



November 21, 2019

TO: Mayor and City Council

FROM: Mark C. Meyers, City Administrator *MCM*

SUBJECT: General Information Packet

Attached are general items of information you may find interesting. If you have any questions or comments regarding the information, please contact me.

MCM/co
Attachments

Administration/City Clerk (231) 798-4391	Assessing Division (231) 799-6806	Building Division (231) 799-6801	Finance/Treasurer (231) 799-6805	Fire Prevention (231) 799-6809	Fire Department (231) 798-2255
Parks/Recreation (231) 799-6802	Planning/Zoning (231) 799-6800	Police Department (231) 733-2691	Public Works (231) 799-6803	Streets Division (231) 798-2156	Water/Sewer (231) 799-6804



Internal Memo

November 19, 2019

TO: Mark C. Meyers, City Administrator

FROM: Gerald A. Bartoszek, Public Works Director *GAB*

SUBJECT: Emergency Relocation of Sanitary Sewer

In 2017 a sanitary sewer was constructed through the dune area on the Maranatha property adjacent to Lake Michigan. The sewer was designed and installed to adequately serve the connecting houses while minimizing the impact to the dune. Maranatha paid for the initial installation. As the sewer serves more than one household it is required to be a public sewer; therefore, it was accepted into our sewer system following the construction.

In December 2017, a portion of the sewer was relocated due to severe erosion taking place that year. The most vulnerable portion of the sewer was relocated approximately 45' from the point closest to the lake. This relocation was performed by Jackson-Merkey Contractors at a cost of \$21,710.

Once again, the continued severe erosion resulting from near record high lake levels has put the closest area of the sewer in jeopardy of falling into the lake. The closest point of the sewer is now approximately 13' from the bluff of the eroded dune. It is my recommendation to once again relocate a portion of the sewer before it fails due to the ongoing erosion. The critical portion of the sewer can be relocated approximately 20' farther up the dune. To go any further would adversely impact vegetation that may be beneficial in stabilizing the dune plus it would put the sewer to a point of encroaching on one of the homes patio area.

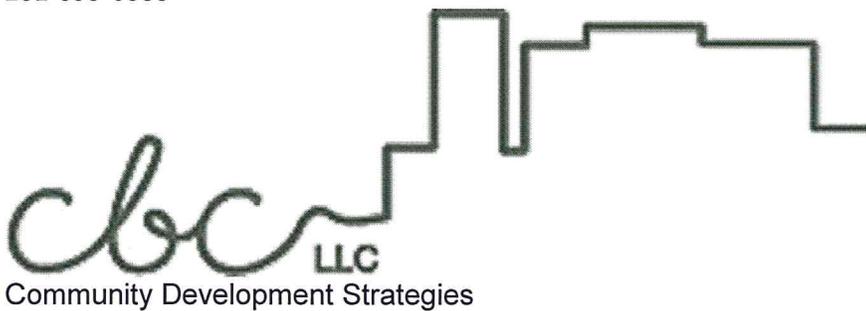
Please let me know if you have any questions or comments before I pursue an emergency relocation of approximately 245' of the sewer.

Mark Meyers

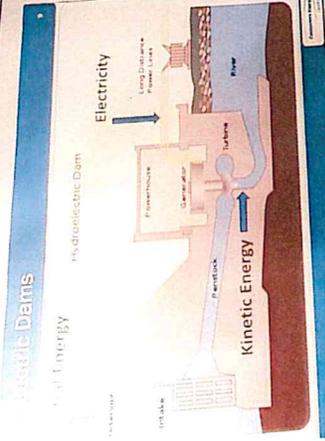
From: Cathy Brubaker-Clarke <cbrubakerclarke@gmail.com>
Sent: Sunday, November 17, 2019 7:25 PM
To: Mark Meyers; Gary Nelund
Subject: Lincoln Park Robotics- Robo Sailors
Attachments: Robotics Presentation- Challenge.docx; Robotics Poster.jpg; Robotics Poster. back.jpg

