



Final Report, 2023 Water Rate Study

Through its involvement with the Charles Stewart Mott Foundation, Great Lakes Water Authority (GLWA), and The Nature Conservancy (TNC), Public Sector Consultants (PSC) was invited to develop a water affordability data strategy for Senator Stephanie Chang’s water affordability stakeholder workgroup. Because of PSC’s extensive experience researching and developing water affordability policies and strong background in data analysis, Senator Chang requested PSC compile and analyze data on water and sewer utility rates across the state to better understand overall needs for subsidizing the cost of water.

Water Rate Data Collection

PSC met with water affordability experts from Michigan State University (MSU), GLWA, and the public policy consulting firm Raftelis in June 2023 to develop the water affordability data strategy. To get the broadest sense of water affordability in Michigan, we sought to collect water rate data on at least 75 percent of the state’s population served by public water systems. In partnership with Dr. Janice Beecher, former director of the MSU Institute of Public Utilities and Dr. Eric Scorsone, Director of MSU Extension Center for Local Government Finance and Policy, PSC created a sampling plan to collect data from the following secondary sources:

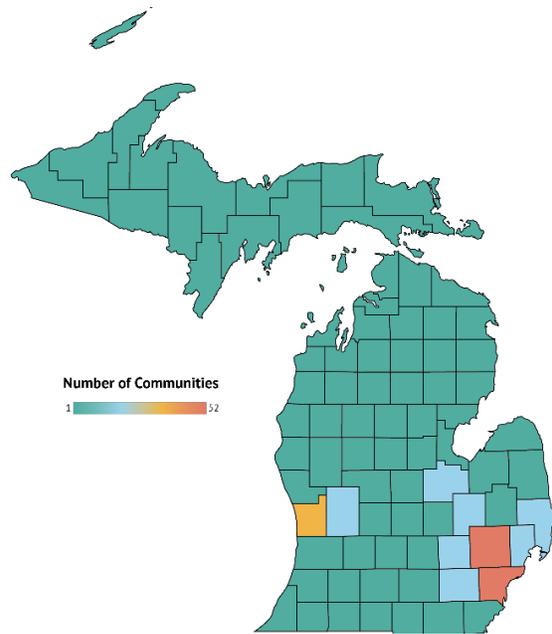
- University of Michigan Graham Sustainability Institute Michigan Statewide Water Affordability Assessment: 116 communities (Read et al. 2022)
- GLWA member partner data: 121 communities
- City of Grand Rapids through their water service partners: 7 communities
- *2022 Ottawa County Water and Wastewater Rate Survey Results*: 21 communities (Ottawa County Road Commission 2023)
- Gosling Czubak’s *2021 Water and Sewer Rate Study*: 51 communities

In addition to secondary data from 316 utilities, PSC researched water and sewer rates at 182 additional utilities throughout the state, primarily through a review of their rate tariff information published on communities' websites. PSC collected data on 482 distinct water utilities across the state. After removing duplicates and other data irregularities, PSC provided the workgroup with rate data on 470 water utilities, representing approximately 69 percent of the state's population. PSC collected data from at least one public water system in each of Michigan's 83 counties. See Appendix A for further information on specific public water systems throughout the state.

Within PSC's rate data collection are approximately 83 communities that had only fixed costs for water or sewer. In these instances, the number of household members will not affect the overall bill. PSC excluded 12 communities that did not have water or sewer rate data so as not to skew the summary results.

Exhibit 1 shows the number of water systems surveyed per county throughout Michigan.

EXHIBIT 1. Water/Sewer Communities per County Surveyed



Additional Data Sources

PSC pursued numerous data sources to obtain data that contained statistics like a household's income in relation to the federal poverty level (FPL), size, and whether it paid a water bill. After several attempts that resulted in extreme overestimations of the potential cost, we referred to the U.S. Census Public Use Microdata Sample (PUMS) data.

PUMS are census sample files that allow users to create custom tables normally not available via the U.S. Census Bureau's pre-tabulated American Community Survey (ACS). PSC used PUMS sample data and associated weights to accurately capture the impacts of household size and poverty status on a household's ability to afford its water bill.

Water community pricing data were matched to the most appropriate census sub-county/place-level federal poverty jurisdictions with an understanding that each water system captured the majority of residents per district. Analyses were conducted using the sub-county/census place and county data provided by the ACS.

Prior studies on water service affordability indicated that 79 gallons of water consumed per day was the average for the state of Michigan (Blount 2021). However, a study by the University of Michigan Water Center determined that a water use rate of 50 gallons per person per day was more accurate, because a portion of the estimated residential household usage was outdoor usage, which is often billed differently and does not apply to many rental apartments. Moreover, the per household averages (see Appendix A) more accurately reflected per household usages cited in the U-M report when utilizing the 50-gallon standard (Read et al. 2022, 14). Therefore, PSC decided to use the 50-gallon standard.

