

CITY OF HURON UTILITIES COMMITTEE
Minutes of the Meeting
October 6, 2020 – 4:20pm

The Huron Utilities Committee was called to order by the Clerk of Council, Terri Welkener, on Tuesday, October 6, 2020 at 4:34pm in Council Chambers in Huron City Hall, 417 Main Street Huron, Ohio.

MEMBERS PRESENT: Christine Crawford and Joel Hagy. Also in attendance: Interim City Manager Mike Spafford, Finance Director Cory Swaisgood, Water Superintendent Jason Gibboney, City Engineer Doug Green, Utilities Consultant Mike Spacek and Executive Administrative Assistant/Clerk of Council Terri Welkener.

Appointment of Committee Chair

Motion by Ms. Crawford nominating Joel Hagy as Committee Chairperson, all in favor.

New Business

Composition, Purview and Meeting Times.

After some discussion, the Committee decided that it should be expanded to nine members consisting of the following individuals in addition to the 2 Council members: City Manager, Finance Director, Law Director, City Engineer, Water Superintendent, City Utilities Consultant and a citizen member to be determined. It was decided to place an advertisement in the Sandusky Register for the citizen member position.

The purview of this Committee will cover water, electric, storm water, trash, gas, sewer and broadband/fiber. At this time, the City's only control of natural gas is through the aggregation program.

The Committee decided to meet monthly (or as needed) on the first Wednesday of the month, with the next meeting scheduled for November 4, 2020 at 4:30pm.

Water Plant Upgrades

Mr. Spafford said the Water Plant is at a point where, at our highest peak, we are approaching and have exceeded our technical rated capacity for the plant. The capacity of the Water Plant is determined by the most restrictive piece of equipment – that is how the EPA looks at it. Pieces and parts throughout the Plant have their own capacities and they are all over the place. The capacity is currently 3.4 million gallons processed per day. Monthly usage going back to 2013 has been trending steadily upwards. The Plant processed nearly 90 million gallons in the month of July. In July, over 3 days, we hit the cap of 3.4 million gallons a day. When that capacity is exceeded the reserves in the water towers are tapped. Our customer portfolio is currently comprised of internal customers (City of Huron) and external customers (wholesale contract with Erie County). The County uses approximately 1.5 million of the 3.4 million gallons in capacity, while the remaining 1.9 is all internal (60:40 split).

The advent of Mucci Farms has accelerated the need to expand capacity. They are a pretty significant water user. During the drought we had in July, the County pulled above their contract amount and Mucci's sterilization system was down for maintenance, which means that they aren't recycling as much water. During that time, their normal use of 125,000 gal/day ballooned up to about 300,000 gal/day. That was only for one phase, so we have to plan for the future with additional phases on the horizon. Everything in the plant is component-based with each component having its own rating capacity. The component with the lowest capacity determines the overall capacity. At this time, that component is the sedimentation basins. In lieu of adding more basins, they make tube settlers to make them more efficient. That will give us additional capacity at a cheaper cost than constructing new basins altogether. The

capacity would go from 3.4 million gallons to 5.8 gallons for roughly a \$2 million investment. Ms. Crawford asked what the work was that was just done. Mr. Gibboney said that the current project was for sludge rakes. The Committee discussed the possibilities available and logistics involved to obtain new customers if the capacity is increased. The engineering analysis showed that the economics work for the upgrade. As a best practice, you want to have a reserve of at least 30%. This is the most cost-effective way to increase capacity of the plan, under the assumption that various economic development projects will over time increase usage internally, and the County is always going to be interested in additional water. This is the best way to go even without a specific dedicated end user. While the City can apply for any capacity between 3.4 million and 5.8 million gallons/day, when you pass 5 million gallons/day you become a Class IV facility, which is the largest facility size in the State of Ohio. All that does is change your operator requirements – your manager would have to be Class IV as well, which Mr. Gibboney already has. The proposed upgrade would take close to a year from bid to award. The project has already been engineered. Ms. Crawford said that she doesn't see any reason to not pursue this. Mr. Gibboney said the EPA will start sending letters to the City of we are running at 90%+ capacity on a recurrent basis. As Mucci completes Phases II and III, he sees that happening on a recurrent basis. The Plant runs like a car – you don't want to continuously run it right below red line. It's not made to run full speed constantly. The operations and maintenances costs would have a minor increase due to the need for additional chemicals and slight electrical upcharge due to pumping costs – if you treat 10% more water, you will have a 15% increase in chemical costs.

The Committee members asked what the next step would be to move this forward, as they were fully in support of the project. Mr. Spafford said he would send the information out to the Committee members for review prior to the next Committee meeting. Mr. Hagy suggested it be handles as two separate things – increasing capacity at the Water Plant and new revenue prospects. Mr. Spafford said staff would present the case regarding the new tube settlers with the Utility and Finance Committee recommendations so that it's in next year's budget, and then move forward from there.

Water Rates

In 2018, OHM did a capitalized management plan for us, which lists out every single asset on the water distribution and filtration sides, a quality or condition rating, and then a projected 10-year replacement schedule. Based on some of the trends we are seeing over the 10 years, we show that we enter deficit spending on the water side in about year 4. From a revenue and financial aspect, we now entered our 13th straight year without modifying the rates at all. At some point in time, it becomes irresponsible to not increase revenue with inflation. Mr. Gibboney has completed every single plant efficiency possible to get our production costs down. The City has been able to go 13 years without a rate increase while seeing balances within the water funds remain stable and gradually increase over time, largely due to the availability of low interest or no interest loans from the State funding sources. Staff's recommendation is to start annual rate increases - if not this budget cycle, then in next budget cycle. We have based the deficit projection assuming the existing customer base only, with no projections for additional customers. The only way to get there is a rate increase of \$0.08/ccf (3%) from the current rate of \$2.60/ccf. The committee discussed the rates charged by surrounding communities. Mr. Spafford said we are at the point where the EPA is strongly suggesting that it is time for rate increases. Our annual report states how many years it has been since our last rate increase. The EPA wants to make sure you are responsibly maintaining the system, including water line replacements that are currently unbudgeted due to deficit as we go out to 2025 and 2026 in the Water Fund. With the additional of 3% per year for the next 10 years, then we will have the funds to be able to do those water projects. Mr. Spafford indicated that it is a fairly aggressive capital plan (almost double) compared to past practices over the previous 20 years. There are some pretty substantial water line projects built into the plan. There is a healthy mix between extending the schedule out in a sense it is still responsible and we can still take care of minor bumps and bruises along the way, and not compromising the system while being cognizant of the financial impact on our

citizens. **Both members of the Committee are in support of this plan, and recommend it to the Finance Committee.**

