TO: Mayor and Council

FROM: Tom Crawford, CFO
Craig Hupy, Public Services Area Administrator
Karen Lancaster, Finance Director
Howard S. Lazarus, City Administrator
Marti Praschan, Chief of Staff, Public Services

SUBJECT: FY20-21 Budget: Public Services – Water Rates

DATE: March 29, 2019

Question #35: (Customer impacts) Have you ever in 20 years of experience seen another example of water rate restructuring that so significantly affected every single family customer as a whole class and some so dramatically as this restructuring has – more than doubling? If so, who were the others and please speak to how they handled transition. Phased rather than all at once? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #36: Q1.I had asked (and CM Grand followed-up as well) that you provide to council estimates of what it would take (cost and time; up-front and ongoing) to implement the Arcadis commercial Option B (their peaking option)? Slide 38 indicated the alternative "was not feasible to be automated in the City's billing system" and it was suggested at the meeting there would be a significant amount of administrative effort required both up-front and annually. Can you please elaborate on why this can't be automated in the billing system and provide your best estimates of the costs (and time) required to set up the capability to implement the Option B "peaking" alternative? Also, Arcadis implied that the effort required was largely clerical – is that accurate and could it be outsourced so as to not tie up our staff's time? (Councilmember Lumm)

Response: The non-residential Option B is based on a customer's peaking factor, which would be determined based on the max peak day (during summer/irrigation months May – October) and the customer's average day. Daily consumption from the AMR system would need be pulled and each account's data (approximately 2,500 accounts) would need to be manually analyzed. Based on the raw data if a customer had a peaking factor

that placed them in tier 2 or tier 3, it would only be appropriate to verify that was correct by confirming the consumption used on that peak day was really only for 24 hours of consumption. Although we currently get reads 2x/day and sometimes hourly, it is also not uncommon to have no reads. Depending on how many reads are missed, the consumption that is recorded for the day may be for 36 hours or even several days. In this situation, consumption would need to be spread out so it did not artificially trigger a peak. Multiple similar data quality issues would require a manual review of the data to ensure an accurate analysis of peak day and average day consumption. Once the analysis is completed, implementation would again require manual work by the billing clerks to update rates on these accounts and communication with the affected customers. This entire process would then need to be repeated on an annual basis in a prescribed time frame.

The skill level required for this data analysis is above that of clerical staff. The level of effort associated with this process is difficult to estimate; however, for purposes of this question we are assuming 400 hours of contracted service for data analysis and review at $150-$350 per hour or $60,000 - $140,000 annually. First time costs would be associated with setting up a process for review; however, approximately the same level of effort would be required on an on-going basis.

Question #37: Q2. Also in the discussion related to what it would take to implement commercial Option B, it was stated that the costs (both upfront and ongoing) could be borne by the commercial customers and it was not necessary for the costs to be spread to all users. Can you please confirm that's accurate? (Councilmember Lumm)

Response: A change of this nature is a structural adjustment that would need further consideration and legal review. Currently, customer costs are allocated by taking the customer service and meter related costs and allocating them to each account (or meter) in the system; therefore, costs would be borne by all customer classes.

Question #38: Q3. I recognize that your revenue planning had assumed 6% water increases on January 1, 2019, 6% on July 1, 2019 and 6% on July 1, 2020. If the three increases were implemented on July 1, 2019, January 1, 2020 and July 1, 2020 instead, the ongoing annual revenue beyond July 1, 2020 would be the same, but there would be a bit of lost revenue in the meantime. Could the system handle that or would you propose a higher July 1, 2019 increases to recoup the near-term loss? If a higher increase, what would incremental percentage be and please confirm that a subsequent increase would be lower (again the ongoing revenue post-July 2020 is unaffected by the timing of the increases up to that point)? (Councilmember Lumm)

Response: Because of the delay in water rate increases, planned capital projects have already been postponed. Once direction on the water rate structure is received, the current plan is to maintain the delayed project schedule and proceed with the 6% increase request on July 1st. However, the system needs and financial planning are reviewed and updated annually based on current conditions.

Question #39: Q4. Although I continue to believe commercial Option B is preferable to commercial Option A because it directly addresses individual commercial customer peaking, I asked whether staff would support Option A should Option B not be feasible/practical and Mr. Hupy seemed to indicate he would. Can you please confirm that? Also, it would seem that Option A would be easy to implement (just adjusting the rate itself), but can you please confirm that as well? (Councilmember Lumm)

Response: Yes, Option A could be relatively easily implemented; however, it would require that rates be manually updated three times each year. This structure change would result in two different unit prices for each bill increasing complexity and likely resulting in increased customer service calls.

Question #40: Q5. (Arcadis Q) You did not have time to respond to my final question at the meeting on whether you had any additional thoughts/insights (or seen other approaches) on how peaking and/or incentivizing conservation might be addressed for commercial customers (subclasses, other approaches etc)? I'd appreciate your responding to that question. (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #41: Q6. (Arcadis Q) One of the concerns I have had with the steep residential tiering is that it penalizes larger families or gardeners that may otherwise be judicious in their water usage. In your experience have you seen any structures that have been able to address that or do you have any thoughts/insights on how it could be addressed more equitably? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #42: Q7. (Arcadis Q) In terms of the residential tiering rate structures, option 3, which is a uniform rate for all single-family residential customers, seems to most closely mirror the national averages. We can see that on slide 26. That suggests to me that the vast majority of city's either don't have increasing block structures at all or the steepness of the increase is significantly less. We can also see on slide 14 that Ann Arbor's tiering is much steeper than is typical nationally. As you know, AA charges SF residential customers 8 times more for the 37th CCF of water than for the 1st CCF. Other than in water starved-areas, are there other tiering structures you've seen where the range from hi to low is as much as 800% and if so, can you please provide detail on who they are and how steep their tiering is? Also, what would you estimate is the more typical range from hi to low in non water-starved areas? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #43: Q8. (Arcadis Q) If Ann Arbor were to adopt your Option 4 for residential, but with a narrower range from hi to low (say 300%), what would recommend for the specific rates in each of the three tiers? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #44: Q9 (Arcadis Q) You indicated the general approach to cost allocation methodology AA used is appropriate and I'm wondering if you also reviewed the specific allocations themselves – the allocations of line item system costs to functions, to customer classes, to tiers – and if you did review the specific allocations, can you please comment on them both generally and any specific items you noticed that may have been different from what you would have recommended or expected? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #45: Q10. (Arcadis Q) Did you have the opportunity to review the rates we charge to sell water directly to townships outside the city, and if so, what are your thoughts regarding the appropriateness of those rates vis-à-vis what's charged to city residents? (I for one have a hard time reconciling charging an AA single-family residential customer $14 for their 37th ccf of water when we charge townships $4 per CCF for large quantities) (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #46: Q11. On slide 34 which speaks to the commercial rates we adopted last summer, it states that "higher peaking customers receive lower bills than under previous structure" which is because we eliminated tiering for commercial customers. I had asked, and we had discussed that previously, but we have not been provided any data on the beneficiaries of the change (who they were and how much they saved). Can you please provide a list of who the largest beneficiaries were of the elimination of the commercial tiering and approximately how much their bills were reduced? (Councilmember Lumm)

Response: Please be advised that the attached spreadsheet contains only water volumetric cost comparisons for customers that were previously in commercial tiers 2 and 3. The costs indicated are not representative of the total costs billed to customers for utility services. It does not include water only volumetric use, sewer usage, or customer charges. In addition, it was not appropriate for the University of Michigan Football Stadium to be billed at Tier 3 once they added deduct meters* in 2017; therefore, they would be in Tier 1 in the future and a billing adjustment (credit) is pending.

