Whitefish Water and Sewer Impact Fee Problems

Wastewater Collection Chart

Revised April 17, 2023

Since 2019, Whitefish has overcharged the water and sewer impact fees imposed on residents and builders. In 2018, Whitefish created collection charts that resulted in overcharged fees beyond the maximum allowable rates identified in the *2018 FCS Group Impact Fee Update*. These charts were developed for both water and sewer impact fees and both Whitefish collection charts are incorrect. This document demonstrates the problem, specifically the sewer impact fee collections.

SUMMARY

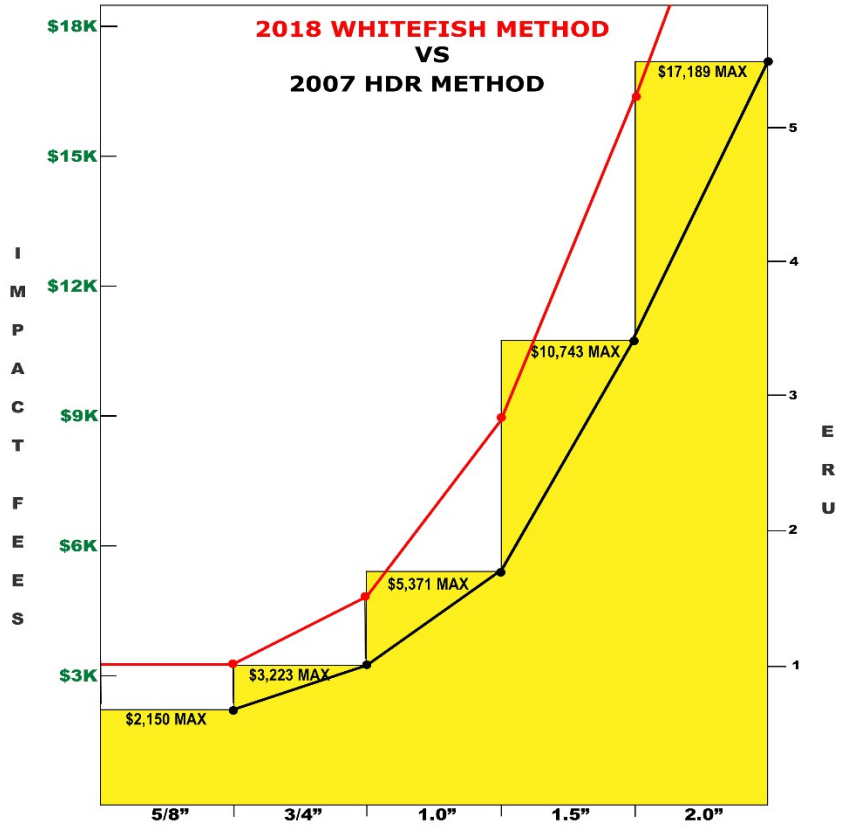
Whitefish established a precedent years ago by using both meter size and fixture units to determine water and sewer impact fees. This dates back to the Plant Investment Fees (PIF) it collected in the 1990s and this method was employed by HDR Engineering when it produced the Impact Fee Study that established impact fees in 2007. Whitefish appears to be the only city in Montana to use this method of fee collection. Most cities in Montana simply use meter size to determine impact fees (Standard Meter Size Method, Page 8). The larger the meter, the higher the impact fee can be. All cities in MT use the American Water Works Assoc. (AWWA) standards to determine the difference in fees.

The meter size of the typical or average new single family residence determines the base meter size for the collection chart. In 2018, the base meter size was 3/4". This represented 1 ERU (Equivalent Residential Unit) (Note 3). The original 1990s PIF collection charts, plus those created in 2007 by HDR determined impact fees based on a 5/8” meter because that was installed in the typical new home in Whitefish.

The method adopted in 2007 established that impact fees range between the max allowable fee for the **PRIOR** meter size up to the max allowable fee for the **CURRENT** meter size. (For residences with a 1” meter, impact fees ranged between the max fees for a 3/4” meter up to a 1” meter). This was designed to ensure residents were treated fairly and were never charged more than the maximum allowable impact fee for each meter size (Note 2).