Hello, Mark and Gary. I have to share our thrilling news with you... the Robo Sailors won the Presentation Award for Innovative Project at the Robotics Challenge in Zeeland, yesterday! The kids (and my son and I) were thrilled! They received all "exemplary's" in the scoring for that category. Please share this exciting news with the City Council. I have to share some comments from the judges: under "Great Job", they had, "very detailed plan for developing public and private land with all renewable energy", "loved the sketch showing the concept map", "great job sharing your project with others including City Council" and under "Think About", they had, "think about expanding and providing detail on the city council visit", and "think about the next step to keep the project going". They definitely liked the fact that the kids presented to the City Council (thanks, again!) and they want them to consider continuing with the project (so, watch out... you might have some future, or present, advocates, developers, planners!!!) On a side note, the other team from Lincoln Park won the top award and is moving on to the State Challenge. Out of the 20 schools in attendance at the regional event, 4 Mona Shores schools attended (4th & 5th grade teams), with 2 teams at Lincoln Park, and we all won an award! I am hoping we can get some publicity for this to show what talented students we have, but also the opportunities available in our Muskegon County schools as we work to keep people here and bring new people into the County. Cathy

Catherine Brubaker-Clarke, Owner
231-855-0335



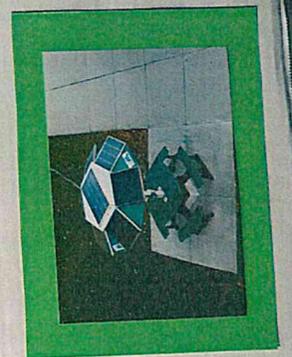
Ludington Pumped Storage Plant - Aerial View



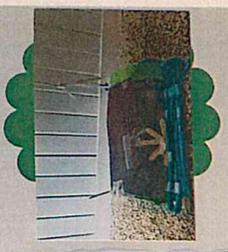
LAKE BREEZES

An Alternative Energy Development for Living & Playing

By Robo Sailors



Examples of turbines



Learn

The energy that powers a house comes from the power lines that run all over the country. The energy that powers a house comes from the power lines that run all over the country. The energy that powers a house comes from the power lines that run all over the country.

People love to have power, safety, and they have power.

Ethics

The energy that powers a house comes from the power lines that run all over the country. The energy that powers a house comes from the power lines that run all over the country. The energy that powers a house comes from the power lines that run all over the country.

