

ELIZABETHTOWN AREA WATER AUTHORITY
Lancaster County, Pennsylvania

RESOLUTION 2021- 5

AMENDING TAPPING FEE RATES FOR THE EAWA SYSTEM

WHEREAS, the Elizabethtown Area Water Authority ("Authority") is a municipality authority incorporated, organized and existing under provisions of the Municipality Authorities Act, as amended and supplemented, of the Commonwealth of Pennsylvania, this Authority having been incorporated pursuant to an Ordinance of the Board of Elizabethtown Borough, the Supervisors of Mount Joy Township, and the Supervisors of the Township of West Donegal, Lancaster County, Pennsylvania; and

WHEREAS, The Authority operates water facilities and provides water to the Borough of Elizabethtown, the Township of Mount Joy, and the Township of West Donegal;

WHEREAS, the Pennsylvania Municipal Authorities Act of 1945, as amended by Act 57 of 2003, allows this Authority to charge a fee to customers for connecting into the water system, generally referred to as the Tapping Fee;

WHEREAS, the Authority's Engineer has undertaken a review and recalculation of system costs based upon the current and future capacity related facilities constructed and/or funded by the Authority, so as to recover these capacity and distribution costs;

NOW THEREFORE BE IT RESOLVED by the Board of this Authority, in public session duly assembled, hereby enacts the following:

SECTION I – TAPPING FEE - Any property owner desiring to connect to the public water system, or required to connect by a mandatory municipal ordinance, shall pay to the Authority, prior to connecting thereto a tapping fee for each Equivalent Dwelling Unit (EDU) of \$3,300.00, consistent with those cost components listed on Exhibit "A" to this Resolution, and those calculations listed on Exhibit "B" (Engineer's Calculation), which is incorporated herein by reference.

SECTION II – DEFINITIONS - For the purposes of this Resolution, an EDU shall be defined as a measure of volume and flow, expressed in maximum gallons per day, for any residential or non-residential activity or use, for any room, group of rooms, house, trailer, single family detached, semi-detached, duplex, apartment, or other unit of occupancy, any building, or structure, which has an actual or estimated water usage of 171 gallons per day. Any activity or use that has an actual, or estimated usage, or any physical or operational change that may increase the estimated or projected water needs, capacity or use (whether for consumptive use or fire suppression) of more than 171 gpd, shall be charged additional EDU(s) fee.

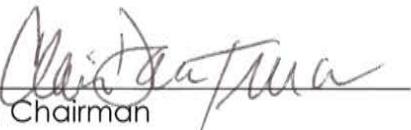
SECTION III – OTHER PROVISIONS - The provisions, terms and conditions of Resolution 2004-2 as modified are ratified and confirmed. A connection fee in addition to the tapping fee is separately from this Resolution described, set forth, and charged (as modified from time to time) by the Authority.

SECTION IV – INVALIDITY - In the event that any section, paragraph, sentence, clause, or phrase of this Resolution shall be declared invalid or unconstitutional for any reason, the remainder of this Resolution shall not be affected thereby.

SECTION V - EFFECTIVE DATE - This Resolution shall become effective August 4, 2021.

RESOLVED and ENACTED this 4th day of August 2021, by the Board of the Elizabethtown Area Water Authority, Lancaster County, Pennsylvania, in lawful session duly assembled.

ELIZABETHTOWN AREA WATER AUTHORITY


(Vice) Chairman

ATTEST:


(Asst) Secretary

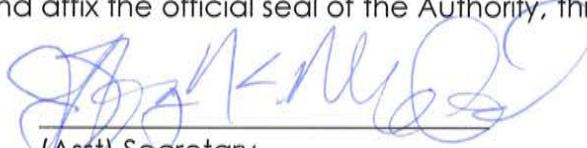
(SEAL)

CERTIFICATE

I, the undersigned, Secretary of Elizabethtown Area Water Authority ("Authority"), certify: that the foregoing is a true and correct copy of a Resolution which duly was adopted by affirmative vote of a majority of all members of the Board of the Authority at a meeting of said Board duly convened and held according to law on August 4, 2021, at which meeting a quorum was present; that said Resolution duly has been recorded in the minutes of the Board of the Authority; and that said Resolution is in full force and effect, without amendment, alteration or repeal, as of the date of this Certificate.

I further certify that the Board of the Authority met the advance notice and public comment requirements of the Sunshine Act, 65 Pa.C.S. Ch. 7, by advertising said meeting, by posting prominently a notice of said meeting at the principal office of the Authority or at the public building in which said meeting was held, and by providing a reasonable opportunity for public comment at said meeting, all in accordance with such Act.