In 2018, the City either deliberately or mistakenly changed this design. The City Manager created water and wastewater impact fee charts that charged fees between the max allowable fee for the **CURRENT** meter size up to the max allowable fee for the **NEXT HIGHER** meter size (For residences with a 1” meter, fees ranged between the max impact fee for a 1” meter up to a 1 1/2” meter). This practice resulted in Whitefish residents and builders being charged more than allowed by Montana statute 7-6-1602.

The following graphic demonstrates the difference between the HDR impact fee collection method and the method employed by Whitefish in the 2018 FCS update.



Note the Whitefish method (red dots) charges impact fees that start at or near the maximum allowable fee for the **Current** meter size. Fees increase to the maximum allowable fee for the next **Higher** meter size which exceeds allowable limits. The HDR method (black dots) charges impact fees that start at the maximum allowable fee for the **Prior** meter size and these fees increase up to the maximum allowable fee for the **Current** meter size. Although Whitefish claims it is following the HDR method, it clearly is not and is charging fees that exceed the maximum allowable for each meter size.

Impact Fee Collection Chart Structure

The original Whitefish Plant Investment Fee (PIF) and 2007 HDR Impact Fee collection charts were designed with fairness in mind. Cil Pierce describes this in her 2007 HDR report, page 5-2:

"In addition, the City calculates fixture units according to a program based on the Uniform Plumbing code. Any fixtures over the **maximum amount allowed for the next smaller sized meter** are charged the per unit charge. This way,

customers that will have a greater demand on the system pay their share. Likewise, those with less fixture units pay a proportionate share to the benefit they derive from the system. Some utilities use just the AWWA weighting factor by meter size to implement connection charges, without accounting for the varying uses within each similar size meter. The City's methodology is most equitable."

Any collection chart that is based upon this structure should be constructed as follows.

1. The base meter size is identified in the Impact Fee Study. For Whitefish, this meter size is 3/4" per the 2018 FCS Update (Note 3). It is the smallest meter size installed in Whitefish in new homes and businesses.
2. The maximum allowable impact fee for the base meter size is identified in the 2018 FCS Update as well.
3. The maximum allowable impact fees for each subsequent meter would likewise be calculated per the AWWA weighting factors based on a 3/4" base meter.
4. Impact fees for each meter size would start at the maximum allowed fee for the **next smaller meter size** and would increase with each additional fixture until they reach the maximum allowable fee for this meter (Note 2).

2018 FCS Collection Charts Created For Wrong Meter Size

The *2018 FCS Impact Fee Update* calculated new impact fees for the City of Whitefish. It specifically defines the maximum allowable water and sewer impact fees for a typical new single family residence having a 3/4 inch meter.

Here is a step by step analysis showing these Whitefish overcharges:

1. In the *2018 FCS Impact Fee Update*, the maximum sewer impact fee that could be collected for a typical new dwelling with a 3/4 inch meter was $3223 (2018 FCS Update Table II-1, page 4 below).
2. A chart defining the maximum allowable fees for each larger water meter size is constructed using the AWWA meter size comparisons.

2018 FLAT SEWER FEE $3223		
3/4" Base Meter Size with 3/4" Max Impact Fee		
Meter Size (Inches)	Current AWWA Weighting Factor	Maximum Allowable Impact Fee
3/4	1.00	$3,223
1	1.67	$5,371
1-1/2	3.33	$10,743
2	5.33	$17,189
3	10.00	$32,230
4	16.67	$53,717
6	33.33	$107,423

3. Using the collection chart currently in use by the City of Whitefish (*Whitefish City Ordinance 19-15, Exhibit A* below), the maximum fees the City is currently charging residents for each meter size can be calculated. These fees are considerably higher than the maximum allowable fees shown above. The Whitefish collection chart fails the **Nexus** test required by state law. (Note 1).

2018 Whitefish Wastewater Collection Overcharges				
3/4" Base Meter Size with 3/4" Max Impact Fee 5/8" Whitefish Chart				
Meter Size (Inches)	Current AWWA Weighting Factor	Maximum Allowable Impact Fee	Maximum Fee Charged By Whitefish	Whitefish Impact Fee Overcharges
3/4	1.00	$3,223	$4,834	$1,611
1	1.67	$5,371	$8,058	$2,687
1-1/2	3.33	$10,743	$16,115	$5,372
2	5.33	$17,189	$25,748	$8,559
3	10.00	$32,230	$48,345	$16,115
4	16.67	$53,717	$80,575	$26,858
6	33.33	$107,423	$161,150	$53,727

FCS Study Maximum Impact Fees and 3/4 Inch Base Meter

The chart below is from the 2018 FCS Study that calculates the maximum allowable impact fees the City of Whitefish can collect.

