- Made in USA
- Lead Free Options Available

## PERFORMANCE RATING

- Maximum Supply Pressure:  
125 psi (38-314/414)  
150 psi (38-304-02)
- Temperature Range: 33°F - 180°F

## APPROVALS

- ASSE 1011, CSA B64.2 and IAPMO Listed (38LF-314/414)
- ASSE 1052 and CSA B64.2 Listed (38/38LF-304-02)

## STANDARD MATERIALS LIST

HBV2/HBVAF2	
BODY	Brass
CHECK DISC/DIAPHRAGM	Buna N
SPRING	Stainless Steel
HBDUC	
BODY	Brass
SEATS	EPDM
CHECK COMPONENTS	Stainless Steel
CHECK GUIDE	Acetal

## DIMENSIONS

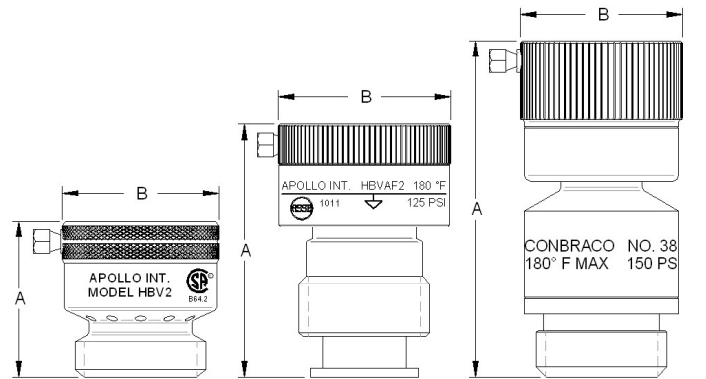
MODEL NUMBER	PART NUMBER	DIMENSIONS (IN.)		WT. (LB.)
		A	B	
HBV2-34	38-314-AS	1-1/4	1-1/4	0.15
HBVAF2-34	38-414-AS	2	1-3/8	0.25
HBDUC-34	38-304-02	2-11/16	1-5/16	0.46

## MODEL NUMBER MATRIX

38LF	- X 14	- X X
	SERIES	FINISH
	3 - 300 SERIES (3/4" HOSE CONNECTION)	AS - SATIN BRASS
	4 - 400 SERIES (3/4" HOSE CONNECTION)	CS - SATIN CHROME (HBV2 ONLY)

## PART NUMBER MATRIX \*Satin Brass Finish Only\*

38/38LF	- 304	- 02
	SERIES	FINISH
	3 - 300 SERIES (3/4" HOSE CONNECTION)	AS - SATIN BRASS

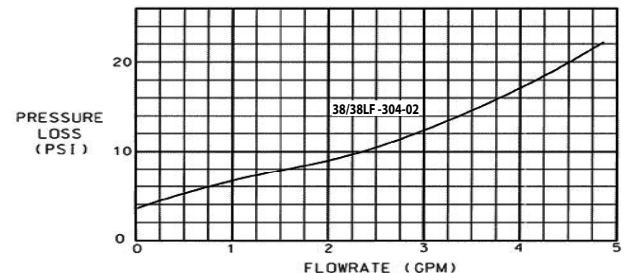


HBV2 LF (38LF-314)

HBVAF2 LF (38LF-414)

38/38LF-30402

## FLOW CURVE



\*LEAD FREE: The wetted surfaces of this product shall contain no more than 0.25% lead by weighted average. Complies with Federal Public Law 111-380. ANSI 3rd party approved and listed.



# SUBMITTAL SHEET

JOB NAME \_\_\_\_\_ ITEM TAG \_\_\_\_\_

JOB LOCATION \_\_\_\_\_ PART NUMBER \_\_\_\_\_

CONTRACTOR \_\_\_\_\_ DATE \_\_\_\_\_

ENGINEER APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

## LEAD FREE BRONZE Y-STRAINER

### T/S-15 No-lead

Lead-free design is suitable for all California and Vermont potable water installations

Heavy-duty, full-pattern bronze construction resists pipeline stresses and distortion

Threaded or sweat end connections

Standardly equipped with a 304 stainless steel 20-mesh screen or 1/16" hole diameter perforated strainer

Square-head closure plug furnished

Ideal for protecting downstream components, by trapping and holding debris.

#### Working Pressure, Non-Shock (PSI)

Cold working pressure (CWP): 300

Saturated steam (WSP): 150

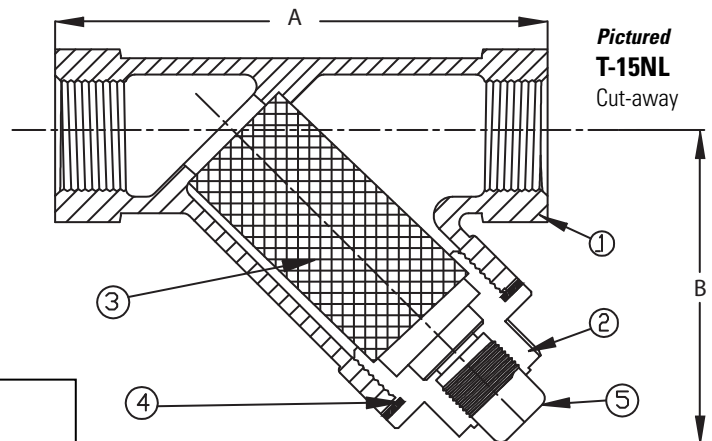
#### Screen and Strainer Type

20-Mesh screen 1/4" - 2"

1/16" Perf. Strainer 2-1/2" & 3"

**Replacement 20-Mesh or optional 40 or 80 Mesh screens available**

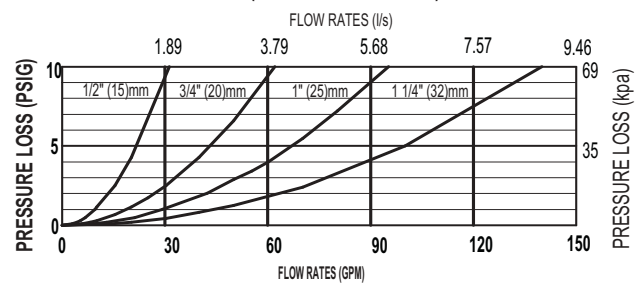
- Complies with California and Vermont lead-free requirements, as certified by the Water Quality Association
- Female threaded ends comply with ANSI/ASME B1.20.1
- Solder cup ends comply with ANSI/ASME B16.18



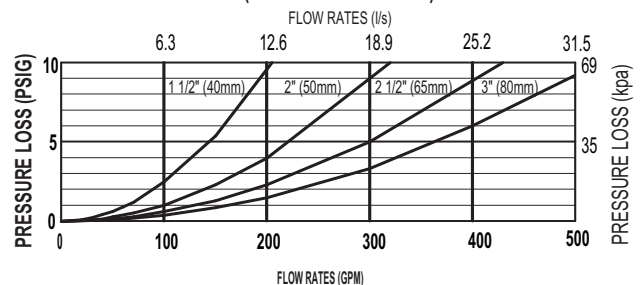
MATERIAL SPECIFICATION		
PART	MATERIAL	SPECIFICATION
1 Body	Lead-free cast bronze	ASTM B584 UNS C89836
2 Cap	Lead-free cast bronze	ASTM B584 UNS C89836
3 Screen or Strainer	Stainless Steel	ASTM A240 UNS S30400 (304)
4 Cap gasket	Nitrilic bonded non-asbestos fiber	Commercial grade
5 Closure (blowoff) plug	Lead-free cast bronze	ASTM B584 UNS C89836

DIMENSIONS						
Size	A (IPS)	B (IPS)	Plug NPT	A (CxC)	B (CxC)	Plug NPT
1/4"	3.21	2.17	3/8"			
3/8"	3.21	2.17	3/8"			
1/2"	3.21	2.17	3/8"	3.35	2.21	3/8"
3/4"	3.96	2.76	3/8"	4.32	2.68	3/8"
1"	4.53	2.95	1/2"	5.04	3.19	1/2"
1-1/4"	5.34	3.54	1/2"	5.91	3.70	1/2"
1-1/2"	6.22	3.86	1/2"	6.89	4.13	1/2"
2"	7.50	5.43	1/2"	8.62	5.12	1/2"
2-1/2"	9.06	5.91	1/2"	9.06	5.91	1/2"
3"	10.20	6.30	1/2"	10.20	6.30	1/2"

#### 1/2" to 1 1/4" (STANDARD & METRIC)



#### 1 1/2" to 3" (STANDARD & METRIC)







**Bronze Ball Valve For Potable Water**  
**Two Piece**  
**Full Port**  
**600 psig WOG**  
**Threaded Ends**  
**Blow-Out Proof Stem**

# UPBA400/400S 1/4"-2"

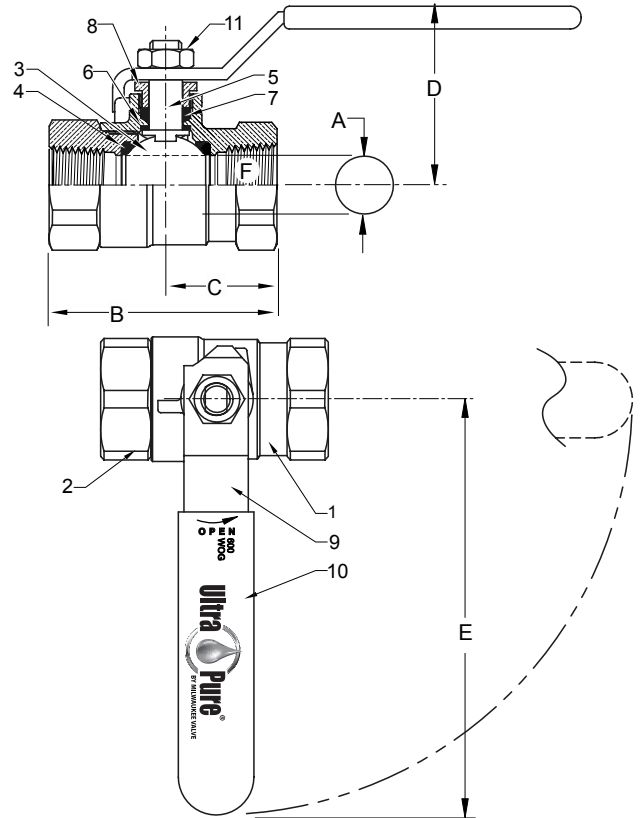
**Dimensions and Workmanship Conform to MSS SP-110**



**MATERIALS LIST**

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass Filled	Commercial
5	Stem	Brass	B21 C46400, H02
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/Zinc Plating	Commercial
10	Hand Grip	Vinyl	Commercial
11	Handle Nut	Steel w/Zinc Plating	Commercial

(1) Ball and stem are stainless for UPBA400S



**DIMENSIONS**

	UNITS	1/4" DN10	3/8" DN10	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A (DIA)	INCHES	0.38	0.38	0.50	0.76	1.06	1.31	1.56	2.00
	mm	10	10	13	19	27	33	40	51
B	INCHES	1.86	1.86	2.19	2.59	3.32	3.77	4.28	5.10
	mm	46	46	54	66	84	96	109	130
C	INCHES	1.00	1.00	1.10	1.30	1.59	1.81	2.06	2.37
	mm	25	25	27	33	40	46	52	60
D	INCHES	1.78	1.81	1.91	2.32	2.68	2.82	3.00	3.36
	mm	44	44	47	59	68	72	76	85
E	INCHES	3.82	3.82	3.82	4.55	6.33	6.33	6.33	7.19
	mm	94	94	94	116	161	161	161	183
F	THREAD SIZE	1/4" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT	2" NPT
Cv		7	7	13	30	61	110	185	360

Note: DN (Diameter Nominal) = Metric equivalent size.

**Note:** Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

The information presented on this sheet is correct at time of publication. Milwaukee Valve reserves the right to change design and/or materials without notice. For our Installation, Operation and Maintenance Manual and the most current product information go to [www.milwaukeevalve.com](http://www.milwaukeevalve.com).  
 ⚠ State of California Prop 65 **WARNING:** Cancer and Reproductive Harm. For more information visit [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).