IN WITNESS WHEREOF, I set my hand and affix the official seal of the Authority, this 4th day of August, 2021.



(Asst) Secretary

(SEAL)

Exhibit "A"

Revised Tapping Fee Schedule

	Fee
RESIDENTIAL - Tapping Fee	
Capacity Part (recovers cost of treatment plant, wells, etc.)	\$1,661.00 / EDU
Distribution Part (recovers cost of mains, tanks, hydrants, etc.)	\$1,639.00 / EDU
Total Tapping Fee	\$3,300.00 / EDU
=	=
COMMERCIAL – Tapping Fee	
Capacity Part (recovers cost of treatment plant, wells, etc.)	\$1,661.00 / EDU
Distribution Part (recovers cost of mains, tanks, hydrants, etc.)	\$1,639.00 / EDU
Total Tapping Fee	\$3,300.00 / EDU
=	=

For the purposes of calculating Equivalent Dwelling Units for connection permits and associated tapping fees, each EDU shall be based on any activity, building, structure, use or unit of occupancy that has the effect of generating or requiring **171 gallons per day** of new water consumption based on actual or estimated usage.

Exhibit "B"

Engineer's Calculations Attached and Made a Part Hereof

Our ref: 11229786.02

July 07, 2021

Del Becker
Elizabethtown Area Water Authority
211 W. Hummelstown Street
Elizabethtown, PA 17022

EAWA Tapping Fee Calculation – 2021 Update

Dear Del:

On behalf of the Elizabethtown Area Water Authority (EAWA), an update to the 2017 Tapping Fee Calculation was performed and is herein referred to as the 2021 Tapping Fee Update. A summary of the changes reflected in the attached 2021 Tapping Fee Update is provided below:

System	Tapping Fee Part	Description of Change
EAWA	Capacity	Added Well No. 3 Chlorine Contact Tank. Reduced Total Project Cost for Well No. 3 by the cost of \$120/LF for 80 LF of 36" DIP that was removed. This was converted from the 2021 value (\$9,600) to the 1991 equivalent (\$3,858) to be subtracted from the original Well No. 3 project from 1991.
Former Mt. Joy	Capacity	Added Mt. Joy Township Booster Pump Station. Reduced Total Project Cost for the Contract No. 1 General by the 1994 equivalent of \$200,000 to account for the removal of the Aeration system.
EAWA	Distribution	Added Spruce St. Water Pipe project. Reduced Total Project Cost for the Elizabethtown Borough Water Pipe by \$141,112 to account for the 8 inch DI pipe replaced on East Willow St. and Spruce St.
Former Mt. Joy	Distribution	Added the Rheems Water Main Replacement project. Reduced Total Project Cost for the South System Installation by the cost of 2,767 LF of 8 inch DI pipe replaced on East Willow St., High St., and Donegal St.
Applicable to the Entire EAWA System	Capacity and Distribution	Gallons per EDU – updated calculation based on 2020 Census data per Act 57 regulation. Increased from 2.64 persons per household in Lancaster County in 2010 to 2.63 persons per household in Lancaster County in 2020.

As a result of the updates made to the 2021 Tapping Fee, the overall Tapping Fee increased by \$506.00/EDU as summarized below:

Tapping Fee Part	2017	2021	Increase/(Decrease)
Capacity Part (\$/EDU)	\$1,439.00	\$1,662.00	\$223.00
Distribution Part (\$/EDU)	\$1,339.00	\$1,639.00	\$300.00
Total Tapping Fee (\$/EDU)	\$2,778.00	\$3,301.00	\$523.00

The increase in the total tapping fee is a result of the following factors:

- Updating the historical water system facility costs to 2021 values using the ENR CCI for June 2021
- Adding project costs of several capital improvement projects that have been completed since the last tapping fee update in 2017
- And for the Distribution part, a reduction in outstanding debt as compared to the 2017 figures.

Please be advised that in order to charge the 2021 updated tapping fee, all fees must be separately set forth in a resolution adopted by EAWA.

Please review the accompanying documents and feel free to contact us regarding any questions or concerns.