Table II-1. Total Impact Fees for a New Single Family Residence (dwelling unit)*

	Water	Wastewater	Stormwater	City Hall/ General	ESC/Fire	Parks/Trails	Police	Streets	Total
Whitefish (current)	$1,641	$1,654	$210	$771	$814	$29 + $442	$0	$0	$5,561
Whitefish (new maximum defensible)	$1,163	$3,384	$181	$47	$446	$134 + $2,579	$0	$0	$7,934
Missoula	$2,000	$2,100	$0	$270	$128	$480	$23	$1,359	$6,360
Bozeman	$2,547	$1,179	$0	$0	382	$0	$0	$5,037	$9,145
Kalispell	$2,567	$5,757	$1,121	$0	$483	$0	$41	$0	$9,969

*charges for water and sewer assume base rate for a ¾ inch meter.

In this chart, the maximum sewer impact fee the City can collect from a resident with a 3/4 inch water meter is $3384 (3223 + admin fee). Residents with larger meters can be charged proportionately more in impact fees based on AWWA Meter Size charts.

AWWA Meter Size Chart

The following chart shows the relative difference among water meter sizes. This chart has a base 3/4 inch meter with a **Weighting Factor** of 1.0. All other meter sizes have weighting factors greater that 1.0 based on water flow (gallons per minute). This comes from the AWWA, M6 manual entitled *Water Meters*.

AWWA 3/4 Inch Meter Base Chart *		
Meter Size (Inches)	Rated Capacity GPM	Current Weighting Factor
3/4	30	1.00
1	50	1.67
1-1/2	100	3.33
2	160	5.33
3	300	10.00
4	500	16.67
6	1000	33.33
* AWWA, M6 manual entitled *Water Meters*		

Maximum Allowable Wastewater Impact Fees

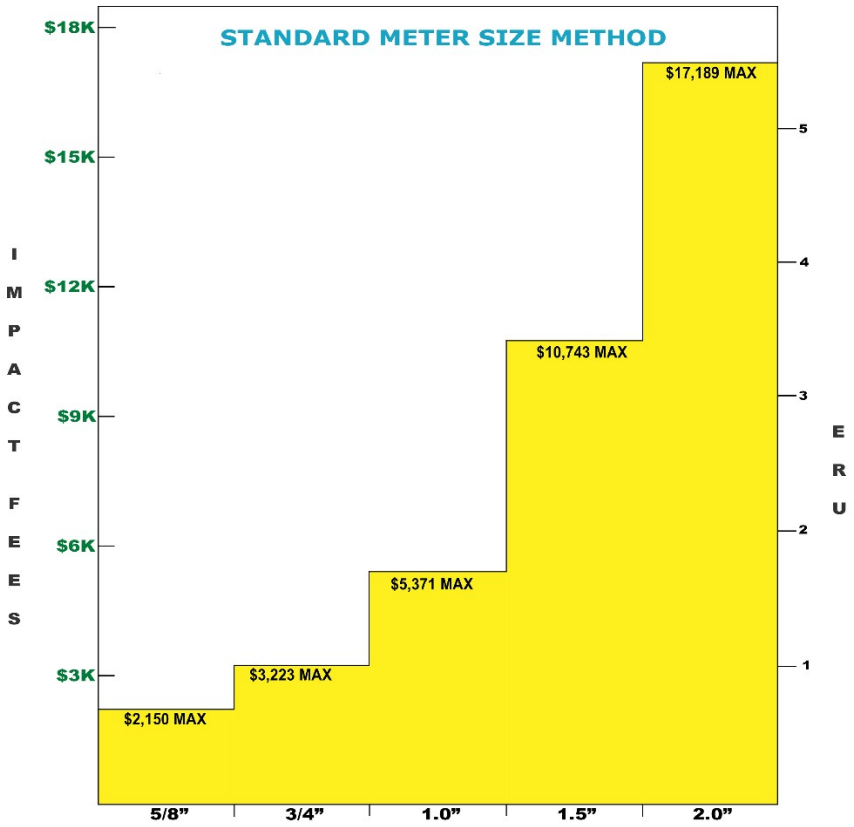
Using the above **Weighting Factors** and the maximum 3/4 inch meter fee ($3223), the following collection chart shows the maximum sewer impact fees for ALL meter sizes up to 6 inches. (Note $3223 does not include admin fees as listed above).

