

Allegan County Water Study Workgroup

Meeting Minutes

Date of meeting Wednesday, September 21, 2022 2:00 pm

Present: Ric Curtis, Tom Kunetz, Zach Curtis, (John Shagonaby after meeting started, left early due to technical issues)

On Zoom: Dean Kapenga

Members not in attendance: Chad Kraai, Doug Sweeris, Jay Drozd, , Erick Elgin, Brian Talsma

Guests and staff: Jaclyn Hulst, Dan Wedge, Liz Binoniemi-Smith, Randy Rapp and Jill Dunham

Next meeting: Wednesday, October 19, 2022

1. Approval of Agenda

Agenda approved

2. Action Items from previous meeting

- Jill will send Tom the recommendation submitted to the Board of Commissioners – [DONE will add to minutes](#)
- Zach and Jill will determine the number of private wells. – [DONE, will add to minutes](#)
- Randy and Jill will work on number of residents served by private wells. – [100,000 to 110,000 of 120,502 residents](#)
- Jill to contact EGLE for Type 1 well test results (water quality.) Can we get regular test results? Send to Randy Rapp. Anita Ladoseur - contact for private well construction - Heather Bishop for Type 1. [Need WaterChem data – Randy will get a report to review for next meeting,](#)
- Randy will check with Carolyn Hobbs Kreger about Type 2 water quality data. County using Water Track - changing to new system. [Randy will invite the Type 2 well coordinator to next meeting.](#)
- Steve and Zach will discuss IT concerns about the DSS software. [DONE](#)

3. Discussion

- 1) BEST Intelligent Decision Support System Tool--Review Proposal submitted by Hydrosimulatics INC (Zach. Curtis with (HSAINC)
 - a) Response to questions from 9/7 (Z. Curtis) See attached presentation
 - b) County administration feedback (S. Sedore) Steve's questions
 - i) Why do we need this DSS system?
 - ii) Does this solve a problem/need that the county has? Dean responded
 - iii) Is there an ROI?
 - iv) Do we have the right data to perform the necessary calculations?
 - v) How will the Health Department use this system?
 - c) Work Group discussion (Z. Curtis)

- i) Tom Kunetz – in order to be responsive to future concerns or questions, the county would need to hire a consultant. The consultant would need to research and gather data (which this DSS system would contain.) We can do scenario planning.
 - ii) Ric – Do we have a way to audit the system 2 years down the road to insure it meets the expectations? supportive of the DSS
 - iii) Dean – more inclined after the additional info from Zach today. Sees that the DSS will fulfill the need to understand and monitor water quantity and quality.
- 2) Draft Recommendations to Board--Assignments and Discussion (Kunetz)
- a) Tom – put together a package with background plus recommendations. Target to share draft presentation and recommendations at October 19th and tentatively present to BOC on Nov 10
 - i) BEST DSS (Zach)
 - ii) Water Supply/Demand Master Plan (Ric and Tom)
 - iii) Groundwater Monitoring Wells – how many? And why? (Zach)
 - iv) Public Communications and Outreach – Tom working w/ Erich
 - v) Groundwater Steward – Tom working w/ Randy – meet with Rob to discuss this possibility – as well as the whole package to present to the BOC
- 3) Future Work Group meeting schedule (Kunetz)
- a) October 5 meeting – cancelled
 - b) October 19 meeting – present draft presentation for BOC
 - c) November 2 – Zach will present Phase 2 results presentation
 - d) November 16 meeting is TBD

4. Action Items

- Jill to contact EGLE for Type 1 well test results (water quality.) Can we get regular test results? Send to Randy Rapp. Anita Ladoseur - contact for private well construction - Heather Bishop for Type 1. [Need WaterChem data – Zach will assist Jill with the correct contact person.](#)
- Zach will respond in writing to Steve Sedore's questions/concerns about BEST DSS
- Randy will check with Carolyn Hobbs Kreger about Type 2 water quality data. County using Water Track - changing to new system.
- Randy and Tom will meet with Rob Sarro to discuss the package and recommendations.
- Tom will put together the draft BOC package for Oct 19th meeting; as such, recommend no meeting on Oct 5.
- Randy will add Jaclyn to the meeting invitation for this meeting.
- Jill will insure that all Water Study Workgroup meetings are on the county calendar.