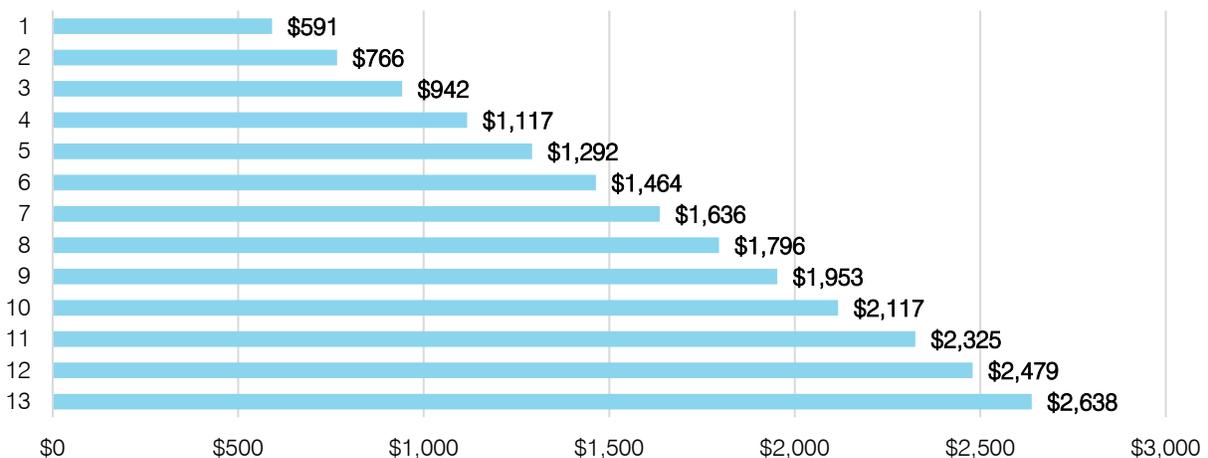
Affordability Analysis

After gathering water rate data from the 482 utilities, PSC worked with Senator Chang and workgroup participants to develop the parameters to conduct the affordability analysis, with subsidy levels aligned with following guidelines:

- Households with incomes below 150 percent of the federal poverty level (FPL): Combined water and sewer bill must be less than 2 percent of income
- Households with incomes from 150 to 200 percent of the FPL: Combined water and sewer bill must be less than 3 percent of income

Water/sewer rates were broken down into separate price per gallon and fixed costs estimates for each water utility, and the median price was then calculated across each county. Only utility communities where price per person could be calculated for both water and sewer were included in the median cost estimates. Some counties were represented by multiple utility communities and some utility communities contained only fixed costs for water or sewer; these utility communities were excluded from this calculation. In addition, five counties had fixed costs only for water and sewer. For these counties, the fixed costs for water and sewer were applied to all households, regardless of household size. Exhibit 2 shows these estimates, which were later used to estimate the cost by household size with the assumption that larger households use more water.

EXHIBIT 2. Annual Water/Sewer Cost by Family Size



Source: Water rate data modeled by PSC

PSC used PUMS data to estimate ratios of household size per water service charge per federal poverty level, including whether or not the household paid a water bill. For example, we found that 6.5 percent of people in the 50 to 99 percent federal poverty bracket paid for water and lived alone (i.e., were a single-person household). These statewide PUMS-based weights were then applied to ACS county estimates of the number of households in each poverty bracket per county. This analysis assumes statewide PUMS estimates are a reasonably accurate reflection of the family size and water bill payment status of the same poverty brackets in each community surveyed; this is a large assumption that would benefit from additional research.

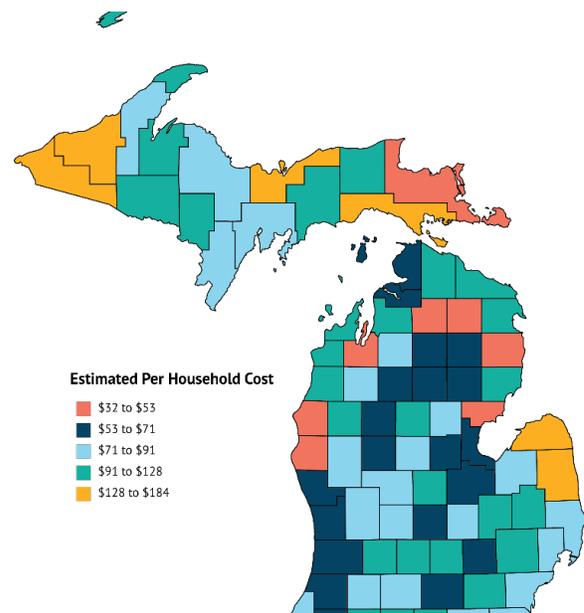
Using Senator Chang’s guidelines for assessing affordability based on FPL as noted previously and the estimated annual price of water and sewer, PSC estimated the number of households with incomes below 200 percent of the FPL and divided that number up into six tiers. PSC calculated the number of households with incomes 0 to 49 percent, 50 to 99 percent, 100 to 124 percent, and 125 to 149 percent of the FPL. PSC then estimated the cost of subsidizing these households so that they pay no more than 2 percent of their income on water and sewer. PSC also calculated the number of households with incomes 150 to 184 percent and 185 to 199 percent of the FPL and estimated the cost of subsidizing these households so that they pay no more than 3 percent of their income on water and sewer. In counties where the price of water superseded 3 percent (or 2 percent for households with incomes below 150 percent of the FPL), the remaining difference was calculated as the required subsidy.

Summary Data

Due to incomplete data for all 482 communities, 470 communities were included in the analysis, with all 83 counties represented by at least one utility community. Where information was fully available, water rates ranged from an estimated \$0 to \$0.035 cents per gallon and sewer rates ranged from \$0 to \$0.039 cents per gallon; fixed costs ranged from \$0 to \$1120 per water bill and \$0 to \$1,182 per sewer bill (Exhibit 3). See Appendix B for rate data by community.

According to 2022 census data, there were approximately 4,009,253 households in Michigan, of which roughly 30 percent (1,186,291) were under 200 percent of the FPL.

EXHIBIT 3. Average Monthly Water and Sewer Cost by County



Note: Calculations are based on a four-person household using 50 gallons of water per day.

Program Costs

Using the methodology explained above, PSC found that to ensure that residents pay no more than 3 percent (or 2 percent for those under 150 percent of the FPL) of their income on water and sewer, Michigan requires the levels of subsidy laid out in Exhibit 4. For this analysis, PSC applied the family and FPL ratios from the PUMA geographies to county-level ACS statistics to develop and approximate cost to fund a statewide program that meets the senator’s income guidelines.