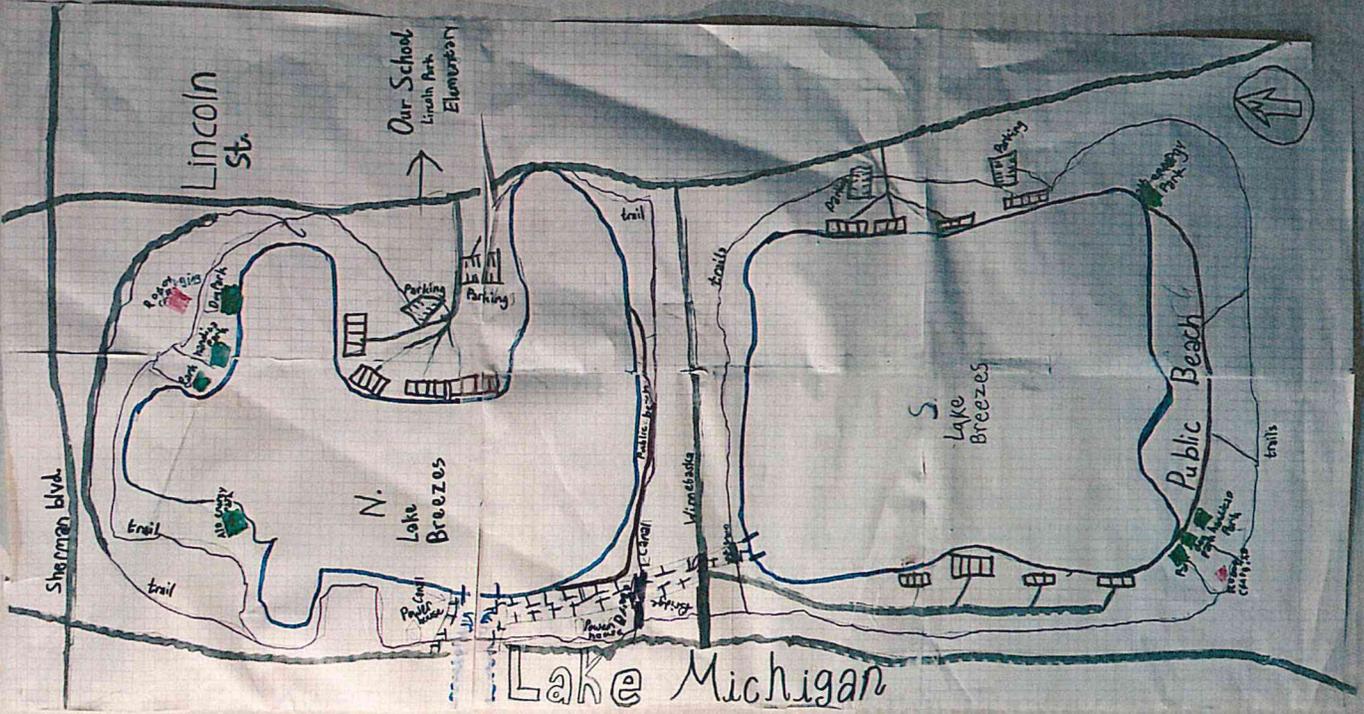
Learn C

Our energy safety houses include:

- A system of fire safety that includes the safety of the house.
- A system of fire safety that includes the safety of the house.
- A system of fire safety that includes the safety of the house.

Learn C

The energy that powers a house comes from the power lines that run all over the country. The energy that powers a house comes from the power lines that run all over the country. The energy that powers a house comes from the power lines that run all over the country.



Energy Saving Tips

- Lots of windows and skylights. (Three paneled glass windows.)
- No air conditioning because you're near the lake and have lots of windows to open.
- Insulated walls and lots of insulation.
- Neighborhood of mini houses.
- Houses face south.
- Solar panels on roof.
- Solar water heaters.
- Automatic lights with energy efficient light bulbs.

The Wastewater Department exists to improve the public health of Muskegon County citizens by receiving polluted wastewater, cleaning it up, and returning it the environment for reuse and enjoyment. We recognize the weight of our responsibility as stewards both of the environment and of our system infrastructure which enables us to do our job. Our goal is to offer our service to the people of Muskegon County at the best possible rate without compromising our stewardships.

~David Johnson, Director

FINANCIAL REPORT

Christine Morris / Administrative Analyst

SEPTEMBER FINANCIAL REPORT

Operating expenditures at the end of the 2019 fiscal year were \$15,664,987, or 98% of the FY2019 budget. Revenues for the same period were \$21,869,912, or 100% of the budget. These percentages are based on the Wastewater's revised 2019 budget, which was approved by the Board of Public Works in September of this year. Relative to the original 2019 budget, the expenditures were 99% of the budget, and the revenues were 116%. The revenues in excess of one hundred percent show the impact of Infiltration and inflow (I&I) on billable flow.

FARM REPORT

Ted Costigan / Farm Manager

THE 2019 GROWING SEASON

Progress: The 2019 harvest got off to a delayed start due to the wet fall. The crops have been slow to mature and dry down. We began harvesting soybeans on October 18. Usually we wait until the percent moisture of the beans is low enough to ensure successful long-term storage. This year, however, the long-range weather forecast didn't give us much hope that we would ever reach the ideal percent moisture, so we commenced harvest anyway. We had to run the beans through the grain dryer before putting them into long term storage to ensure that they would not mold in the bins. We harvested as many fields as we could, but by the end of the month, the remaining fields were so high in moisture that the beans were having trouble flowing through the combine. We were left with no option but to switch to harvesting corn. We'll have to return to beans

next month. There are about 300 acres left.

Having gotten the lagoon levels down sufficiently low, we ended irrigation season on October 25. The irrigation techs have spent the rest of the month winterizing the irrigation system and performing end-of-season maintenance on the rigs. We're also formulating plans to replace three rigs by the start of irrigation next spring.



Soybean harvest. The harvest theme this year is "Better wet than never!" Or perhaps, "How the Wet was Won".

INFRASTRUCTURE MAINTENANCE AND IMPROVEMENT PROJECTS

Vic Singh / Engineer & Dave Johnson / Director

SWANSON ROAD IMPROVEMENTS

Progress: Martin J Concrete arrived at 4:00 AM on October 18 to begin pouring the concrete approaches for the maintenance building. Our Operations Maintenance division began moving into their side of the building (the north side) at the end of the month. Previously they were headquartered on Laketon Avenue on the southern part of the property. Now with our Fleet Maintenance division in the old half of the building

and Ops Maintenance in the new half, Dave Bonthuis, who supervises both divisions, will have less running back and forth to do. Putting in the concrete approaches was the last portion of the Swanson Road Improvements project to be done this fall other than putting in the gas line from the Grain Center to the Farm Building (which might have to be put off till next year.)



