



2017 Storm & Sanitary Sewer Study Feedback

August 13, 2018, 4:04 PM

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2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Introduction

This topic will collect feedback, comments, and questions from residents related to the 2017 Midland Storm & Sanitary Sewer Study conducted by consultants Hubbell, Roth & Clark (HRC) and OHM Advisors. The results of this survey will be provided to Midland City Council, as well as sewer study consultants and relevant City staff to assist in future decision-making and provide potential additional areas of exploration. If you choose to be contacted about your submission, a member of City staff will contact you via your preferred method of contact within 72 hours of your submission.

In-person public engagement sessions related to the sewer study will also be held on the following dates:

- Wednesday, July 25, 2018 - Midland High School, 1301 Eastlawn Drive, 6-7:30 p.m.
- Tuesday, July 31, 2018 - H.H. Dow High School, 3901 N. Saginaw Road, 6-7:30 p.m.

To access and review the study results before submitting a question, or for more information, visit www.cityofmidlandmi.gov/sewerstudy.

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Summary Of Responses

As of August 13, 2018, 4:04 PM, this forum had:

Attendees: 82
Responses: 37
Hours of Public Comment: 1.9

Topic Start

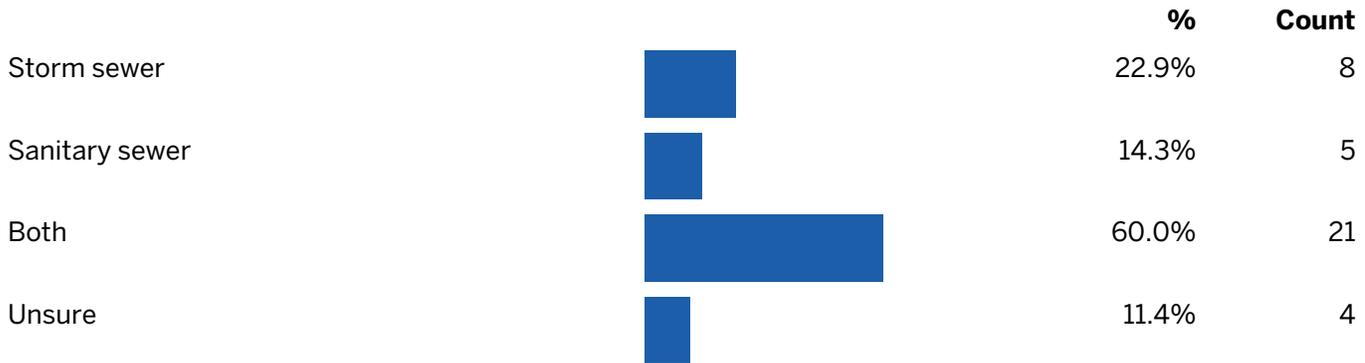
July 6, 2018, 11:32 AM

Topic End

August 8, 2018, 9:14 AM

QUESTION 1

What area of the study is your comment/question most closely related to?



QUESTION 2

Feedback/Comment/Question:

Answered 30
Skipped 7

all along **also been creek culvert** debris drain drains **flood** flooding flow footing from had high homes midland now nurmi river road **saginaw** sanitary sewer side so **storm** study sturgeon system t they those time up us **was water**

QUESTION 3

Would you like to be contacted by a member of City staff or a consultant regarding your submission?

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

		%	Count
Yes		68.8%	22
No		31.3%	10

QUESTION 4

Name:

Answered	29
Skipped	8

bader carol green john kathleen kenneth pederson roy

QUESTION 5

Street address:

Answered	29
Skipped	8

4408 4600 5007 COURT creek ct dr drive mi midland moorland nurmi oakridge pkwy rd street sturgeon

QUESTION 6

Phone:

Answered	28
Skipped	9

48640 989-631-8503

QUESTION 7

Email:

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Answered 28
Skipped 9

48640 aol charter chartermi.com gmail net pederson rgreen4600

QUESTION 8

Preferred method of communication:

		%	Count
Phone		17.2%	5
Email		82.8%	24

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Survey Questions

QUESTION 1

What area of the study is your comment/question most closely related to?

- Storm sewer
- Sanitary sewer
- Both
- Unsure

QUESTION 2

Feedback/Comment/Question:

QUESTION 3

Would you like to be contacted by a member of City staff or a consultant regarding your submission?

- Yes
- No

QUESTION 4

Name:

QUESTION 5

Street address:

QUESTION 6

Phone:

QUESTION 7

Email:

QUESTION 8

Preferred method of communication:

- Phone
- Email

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Individual Responses

Name not available

July 6, 2018, 12:06 PM

Question 1

- Unsure

Question 2

No response

Question 3

- No

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

Question 8

No response

Name not available

July 6, 2018, 12:10 PM

Question 1

- Both

Question 2

No response

Question 3

No response

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

Question 8

No response

Name not available

July 6, 2018, 4:36 PM

Question 1

- Both

Question 2

No response

Question 3

- No

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Question 8

No response

Name not available

July 9, 2018, 5:49 PM

Question 1

No response

Question 2

No response

Question 3

No response

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

Question 8

No response

Name not shown

outside City Boundary

July 10, 2018, 4:21 PM

Question 1

- Sanitary sewer
- Both

Question 2

It's seems like a large majority of the sanitary sewer problems comes

from the added inflow from the footing drains. The Report calls out the high cost to having to fix these as a negative but recommends it as the best long-term option to prevent these problems from happening in the future. It seems that it would make the most sense to implement a footing drain disconnection program blended with some of the other improvements as needed.