PSC’s modeling indicates the annual cost to fully fund a statewide program is approximately \$181 million dollars to cover all eligible households that currently pay a water/sewer bill. It is important to note that for Michiganders with household incomes below 200 percent of the FPL, only about 50 percent self-report paying a water bill. The reasons why some otherwise-eligible households do not pay a water/sewer bill include use of private wells, those for whom water is included in rent, and other reasons not enumerated in the census.

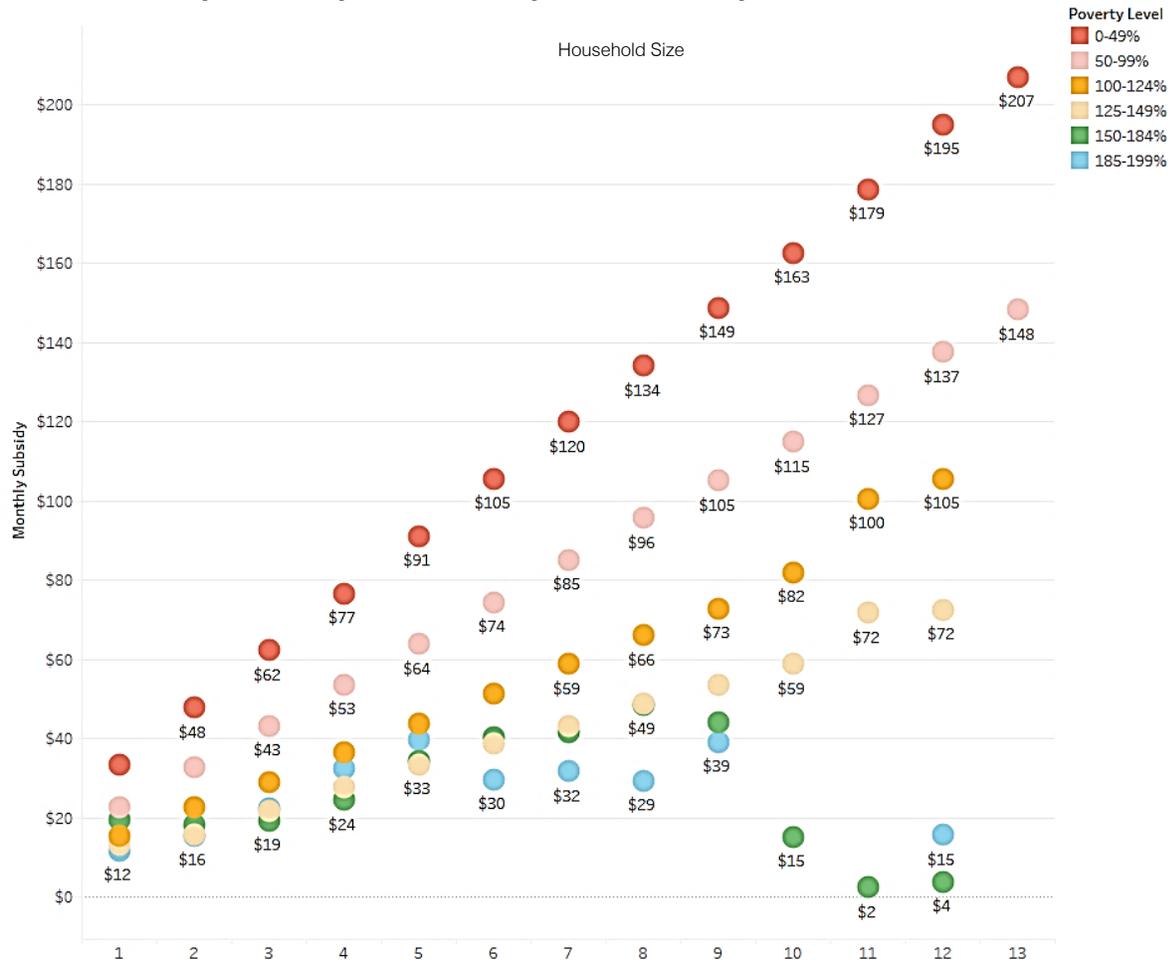
EXHIBIT 4. Number of Subsidized Households by Federal Poverty Level and Current and Needed Average Subsidy

Federal Poverty Level	Subsidized Households	Total Subsidy Cost	Average Total Subsidy Needed Per Household	Average Monthly Subsidy Needed Per Household
0–49%	115,593	\$76,750,866	\$664	\$55
50–99%	132,703	\$62,311,931	\$470	\$39
100–124%	74,114	\$23,947,212	\$323	\$27
125–149%	65,582	\$16,258,298	\$248	\$21
150–184%	5,262	\$1,360,958	\$259	\$22
185–199%	1,627	\$326,384	\$201	\$17
Grand Total	394,881	\$180,955,649		

Note: Calculations made using PUMA estimates. Sums may not total due to rounding.

Subsidy levels vary greatly by family size and income. As shown in Exhibit 5, the greater the family size and lower the household income on the FPL scale, the higher the subsidy.

EXHIBIT 5. Subsidy Amount by Federal Poverty Level and Family Size



The analysis did not address other aspects of affordability, including:

- Plumbing repair needs: To cost to repair household plumbing to stop existing leaks and install efficient plumbing fixtures.
- Accumulated bill arrearages: The accumulated bill amount at the time of ingress into an affordability program.

Based on preliminary analysis of the Detroit Water and Sewerage Department (DWSD) Lifeline Plan water affordability program data, the monthly subsidy accounts for approximately 22 percent of program costs. Plumbing repairs accounted for 35 percent and arrears for 43 percent of total program costs, respectively (Pospiech 2023).