Sincerely,



Eileen Andrus
Engineer

717-541-0622
eileen.andrus@ghd.com

Encl.

cc: Nancy Adams, GHD



Cynthia L. Zawrotuk
Project Director

717-585-6412
cindy.zawrotuk@ghd.com



ENR Construction Cost Index for June 2021 =

Elizabethtown Area Water Authority
Tapping Fee Calculation - Capacity Part

12112

Table 1

	Construction Cost	Project Overhead	Est. or Actual	Source of Original Cost Data	Total Project Cost	Grants or Contributions	Total Cost to EAWA	Year Constr'd	ENR Const. Cost Index	Estimated 2021 Cost ⁽¹⁾
EAWA System										
Water treatment plant, raw water intake, raw water transmission main, dam & reservoir	\$ 701,532	\$ 34,020	Est. ⁽²⁾	GFCCC 1967 Appraisal	\$ 367,776	⁽¹⁴⁾	\$ 90,793	⁽³⁾	\$ 276,983	1966 ⁽⁴⁾ 1019 \$ 3,292,265
Well No. 1	\$ 110,000	\$ 13,200	Est. ⁽²⁾	Engineer's Est.	\$ 123,200		\$ 123,200	1991 ⁽⁵⁾	4818	\$ 309,713
Well No. 3	\$ 231,000	\$ 27,720	Est. ⁽²⁾	Engineer's Est.	\$ 258,720	\$ 3,858	\$ 254,862	1991 ⁽⁵⁾	4818	\$ 640,700
Well No. 4	\$ 231,000	\$ 27,720	Est. ⁽²⁾	Engineer's Est.	\$ 258,720		\$ 258,720	1991 ⁽⁵⁾	4818	\$ 650,398
Well No. 5	\$ 220,747	\$ 4,614	Actual	Borough's Records	\$ 225,361		\$ 225,361	1988	4519	\$ 604,021
Ridge Rd. Tank	\$ 375,000	\$ 45,000	Est. ⁽²⁾	Engineer's Est.	\$ 420,000		\$ 420,000	1991 ⁽⁵⁾	4818	\$ 1,055,841
Groff Ave. Tank	\$ 375,000	\$ 45,000	Est. ⁽²⁾	Engineer's Est.	\$ 420,000		\$ 420,000	1991 ⁽⁵⁾	4818	\$ 1,055,841
Cornwall Quarry Property Purchase	\$ 1,100,000	\$ 50,000	Actual	Borough's Records	\$ 1,150,000		\$ 1,150,000	1997	5860	\$ 2,376,928
Conewago Raw Water Intake P.S. Upgrade	\$ 133,097	\$ 16,000	Actual	Borough's Records	\$ 149,097		\$ 149,097	1997	5799	\$ 311,409
ROW Costs for Quarry Transmission Main	\$ 60,000	\$ 6,000	Actual	Borough's Records	\$ 66,000		\$ 66,000	1999	6059	\$ 131,935
Cornwall Quarry Transmission Main (Raw Water)	\$ 470,000	\$ 47,000	Actual	Borough's Records	\$ 517,000		\$ 517,000	2001	6343	\$ 987,215
Cornwall Quarry Pump Station	\$ 538,000	\$ 53,800	Actual	Borough's Records	\$ 591,800		\$ 591,800	2001	6343	\$ 1,130,046
West Ridge Storage Tank	\$ 1,253,165	(Footnote 6)	Actual	Borough's Records	\$ 1,253,165		\$ 1,253,165	2009	8570	\$ 1,771,101
Water Storage Tank Painting	\$ 325,587	(Footnote 6)	Actual	Borough's Records	\$ 325,587		\$ 325,587	2009	8570	\$ 460,153
Conewago Pump Station Improvements	\$ 4,638	(Footnote 6)	Actual	Borough's Records	\$ 4,638		\$ 4,638	2010	8801	\$ 6,383
Conewago Transmission Mains	\$ 316,119	(Footnote 6)	Actual	Borough's Records	\$ 316,119		\$ 316,119	2010	8801	\$ 435,045
Water Treatment Plant and Office	\$ 5,234,496	(Footnote 6)	Actual	Borough's Records	\$ 5,234,496		\$ 5,234,496	2011	9070	\$ 6,990,101
SRBC Permitting for New System Capacity	\$ 261,842	(Footnote 6)	Actual	Borough's Records	\$ 261,842		\$ 261,842	2012	9360	\$ 338,828
Well No. 3 Chlorine Contact Tank	\$ 71,900	(Footnote 6)	Actual	Borough's Records	\$ 71,900		\$ 71,900	2019	11381	\$ 76,518
Former West Donegal System⁽⁶⁾										
Capacity Related Components ⁽⁵⁾	\$ 420,178		Actual		\$ 420,178		\$ 420,178	1993	5255	\$ 968,448
Water System Upgrades & Improvements	\$ 76,329		Actual		\$ 76,329		\$ 76,329	1996	5617	\$ 164,589
Rheems Water Improvements (Constr. & Eng.)	\$ 243,270	(Footnote 6)	Actual	CDM Act 203 Study	\$ 243,270		\$ 243,270	1996	5617	\$ 524,566
Hydrogeologic Investigation/Drilling Test Well	\$ 54,667		Actual		\$ 54,667		\$ 54,667	1996	5617	\$ 117,879
Well No. 6 (Engineering Design/Permitting)	\$ 15,954		Actual		\$ 15,954		\$ 15,954	1996	5617	\$ 34,402
Well No. 6 and Bypass Piping	\$ 37,968		Actual		\$ 37,968		\$ 37,968	1996	5617	\$ 81,871
Former Mt. Joy System⁽⁶⁾										
Northbrook Well No. 2	\$ 88,765		Actual		\$ 88,765		\$ 88,765	1990	4732	\$ 227,202
Foxbury Well No. 1	\$ 94,265		Actual		\$ 94,265		\$ 94,265	1990	4732	\$ 241,280
Contract No. 1 General	\$ 857,961		Actual		\$ 857,961	\$ 89,300	\$ 89,300	1994	5408	\$ 1,721,528
Contract No. 2 Electrical	\$ 116,218		Actual		\$ 116,218		\$ 116,218	1994	5408	\$ 260,287
N. System Project Costs	\$ 268,204	(Footnote 6)	Actual	Hanover Engineering	\$ 268,204		\$ 268,204	1994	5408	\$ 600,682
Water Storage Tank	\$ 574,087		Actual	Tapping Fee Updates	\$ 574,087		\$ 574,087	1994	5408	\$ 1,285,751
Waier Transfer Vault	\$ 158,383		Actual		\$ 158,383		\$ 158,383	2002	6538	\$ 293,413
Mt. Greina Tank Site	\$ 3,144		Actual		\$ 3,144		\$ 3,144	2004	7115	\$ 5,352
SCADA Project	\$ 42,523		Actual		\$ 42,523		\$ 42,523	2007	7967	\$ 64,646
SCADA System	\$ 43,149		Actual		\$ 43,149		\$ 43,149	2008	8310	\$ 62,891
Mount Joy Township Booster Pump Station	\$ 317,549	(Footnote 6)	Actual	Borough's Records	\$ 317,549		\$ 317,549	2020	11539	\$ 333,317
TOTAL CAPACITY COSTS										
										\$ 29,612,546