2018 FLAT SEWER FEE $3223		
3/4" Base Meter Size with 3/4" Max Impact Fee		
Meter Size (Inches)	Current AWWA Weighting Factor	Maximum Allowable Impact Fee
3/4	1.00	$3,223
1	1.67	$5,371
1-1/2	3.33	$10,743
2	5.33	$17,189
3	10.00	$32,230
4	16.67	$53,717
6	33.33	$107,423

The right column of this chart shows the maximum fees the City can collect, no matter what collection chart or method they employ. These maximum fees establish the Nexus between costs incurred by existing residents and those attributed to new development. A charge greater than these maximum fees results in the City violating Montana statutes and overcharging its residents (Note 1).

This type of chart is employed by cities in Montana that use meter size to collect impact fees. All such charts use a 3/4” base meter.

The following chart, using the FCS Update wastewater impact fee, demonstrates how most cities in Montana collect water and wastewater impact fees using a single fee per meter size.



Note the following:

1. Each meter size has only one fee charged starting at $3223 for a 3/4“ meter
2. Higher fees are charged for larger meters based on AWWA flow rates
3. No resident is charged more than the maximum fee per meter size.
4. Most cities in Montana use this method of impact fee collections.

Whitefish Incorrect Wastewater Collection Chart

Whitefish created a more complicated collection chart that uses fixture units within each meter size to further define impact fees. However, the City Ordinance chart created below had significant problems which resulted in overcharging residents. This wastewater impact fee chart was designed by the City Manager who attempted to duplicate the collection chart from the 2007 HDR Impact Fee Study. This chart is included in the Whitefish City Ordinance 19-15 passed in 2019.

Whitefish City Ordinance 19-15, Exhibit A

Meter Size (Inches)	Current Weighting Factor	Base Impact Fee	Base Number of Fixture Units	Additional Cost Per Fixture Unit Above Base
3/4	1.00	$ 3,223.00	20	$ 107.47
1	1.50	$ 4,834.00	35	$ 107.47
1-1/2	2.50	$ 8,058.00	65	$ 70.06
2	5.00	$ 16,115.00	180	$ 53.72
3	8.00	$ 25,784.00	360	$ 51.28
4	15.00	$ 48,345.00	800	$ 32.23
6	25.00	$ 80,575.00	1,800	$ 28.78

Example How To Use This Chart

A resident has a 3/4 inch meter and 30 fixture units. Using the above chart, locate the 3/4 inch meter size.

Meter Size (Inches)	Current Weighting Factor	Base Impact Fee	Base Number of Fixture Units	Additional Cost Per Fixture Unit Above Base
3/4	1.00	$ 3,223.00	20	$ 107.47

*Subtract the **Base Number of Units** (20) from the resident's fixture units (30) resulting in 10 units. Multiply 10 units by the **Additional Cost Per Fixture** ($107.47) resulting in an additional fee of $1075. Add this to the **Base Impact Fee** ($3223) and the result is $4298. **But this fee is $1075 more than the maximum allowable fee for a 3/4 inch meter**.*

Problems With The Chart

This chart is inaccurate and failed to correctly duplicate the previous collection charts used by the City for the following reasons.

1. The **Current Weighting Factors** are for a 5/8 inch meter, not a 3/4 inch meter. (See the AWWA chart above for the correct weighting factors).
2. The **Base Impact Fee** for each meter used in this chart is the maximum allowable impact fee for the **CURRENT** meter, which is incorrect and does not match the collection charts previously used by Whitefish. According to the author of the 2007 HDR Study, the **Base Impact Fee** for each meter should be the maximum allowable fee for the **PRIOR** meter size to ensure that no fee exceeds the maximum allowable fee (Note 2). Additional fees are added using fixture units and cost per fixture unit above the base units. Using the City's chart produces fees that are higher than the maximum allowable fees for each meter.

The Exhibit A chart above was created by the City Manager in 2018. The manager attempted to duplicate the collection chart developed 20 years ago for Whitefish but did not use the correct **Base Impact Fee** for each meter**.** In an email sent to the Public Works Director on Sept 6, 2018, the City Manager states the following:

"Attached is the Impact Fee Updates I calculated and the final report. The water and sewer figures are based on a 5/8 meter up to 20 fixtures. After that the base rate changes with a per fixture rate."