Meeting adjourned 3:45 pm

**Recommendations of the Groundwater Study Work Group
Concerning
Requests for ARPA Funding for Water Projects by Local Units of Government**

RECOMMENDED

Requestor	Project Description	Meets Impact to Water Quality and Quantity Criterion	Project Schedule	Funding Request	Meets Funding Criterion	Meets Broadband Criterion (90% coverage)	Work Group Recommendation
City of Allegan Doug Sweeris	Water and sewer replacement in downtown Allegan.	Yes	Scheduled bid opening on August 2, 2022. Award no later than September 20, 2022. Completion summer 2024.	\$526,000	No. ARPA Funds Received: \$525,426	YES	Recommended, up to ARPA match of \$525,426
City of Otsego Project 1 Aaron Mitchell	East Allegan Street Sewer Extension Project.	Yes	Begin construction August 2022.	\$266,105.23	Yes ARPA Funds received: \$418,046	YES	Recommended, up to ARPA match of \$418,046 for BOTH Project 1 and Project 2.
City of Otsego Project 2 Aaron Mitchell	Water Main Loop Project.	Yes	Begin construction August 2022	\$153,619.11	Yes ARPA Funds received: \$418,046	YES	Recommended, up to ARPA match of \$418,046 for BOTH Project 1 and Project 2.
City of Plainwell Eric Wilson	Old Orchard Neighborhood Project.	Yes	Design start: October 2022 Construction: May to September 2023	\$1,113,625	No ARPA Funds Received: \$396,920.09 City of Plainwell has requested that the ARPA funds received by Otsego Township, Martin Township, Martin Village and Gun Plain Township be considered for the match since these LUGs are serviced by the City's regional collection system.	YES	Recommended, up to ARPA match of \$396,920.09. Although not technically "shovel-ready," the township made a commitment to initiate engineering design work on August 8, 2022. The Work Group believes the construction start date is sufficiently close to justify funding the project in view of the value of the project towards water quality goals.
Saugatuck Twp. Daniel DeFranco	Riverside Drive Water Main Pipeline Replacement.	Yes.	Design Start: August 2022 Construction start: May 2023. Construction completion: December 2023	\$350,000	Yes ARPA Funds received: \$351,686.00	YES	Recommended Although not technically "shovel-ready," the township has initiated engineering design. The Work Group believes the construction start date is sufficiently close to justify funding the project in view of the value of the project towards water quality goals.

**Recommendations of the Groundwater Study Work Group
Concerning
Requests for ARPA Funding for Water Projects by Local Units of Government**

NOT RECOMMENDED

Dorr Township Darwin Baas	Water and sewer lines to service Dorr Township Business Park.	No.	Project development agreement signed in March 2022. By late summer 2022 will be ready to proceed. Begin Construction in spring 2023. Construction completed: 2024	\$500,000	Yes ARPA Funds Received: \$826,568		Not recommended. This is a business venture project, not an infrastructure enhancement for the municipality. Dorr Twp. does not own the water system.
City of Saugatuck Ryan Heise	Water Assessment Management Plan per EGLE mandate.	No. The project is an EGLE-requirement of all public water systems. This is not an infrastructure project.	Start plan development: Fall 2022 Complete Plan: End 2023	\$100,000	Yes ARPA Funds received: \$100,482.00	YES	Not recommended. The project does not meet the intent of the funding. It is a study and not an infrastructure project.
Otsego Township Bryan Winn	Install water and sewer mains to residential neighborhoods, and add water main loops to complete water system main dead ends. (Although sewer main is part of the overall project, the sewer work is not part of the funding request, which is only for the water main work.)	Yes	Bidding: July 2023 Construction completion: July 2024 Project does not meet "shovel-ready" criterion.	\$612,939	Yes ARPA Funds received: \$612,939		Not recommended. Project is not shovel-ready
Village of Martin Project 1 Rick Martin	Storm Drain Reconditioning Project.	No.	Begin and complete construction 3 rd Qtr 2022	\$24,650	Yes \$42,809.00 ARPA Funds received:	YES	Not recommended. Does not demonstrate protection of water quality or quantity.
Village of Martin Project 2 Rick Martin	Reconditioning Pump #2.	No.	Begin reconditioning work 3 rd Qtr 2022	\$13,000	Yes ARPA Funds received: \$42,809.00	YES	Not recommended. Maintenance issue, not an infrastructure project.



City of Allegan
Water Utilities
269.686.1117
350 North Street
Allegan, MI 49010

July 7, 2022

Mr. Randy Rapp
Environmental Health Manager
Allegan County Health Department
3255 122nd Ave.
Allegan, MI 49010

Re: Requesting Allegan County match City of Allegan ARPA funds for water system infrastructure improvements.

Dear Randy,

I originally submitted a request to you regarding Allegan County ARPA funds on February 10, 2022. In this request, I gave details of the downtown infrastructure project. I am writing to you today to update you on this project, and to provide the responses to the requested five questions as listed in a memo from County Administrator, Robert Sarro, dated June 24, 2022.