By the dawn's early light (actually, *before* the dawn's early light), Martin J Concrete pours the concrete approaches for the maintenance building.

LAB RENOVATION

Progress: Phase 1 of the Lab Renovation began on the first of the month, starting with the removal of cabinets and countertops and the demolition of plumbing, floors, etc. As revealed in the photos, the materials being removed show signs of age and make us think that maybe we should have done this project a few years earlier. The lab environment is a harsh one and took its toll on the metal cabinets. The replacement cabinets are also metal, but the renovation includes improvements to the lab ventilation, which has been precisely engineered and tailor-made for our situation. The improved ventilation should lessen the harshness of the lab environment and improve the longevity of the new cabinets.

By the end of the month, the contractor, Skye Contracting, had completed much of the HVAC, plumbing and electrical rough-in. Phase 1 encompasses the eastern half of the lab, so at this time our five lab techs are all crowded together on the west side.



The post-mortem on the old laboratory plumbing revealed a serious case of atherosclerosis!



One of the old laboratory cabinets.

SPECIAL REPORTS

Dave Johnson / Director

WHITEHALL PLANT CLOSURE EFFORTS

The site closure of the former Whitehall Wastewater Treatment Plant has been an elusive goal for many years. The plant stopped receiving wastewater in the 1990s with the completion of the Northern Interceptor but has continued operating a system of 18 purge wells in order to keep contaminated groundwater away from neighboring residences and from the nearby stream known as Silver Creek. The purge wells pump the groundwater and discharge it into the White River. Because of this discharge, the site still requires an NPDES permit and is still considered an operating wastewater treatment

plant, despite the fact that the water pumped from the ground is not treated in any way before it's discharged to the river. With years of pumping, the residual concentrations of the groundwater contaminants have become very low. The problem has always been that the State had no cleanup criteria for four of the site's five groundwater contaminants. So even though the residual levels are very low, without cleanup criteria, we've had no way of knowing if "very low" is low enough. That fact has doomed us to continue running the purge well system until those unique chemicals can no longer be detected at all. However, recent efforts in working with EGLE have given us a glimmer of hope that there may be a path forward. EGLE toxicologists recently developed screening levels for two of the four compounds that had none. These screening levels could be used for site-specific cleanup criteria for the two compounds. The screening levels include a level protective of human health and a level protective of aquatic life for both compounds. A level protective of aquatic life is pertinent because the groundwater would migrate to Silver Creek if we turned off the purge well system. Though the levels protective of human health are fairly low, the levels protective of aquatic life are higher than we expected, far higher than current levels of residual contamination in the groundwater. This has caused EGLE to consider the idea that we might be able to turn off the purge well system as long as we protect the nearby Whitehall Township residents by connecting them to city water. Before we can start celebrating, we have to deal with the sticking point that two of the unique contaminants still have no cleanup criteria. That's a problem, but EGLE gave us the impression that this problem isn't insurmountable. The jury is still out. EGLE had an internal meeting at the end of this month to discuss this and other problems affecting the possibility of plant closure. We hope to get more information within the next month or two concerning a path forward.

Dave Johnson / Director

FLOODED OUTFALL

Frequent and heavy rains at the end of September and beginning of October led to some extremely

high flows in our outfall ditch to the Muskegon River. The ditch level was so high, it submerged the ultrasonic sensor on our flow meter, rendering it useless. Consequently, we couldn't measure the flow, but we estimated it at 110 MGD, more than three times what we would consider normal. The waters reached to the bottom of the catwalk that bridges the ditch. They overflowed the bank, drowning the catwalk steps and reaching to the edge of the shed where the automatic sampler is housed. We were forced to kill the power to the area because the flood threatened to submerge the electrical panels that supply power to the flow meter, automatic sampler, and other equipment. Unfortunately, the soil erosion resulting from the 2.4" rain that fell on October 1 caused an exceedance of our permit limit for Total Suspended Solids.



The elevated flow reached to the bottom of the catwalk that bridges the drainage ditch and engulfed the stairs leading up to it. It climbed the banks up to the base of the sampler shed and threatened to reach the electrical panels fixed to the fence.