The City Manager simply copied a 20 year old collection chart, inserted the max allowable fee computed for a 3/4" meter in the 5/8" meter position, and calculated the rest of the chart (incorrectly) on this base meter. The City no longer installed 5/8" meters, yet the maximum allowable fee was assigned this meter size. There was no oversight of this process and the overcharges were allowed to be enacted in the Dec 2018 and July 2019 City ordinances.

The **Base Impact Fee** for each meter MUST be the **previous meter's** maximum allowable fee. Additional fees based on fixture units may be added to this base fee. This is described in detail by **Cil Pierce**, the author of the original collection chart (Note 2).

Overcharges Per Meter Size

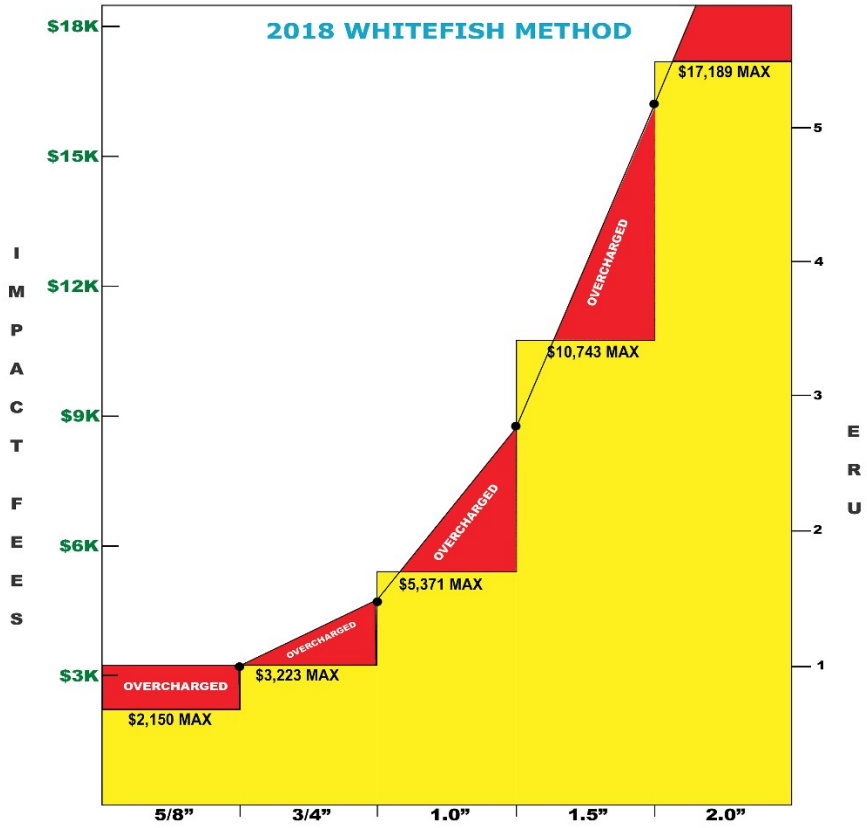
The following chart shows the maximum overcharges the City is imposing.

2018 Whitefish Wastewater Collection Overcharges

3/4" Base Meter Size with 3/4" Max Impact Fee 5/8" Whitefish Chart

Meter Size (Inches)	Current AWWA Weighting Factor	Maximum Allowable Impact Fee	Maximum Fee Charged By Whitefish	Whitefish Impact Fee Overcharges
3/4	1.00	$3,223	$4,834	$1,611
1	1.67	$5,371	$8,058	$2,687
1-1/2	3.33	$10,743	$16,115	$5,372
2	5.33	$17,189	$25,748	$8,559
3	10.00	$32,230	$48,345	$16,115
4	16.67	$53,717	$80,575	$26,858
6	33.33	$107,423	$161,150	$53,727

The overcharges are further shown in the below graphic to demonstrate the extent of the Whitefish wastewater impact fee problem:



Note the following:

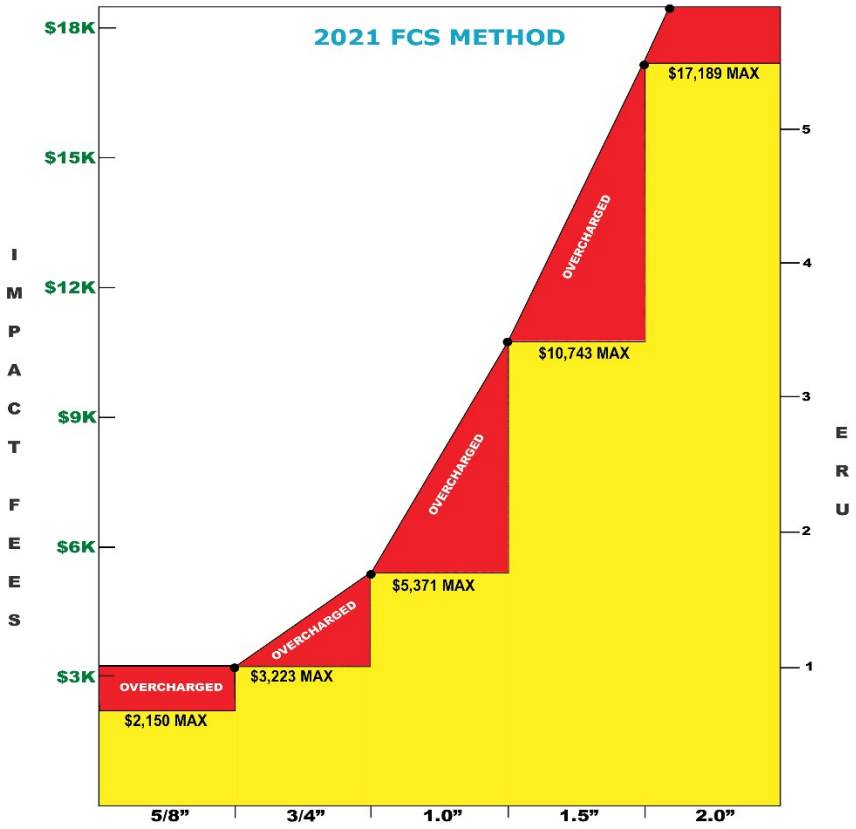
1. The 2018 FCS Collection chart was built by Whitefish personnel, not FCS.
2. The chart was built on a 5/8” base meter size with incorrect current weighting factors associated with a 5/8” meter. The City does not install 5/8” meters.
3. Impact fee for each meter starts with **CURRENT** max allowable impact fee rather than the max fee associated with the **PRIOR** meter size, contrary to the HDR charts and description provided by Cil Pierce.
4. Most impact fees exceed the maximum allowable fee for that meter size.

FCS Attempts To Correct The Chart But Fails

In 2021, Whitefish asked FCS to build a collection chart that was based on a 3/4” base meter size. FCS failed to review the original 2007 HDR Study and built a collection chart that used the AWWA

weighting factors but failed to apply them correctly as described by Cil Pierce of HDR. Instead of starting each meter size impact fee at the maximum allowable fee for the PRIOR meter, FCS started each meter size impact fee at the maximum allowable fee for the CURRENT meter.

Using the FCS method, the following graph and description demonstrates the problem:



Note the following:

1. The 2021 FCS chart was built by FCS at the request of Whitefish.
2. The chart is constructed on a 3/4" base meter size with AWWA weighting factors. However, the weighting factors are not correct for this chart.
3. Impact fee for each meter starts with CURRENT max allowable impact fee rather than the max fee associated with the PRIOR meter size, contrary to the HDR charts and description provided by Cil Pierce.

4. ALL impact fees exceed the maximum allowable fee for that meter size.

The chart above actually produces results worse than the 2018 Whitefish chart and every fee is higher than allowed.

Correct Wastewater Impact Fee Chart for 3/4 inch Meter

Before showing the corrected impact fee chart, it is important to understand the difference between the weighting factors.

Current Weighting Factor Vs AWWA Weighting Factor

If the collection chart does not use fixture units, the Current Weighting Factors and the AWWA Weighting Factors are the same. That is because there is only one fee for each meter size and that is determined by the AWWA weighting factor multiplied by the max allowable impact fee for a 3/4" meter. But when fixture units are used, the weighting factors must be different to calculate the base impact fee for each meter size which starts at the max impact fee for the previous meter size.