Requirements to request Allegan County ARPA funding for water projects:

1. **Request for information:** Allegan City is requesting Allegan County ARPA funding for the City of Allegan Downtown Infrastructure project. I have been authorized by the City Manager to request these funds on behalf of the City of Allegan; my contact information is listed below. All water and sewer in this project is owned by the City of Allegan.
2. **Project description:** This project will replace water and sewer mains on Locust St., Brady St., Hubbard St., Riverfront Plaza area, and a small section of Trowbridge St. The City has identified at least 65 water services in this project that contain some form of lead piping that is required to be replaced by State rule. The project will also remove two sanitary sewer mains that run under two buildings on Hubbard St. The sanitary sewer main will be relocated to the roadway adjacent to each building. The current engineering estimate for just the water and sewer infrastructure in the project is \$1,172,400. This does not include engineering fees or the cost to restore the roadway and sidewalk located above the replaced infrastructure. With those costs added in the estimate is \$2,600,000.
3. **Impact to Water Quality and Quantity:** This project will replace some water and sewer infrastructure that is approaching 75 – 100 years old, relocate two sanitary sewer mains that are currently located under buildings on Hubbard St., and will remove and replace at least 65 water services containing lead pipes. Replacing the water and sewer mains in this project will provide quality water and sufficient water flow to the downtown Allegan area

for another 75 – 100 years, as well as protecting the environment from sanitary sewer issues due to the aging infrastructure.

4. **Project Schedule:** This project went out for bid on July 6, 2022, with a scheduled bid opening on August 2, 2022. The award of this project to the winning bid/contractor will occur no later than September 20, 2022, with a notice to proceed issued on or before November 9, 2022. Due to the long lead time for water main pipe and other infrastructure items, the City does not expect to break ground on this project until early spring of 2023. Depending on the start date and availability of materials, it is expected this project will be completed sometime between July and September of 2024.
5. **Funding Ask:** The City of Allegan has pledged their entire ARPA funds, \$526,000 to this project. The City will be bonding for the rest of this project with payments for the bonds collected through the water and sewer rates. The City of Allegan is asking Allegan County to match the City's ARPA funding of \$526,000 for this project. Attached are the engineering estimates for just the water and sewer portions of this project.

Please contact me if you have questions or concerns regarding this request.

Thank you,



Doug Sweeris,
Allegan Water Utilities Director,
350 North St.
Allegan, MI 49010

dsweeris@cityofallegan.org

(269) 686-1117 – D

(269) 720-2174 – C

Attachment 1

Line	Pay Item	Description	Quantity	Units	Unit Price	Total
Category: 0002 Water Fund						
0066	8230050	Gate Valve and Box, 4 inch	1.000	Ea	\$1,500.00	\$1,500.00
0067	8230051	Gate Valve and Box, 6 inch	3.000	Ea	\$1,600.00	\$4,800.00
0068	8230052	Gate Valve and Box, 8 inch	18.000	Ea	\$1,800.00	\$32,400.00
0069	8230054	Gate Valve and Box, 12 inch	2.000	Ea	\$2,500.00	\$5,000.00
0070	8230091	Hydrant, Rem	9.000	Ea	\$800.00	\$7,200.00
0071	8230130	Water Main, 4 inch, Cut and Plug	2.000	Ea	\$2,100.00	\$4,200.00
0072	8230131	Water Main, 6 inch, Cut and Plug	2.000	Ea	\$2,200.00	\$4,400.00
0073	8230132	Water Main, 8 inch, Cut and Plug	9.000	Ea	\$2,300.00	\$20,700.00
0074	8230151	Water Main, DI, 6 inch, Tr Det G	80.000	Ft	\$60.00	\$4,800.00
0075	8230156	Water Main, DI, 8 inch, Tr Det G	3,255.000	Ft	\$70.00	\$227,850.00
0076	8230166	Water Main, DI, 12 inch, Tr Det G	260.000	Ft	\$150.00	\$39,000.00
0077	8230245	Water Serv, Long	65.000	Ea	\$1,800.00	\$117,000.00
0078	8230264	Live Tap, 8 inch by 12 inch	2.000	Ea	\$7,500.00	\$15,000.00
0079	8237001	_ Private Water Serv, 1 inch, Trenchless	360.000	Ft	\$45.00	\$16,200.00
0080	8237001	_ Water Main Casing, DI, 18 inch	40.000	Ft	\$100.00	\$4,000.00
0081	8237001	_ Water Main Casing, DI, 24 Inch	20.000	Ft	\$150.00	\$3,000.00
0082	8237001	_ Water Main, DI, 4 Inch, Tr Det G	40.000	Ft	\$60.00	\$2,400.00
0083	8237001	_ Water Serv, Trenchless, 2 inch	50.000	Ft	\$75.00	\$3,750.00
0084	8237050	_ Curb Stop and Box	65.000	Ea	\$400.00	\$26,000.00
0085	8237050	_ Hydrant Assembly, Modified	9.000	Ea	\$5,000.00	\$45,000.00
0086	8237050	_ Inline Water Valve, Temp, 12 inch	6.000	Ea	\$8,000.00	\$36,000.00
0087	8237050	_ Inline Water Valve, Temp, 4 inch	4.000	Ea	\$3,500.00	\$14,000.00
0088	8237050	_ Inline Water Valve, Temp, 6 inch	3.000	Ea	\$3,500.00	\$10,500.00
0089	8237050	_ Inline Water Valve, Temp, 8 inch	6.000	Ea	\$4,250.00	\$25,500.00
0090	8237050	_ Private Water Serv, Conn to Ex	39.000	Ea	\$1,000.00	\$39,000.00
0091	8237050	_ Water Serv, 2 inch, Modified	5.000	Ea	\$1,500.00	\$7,500.00
Category 0002 Total:						\$716,700.00