* A metering configuration in which water first flows through a master meter and then a second meter called the deduct meter. The flow through the deduct meter is for water only purposes; therefore, is charged at the water only rate with no sewer charges.

Question #47: Q12. **(Arcadis Q)** On the slide listing the types of cost allocation methodologies (slide 5), the two types of methodologies ("commodity demand" and "base extra capacity") are described as more similar than different. What are the differences in the methods, and if AA had used the "commodity demand" method, do you have a sense of what the impacts would have been in the resulting rates? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #48: Q13. (Arcadis Q) On slide 4, it mentioned that privatized water utilities are somewhat common in certain geographical areas. That surprised me and can you please elaborate on that a bit including what municipalities have done this, how it has worked out for them, and what a very rough measure of value might be for Ann Arbor's Water Utility system? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Question #49: Q14. If Ann Arbor charged a uniform rate per quarter per CCF to all customers, what would that rate need to be to generate the same revenue we now have? (Councilmember Lumm)

Response: Each class must have a unique uniform rate per CCF, based on the costs of service to that class as a whole. Those rates would be as follows, but are not inclusive of increased revenue requirements:

Residential:	$4.16
Non-Residential:	$3.83
Multi-Family:	$2.13

Question #50: Q15. (Arcadis Q) – on slide 40, you mention that if we adopted a non-residential peaking pricing structure "some University establishments, such as the football stadium, would be high peaking customers". I noticed on one of the slides that occasionally educational institutions or governments are treated as their own separate customer class – how often have you seen that, and can you please speak to the pros and cons of doing that here in Ann Arbor for the University of Michigan? (Councilmember Lumm)

Response: Please refer to the attached responses provided by Arcadis.

Responses to Questions Submitted by Councilmember Lumm.

Question: (Customer impacts) Have you ever in 20 years of experience seen another example of water rate restructuring that so significantly affected every single family customer as a whole class and some so dramatically as this restructuring has – more than doubling? If so, who were the others and please speak to how they handled transition. Phased rather than all at once?

Response: The Stantec study reports the difference between current revenue and cost of service for Residential customers is $1,690,000; a 12.3% difference (Graphic 4-13; Note this is combined water and sewer). The means the change in Residential rates to achieve cost of service resulted in an overall increase of 12.3% to the Residential class. I have seen this level of rate increase, specifically in Muskogee, Oklahoma (two options, 16% and 24% increases, were considered). The City of Baltimore recently approve rate increases of 30% over 3-years.

The adopted rates have different impacts on Residential customers depending on how much water the customer uses, and high usage customers see higher bills. As part of our review, we explored changes in Residential customer bills resulting from the new rates. At 100 CCF of quarterly water use, a Residential customer's water bill will increase 52%. Approximately 98.2% of Residential customer's use 100 CCF or less, indicating 1.8% of Residential customer bills will see increases greater than 52%.

Q5. (Arcadis Q) You did not have time to respond to my final question at the meeting on whether you had any additional thoughts/insights (or seen other approaches) on how peaking and/or incentivizing conservation might be addressed for commercial customers (subclasses, other approaches etc)? I'd appreciate your responding to that question.

Response: It is important to understand that the current Non-Residential rates capture the cost of Non-Residential peaking. The cost of service phase of the Rate Setting Process (Arcadis PPT slide 7) allocates costs based on average and peak usage. The Rate Design phase of the Rate Setting Process is where rates are developed, but the rates are developed to recover the full cost of service (including peaking costs) for each customer class.

Aligning Non-Residential rates to peaking and/or conservation could be achieved through Options A or B (Arcadis slides 33 through 40). Some utilities do incorporate tiered rates for Non-Residential customers (Arcadis slide 13); however, it is our professional opinion that this approach is best used for Residential customers (not best for Non-Residential customers) as Residential customer usage demands are relatively homogeneous. In other words, the usage patterns of Non-Residential customers vary more significantly than do the patterns of Residential customers based on the varying different types of Non-Residential businesses. Accordingly, most utilities do not design rates for Non-Residential customers that may unintentionally impact certain types of customers.

There are utilities that incorporate Water Budgets for Non-Residential customers. Water Budgets provide a water allowance for irrigation, based on area of property that is irrigated. This approach establishes different (higher) rates for water usage above the allowance for irrigation. Establishing water budget rates requires initial effort to identify the portion of each Non-

Residential customer property that is irrigated. Water budgets also require advanced billing systems in order to implement this type of rate.

Q6. (Arcadis Q) One of the concerns I have had with the steep residential tiering is that it penalizes larger families or gardeners that may otherwise be judicious in their water usage. In your experience have you seen any structures that have been able to address that or do you have any thoughts/insights on how it could be addressed more equitably?

Response: We have several thoughts around the large family/gardener question. 1) The current Residential rates, specifically the first two tiers, are developed around indoor usage and are based on a total of four persons per household. This approach could be modified to increase the number of persons per household; however, would provide this "benefit" to all Residential customers.

2) The use of Water Budgets, as discussed above, is used to provide an allowance of water to Residential customers. Winter average usage could be used as the basis for the allowance and would reflect usage based on the number of persons in a household.

3) Irrigation meters could be considered and are currently used by the City (Water Only rate). Irrigation meters take into account outdoor usage, leaving only indoor usage from the primary connection to the customer. If an Irrigation meter is in place, a customer could be exempt from the 4th tier.

Q7. (Arcadis Q) In terms of the residential tiering rate structures, option 3, which is a uniform rate for all single-family residential customers, seems to most closely mirror the national averages. We can see that on slide 26. That suggests to me that the vast majority of city's either don't have increasing block structures at all or the steepness of the increase is significantly less. We can also see on slide 14 that Ann Arbor's tiering is much steeper than is typical nationally. As you know, AA charges SF residential customers 8 times more for the 37th CCF of water than for the 1st CCF. Other than in water starved-areas, are there other tiering structures you've seen where the range from hi to low is as much as 800% and if so, can you please provide detail on who they are and how steep their tiering is? Also, what would you estimate is the more typical range from hi to low in non water-starved areas?

Response: Attached are several utilities that have "sharp" tiering structures. Many, but not all, are in arid regions. Orange Water and Sewer Authority (North Carolina) is one example of "sharp" tiers implemented by a utility not located in an arid region.

Our estimate of more typical tier differentials would be two-times for each tier; tier 2 would be two-times tier 1, tier 3 would be two-times tier 2, tier 4 would be two-times tier 3, etc. This is a general guideline though and not a hard rule.

Q8. (Arcadis Q) If Ann Arbor were to adopt your Option 4 for residential, but with a narrower range from hi to low (say 300%), what would recommend for the specific rates in each of the three tiers?

Response: The concepts for the options presented were developed by Arcadis; however, the rates for each option were calculated by Stantec using the model developed as part of the rate study. Rates using a 300% threshold would need to be developed by Stantec.

Q9 (Arcadis Q) You indicated the general approach to cost allocation methodology AA used is appropriate and I'm wondering if you also reviewed the specific allocations themselves – the allocations of line item system costs to functions, to customer classes, to tiers – and if you did review the specific allocations, can you please comment on them both generally and any specific items you noticed that may have been different from what you would have recommended or expected?