I had an idea for funding, because sewer fees are based on the estimated flow to the system based on your water meter usage but those do not adequately count the footing drain input to the system, why not add a fee for footing drains connected to the system? If the fee was fairly reasonably large, it would give residents a monetary ROI to disconnect their footings. Sanitary sewer customers who can show that their house or business has had their footing drains disconnected from the system would be exempted from the fee. If the fee was something like \$50-200 per sewer bill you would create a cost incentive for people to go back and retrofit their system. The added fees from those people unwilling to disconnect from the system would cover the additional cost of system upgrades. The fees could also be used to create a program that would share the cost of the disconnection so maybe the city would pay half of the cost. Something like this overtime would fix a lot of the sanitary sewer inflow problems while also creating a revenue stream to cover the larger capital expense projects.

As for the storm sewer side of things it certainly seems like there is some need for capital spending and several of the proposed solutions make a lot of sense the offline storage in areas where that's available offers some nice long-term flexibility.

Question 3

- Yes

Question 4

Benjamin Larson

Question 5

646 S Patterson Rd

Question 6

9898594538

Question 7

brlarsen86@gmail.com

Question 8

- Email

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Name not available

July 13, 2018, 7:23 AM

Question 1

- Sanitary sewer

Question 2

I still feel the blaming of the footing drains is not accurate. The vast majority of the really bad flooding was in areas where footing drains were disconnected. I also don't think the proposals adequately address the issue, they just put a small band-aid to appease people. If your so against the footing drains offer assistance to home owners to disconnect and move to the sewer. Most home owners won't do it on their own due to the cost prohibitive nature of it. Also in my neighborhood if everyone moved to the storm sewer they aren't big enough to handle all the additional water and we'd have more basements with water, and the streets would be flooded over the curbs worse than what they were during the flood.

Question 3

- No

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

Question 8

No response

Name not available

July 13, 2018, 9:36 AM

Question 1

- Both

Question 2

We had flooding when the sewers backed up and were told our home had been grandfathered in the system. Will the city pay to fix the issue??

Question 3

- Yes

Question 4

Fred Tardiff

Question 5

4102 Elm Ct

Question 6

9898328977

Question 7

F.tardiff@hotmail.com

Question 8

- Phone

Josh McFarland

inside City Boundary

July 13, 2018, 3:30 PM

Question 1

- Both

Question 2

All I would suggest (in addition to the work that needs to be done to fix the underlying issues), is that they create a warning system for homeowners that can alert us to the fact that we may experience water back ups. They now have a study which studied the event and what caused it and what specific indicators to watch for future issues going forward. They need to turn that into actionable information for citizens and alert us when some of those thresholds are met or getting close to being met so that we can prepare for the worst prior to waking up with 3 feet of water in our basements. If they can alert people even just a few hours before water starts backing up, that allows people to get to their basements and start removing items and valuables, get prepared with pumps, or leave the area in certain areas that may be prone to severe and life threatening flooding. I think the worst aspect of the flooding last year was not necessarily the

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damage and destruction, but the fact that no one apparently saw it coming or warned anybody when the sewer capacity was at 100% and it was still raining outside. A little warning via Midland County 911 text or even a special alert would have been nice and probably would have saved a few hundred thousand dollars in damage, lost property, and rescue efforts. It was shocking to me how terribly unprepared everyone (from citizens to the city officials) were for that flood. In a place like Midland, which has flooded in the past on numerous occasions, being that woefully unprepared shouldn't happen.

Question 3

- No

Question 4

Josh McFarland

Question 5

4713 Oakridge Drive

Question 6

48640

Question 7

48640

Question 8

- Email

Kathleen Bader

inside City Boundary

July 16, 2018, 6:08 PM

Question 1

- Storm sewer

Question 2

The residents of Nurmi are very concerned by the statement in your reports that "peak flows in the Sturgeon Creek were not part of the scope of study". Those who were here and personally saw the blockage of the culvert at Saginaw and Sturgeon very early in the flood know why we experienced "peak flow" water levels higher than the Tittabawassee flood stage warranted. The statement that " This flooding was not due to the city storm water infrastructure" is incorrect. If the culvert under Saginaw were wider, the debris the city has allowed to accumulate on their land

along the Sturgeon Creek upstream of Saginaw Road to Wackerly would have passed through.

Regardless of what the hydrologic model is designed to accommodate, whether it is the XP-SWMM or the EPA SWMM, years of accumulated debris in and along city owned property bordering the Sturgeon Creek can and did sufficiently block the culvert under Saginaw Rd such that the water on the Nurmi road side (upriver side) was far higher than the Midland High side (downriver) and backed up into the homes along Nurmi and beyond when it should have flowed through the Saginaw/Sturgeon culvert. (The back up extended to north of Hwy 10 by the airport – page 4 paragraph 4 your report). This back up from the culvert under Saginaw Road at Sturgeon is also a main reason why your "Sturgeon Creek flood profile does not appear to reflect observed conditions" Page 5 paragraph 1. The back up caused by the debris at the culvert was early and profound in scope. We did not even have time to get our sandbags in place because the culvert blockage made the water rise inordinately fast.

To reiterate the Tittabawassee river crested about 1.7 feet below the historic high water level of 1986. Had the water been able to pass freely through the culvert at Saginaw and Sturgeon, the water level on Nurmi would have been a couple of feet lower. It was not until the water climbed over Saginaw (bypassing the blocked culvert) that we finally saw a cessation of the rising water at our homes.

A lot of the damage during the June 23 2017 flood was caused by the inordinately quick and high rise of the Sturgeon River due to the blocked culvert/insufficient water flow under Saginaw Road at Sturgeon. This blockage was largely caused by the massive amounts of debris and dead ash trees that have accumulated (during the '86 flood as well as the annual floods) on the city park & property that borders Sturgeon Creek from Saginaw Road upstream to Wackerly. Our homes flooded earlier and to a far greater extent than they should have or would have given the stage of the Tittabawassee. Again, the water level on the north side (Nurmi side) of Saginaw Road was far higher far earlier than it was on the south (downstream side) due to the blockage. It was only after the water flooded over Saginaw Rd that we finally saw an abeyance of increasing water levels in our neighborhoods.