Anita Friend / Laboratory Supervisor

WHC CONSERVATION CLINIC

This month we had the honor of hosting a Regional Conservation Certification Clinic that was put on by the Wildlife Habitat Council (WHC) in support of their Michigan Ontario Initiative. (Michigan has more WHC-certified sites than any other U.S. state.) The clinic provided training on the benefits of corporate conservation and networking with other certified members, and gave personal one-on-one guidance for creating strong programs for gaining or

maintaining WHC certification. It was an intimate gathering of eight attendees and fit comfortably in the Wastewater conference room. The attendees came from Kalamazoo, Cadillac, Grand Rapids, Glen Springs and Ohio, with the WHC speaker flying in from Washington, D.C. The clinic provided hands-on activities to strengthen attendees' confidence about selecting project types. The speaker also gave ideas for aligning projects with established conservation organizations and initiatives to create the strongest program possible. The opportunity to talk with other companies about their programs was very valuable. I made a contact at Wolverine Power who manages approximately 4 miles of power lines on the Wastewater property along Moorland, Apple, and Ensley Road. This section of power line is scheduled for upgrades in 2020, and Wolverine Power would like to partner with the Wastewater to establish pollinator habitat on this 4-mile section of right-of-way. Wolverine Power would provide the funding for purchasing the seed and would take responsibility for the initial planting. The MCWMS wildlife team would then be responsible for maintaining the project and monitoring its progress. Since funding projects is always an issue for a public utility like us, we are very excited that Wolverine Power reached out to us on this project!

STATISTICAL COMPARISONS

Dave Johnson / Director

FLOWS AND LAGOON LEVELS

Average daily wastewater flow (Fig. 1) received at the WWTP in October was 14.7 MGD, 7.3% higher than the same period last year. Hauled waste flow for October (Fig. 2) was 4.5 MG, 12% lower than the same period last year. The volume of water in the storage lagoons (Fig. 3) near the end of October was 1,711 MG, 3.1% lower than this time last year.

Christine Morris / Administrative Analyst

SPECIAL WELCOME TO CARLY ANDERSEN!

Miss Carly Rose Andersen was born on September 9 to Wastewater Pretreatment Inspector Britney Andersen and husband Chad. Carly came into the world healthy at 5 lbs 9 oz and 18 inches long. The new parents and new baby are both doing well.



Carly Rose Andersen, wearing her namesake (that is, her *middle* namesake).