Response: In reviewing the functional cost allocations (Appendixes B1 and B2) and the Cost of Service allocations (Section 4), we did not observe any recommended changes that we feel would have a material impact on the overall results of the study. As noted in our presentation, the Rate Calculation (Section 5) does result in a high fourth tier rate for Residential customers and, as presented, there is no single method for water rate design.

Q10. (Arcadis Q) Did you have the opportunity to review the rates we charge to sell water directly to townships outside the city, and if so, what are your thoughts regarding the appropriateness of those rates vis-à-vis what's charged to city residents? (I for one have a hard time reconciling charging an AA single-family residential customer $14 for their 37th ccf of water when we charge townships $4 per CCF for large quantities)

Response: As part of our scope of services, we did not review "wholesale" rates; the rates charged to outside City customers.

Q12. (Arcadis Q) On the slide listing the types of cost allocation methodologies (slide 5), the two types of methodologies ("commodity demand" and "base extra capacity") are described as more similar than different. What are the differences in the methods, and if AA had used the "commodity demand" method, do you have a sense of what the impacts would have been in the resulting rates?

Response: The difference between Commodity Demand and Base Extra Capacity methods is the use of the difference (Base Extra Capacity) or actual (Commodity Demand) class contribution for allocating cost to customer classes. The American Water Works Associations provides the following description for the difference between the two approaches:

"the base-extra capacity method uses the ***difference*** between class contribution to the average demand and peak demand, where as the commodity-demand method uses the ***actual*** class contribution to the total maximum demand."

Response: Arcadis did not evaluate the impact of using the commodity demand approach. However, the AWWA M1 Manual provides examples of both the Commodity-Demand and Base-Extra Capacity methods. Table III. 2-7 from the Manual provides a comparison of results from the Commodity-Demand and Base-Extra Capacity methods, which indicates only small variations between the two methods. This example is provided for illustrative purposes, the values presented do not use Ann Arbor data.

Table III.2-7 Allocated cost to customer classes—Base-extra capacity and commodity-demand comparison

Line No.	Customer Class	Base-Extra Capacity		Commodity-Demand	
		Allocated Cost of Service	Percentage of Total	Allocated Cost of Service	Percentage of Total
	Inside City:				
1	Residential	$5,011,889	47.2%	$5,117,409	48.2%
2	Commercial	1,399,435	13.2%	1,382,580	13.0%
3	Industrial	2,302,435	21.7%	2,111,837	19.9%
4	Fire Protection Service	624,390	5.9%	693,289	6.5%
5	Total Inside-City Allocated Cost of Service	9,338,150	87.9%	9,305,116	87.6%
	Outside City:				
6	Residential	$569,369	5.4%	$592,156	5.6%
7	Wholesale	716,801	6.7%	727,048	6.8%
8	Total System Allocated Cost of Service	$10,624,320	100.0%	$10,624,320	100.0%

Q13. (Arcadis Q) On slide 4, it mentioned that privatized water utilities are somewhat common in certain geographical areas. That surprised me and can you please elaborate on that a bit including what municipalities have done this, how it has worked out for them, and what a very rough measure of value might be for Ann Arbor's Water Utility system?

Response: Water service in portions of the state of Indiana are provided by private water utilities; Indiana American Water, and Citizens Energy Group (Indianapolis). In addition, private water companies are more common in the northeastern US, such as New Jersey and Delaware, parts of Pennsylvania.

There are communities across the U.S. that have investor-owned or private utilities that provide their water or wastewater service. This includes direct ownership by the investor-owned or private utility, or contract operations of water and wastewater operations between the municipally-owned utility and the private contract operator. Per the University of North Carolina Environmental Finance Center, approximately 12 percent of the U.S. population is served by private or investor-owned utilities. The following provides several recent examples:

1) Indianapolis, IN – For much of the 1900s, the City of Indianapolis water provider was the Indianapolis Water Co., a privately-held entity that expanded the water system to meet the water needs of the City and surrounding communities. While privately-held, the utility was subject to regulation by the Indiana Utility Regulatory Commission (IURC) for its rates and charges. The Indianapolis Water Co. eventually sold the water utility to the City of Indianapolis who contracted operations and maintenance to Veolia Water North America. The City of Indianapolis

eventually sold the water utility to Citizens Energy Group, which is a public trust entity associated with the City for the purpose of owning and operating the local gas, water, and wastewater utilities.

During the 1990s and into the 2000s the City of Indianapolis also contracted the operation and maintenance of its wastewater system to United Water. The City continued to own the wastewater assets and manage the capital improvement upgrades to the system. This arrangement eventually ended when the City sold the wastewater assets to Citizens Energy Group along with the water assets noted above.

2) Milwaukee Metropolitan Sewerage District (MMSD) – MMSD contracts the operation of its wastewater treatment plant and biosolids handling to Veolia Water Milwaukee. The agreement has been in place since 2008, and was renewed for another 10 years in 2016. MMSD owns the wastewater treatment plant and conveyance system, and is responsible for capital improvements and the setting of the regional wastewater charge structure. MMSD contracts with Veolia for operation and maintenance of the wastewater treatment plant, including meeting regulatory permit limits for the treatment plant effluent.

3) Private or Investor-Owned Ownership – Investor-owned utilities include entities such as American Water or Aqua America. These entities generally provide water and wastewater service to small and mid-size communities across the U.S. As an example, American Water owns and operates the water systems for Noblesville, IN (60,000); Muncie, IN (69,000); and other similar or smaller communities in Indiana. Michigan American Water Co. is a subsidiary of American Water and provides service to approximately 12,000 people in the Township of Calumet, Villages of Calumet, Hubbell, Laurium and surrounding communities of Michigan. Rate setting by these entities that own and operate the utilities is subject regulation by the applicable state regulatory agency.

With respect to how using investor-owned or private entities has worked for managing water and wastewater utilities, it is difficult to generalize. Generally, rates for utilities that are owned by private entities can be higher compared to municipally-owned utilities, but these rates are subject to regulation by state regulatory agencies. The service provided by private entities can be valuable for municipalities that do not have the expertise or ability to effectively manage a water or wastewater system.

In terms of Ann Arbor's value, a full system valuation would need to be performed, which includes several industry methods for determining the overall value. We note that the City's 2018 Financial Statements indicate the Water Supply System Total Assets Less Depreciation are $157,537,564. This book value could be considered a very rough approximation of baseline value.

Q15. (Arcadis Q) – on slide 40, you mention that if we adopted a non-residential peaking pricing structure "some University establishments, such as the football stadium, would be high peaking customers". I noticed on one of the slides that occasionally educational institutions or governments are treated as their own separate customer class – how often have you seen that,

and can you please speak to the pros and cons of doing that here in Ann Arbor for the University of Michigan?

Response: We have seen large institutions (like universities and larger health care facilities) treated as a distinct customer class. For instance, in Dayton, Ohio the University of Dayton and the Veteran's Affairs Hospital campus are charged under a master-metered arrangement. In these cases, each campus was served by a small number of master-metered connections (3 or 4) and maintained their own private piping network behind the master meters. In these cases, the clients were responsible for all usage beyond the meter including fire flows, leakage, etc. which affected the cost of service.

The University of Michigan is not a continuous campus and is comprised of facilities located throughout Ann Arbor. A review was completed for University of Michigan and found that 471 water connections serve the University. For these reasons treating UofM as a single customer class is not recommended.