HPP Expansion/AMP-T Transmission Assets Purchase

HPP was established as an economic development tool for the City as a way to help control utility costs for companies. The long-term strategy of HPP is to expand outside of the Corporate Park. We authorized an engineering analysis to review all of the initial permitting processes and feasibility for expansion. The biggest hang-up on expanding north out of the Park is having to cross the railroad right-of-way and State highway right-of-way. The goal is to be underground with all of our lines, as we may run into issues using overhead aerials on poles owned by Ohio Edison. The first expansion would target Sawmill Parkway with the first step getting through the railroad right-of-way. The next piece would be picking the most appropriate spot on Route 2 to cross, with the initial thought being to cross over to Lake Erie Parkway. One of the advantages to the expansion is the regulatory requirements for the City to serve at least 50% of your total portfolio within your municipal confines. When Mucci came on board, we had to annex them into the City in order to meet that requirement. The City would negotiate providing services to customers on the path north from the substation. Once we get to Lake Erie Parkway, we might be able to use institutional facilities as logical checkpoints for a phased expansion. Mr. Spafford said AMP Ohio has general obligation debt financing available for these types of projects. Mr. Swaisgood said the expansion has been estimated at \$1 Million as a placeholder in the capital improvement plan.

Regarding proceeds of the HPP transmission assets sale, staff is talking to Mike Sudsina regarding debt capacity and various options on 10/15/20 year debt if the rest of the \$3 Million is bonded out, along with direct payback of the loan. If Council opts to bond out the debt, those funds can be used toward this expansion, rather than taking out a note or any other debt. Mr. Hagy asked if fiber were to be run in the conduit along with the electric, would it be the cable providers responsibility to go from the fiber optic from the road to the home. Mr. Spafford said there are a couple different models: City owned and operated; or City built by private utility leased and operated. Staff's position would be for the City to own the infrastructure with a private utility doing the runs to the individual homes – that would be the most advantageous. With interest rates being so low and the debt market being where it is post-COVID, he asked Mike Sudsina to run some financial analyses to see if, were we to bond out the full \$3.5 Million on the substation sale (knowing we are getting the full \$2.2 Million from AMP-T), it would make sense from a cash flow perspective based on the interest rates. The rate for 20 years was 2-1/4%, which is unbelievable. There is cost inherent, but at the same time, any dollar that wasn't used could be invested in CD's to likely offset the interest cost. What that does is provide an immediate availability of cash to start some of these expansion projects. Moody's is placing high importance in the next ratings cycle on availability of cash for fluidity of the municipality. They would view us having cash with the increased debt as a better financial position than paying off the debt. The goal of the AMP-T transaction is to fund the expansion of HPP, and you can then predict how much revenue will result to pay off loan. The current loans are for 12 months.

When we set up Mucci's rate, the additional offset rider was to replace the City's capital cost so that the City would upfront the cost and Mucci would pay us back over time through the rate. Mucci has asked if they can separate those two. They no longer want the capital piece to be part of the rate – they want it to be a direct payment to the City on a quarterly basis over 10 years, which we assume is for taxing and accounting purposes on their back end to treat that as a capital expense as opposed to an operating expense. It doesn't matter one way or the other to the City because we book in cash. We are working on right now is a modified rate agreement that accomplishes two things: (1) produces their offset rider equivalent to the AMP-T sale. Basically, we are giving the realization of the AMP-T deal to Mucci because we built the substation for their benefit in the first place. From an economic development standpoint, that is a good gesture on the part of the City; and (2) it splits off what was the remainder of the capital recovery and turns it into a fixed quarterly payment of roughly \$45,000, which would pay off the

remainder of their balance of the substation over a 10-year period, assuming those interest rates on a 10-year note. Mr. Hagy said we are going to be paid \$2.2 Million from AMP-T. If we give them a rate reduction, does that reduction equal \$2.2 Million so that it is a push and we're just even? Mr. Spafford said yes, that is essentially how it will work. Once you take out what would have been that payment on the full \$3.5 Million and then factor in how Mucci's new rate will look compared to their old one, it will come out similar. The other big difference with the current proposal we have with them on our rate modification is right now the rate is flat – if they use 1kwh or 100,000,000kwh, they pay the same dollar amount per kwh. We did it this way because they were starting to questions whether or not they were going to do Phase III. Phase III is nice with operational benefits that make the system more substantial, but at the same time, but if it doesn't happen it's not a huge deal. The way we structured the rate is marginal. Just the same way as our County wholesale rate for water works, we incentivize them to buy more power. The number of anticipated kwh anticipated per phase of greenhouse is 33 Million kwh. The first 34 Million is at \$0.09/kwh and then the second is \$0.06/kwh and the third is \$0.03/kwh. On the last rate, we are not making a whole lot, but at that point our capital costs are covered. Mr. Spafford said the Mucci rate modification doesn't exist without the AMP-T transaction closing. The City must still negotiate a long-term rate with AMP Ohio as part of this, too. The City can then decide what to do with the \$2.1 Million. Mr. Spafford said the large user ordinance is drafted so that the fee can be used for capital and economic development projects that relate back to general projects in the City (not just utility-specific projects). Mr. Swaisgood said that he has received two legal opinion and an e-mail from the Auditor's Office saying that everything looks okay for use of those funds. Asked by Ms. Crawford if this project is something we can use those funds for, Mr. Spafford said that is exactly we should use those funds for. Huron Public Power is an economic development tool, it is not a slush fund for the City to fund its projects. Mucci shouldn't be the bearer to front all of these capital projects that don't directly benefit them.

Broadband/Fiber Network

Mr. Hagy said that the HPP expansion project would be the perfect time to also add broadband. Mr. Spacek said that the broadband could be part of HPP. Mr. Spafford said there are a couple of communities that have done the model of installing fiber and then charging the local cable company to tap in, and they have multiple telecom companies on the back end, and then the city actually created an "apples to apples" site for utilities where you can change your internet service monthly based on cost – it's all open and transparent through the city's website. Mr. Hagy said residents would get much higher speeds at a lower cost. Mr. Spafford said the City of Chattanooga was one of the first cities in the US to pilot fiber to home, and they did it because they had an existing electric utility and integrated the systems together. There are kinds of additional benefits to doing that. The opportunity is there to have a broadband or fiber network exist because Huron Public Power exists. As you expand HPP, you just follow the line with fiber. The City of Fairlawn, which is similar in size to Huron, installed their fiber network and ran it to every house (they ran it both underground and above ground) including the network, off-shoots into some of the surrounding communities, and a data center. They did all of that for \$14 Million. The data center alone was \$3.5 Million of that total. They are approaching payoff of the project, which was completed in 2017.