# OPTIONS

BA100/150  
BA300/350  
BA400/450

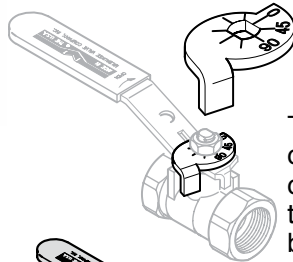
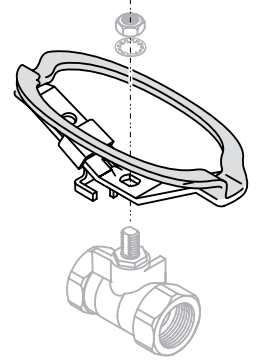
## TIH THE INSULATOR/MS® Extension Handle

The **THE INSULATOR/MS®** extension handle is designed to prevent condensation and other extraneous moisture from entering the insulated piping system, while also minimizing thermal energy loss from the system via metal extension tubes, levers, and similar parts.



The design incorporates a unique memory stop feature that requires no disassembly or removal of the handle to engage and make adjustments.

## LO Locking Oval Handle

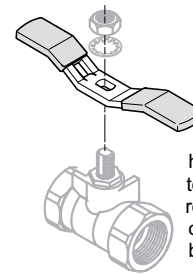
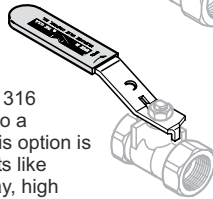


## MS Memory Stop

The “MS” Memory Stop offers the convenience of a preset stop when the valve is used in a balancing application. The memory stop can be set from the full closed position, to any preset opening point.

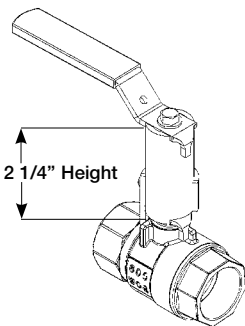
## SH Stainless Steel Handle

The “SH” handle option adds a 316 stainless steel handle and nut to a standard bronze ball valve. This option is intended for harsh environments like areas subject to salt water spray, high humidity, harsh cleaning chemicals, etc.



## TH Tee Handle

Tee handles offer the same installation space savings as oval handles, with a slightly shorter end to end dimension. Tee handles require more handle force to operate, so accidental openings can be reduced.

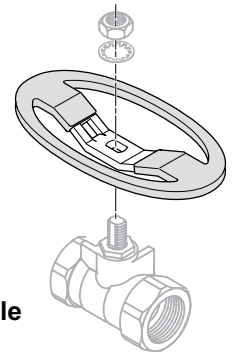


## XM Extension Handle with Memory Stop

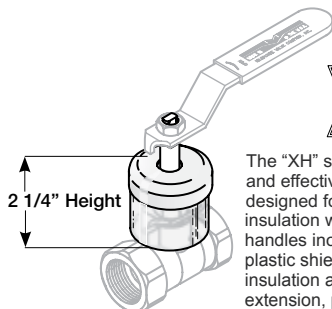
The “XM” stem extension is all-metallic with an adjustable memory stop. This option is designed for installations where pipe insulation would make standard handles inoperable. The adjustable memory stop allows the valve opening to be limited to a preset position. This option can be ordered with or without the memory stop.

## OH & LO Milwaukee offers two styles of oval handles, standard oval and a padlocking oval design.

Oval handles can prevent accidental valve operations, since they have less projection than a lever handle, and require more turning force to operate. OSHA requires the use of oval handles in many installations for safety reasons. The locking handle design will accommodate a standard 5/16” pad-lock or other types of valve lockouts.



## OH Oval Handle

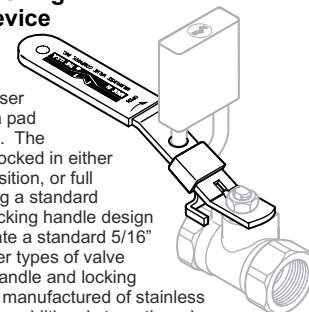


## XH Extension Stem

The “XH” stem extension is simple and effective design. This option is designed for installations where pipe insulation would make standard handles inoperable. The external plastic shield helps to keep the insulation away from the stem extension, providing years of trouble free operation.

## LD Locking Device

The “LD” Locking Handle offers the end user the security of a pad lockable handle. The handle can be locked in either the full open position, or full closed by adding a standard padlock. The locking handle design will accommodate a standard 5/16” pad-lock or other types of valve lockouts. The handle and locking device are also manufactured of stainless steel material for additional strength and corrosion resistance.



The information presented on this sheet is correct at time of publication. Milwaukee Valve reserves the right to change design and/or materials without notice. For our Installation, Operation and Maintenance Manual and the most current product information go to [www.milwaukeevalve.com](http://www.milwaukeevalve.com).  
⚠ State of California Prop 65 **WARNING: Cancer and Reproductive Harm.** For more information visit [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).





# Lead-Free Bronze Gate Valves

**Features:** Silicon Performance Bronze® Alloy • Screw-In Bonnet • Non-Rising Stem

**Approvals:** Conforms to MSS SP-139 • Solid Wedge • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 3"

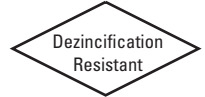
**Pressure rating:** 300 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free markings: Double oval in body casting, white handle and blue hang tag



NSF/ANSI 61  
NSF/ANSI 372



## MATERIAL LIST

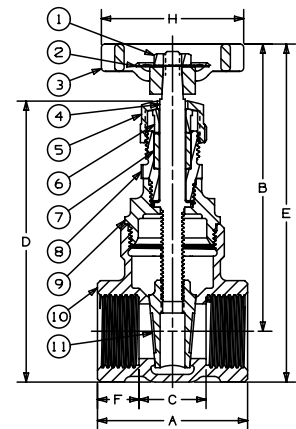
PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	Malleable Iron ASTM A47 (T-113)
4. Stem	ASTM B99 Alloy C65100
5. Packing Nut	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
6. Packing Gland	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
7. Packing	Aramid Fibers with Graphite
8. Stuffing Box	Silicon Bronze ASTM B584 Alloy C87850
9. Bonnet	Silicon Bronze ASTM B584 Alloy C87850
10. Body	Silicon Bronze ASTM B584 Alloy C87850
11. Wedge	Silicon Bronze ASTM B584 Alloy C87850



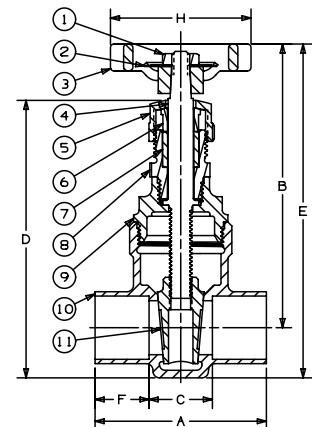
**T-113-LF**  
Threaded



**S-113-LF**  
Solder



**T-113-LF**  
NPT x NPT



**S-113-LF**  
C x C

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		H		T-113-LF		Master Ctn Qty.	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.		
1/4"	8	1.68	43	3.44	87	0.88	22	3.06	78	3.95	100	0.4	10	1.95	50	0.70	0.31	50
3/8"	10	1.68	43	3.44	87	0.84	21	3.95	100	3.95	100	0.42	11	1.95	50	0.67	0.30	50
1/2"	15	1.94	49	3.66	93	0.88	22	4.24	108	4.24	108	0.54	14	1.95	50	0.78	0.35	50
3/4"	20	2.06	52	3.94	100	0.92	23	4.64	118	4.64	118	0.57	14	1.95	50	1.00	0.48	50
1"	25	2.44	62	4.62	117	1.04	26	5.52	140	5.52	140	0.7	18	2.56	65	1.73	0.78	30
1-1/4"	32	2.62	67	5.19	132	1.21	31	6.25	159	6.25	159	0.7	18	2.56	65	2.28	1.04	20
1-1/2"	40	2.88	73	6.3	160	1.38	35	7.5	191	7.5	191	0.75	19	3.55	90	3.33	1.51	10
2"	50	3.06	78	7.09	180	1.48	38	8.59	218	8.59	218	0.79	20	3.55	90	4.68	2.13	10
2-1/2"	65	4.12	105	8.88	226	1.84	47	10.69	272	10.69	272	1.14	29	3.55	90	9.46	4.29	5
3"	80	4.5	114	10.24	260	2.1	53	12.5	318	12.5	318	1.2	30	4.23	107	13.70	6.20	4

SIZE	A		B		C		D		E		F		H		S-113-LF		Master Ctn Qty.	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.		
1/2"	15	1.76	45	3.66	93	0.75	19	3.26	83	4.16	106	0.5	13	2.08	53	0.69	0.29	50
3/4"	20	2.38	60	3.84	98	0.88	22	3.7	94	4.53	115	0.75	19	2.08	53	0.94	0.43	50
1"	25	2.82	72	4.66	118	1	25	4.57	116	5.5	140	0.91	23	2.64	67	1.50	0.68	30
1-1/4"	32	3.12	79	5.01	127	1.18	30	5.16	131	6.05	154	0.97	25	2.8	71	2.14	0.97	20
1-1/2"	40	3.42	87	6.2	157	1.24	31	6	152	7.37	187	1.09	28	3.83	97	3.01	1.37	10
2"	50	4	102	7.06	179	1.31	33	7.24	184	8.52	216	1.34	34	4.69	119	4.40	1.99	10

†No packing gland, packing only in this size.



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

LEAD-FREE: Weighted average lead content ≤ 0.25%





SharkBite®

# TER-1 Thermal Expansion Relief Valve

## DESCRIPTION

The SharkBite TER-1 Thermal Expansion Relief Valve prevents excessive pressure building up in a closed loop plumbing system. The TER-1 combines a full port ball valve with a pressure relief valve and can be installed in place of an expansion tank.

The relief valve on the TER-1 is factory set to relief pressure at 125 psi. This valve is intended for use where supply line pressure does not exceed 200 psi when isolated, and is suited for either cold or hot (to 180°F) water service.

## FEATURES AND BENEFITS

Instant push-fit connections for increased ease of use:

*No soldering, glue or tools required to make connection.*

Replace an expansion tank, shut-off valve, and fitting with one product:

*Less joints and potential leak paths.*

Certified to IGC 128, IAPMO/ANSI Z1157, NSF/ANSI/CAN 61, NSF/ANSI 372, and CSA B125.3 Listed by IAPMO and CSA.

*Inspector friendly for peace of mind.*

Found in the International Plumbing Code and Uniform Plumbing Code:

*Can be installed in the water line without special support brackets.*

Every valve is tested for performance prior to shipping:

*Specify and install with confidence.*

Assembled and tested in the USA:

*Prepared in our manufacturing plant in Cullman, Alabama.*

## SPECIFICATION

A thermal expansion control device shall be installed to relieve excess pressure in a closed loop water system. The valve shall be approved in accordance with IGC 128, CSA 125.3, and IAPMO/ANSI Z1157. The valve shall be certified to NSF/ANSI/CAN 61 and NSF/ANSI 372. The valve shall have a brass body with a relief valve twist knob with integral SharkBite push-to-connect ends. The valve shall be used on copper tubing, and CTS CPVC and PEX. The valve shall be a **TER-1 Thermal Expansion Relief Valve**.