Volumetric Cost Comparisons
Customers Previously in Commercial Tiers 2 and 3

Sorted by Customer

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
206 INVESTMENTS, LLC	512636	17.79998	$68.17	$129.23	$61.06	$54.96	
2300 WASHTENAW LLC	524574	45.22768	$173.22	$328.35	$155.13	$139.62	
301 NORTH MAIN STREET, LLC	512108	66.82423	$255.94	$485.14	$229.20	$206.28	
A A PARKS DEPT	511207	2	$7.66	$24.88	$17.22	$15.50	
AA COMMERCE CENTER LLC	524540	157.264	$602.32	$1,956.36	$1,354.04	$1,218.64	
AAPS/ALLEN	524521	527.02216	$2,018.49	$3,826.18	$1,807.69	$1,626.92	
AAPS/ANN ARBOR TECH 2	524404	125.8	$481.81	$913.31	$431.50	$388.36	
AAPS/COMMUNITY	511180	677.24196	$2,593.84	$4,916.78	$2,322.94	$2,090.65	
AAPS/FORSYTHE 1	501734	1059.6695	$4,058.53	$7,693.20	$3,634.67	$3,271.21	
AAPS/FORSYTHE 2	501735	184.61536	$707.08	$1,340.31	$633.23	$569.91	
AAPS/HURON 1	517861	1817.21992	$6,959.95	$13,193.02	$6,233.07	$5,609.76	
AAPS/HURON 3	528627	0	$0.00	$0.00	$0.00	$0.00	
AAPS/HURON 4	517864	419.1318	$1,605.27	$3,042.90	$1,437.63	$1,293.87	
AAPS/HURON 5	517865	77.88852	$298.31	$565.47	$267.16	$240.45	
AAPS/HURON 6	517866	17.4444	$66.81	$126.65	$59.84	$53.86	
AAPS/PATTENGILL	520711	189.41102	$725.44	$1,375.12	$649.68	$584.72	
AAPS/SCARLETT	525862	887.66752	$3,399.77	$6,444.47	$3,044.70	$2,740.23	
ALPHA OMICRON PI	514582	129.97802	$497.82	$1,616.93	$1,119.11	$1,007.21	
AMERITECH BILL PYMT CTR	527295	62	$237.46	$450.12	$212.66	$191.42	
ANN ARBOR DOOR SYS	523219	10.95205	$41.95	$136.24	$94.29	$84.87	
ANN ARBOR PM GROUP	513531	126.13328	$483.09	$915.73	$432.64	$389.37	
AVISSA SALON INC	527656	39.4	$150.90	$286.04	$135.14	$121.63	
BELLE TIRE	526962	62.94508	$241.08	$456.98	$215.90	$194.31	
BETH ISREAL CONG	522056	173.02176	$662.67	$1,256.14	$593.47	$534.13	
BETHLEHEM CHURCH	511505	76.4997	$292.99	$555.39	$262.40	$236.16	
BIO ENGERY MEDICAL CENTER	521588	0.27276	$1.04	$1.98	$0.94	$0.85	
BLOGIN PROPERTIES LLC	529401	31.4616	$120.50	$228.41	$107.91	$97.12	
BLUE HERON POND OF ANN ARBOR	529913	189.12012	$724.33	$1,373.01	$648.68	$583.82	
C.CECELIA PONTEDELEON	511940	31.86662	$122.05	$231.35	$109.30	$98.38	
CABRIO PROPERTIES	521233	79.56	$304.71	$577.61	$272.90	$245.62	
CASCABEL VENTURES	511896	1249.73114	$4,786.47	$9,073.05	$4,286.58	$3,857.92	
CHRISTIAN REFORM CHURCH	509167	98.04383	$375.51	$711.80	$336.29	$302.66	
CLARK BELL	511204	41.39994	$158.56	$300.56	$142.00	$127.81	
CLONLARA SCHOOL	523284	54.14141	$207.36	$393.07	$185.71	$167.14	
COLLEX COLLISION EXPERTS	522118	54.48884	$208.69	$395.59	$186.90	$168.21	
COLONIAL BP	519114	115.77752	$443.43	$840.54	$397.11	$357.40	
COMMUNITY CHIROPRACTIC	512312	12.65935	$48.49	$91.91	$43.42	$39.07	
DAYCROFT	501753	131.64456	$504.20	$1,637.66	$1,133.46	$1,020.12	
DDA	511347	608.46578	$2,330.42	$7,569.31	$5,238.89	$4,715.00	
DDA	513243	89.67769	$343.47	$651.06	$307.59	$276.83	
DDA	512319	25.71431	$98.49	$186.69	$88.20	$79.37	
DDA	510880	23.73903	$90.92	$172.35	$81.43	$73.29	
DENNIS LOY	514086	16.78429	$64.28	$121.85	$57.57	$51.81	
DFCU FINANCIAL	500189	269.1124	$1,030.70	$1,953.76	$923.06	$830.75	
DOUG SPALY	504571	215.66632	$826.00	$1,565.74	$739.74	$665.76	
E. HURON LLC	511582	98.13318	$375.85	$712.45	$336.60	$302.95	
EAST STADIUM CHIROPRACTIC	523761	6.79349	$26.02	$49.32	$23.30	$20.97	
EASTHAVEN ANIMAL HOSPITAL	521220	93.72512	$358.97	$680.44	$321.47	$289.33	