Line	Pay Item	Description	Quantity	Units	Unit Price	Total
Category: 0003 CWSRF						
0092	8252037	Sanitary Sewer, PVC, 8 inch, Tr Det B2	2,162.000	Ft	\$85.00	\$183,770.00
0093	8252072	Sanitary Structure, 48 inch dia	22.000	Ea	\$3,500.00	\$77,000.00
0094	8252080	Sanitary Structure, Add Depth of 48 inch dia, 8 foot to 15 foot	103.000	Ft	\$450.00	\$46,350.00
0095	8252089	Sanitary Structure, Add Depth of 48 inch dia, more than 15 foot	53.000	Ft	\$500.00	\$26,500.00
0096	8252105	Sanitary Structure, Rem	9.000	Ea	\$400.00	\$3,600.00
0097	8252122	Sanitary Sewer, Serv Lead, PVC, 6 inch	960.000	Ft	\$60.00	\$57,600.00
0098	8252130	Sanitary Sewer Cleanout, 6 inch	34.000	Ft	\$450.00	\$15,300.00
0099	8257001	_ Sanitary Sewer, PVC, 15 inch, Tr Det B2	194.000	Ft	\$120.00	\$23,280.00
0100	8257050	_ Sanitary Cleanout Cover	34.000	Ea	\$300.00	\$10,200.00
0101	8257050	_ Sanitary Structure Cover, Type Q, Modified	22.000	Ea	\$550.00	\$12,100.00
Category 0003 Total:						\$455,700.00



CITY OF OTSEGO

OTSEGO, MI 49078

269-692-3391

269-692-2643 (F)

WWW.CITYOFOTSEGO.ORG

July 25, 2022

County Administrator Sarro and BOC Water/Sewer Task Force
County Services Building
3283 122nd Ave.
Allegan, MI 49010

RE: City of Otsego Water and Sewer ARPA Project Application

Dear Mr. Sarro and Task Force Members,

The City of Otsego has previously submitted information and materials in a request for *American Rescue Plan Act (ARPA)* funding from the Allegan County Board of Commissioners. Those details were brief and incomplete. The original application materials referenced upwards of five separate projects that are ARPA eligible. Understanding the application process and the requirements along with hoping to provide a clear and concise application; we are only submitting materials for two projects. The attached application should be received as a complete application with all needed details of the request included. The total of the application is \$419,784.35. If there are items that are not included please feel free to reach out to me and I will do my best to answer any questions that you or any Allegan County representative may have.

The City of Otsego would like to thank all involved with this process for the opportunity to apply for these ARPA funds. Financial constraints are heavy on our city operations and assistance of any kind is needed and appreciated by city administration and residents.