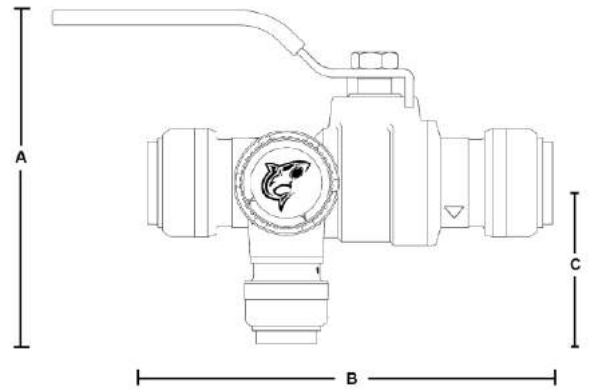
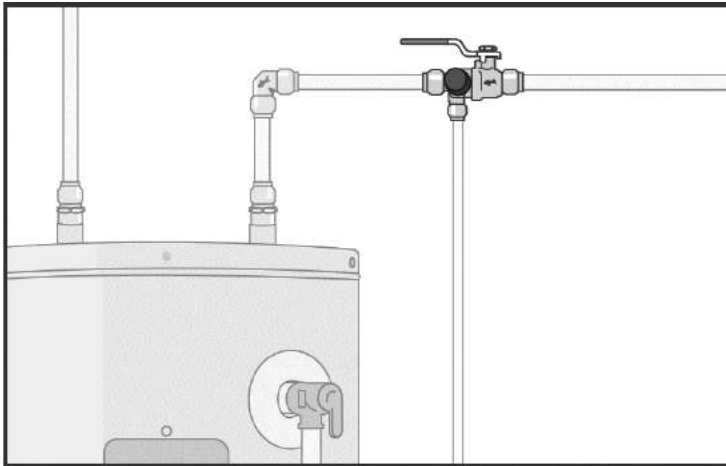
25704LF



# TER-1 Thermal Expansion Relief Valve

## TYPICAL INSTALLATION

The TER-1 is installed on the cold water inlet supply to the water heater with the orientation of the thermal expansion relief outlet connection horizontal or pointed downward to ensure the outlet drains dry. For additional information, reference the installation instructions.



A	3.93"
B	4.69"
C	1.93"

## SPECIFICATION DATA

### Performance:

Maximum inlet pressure.....	200 psi
Maximum temperature .....	200°F (93°C)
Service.....	Potable Water
Relief pressure .....	125 psi
Relief discharge connection.....	1/2"
Ball valve connections .....	3/4"

### TER-1 Valve Materials:

Body.....	Lead Free* DZR Brass
Ball seals.....	PTFE
Stem o-rings.....	NBR
Relief cartridge seat disc/diaphragm.....	Silicone

### SharkBite® Materials:

O-ring.....	EPDM
Grab ring.....	Stainless steel
Tube support liner.....	Polysulfone

## CERTIFICATIONS

Certified to IGC 128, IAPMO/ANSI Z1157, NSF/ANSI/CAN 61, NSF/ANSI 372, and CSA B125.3

Listed by IAPMO and CSA

The TER-1 is a thermal expansion control device. It is used to control thermal expansion and can be found in both the Uniform Plumbing Code (UPC) and the International Plumbing Code (IPC).

\*For all models, surfaces that are in contact with consumable water contain less than 0.25% lead by weight.

## For Health Hazard Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## Series LF8 Hose Connection Vacuum Breakers

**Size:** 3/4" hose thread

Series LF8 is a line of unique vacuum breakers specially made to permit the attachment of portable hoses to hose thread faucets. Designed to prevent the flow of contaminated water back into the potable water supply, these devices require no plumbing changes and screw directly onto sill cocks. The Series LF8 features Lead Free\* construction to comply with Lead Free\* installation requirements.

Series LF8 can be used on a wide variety of installations, such as service sinks, swimming pools, photo developing tanks, laundry tubs, wash racks, dairy barns, marinas and general outside gardening uses.

### Features

- Copper sillon alloy body (all models except 8P, which is plastic)
- Stainless steel working parts for longevity
- Durable rubber diaphragm and disc for consistent positive seating

### Models

**LF8A** - Furnished with exclusive "Non-Removable" feature and standardly equipped to allow sill cock to be drained.

#### NOTICE

Device should only be installed on approved sill cocks containing at least four full threads. Non-removable once installed.

**LF8** - Similar to the 8A except it is furnished without the "Non-Removable" or draining feature. Secured with Allen head set screw.

**LF8B** - Furnished with break-away set screw to provide a tamper-resistant installation. Standardly equipped to allow sill cock to be drained.

**LFNF8** - Especially made for wall and yard hydrants. Permits manual draining for freezing conditions.

**8P** - Furnished with exclusive patented "Non-Removable" feature. Standardly equipped to allow sill cock to be drained. Constructed of durable, corrosion-resistant, reinforced thermoplastic. Tamper-proof feature.

**LF8AC, LF8C or LF8BC** - Same as above but furnished with chrome finish.

**LF8FR** - With freeze relief feature.



**LF8A**  
Non-Removable Model



**LFNF8**  
Permits Manual Drain



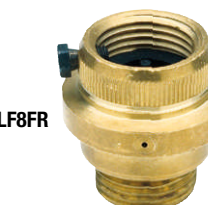
**8P**  
Tamper-Proof Feature



**LF8**



**LF8B**



**LF8FR**

#### NOTICE

**Series LF8 is tested and certified under ANSI A112.1.3 (ASSE 1011), which precludes use under continuous pressure.**

**This valve should only be used in areas where spillage of water will not cause damage.**

**Inlet Connection:** 3/4" standard female hose thread

**Outlet Connection:** 3/4" standard male hose thread

**Maximum Pressure:** 125psi (8.6 bar)

**Maximum Temperature:** 180°F (82°C)

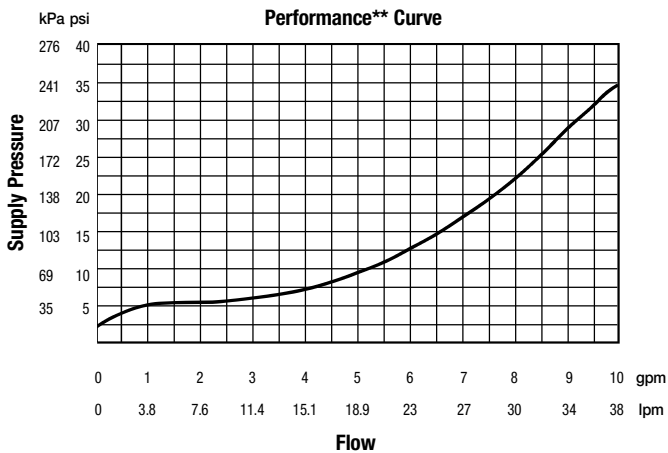
For backflow preventers for tub and shower hand spray sets, request literature ES-S8.

### Specifications

A hose connection type anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the backsiphonage of contaminated water. Lead Free\* hose connection vacuum breaker shall be constructed using Lead Free\* materials. Lead Free vacuum breaker shall comply with state codes and standards, where applicable, requiring reduced lead content. This device is not to be used under continuous pressure or where there is a possibility that a backpressure condition may develop. This device shall meet the requirements of ANSI A112.1.3, ASSE Standard 1011. Vacuum breaker shall be a Watts Series LF8.

**\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

## Capacity



\*\*Performance as established by an independent testing laboratory.

## Approvals

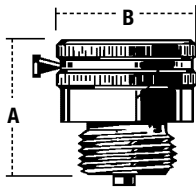


Series LF8, LF8A, LF8B, 8P, LF8FR and LFNF8 are listed by IAPMO.

### NOTICE

Inquire with governing authorities for local installation requirements

## Dimensions – Weights



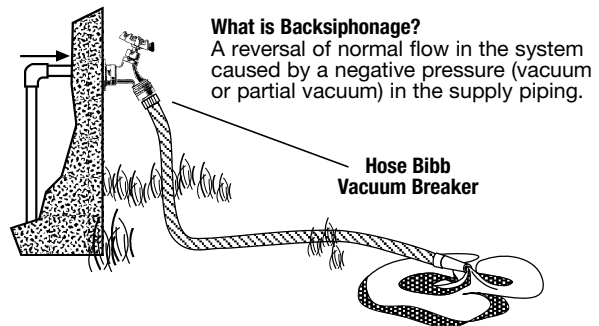
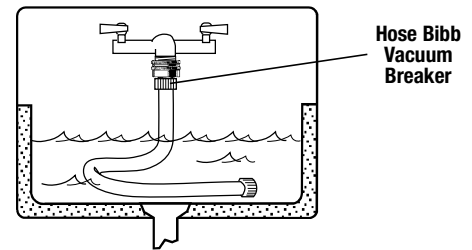
MODEL	SIZE	DIMENSIONS				WEIGHT	
		A		B		oz.	gm.
	in.	in.	mm	in.	mm		
LF8, LF8C, LF8B, LF8BC	3/4 HT	1 1/2	38	1 3/8	35	4.0	113.4
LF8A, LF8AC	3/4 HT	1 1/2	38	1 1/2	38	4.0	113.4
LFNF8	3/4 HT	2	51	1 1/2	38	5.3	151.2
8P	3/4 HT	1 3/4	38	1 3/8	35	1.5	42.5
LF8FR	3/4 HT	1 3/4	38	1 3/4	38	7.0	200.0



## Installations

### For Inside or Outside Use

#### Installation - Inside Service Sink



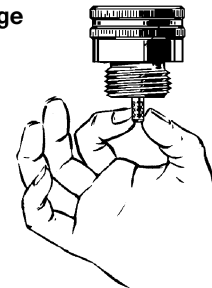
#### Drainage Features to Prevent Freezing

Models LF8A, LF8B, LF8FR and 8P hose connection vacuum breakers are constructed to allow sill cocks to be drained. Simply remove hose coupling and lightly pull knurled tip of stem at outlet of valve to allow drainage of collected water.

### NOTICE

Do not use Models LF8, LF8A, LF8B, 8P, LF8FR Hose Bibb Vacuum Breakers on frost-free hydrants. Specify Model LFNF8.

Do not use where discharge of water is objectionable.



### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

## Engineering Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## Series LF007 Double Check Valve Assemblies

### 1/2" – 3"

Series LF007 Double Check Valve assemblies are installed at referenced cross-connections to prevent the backflow of polluted water into the potable water supply. Only those cross-connections identified by local inspection authorities as non-health hazard are allowed the use of an approved double check valve assembly. The valve body is fused with ArmorTek™ technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate.\*\* The series features Lead Free\* construction to comply with Lead Free\* installation requirements. Check with local authority having jurisdiction regarding vertical orientation, frequency of testing, or other installation requirements.

### Features

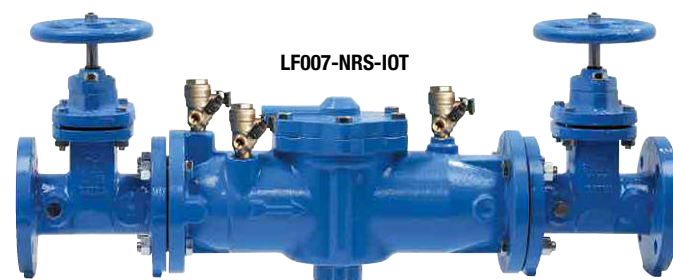
- Modular, compact design concept to facilitate maintenance and assembly by retaining the spring load
- Advanced ArmorTek™ coating technology to resist corrosion of internals\*\*
- Lead Free\* cast copper silicon alloy body construction — 1/2" to 2"
- Fused epoxy coated cast iron body — 2 1/2" to 3"
- Top-mounted Lead Free\* ball valve test cocks
- Replaceable seats and seat discs
- Easier maintenance through a single, top-entry cover
- No special tools required for servicing
- Tee handles — 1/2" to 1"
- Low pressure drop

### Specification

A Double Check Valve Assembly shall be installed at each noted location. The assembly shall consist of two positive seating check modules with captured springs and rubber seat discs. The check module seats and seat discs shall be replaceable. Service of all internal components shall be through a single access cover secured with stainless steel bolts. The Double Check Valve Assemblies shall be constructed using Lead Free\* cast copper silicon alloy. Lead Free\* Double Check Valve Assemblies shall comply with state codes and standards, where applicable, requiring reduced lead content. The assembly shall also include two resilient seated isolation valves; four top mounted, resilient seated test cocks. The assembly shall meet the requirements of ASSE Standard 1015 and AWWA Standard C510. The valve body shall utilize a coating system with built in electrochemical corrosion inhibitor and microbial inhibitor.\*\* Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Assembly shall be a Watts Series LF007.

\* The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

\*\* Armortek coating applies to the 2 1/2" and 3" models only.