Volumetric Cost Comparisons
Customers Previously in Commercial Tiers 2 and 3

Sorted by Customer

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
ESA C/O ACIS/MS129	500324	2177.778	$8,340.89	$27,091.56	$18,750.67	$16,875.61	
EXCLUSIVE BRANDS LLC	527254	23	$88.09	$166.98	$78.89	$71.00	
FARMERS MKT/PARKS & REC DEPT	511134	78.53854	$300.80	$570.19	$269.39	$242.45	
FIFTH THIRD BANK	504617	297.42474	$1,139.14	$2,159.30	$1,020.16	$918.14	
FIRST METHODIST CHURCH	512475	455.0344	$1,742.78	$3,303.55	$1,560.77	$1,404.69	
FIRST PRESBYTERIAN	514584	623.03266	$2,386.22	$4,523.22	$2,137.00	$1,923.30	
GANGER DERMATOLOGY	521209	74.6403	$285.87	$928.53	$642.66	$578.39	
GEORGETOWN C C INC	528847	173.078	$662.89	$2,153.09	$1,490.20	$1,341.19	
GEORGETOWN C C INC	523498	140.2532	$537.17	$1,018.24	$481.07	$432.97	
GLENWOOD LLC	522089	83.84608	$321.13	$608.72	$287.59	$258.83	
GRACE BIBLE CHURCH	506098	329.69279	$1,262.72	$2,393.57	$1,130.85	$1,017.76	
HEYS DENTAL PLLC	516072	50.73344	$194.31	$368.32	$174.01	$156.61	
HONGMEI DELOSH	526202	87.29676	$334.35	$1,085.97	$751.62	$676.46	
HOOVER LLC	522061	212.32896	$813.22	$1,541.51	$728.29	$655.46	
HURON RIVER HOLDINGS LLC	509797	27.84786	$106.66	$202.18	$95.52	$85.97	
HURON VICTORIAN EN	521232	140.02176	$536.28	$1,016.56	$480.28	$432.25	
HUTZEL PLUMBING	523272	24.6	$94.22	$178.60	$84.38	$75.95	
JAMES L CRAWFORD LODGE 322	510542	18.72523	$71.72	$232.94	$161.22	$145.10	
JEFF SILKWORTH	523875	141.63074	$542.45	$1,028.24	$485.79	$437.22	
JENIFER PRIES	518941	68.99988	$264.27	$500.94	$236.67	$213.00	
JJV 3 LLC	501458	37.57784	$143.92	$467.47	$323.55	$291.20	
JOAK AMERICAN HOMES INC	524921	19.4066	$74.33	$140.89	$66.56	$59.90	
J-TECH	504580	118.5717	$454.13	$860.83	$406.70	$366.04	
K&Y GROUPS	522126	121.4064	$464.99	$881.41	$416.42	$374.78	
KEM-TEC	516065	13.50005	$51.71	$98.01	$46.30	$41.67	
LEVEL ONE BANK	506076	169	$647.27	$1,226.94	$579.67	$521.71	
LEWIS JEWELERS	504600	51.9999	$199.16	$377.52	$178.36	$160.53	
LIBERTY LAND LLC	511938	124.7377	$477.75	$905.60	$427.85	$385.07	
LIMESTONE BLDG, LLC	512187	122.26651	$468.28	$887.65	$419.37	$377.44	
LITTLE CEASARS PIZ	504596	56.9999	$218.31	$413.82	$195.51	$175.96	
M & M FUEL INC	526167	15.3708	$58.87	$111.59	$52.72	$47.44	
MAC-O DBA MIDAS MU	503659	12.83331	$49.15	$93.17	$44.02	$39.62	
MAHINDRA TRACTOR ASSEMBLY INC.	525351	324.91232	$1,244.41	$2,358.86	$1,114.45	$1,003.01	
MICH COMM THEATER	511916	151.30736	$579.51	$1,098.49	$518.98	$467.08	
MICHAEL KRAUSE	507866	40.69228	$155.85	$295.43	$139.58	$125.62	
N.E.W. INC	509874	63.5871	$243.54	$461.64	$218.10	$196.30	
NEW BORDER ENTERTAINMENT LLC	519092	15.73912	$60.28	$114.27	$53.99	$48.59	
NEW GRACE APOSTOLIC CHURCH	526166	141.5716	$542.22	$1,027.81	$485.59	$437.03	
NYAA CAPITAL LLC	531429	391.2748	$1,498.58	$2,840.66	$1,342.08	$1,207.87	
OHAC/DOLFIN POOLS c/o TREASURER	520157	47.44416	$181.71	$344.44	$162.73	$146.45	
PARK DEPT	511473	13.19997	$50.56	$95.83	$45.27	$40.74	
PARKS & REC DEPT	521243	47.79992	$183.07	$594.63	$411.56	$370.40	
PARKS & REC DEPT	521244	20.87774	$79.96	$259.72	$179.76	$161.79	
PARKS & REC DEPT/CBBLSTNE-BARN	523955	172.49487	$660.66	$2,145.84	$1,485.18	$1,336.66	
PETER HEYDON	512650	42.33325	$162.14	$307.34	$145.20	$130.69	
PLANNED PARENTHOOD	521582	108.15544	$414.24	$785.21	$370.97	$333.88	
PR CENTER, LLC	527254	1.96875	$7.54	$14.29	$6.75	$6.08	
QPS MICHIGAN HOLDINGS LLC	514086	1	$3.83	$7.26	$3.43	$3.09	

Volumetric Cost Comparisons
Customers Previously in Commercial Tiers 2 and 3

Sorted by Customer

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
RACQUET CLUB	521240	1291.40625	$4,946.09	$9,375.61	$4,429.52	$3,986.57	
RAYMOND MATURO	506078	105.59765	$404.44	$1,313.63	$909.19	$818.28	
SALADS UP BRIARWOOD	500317	96.97796	$371.43	$704.06	$332.63	$299.37	
SEARS # 001390	500319	154	$589.82	$1,915.76	$1,325.94	$1,193.35	
SEARS #001390	500319	427.09076	$1,635.76	$5,313.01	$3,677.25	$3,309.52	
SIG ET HOUSING OF MI ALPHA, LLC	514346	99.79099	$382.20	$724.48	$342.28	$308.06	
SIGMA PHI	513721	210.86662	$807.62	$1,530.89	$723.27	$650.94	
SIMONI OIL CORP	522102	200.13317	$766.51	$2,489.66	$1,723.15	$1,550.83	
SKULL MOUNTAIN LLC	512233	20	$76.60	$145.20	$68.60	$61.74	
SOUTH FIRST ASSOC	515045	0	$0.00	$0.00	$0.00	$0.00	
SOUTH UNIVERSITY SOUTHEAST LLC	514468	15.68888	$60.09	$113.90	$53.81	$48.43	
SPEEDWAY SUPER AMERICA STORE #8707	504603	442.49897	$1,694.77	$3,212.54	$1,517.77	$1,366.00	
ST FRANCIS RECTORY	521665	73.63322	$282.02	$534.58	$252.56	$227.31	
STADIUM VIEW PROPERTIES LLC	506076	0.38641	$1.48	$2.81	$1.33	$1.20	
STEPHEN KELLY	512233	24.7192	$94.67	$179.46	$84.79	$76.32	
TCF BANK	500183	120.57844	$461.82	$875.40	$413.58	$372.23	
TERMINAL BLDG/AIRP	522217	56.8	$217.54	$706.59	$489.05	$440.15	
THE VINYARD CHURCH ANN ARBOR	521580	198.9883	$762.13	$1,444.66	$682.53	$614.28	
TRANSCEND PROPERTIES XII	501385	17	$65.11	$211.48	$146.37	$131.74	
TRANSITION RACK	511494	3.26374	$12.50	$23.69	$11.19	$10.07	
TRIAD MORGAGE COOPERATION	521588	2	$7.66	$14.52	$6.86	$6.17	
U/ M FOOTBALL STADIUM LOCKER ROOM	529136	1317.5	$5,046.03	$16,389.70	$11,343.67	$10,209.30	
U/M BRIARWOOD	501490	107.5	$411.73	$1,337.30	$925.57	$833.03	
U/M CENTER CAMPUS RECREATION	516344	2211.25748	$8,469.12	$27,508.04	$19,038.92	$17,135.03	
U/M CENTRAL CAMPUS REC BLDG & BELL	516342	458.5	$1,756.06	$5,703.74	$3,947.68	$3,552.90	
U/M CENTRAL CAMPUS REC BLDG & BELL	516345	444.66655	$1,703.07	$5,531.65	$3,828.58	$3,445.73	
U/M CENTRAL CAMPUS REC BLDG & BELL	516346	0	$0.00	$0.00	$0.00	$0.00	
U/M ELBEL FIELD LOCKER BLDG	515350	1007.79912	$3,859.87	$7,316.62	$3,456.75	$3,111.07	
U/M F STEARNS BLDG	508970	154.5	$591.74	$1,121.67	$529.93	$476.94	
U/M FIRE SERV INSTR& RES CENTER	516863	153	$585.99	$1,110.78	$524.79	$472.32	
U/M FOOTBALL STADIUM	515606	4957.5	$18,987.23	$61,671.30	$42,684.08	$38,415.67	Pending Adjustment
U/M FORD NUCLEAR REACTOR	517020	269.89652	$1,033.70	$1,959.45	$925.75	$833.18	
U/M GG BROWN LABORATORY	518221	794.5	$3,042.94	$9,883.58	$6,840.64	$6,156.58	
U/M HARTWIG WOMENS ATHL OFFICE	516128	763.87111	$2,925.63	$9,502.56	$6,576.93	$5,919.25	
U/M MADELON POUND HSE	515355	45	$172.35	$326.70	$154.35	$138.92	
U/M MEDICAL SCEINCE I	527237	8	$30.64	$58.08	$27.44	$24.70	
U/M MEDICAL SCIENCE I	527233	7549.5	$28,914.59	$54,809.37	$25,894.78	$23,305.30	
U/M NORTH CAMPUS HSG SERVICE	516841	64.5	$247.04	$802.38	$555.34	$499.80	
U/M OBSERVATORY LODGE	514555	195.5	$748.77	$2,432.02	$1,683.25	$1,514.91	
U/M PRESIDENTS RESIDENCE	516323	35.5	$135.97	$441.62	$305.65	$275.09	
U/M REVELLI MEM BAND REHEARSAL HALL	515363	59	$225.97	$428.34	$202.37	$182.14	
U/M TRANSPORTATION SERVICE BLDG	515361	1854	$7,100.82	$13,460.04	$6,359.22	$5,723.29	
U/M WILLIAMSBURG BRIARWOOD 9	500332	83.26664	$318.91	$1,035.84	$716.93	$645.25	
U-HAUL	524396	180.69849	$692.08	$1,311.88	$619.80	$557.82	
UNIVERSITY OF MICHIGAN CREDIT UNION	511597	636.3324	$2,437.15	$4,619.77	$2,182.62	$1,964.36	
UNIVERSITY OF MICHIGAN CREDIT UNION	531443	31.76863	$121.67	$230.64	$108.97	$98.08	
UNIVERSITY OF MICHIGAN CREDIT UNION	514462	0	$0.00	$0.00	$0.00	$0.00	
UNIVERSITY OF MICHIGAN CREDIT UNION	514464	0	$0.00	$0.00	$0.00	$0.00	