Figure 1

2017 - 2019 Total Wastewater Monthly Flow in MGD

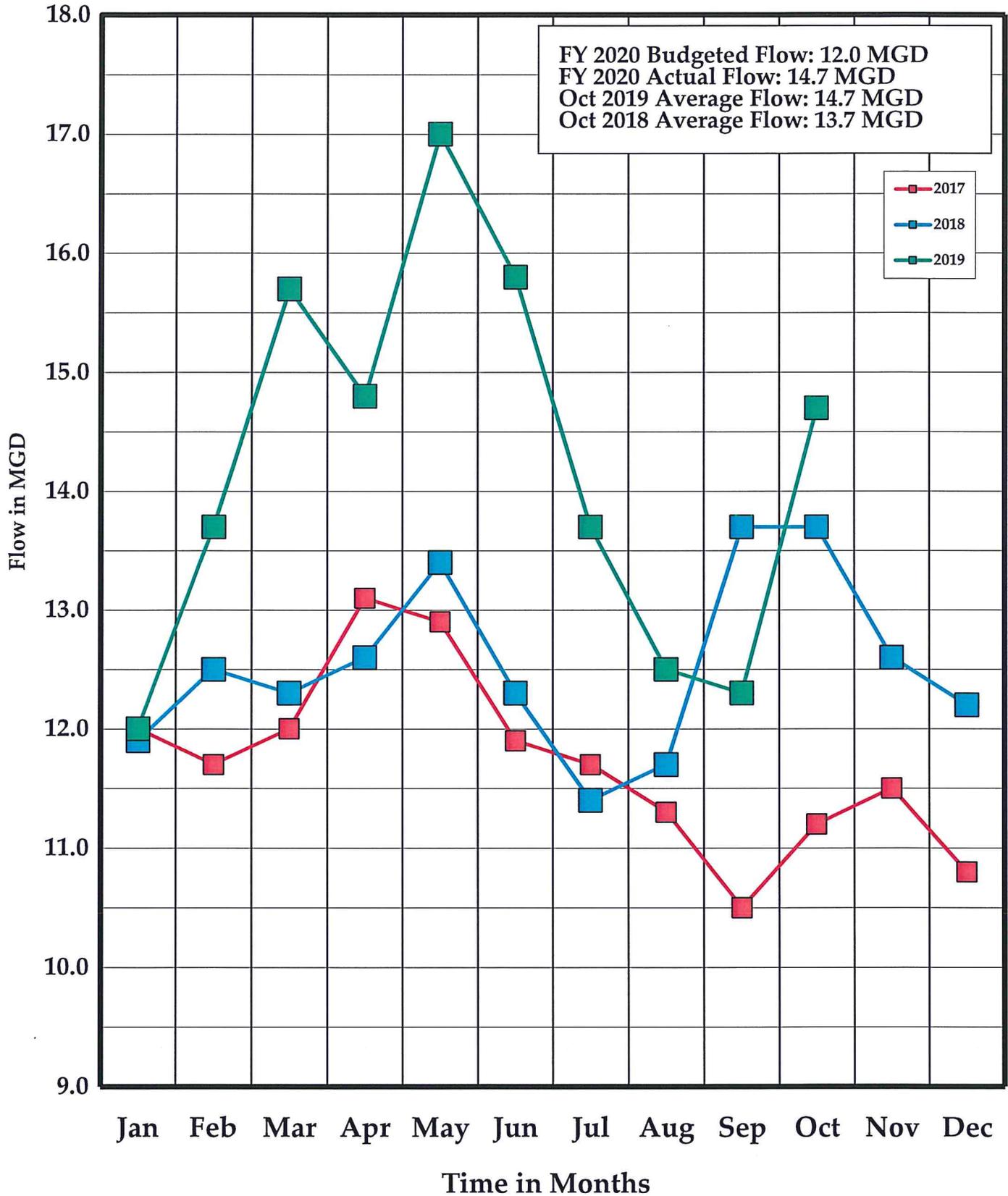


Figure 2