Both Ms. Crawford and Mr. Hagy were in favor of moving forward with looking into the broadband project. Mr. Hagy said it gets frustrating when we have a great vision and never take that next step. Mr. Swaisgood said we wanted to talk to the Committee first, and then run it by Council, to be sure we are not getting ahead of ourselves. Mr. Hagy wanted to know what he needs to do next to get this done. We will have an update at the next meeting to see if we are still going in the right direction.

Mr. Spafford said the Committee would probably use the next meeting to start talking rate change for the general service. The existing rate is modeled on how Ohio Edison calculated it (in terms of how it worked), but it needs to be simplified. This would be for everyone but Mucci Farms. Mr. Hagy asked if

power rates could be used as a negotiation tool for a company coming to Huron. Mr. Spacek gave an example of how that worked in for a company on the east side of Cleveland. Mr. Spafford said IAC played that game with the City, also. Mr. Spacek said we have to change the overall agreement with Mucci. The HPP agreement doesn't have to be done and AMP-T doesn't have to be done. Without the proceeds of the sale to AMP-T, we could fix the generation portion of Mucci's agreement because we are on the market on power for them right now to protect the City and to protect Mucci. We are in the process of getting market pricing from AMP Ohio and updated ordinances for Council's to review and fix that portion of the energy cost. That piece should happen regardless of the other events.

Republic Services Contract

Mr. Swaisgood said we talked to the Finance Committee about the rates. For this Committee, it's more to talk about the Republic contract in general. There are a lot of people that are unhappy. Looking at the numbers over the last 6 quarters, we bill out under 3,100 customers while we are getting billed by Republic for 3,250. We need to go through that contract to review those types of things. That was negotiated with the expectation that we would get above 3,250, but it looks like we just never got there. A lot of it could be due to the vacation rentals. The contract isn't up until 2022, but this is something to talk about next year as we renegotiate with Republic or whoever it needs to be going forward.

Mr. Spafford said when the City went out to bid for trash service, the bid was written on 3,500 accounts, so that is how Republic costed it. Obviously, it was nowhere near 3,500 and the Law Director, the Finance Director and Republic hashed out an agreement that Council approved. Because that number fluctuates so much, it was very difficult for Republic to keep track of how many customers were being serviced. The way it is structured, Republic doesn't have to check with the City to see if a customer is current, then just pick it all up. Ms. Crawford asked if there are other players. Mr. Spafford said there are no other companies that can provide the level of service Republic can. Republic is our only option. Mr. Spafford said we would only have options if we reduced the services offered. He is not recommending that we go backwards in terms of service offerings. Ms. Crawford said she had that conversation yesterday with somebody, and she does think there is a lot of benefit to the bulk pickup option. It combats that debris laying around houses and people that never get to the dump. She thinks, on a large scale, that is very, very valuable. Mr. Spafford said that is a "value added" to the contract – it is not itemized in the contract. From a cost reduction standpoint, that's not an option to eliminate that and see a savings. Republic works with Barnes Nursery on the yard waste. Our service includes garbage, recycling, yard waste and bulk pickup. People outside of Huron are paying from \$100-\$150 to Republic for trash only service. We have City employees and they find it very funny when people complain about the service and price. Mr. Hagy said that is the real issue – we need to get the word out about how great a deal this service is.

Mr. Spafford said it's frustrating that Republic doesn't always do a great job with certain things, and their communication with us is lacking. This puts us in a tough spot because we can't get the communication out to the public. That being said, the only other option is to get rid of the entire program, in which case every single resident's cost just increased and we will then have the headache of them all having to contract on their own with every single day in the City being trash day. There would be trash cans out every day of the week. Mr. Hagy said he is sure most of the people that are complaining about Republic have no idea what they've got. Mr. Swaisgood said as we go into next year when we discuss all of this, we should have a plan to communicate this message out of why we're negotiating with Republic again. We won't negotiate with Republic without going out to bid – but Republic will ultimately be the only company that bids on it because they are the only company that can provide the service. Sandusky just did a study modeled on our system – they are looking to go this way, as well, because of the operational benefits and cost efficiency. At the \$65/quarter we are currently charging, we are approaching, if not exceeding, the break-even point on that. Mr. Swaisgood said the Finance Committee will be discussing creating a separate fund so this isn't all mixed up with the General Fund and you will be able to see at the

end of 2022 we will already be in a deficit, which is what we predicted. We will discuss that in more detail during those meetings. Mr. Spafford said that the administration has looked at creating our own sanitation department, but the upfront costs are insane. The County has adopted an ordinance stating every single piece of trash in the County has to be taken to the Erie County Landfill, to the point where they actually monitor the boundary of the County to make sure no trash is leaving. They charge 3x the tipping fees than other landfills. Republic owns the two nearest landfills, one in Oberlin and one in Port Clinton. The last time he talked to Dave Kidder, who is our account representative with Republic Services, they were at \$22/ton, whereas Erie County is at \$54-\$55/ton. Mr. Hagy commented that it sounds like they have a monopoly. Mr. Spafford said that Republic has every previous contractor we have had. Running a landfill is expensive, so the County is trying to make sure that they stay whole.

Next Steps

Mr. Spafford said the priority on the power side is the AMP-T/Mucci rate and AMP Ohio fixed contracts, and that's all in the works, and we will just need a champion from Council to really push that through to make sure those get finalized in relatively short order. We are trying to get everything wrapped up so that when Mucci starts, or shortly thereafter, using power as part of this billing cycle, which is mid-November. Mucci will be turning their lights on pretty soon. We are still covered under the existing agreement, but all parties want to get this done. We have talked about having true-up process in the new rate agreement, which says we will go back and make each other whole that first month if we are not able to get it completed. The biggest thing is to having a champion on Council.

The engineering is already done for the water plant upgrades. We just need to tell the story on the capital side in our budget hearings this year. Once Council approves the budget, we can move forward on January 1st. Mr. Swaisgood said this Committee is very important because at the budgetary meetings and in Council meetings we don't have the time to go into all of this detail. The questions come out during these Committee meetings, and during the public meetings, Council meetings and Finance Committee meetings you can help push those through with us. The need for the improvements is based on the current status of production for existing customers, but the goal is also to attract future economic development. It is hard when, for example, Mucci wants to expand and it would be hard to entertain those conversations when we have no water to sell. We could dial the County contract back, but Mr. Spafford views that contract as stabilization of the operation.