Volumetric Cost Comparisons
Customers Previously in Commercial Tiers 2 and 3

Sorted by Customer

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
W SIDE METHODIST	506676	248.65172	$952.34	$1,805.21	$852.87	$767.59	
WASHTENAW COMMONS LLC	526976	0	$0.00	$0.00	$0.00	$0.00	
WASHTENAW COUNTY INTMD SCHOOL DISTRICT	527279	58.88571	$225.53	$732.54	$507.01	$456.30	
WASHTENAW HURON LLC	522122	266.94309	$1,022.39	$3,320.77	$2,298.38	$2,068.55	
WASHTENAW UNITED WAY	529458	82.59984	$316.36	$599.67	$283.31	$254.98	
WATERWORKS PLAZA	524388	80.9232	$309.94	$587.50	$277.56	$249.81	
WEST HURON PROPERTIES LLC	511650	49.42862	$189.31	$358.85	$169.54	$152.58	
WEST PRESBY CHURCH	505786	231.22006	$885.57	$1,678.66	$793.09	$713.79	
WEST SECOND ST ASSOC.	524162	454.4516	$1,740.55	$3,299.32	$1,558.77	$1,402.89	
WESTMINSTER CHURCH	505785	57.89016	$221.72	$420.28	$198.56	$178.71	
WF 301 LLC	512682	5.39999	$20.68	$39.20	$18.52	$16.66	
WILD SIDE SMOKE SHOP	511875	4.26374	$16.33	$30.95	$14.62	$13.16	
Grand Total		**46,653.31**	**$178,682.23**	**$424,541.23**	**$245,859.01**	**$221,273.45**	

Water Volumetric Cost Comparisons
Customers Previously in Commerical Tiers 2 and 3

Sorted by Savings

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
U/M FOOTBALL STADIUM	515606	4957.5	$18,987.23	$61,671.30	$42,684.08	$38,415.67	Pending Adjustment
U/M MEDICAL SCIENCE I	527233	7549.5	$28,914.59	$54,809.37	$25,894.78	$23,305.30	
U/M CENTER CAMPUS RECREATION	516344	2211.25748	$8,469.12	$27,508.04	$19,038.92	$17,135.03	
ESA C/O ACIS/MS129	500324	2177.778	$8,340.89	$27,091.56	$18,750.67	$16,875.61	
U/ M FOOTBALL STADIUM LOCKER ROOM	529136	1317.5	$5,046.03	$16,389.70	$11,343.67	$10,209.30	
U/M GG BROWN LABORATORY	518221	794.5	$3,042.94	$9,883.58	$6,840.64	$6,156.58	
U/M HARTWIG WOMENS ATHL OFFICE	516128	763.87111	$2,925.63	$9,502.56	$6,576.93	$5,919.25	
U/M TRANSPORTATION SERVICE BLDG	515361	1854	$7,100.82	$13,460.04	$6,359.22	$5,723.29	
AAPS/HURON 1	517861	1817.21992	$6,959.95	$13,193.02	$6,233.07	$5,609.76	
DDA	511347	608.46578	$2,330.42	$7,569.31	$5,238.89	$4,715.00	
RACQUET CLUB	521240	1291.40625	$4,946.09	$9,375.61	$4,429.52	$3,986.57	
CASCABEL VENTURES	511896	1249.73114	$4,786.47	$9,073.05	$4,286.58	$3,857.92	
U/M CENTRAL CAMPUS REC BLDG & BELL	516342	458.5	$1,756.06	$5,703.74	$3,947.68	$3,552.90	
U/M CENTRAL CAMPUS REC BLDG & BELL	516345	444.66655	$1,703.07	$5,531.65	$3,828.58	$3,445.73	
SEARS #001390	500319	427.09076	$1,635.76	$5,313.01	$3,677.25	$3,309.52	
AAPS/FORSYTHE 1	501734	1059.6695	$4,058.53	$7,693.20	$3,634.67	$3,271.21	
U/M ELBEL FIELD LOCKER BLDG	515350	1007.79912	$3,859.87	$7,316.62	$3,456.75	$3,111.07	
AAPS/SCARLETT	525862	887.66752	$3,399.77	$6,444.47	$3,044.70	$2,740.23	
AAPS/COMMUNITY	511180	677.24196	$2,593.84	$4,916.78	$2,322.94	$2,090.65	
WASHTENAW HURON LLC	522122	266.94309	$1,022.39	$3,320.77	$2,298.38	$2,068.55	
UNIVERSITY OF MICHIGAN CREDIT UNION	511597	636.3324	$2,437.15	$4,619.77	$2,182.62	$1,964.36	
FIRST PRESBYTERIAN	514584	623.03266	$2,386.22	$4,523.22	$2,137.00	$1,923.30	
AAPS/ALLEN	524521	527.02216	$2,018.49	$3,826.18	$1,807.69	$1,626.92	
SIMONI OIL CORP	522102	200.13317	$766.51	$2,489.66	$1,723.15	$1,550.83	
U/M OBSERVATORY LODGE	514555	195.5	$748.77	$2,432.02	$1,683.25	$1,514.91	
FIRST METHODIST CHURCH	512475	455.0344	$1,742.78	$3,303.55	$1,560.77	$1,404.69	
WEST SECOND ST ASSOC.	524162	454.4516	$1,740.55	$3,299.32	$1,558.77	$1,402.89	
SPEEDWAY SUPER AMERICA STORE #8707	504603	442.49897	$1,694.77	$3,212.54	$1,517.77	$1,366.00	
GEORGETOWN C C INC	528847	173.078	$662.89	$2,153.09	$1,490.20	$1,341.19	
PARKS & REC DEPT/CBBLSTNE-BARN	523955	172.49487	$660.66	$2,145.84	$1,485.18	$1,336.66	
AAPS/HURON 4	517864	419.1318	$1,605.27	$3,042.90	$1,437.63	$1,293.87	
AA COMMERCE CENTER LLC	524540	157.264	$602.32	$1,956.36	$1,354.04	$1,218.64	
NYAA CAPITAL LLC	531429	391.2748	$1,498.58	$2,840.66	$1,342.08	$1,207.87	
SEARS # 001390	500319	154	$589.82	$1,915.76	$1,325.94	$1,193.35	
DAYCROFT	501753	131.64456	$504.20	$1,637.66	$1,133.46	$1,020.12	
GRACE BIBLE CHURCH	506098	329.69279	$1,262.72	$2,393.57	$1,130.85	$1,017.76	
ALPHA OMICRON PI	514582	129.97802	$497.82	$1,616.93	$1,119.11	$1,007.21	
MAHINDRA TRACTOR ASSEMBLY INC.	525351	324.91232	$1,244.41	$2,358.86	$1,114.45	$1,003.01	
FIFTH THIRD BANK	504617	297.42474	$1,139.14	$2,159.30	$1,020.16	$918.14	