### NOTICE

For IOT models, an add-on monitoring connection kit is required to collect psi measurements from the integrated pressure sensors. Without the connection kit, the pressure sensors are passive components and will not communicate with any other device. For BMS only. (The connection kit and pressure sensors are also available for existing installations. For more information, download RP-IS-007.)

### NOTICE

Use of integrated pressure sensors on and monitoring connection kit with IOT models does not remove the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of the backflow preventer.

Watts® is not responsible for data transmission failures due to power issues.

### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Inquire with governing authorities for local installation requirements.

## Model/Option

### Prefix:

U – Union connections

### Suffix:

½" – 2"

S – Copper silicon alloy strainer

LF – Without shutoff valves

W/Press\* – Press inlet x press outlet

2½" – 3"

NRS – Non-rising stem resilient seated gate valves

OSY – UL Classified and FM Approved outside stem and yoke resilient seated gate valves

LF – Without shutoff valves

IOT – With pressure-sensing IoT test cocks and NRS gate valves

## Materials

Check Valve Body: Lead Free\* cast copper silicon alloy (½" to 2"); cast iron (2½" to 3")

Check Module: Captured spring and rubber seat disc

Access cover bolts: Stainless steel

Coating technology: Armortek (2½" and 3" only)

## Pressure – Temperature

½" – 2"

Temperature Range: 33°F – 180°F (0.5°C – 82°C)

Maximum Working Pressure: 175 psi (12.1 bar)

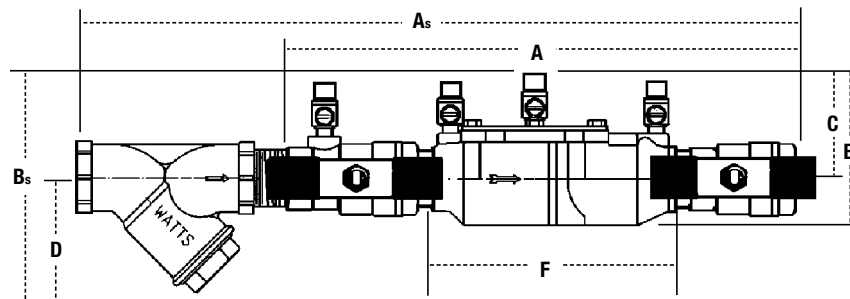
2½" – 3"

Temperature Range: 33°F – 110°F (0.5°C – 43°C) continuous, 140°F (60°C) intermittent

Maximum Working Pressure: 175 psi (12.1 bar)

## Dimensions – Weights

½" – 2"



Subscript 'S' = strainer model

## Standards

ASSE Standard 1015, AWWA Standard C510

IAPMO PS31, CSA B64.5

## Approvals



† ASSE, AWWA, IAPMO, CSA, UPC

▲ Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California

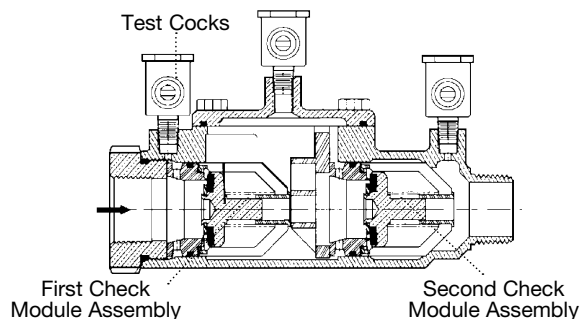
• Models with suffix LF and suffix S not listed

UL Classified without shutoff valves only (¾" to 2", except 007M3LF)

◆ UL Classified with OSY gate valves (2½" and 3" horizontal only)

▼ Lead Free\* ½" to 2" models with strainers

Horizontal and vertical "flow up" approval on all sizes



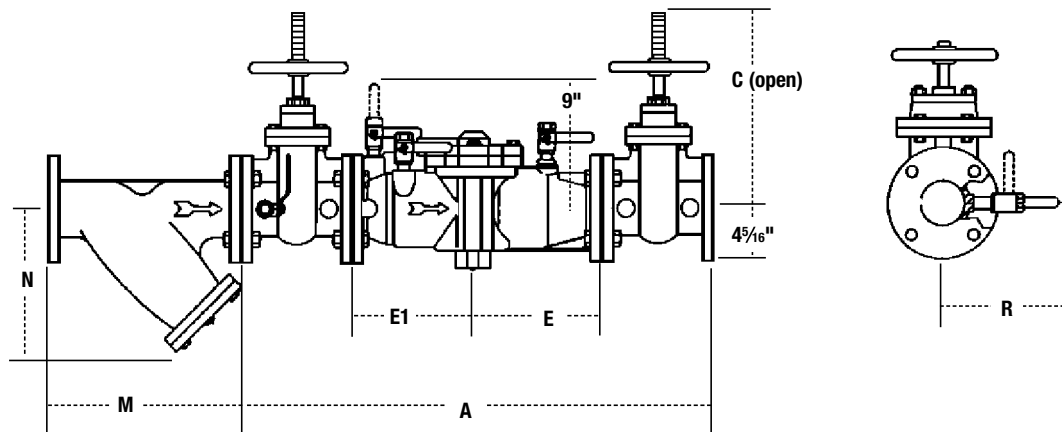
MODEL	SIZE	DIMENSIONS										WEIGHT								
		A		B		C		D		F		G		R		T		lb	kg	
	<i>i</i>																			
†▲▼ LF007QT	½	10	254	4⅝	117	2⅞	62	—	—	5	127	3⅝	85	2⅝	59	2⅞	52	4.5	2	
†▲▼ LF007M3QT	¾	11⅞	282	4	102	3⅞	79	—	—	6⅝	157	3⅞	87	2⅞	54	1⅝	33	5	2.3	
†▲▼ LF007M1QT	1	13¼	337	5⅞	130	4	102	—	—	7½	191	3⅞	85	1⅞	43	1⅞	43	12	5.4	
†▲▼ LF007M2QT	1¼	16⅞	416	5	127	3⅝	84	—	—	9½	241	5	127	3	76	2	50	15	6.8	
†▲▼ LF007M2QT	1½	16¾	425	4⅞	124	3½	89	—	—	9¼	248	5⅞	148	3⅞	79	2⅞	68	15.9	7.2	
†▲▼ LF007M1QT	2	19½	495	6¼	159	4	102	—	—	13⅞	340	6⅞	156	3⅞	87	2⅞	68	25.7	11.7	
●▼ LF007QT-S	½	13	330	6	152	2⅞	62	3	76	5	127	3⅞	85	2⅝	59	2⅞	52	5.5	2.5	
●▼ LF007M3QT-S	¾	14½	368	6⅞	156	3⅞	79	3	76	6⅝	157	3⅞	87	2⅞	54	1⅝	33	6.7	3.1	
●▼ LF007M1QT-S	1	17⅞	456	7¾	197	4	102	3¼	83	7½	191	3⅞	85	1⅞	43	1⅞	43	14	6.4	
●▼ LF007M2QT-S	1¼	21½	546	7⅞	179	3⅝	84	3½	83	9½	241	5	127	3	76	2	50	19	8.6	
●▼ LF007M2QT-S	1½	21¾	552	7⅞	179	3½	89	3¼	95	9¼	248	5⅞	148	3⅞	79	2⅞	68	19.6	8.9	
●▼ LF007M1QT-S	2	25¾	654	8¾	222	4	102	4	102	13⅞	340	6⅞	156	3⅞	87	2⅞	68	33.5	15.2	

\* Viega ProPress® connections are optional factory-installed fitting on each end of the approved/certified assembly.



## Dimensions – Weights

2½" – 3"



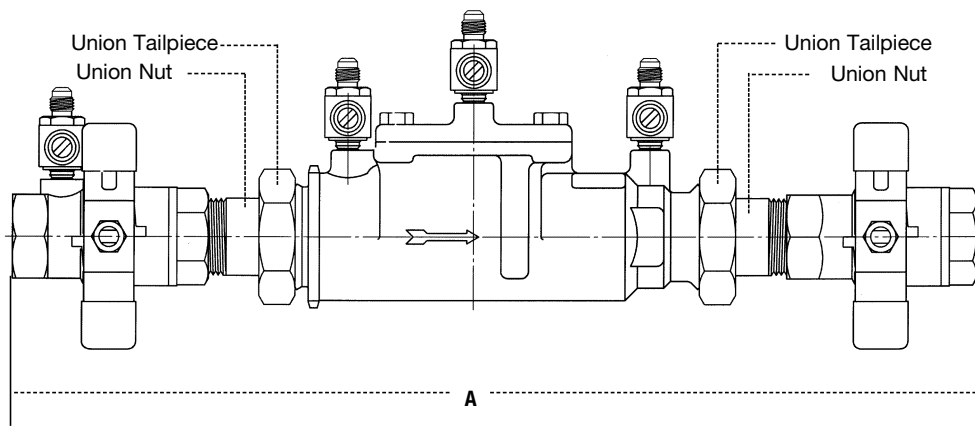
MODEL	SIZE	DIMENSIONS								WEIGHT	
		A		B		E, E1		R		lb	kg
	in.	in.	mm	in.	mm	in.	mm	in.	mm		
▲ LF007-NRS	2½	33⅞	841	9⅜	238	9⅞	230	8¾	222	155	70
▲◆ LF007-OSY	2½	33⅞	841	16⅜	416	9⅞	230	8¾	222	158	72
▲ LF007-NRS	3	34¼	870	10¼	260	9⅞	230	8¾	222	185	84
▲◆ LF007-OSY	3	34¼	870	18⅞	479	9⅞	230	8¾	222	185	84

### Strainer Dimensions

SIZE	WEIGHT					
	M		N		lb	kg
in.	in.	mm	in.	mm		
2½	10	254	6½	165	28	13
3	10⅞	267	7	178	34	15

## LFU007

½" – 2"