Sincerely,


Aaron Mitchell
City Manager

CITY OF OTSEGO



ALLEGAN COUNTY BOARD OF COMMISSIONERS WATER AND SEWER ARPA APPLICATION

EXECUTIVE SUMMARY

The City of Otsego will be using 100% of their \$419,724.35 of *American Rescue Plan Act (ARPA)* funds for expansion of its Water and Sewer systems. The City of Otsego is currently in the midst of five projects that are ARPA eligible. Varying from partially completed construction all the way to projects still in the planning and engineering phases. In previous communications the City of Otsego has referenced these five projects. However, for clarity and easy documentation the submission of this application is for only two. Any expenses above the ARPA funds for these two projects will be paid exclusively through the Water and Sewer funds, respectively. These two projects have already had bids awarded and construction is scheduled to commence in the 1st week of August. This application will show that the total of the two projects alone are over 200% of the total City ARPA funds; demonstrating that this application makes the City eligible to apply to Allegan County for 100% of the \$419,724.35 without profiting. The financial request for each project is based on the percentage of the total cost of both projects, which totals \$881,791. The details of the projects are explained within the categories of *What?*, *Why?*, *How Much?* and *When?* The additional costs of these projects will be paid directly by the Water and Sewer department's fund balance. The draw down those costs will create will be replenished with rate increases of the Water and Sewer bills paid by City of Otsego customers. Therefore any award that would preserve fund balances would in turn represent a lowering of utility bills.

PROJECT 1 – EAST ALLEGAN STREET (M-89) SEWER EXTENSION

What? The East Allegan Street Sewer Extension Project will extend the City sewer system down E. Allegan St. It will add four additional services to the system and in turn close those current private septic systems. This will be done by working within the MDOT ROW with two underground borings to the south.

Why? The City of Otsego's sewer main runs down E. Allegan St. and currently ends abruptly in front of Brookside Park. Within Brookside Park resides all of the City's water wells. It is the only City of Otsego wellfield that is permitted by EGLE. Looking at EGLE requirements and likely available properties within the area; the current wellfield is the only allowed location for a municipal water well within the City and will remain that way for the foreseeable future. In response the wellfield must be protected going forward. Directly in front of the wellfield are four parcels that do not have public sewer services available to them. They are required to have private shallow septic systems, these systems are also considerably aged. These systems should they fail, could have catastrophic consequences on the entire City water system by contaminating the only wellfield and in turn shutdown the water system entirely. The goal should be to insulate this wellfield in all possible ways. This project does just that. After the completion of this project, all properties along E. Allegan St. will have sewer services available to them. If service is not immediately utilized, it will prevent any additional septic permits impossible, forcing them to join the City system.

How Much? This project had a bidding process and the winning bid was in a total of \$558,975. The bid was awarded to B+L Excavating. (The bid is itemized and attached.) This total is for construction only. On top of these costs are engineering and project supervision that is not included. The City of Otsego is requesting **\$266,105.23** or 63.4% of the City's eligible amount for the East Allegan Street Sewer Extension Project. (This project is 63.4% of the total cost of both projects.)

When? The work has been scheduled to commence the first week in August and will likely continue through September. All needed property easements have been signed and all EGLE and MDOT permits have been approved.

PROJECT 2 – WATER MAIN LOOP PROJECT

What? The Water Main Loop Project will join two series of dead ends of water main. The mains are 8' and are located at the corner of Dix St./E. Allegan St.(M-89) and within the greenspace of Otsego Public School's Washington Street Elementary; in between the front parking lot and McKinley St. The water main loop work at the corner of Dix St./E. Allegan St. are coordinated with the transition of a dated dangerous bike trail to a new 5' wide concrete sidewalk.

Why? The tying together of dead ends will increase water quality and water pressure. This procedure will have a significant direct impact on a handful of services while slightly improving the system for all customers. It is a practice that EGLE highly recommends for all municipal systems to do, when possible and feasible. The tying of these dead ends will remove collections of iron deposits and increase pressure for the services located on these lines and improve the system as a whole by an increase in water circulation and allow for more shutoff valves should there be a break along this water main. More valves prevent additional services from being shut off during a break. We have received complaints from the directly affected customers about

water quality and this project will remove that issue.

How Much? This project had a bidding process and the winning bid in a total of \$322,816. The bid was awarded to B+L Excavating. (The bid is itemized and attached.) This total is for construction only. On top of these costs are engineering and project supervision that is not included. The City of Otsego is asking for **\$153,619.11** or 36.6% of the City's eligible amount for the Water Main Loop Project. (This project is 36.6% of the total cost.)

When? The work has been scheduled to commence the first week in August and will likely continue through September. All needed property easements have been signed and all EGLE and MDOT permits have been approved.

CONCLUSION

The City of Otsego is committed to these two utility projects. They are needed and have been discussed for many years. The attached Resolution 2022-16 demonstrates the commitment to these projects. They are not only needed projects to improve the system for all customers, but they also add a layer of significant environmental security for our drinking water wells for the entire City for not only the present but well into the future. These two projects will be paid with ARPA funds and any costs above and beyond that total will be paid with proprietary funds from the Water and Sewer funds. This application is in a total of **\$419,724.35** (\$266,105.23 + \$153,619.11 = \$419,724.35). Thank you for the opportunity you are offering the local communities within Allegan County to provide additional ARPA funds for Water and Sewer projects.