Program Revenues

The Michigan Legislature is currently proposing to set a fee of \$2.00 per retail water meter. Data from the Michigan Department of Environment, Great Lakes, and Energy indicates the state has 2,633,607 retail service connections. Charging each meter \$2.00 would raise an approximate \$63 million annually to help fund this program.

Conclusion

Based on PSC analysis, fully funding a statewide program that ensures no Michigander's water bill costs more than 3 percent of their income would cost approximately \$181 million. A \$2.00 per meter fee would raise approximately \$63 million annually, which would raise substantial funds to help fund a statewide water affordability program. Although a per retail meter fee is unlikely to fully fund program costs, instituting a fee would represent great progress in raising consistent funding to help water utilities ensure all residents have access to clean water, regardless of income level.

Reference List

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- Pospiech, Debra. September 18, 2023. "DWSD Key Results Lifeline Affordability Program." Presentation. Detroit Water and Sewerage Department, Detroit, MI.
- United States Census Bureau. "Public Use Microdata Areas (PUMAs)." *United States Census Bureau*. <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/pumas.html>
- Read, Jennifer, Noah Attal, Ellen Betanzo, Ritchie Harrison, and Ashley Stoltenberg. January 2022. *Water Service Affordability in Michigan: A Statewide Assessment*. Ann Arbor: University of Michigan Water Center. <https://graham.umich.edu/project/MI-statewide-water-affordability-assessment>

Appendix A: Costs and Subsidy by Community

EXHIBIT A1. Water and Sewer Costs and Subsidy by County

County	Households Count (ACS 2022)	All Households (under 200% FPL, pay water bill)	Avg. Annual Cost	Yearly Subsidy (per hhold)	Households Qualifying for Subsidy (#)	Total Subsidy Cost
Alcona*	4,832	718	\$496	\$259	356	\$92,147
Alger	3,274	571	\$2,360	\$861	571	\$491,573
Allegan	44,621	6,388	\$898	\$247	3,465	\$855,260
Alpena	12,721	2,315	\$1,573	\$592	1,490	\$881,929
Antrim	10,741	1,386	\$1,589	\$581	1,169	\$679,672
Arenac	6,355	1,033	\$678	\$193	467	\$90,161
Baraga	3,241	535	\$1,568	\$751	515	\$386,782
Barry	24,286	2,887	\$1,436	\$535	1,738	\$930,420
Bay	44,999	6,552	\$1,772	\$586	4,447	\$2,605,167
Benzie	7,173	845	\$1,464	\$588	690	\$405,741
Berrien	63,512	10,303	\$1,345	\$464	7,531	\$3,490,675
Branch	16,769	3,169	\$1,264	\$518	2,394	\$1,241,146
Calhoun	53,050	9,202	\$1,445	\$520	6,120	\$3,182,121
Cass	20,779	2,917	\$1,140	\$457	1,883	\$860,897
Charlevoix	12,232	1,308	\$887	\$225	730	\$164,480
Cheboygan	10,650	1,831	\$1,532	\$438	1,218	\$534,050
Chippewa	13,747	2,486	\$2,271	\$693	2,018	\$1,398,726
Clare	11,935	2,737	\$1,365	\$569	1,925	\$1,096,032
Clinton	31,060	3,394	\$1,334	\$534	2,176	\$1,162,849
Crawford	5,833	883	\$760	\$220	440	\$96,734
Delta	15,851	2,441	\$1,294	\$447	1,554	\$694,204
Dickinson	11,560	1,451	\$1,335	\$467	867	\$404,844
Eaton	45,000	4,754	\$1,430	\$493	2,868	\$1,413,447
Emmet	14,530	1,607	\$1,491	\$597	1,385	\$826,753
Genesee	166,060	28,868	\$1,722	\$578	20,326	\$11,745,094
Gladwin	10,859	2,059	\$1,447	\$454	1,338	\$607,276
Gogebic	6,937	1,137	\$2,242	\$922	1,137	\$1,048,053
Grand Traverse	38,572	4,481	\$1,176	\$496	3,149	\$1,562,657
Gratiot	14,705	2,573	\$1,760	\$611	2,418	\$1,476,245
Hillsdale	17,606	3,351	\$1,383	\$550	2,228	\$1,224,762