2017 - 2019 Hauled Waste Monthly Volume in Gallons

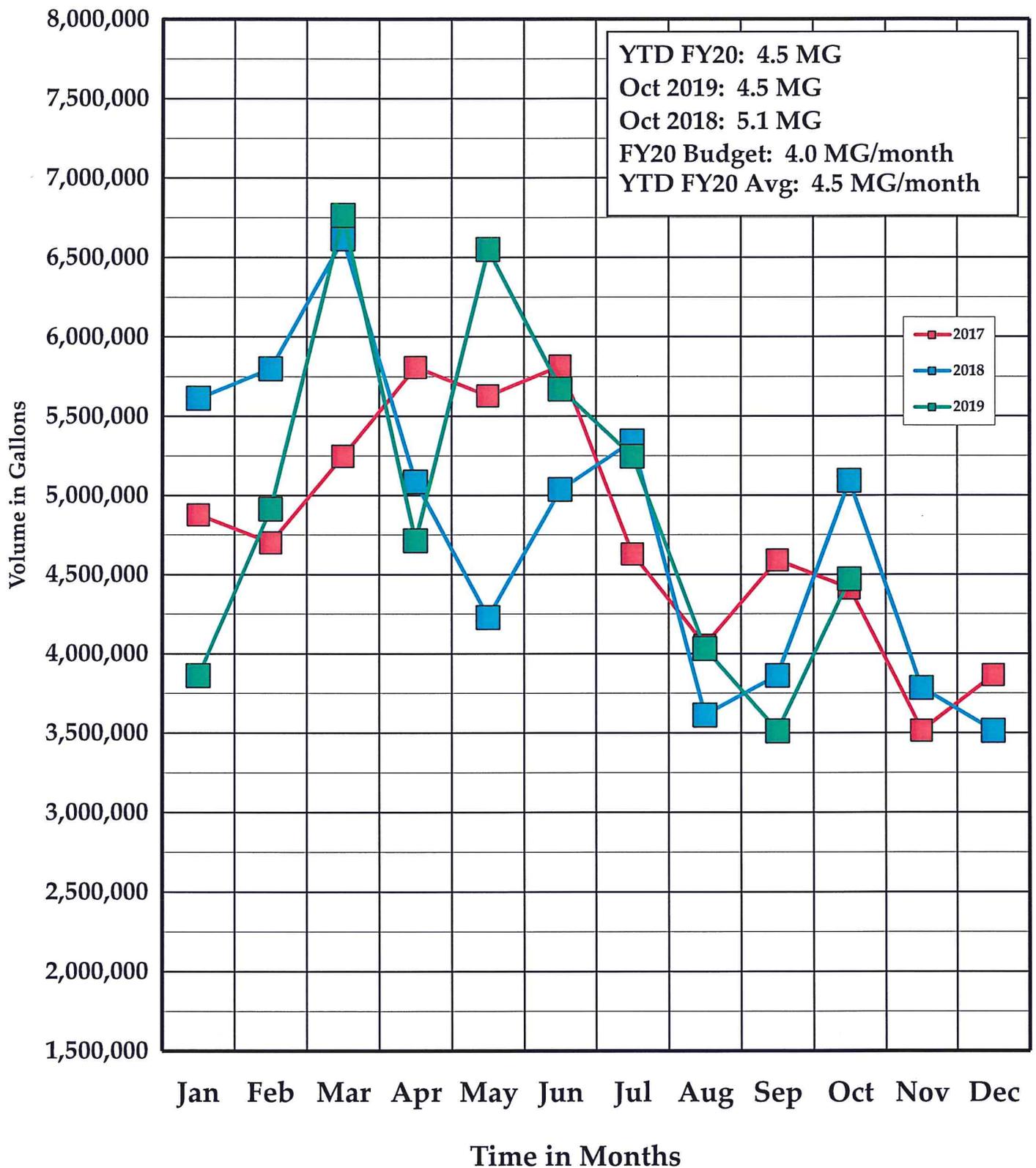
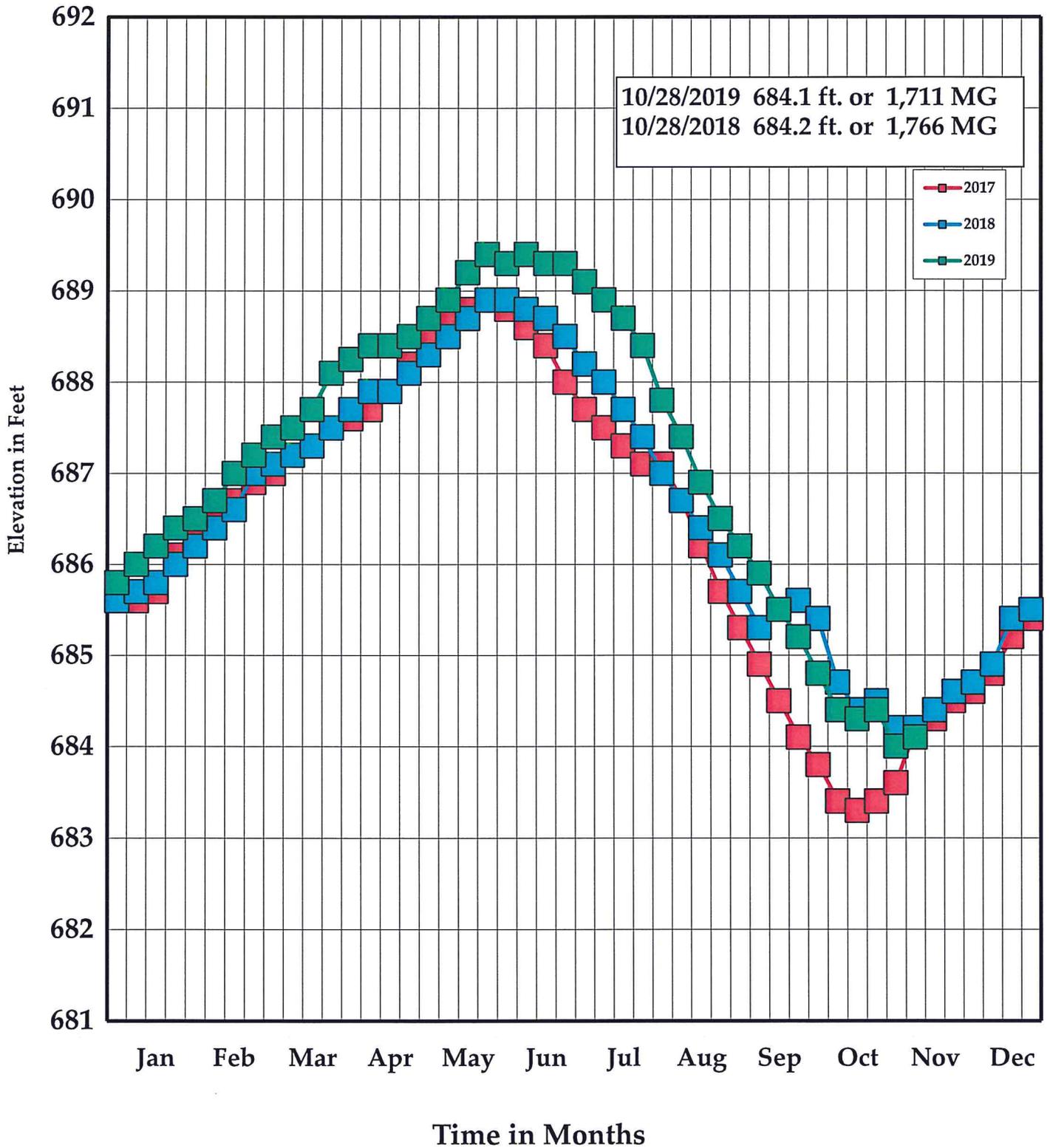