We now have even more debris in this area than we had before because much of it never made it under Saginaw road and out to the Tittabawassee – it backed up and filled the city 'park' that runs all along the river (as well as our yards). This creates not only an increased flood hazard in the future but a significant fire hazard to all of us to live along the river and the city 'park' that abuts it on the Nurmi side. Not only did this cause our homes to flood when, given the flood stage of the Tittabawassee, many of them would not have, it now causes a fire danger on the Nurmi side (upstream) of Saginaw Rd.

I had cleared all of my property of accumulated debris in 2016 as I do every couple of years, but it was a waste given what has floated on to it due to the blocked culvert and the years of accumulated debris on the city parkland. I have lived on Nurmi 30 years and have never seen the city clear up the debris on its land or creek beds (the Lalk drain) unless it was a fallen tree that blocked the river that I called in. (there are currently 6 of them viewable from my property that have NOT been taken care of despite numerous calls on my part)

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If any of us ignored our land for 30 years, it would not be tolerated and it is time the city do a clean up & maintain its land. We do not expect a Valley drive "Park" (though that would be nice) or a Country Club Snake Creek (But the Lalk drain should be kept clear) but the city also has an obligation to keep its parks and waterways clear of debris and it has not done so for the 30 years I have lived here. It is time.

Given that your priority projects do NOT include increasing the size of the culvert at Saginaw and Sturgeon while it does call for simultaneously INCREASING peak flows to Sturgeon creek (page 23: "peak flows to the Sturgeon Creek would also be increased for those branches where improvements are recommended") the city is actually enabling worse flooding next time. This is not acceptable to the residents of Nurmi and we request further analysis on how to mitigate flooding in our area which appears to have been left out of this study. In addition, we would like to know when the city will:

1. Clean out and clear out the accumulated debris from the flood starting at the Saginaw road culvert and working their way upstream through the city park area and the stream bed clearing debris back to Wackerly at a minimum
2. Take down the standing dead ash trees on the neglected city 'park' along the river from Saginaw to Wackerly to forestall additional accumulation of debris that blocks the culvert and to reduce the fire hazard and remove all downed trees including those crossing the river
3. Double the width of the culvert underneath Saginaw Road at Sturgeon Ave so residents in this neighborhood don't bear the brunt of insufficient outflow in the future

We would appreciate an understanding of the plan going forward to reduce Nurmi flooding in future flood control rather than worsen it and what specific steps will be taken to rectify the debris problems outlined above.

Thank you

Question 3

- Yes

Question 4

kathleen bader

Question 5

5007 Nurmi Dr.

Question 6

48640

Question 7

48640

Question 8

- Email

Pam Lemoine

inside City Boundary

July 20, 2018, 6:20 PM

Question 1

- Storm sewer

Question 2

We are in absolute agreement and support of the letter submitted to you by our neighbor, Kathleen Bader, citing concerns about Midland Storm and Sanitary Sewer Study. We also observed a fast back up of Sturgeon Creek on the Nurmi Drive side of the Saginaw/Sturgeon culvert. The flooding was TOTALLY due to the city storm water infrastructure because the culvert is not wide enough to manage the accumulated debris on the CITY'S land along Sturgeon Creek upstream of Saginaw Rd. The blocked culvert/insufficient water flow resulted in a fast back up of water into the homes along Nurmi Dr and beyond in June 2017. It is little wonder that the "additional surcharge" extended to north of Hwy 10 and exceeded "the 500-year flood profile of the Sturgeon Creek," and that "the Sturgeon Creek flood profile does not appear to reflect observed conditions." As noted by Ms. Bader, "Given that your priority projects do NOT include increasing the size of the culvert at Saginaw and Sturgeon while it does call for simultaneously INCREASING peak flows to Sturgeon creek", we are opposed to the current plan laid out in your draft and request further analysis on how to reduce Nurmi flooding rather than worsen it.

Question 3

- Yes

Question 4

Pam and John Lemoine

Question 5

5111 Nurmi Drive

Question 6

989-708-5238 (Pam) 989-708-7389 (John)

Question 7

2017 Storm & Sanitary Sewer Study Feedback

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pmlemoine@gmail.com

Question 8

- Email

John Starling

inside City Boundary

July 25, 2018, 11:33 PM

Question 1

- Unsure

Question 2

We have lived on Scott for 40 years. During our time here we have experienced flooding in our street numerous times but mostly prior to 1997. In 1996 we had street flooding which came up to the house and entered the basement as the pressure of the water blew out an egress window. We ended up with 7 ft of water in the basement. After this event, there was a class action lawsuit against the city led by now Judge Beale. The City settled to all of the plaintiffs in this case. Soon after, a pumping station was installed on the Circle and we have not experienced high levels of water in our street during storms until this May. During the Memorial Day weekend storm water again gathered in the street to a level where cars could not drive through and rose over the sidewalks on our street to within 20 feet of the homes. A number of us were out in the street making sure the storm drains were clean but the water wouldn't go down the storm drains. We are in the lowest part of the subdivision so the water gathers in our section but aren't there specific types of storm drains, like the Sewer grate, Inhabitat – Green Design, Innovation, Architecture, Green Building that could be installed in the higher sections of our neighborhood that could slow and catch some of that water instead of sending it all to our area? I was told by an employee at the Waste Water Treatment plant that the pumping station on the Circle does not help the problem of the street flooding and it has been a coincidence that we haven't had flooding since its installation. Thank you.