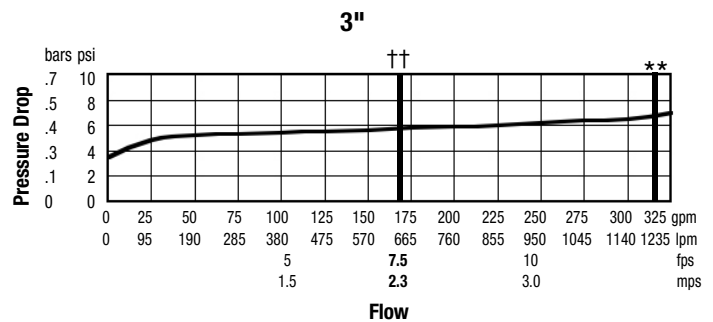
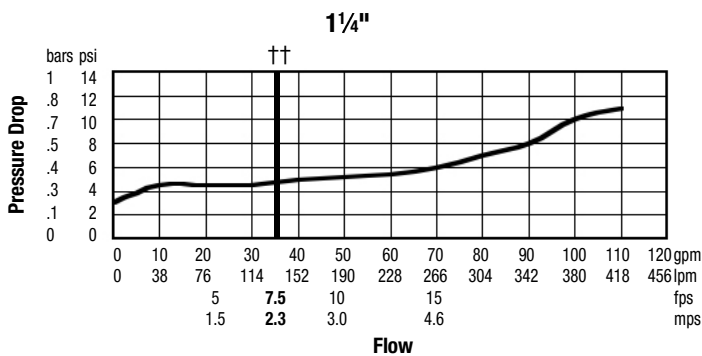
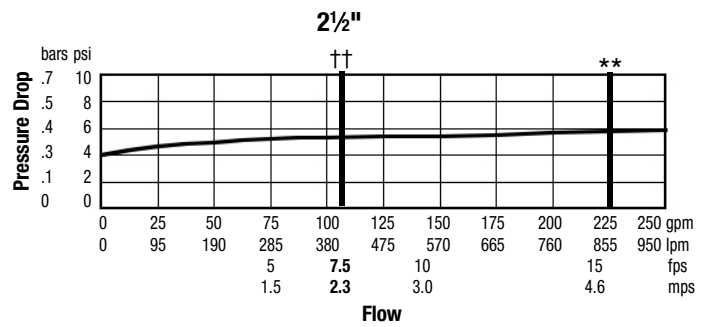
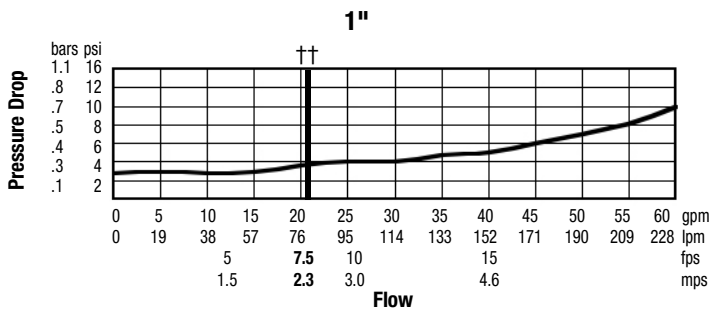
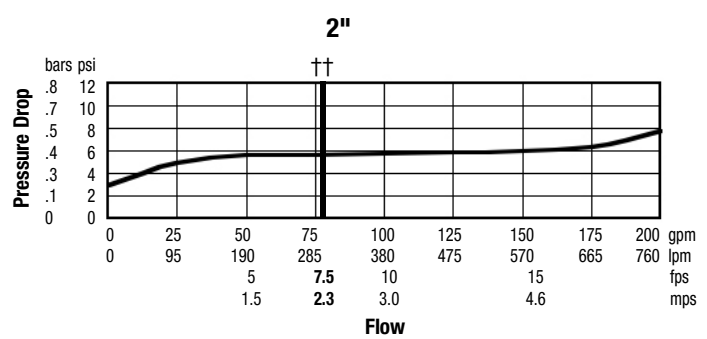
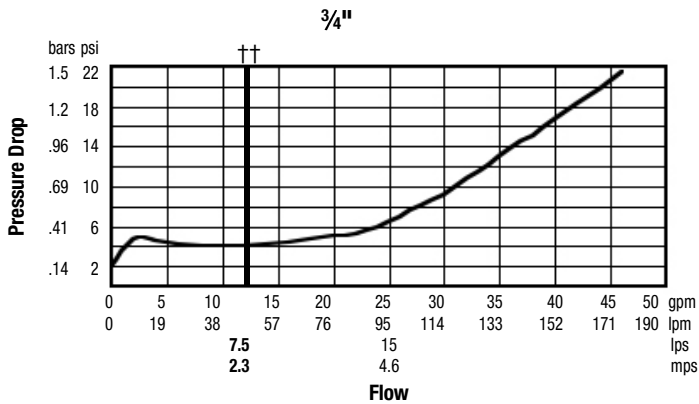
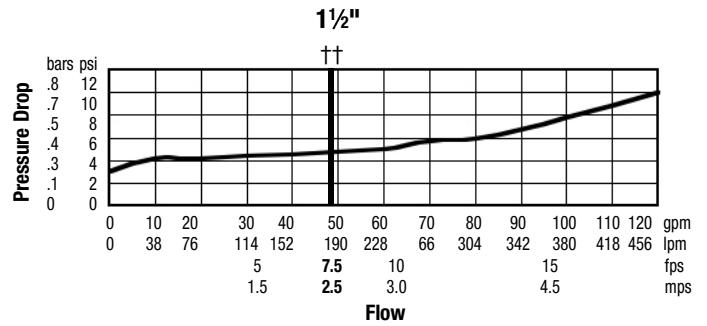
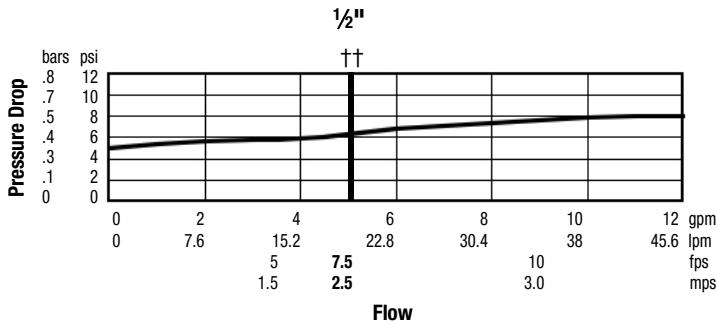
MODEL	SIZE	DIMENSIONS	
		A	
	i .	i .	mm
LFU007QT	½	12 <sup>13</sup> / <sub>16</sub>	326
LFU007M2QT	¾	13 <sup>13</sup> / <sub>16</sub>	350
LFU007M2QT	1	16 <sup>5</sup> / <sub>8</sub>	422
LFU007M2QT	1¼	20 <sup>3</sup> / <sub>4</sub>	527
LFU007M2QT	1½	21½	546
LFU007M1QT	2	24½	622

# Capacity

As compiled from documented Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California lab tests.

†† Typical maximum system flow rate (7.5 ft/sec, 2.3 m/sec)

\*\* UL rated flow



## Engineering Specification

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

# LEAD FREE\*

## Series LF009, LF009-FS Reduced Pressure Zone Assemblies

1/4" – 3"

Series LF009 and LF009-FS Reduced Pressure Zone Assemblies are designed to protect potable water supplies in accordance with national plumbing codes and water authority requirements. These series are used in a variety of installations, including the prevention of health hazard cross-connections in piping systems or for containment at the service line entrance. They are also used in irrigation systems, boiler feed, water lines, and other installations requiring maximum protection. The body construction is fused with ArmorTek™ coating technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate.\* The series also features Lead Free\* construction to comply with Lead Free\* installation requirements.

Both series feature two in-line, independent check valves, captured springs, and replaceable check seats with an intermediate relief valve. Its compact modular design facilitates easy maintenance and assembly access. Sizes 1/4" to 1" shutoffs have tee handles.

Series LF009-FS assemblies of sizes 1/2" to 3" include an integrated flood sensor to detect excessive water discharges from the relief valve. The flood sensor relays a signal that triggers notification to qualified service personnel who can take corrective action, thus avoiding the possibility of ruinous flooding and costly damage.

### NOTICE

An add-on connection kit is required to activate the integrated flood sensor. Without the connection kit, the flood sensor is a passive component and will not communicate with any other device. (For more information, download RP-IS-009/009-FS.)

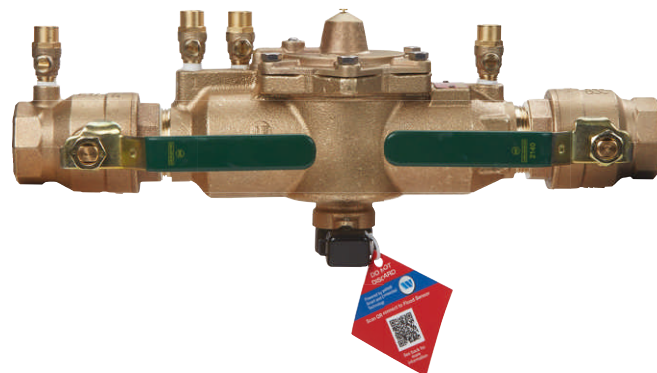
### Features

- Single access cover and modular check construction for ease of maintenance
- Top entry to all internals for immediate accessibility
- Captured springs for safe maintenance
- Internal relief valve for reduced installation clearances
- Replaceable seats for economical repair
- ArmorTek™ coating technology to resist internal corrosion†
- Lead Free\* cast copper silicon alloy body construction (1/4" – 2")

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

†Amortek coating applied to the 2 1/2" and 3" models only.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



LF009M2-QT-FS

- Fused epoxy coated cast iron body (2 1/2" – 3")
- Ball valve test cocks — screwdriver slotted (1/4" – 2")
- Large body passages provides low pressure drop
- Compact, space saving design
- No special tools required for servicing
- Integrated sensor for flood detection (1/2" – 3")
- Flood alert feature activated with add-on sensor connection kit, compatible with BMS and cellular communication

### NOTICE

Use of the integrated flood sensor does not replicate the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of this product, including the need to provide proper drainage in the event of a discharge.

Watts® is not responsible for the failure of alerts due to connectivity or power issues.

### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Inquire with governing authorities for local installation requirements.



## Specification

A Reduced Pressure Zone Assembly shall be installed at each potential health hazard location to prevent backflow due to backsiphonage and/or backpressure. The assembly shall consist of an internal pressure differential relief valve located in a zone between two positive seating check modules with captured springs and silicone seat discs. Seats and seat discs shall be replaceable in both check modules and the relief valve. There shall be no threads or screws in the waterway exposed to line fluids. Service of all internal components shall be through a single access cover secured with stainless steel bolts. Body and shutoffs shall be constructed using Lead Free\* cast copper silicon alloy materials. Lead Free\* reduced pressure zone assembly shall comply with state codes and standards, where applicable, requiring reduced lead content.

The assembly shall also include two resilient seated isolation valves, four resilient seated test cocks, and an air gap drain fitting. The valve body shall utilize a coating system with built-in electrochemical corrosion inhibitor and microbial inhibitor.† The assembly shall meet the requirements of USC; ASSE Std. 1013; AWWA Std. C511; CSA B64.4. Shall be a Watts Series LF009, and shall include an integrated sensor for flood detection on sizes 1/2" to 3".

## Materials

### 1/4" – 2"

Lead Free\* cast copper silicon alloy body construction, silicone rubber disc material in the first and second check plus the relief valve. Replaceable polymer check seats for first and second checks. Removable relief valve seats. Stainless steel cover bolts. Standardly furnished with NPT body connections. Model LF009QT furnished with quarter-turn, full port, resilient seated, Lead Free\* cast copper silicon alloy body ball valve shutoffs.

### 2 1/2" – 3"

- FDA-approved epoxy-coated cast iron unibody with plastic seats
- Relief valve with stainless steel seat and trim
- Lead Free\* cast copper silicon alloy body ball valve test cocks

## Model/Option

### 1/4" – 2"

#### Prefix:

U – Union connections

#### Suffix:

FS – Integrated sensor for flood detection (1/2" – 2")

LF – Without shutoff valves

PC – Internal polymer coating

Press\*\* – Press inlet x press outlet (1/2" – 2")

QT – Quarter-turn ball valves

S – Strainer

### 2 1/2" – 3"

#### Suffix:

FS – Integrated sensor for flood detection

LF – Without shutoff valves

NRS – Non-rising stem resilient seated gate valves

OSY – UL/FM outside stem and yoke resilient seated gate valves

S-FDA – FDA epoxy coated strainer

NOTE: The installation of a drain line is recommended. When installing a drain line, an air gap is necessary. (For more information download ES-AG/EL/TC at watts.com.)

## Pressure – Temperature

### 1/4" – 2"

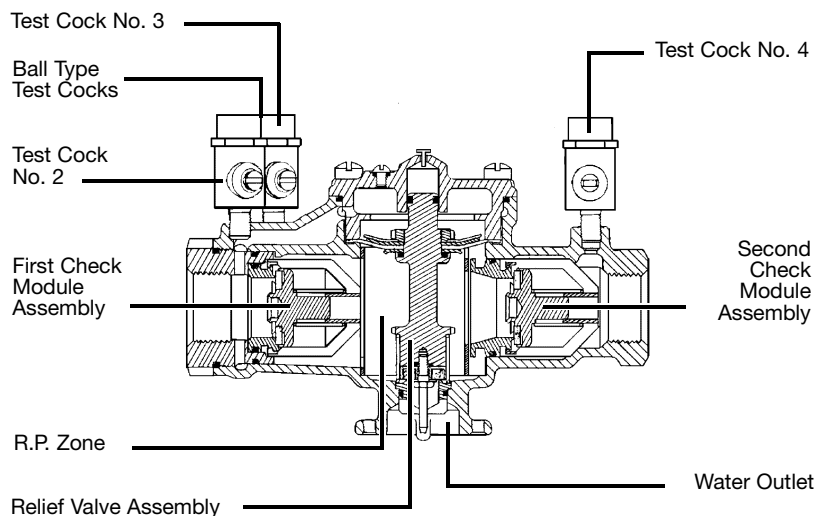
Suitable for supply pressure up to 175 psi (12.1 bar)

Water temperature: 33°F – 180°F (0.5° – 82°C)

### 2 1/2" – 3"

Suitable for supply pressures up to 175 psi (12.1 bar)

Water temperature: 110°F (43°C) continuous; 140°F (60°C) intermittent



\*\* Viega ProPress® connections are optional factory-installed fitting on each end of the approved/certified assembly.