The meeting of the Utilities Committee was adjourned at 6:04pm.

Respectfully submitted,



Terri Welkener
Executive Administrative Assistant/Clerk of Council



Utilities Committee

October 6, 2020

1630 – 1730 hrs.

Water Filtration and Distribution Topics of Discussion:

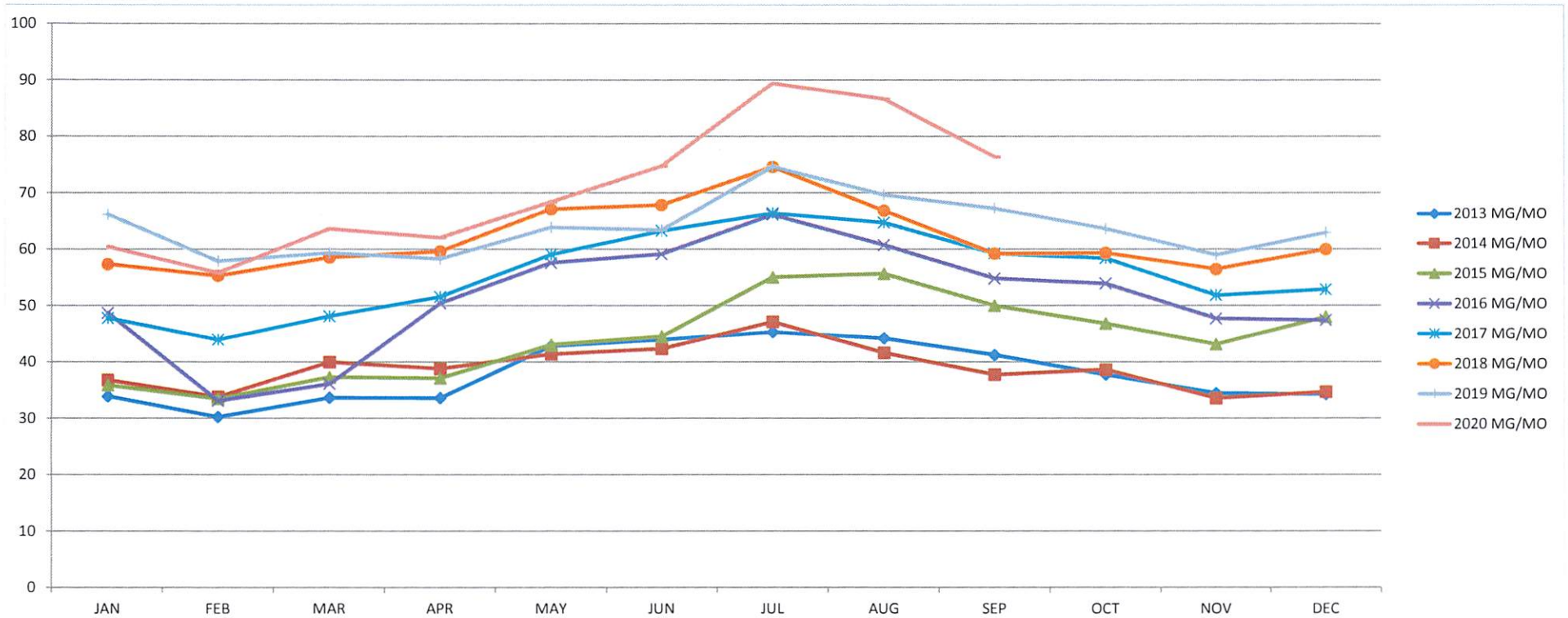
- Filtration Plant Treatment Capacity
 - Full capacity reached 3 days in July 2020
 - Averaging above 80% capacity daily
 - Predictive trending shows capacity above 90% with Mucci Phase 3
 - Ohio EPA plant capacity threshold (recurring) is 90%
 - Typical production of surrounding water filtration plants in terms of capacity is 60%
 - Excess production capability needed to supply unforeseen events such as a large fire or water main breaks
 - Excess production capability needed to supply Mucci in the event their sterilization equipment is out of service
 - Excess production capability can be utilized as a marketing tool to incentivize new businesses to come to Huron
 - Supporting documents: 1-6
- Filtration Plant and Distribution System Capital Improvements
 - One large capital improvement currently in progress at the WTP. The sludge removal project has a cost of roughly \$850k and will be completed by February 2021. Project yields no capacity but satisfies OEPA mandated improvement.
 - One large capital improvement for consideration in 2021 at the WTP. The tube settler project has an estimated cost of \$2M as determined by Poggemeyer Design Group. Tube Settlers would increase the treatment plant capacity from 3.4 million gallons per day to a maximum of 5.8 million gallons per day.
 - One large capital improvement planned for 2021 in distribution. The Berlin Road waterline replacement project will allow for the installation of new water mains on Berlin, Paris, Tyler, and Stedman streets. Project will also create a main line tie in with the shopping plaza water mains for redundant service capability.
 - Supporting document number 7