Question 3

- Yes

Question 4

John R Starling

Question 5

1204 Scott Street

Question 6

989-708-1525

Question 7

jackstarling@charter.net

Question 8

- Email

Name not shown

inside City Boundary

July 26, 2018, 10:05 AM

Question 1

- Both

Question 2

I would like the City to be pro-active and include in the new Capital Financing, any and all updates to the Waste Water Treatment Plant. I am aware the WWTP held it's own during our last flood, but it may in the future not be able to stand alone, without much needed improvements/updates.

Question 3

- No

Question 4

JoAnn (Jody) Cooley

Question 5

1209 Michigan Street

Question 6

989-430-4345

Question 7

jody.cooley@marriott.com

Question 8

- Email

2017 Storm & Sanitary Sewer Study Feedback

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Name not shown

inside City Boundary

July 26, 2018, 10:19 PM

Question 1

- Both

Question 2

I do not feel that I should have to pay more for my sewer bill. We are retired and my water bill and sewer bill are almost 150.00 now. There should be another way to fix the problem without raising the bill and taxes.

Question 3

- No

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

Question 8

No response

Name not available

July 27, 2018, 7:00 AM

Question 1

- Unsure

Question 2

No response

Question 3

No response

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

Question 8

No response

Al Zimmerman Jr

inside City Boundary

July 27, 2018, 12:40 PM

Question 1

- Both

Question 2

In my lifetime in Midland, all 57 years, flooding has been a major issue that should have been resolved by now. I'm past the study stage, I believe this has been poor leadership on our city leaders part quite frankly.

Question 3

- Yes

Question 4

Alvin Zimmerman Jr

Question 5

5203 BLOOMFIELD DR

Question 6

989-430-5457

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Question 7

alzimmer@chartermi.net

Question 8

- Email

Heidi O'Neil

inside City Boundary

July 31, 2018, 3:25 PM

Question 1

- Both

Question 2

My husband and I live on Marvo Court and have read the letter submitted by Kathleen Bader, our neighbor. We are in complete agreement with the points raised in Ms. Bader's letter to the City of Midland relative to the peak flows in the Sturgeon Creek being outside of the scope of the recent study. We believe to be an error in the study and request complete reconsideration to include the Sturgeon Creek in the study. It is an error in your methodology to not include this area in the study.

Question 3

- Yes

Question 4

Heidi O'Neil

Question 5

3407 Marvo Court, Midland, MI

Question 6

989-430-0067 (cell)

Question 7

heidioneil21@yahoo.com

Question 8

- Email

Gary Buske

inside City Boundary

July 31, 2018, 7:42 PM

Question 1

- Sanitary sewer

Question 2

One potential solution that was proposed to alleviate the problem of the sanitary sewer backing up into peoples' basements was to disconnect footing drains from the sanitary sewer. This solution involves digging a sump in the basement, connecting the footing drain to the sump, installing a sump pump, and running a line from the sump pump to the storm sewer. I strongly oppose this approach to the problem. While it does keep some storm water out of the sanitary sewer, it was not the cheapest option, it would be a major disruption to many peoples' homes, and it is still only a band aid on a system that was not correctly designed. Footing drains should flow to a storm sewer line that is deep enough under the street to allow gravity flow. I have friends and relatives in Minnesota and New York, and I know of no one who has a sump pump in their basement unless they live outside of a city.

Installing sump pumps to direct the water from footing drains to the storm sewer raises several concerns. Sump pumps can fail. How does one know when that happens? The sump will fill up, overflow, and start to flood the basement. Of course this is not the city's problem anymore, it is the home owner's problem. So now to prevent that, one needs a water alarm in the sump, and a back up pump to quickly install before the water overflows the sump. Of course if you are away on vacation, the water alarm and spare pump do no good without you there to fix the problem. Also, what happens when the power goes out? While that can happen anytime, it is most likely to happen during a severe storm when you need the sump pump the most. Yet another question is how can the city force some residents to disconnect their footing drains from the sanitary sewer but not other residents? Unless all footing drains are disconnected from the sanitary sewer, there would likely be lawsuits.

I support the options to fix the sanitary sewer problems that involve installing larger sanitary sewer lines, increasing pump capacity, water proofing manholes and pump stations, and potentially installing offline storage. Also, I support fixing the storm water system to keep more storm water out of the sanitary sewer system.

The consultant's report estimated that spending \$35M on the sanitary sewer would add about \$116 per year to the average home owners' sewer and water bill. Over the last 30 years, that would be \$3,480. I had expenses and losses well over \$10,000 because of the 2017 sewer back up. The additional \$116/year is something I would have willingly paid to prevent that. I believe that increase to the sewer and water bill is a reasonable way to pay for the needed improvements. However, while I am fortunate enough to be able to afford that added expense, there are those for whom this might be a burden. I suggest that to help low income

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homeowners, the city offer a reduced rate to those might qualify. For example, homeowners with household incomes at some percentage of the government poverty guidelines (e.g. 100% - 150%) could be given a discounted rate.

Finally, as Mr. McFarland commented, can we have a system to warn residents when there is a potential for flooding and/or sewer backup? Perhaps people could sign up to get a message from the city on their cell phones warning of potential problems.

Question 3

- Yes

Question 4

Gary Buske

Question 5

613 Sylvan Lane

Question 6

9896318295

Question 7

garyrbuske@gmail.com

Question 8

- Email

Name not shown

inside City Boundary

July 31, 2018, 9:50 PM

Question 1

- Storm sewer

Question 2

Has the option of dredging the Tittabawasee been considered? I don't know if it's ever been done but it seems if the bottom were dredged of the years of silt buildup it might have a significant impact on the flooding level here in Midland.

Question 3

No response

Question 4

Jeri Hopper

Question 5

513 Wanetah

Question 6

9898595243

Question 7

jdhopper5265@gmail.com

Question 8

- Email

David Waite

inside City Boundary

August 1, 2018, 9:33 AM

Question 1

- Both

Question 2

I attended the July 31 session and have the following observations and comments..