## Standards

USC  
 ASSE No. 1013  
 AWWA C511  
 CSA B64.4  
 IAPMO File No. 1563

## Approvals



ASSE, AWWA, CSA, IAPMO

Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California

Approval models NRS, OSY, PC, QT

UL Classified

2½" – 3" with OSY gate valves

¾" – 2" without shutoff valves (-LF), except LF009M3LF

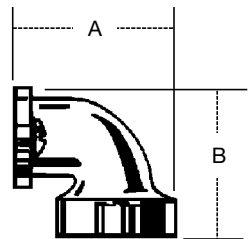
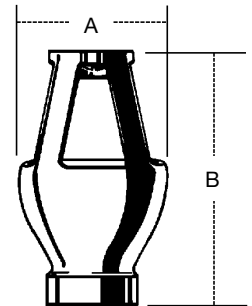
## Insulated Enclosure

The WattsBox insulated enclosure is available for Series LF009/LF009-FS. For more information download ES-WB at watts.com.

## Air Gaps and Elbows

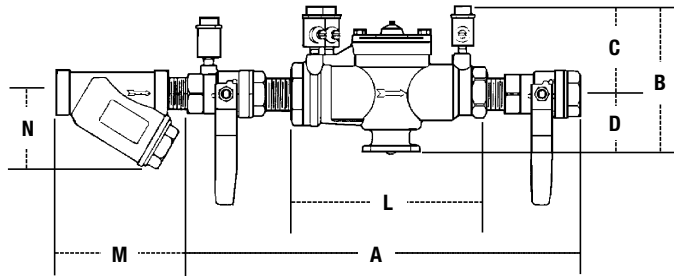
MODEL	DRAIN OUTLET	DIMENSIONS				WEIGHT			
		<i>in.</i>	<i>mm</i>	A <i>in.</i>	B <i>in.</i>	<i>lb</i>	<i>kg</i>		
909AGA	For 909, 009, and 993 sizes ¼"-½" 009, ¾" 009M2/M3	½	13	2¾	60	3⅞	79	0.625	0.28
909AGC	¾"-1" 009/909, 1"-1½" 009M2	1	25	3¼	83	4⅞	124	1.5	0.68
909AGF	1¼"-2" 009M1, 1¼"-3" 009/909, 2" 009M2, 4"-6" 993	2	51	4¾	111	6¾	171	3.25	1.47
909AGK	4"-6" 909, 8"-10" 909M1	3	76	6¾	162	9⅞	244	6.25	2.83
909AGM	8"-10" 909	4	102	7¾	187	11¼	286	15.5	7.03
909ELA	¼"-½" 009, ¾" 009M2/M3	-	-	-	-	-	-	-	-
909ELC	¾"-1" 009/909	-	-	2¾	60	2¾	60	0.38	0.17
909ELF*	1¼"-2" 009M1, 1¼"-2" 009/909, 2" 009M2, 4"-6" 993	-	-	3¾	92	3¾	92	2	0.91
909ELH* Vertical	2½"-3" 009/909	-	-	-	-	-	-	-	-

\*Epoxy coated

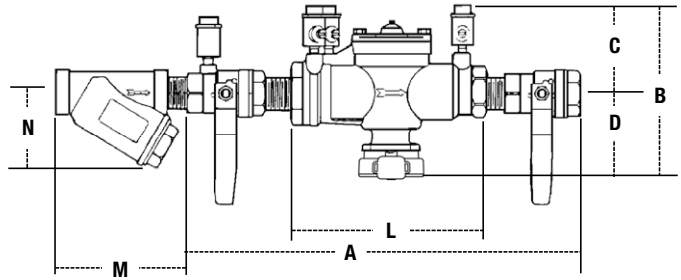


## Dimensions – Weight

1/4" – 3/8"

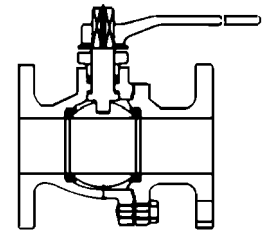
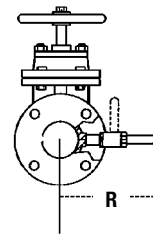
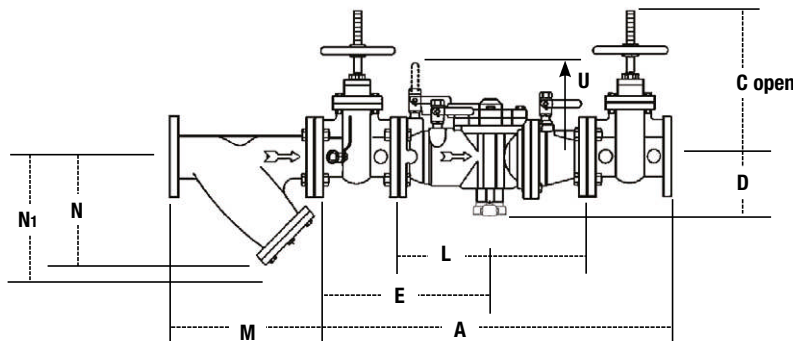


1/2" – 2"



SIZE	DIMENSIONS (APPROX.)										WEIGHT					
	A		B		C		D		L		M		N		lb	kg
<i>in.</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>		
1/4	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	2 3/8	60	2 1/2	64	5	2
3/8	10	250	4 5/8	117	3 3/8	86	1 1/4	32	5 1/2	140	2 3/8	60	2 1/2	64	5	2
1/2	10	250	5 7/8	149	3 3/8	86	2 1/2	64	5 1/2	140	2 3/4	70	2 1/4	57	5	2
3/4	10 3/4	273	6 1/4	159	3 1/2	89	2 3/4	70	6 3/4	171	3 3/16	81	2 3/4	70	6	3
1	14 1/2	368	6 1/4	159	3	76	3 1/4	83	9 1/2	241	3 3/4	95	3	76	12	5
1 1/4	17 3/8	441	6 3/4	169	3 1/2	89	3 1/4	83	11 3/8	289	4 7/16	113	3 1/2	89	15	6
1 1/2	17 7/8	454	6 3/4	169	3 1/2	89	3 1/4	83	11 3/8	283	4 7/8	124	4	102	16	7
2	21 3/8	543	8 3/4	222	4 1/2	114	4 1/4	108	13 1/2	343	5 5/16	151	5	127	30	13

2 1/2" – 3"



Watts G-4000 Series  
QT – Ball Valves

STRAINER SIZE	DIMENSIONS (APPROX.)						WEIGHT		
	M		N		N <sub>1</sub> †		lb	kg	
<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>		
2 1/2	65	10	254	6 1/2	165	9 3/4	248	28	12.7
3	80	10 1/8	257	7	178	10	254	34	15.4

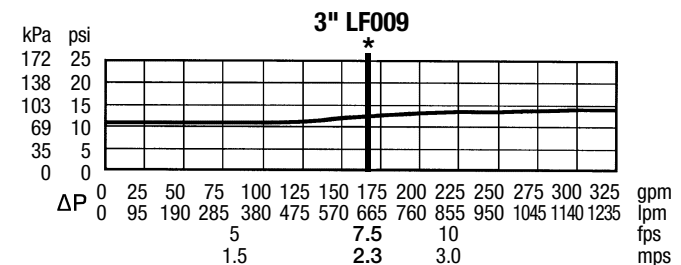
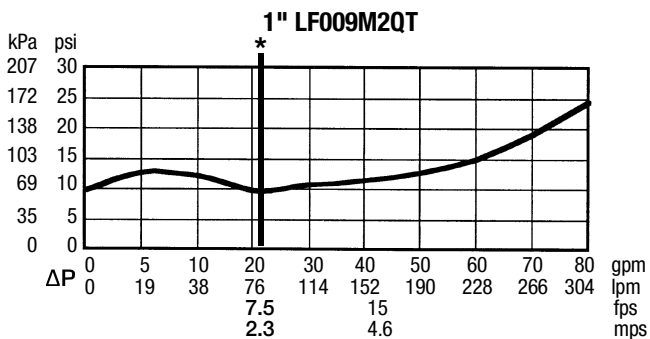
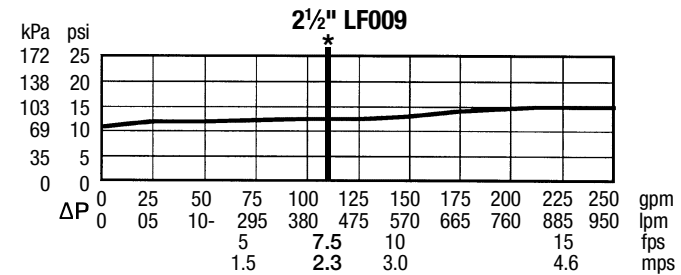
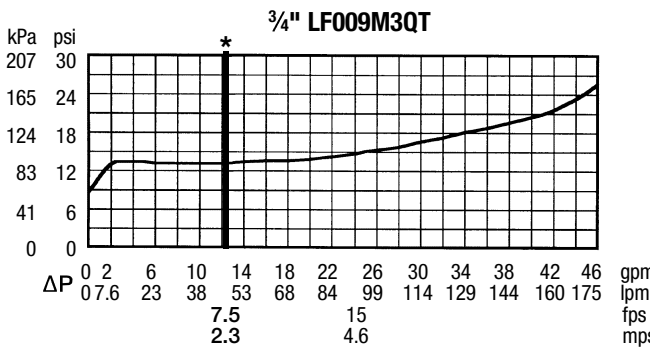
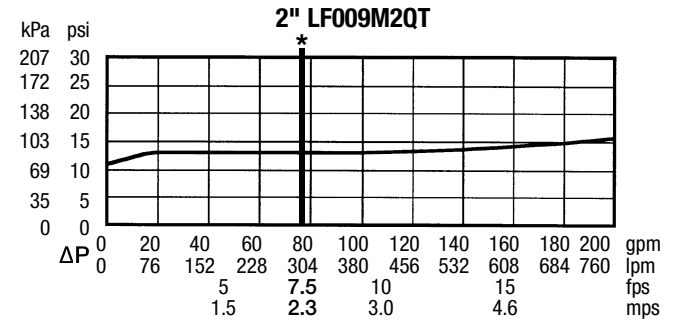
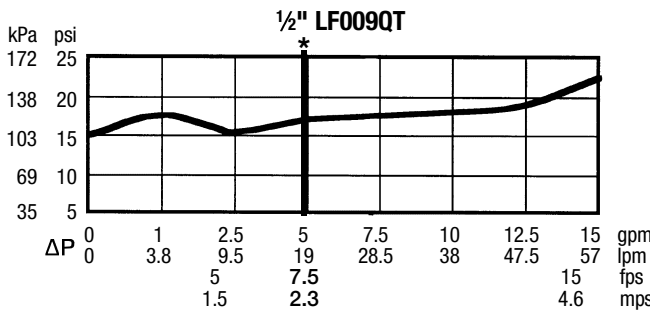
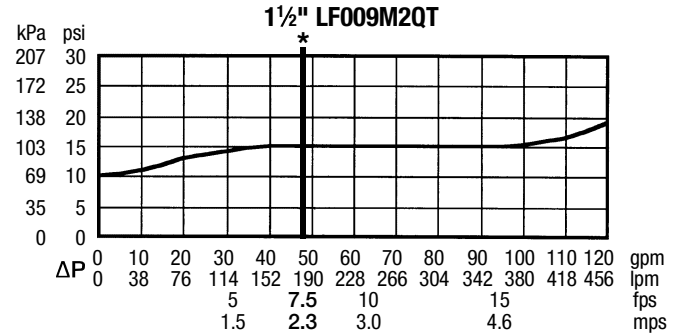
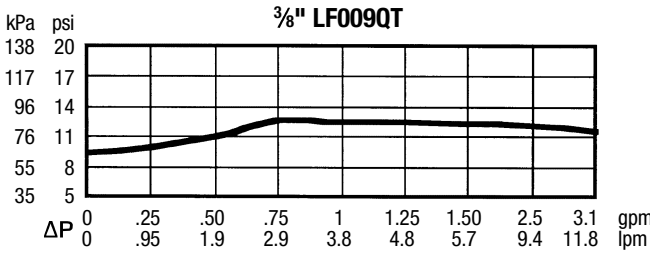
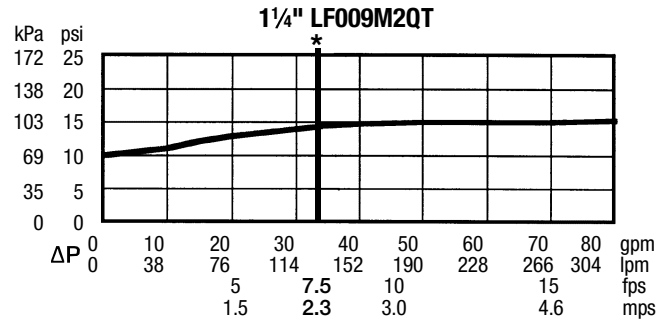
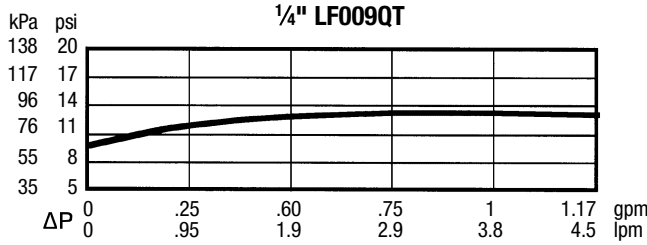
†Clearance for servicing