Figure 3

2017 - 2019 Metro Lagoon Average Elevation in Feet



Celebrate the Season!
HOLIDAY OPEN HOUSE

Thursday, December 19, 2019
11:30 a.m. to 1:30 p.m.
31 East Clay Avenue

*United Way Center for Human Services,
downtown Muskegon*

A light lunch will be provided.

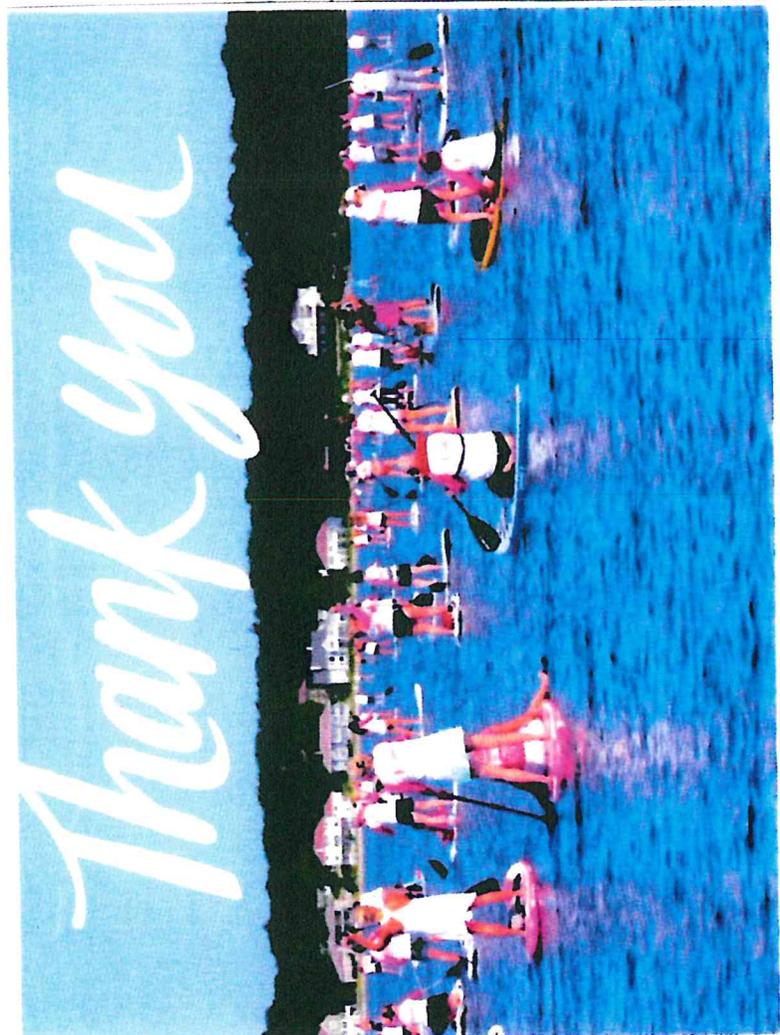
Please RSVP by Friday, December 13:

<http://bit.ly/MuskegonHolidayParty>



United Way
of the Lakeshore





Thank you team were
you're fantastic to
forward to 7-11-20

Thank you for your support of the 2019 Stand Up for the Cure -
Muskegon! This event would not be possible without supporters
like you!

Stand Up for the Cure - Muskegon
Planning Committee

Sharon Pitt Long Howard
Kylene Alicia Mike Dango
Amanda Ferguson