Water Volumetric Cost Comparisons
Customers Previously in Commerical Tiers 2 and 3

Sorted by Savings

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
U/M FORD NUCLEAR REACTOR	517020	269.89652	$1,033.70	$1,959.45	$925.75	$833.18	
U/M BRIARWOOD	501490	107.5	$411.73	$1,337.30	$925.57	$833.03	
DFCU FINANCIAL	500189	269.1124	$1,030.70	$1,953.76	$923.06	$830.75	
RAYMOND MATURO	506078	105.59765	$404.44	$1,313.63	$909.19	$818.28	
W SIDE METHODIST	506676	248.65172	$952.34	$1,805.21	$852.87	$767.59	
WEST PRESBY CHURCH	505786	231.22006	$885.57	$1,678.66	$793.09	$713.79	
HONGMEI DELOSH	526202	87.29676	$334.35	$1,085.97	$751.62	$676.46	
DOUG SPALY	504571	215.66632	$826.00	$1,565.74	$739.74	$665.76	
HOOVER LLC	522061	212.32896	$813.22	$1,541.51	$728.29	$655.46	
SIGMA PHI	513721	210.86662	$807.62	$1,530.89	$723.27	$650.94	
U/M WILLIAMSBURG BRIARWOOD 9	500332	83.26664	$318.91	$1,035.84	$716.93	$645.25	
THE VINYARD CHURCH ANN ARBOR	521580	198.9883	$762.13	$1,444.66	$682.53	$614.28	
AAPS/PATTENGILL	520711	189.41102	$725.44	$1,375.12	$649.68	$584.72	
BLUE HERON POND OF ANN ARBOR	529913	189.12012	$724.33	$1,373.01	$648.68	$583.82	
GANGER DERMATOLOGY	521209	74.6403	$285.87	$928.53	$642.66	$578.39	
AAPS/FORSYTHE 2	501735	184.61536	$707.08	$1,340.31	$633.23	$569.91	
U-HAUL	524396	180.69849	$692.08	$1,311.88	$619.80	$557.82	
BETH ISREAL CONG	522056	173.02176	$662.67	$1,256.14	$593.47	$534.13	
LEVEL ONE BANK	506076	169	$647.27	$1,226.94	$579.67	$521.71	
U/M NORTH CAMPUS HSG SERVICE	516841	64.5	$247.04	$802.38	$555.34	$499.80	
U/M F STEARNS BLDG	508970	154.5	$591.74	$1,121.67	$529.93	$476.94	
U/M FIRE SERV INSTR& RES CENTER	516863	153	$585.99	$1,110.78	$524.79	$472.32	
MICH COMM THEATER	511916	151.30736	$579.51	$1,098.49	$518.98	$467.08	
WASHTENAW COUNTY INTMD SCHOOL DISTRICT	527279	58.88571	$225.53	$732.54	$507.01	$456.30	
TERMINAL BLDG/AIRP	522217	56.8	$217.54	$706.59	$489.05	$440.15	
JEFF SILKWORTH	523875	141.63074	$542.45	$1,028.24	$485.79	$437.22	
NEW GRACE APOSTOLIC CHURCH	526166	141.5716	$542.22	$1,027.81	$485.59	$437.03	
GEORGETOWN C C INC	523498	140.2532	$537.17	$1,018.24	$481.07	$432.97	
HURON VICTORIAN EN	521232	140.02176	$536.28	$1,016.56	$480.28	$432.25	
ANN ARBOR PM GROUP	513531	126.13328	$483.09	$915.73	$432.64	$389.37	
AAPS/ANN ARBOR TECH 2	524404	125.8	$481.81	$913.31	$431.50	$388.36	
LIBERTY LAND LLC	511938	124.7377	$477.75	$905.60	$427.85	$385.07	
LIMESTONE BLDG, LLC	512187	122.26651	$468.28	$887.65	$419.37	$377.44	
K&Y GROUPS	522126	121.4064	$464.99	$881.41	$416.42	$374.78	
TCF BANK	500183	120.57844	$461.82	$875.40	$413.58	$372.23	
PARKS & REC DEPT	521243	47.79992	$183.07	$594.63	$411.56	$370.40	
J-TECH	504580	118.5717	$454.13	$860.83	$406.70	$366.04	
COLONIAL BP	519114	115.77752	$443.43	$840.54	$397.11	$357.40	
PLANNED PARENTHOOD	521582	108.15544	$414.24	$785.21	$370.97	$333.88	

Water Volumetric Cost Comparisons
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Sorted by Savings