Table 1
Elizabethtown Area Water Authority
Tapping Fee Calculation - Capacity Part

CAPACITY FACILITY SUMMARY	
TOTAL CAPACITY COSTS	\$ 29,612,546
DEBT ON CAPACITY FACILITIES ⁽¹⁶⁾	\$ 7,926,730
CAPACITY FEE COST BASIS	\$ 21,685,816
SAFE YIELD SOURCE CAPACITY (MGD) ⁽¹¹⁾	
COST PER GALLON ⁽¹²⁾	\$ 2.230
GALLONS PER EDU ⁽¹³⁾	\$ 9.72
TAPPING FEE CAPACITY PORTION (\$/EDU)	\$ 171
	\$ 1,652

Footnotes:

- (1) Calculated by multiplying the ratio of the ENR 20 cities June 2021 construction cost index (CCI) by the CCI the year the project was bid.
- (2) Overhead is estimated at 12% of construction cost.
- (3) Value of items demolished/deactivated as part of 2012 Water Treatment Plant Upgrade Project.
- (4) 1966 used as base year which is the base year of the GFCC, Inc. water system appraisal.
- (5) Engineer's estimate using 1991 dollars.
- (6) Project costs were not broken out from original source documentation, therefore it is assumed that project overhead is included in the "Construction Cost" unless otherwise noted.
- (7) Information regarding the West Donegal Facility is as per the July 1996 Camp Dresser & McKee Act 203 Allowable Fee Calculation.
- (8) Based on 60% of total purchase price of \$700,287.00 for the entire water system.
- (9) Per Hanover Engineering letter updates to Mt. Joy's Tapping Fees letter dated 6-23-05, 2-10-06, 2-19-2008, 2-24-2010, and 2-11-2011.
- (10) Outstanding debt of \$9,045,830 as of the 6/27/17 debt schedule minus \$775,198 for the West Ridge Water Main and \$376,603 from the former West Donegal distribution system.
- (11) Per total system withdrawal limit from SRBC permit for Well 8 and Well 9 approved September 8, 2016 and modified September 7, 2017.
- (12) Calculated by dividing the Eligible Capacity Part Cost by the Safe yield capacity.
- (13) As per Act 57 regulation, the gallons per EDU is determined by multiplying 65 GPD by 2.63 which is the average number of persons per household for Lancaster County per 2020 U.S. Census Data.
- (14) Total project cost reduced by 50% to account for depreciation since the old treatment plant was replaced by the new WTP.
- (15) Value of items demolished/deactivated as part of 2019 Well No. 3 Chlorine Contact Tank Project. See Exhibit A for calculation detail.
- (16) Value of items demolished/deactivated as part of 2020 Mount Joy Township Booster Pump Station Project. See Exhibit A for calculation detail.