1. The City must institute a "Storm Water Management" system and fee (to support both maintenance and capital improvement).
2. Sewer, creek and culvert maintenance must be improved immediately (use Emergency funds for immediate action to clear sewer blockages, creeks and culverts and then maintained through an ongoing "sewer management" fee).
3. A 5 year program to disconnect the 9,100 pre-1987 homes from the sanitary sewers should be planned and implemented. Priority areas have been already identified in the current study. Funding should be from the affected home owners and a city wide assessment. Owners who refuse to implement should be charged a much higher sanitary sewer fee (they are contributing to the flooding and potential overloading of the sewage treatment plant).
4. A study of the Sturgeon Creek hydraulics should be completed before decisions on expanding sanitary and storm sewers in that area are taken unless it can be shown that this has no impact on those high priority projects.
5. Only those high priority capital improvements that are clearly

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independent of the Sturgeon Creek "issue" e.g. Snake Creek, should progress.

Question 3

- Yes

Question 4

Dave Waite

Question 5

6030 Emerson Court

Question 6

9894448684

Question 7

davewaite@charter.net

Question 8

- Email

Nancy Manning

inside City Boundary

August 1, 2018, 1:24 PM

Question 1

- Storm sewer

Question 2

I attended the public information session for the Midland Sewer study on July 31st at Dow High School. Kathleen Bader, a neighbor, vocalized a concern for many in our neighborhood regarding the omission of the Sturgeon Creek and the culvert at Sturgeon Ave/Saginaw Road from the Midland Sewer study. I am encouraged by the response from the officials in attendance that they will now include the Sturgeon Creek and Sturgeon Ave/Saginaw Road culvert in the scope of their study before attempting to increase the peak flow to Sturgeon Creek.

Will the city of Midland start performing regular maintenance to clean up the debris that so often accumulates in Sturgeon Creek that impedes the flow through the culvert?

Question 3

- Yes

Question 4

Nancy Manning

Question 5

4905 Sturgeon Creek Pkwy

Question 6

989-859-5989

Question 7

manningns@gmail.com

Question 8

- Email

Gina Pederson

inside City Boundary

August 2, 2018, 10:35 AM

Question 1

- Both

Question 2

We live at 4408 Moorland Drive. Our backyard is the floodplain for State Drain. We attended the 07/31/18 Dow High presentation. Our house was built in 1979 and had no flooding prior to June of 2017. All our flooding in June 2017 was from the sanitary sewer system.

Questions/Observations

• Since 1987, over 200 houses have been built "upstream" of us with no increase to the 12" sewer line that has been in place since our subdivision was built. Will a further upgrade to the Moorland Pump Station be sufficient to address all the demand that has been allowed? Is there room in the right of way by the State Drain to have a storage container for peak times?

• With the exception of the Bristlecone area subdivision north of the freeway, none of the new developments have put in detention ponds or other means to mitigate their added burden on the County/City storm water management systems. These areas went from wetland/woods to paved subdivisions. When will this be addressed?

• Moorland Drive was repaved 3 years ago and work was only done on the storm sewer system to repair problems but not to increase capacity of

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either storm or sanitary sewers. What improvements are planned?

- While the 100-year flood of 1986 did not fill the flood plain behind our house, the June 2017 flood came within 14 inches of entering our basement window wells. As the lowest point in the floodplain, we had over 7 ft of water in the flood plain well before the Tittabawassee Crest. The State Drain between the houses on Moorland, Partridge and Oakridge has a large amount of construction debris and fallen trees blocking free flow and more has fallen since the flood.

- Will the constriction at the culvert on Perrine Road be addressed? Every water event sees the City trying to pump water from one side to the other.

- Huron Park is a 21.4 acre, land-locked, undeveloped and mostly unused piece of property that is convenient to State Drain and could be used for detention ponding. MISD has nearly 18 acres of unused land on either side of State Drain along Perrine Road that would also make a good place for water detention. Will these assets be considered in the storm water management plan?

- The cost of remediation of the inflows is not clear and there appears to be no plan for helping the affected homeowners identify and estimate the cost of remediation. Houses with smaller lots and unfinished basements may be in the \$3-5000 cost range, but the houses like ours with extensive front concrete drives, and fully finished basements will be significantly more. What benefit for the home owner is there, if not enough of his/her neighbors remediate?

- Please explain to home owners the pros and cons of backflow preventers—especially if they do not disconnect their footing drains and install sump pumps. Please partner with the service groups that will provide this work so that a consistent message is presented.

- City personnel and Officials appear unwilling to address the root cause of the storm flooding – development upstream of Midland in the watershed. What kind of political or legal pressure must be brought to bear to get negotiation underway to address water management? States such as Colorado seem to be able to address these issues at the State level, why not Michigan? We have previously been told by the Drain Commission that they do not work within the City of Midland. Please get a clear message and help your residents get the drains and creeks in the system cleaned and maintained.

- The only compelling speaker at the event on 07/31/18 was Kathleen Bader. The City and their consultants have to be clearer, simpler, and more focused on pocket-book concerns if they hope to gain public support. The presentation by the city seemed more designed to address liability issues and less to point to solutions. Do not wait 5 years to bring a millage before the electorate without clear communication and involvement of the entire community.

- Thank you for addressing this problem quickly and efficiently. Please continue to communicate with your residents and involve them in the solution. You cannot claim a city to be an attractive place for new residents if they have a high chance of having their homes flooded with sewage. Significant portions of the city are now not attractive for sale.

