

**CHARTER TOWNSHIP OF UNION
Connection Fee Analysis
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Submitted Respectfully by:
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INTRODUCTION

This report was prepared to provide Charter Township of Union with a connection fee calculation. The specific purpose of this study is to ensure new connections are put on the same equity basis as existing customers.

The analysis includes the current determination of the charges per meter equivalent based on the "Equity Method". This method identifies the equity each existing customer has in the water and wastewater system and charges new customers based on that existing equity.

The per meter equivalent using the Equity Method is calculated as follows:

- a. Determine historical investment and accumulated depreciation
- b. Determine cash balance
- c. Determine total system meter equivalents
- d. Calculate connection charge per meter equivalent by dividing sum of a and b by c

WATER DEPARTMENT CALCULATION

The NBV, contributed capital, cash balances and principal on debt were derived from the 2020 Projection. The AWWA standard for calculating the meter equivalent conversion was used in the study and is listed on page 3 of this report. The Water connection fee was calculated using a 5/8" meter equivalent. The recommended fee per 5/8" meter equivalent is \$2,440 as calculated below for the Water Department.

WATER DEPARTMENT

TABLE ONE A – DETERMINATION OF WATER CONNECTION FEE PER 5/8" METER EQUIVALENT

	Projected 2020
Capital Assets, Net	\$ 9,277,353
Total Net Book Value of Assets	9,277,353
Less NBV of Contributed Capital	-
NBV of Assets used for Connection Charges	9,277,353
Plus Cash Balances	3,264,838
Equity before principal on Debt	\$12,542,192
Less Outstanding Principal Balance on Debt	1,285,000
System Equity after Principal on Debt	11,257,192
Meter Equivalents	4,615
Charge per 5/8" Meter Equiv	\$ 2,439.53

Proposed Charge Per Meter 5/8" Equiv \$ 2,440

TABLE ONE B – DETERMINATION OF WATER CONNECTION FEE PER 5/8" METER EQUIVALENT BY METER SIZE*

Meter Size	Fee per 5/8" Meter Equiv
5/8"	2,440
3/4"	3,659
1"	6,099
1.5"	12,198
2"	19,516
3"	36,593
4"	60,988
6"	121,976
8"	195,162
10"	280,545

*These fees do not include labor or materials for the actual tap which is done on a time and material basis

A conservative average estimate of revenues received from connection fees should be used as an off-set to revenue requirements during the yearly budget process to help avoid double charging the recovery of costs with standard user rates.

WASTEWATER DEPARTMENT CALCULATION

The NBV, contributed capital, cash balances and principal on debt were derived from the 2020 Projection. The AWWA standard for calculating the meter equivalent conversion was used in the study and is listed on page 5 of this report. The wastewater connection fee was calculated using a 5/8" meter equivalent. The recommended fee per 5/8" meter equivalent is \$3,522 as calculated below for the Wastewater Department.

WASTEWATER DEPARTMENT

TABLE ONE A – DETERMINATION OF WASTEWATER CONNECTION FEE PER 5/8" METER EQUIVALENT

	Projected 2020
Capital Assets, Net	\$ 17,433,140
Total Net Book Value of Assets	17,433,140
Less NBV of Contributed Capital	-
NBV of Assets used for Connection Charges	17,433,140
Plus Cash Balances	2,617,419
Equity before principal on Debt	\$ 20,050,559
Less Outstanding Principal Balance on Debt	5,556,651
System Equity after Principal on Debt	14,493,909
Meter Equivalents	4,115
Charge per 5/8" Meter Equiv	\$ 3,522.11
Proposed Charge Per 5/8" Meter Equiv	\$ 3,522

TABLE ONE B – DETERMINATION OF WASTEWATER CONNECTION FEE PER 5/8" METER EQUIVALENT BY METER SIZE*

Meter Size	Fee per 5/8" Meter Equiv
5/8 inch	\$ 3,522
3/4 inch	5,283
1 inch	8,805
1-1/2 inch	17,611
2 inch	28,177
3 inch	52,832
4 inch	88,053
6 inch	176,105
8 inch	281,768

These fees do not include labor or materials for the actual tap which is done on a time and material basis

A conservative average estimate of revenues received from connection fees should be used as an off-set to revenue requirements during the yearly budget process to help avoid double charging the recovery of costs with standard user rates.