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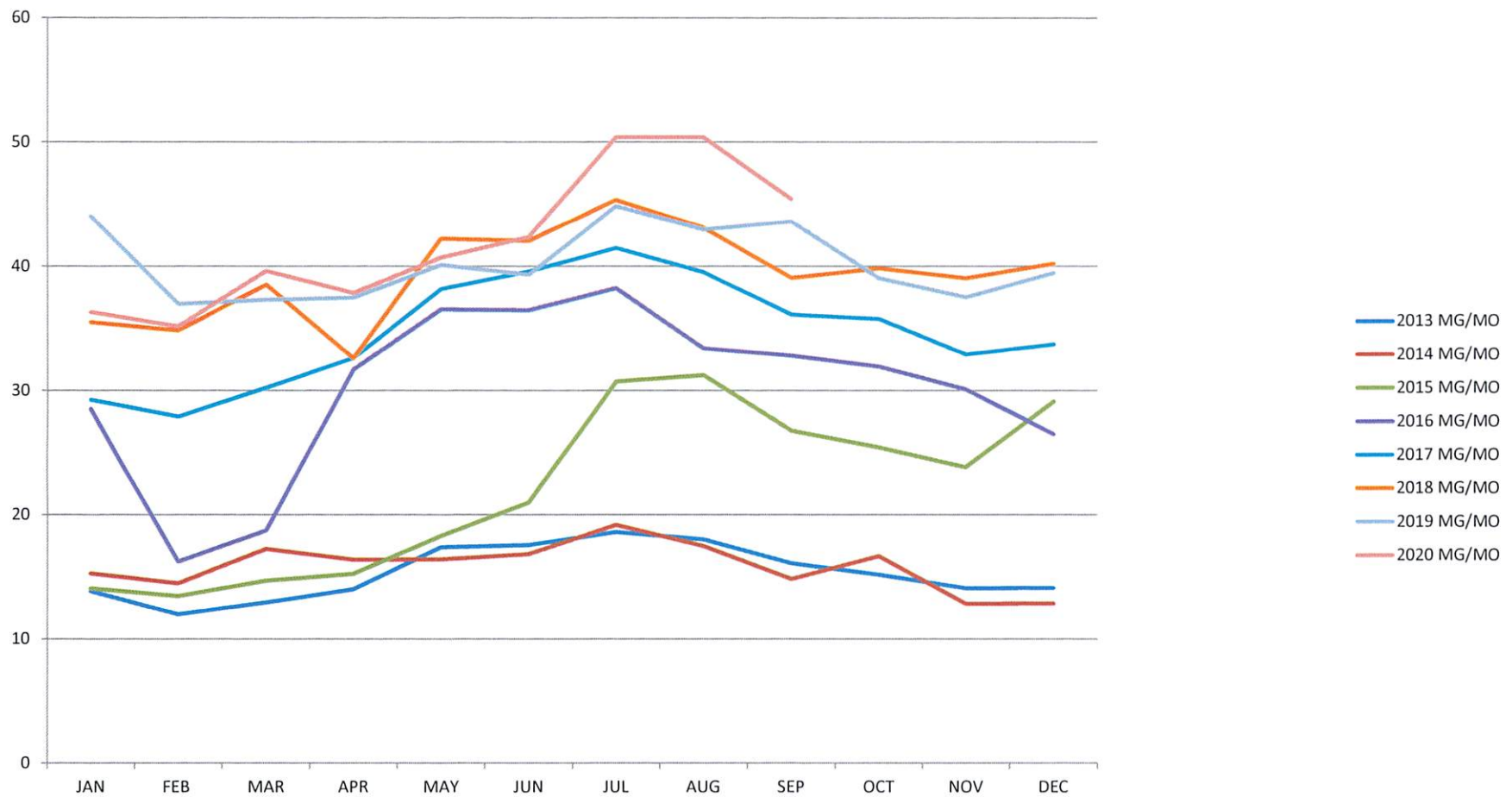


- Filtration Plant Staffing
 - Current staffing adequate for (2) 8 hour shifts including weekends and holidays
 - Proposed staffing in 2021 (budgeted) includes the addition of 1 full time operator to transition the filtration plant from a 16 hour per day operation to 24/7/365.
 - Currently staff working daily overtime to supply demands (summer months)
- Water Rate
 - Current water rate of \$2.60/ccf has not been adjusted since 2008. OEPA recommends annual increases to coincide with increases in expenses
 - Current rate cannot support the capital improvements as outlined in the OEPA mandated asset management plan
 - Rates from surrounding communities as follows:
 - Sandusky \$3.47/ccf
 - Oberlin \$7.81/ccf
 - Erie County District A \$4.33/ccf
 - Erie County District B \$8.31/ccf
 - Bellevue \$4.91/ccf
 - Vermilion \$7.32/ccf

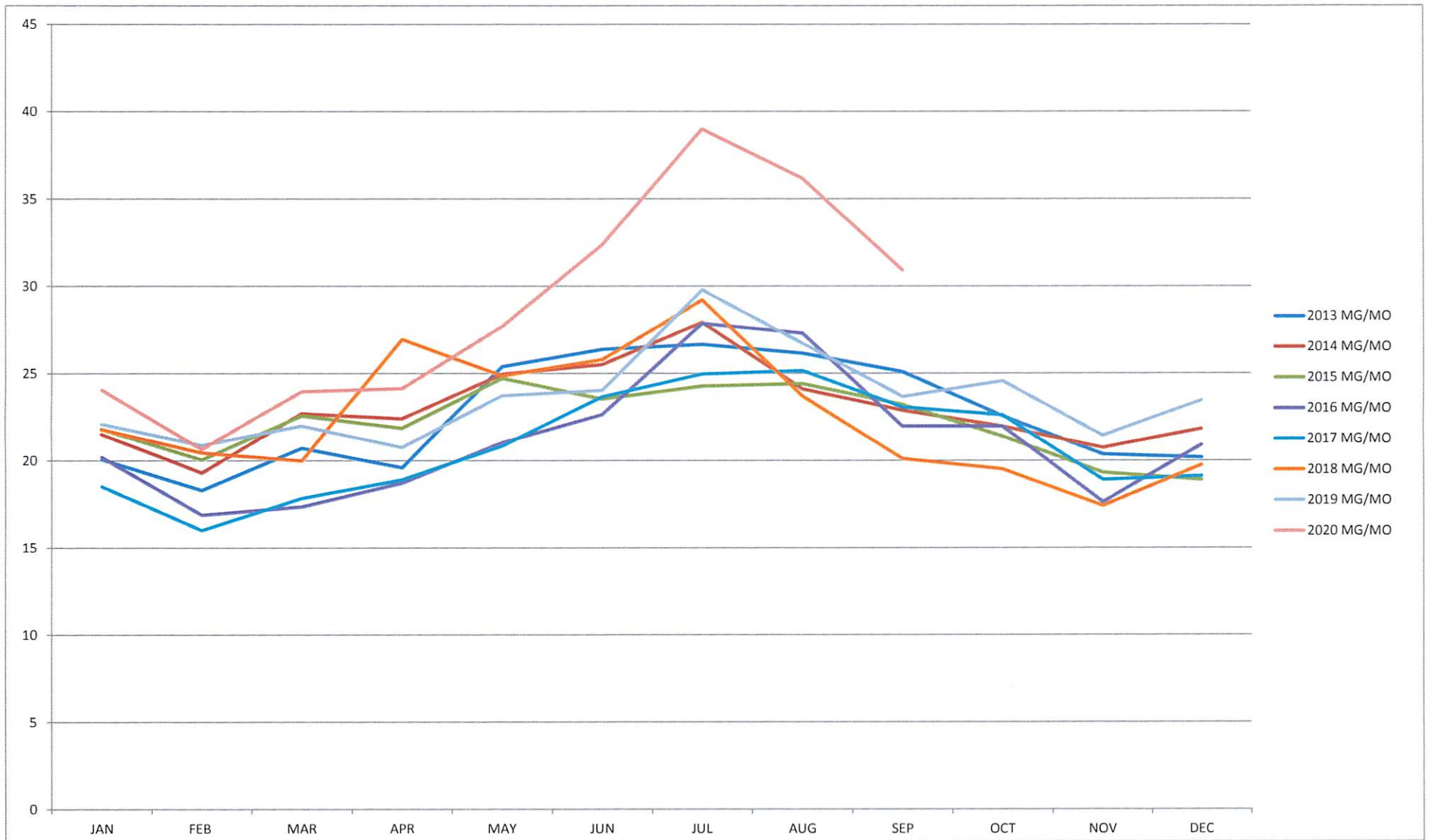
HURON WATER FILTRATION PRODUCTION OVERLAY