Question 3

- Yes

Question 4

Kenneth and Regina Pederson

Question 5

4408 Moorland Drive

Question 6

989-631-8503

Question 7

gina.pederson@gmail.com

Question 8

- Email

Name not available

August 2, 2018, 11:28 AM

Question 1

- Storm sewer

Question 2

Thank you again for holding the public meeting for input on the flooding. And thank you too for confirming that no upriver additions to the Sturgeon watershed flow would be made until the culvert blockage issue at Saginaw and Sturgeon is addressed.

I was surprised that many of my neighbors did not understand that the blocked culvert at Saginaw and Sturgeon was the reason that Nurmi, Gibson, Sturgeon Creek Pkwy., Marvo, etc flooded so very early in the incident and flooded far higher than the level of the Tittabawassee warranted. Some of us would not have flooded at all and none of us would have had as high and as serious a flood if the water flow to the culvert were free and clear instead of blocked by accumulated deadwood floating up from the city park bordering the Sturgeon Creek between Wackerly and Saginaw. This then back flowed into the Lalk drain at Gibson and Sturgeon (and dropped truckloads of wood debris on my 5 acres that border Nurmi/Sturgeon/Saginaw.)

The fact that the drain upriver at Wackerly was also blocked on the upriver side actually helped a bit because it kept some debris from further plugging the Sturgeon/Saginaw culvert.

When you think of it however, most people in the Sturgeon watershed were so consumed with trying to save their possessions and their homes and their pets that they didn't have time to go look and see what was causing the issue— They just assumed it was the level of the Tittabawassee. I had to smile when you showed the map where you

2017 Storm & Sanitary Sewer Study Feedback

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marked phone calls from people about flooding—those of us dealing with the inordinately high water caused by the blockage didn't have time for phone calls!

I'd like to reiterate a couple of points my neighbors and I made regarding the Sturgeon Creek floodplain.

1. Most of us are almost finished repairing our homes – its been 14 months since the flood and the debris that will block the culvert in the next flood has not been cleared...the city is aware of the issue but is moving too slowly and will cause us to flood again – an expense that we should not have to absorb given that the city's failure to clear its debris is the root cause of such flooding.

2. There are now more downed ash trees blocking the river (6 I can see from my land). In a flood, branches and treetops that have fallen accumulate behind the downed logs and create a mat of debris. When the river gets high enough, the mat moves downstream and collects the debris at the next downed tree, making a bigger mat.....etc. etc. by the time it gets to the culvert, major tree trunks have joined it and they come together to block the culvert.

3. Cleaning up only 30 feet on either side of the river will not solve this problem.

4. Our city parkland behind my house and along the Sturgeon from Saginaw upriver to Wackerly has been neglected since the LAST flood in 1986. It is time that it got its share of city park maintenance and cleanup. We are not asking for a beautiful lawn like the parkland near Orchard.... but we do want a complete clean up of debris – and a continued maintenance program.

5. The neglected parkland and dead and downed ash trees and accumulated flood debris is now a fire hazard for those of us in this neighborhood

6. There are trees along the Sturgeon that are falling but hung up in other trees. They will further block the river. They are a danger to life and limb to those of us whose yards they will fall on. Historically the city was responsive in removing these, but I have been calling for months.....and every day the people helping me clear the debris from the flood walk under these trees because they are right over the peninsula in my yard. The city has a huge liability until they take down the dangerous trees. They are a clear and present danger.

Either the culvert needs to be dramatically widened at Sturgeon and Saginaw or the city needs to clean up the parkland along the river from Saginaw to Wackerly....and not just 30 feet on either side of the river. The city cannot afford to wait to clean up the hung up trees and accumulated debris or they incur a huge liability. If you think it would be expensive to do that cleanup now, just wait until you kill someone and get sued or until there is a class action lawsuit because the city causes 50 or 60 homes to flood in the next big rain that would not have flooded had you cleaned up the debris.

Thank you.
Kathleen Bader
5007 Nurmi Dr
kmbader@mac.com

612 616 0110

Question 3

- Yes

Question 4

kathleen bader

Question 5

5007 Nurmi Dr

Question 6

6126160110

Question 7

kmbader@mac.com

Question 8

- Email

Ken Pederson

inside City Boundary

August 2, 2018, 12:26 PM

Question 1

- Both

Question 2

• Our house on Moorland Drive has the floodplain for State Drain as the backyard. State Drain receives inflow from four other drains (Inman, Stern, Beck & Benson) within a one mile stretch just upstream of our neighborhood. There has been and continues to be extensive development upstream in all these drains areas. While the 100-year flood of 1986 did not fill the flood plain behind our house, the June 2017 flood came within 14 inches of entering our basement window wells. As the lowest point in the floodplain, we had over 7 ft of water in the flood plain well before the Tittabawassee Crest and over 3 feet of standing water once the "event" was over which we had to pump out ourselves because the City would not help. How will the plan prevent this from happening in the future?

Question 3

- Yes

2017 Storm & Sanitary Sewer Study Feedback

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Question 4

Kenneth Pederson

Question 5

4408 Moorland Drive

Question 6

989-631-8503

Question 7

pederson.kr@gmail.com

Question 8

- Email

Carol Kaweck

inside City Boundary

August 2, 2018, 4:46 PM

Question 1

- Both

Question 2

I live at 4910 Sturgeon Creek Pkwy, on the creek side. I have been very concerned with the massive amounts of accumulated debris in and around the Sturgeon Creek from the flood, and the neglect along the city 'park' area and stream beds behind my home. I attended the public information session on July 31st at Dow High. I completely agree with Kathleen Bader that we need to double the width of the culvert underneath Saginaw Road at Sturgeon Ave so that we don't bear the brunt of insufficient outflow. We also need downed trees, including those crossing the river to be cleaned up, as this creates not only an increased flood hazard in the future, but a fire hazard to all of us who live along the river.