AWWA vs CURRENT WEIGHTING FACTORS		
3/4" Base Meter Size		
Meter Size (Inches)	AWWA Weighting Factor	Current Weighting Factor
5/8	0.67	0.67
3/4	1.00	0.67
1	1.67	1.00
1-1/2	3.33	1.67
2	5.33	3.33
3	10.00	5.33
4	16.67	10.0
6	33.33	16.67

Why is this necessary? The base impact fee for each meter starts at the previous meter's max fee. So the weighting factor for each meter is actually the AWWA weighting factor for the previous meter size.

The correct chart which produces fair wastewater impact fees appears below. This chart was built for a base 3/4 inch meter (AWWA weighting factor of 1) using the method employed by the Cil Pierce, the author of the 2007 HDR Engineering collection charts used by the City for the previous 20 years. The chart starts with a 5/8" meter (AWWA weighting factor of .67) to allow for a progressive fee for 3/4" meters. In this chart, the Current Weighting Factors for each meter size is the AWWA Weighting Factor for the prior meter size as described by Cil Pierce.

Corrected Wastewater Impact Fee Chart

	Progressive Fee Starting With 5/8" Meter			
	3/4" Base Meter Size with 3/4" Max Impact Fee			
Meter Size (Inches)	Current Weighting Factor	Base Impact Fee	Base Number of Fixture Units	Additional Cost Per Fixture Unit Above Base
5/8	0.67	$2,159	0	$0.00
3/4	0.67	$2,159	21	$70.91
1	1.00	$3,223	36	$71.62
1-1/2	1.67	$5,371	66	$46.71
2	3.33	$10,743	181	$35.81
3	5.33	$17,189	361	$34.18
4	10.00	$32,230	801	$21.49
6	16.67	$53,717	1801	$21.49

The impact fee for a 5/8" inch meter is a simple flat fee of $2159 (.67 x 3223, maximum allowable for that meter size). Subsequent fees for larger meters are calculated based on additional fixture units and range between the maximum allowable fee for the **prior meter** size up to the maximum allowable fee for the **current meter**. Note that the 2 inch meter **Current Weighting Factor** and **Base Impact Fee** are actually the AWWA weighting factor for the 1 1/2 inch meter and the maximum allowable sewer fee for a 1 1/2 inch meter. The same is true for all other meters. Important Note: the **Current Weighting Factors** are NOT the **AWWA Weighting Factors**. FCS mistakenly used the wrong

weighting factors when computing important water and wastewater statistics used to calculate impact fees in its 2018 Update.

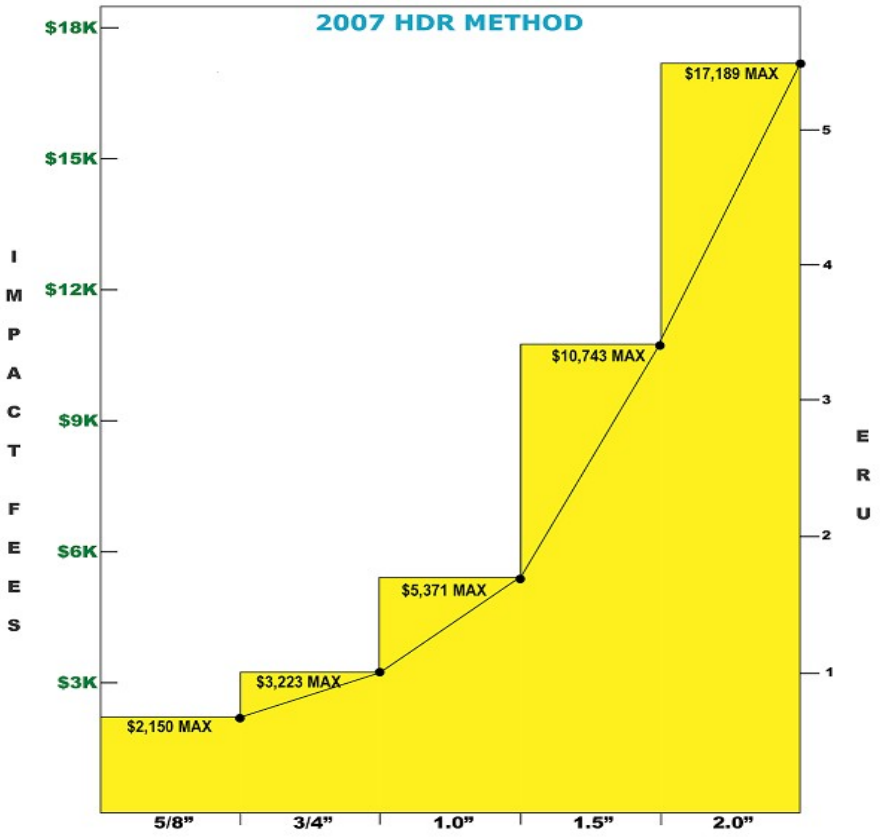
Using the above **Correct Wastewater Impact Fee Chart**, the fees charged below by the City would never exceed the maximum allowable fees calculated in the 2018 FCS Update and would pass the Nexus test.