County	Households Count (ACS 2022)	All Households (under 200% FPL, pay water bill)	Avg. Annual Cost	Yearly Subsidy (per hhold)	Households Qualifying for Subsidy (#)	Total Subsidy Cost
Houghton	14,173	2,690	\$1,476	\$477	1,842	\$878,134
Huron	13,617	2,126	\$2,573	\$853	2,126	\$1,813,409
Ingham	115,648	18,259	\$1,805	\$619	13,068	\$8,086,703
Ionia	22,765	3,400	\$1,106	\$351	2,159	\$758,375
Iosco	11,558	2,053	\$1,693	\$561	1,851	\$1,038,522
Iron	5,190	822	\$2,787	\$1,507	822	\$1,239,010
Isabella	24,875	5,111	\$1,551	\$556	3,970	\$2,206,379
Jackson	62,059	9,074	\$1,097	\$243	6,006	\$1,457,127
Kalamazoo	105,797	15,910	\$1,280	\$342	10,970	\$3,746,471
Kalkaska	7,377	1,390	\$961	\$397	927	\$368,211
Kent	252,694	34,493	\$1,148	\$322	22,306	\$7,173,966
Keweenaw	1,065	105	\$1,163	\$599	54	\$32,342
Lake	4,549	1,148	\$1,315	\$617	980	\$604,763
Lapeer	34,239	4,364	\$2,117	\$674	3,567	\$2,402,393
Leelanau	9,246	812	\$1,109	\$413	516	\$213,279
Lenawee	38,626	5,702	\$1,247	\$364	3,569	\$1,300,570
Livingston	74,841	5,969	\$1,034	\$248	2,234	\$553,019
Luce*	2,065	352	\$1,320	\$817	314	\$256,549
Mackinac	5,226	768	\$1,901	\$831	768	\$637,968
Macomb	354,251	44,564	\$1,591	\$388	29,320	\$11,368,715
Manistee	9,927	1,496	\$1,627	\$552	933	\$514,946
Marquette	27,345	3,797	\$1,830	\$633	2,789	\$1,766,386
Mason	12,296	1,922	\$777	\$185	835	\$154,240
Mecosta	16,103	3,096	\$1,541	\$458	2,096	\$960,620
Menominee	9,971	1,499	\$1,176	\$444	890	\$394,964
Midland	34,336	4,380	\$821	\$253	2,523	\$638,061
Missaukee*	5,816	1,095	\$510	\$227	529	\$120,218
Monroe	62,240	7,480	\$1,333	\$351	4,740	\$1,665,493
Montcalm	23,984	4,394	\$1,283	\$482	2,721	\$1,311,188
Montmorency*	4,678	697	\$390	\$180	292	\$52,525
Muskegon	66,595	11,854	\$1,062	\$231	4,918	\$1,136,037
Newaygo	19,047	3,529	\$903	\$258	2,225	\$574,768
Oakland	524,762	45,862	\$1,960	\$608	29,983	\$18,234,930
Oceana	9,936	2,046	\$575	\$230	961	\$220,731

County	Households Count (ACS 2022)	All Households (under 200% FPL, pay water bill)	Avg. Annual Cost	Yearly Subsidy (per hhold)	Households Qualifying for Subsidy (#)	Total Subsidy Cost
Ogemaw	9,089	1,739	\$904	\$225	809	\$181,909
Ontonagon	2,872	423	\$1,918	\$801	423	\$339,006
Osceola	8,877	1,669	\$1,251	\$352	1,056	\$371,559
Oscoda*	3,500	649	\$561	\$275	313	\$86,089
Otsego	10,766	1,494	\$724	\$236	505	\$119,353
Ottawa	108,362	12,008	\$985	\$258	6,160	\$1,587,102
Presque Isle	20,815	841	\$1,035	\$467	575	\$268,569
Roscommon	11,358	1,749	\$1,387	\$595	1,202	\$715,148
Saginaw	78,000	13,461	\$1,204	\$298	9,540	\$2,847,362
Sanilac	17,296	2,972	\$1,933	\$653	2,890	\$1,886,646
Schoolcraft	3,785	515	\$2,413	\$1,206	515	\$620,916
Shiawassee	27,925	4,045	\$1,070	\$332	2,584	\$858,189
St Clair	83,595	8,927	\$1,484	\$506	6,095	\$3,086,697
St Joseph	37,651	3,969	\$1,272	\$477	2,546	\$1,214,375
Tuscola	21,518	3,601	\$1,615	\$605	2,398	\$1,450,536
Van Buren	43,226	4,799	\$1,282	\$458	3,496	\$1,599,787
Washtenaw	148,704	17,638	\$1,625	\$515	12,758	\$6,569,561
Wayne	688,461	136,978	\$1,608	\$424	97,068	\$41,118,409
Wexford	13,167	2,426	\$1,066	\$329	1,531	\$503,526
Total	4,069,354	586,344	\$1,376	\$458	394,881	\$180,955,649

Note: (*) indicates a county where water and sewer costs are fixed rates and not calculated by price per person. In these cases, the fixed rate was applied to each household as a constant, regardless of household size.

Appendix B: Costs by Community

EXHIBIT B1. Average Total Cost by Usage by Community Using Collected Rate Data

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Alcona	Harrisville	\$41	\$44
Alger	Munising	\$108	\$157
Allegan	Fennville	\$50	\$65
	Kalamazoo	\$28	\$36
	Kalamazoo Lake Sewer & Water Authority	\$58	\$68
Alpena	Alpena City	\$52	\$78
	Alpena Township	\$86	\$146
Antrim	Bellaire Village	\$69	\$86
	Elk Rapids Village	\$106	\$130
	Mancelona Area Water And Sewer Authority	\$174	\$203
Arenac	Omer City	\$30	\$30
Baraga	Baraga	\$75	\$90
	L'Anse	\$103	\$132
Barry	Hastings	\$65	\$85
	Middleville	\$48	\$60
	Nashville	\$67	\$88
Bay	Auburn	\$50	\$79
	Bangor Township	\$44	\$66
	Bay City City	\$98	\$131
	Fraser Township	\$86	\$127
Benzie	Beulah Village	\$79	\$104
	Elberta Village	\$90	\$115
	Frankfort City	\$58	\$75
Berrien	Berrien Springs	\$72	\$88
	Bridgman	\$101	\$143
	Buchanan	\$140	\$177
	Chikaming Township	\$139	\$213
	New Buffalo Township	\$54	\$61
	Niles	\$53	\$65
	Oronoko Township	\$72	\$88