MODEL	SIZE	DIMENSIONS (APPROX.)										WEIGHT					
		A		C		D		E		L		R		U		lb	kg
	<i>in.</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>		
LF009LF	2 1/2	—	—	—	—	5 5/8	143	—	—	18 1/8	460	—	—	10 5/8	270	76	34.5
LF0090SY	2 1/2	33 3/4	845	15 7/8	403	5 5/8	143	16 3/8	416	18 1/8	460	7 3/4	197	10 5/8	270	166	75.3
LF009NRS	2 1/2	33 3/4	845	11 3/8	289	5 5/8	143	16 3/8	416	18 1/8	460	7 3/4	197	10 5/8	270	161	73.0
LF009LF	3	—	—	—	—	5 5/8	143	—	—	18 1/8	460	—	—	10 5/8	270	76	34.5
LF0090SY	3	34 1/4	870	18 1/2	470	5 5/8	143	16 3/8	422	18 1/8	460	8 3/4	222	10 5/8	270	198	89.8
LF009NRS	3	34 1/4	870	12 3/4	324	5 5/8	143	16 3/8	422	18 1/8	460	8 3/4	222	10 5/8	270	191	86.6

# Capacity

Performance as established by an independent testing laboratory.

The asterisk (\*) indicates the typical maximum system flow rate (7.5 ft/sec, 2.3 m/sec).



USA: T: (978) 689-6066 • Watts.com

Canada: T: (888) 208-8927 • Watts.ca

Latin America: T: (52) 55-4122-0138 • Watts.com





### Application

Ideal for use where Lead-Free valves are required. Designed for installation on potable water lines to reduce high inlet pressure to a lower outlet pressure. The double male meter thread connections are specifically designed for meter set-ter applications. The direct acting integral by-pass design prevents buildup of excessive system pressure caused by thermal expansion. The balanced piston design enables the regulator to react in a smooth and responsive manner to changes in system flow demand, while at the same time, providing protection from inlet pressure changes. Furnished with sealed cage and stainless steel adjustment bolt.



### Standards Compliance

- ASSE® Listed 1003
- IAPMO® Listed
- CSA® Certified
- City of Los Angeles Approved
- Certified to NSF/ANSI 372\* by IAPMO R&T  
\*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)



### Materials

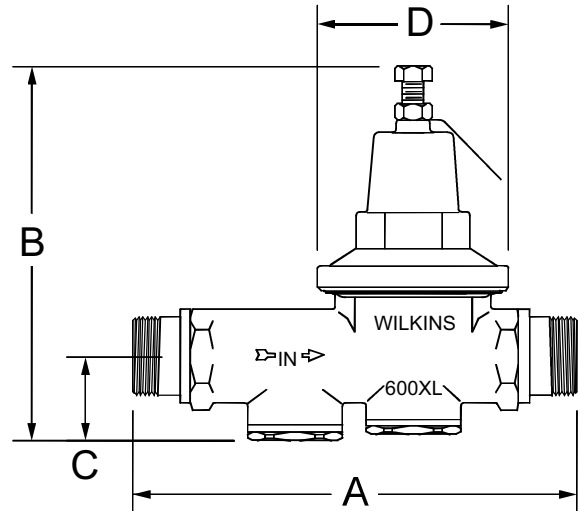
Main valve body	Low Lead Cast Bronze ASTM B 584
Access covers	Low Lead Brass
Fasteners	300 Series Stainless Steel
Stem & plunger	Low Lead Brass
Elastomers	Buna Nitrile, FDA EPDM, FDA
Cap gaskets	Delrin™ 500 Acetal, NSF Listed
Strainer screen	300 Series Stainless Steel

### Options

- HR - High Range 75 psi to 125 psi Factory set @ 85 psi
- DM2 - 9 1/2" Lay Length, 1" 600XL only.

### Features

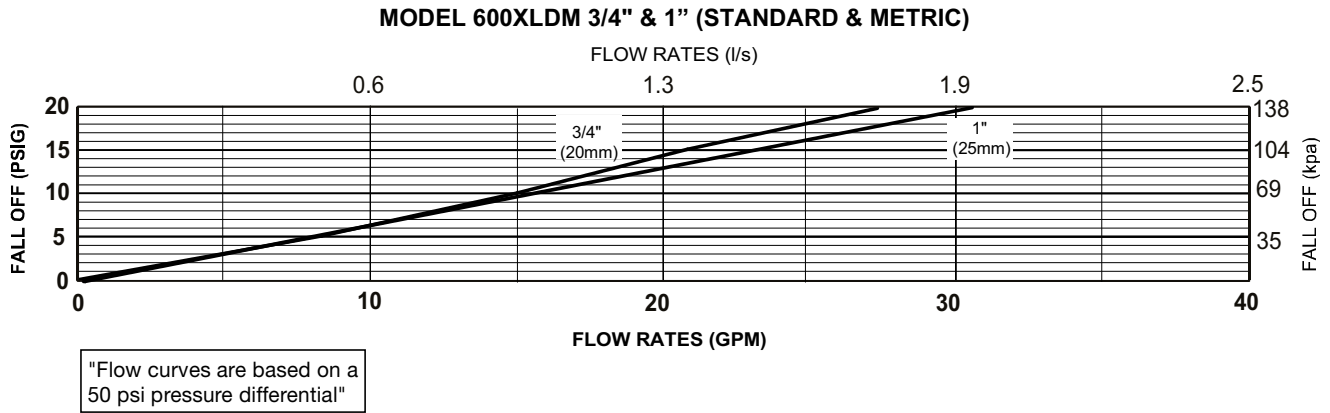
Sizes: 3/4", 1"  
 Standard with Sealed Cage Bell Housing and stainless steel adjustment screw  
 Maximum working water pressure 300 psi  
 Maximum working water temperature 140°F  
 Hydrostatic test pressure 300 psi  
 End connections Threaded ANSI B1.20.1  
 Male Meter 5/8x3/4



### Dimensions & Weights (do not include pkg.)

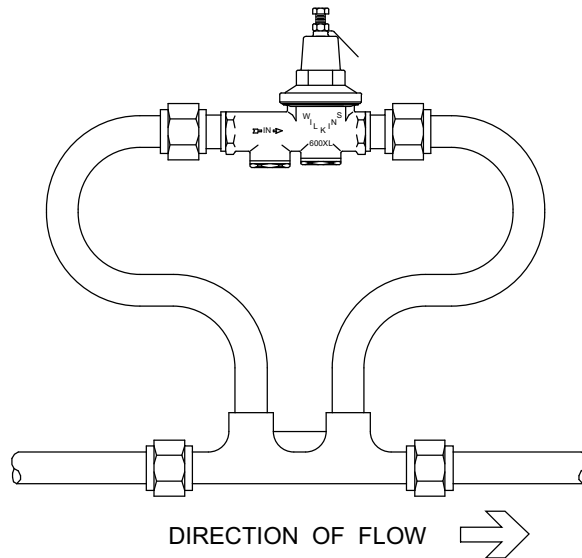
METER THREAD	DIMENSIONS (approximate)								WEIGHT	
	A		B		C		D		lbs.	kg.
	in.	mm	in.	mm	in.	mm	in.	mm		
3/4"	7 1/2	191	5 1/2	140	1 1/4	32	2 3/4	70	3.5	1.58
1" DM	7 1/2	191	7 1/4	184	2	51	35/16	84	6.0	2.72
1" DM2	9 1/2	241	7 1/4	184	2	51	35/16	84	6.5	2.95

## Flow Characteristics



## Typical Installation

Local codes shall govern installation requirements. Unless otherwise specified, the assembly shall be mounted in accordance with the latest edition of the Uniform Plumbing Code. The Model 600XLDM may be installed in any position. Multiple installations are recommended for wide demand variations or where the desired pressure reduction is more than 4 to 1 (i.e.: 200 psi inlet reduced to 50 psi outlet). **Caution:** Anytime a reducing valve is adjusted, a pressure gauge must be used downstream to verify correct pressure setting. Do not bottom adjustment bolt on bell housing.



## Meter Setter Installation

## Specifications

The Pressure Reducing Valve shall be certified to NSF/ANSI 372, consist of a low lead bronze body and bronze bell housing, shall have a separate access cover for the plunger and strainer screen and shall have a bolt to adjust the downstream pressure. The Pressure Reducing Valve shall be of the balanced piston design and shall reduce pressure in both flow and no-flow conditions. The bronze bell housing and access caps shall be threaded to the body and shall not require the use of ferrous screws. The Pressure Reducing Valve shall be a ZURN WILKINS Model 600XLDM.



# Model BVECXL

## Full Port Bronze Ball Valve with Integral Thermal Expansion Relief Valve

### Application

The ZURN WILKINS Model BVECXL is designed for residential water heater applications where a water heater shut-off and thermal expansion relief valve are combined to provide protection from thermal expansion. Ideal where lead-free\* valves are required.