HURON WATER FILTRATION PRODUCTION TO ERIE COUNTY



HURON WATER FILTRATION INTERNAL OVERLAY



HURON MASTER LOG PRODUCTION AND SALES 2020

MONTH	RAW TOTAL	RAW HRS	HIGH SERVICE	HS HRS	WASHWATER	WASHWATER HRS	ERIE COUNTY	ERIE COUNTY %	CL2 FST	CL2 GAL EST	CL2 ACT	CL2 GAL ACT	ERIE COUNTY REVENUE
January	60.303	685.7	56.722	903.3	4.077	21.3	36.278	63.96%	\$1.83	\$2.44	\$2.25	\$1.99	\$57,063.62
February	55.752	656.1	53.467	863.8	2.474	12.8	35.13132	65.71%	\$1.84	\$1.45	\$1.65	\$2.25	\$55,421.06
March	63.515	836.5	60.536	963.8	3.231	16.7	39.58566	65.39%	\$1.72	\$1.63	\$1.85	\$2.17	\$62,447.96
April	61.931	857.2	58.905	914.9	2.423	12.4	37.82561	64.21%	\$1.79	\$1.59	\$1.37	\$1.30	\$59,459.02
May	68.334	950.3	65.603	985	2.756	13.3	40.67624	62.00%	\$2.09	\$1.37	\$1.12	\$1.39	\$64,168.40
June	74.685	1041.6	71.731	1040.4	2.937	13.5	42.33231	59.02%	\$1.81	\$1.38	\$1.39	\$1.68	\$66,780.92
July	89.374	1244.2	85.113	1262.5	4.124	19	50.38004	59.19%	\$1.22	\$1.62	\$1.54	\$2.66	\$79,136.70
August	86.557	1195.4	81.506	1222.3	4.03	18.8	50.3763	61.81%	\$2.06	\$1.39	\$1.44	\$2.55	\$79,470.64
September	76.313	1039.1	72.017	1095.4	3.535	15.6	45.41781	63.07%	\$2.08	\$1.31	\$1.42	\$1.39	\$71,648.42
October								#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
November								#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
December								#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
ERIE COUNTY YTD ----->													\$595,596.74

TOTAL: 636.764 8506.1 605.6 9251.4 29.587 143.4 378.00329 #DIV/0!

MONTH	ACH	CL2	CAUSTIC	FLUORIDE	PHOSPHATE	CARBON	PERMANGANATE	POLYMER
January	4211.43	1395.5	662.88	2168.1	130.03	0	493.6	100.625
February	4880.99	1541.6	660.64	1911.6	106.13	0	540.72	124.75
March	5152.69	1617	742.88	2124.9	140.81	0	527.36	165.875
April	5424.4	1612.5	526.88	1925.1	114.38	0	503.897	142.875
May	5075.06	1742.5	655.84	2238.3	157.59	0	565.89	151.625
June	4948.91	1958	972.32	2500.2	142.59	0	643.49	123.025
July	5773.73	2473	1205.44	3129.3	189	1347	709.1576	122.625
August	6084.25	2160	1113.92	2921.4	162.28	2306	956.3938	114.25
September	5366.17	1881.95	854.24	2662.2	142.6	1217	624.7521	106.75
October								
November								
December								
	LBS	LBS	GAL	LBS	LBS	LBS	LITERS	GAL
TOTAL WT/VOL:	46917.63	16382.05	7395.04	21581.1	1285.41	4870	5565.2605	1152.4
	\$419/LB	\$385/LB	\$878/GAL	\$21/LB	\$1.68/LB	\$82/LB	\$6.68/GAL	\$16.36/GAL
Chemical Cost:	\$19,658.49	\$6,307.09	\$6,492.85	\$4,532.03	\$2,159.49	\$3,993.40	\$9,821.91	\$18,853.26