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
SIG ET HOUSING OF MI ALPHA, LLC	514346	99.79099	$382.20	$724.48	$342.28	$308.06	
E. HURON LLC	511582	98.13318	$375.85	$712.45	$336.60	$302.95	
CHRISTIAN REFORM CHURCH	509167	98.04383	$375.51	$711.80	$336.29	$302.66	
SALADS UP BRIARWOOD	500317	96.97796	$371.43	$704.06	$332.63	$299.37	
JJV 3 LLC	501458	37.57784	$143.92	$467.47	$323.55	$291.20	
EASTHAVEN ANIMAL HOSPITAL	521220	93.72512	$358.97	$680.44	$321.47	$289.33	
DDA	513243	89.67769	$343.47	$651.06	$307.59	$276.83	
U/M PRESIDENTS RESIDENCE	516323	35.5	$135.97	$441.62	$305.65	$275.09	
GLENWOOD LLC	522089	83.84608	$321.13	$608.72	$287.59	$258.83	
WASHTENAW UNITED WAY	529458	82.59984	$316.36	$599.67	$283.31	$254.98	
WATERWORKS PLAZA	524388	80.9232	$309.94	$587.50	$277.56	$249.81	
CABRIO PROPERTIES	521233	79.56	$304.71	$577.61	$272.90	$245.62	
FARMERS MKT/PARKS & REC DEPT	511134	78.53854	$300.80	$570.19	$269.39	$242.45	
AAPS/HURON 5	517865	77.88852	$298.31	$565.47	$267.16	$240.45	
BETHLEHEM CHURCH	511505	76.4997	$292.99	$555.39	$262.40	$236.16	
ST FRANCIS RECTORY	521665	73.63322	$282.02	$534.58	$252.56	$227.31	
JENIFER PRIES	518941	68.99988	$264.27	$500.94	$236.67	$213.00	
301 NORTH MAIN STREET, LLC	512108	66.82423	$255.94	$485.14	$229.20	$206.28	
N.E.W. INC	509874	63.5871	$243.54	$461.64	$218.10	$196.30	
BELLE TIRE	526962	62.94508	$241.08	$456.98	$215.90	$194.31	
AMERITECH BILL PYMT CTR	527295	62	$237.46	$450.12	$212.66	$191.42	
U/M REVELLI MEM BAND REHEARSAL HALL	515363	59	$225.97	$428.34	$202.37	$182.14	
WESTMINSTER CHURCH	505785	57.89016	$221.72	$420.28	$198.56	$178.71	
LITTLE CEASARS PIZ	504596	56.9999	$218.31	$413.82	$195.51	$175.96	
COLLEX COLLISION EXPERTS	522118	54.48884	$208.69	$395.59	$186.90	$168.21	
CLONLARA SCHOOL	523284	54.14141	$207.36	$393.07	$185.71	$167.14	
PARKS & REC DEPT	521244	20.87774	$79.96	$259.72	$179.76	$161.79	
LEWIS JEWELERS	504600	51.9999	$199.16	$377.52	$178.36	$160.53	
HEYS DENTAL PLLC	516072	50.73344	$194.31	$368.32	$174.01	$156.61	
WEST HURON PROPERTIES LLC	511650	49.42862	$189.31	$358.85	$169.54	$152.58	
OHAC/DOLFIN POOLS c/o TREASURER	520157	47.44416	$181.71	$344.44	$162.73	$146.45	
JAMES L CRAWFORD LODGE 322	510542	18.72523	$71.72	$232.94	$161.22	$145.10	
2300 WASHTENAW LLC	524574	45.22768	$173.22	$328.35	$155.13	$139.62	
U/M MADELON POUND HSE	515355	45	$172.35	$326.70	$154.35	$138.92	
TRANSCEND PROPERTIES XII	501385	17	$65.11	$211.48	$146.37	$131.74	
PETER HEYDON	512650	42.33325	$162.14	$307.34	$145.20	$130.69	
CLARK BELL	511204	41.39994	$158.56	$300.56	$142.00	$127.81	
MICHAEL KRAUSE	507866	40.69228	$155.85	$295.43	$139.58	$125.62	
AVISSA SALON INC	527656	39.4	$150.90	$286.04	$135.14	$121.63	

Water Volumetric Cost Comparisons
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Sorted by Savings

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C.CECELIA PONTEDELEON	511940	31.86662	$122.05	$231.35	$109.30	$98.38	
UNIVERSITY OF MICHIGAN CREDIT UNION	531443	31.76863	$121.67	$230.64	$108.97	$98.08	
BLOGIN PROPERTIES LLC	529401	31.4616	$120.50	$228.41	$107.91	$97.12	
HURON RIVER HOLDINGS LLC	509797	27.84786	$106.66	$202.18	$95.52	$85.97	
ANN ARBOR DOOR SYS	523219	10.95205	$41.95	$136.24	$94.29	$84.87	
DDA	512319	25.71431	$98.49	$186.69	$88.20	$79.37	
STEPHEN KELLY	512233	24.7192	$94.67	$179.46	$84.79	$76.32	
HUTZEL PLUMBING	523272	24.6	$94.22	$178.60	$84.38	$75.95	
DDA	510880	23.73903	$90.92	$172.35	$81.43	$73.29	
EXCLUSIVE BRANDS LLC	527254	23	$88.09	$166.98	$78.89	$71.00	
SKULL MOUNTAIN LLC	512233	20	$76.60	$145.20	$68.60	$61.74	
JOAK AMERICAN HOMES INC	524921	19.4066	$74.33	$140.89	$66.56	$59.90	
206 INVESTMENTS, LLC	512636	17.79998	$68.17	$129.23	$61.06	$54.96	
AAPS/HURON 6	517866	17.4444	$66.81	$126.65	$59.84	$53.86	
DENNIS LOY	514086	16.78429	$64.28	$121.85	$57.57	$51.81	
NEW BORDER ENTERTAINMENT LLC	519092	15.73912	$60.28	$114.27	$53.99	$48.59	
SOUTH UNIVERSITY SOUTHEAST LLC	514468	15.68888	$60.09	$113.90	$53.81	$48.43	
M & M FUEL INC	526167	15.3708	$58.87	$111.59	$52.72	$47.44	
KEM-TEC	516065	13.50005	$51.71	$98.01	$46.30	$41.67	
PARK DEPT	511473	13.19997	$50.56	$95.83	$45.27	$40.74	
MAC-O DBA MIDAS MU	503659	12.83331	$49.15	$93.17	$44.02	$39.62	
COMMUNITY CHIROPRACTIC	512312	12.65935	$48.49	$91.91	$43.42	$39.07	
U/M MEDICAL SCEINCE I	527237	8	$30.64	$58.08	$27.44	$24.70	
EAST STADIUM CHIROPRACTIC	523761	6.79349	$26.02	$49.32	$23.30	$20.97	
WF 301 LLC	512682	5.39999	$20.68	$39.20	$18.52	$16.66	
A A PARKS DEPT	511207	2	$7.66	$24.88	$17.22	$15.50	
WILD SIDE SMOKE SHOP	511875	4.26374	$16.33	$30.95	$14.62	$13.16	
TRANSITION RACK	511494	3.26374	$12.50	$23.69	$11.19	$10.07	
TRIAD MORGAGE COOPERATION	521588	2	$7.66	$14.52	$6.86	$6.17	
PR CENTER, LLC	527254	1.96875	$7.54	$14.29	$6.75	$6.08	
QPS MICHIGAN HOLDINGS LLC	514086	1	$3.83	$7.26	$3.43	$3.09	
STADIUM VIEW PROPERTIES LLC	506076	0.38641	$1.48	$2.81	$1.33	$1.20	
BIO ENGERY MEDICAL CENTER	521588	0.27276	$1.04	$1.98	$0.94	$0.85	
AAPS/HURON 3	528627	0	$0.00	$0.00	$0.00	$0.00	
SOUTH FIRST ASSOC	515045	0	$0.00	$0.00	$0.00	$0.00	
U/M CENTRAL CAMPUS REC BLDG & BELL	516346	0	$0.00	$0.00	$0.00	$0.00	
UNIVERSITY OF MICHIGAN CREDIT UNION	514462	0	$0.00	$0.00	$0.00	$0.00	
UNIVERSITY OF MICHIGAN CREDIT UNION	514464	0	$0.00	$0.00	$0.00	$0.00	
WASHTENAW COMMONS LLC	526976	0	$0.00	$0.00	$0.00	$0.00	

Water Volumetric Cost Comparisons
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Sorted by Savings

Customer Name	Account	Consumption in FY19	FY19 Charges for Consumption	FY19 Consumption at FY18 Rate	FY19 Savings	FY19 Savings @ Net	Note
Grand Total		**46,653.31**	**$178,682.23**	**$424,541.23**	**$245,859.01**	**$221,273.45**	