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Berrien (cont.)	St. Joseph	\$48	\$63
	Watervliet	\$48	\$68
Branch	Bronson	\$73	\$79
	Coldwater	\$60	\$70
	Union City	\$100	\$127
Calhoun	Albion	\$17	\$17
	Battle Creek - Verona System	\$45	\$57
	Homer	\$63	\$79
	Marshall	\$55	\$66
	Pennfield Township	\$78	\$101
	Pennfield Township-Convis/Verona	\$64	\$84
Cass	Cassopolis	\$51	\$67
	Marcellus	\$96	\$112
Charlevoix	Boyne City City	\$45	\$60
	Charlevoix City	\$84	\$106
	East Jordan City	\$79	\$117
Cheboygan	Cheboygan City	\$54	\$85
	Mackinaw City Village	\$57	\$81
Chippewa	Kinross Township	\$57	\$57
	Sault Ste Marie	\$71	\$113
	Superior Township	\$48	\$54
Clare	Clare City	\$66	\$84
Clinton	Fowler Village	\$36	\$27
	St. Johns City	\$78	\$98
Crawford	Grayling City	\$31	\$48
Delta	Escanaba	\$61	\$73
	Gladstone	\$57	\$82
Dickinson	Iron Mountain	\$234	\$374
	Kingsford	\$57	\$76
	Norway	\$97	\$128
Eaton	Bellevue Village	\$56	\$82
	Charlotte City	\$74	\$92
	Charter Township Of Delta	\$36	\$52

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Eaton (cont.)	Grand Ledge City	\$109	\$142
	Olivet City	\$50	\$71
	Potterville City	\$86	\$100
Emmet	Harbor Springs Area Authority	\$94	\$109
	Harbor Springs City	\$131	\$136
	Little Traverse Township	\$32	\$32
	Petoskey City	\$80	\$95
Genesee	Beecher Metropolitan District	\$74	\$95
	Burton City	\$76	\$99
	Davison City	\$101	\$125
	Fenton City	\$59	\$77
	Flint	\$71	\$99
	Flushing City	\$80	\$108
	Grand Blanc Charter Township	\$54	\$77
	Grand Blanc City	\$62	\$82
	Linden City	\$48	\$69
	Montrose City	\$97	\$119
	Mount Morris City	\$77	\$111
	Otisville Village	\$63	\$77
	Swartz Creek City	\$47	\$63
Gladwin	Beaverton	\$73	\$73
	Gladwin City	\$57	\$81
Gogebic	Bessemer	\$120	\$154
	Ironwood	\$126	\$168
	Wakefield	\$62	\$76
Grand Traverse	Blair Township	\$65	\$76
	Garfield Charter Township	\$40	\$48
	Garfield Township	\$32	\$36
	Grand Traverse County Dpw	\$50	\$66
	Kingsley Village	\$41	\$41
	Peninsula Township	\$75	\$78
	Traverse City City	\$55	\$59
Gratiot	Alma City	\$59	\$74

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Gratiot (cont.)	Breckenridge Village	\$89	\$111
	Ithaca City	\$26	\$32
	St. Louis City	\$91	\$113
Hillsdale	Hillsdale	\$73	\$101
	Jonesville	\$64	\$89
	Litchfield	\$54	\$75
	Reading	\$108	\$121
Houghton	Chassell Township	\$98	\$123
	Houghton	\$45	\$75
	Portage	\$39	\$55
	Portage Township	\$0	\$0
	Roseville City	\$42	\$65
	Torch Lake Township	\$77	\$112
Huron	Bad Axe	\$105	\$146
	Port Austin Area Sewer & Water	\$114	\$122
Ingham	East Lansing City	\$63	\$91
	Lansing Board Of Water & Light	\$71	\$99
	Mason City	\$81	\$117
	Meridian Township	\$39	\$61
	Stockbridge Village	\$88	\$111
	Webberville Village	\$90	\$115
	Williamston City	\$133	\$153
Ionia	Ionia	\$47	\$63
	Lake Odessa	\$64	\$71
	Saranac	\$58	\$71
Iosco	Au Sable Township	\$115	\$129
	Baldwin Township	\$100	\$126
	East Tawas City	\$99	\$120
	Oscoda Township	\$74	\$97
	Tawas City City	\$66	\$88
Iron	Crystal Falls	\$158	\$196
	Iron River	\$68	\$85
	Iron River Township-Nash	\$86	\$110

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Isabella	Mount Pleasant	\$61	\$84
	Union Township	\$49	\$49
Jackson	Blackman Township	\$50	\$61
	Brooklyn	\$94	\$115
	Concord	\$29	\$36
	Grass Lake	\$83	\$92
	Jackson	\$43	\$58
	Leoni Township	\$43	\$43
	Summit Township	\$41	\$41
	Kalamazoo	Galesburg	\$52
Schoolcraft		\$27	\$38
Vicksburg		\$56	\$80
Kalkaska	Kalkaska Village	\$58	\$68
Kent	Ada Township	\$67	\$74
	Byron-Gaines Utility Authority	\$28	\$41
	Caledonia Township	\$65	\$83
	Cascade	\$87	\$103
	Cedar Springs	\$67	\$91
	East Grand Rapids	\$60	\$73
	Grand Rapids	\$56	\$74
	Grand Rapids Township	\$70	\$83
	Grandville	\$28	\$40
	Kentwood	\$48	\$61
	Lake Bella Vista	\$15	\$18
	Lowell	\$68	\$81
	Lowell Township	\$33	\$41
	Plainfield Township	\$47	\$66
	Rockford	\$74	\$90
	Sand Lake	\$54	\$54
	Sparta	\$46	\$58
	Walker	\$66	\$79
	Wyoming	\$32	\$44
	Keweenaw	Ahmeek	\$64