TOTAL
CHEMICAL
COST FOR 2020
\$71,818.52

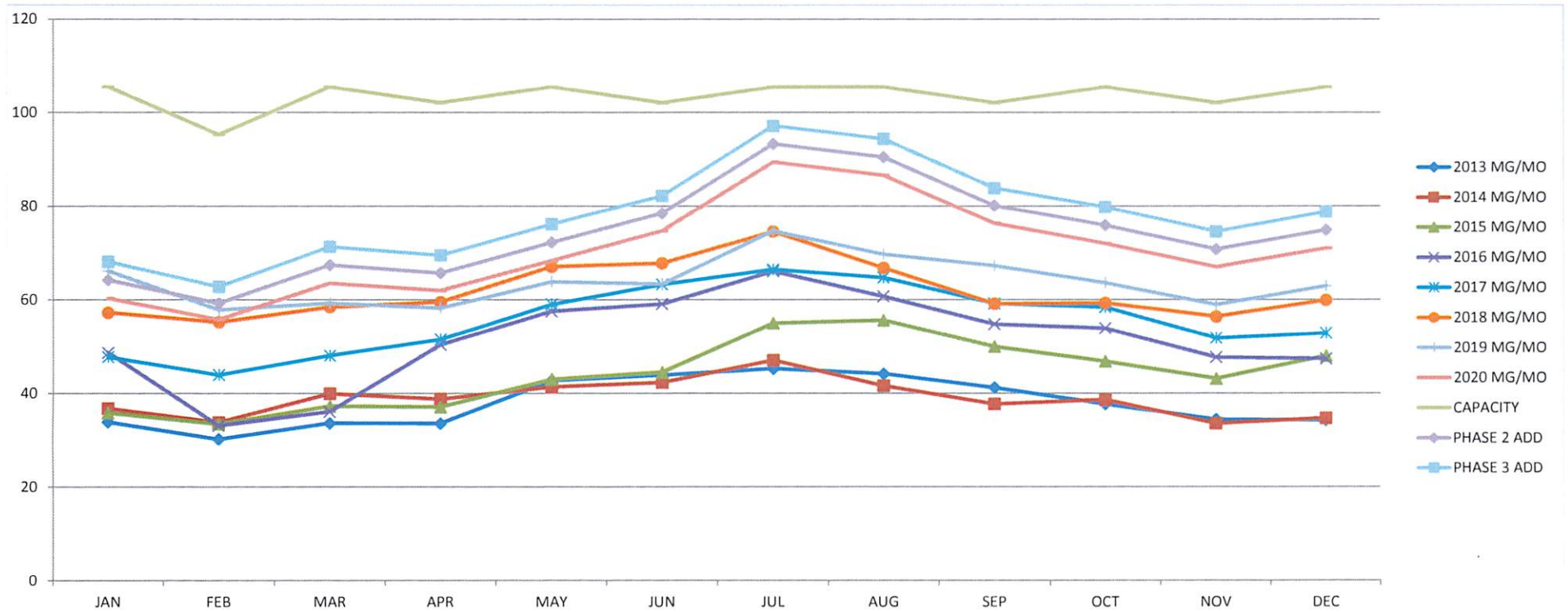
	Chemical	2.7 MGID Hours	Plant Capacity %	3.4 MGID Hours
January	\$6,074.98	16,210,483.9	57.21%	13,731.88
February	\$6,793.63	16,592,857.1	58.56%	14,055.79
March	\$7,260.99	17,071,924.7	60.26%	14,463.3
April	\$7,178.41	17,203,055.6	60.72%	14,572.69
May	\$7,587.24	18,369,354.8	64.83%	15,560.66
June	\$7,594.02	20,745,844.4	74.22%	17,574.77
July	\$9,766.60	24,025,268.8	84.80%	20,151.77
August	\$10,693.09	23,768,010.8	82.12%	19,710.3
September	\$8,468.60	21,198,055.6	74.82%	17,456.85
October	\$0.00	0	0.00%	0
November	\$0.00	0	0.00%	0
December	\$0.00	0	0.00%	0

CHEMICAL COST	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
ACH	\$1,764.59	\$2,045.13	\$2,158.98	\$2,272.82	\$2,126.45	\$2,073.59	\$2,419.19	\$2,549.30	\$2,248.43	\$0.00	\$0.00	\$0.00
CL2	\$537.27	\$593.52	\$622.55	\$620.81	\$670.86	\$753.83	\$952.11	\$831.60	\$724.55	\$0.00	\$0.00	\$0.00
CAUSTIC	\$582.01	\$580.04	\$652.25	\$462.60	\$575.83	\$853.70	\$1,058.38	\$978.02	\$750.02	\$0.00	\$0.00	\$0.00
FLUORIDE	\$455.30	\$401.44	\$446.23	\$404.27	\$470.04	\$525.04	\$657.15	\$613.49	\$559.06	\$0.00	\$0.00	\$0.00
PHOSPHATE	\$218.45	\$178.30	\$236.56	\$192.16	\$264.75	\$239.55	\$317.52	\$272.63	\$239.57	\$0.00	\$0.00	\$0.00
CARBON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,104.54	\$1,890.92	\$997.94	\$0.00	\$0.00	\$0.00
PERMANGANATE	\$871.14	\$954.30	\$930.72	\$889.31	\$998.72	\$1,135.67	\$1,251.56	\$1,687.90	\$1,102.60	\$0.00	\$0.00	\$0.00
POLYMER	\$1,646.23	\$2,040.91	\$2,713.72	\$2,337.44	\$2,480.59	\$2,012.69	\$2,006.15	\$1,869.13	\$1,746.43	\$0.00	\$0.00	\$0.00
% OF YEARLY ALL CHEMICALS:	8.46%	9.46%	10.81%	10.00%	10.56%	10.57%	13.60%	14.89%	11.65%	0.00%	0.00%	0.00%