ATTACHMENTS:

Resolution 2022-16

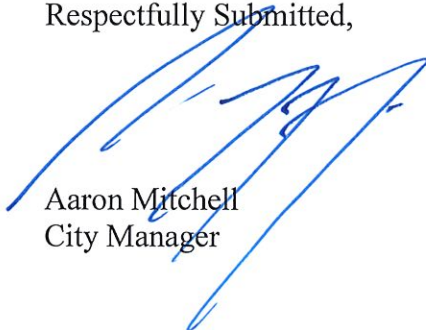
East Allegan Street Sewer Extension Project Approved Bid

East Allegan Street Sewer Extension Project Engineered Drawings (digital only)

Water Main Loop Project Approved Bid

Water Main Loop Project Engineered Drawings (digital only)

Respectfully Submitted,



Aaron Mitchell
City Manager

City of Plainwell



“The Island City”

Brad Keeler, Mayor
Lori Steele, Mayor Pro-Tem
Todd Overhuel, Council Member
Roger Keeney, Council Member
Randy Wisnaski, Council Member

211 N. Main Street
Plainwell, Michigan 49080
Phone: 269-685-6821
Fax: 269-685-7282
Web Address: www.plainwell.org

July 29, 2022

Mr. Robert Sarro
Allegan County Administrator
3283 122nd Ave.
Allegan, Michigan 49010

Re: Additional Information – Ground Water Study Ad-Hoc Work Group

Dear County Administrator Sarro and Ad-Hoc Work Group:

The City of Plainwell would like to thank you for the opportunity to provide additional information for your consideration of a potential partnership for this important project. I have read your June 24, 2022 memorandum and offer the following information:

Impact to Water Quality and Quantity. Provide a narrative justifying how the proposed project will enhance, protect, improve or mitigate water quality, and/or water quantity (availability). Requests that cannot demonstrate this criteria will not be considered for funding.

The City of Plainwell Old Orchard Neighborhood Project’s (Project) primary focus is to improve the current problem of degrading groundwater quality. Specifically, degrading groundwater that is currently used for individual and community drinking water in an area served by septic systems. Roughly 80% of the septic systems in this area do not meet County guidelines for properly operating systems. This percentage is expected to continue as more systems fail and subsequent replacement systems will not be able to meet County guidelines because of lot sizes and soil characteristics.

As detailed below, if this problem is addressed now,

- The increasing risk of existing community supply wells becoming contaminated will be significantly reduced,
- The increasing risk of existing residential wells becoming contaminated will be eliminated, and
- The increasing risk of negative impact to the Kalamazoo River will be reduced.

Overall, the City of Plainwell is making this request for assistance based on our comprehensive Asset Management Plan, our Water System Reliability Study and Capital Improvement Plan, and our New Well Location Evaluation study.

The details of our Project meets your objectives as:

- Water quality will be improved by the construction of new sanitary sewer into dense areas with failing septic systems. The north and south parts of the Old Orchard Neighborhood are currently served by sewer, but a large section in the middle, including Cherrywood Drive, Glenview Drive, Russet Drive, and Thomas Street are not. About 80% of these properties have septic systems that have exceeded their useful lives or otherwise do not meet County guidelines. Many have experienced system failures or will in the future. Raw or undertreated sewage from failing septic systems represents significant threat to groundwater and human health. These threats include diseases, chemicals, and infections. These threats are best eliminated by proper treatment at a public wastewater treatment system. In fact, John Koches (Grand Valley State University), in the 2007 study in Kent County titled “Protecting Families From Failing Septic Systems” stated (see attachment 1);

“...it is not just failing systems that pollute, but all septic systems by design end up contaminating groundwater...The point is we shouldn't limit our concern to 'failing' septic systems. The use of any individual septic system can have implications for water quality regardless of its integrity.”

- Water quality of the local aquifer and the Kalamazoo River watershed will be enhanced by eliminating these undersized and failed systems. The County Health Department has struggled with these systems due to the lack of sufficient reserve area space to construct a new replacement system. Many of these replacement systems have been permitted with variances to allow for undersized systems due to space constraints, setbacks, etc.