Corrected Whitefish Collection Chart

Maximum Allowable Sewer Impact Fees By Meter Size

Meter Size (Inches)	AWWA Weighting Factor	Maximum Allowable Fee	Range of Impact Fees Collected
3/4	1.00	$3,223	$0- $3,223
1	1.67	$5,382	$3,223 - $5,382
1-1/2	3.33	$10,733	$5,382 - $10,733
2	5.33	$17,179	$10,733 - $17,179
3	10.00	$32,230	$17,179 -$32,230
4	16.67	$53,727	$32,230 - $53,727
6	33.33	$107,423	$53,727 - $107,423

The following chart demonstrates how sewer impact fees should have been collected. This chart follows the exact design of the 2007 HDR Study.



Note the following:

1. Method follows exactly how Cil Pierce created the wastewater impact fee collection chart found in the 2007 Study and established by precedent in Whitefish .
2. Impact fees for each meter size start at the maximum allowable fee for the **PRIOR** meter.
3. Fees progress up to the maximum allowable fee for the **CURRENT** meter.
4. No fee exceeds the maximum allowable fee.

This is just one example of the type of chart the City could employ. A 5/8 inch category could be added with a weighting factor or .67 to accommodate a smaller starting meter size. The City could simply charge a flat fee for every meter size. In all cases, the City cannot and should not charge more than the maximum allowable fee for each meter size.

Notes

1. 2007 HDR Impact Fee Study, page 5-6, "*The City, as a matter of policy, may charge any amount up to the allowable impact fee, but not over that amount. Charging an amount greater than the allowable impact fee would not meet the* ***nexus*** *test of a cost-based impact fee". Cil Pierce, HDR Engineering.* Further, Overstreet Law defines nexus: "*The new law requires that there be a reasonable connection, called a* ***rational nexus****, between impact fees and the actual expenditures required as a result of the new home construction, and that the residents of those new homes receive some benefit from the impact fees they pay.*" In 1994, the United States Supreme Court ruled in Dolan v. City of Tigard (Oregon) that exactions made by governments must be "roughly proportional" to the impacts caused by the development that is subject to the exaction. Synonyms for "roughly proportional" include (1) "***rational nexus of benefit***" between system development charges and development, (2) "proportionate share" of public facilities to be paid by system development charges, and (3) costs "reasonably related" to expected impacts.
2. Cil Pierce authored the *2007 HDR Engineering Impact Fee Study* performed for the City of Whitefish. In this study, on page 5-7, table 5-5, Cil Pierce described how the 5/8 inch meter collection charts for both water and sewer are created as follows: "*The impact fees for the larger meter sizes are determined by applying the base charge for that size meter and multiplying the excess fixture units, above the maximum level allowed for the* ***next lower meter size****, times the cost per fixture. The weighting factors are determined based on the American Water Works Association (AWWA) average sustained flow rate for 5/8-inch meter for the type and size of meter. For example, the capacity that a 2-inch meter has is equivalent to the capacity of 8.0 single-family homes (i.e., a 5/8-inch customer). The weighting factor of 5.0 is applied to 2-inch meters to allow the remainder of the charge (above the base charge) to be*

determined by the additional fixture units above the level that a 1/1/2-inch meter could have." (my emphasis added) A detailed description of this chart can be found in the *Whitefish Collection Chart Impact Fee Problems (Detailed)*.

3. 2018 *FCS Impact Fee Update*. Page i, FCS recommended impact fees, "*A Wastewater Impact Fee of $3,384 per Equivalent Residential Unit (ERU)*". Page 6, Maximum defensible impact fees are defined by FCS including $3384 (include admin fee) for wastewater. "*Table II-1. Total Impact Fees for a New Single Family Residence (dwelling unit)**". "**charges for water and sewer assume base rate for a ¾ inch meter."*