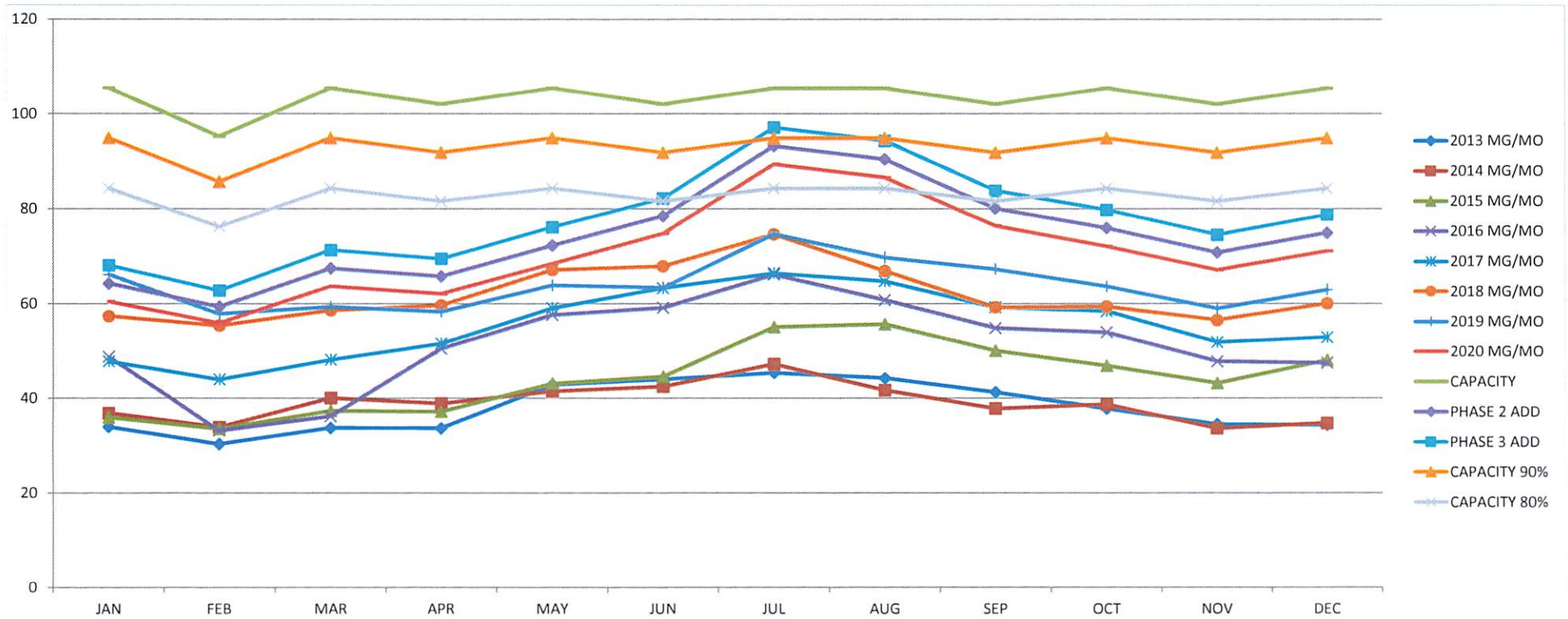
% ACCOUNTED FOR: 100.00%

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
5210 PERSONAL	\$57,165.61	\$55,242.02	\$52,741.04	\$74,246.60	\$51,813.37	\$55,298.21	\$55,211.59	\$52,762.11	\$58,291.05			
5210 FRIDGE	\$15,766.91	\$12,464.40	\$12,460.08	\$12,475.71	\$8,789.11	\$14,922.50	\$14,918.53	\$12,987.06	\$13,516.91			
5210 53415	\$8,012.39	\$6,787.39	\$4,763.97	\$4,249.41	\$4,010.60	\$3,400.62	\$4,387.07	\$4,707.01	\$4,707.01			
521011111111	\$6,074.98	\$6,793.63	\$7,260.99	\$7,178.41	\$7,587.24	\$7,594.02	\$9,766.60	\$10,693.09	\$8,468.60	\$0.00	\$0.00	\$0.00
5210 54051	\$1,365.81	\$1,052.19	\$0.00	\$243.52	\$976.82	\$996.70	\$156.74	\$201.83	\$421.04			
5210 PERSONAL	\$55,213.34	\$52,258.08	\$48,931.80	\$70,854.10	\$49,950.04	\$54,774.31	\$54,240.41	\$51,504.13	\$55,363.81			
5210 FRIDGE	\$10,703.63	\$8,371.71	\$8,287.74	\$8,262.13	\$5,672.27	\$4,949.24	\$10,443.07	\$6,402.57	\$7,322.24			
521053415	\$757.04	\$625.28	\$397.57	\$390.46	\$350.86	\$311.21	\$399.06	\$436.14	\$436.14			
5210 54041	\$236.84	\$200.02	\$136.82	\$116.66	\$149.44	\$13.82	\$415.54	\$485.72	\$485.88			
5210 PERSONAL	\$24,258.77	\$26,522.51	\$17,003.51	\$14,040.28	\$14,178.26	\$14,191.48	\$17,000.27	\$15,072.66	\$13,945.95			
5210 FRIDGE	\$8,112.80	\$6,745.47	\$4,526.74	\$5,014.85	\$3,884.31	\$6,126.27	\$7,007.68	\$4,741.35	\$5,694.71			
5210 PERSONAL	\$15,854.24	\$15,143.41	\$9,821.08	\$14,168.25	\$10,508.73	\$10,033.61	\$13,279.14	\$10,020.59	\$14,145.20	\$0.00	\$0.00	\$0.00
TOTAL COST ALL	\$169,409.68	\$178,024.54	\$170,634.10	\$206,860.19	\$148,039.24	\$136,750.60	\$174,541.39	\$144,406.85	\$136,247.90			

HURON WATER FILTRATION MUCCI PREDICTIVE OVERLAY



HURON WATER FILTRATION MUCCI PREDICTIVE OVERLAY



CITY OF HURON
WATER AMP
APPENDIX E: CAPITAL IMPROVEMENTS PLAN

CIP ID#	Project Name and Description	Item	Quantity	Unit	Price/Unit	Base Price	Contingency, etc.	Total Price*	Notes
5 Year									
1	Berlin Rd Waterline Upgrade and Replacement	8" pipe	5,100	LF	\$200	\$1,020,000	\$204,000	\$1,224,000	Cost includes upsizing small lines and replacing local mains. Does not include full pavement replacement.
2	S Main St Waterline Upgrade and Replacement	-	8,900	LF	-	-	-	-	
		8" pipe	7,350	LF	\$200	\$1,470,000	-	-	Cost includes upsizing small lines and replacing local mains
		12" pipe	1,550	LF	\$250	\$387,500	-	-	
		PROJECT 2 SUBTOTAL:				\$1,857,500	\$371,500	\$2,229,000	
3	Tube Settlers	-	1	ea	-	\$900,000	\$180,000	\$1,080,000	
4	Sludge Removal Rakes	-	1	ea	-	\$700,000	\$140,000	\$840,000	
		Total:				\$4,477,500	\$895,500	\$5,373,000	
10 Year									
5	Rye Beach Rd Waterline Upgrade and Replacement	12" pipe	1,850	LF	\$275	\$508,750	\$101,750	\$610,500	Cost includes upsizing and bore under highway
6	Old Plat Waterline Upgrade and Replacement	-	43,250	LF	-	-	-	-	Cost includes upsizing small lines
		8" pipe	11,750	LF	\$200	\$2,350,000	-	-	
		10" pipe	1,800	LF	\$225	\$405,000	-	-	
		PROJECT 3 SUBTOTAL:				\$2,755,000	\$551,000	\$3,306,000	
7	Paint East Side Tank	-	1	ea	\$400,000	\$400,000	\$80,000	\$480,000	
8	Intake Backup Study	-	1	ea	\$50,000	\$50,000	\$10,000	\$60,000	Alternatives analysis study
9	Superior Dr Area Waterline Upgrade and Replacement	8" pipe	4,100	LF	\$200	\$820,000	\$164,000	\$984,000	Cost includes upsizing small lines and replacing local mains
		Total:				\$4,133,750	\$826,750	\$4,960,500	
20 Year									
10	Grand Forest Beach Waterline Upgrade and Replacement	8" pipe	21,000	LF	\$200	\$4,200,000	\$840,000	\$5,040,000	Cost includes upsizing small lines and replacing local mains
11	Paint Rye Beach Tank	-	1	ea	\$500,000	\$500,000	\$100,000	\$600,000	Cost includes interior and exterior
12	Filter Media Replacement	-	1	ea	\$200,000	\$200,000	\$40,000	\$240,000	
		Total:				\$4,900,000	\$980,000	\$5,880,000	

Table 1: Capital Improvement Project Costs

* Total Price includes 10% contingency and 10% for design, C.A., etc.

Ongoing Programs	
Hydrant Flushing	
Valve Exercising	
Pump Rebuilds	Rebuild one high and low service pump each year (5 year cycle)
Actuator Replacement	Replace five actuators each year

Table 2: Ongoing Programs