- Water protection will occur as the Project is located inside the EGLE approved Gun River Estates West Wellhead Protection Area (see attachment 2). Gun River Estates is located outside the Project area. However, groundwater from the Gun River Estates Wellhead Protection Area is the sole source of drinking water to the residents of Gun River Estates. The Project will protect this valuable drinking water source by eliminating the septic systems that are located inside the Wellhead Protection Area.
- Water quantity will be improved as the Project will replace cast iron watermain in the Old Orchard Neighborhood that has exceeded its useful life. Watermains that have exceeded their useful like are more prone to breaks, which negatively impacts water quantity because of the water lost during breaks. These outdated watermains will be replaced during construction of the new sanitary sewer.
- Water quantity will also be improved as the eventual enhancement of groundwater quality will provide an option for a planned new City of Plainwell community supply well (see attachment 2).

Project Schedule. Provide estimated project start and completion. Include design and construction as separate dates if applicable. Identify when the funds are desired to be appropriated.

Project Schedule

Preliminary Engineering Estimate	Complete
Survey	Complete
Allegan Co. Project Selection	September 9, 2022
City Engineering Contract Award	September 26, 2022
Design / Permits	October – December, 2022
Bidding	January 2023
Award of Contract	February 13, 2023
Construction	May 2023 – September 2023

Funding Ask. State the exact amount of funds requested. Provide a cost estimate with line items to justify the amount of funds requested. Include in the cost estimate only those line items directly related to the impact to water quality and quantity. Example: if the request is for a water supply line, do not include in the cost estimate line items for road paving, guardrails, sidewalk repair, etc.

The preliminary engineers estimate for the water component of this project is \$1,113,625 (see attachment 3). The City would respectfully request funding in this amount, however, we understand it might not be possible to fully fund all of the projects you have under consideration. To that end, the City welcomes a partnership with Allegan County in an amount you consider fair and equitable.

I have received information that the county is considering (or has) capping any contribution to the amount that municipality will receive in ARPA funds. The City of Plainwell's ARPA amount is \$396,920.09.

If in fact the funds would be capped to this amount, would the county consider increasing this amount to the extent Otsego Township, Martin Township, Martin Village and Gun Plain Township have not submitted projects? The City of Plainwell is a regional sewer collection system as well as providing water service to certain parts of Gun Plain Township.

Debt service, capital investments and utility rates do not just affect customers in Plainwell City, but also our customer communities. I have spoken to the Village of Martin about our project and received an email of support (see attachment 4)

Sincerely,



Erik J. Wilson, Manager
City of Plainwell

Attachments

Attachment 1

SEPTIC SYSTEMS IN KENT COUNTY

As in many fast-growing areas of Michigan, the problem of inadequately designed and maintained septic systems threatens the quality of groundwater, lakes and streams in Kent County.

The problem's roots are several. First, while most city and suburban residents are connected to sewers carrying their waste to facilities that clean and treat the waste, thousands of rural homeowners must use on-site disposal systems. Although effective if properly maintained, these systems can also cause pollution problems if not maintained. Periodic inspection and pumping of tanks to prevent sewage backups and overflows are critical. But many new rural residents are unaware that they are no longer on sewer systems and overlook maintenance until failure occurs.

Second, the growing rural density of population in Kent County means that more and more septic systems are clustered in close proximity, which in some cases may leave inadequate soil to treat the wastes released from the septic systems.

Third, the historic design of septic systems may not take into account the significantly increased amount of water usage and disposal that occurs in many modern homes.

Many new rural residents are unaware that they are no longer on sewer systems and overlook maintenance until failure occurs.