Question 3

- Yes

Question 4

Carol Kaweck

Question 5

4910 Sturgeon Creek Pkwy

Question 6

No response

Question 7

Cjkaweck@gmail.com

Question 8

- Email

Name not shown

inside City Boundary

August 3, 2018, 8:36 AM

Question 1

- Both

Question 2

We would like to have our storm and sanitary sewer lines cleaned out, repaired or replaced so as to avoid future flooding in homes behind Jefferson Middle School, homes behind ball fields.

Question 3

- Yes

Question 4

Rob and Michelle Ellis-Hutchings

Question 5

5601 Summerset Dr

Question 6

9899418505

Question 7

Robmichelle45@gmail.com

Question 8

- Email

Name not shown

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

inside City Boundary
August 3, 2018, 11:13 AM

Question 1

- Both

Question 2

I am pretty frustrated that the improvements we voted on, a bond we're paying for, after the 1996 flood have not been fully implemented. We're now reaping the "benefits" of your delays and deferrals. Secondly the stormwater retention around Meijer is clearly inadequate. I don't ever remember Joe Mann and Eastman flooding so early and so badly. And that inadequate stormwater retention then has a serious adverse impact on residents downstream in that drain. You need to address that post haste.

Question 3

- No

Question 4

Anne Wallin

Question 5

1413 Crane Court

Question 6

9897505069

Question 7

apwallin@gmail.com

Question 8

- Email

James Pollack

inside City Boundary
August 3, 2018, 4:37 PM

Question 1

- Both

Question 2

I have not seen any mention of how a high river stage will effect drainage from lower elevation areas. Building new and larger sewers will, in my opinion, not address keeping lower areas drained once the river reaches higher elevations such as above 30'. At this elevation, the river will flow backwards into the sewers and stop drainage and even add more water to those areas. We cannot afford to have river water flow into the city. Perhaps installing flapper gates on sewers with lower invert elevations would help keep river water out. Something must be done about about how much water is released for upstream dams. There should be some requirement that when he weather forecast shows high rainfall coming, the dams start to spill more water to build water storage capacity in the lakes. This step could take the peak off of high water flow to downstream cities. Also, raising the lake levels a foot or so during high runoff should not cause much damage compared to putting more flood water into the river,

To summarize, make sure the engineers look at what elevations the river begins to flow back into sewers and and see what can be done about that. Larger sewers at the same elevations will not solve anything except allow more river river water to flow backwards. Also, see what can be done to manage lake levels more for flood control during these high runoff periods.

Question 3

- Yes

Question 4

James Pollack, PE

Question 5

1420 Whitehall Street

Question 6

9896312739

Question 7

njpollack@chartermi.net

Question 8

- Email

Name not shown

inside City Boundary
August 4, 2018, 11:44 AM

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Question 1

- Unsure

Question 2

We live on the Chippewa River about two miles west of the City of Midland. It would be very helpful to us if there could be a river level gauge on the Chippewa River to inform us about the level of flooding, with predictions when the river will crest or has crested. We have checked with the Chippewa River gauge in Mt. Pleasant which doesn't really pertain to us. The Tittabawassee gauge readings also do not reflect the Chippewa's levels. We have a plan for evacuation and knowing the Chippewa River status would help us. Also note that the storm sewers on Rivercrest Ct and other streets along the Chippewa need attention; it is not just downtown! Thank you.

Question 3

- No

Question 4

Meg Harding

Question 5

3319 Rivercrest Ct

Question 6

989-835-5819

Question 7

megharding@aol.com

Question 8

- Email

Kristen Ulmanis

inside City Boundary

August 4, 2018, 7:07 PM

Question 1

- Storm sewer

Question 2

As the city moves forward with its Sanitary and Storm Sewer Study, I request that the final report include remarks regarding the potential

impact of all remedies on the Tittabawassee River ecosystem. During the Q & A time of the public meeting held on July 31st, Mr. Kacvinsky offered some insights into the ecological impact. He stated that repairing storm and sanitary sewer lines would help to prevent not only sewage overflows in basements but also the flow of raw sewage into the river.

Although most people at the hearing questioned the efficacy of footing drain disconnections, it is my understanding that this remedy reduces flow into the sewer system while also reducing the flow of stormwater directly into the river.

Mr. Kacvinsky commented that the city's current retention ponds, which maintain a pool of water throughout the year, appear to have functioned adequately during the 2017 event. He also suggested that detention ponds were an ecologically sound remedy. It is my understanding that detention ponds created in existing parks or green spaces could hold water temporarily during a severe storm, thereby slowing water flow and allowing sands and larger silt particles to settle before continuing to the river.

It is commonly thought that environmental concerns are necessarily at odds with the concerns of property owners and developers. I disagree. Omitting ecological impacts from a final report prevents the members of our community from making truly informed decisions. Ecological concerns are intrinsically linked with the quality of life in Midland, including property values and community appeal. (Who wants to celebrate Riverdays on a dead river?)

If the community ultimately deems it necessary to pursue remedies that may compromise the ecosystem (e.g. improved conveyance of storm water through larger pipes), then at the very least, the city should propose measures that would offset those impacts (e.g. expansion of Special Flood Hazard Areas or increased restrictions within SFHAs).

As we attempt to protect our neighbors' homes from future flooding, let's not ignore the critical role of a healthy river system and the science that helps us sustain it.

Question 3

- Yes

Question 4

Kristen Ulmanis

Question 5

2514 Abbott Rd. Apt. T-9

Question 6

(989)259-5719

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Question 7

kristenulmanis@gmail.com

Question 8

- Email

Name not shown

inside City Boundary

August 5, 2018, 6:53 AM

Question 1

- Sanitary sewer

Question 2

Was the issue of why a portable generator wasn't installed on the Perrine/Letts road lift station when the power was shut off due to the flooding in the Alpine trailer park? When the lift station was without power, the entire area serviced by the lift station experienced back up of raw sewage in the majority of homes in the area. This concern was expressed to FEMA.

