

Village of Wales Sewer Rate Structure
2018 Sewer Service Charge

Every Service Receives the following four charges per quarter

	<u>Units</u>	<u>2018 Rates</u>	<u>Annual Revenue Extended</u>	<u>Quarterly Charges Single Rec 2017</u>		
				<u>Rates</u>	<u>Change</u>	<u>Increase</u>
Volume charge, per '000 gallons	1,000 gal	\$ 9.00	\$ 118,470	\$ 8.10	\$ 12.83	
Location charge based upon meter size	Qtrly Meter Charge	\$ 22.82	5,480	\$ 22.13	\$ 0.69	
Class 2 Surcharges	REC's	\$ 31.42	29,000	\$ 31.42	\$ (0.00)	
Fixed charge based upon Village assigned REC's	REC's	<u>\$ 112.47</u>	<u>103,810</u>	<u>\$ 116.78</u>	<u>\$ (4.31)</u>	
Total Revenues Generated		\$ 294.96	\$ 256,760	\$ 285.76	\$ 9.21	3%

Class 2 Surcharges imposed by the City of Waukesha for excessively high levels of the following components in sewage:

BOD's - Biochemical oxygen demand is the amount of dissolved oxygen needed (i.e., demanded) by aerobic biological organisms to break down organic material ...

TSS - Total suspended solids is the dry-weight of particles trapped by a filter. It is a water quality parameter used for example to assess the quality of wastewater after treatment in a wastewater treatment plant. It is listed as a conventional pollutant in the U.S. Clean Water Act.

Phosphorus is often a focused on in wastewater effluent is that it is an essential mineral in the growth of algae and other biological organisms along with Nitrogen.

TKN - Total Kjeldahl Nitrogen is the U.S. EPA-approved parameter used to measure organic nitrogen and ammonia. The **TKN** content of influent municipal wastewater is typically between 35 and 60 mg/L.

VILLAGE OF WALES										
SANITARY SEWER SERVICE FEE COMPUTATION										DRAFT
2018	2018									
Quarterly										
		2017 Rate Structure	2017 Actual	Unit Charges	Total	Fixed Charge per REC	Charge per Meter Location	Class 2 Surcharge	Volume Charge	Comments
Operation Expenses										
820	Pumpage & Meter									
	Contract With Starnet	2,100	2,180		3,000	3,000				
	Starnet data charges	480	480		480	480				\$120 per quarter
	ASI two meters read weekly plus check system	12,000	9,361		6,000	6,000				ASI \$1,430 per quarter
821	Power for Pumping (electricity & diesel)									Lift Station
	Pump Station (using '000 gals for base)	4,680	5,168		5,200				5,200	No increase in rate
	Madison Street Manhole	230	207		230	230				\$19/mo
825	Sewage Treatment									
	Excess Class 2 Charges per '000 gls	29,000	20,118		29,000			29,000		See Waukesha Service Fee Anaysis
	Waukesha volume charge, per '000 gal			\$ 6.62						Base processing rate 10% incr
	Gals/REC/YR in '000s			57.0						60gls/day/pers @ 2.75 pers/rec
	REC's	83,000	78,646	230.75	87,000				87,000	Actual Flow 57,000gal /yr/rec
	Waukesha Sampling	-	8,726		7,500	7,500				Guestimate
	Waukesha administrative fee per meter			\$ 14.86						
	Number of Meters times 4 qtrs	3,050	3,276	59	3,510		3,510			
826	Other Chemicals for Sewage Treatment & Transmission	25,000	25,019		26,270				26,270	Bioxide 5% increase
827	Other Operating Supplies and Expenses									
	Engineer's sampling	6,000	-		-	-				
	Total Operation Expense	165,540	153,181		168,190	17,210	3,510	29,000	118,470	

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Maintenance Expenses										
831	Maintenance of Sewage Collection System	-	-		-	-				
832	Maintenance of Sewage System Pumping Equipment	6,000	4,814		6,000	6,000				ASI Much of this was bioxide pump
832	Maintenance of Sewage System Pumping Equipment	2,000	1,300		3,000	3,000				The Expediter -Wet well cleaning, two cleanings @ \$1,500 each
832	Maintenance of Sewage System Pumping Equipment	3,500	496		500	500				Flygt Xylem Pump service
833	Maintenance of Force Main (air relief valves)	16,000	5,908		8,000	8,000				ASI Valve Flushing \$5,400
834	Maintenance of General Plant and Structures	4,000	4,000		1,600	1,600				Facilities & grounds \$3k, \$1k for generator maintenance, \$600 for <u>Annual flow meter calibration</u>
	Total Maintenance Expense	31,500	16,518		19,100	19,100	-	-	-	
Customer Accounting and Collection Expenses										
840	Billing, Collecting and Accounting	11,000	11,000		11,000	11,000				Village Staff
840	Utility Billing Software	1,000	1,000		1,000	1,000				UBMax/300 meters, online bill payment, e-meter reading
842	Meter Reading -									
	Badger Meter Orion, per meter per month			\$ 0.89						
	Number of Meters times 12 months	600	598	708	630		630			
	Total Customer Accounting and Collection Expenses	12,600	12,598		12,630	12,000	630	-	-	

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Administrative and General Expenses										
851	Office Supplies and Expenses	500			500	500				
	Postage	170	98		120		120			
852	Outside Services Employed - Engineer									
	General Engineering	21,000	42,152		21,000	21,000				
852	Outside Services Employed - Accounting	5,000	6,330		6,000	6,000				
852	Outside Services Employed - Legal	2,500	7,425		2,500	2,500				
852	Outside Services Employed - Diggers Hotline	4,000	1,930		2,000	2,000				
853	Insurance Expense	500			500	500				
855	DNR Fees				-	-				N/A
856	Miscellaneous General Expense									
857	Rents									Rent Storage location
	Total Administrative and General Expenses	33,670	57,935		32,620	32,500	120	-	-	
	Replacement Fund	8,980	8,980		23,000	23,000		-	-	\$1,049 for meter replacement included in quarterly meter charge by size
	Depreciation expense	-	-		-	-	-	-	-	
	Total Depreciation & Replacement	8,980	8,980		23,000	23,000	-	-	-	
	Total Expenses	252,290	249,212		255,540	103,810	4,260	29,000	118,470	

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Cost Recovery										
Anticipated Costs				\$ 255,540	103,810	4,260	29,000	118,470		
Recovery Base										
Meters			59			59				
Residential equivalent units serviced by sewer system			230.75		230.75		230.75			
Flow Volume, '000s per REC, annual			57.0	13,153				13,153		
				13,153	230.75	59	230.75	13,153		
Sewer Service Charge										
Annual Price per unit, total = single REC				\$ 1,160.76	\$ 449.88	\$ 72.20	\$ 125.68	\$ 9.00	See Note 2	
Quarterly Price per unit				290.19	112.47	18.05	31.42	9.00		
2017 quarterly rates				279.95	116.78	16.32	31.42	8.10		
Estimated quarterly increase on single user REC			4%	\$ 10.24	\$ (4.31)	\$ 1.73	\$ (0.00)	\$ 12.83		
(1)	Meter charge does not include the depreciation component that is based on meter size. See Quarterly Meter Charge Table									
(2)	Volume Charge is displayed as dollars per 1,000 gallons of flow. Average single residential equivalent unit equals 14,250 gals per quarter or 57,000 gals per year.									
	Total estimate volume for the year is 13.666 million gals (239.75 REC's @ 57,000 gals per year)									