Table 2
Elizabethtown Area Water Authority
Tapping Fee Calculation - Distribution Part

Table 2
Elizabethtown Area Water Authority
Tapping Fee Calculation - Distribution Part

DISTRIBUTION FACILITY SUMMARY	
TOTAL DISTRIBUTION COSTS	\$ 21,385,318
DEBT ON DISTRIBUTION FACILITIES	\$ -
DISTRIBUTION FEE COST BASIS	\$ 21,385,318
SAFE YIELD SOURCE CAPACITY (MGD) ⁽⁸⁾	2,230
COST PER GALLON ⁽¹⁰⁾	\$ 9.59
GALLONS PER EDU ⁽¹¹⁾	171
TAPPING FEE DISTRIBUTION PORTION (\$/EDU)	\$ 1,639

- (1) Calculated by multiplying the ratio of the ENR 20 cities June 2021 construction cost index ('C1) times the C1 of the year the project was bid.
- (2) Project costs are not broken out from original source documentation; therefore it is assumed that project overhead is included in the "Construction Cost" unless otherwise noted.
- (3) Project Overhead is estimated at 6% of construction cost
- (4) Cost includes Borough water pipe 8-12 inches, per 2003 Elizabethtown Area Regional Authority, Water System Asset Valuation. Excludes transmission pipes already listed in distribution table.
- (5) Cost based on 2003 Elizabethtown Area Regional Authority, Water System Asset Valuation (\$3,300/hydrant) and current inventory of hydrants (235 hydrants) per Borough records.
- (6) Engineer's estimate using 1991 dollars
- (7) Information regarding the West Donegal Facility is as per the July 1996 Camp Dresser & McKee Act 203 Allowable Fee Calculation.
- (8) Based on 40% of total purchase price of \$700,297.00 for the entire water system.
- (9) Per total system withdrawal limit from SRBC permit for Well 8 and Well 9 approved September 8, 2016 and modified September 7, 2017.
- (10) Calculated by dividing the Eligible Distribution Part Cost by the safe yield capacity.
- (11) As per Act 57 regulation, the gallons per EDU is determined by multiplying 65 GPD by 2.63 which is the average number of persons per household for Lancaster County per 2020 U.S. Census Data.
- (12) Value of items demolished/deactivated as part of 2019 Spruce Street Water Main Replacement Project. See Exhibit A for calculation detail.
- (13) Value of items demolished/deactivated as part of 2020 Rheems Water Main Replacement Project. See Exhibit A for calculation detail.

Exhibit A - 2021 Tapping Fee Update Calculations

Well No. 3 Chlorine Contact Tank Calculation for cost of 36" DIP				
ENR Index 2021	ENR Index 1991	2021 cost	1991 cost	total cost for 80 LF
11990	4818	\$ 120	\$ 48	\$ 3,858

Mt Joy Twp Booster Pump Station			
ENR Index 2021	ENR Index 1994	2021 Cost of Aeration	1994 Cost of Aeration System
12112	5408	\$ 200,000	\$ 89,300

Rheems Water Main Replacement Costs			
Total cost	\$ 804,309	2020 cost/LF	\$ 291
1995 cost/LF	\$ 131		

Rheems Water Main Replacement			
Road	Measured Length	Length of Pipe (ft)	Cost
East Willow Street	15.06	450.90	\$ 59,195
High Street	33.02	988.62	\$ 129,788
High Street	32.61	976.35	\$ 128,178
Donegal Street	11.74	351.50	\$ 46,146
Total		2767.37	\$ 363,307

Spruce Street Water Main Replacement			
Road	Length of Pipe (ft)	Cost	
East Willow Street	1152.93	\$ 69,176	
Spruce Street	1198.94	\$ 71,936	
Total	2351.87	\$ 141,112	