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Lake	Baldwin Village	\$86	\$101
Lapeer	Almont	\$107	\$151
	Columbiaville Village	\$72	\$105
	Dryden Village	\$59	\$65
	Imlay City	\$42	\$73
	Lapeer	\$73	\$107
Leelanau	Glen Arbor (Homestead)	\$89	\$122
	Suttons Bay Village	\$55	\$74
Lenawee	Adrian	\$50	\$66
	Adrian (L.A.E.)	\$38	\$38
	Blissfield	\$140	\$164
	Clinton	\$56	\$84
	Hudson	\$78	\$95
	Madison Township	\$38	\$59
	Morenci	\$64	\$81
	Tecumseh	\$50	\$68
Livingston	Brighton (Fonda Lake)	\$87	\$87
	Brighton City	\$37	\$53
	Fowlerville Village	\$74	\$74
	Genoa (MHOG)	\$34	\$55
	Hartland Township	\$90	\$107
	Howel (MHOG)	\$34	\$55
	Howell City	\$57	\$79
	Marion (MHOG)	\$34	\$55
	Oak Pointe	\$55	\$67
	Oceola (MHOG)	\$34	\$55
	Pinckney Village	\$49	\$70
Luce	Newberry Water & Light	\$110	\$110
Mackinac	Mackinac Island	\$81	\$110
	St Ignace	\$129	\$157
Macomb	Armada Village	\$101	\$169
	Bruce Township	\$92	\$114
	Center Line	\$52	\$75

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Macomb (cont.)	Chesterfield Township	\$44	\$64
	Clinton Township	\$56	\$84
	Eastpointe	\$83	\$120
	Fraser	\$89	\$132
	Harrison Township	\$52	\$86
	Lenox Township	\$83	\$131
	Macomb Township	\$44	\$67
	Mount Clemens City	\$50	\$73
	New Baltimore City	\$56	\$74
	New Haven	\$76	\$94
	Romeo	\$61	\$83
	Roseville	\$48	\$75
	Shelby Township	\$43	\$72
	St. Clair Shores	\$59	\$95
	Sterling Heights	\$50	\$73
	Utica	\$67	\$103
	Warren	\$38	\$61
	Washington Township	\$67	\$89
Manistee	Filer Township	\$72	\$107
	Manistee City	\$54	\$79
Marquette	Ely Township-Diorite	\$50	\$50
	Forsyth Township	\$155	\$205
	Ishpeming	\$109	\$182
	Ishpeming Township - East	\$50	\$60
	Ishpeming Township - West	\$11	\$11
	Marquette	\$84	\$129
	Marquette Township	\$99	\$140
	Negaunee	\$68	\$106
	Negaunee Township	\$44	\$59
	Republic Township	\$79	\$79
	Richmond Township	\$39	\$62
Mason	Ludington City	\$29	\$43
Mecosta	Big Rapids	\$53	\$79

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Menominee	Menominee	\$61	\$76
Midland	Homer Township	\$55	\$66
	Larkin Township	\$51	\$63
	Midland City	\$43	\$52
	Midland Co., Water Dist. No. 1 Of	\$18	\$27
Missaukee	Lake City City	\$52	\$59
Monroe	Ash Township	\$57	\$85
	Berlin Township	\$57	\$82
	Carleton	\$57	\$85
	Dundee	\$51	\$71
	Frenchtown Township	\$39	\$58
	Monroe	\$38	\$56
	South Rockwood	\$97	\$118
Montcalm	Carson City	\$33	\$45
	Greenville	\$31	\$45
	Howard City	\$54	\$70
	Lakeview	\$74	\$91
	Stanton	\$71	\$88
Montmorency	Hillman Village	\$33	\$36
Muskegon	Fruitport Charter Township	\$31	\$48
	Montague	\$44	\$59
	Muskegon	\$28	\$44
	Muskegon Heights	\$28	\$47
	Norton Shores	\$37	\$55
	Roosevelt Park	\$26	\$44
Newaygo	Fremont	\$23	\$31
	Newaygo	\$66	\$82
	White Cloud	\$58	\$69
Oakland	Auburn Hills	\$47	\$75
	Berkley	\$77	\$105
	Beverly Hills	\$93	\$123
	Bingham Farms	\$45	\$57
	Birmingham	\$72	\$104

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Oakland (cont.)	Bloomfield Hills	\$59	
	Bloomfield Township	\$77	\$114
	Clarkston	\$53	\$60
	Clarkston (Bavarian)	\$49	\$49
	Clawson	\$65	\$98
	Commerce Township	\$72	\$82
	Farmington	\$70	\$99
	Farmington Hills	\$41	\$69
	Ferndale	\$67	\$104
	Franklin	\$100	\$100
	Hazel Park	\$56	\$93
	Highland Township	\$33	\$33
	Holly Village	\$100	\$142
	Huntington Woods	\$70	\$112
	Independence Township	\$50	\$56
	Keego Harbor	\$63	\$86
	Lake Orion	\$107	\$140
	Lathrup Village	\$107	\$142
	Lyon Township	\$70	\$75
	Madison Heights	\$42	\$71
	Milford Village	\$68	\$90
	Novi	\$54	\$71
	Oak Park	\$47	\$75
	Oakland Township	\$51	\$55
	Orchard Lake	\$55	\$95
	Orion Township	\$52	\$63
	Oxford Township	\$68	\$73
	Oxford Village	\$63	\$74
	Pleasant Ridge	\$58	\$81
	Pontiac	\$77	\$97
	Rochester	\$71	\$95
	Rochester Hills	\$55	\$90
	Royal Oak City	\$58	\$93