### Standards Compliance

- IAPMO® Listed
- Certified to NSF/ANSI 372\* by IAPMO R&T  
\*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

### Materials

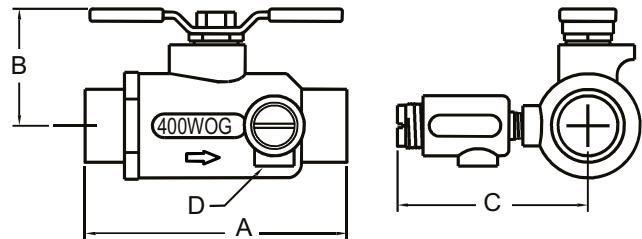
FNPT valve Body	Low Lead Cast Bronze ASTM B 584
Copper sweat Body	Low Lead Forged Brass
PEX Body	
Ball	Chrome plated Low Lead Brass
Stem	Brass ASTM B 16
Seats & Stem packing	TFE virgin Teflon ®
Thrust washer	TFE virgin Teflon ®
Handle & nut	Stainless steel
Relief valve body	Low Lead Forged Brass
Relief valve spring	Stainless steel, 302 Series
Relief valve seat washer	Buna Nitrile (FDA approved)
Relief valve plunger	Brass ASTM B 16 & screw

### Options

- 80 - with 80 psi relief setting
- 100 - with 100 psi relief setting
- 125 - with 125 psi relief setting
- BF - 3/8" hose barb drain fitting
- CF - 3/8" hose compression fitting
- PEX - 1/2" PEX drain fitting

### Features

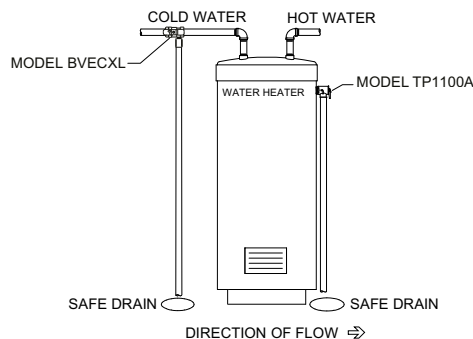
Sizes:	3/4", 1"
Pressure rating	400psi WOG
Temperature rating	180°F
Threaded Connections	ANSI B1.20.1 Class 125



### Dimensions & Weights (do not include packaging)

MODEL	SIZE		CONNECTION	DIMENSIONS (approximate)						WEIGHT		
				A		B		C				D
	in.	mm		in.	mm	in.	mm	in.	mm	lbs.	kg	
34-BVECXLC	3/4	20	SWEAT	3 15/16	100	1 15/16	49	2 13/16	71	1/8" FNPT	1 3/8	0.6
34-BVECXL	3/4	20	FNPT	2 3/4	70	1 5/8	41	2 13/16	71	1/8" FNPT	1	0.5
1-BVECXL	1	25	FNPT	3 1/4	83	1 15/16	49	2 15/16	75	1/8" FNPT	1 1/2	0.7
34-BVECXLPEX	3/4	20	PEX	3 3/16	81	1 1/2	38	2 1/2	64	1/8" FNPT	1	0.5

### Typical Installation







# SUPERFLEX™ – 1245 CCS TRACER WIRE

## APPLICATION

Copper-clad steel (CCS) tracer wire. Install with underground plastic utility pipes, wires, and cables to ensure future location. Good choice for light-duty open cut/trenching/plowing applications when ground above the utilities can be disturbed and there are no buildings, roadways, or other obstructions in the way.

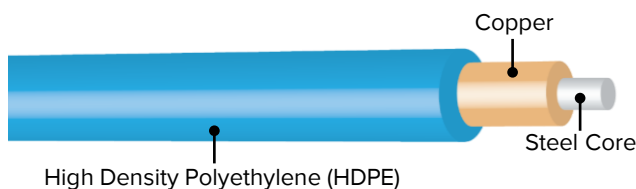


## Product Description

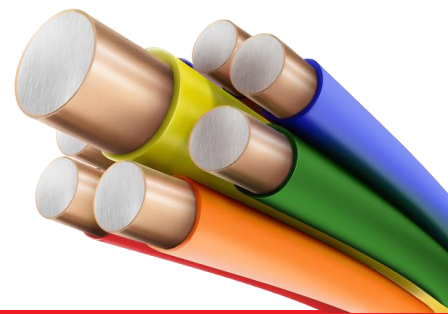
#12 AWG (0.0808" diameter) fully annealed, low carbon 1010 grade steel, solid copper-clad steel conductor (CCS) rated at 30 volts, insulated with a 45 mil, high-density, high molecular weight polyethylene (HDPE) insulation rated for direct burial use at 600 volts.

### APWA UNIFORM COLOR CODE

	<b>ELECTRIC</b>
	<b>GAS</b>
	<b>COMMUNICATION</b>
	<b>POTABLE WATER</b>
	<b>SEWER</b>
	<b>RECLAIMED WATER</b>



**1245\*-SF-500** – 500' spool  
**1245\*-SF-1000** – 1000' spool  
**1245\*-SF-2500** – 2500' spool  
 (\* denotes color, pg. 2)



## FEATURES AND BENEFITS

- 45 mil HDPE insulation
- 302 lb break load
- Same flexibility as solid copper with superior strength
- Low recoil
- 11% lighter than solid copper means reduced freight expenses
- Copper-clad steel (CCS) wire combines the strength of fully annealed low-carbon steel with the conductivity and corrosion resistance of solid copper
- Bonded metals mean no separating, no corrosion, and no theft appeal
- More stable pricing than solid copper
- Provided exclusively by Copperhead Industries
- Rated for direct bury
- Color-coded to meet American Public Works (APWA) standards for utility identification



## SPECIFICATIONS

### PART #: 1245\*-SF-\*\*

12 (AWG), 45 (insulation mil), \* (indicates insulation color: Y=Yellow, B=Blue, G=Green, N=Orange, P=Purple, R=Red, BN=Brown, K=Black, W=White), SF (SuperFlex), \*\* (indicates spool size: 500, 1000 or 2500 foot lengths)

### MADE IN USA

Copperhead® copper-clad steel tracer wire is 100% made in the USA.

### PRODUCT DESCRIPTION

Tracer wire shall be a #12 AWG (0.0808" diameter) fully annealed, low carbon 1010 grade steel, solid copper-clad steel (CCS) conductor rated at 30 volts, insulated with 45 mil, high-density, high molecular weight polyethylene (HDPE) insulation rated for direct burial use at 600 volts. CCS conductor must be at 21% conductivity for locating purposes. Break load of 302 lbs. HDPE insulation shall be RoHS compliant and utilize virgin grade material. Insulation color shall meet the APWA color code standard for identification of buried utilities. Manufacturers supplying copper-clad steel tracer wire must have available detailed performance data including 5 years of underground testing in terms of durability related to damage of protective insulation and effects of potential corrosion of the specific copper-clad steel used. Origin of copper-clad steel manufacturer is required and steel core must be manufactured in the United States. If manufacturer has not completed 5-year corrosion testing, a 5-year warranty must be provided. Tracer wire shall be Copperhead® SuperFlex CCS, HDPE 45 mil insulation and made in the USA.

### PRINT LINE

Physical, permanent markings: surface legend print on insulation to repeat at minimum interval of every two linear feet. Ink colors will include Black ink for Yellow, Blue, Red, Orange, Purple, Brown, White, and Green insulation, and White ink for Black insulation. **COPPERHEAD \* 12 AWG-SOLID SUPERFLEX SF-CCS TRACER WIRE \* 45 MIL HDPE 600 VOLT \* DIRECT BURIAL ONLY**

### SPOOL LABEL

Wound wire on a compact spool made of plastic or wood.

### COPPERHEAD INDUSTRIES

1245\*-SF-\*\*

12 AWG-Solid CCS Tracer Wire

45 Mil HDPE 600 Volt

Direct Burial Only

copperheadwire.com

### CONDUCTOR

This specification describes the properties of the conductor to be used in the fabrication of SuperFlex tracer wire.

**Material Description:** Copperhead® copper-clad steel wire as manufactured by Copperweld® is composed of a steel core with a uniform and continuous copper cladding thoroughly bonded to the steel throughout. Wire must conform to ASTM B1010 and ASTM B910 / B910M.

- **Cladding:** The steel and copper interface must have a metallurgical bond achieved through a high heat and pressure bonding process. Established process for porosity-free material.
- **Steel:** High strength with 0.10 carbon or greater. Verified to meet required mechanical properties.
- **Copper:** UNS-C10200; OF Copper according to ASTM B-170 (latest revision). High conductivity, oxygen free copper to achieve optimal signal performance.

**Surface Condition:** Wire surface shall be free of any defects, including flakes, grooves, pits, and voids. Wire surface shall be smooth, bright and shiny, and free of excessive copper dust and residual drawing lubricants.

**Physical, Mechanical, and Electrical Properties:** The wire shall conform to the properties listed in Table 1.



#12 CCS High Carbon 1055 Grade Steel 21% Conductivity	CCS Conductor
Conductor Size	12 AWG
Conductor Type	Copper-Clad Steel (CCS)
Temper	Dead Soft Annealed (DSA)
Average Break Load	302 lbs.
Minimum Tensile Strength	48,000 psi
Minimum Elongation	10%
Nominal Copper Thickness (% of Diameter)	3%
Nominal Copper Weight	13%
Nominal DC Resistance (ohms/1000 ft.)	7.564

Table 1: Physical, Mechanical, and Electrical Properties

\*Diameter tolerances:  $\pm 1\%$

## INSULATION

This specification describes the properties of the material to be used in the insulating of SuperFlex tracer wire.

**Material Description:** Insulation is comprised of a co-polymer high molecular weight natural high density polyethylene (HDPE) designed specifically for high-speed copper wire insulating. It contains the required levels and types of primary antioxidant and metal deactivator additives to satisfy most Wire and Cable industry requirements. HDPE material will be produced with an excellent balance of surface smoothness, processing ease, tensile and elongation properties, abrasion toughness, environmental stress crack, thermal stress crack resistance, and electrical consistency. Insulation must conform to ASTM D1248.

**Physical, Mechanical, and Electrical Properties:** The wire shall conform to the properties listed in Table 2.

High Density Polyethylene Insulator	Value
Density (ASTM D 792)	0.943 g/cc
Bulk Density (ASTM D 1895)	0.58 g/cc
Melt Index (ASTM D 1238/E)	0.70 dg/min
Tensile-Yield (ASTM D 638)	4300 psi
Tensile-Ultimate (ASTM D 638)	2900 psi
Tensile-Elongation (ASTM D 638)	850%
Flexural Modulus (ASTM D 790/1)	120,000 psi
Hardness (ASTM D 2240)	63 Shore D
Environmental Stress-Crack (ASTM D 1693/B)	F <sub>20</sub> > 48 h
Thermal Stress-Crack (ASTM D 2951)	F <sub>0</sub> > 1000 h
Brittleness Temperature (ASTM D 746)	< -95° F
Melting Point (DSC) (ASTM D 3417)	262° F
Softening Point (Vicat) (ASTM D 1525)	250° F
Oxidative Induction Time (ASTM D 3895)	> 50 min. @ 200° C
Dielectric Constant (ASTM D 1531)	2.34 @ 1MHz
Dissipation Factor (ASTM D 1531)	0.00007 @ 1 MHz
Volume Resistivity (ASTM D 257)	5 x 10 <sup>17</sup> ohm-cm
Dielectric Strength (ASTM D 3755)	1000 volts @ 20 mils

Table 2: Physical, Mechanical, and Electrical Properties

## QUALITY ASSURANCE

- Copperhead products are manufactured under a quality control system that ensures products are free of defects and meet performance requirements.
- Copperhead provides best-in-class customer service. We promise to put forth our best efforts for our customers and to treat everyone we encounter with courtesy and respect.







### APPLICATION

Above-ground access point for tracer wire systems. Available with up to three terminals. 2- and 3-terminal options provide a ground rod wire connection in addition to the tracer wire connection(s). Disconnect/reconnect jumper to turn ground on and off as needed. Multiple mounting options available.



Also available in white and black

- T1\*** – Cobra 1-terminal
- T2\*** – Cobra 2-terminal with jumper
- T3\*** – Cobra 3-terminal with jumper  
(\* denotes color)



T1\*

T2\*

T3\*

### FEATURES AND BENEFITS

- Direct connection point for utility locate transmitter
- Polypropylene material is durable and maintenance-free
- Protects wire from damage and corrosion
- Multiple installation options: post mount, hydrant mount, stake mount
- Brass hardware for maximum conductivity
- Thumb nuts eliminate need for wrench
- Can be used with rigid or flexible 1" PVC conduit
- Color-coded to meet American Public Works (APWA) standards



### Cobra™ Hydrant Flange Package

- T1\*-FLPKG** – Cobra 1-terminal with flange
- T2\*-FLPKG** – Cobra 2-terminal with flange
- T3\*-FLPKG** – Cobra 3-terminal with flange
- HYDFL** – flange only
- \* denotes color

Universal flange, 1" MTP thread  
(shown with Cobra 2-terminal)



Flange

### Cobra™ Mounting Stake

#### T3-STAKE

- Powder coated steel
- Pointed tip for easy installation
- 12" length



Mounting Stake

### APWA UNIFORM COLOR CODE

White	GAS - CANADA
Red	ELECTRIC
Yellow	GAS
Orange	COMMUNICATION
Blue	POTABLE WATER
Green	SEWER
Purple	RECLAIMED WATER