Question 3

- Yes

Question 4

John Krevinghaus

Question 5

3716 Bobcat Ct.

Question 6

9896006489

Question 7

royal@ejourney.com

Question 8

- Phone

Name not shown

inside City Boundary

August 5, 2018, 11:21 AM

Question 1

- Both

Question 2

No response

Question 3

- Yes

Question 4

Roy Green

Question 5

4600 Moorland Drive

Question 6

9896312531

Question 7

rgreen4600@charter.net

Question 8

- Email

kenneth cislo

inside City Boundary

August 5, 2018, 3:04 PM

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Question 1

- Storm sewer
- Sanitary sewer
- Both

Question 2

The question deals with both sewers and the water main work taking place on Waldo road. It seems that we have a rush to increase water provided to new construction north of US10. What about the storm and waste sewers? Surely the existing sewers cannot handle the new capacity the repeated floods are fact enough? Why not upgrade sewers at same time and save on down time and added new construction.

Question 3

No response

Question 4

kenneth & linda cislo

Question 5

3108 whitewood dr

Question 6

9898353120

Question 7

No response

Question 8

- Phone

Connie Parkhurst

inside City Boundary

August 6, 2018, 9:51 AM

Question 1

- Both

Question 2

at 4304 Oakridge Dr the wooded area behind our house and also our backyard have been getting smore frequent standing water after big rains but was turned into a creek after the flood. We had water shooting up out of the drains in basement! The water flow encircled our house but ran

mainly down the west side. Neighborhood kids floated canoes behind us those few days. We had over 12" in basement. Our house was built without a sump pump and the neighbors have pumps which kept them only mildly wet instead of like our mess. It was not clean water. There is a plugged drain in corner of lots in backyard. Its known to city as we and others have asked about it prior to the incident last yr. All of us near me have been in our homes about 15 yrs . we have been here 19 and 1/2 yrs. Flooded a couple of times now. Had our lines cleaned of tress roots recently and after previous flood a few yrs before 2017.

I attended the open session. Thanks for the study and time. Cost support should be in some kind of tax or increase on our sewer bill and I would think 4\$ wasn't enough and we can't keep waiting! Decide very soon!

Question 3

- Yes

Question 4

Connie Parkhurst

Question 5

4304 Oakridge Dr.,

Question 6

9896313253

Question 7

clparkhurst53@gmail.com

Question 8

- Email

Name not available

August 6, 2018, 7:10 PM

Question 1

- Both

Question 2

No response

Question 3

- Yes

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

Question 4

Roy Green

Question 5

4600 Moorland Drive

Question 6

9893888970

Question 7

rgreen4600@charter.net

Question 8

- Email

Name not shown

inside City Boundary

August 7, 2018, 5:04 PM

Question 1

- Both

Question 2

We've lived in Midland for 51 years. During that time, the only time we've had water in our lower level was in June, 2017. We've lived in our present home for 39 years. It is on the edge of a flood plain, but we did not have water in our LL, even in 1986, when the Tittabassee crested at a higher level than in 2017. We lost nearly every possession in our LL, in June 2017, including family treasures which are irreplaceable. Please resolve the problem, so we don't have flooding again!

Question 3

- No

Question 4

George and Carol Quarderer

Question 5

4309 Moorland Dr. Midland, MI. 48640

Question 6

989-631-5006

Question 7

georgeq2@aol.com

Question 8

- Phone

Julie Dukes

inside City Boundary

August 7, 2018, 7:21 PM

Question 1

- Storm sewer

Question 2

Our home had 19" of water in our basement for 4 days. Three dump trucks carted our basement belongings away after the flood. Now I hear that debris in Sturgeon Creek was a factor in the flooding in our neighborhood. The creek IS a mess; has been for many years. Now we have dead ash trees & whatnot all throughout, waiting to fall onto adjacent power lines & the street. This area needs to be cleaned up enough to not impinge on water discharge from the neighborhood. We just got our basement put back together! PS - this is the 3rd flood we've personally experienced in Midland: 1986, 1996 & 2017. Enough!

Question 3

- No

Question 4

No response

Question 5

No response

Question 6

No response

Question 7

No response

Question 8

No response

2017 Storm & Sanitary Sewer Study Feedback

Provide feedback, comments, or questions related to the 2017 Sanitary & Storm Sewer Study.

John Tarrant

inside City Boundary

August 7, 2018, 11:18 PM

- Phone

Question 1

No response

Question 2

One of the main flooding areas were houses near the Sturgeon Creek North of Saginaw Road. Even though this area is not included in the study, there are two obvious issues with this area:

Sturgeon Creek flow was severely restricted under Saginaw Road. The Creek water level was 4 feet higher north of the road than the south side. The culvert is either considerably undersized or has a substantial blockage.

The Sturgeon Creek bed has numerous trees both standing and fallen that restrict flow and will plug the Saginaw Road and downstream culverts causing backups and future flooding.

Flooding of homes and also the sanitary sewer will occur again if these issues are not addressed. These issues will also skew any Sanitary Sewer Studies for the City and impact any Storm Sewer Studies in this area.

The sewer modeling is important to develop a comprehensive plan. The issues with the Sturgeon Creek flow restrictions will skew the study.

Known specific causes of flooding should be addressed immediately as they are already identified and will impact the validity of the study. There is also known actions that can be taken to resolve these issues. These should be resolved as quickly as possible.

and Joe Mann Blvd. .

Question 3

- Yes

Question 4

John Tarrant

Question 5

4213 Oakridge Drive

Question 6

989-486-9380

Question 7

jctarrant52@gmail.com

Question 8