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Oakland (cont.)	Royal Oak Township	\$94	\$116
	South Bloomfield Highlands	\$142	\$161
	South Lyon City	\$21	\$35
	Southfield	\$54	\$89
	Southfield City	\$56	\$94
	Sylvan Lake	\$83	\$110
	Troy	\$33	\$54
	Walled Lake	\$63	\$89
	Waterford Township	\$50	\$68
	West Bloomfield Township.	\$44	\$73
	White Lake Township	\$74	\$87
	Wixom	\$59	\$79
Oceana	Hart	\$41	\$51
Ogemaw	West Branch City	\$45	\$66
Ontonagon	Ontonagon	\$104	\$136
Osceola	Ewart City	\$62	\$90
	Marion Village	\$37	\$115
	Reed City City	\$35	\$51
Oscoda	Big Creek/ Mentor Utility Authority	\$55	\$61
Otsego	Gaylord City	\$33	\$44
Ottawa	Allendale Township	\$52	\$69
	Coopersville	\$37	\$53
	Crockery Township	\$83	\$103
	Ferrysburg	\$54	\$67
	Georgetown Township	\$25	\$37
	Grand Haven	\$45	\$67
	Grand Haven Township	\$52	\$67
	Holland	\$46	\$58
	Holland Board Of Public Works	\$43	\$56
	Holland Township	\$39	\$49
	Hudsonville	\$42	\$54
	Jamestown Township	\$41	\$55
	Olive-Blendon Townships	\$15	\$19

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Ottawa (cont.)	Olive-Robinson Townships	\$16	\$23
	Park Township	\$39	\$50
	Polkton Township	\$18	\$25
	Port Sheldon Township	\$20	\$27
	Spring Lake	\$29	\$40
	Spring Lake Township	\$38	\$49
	Spring Lake Village	\$71	\$84
	Tallmadge Township	\$80	\$111
	Wright Township	\$57	\$57
	Zeeland	\$43	\$55
	Zeeland Township	\$19	\$24
Presque Isle	Onaway City	\$85	\$104
	Rogers City City	\$64	\$76
Roscommon	Roscommon Village	\$70	\$98
Saginaw	Birch Run Village	\$75	\$90
	Blumfield-Reese Water Auth.	\$37	\$53
	Bridgeport Township	\$50	\$74
	Carrollton Township	\$55	\$85
	Chesaning Village	\$81	\$122
	Frankenmuth City	\$70	\$94
	Hemlock/Richland Township	\$68	\$78
	Kochville Township	\$54	\$79
	Saginaw Charter Township	\$45	\$57
	Saginaw City	\$71	\$87
	Spaulding Township	\$72	\$72
	Thomas Township	\$36	\$52
	Tittabawassee Township	\$48	\$67
Sanilac	Brown City	\$89	\$107
	Lexington Village	\$76	\$101
	Worth Township	\$95	\$123
Schoolcraft	Germfask Township	\$50	\$50
	Manistique City	\$124	\$166

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Shiawassee	Owosso City	\$52	\$65
	Perry City	\$73	\$80
St Clair	Clay Township	\$62	\$72
	Cottrellville Township	\$89	\$131
	Fort Gratiot Township	\$66	\$85
	Ira Township	\$69	\$89
	Kimball Township	\$28	\$41
	Marine City	\$57	\$87
	Marysville City	\$64	\$71
	Memphis City	\$42	\$70
	Port Huron City	\$83	\$99
	Port Huron Township	\$56	\$67
	St Joseph	Sturgis	\$54
Three Rivers		\$72	\$88
Tuscola	Caro City	\$55	\$84
	Cass City Village	\$70	\$93
	Millington Village	\$54	\$67
	Vassar City	\$74	\$74
Van Buren	Bangor	\$31	\$39
	Decatur	\$51	\$60
	Hartford	\$68	\$74
	Lawrence	\$75	\$99
	South Haven	\$116	\$138
Washtenaw	Ann Arbor	\$46	\$72
	Ann Arbor Township	\$70	\$116
	Augusta Township	\$89	\$112
	Chelsea	\$64	\$91
	Dexter	\$78	\$115
	Loch Alpine Sanitary Authority	\$97	\$117
	Manchester	\$61	\$79
	Pittsfield Township	\$47	\$77
	Saline	\$79	\$115
	Scio Township	\$54	\$90

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Washtenaw (cont.)	Superior Township	\$61	\$76
	Ypsilanti City	\$57	\$81
	Ypsilanti Township	\$43	\$61
Wayne	Allen Park	\$50	\$79
	Belleville	\$52	\$77
	Brownstown Township	\$38	\$63
	Canton Township	\$39	\$60
	Dearborn	\$52	\$73
	Dearborn Heights	\$60	\$98
	Detroit	\$48	\$71
	Ecorse	\$55	\$76
	Flat Rock	\$46	\$74
	Garden City	\$47	\$70
	Gibraltar	\$70	\$115
	Grosse Ile Township	\$70	\$103
	Grosse Pointe	\$47	\$68
	Grosse Pointe Farms	\$73	\$102
	Grosse Pointe Park	\$94	\$104
	Grosse Pointe Shores	\$106	\$149
	Grosse Pointe Woods	\$60	\$76
	Hamtramck	\$95	\$122
	Harper Woods	\$55	\$73
	Highland Park	\$79	\$104
	Huron Charter Township	\$48	\$80
	Inkster	\$94	\$157
	Lincoln Park	\$53	\$86
	Livonia	\$46	\$62
	Northville City	\$71	\$112
	Northville Township	\$64	\$87
	Plymouth City	\$48	\$78
Plymouth Township	\$35	\$56	
Redford Township	\$57	\$86	
River Rouge	\$54	\$89	

County	Community	Avg. Monthly Total (3,000 gallons)	Avg. Monthly Total (5,000 gallons)
Wayne (cont.)	Riverview	\$54	\$89
	Romulus	\$45	\$63
	Southgate	\$34	\$56
	Sumpter Township	\$61	\$93
	Taylor	\$36	\$57
	Trenton	\$40	\$66
	Van Buren Township	\$37	\$54
	Wayne City	\$69	\$102
	Westland	\$53	\$74
	Woodhaven	\$38	\$63
	Wyandotte	\$32	\$43
Wexford	Cadillac City	\$36	\$48
	Haring Township	\$99	\$116
	Manton City	\$64	\$81
	Mesick Village	\$54	\$57