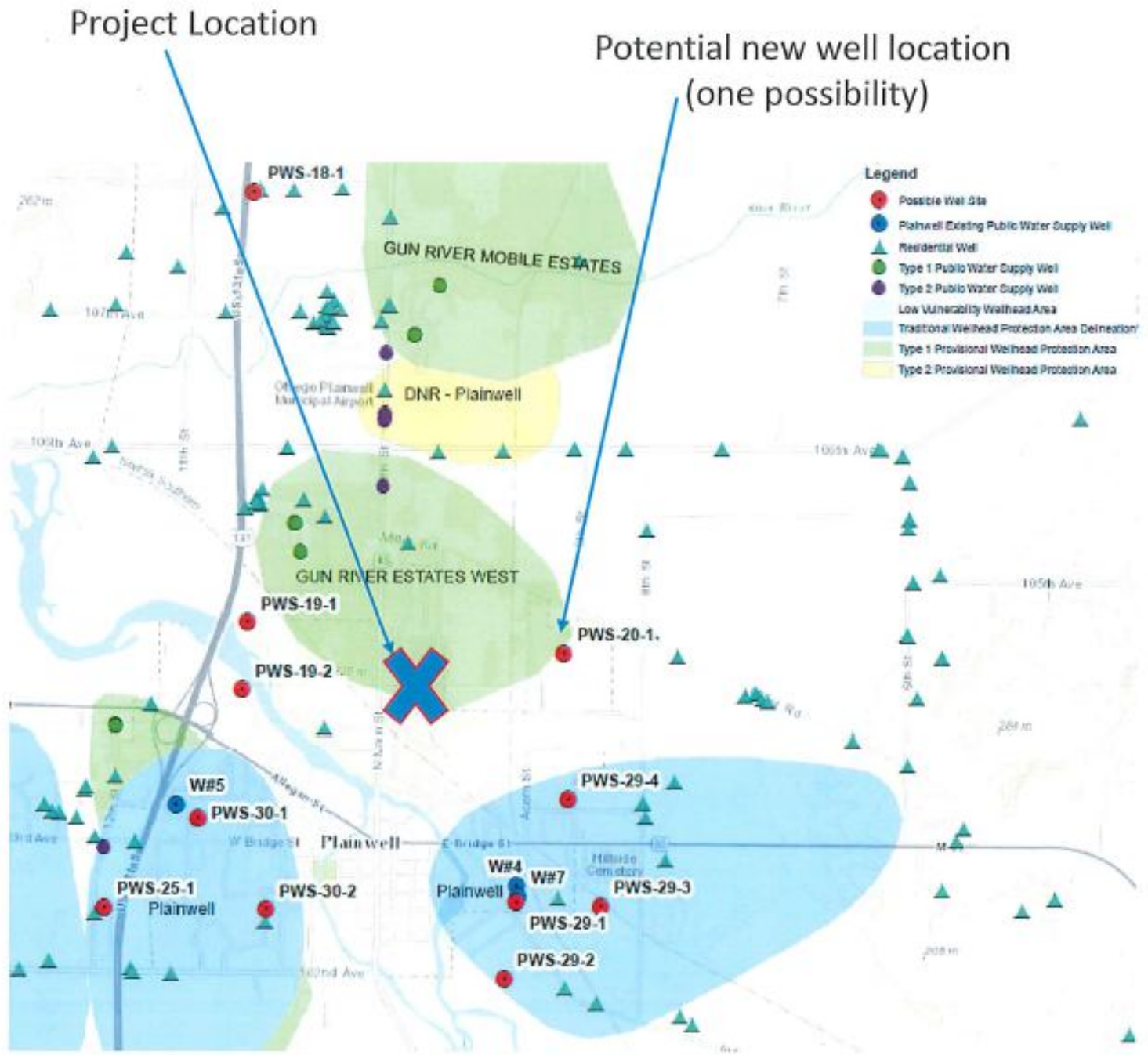
Fourth, waste haulers that collect waste from residences with septic systems can cause pollution problems as well, through improper land application of wastes to agricultural fields and other sites.

"Disposal of wastewater from drainfields in the large volumes we are seeing is a long-term threat to groundwater and surface water quality," observes James Hegarty, a professional engineer with Prein and Newhof, who has studied the issue in Kent County.

John Koches of the Annis Water Resources Institute at Grand Valley State University remembers being "surprised at the agreement I heard regarding the operation of conventional septic tank and drain field systems" when meeting with local officials.

"According to these experts it is not just failing systems that pollute, but all septic systems by design end up contaminating groundwater... The point is we shouldn't limit our concern to

Attachment 2



Edits: Sources: Esri, HERE, DeLorme, TomTom, Intel P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Esri, Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Downloaded from Michigan GIS Open Data Portal

CITY OF PLAINWELL
ALLEGAN COUNTY, MICHIGAN
WELL SITE EVALUATION



FIGURE 2: WELLHEAD PROTECTION AREA & WELL LOCATIONS

Attachment 3



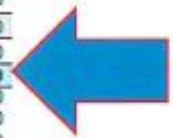
Project No.: P15302
 By: TRS / JSW
 Date: Rev. 11/16/2021

Description: Sanitary sewer extension in the neighborhood that includes Russel Drive, Tomas Street, Glenview Drive, Cherrywood Drive, Washington Avenue, and Glenview Circle. Installation of 4,000 feet of 8 inch sanitary sewer, and upgrades of 6,230 feet of watermain. Full roadway reconstruction of and resurfacing of the roadways.

Line	Item Description	Unit	Qty.	Unit Price	Amount
Roadway Items					
1	General Conditions, Bonds, Insurances and Mobilization, Max. 5%	LSum	5%	\$ 130,000.00	\$ 6,500.00
2	Traffic Control, Construction Signing and Barricading	LSum	5%	\$ 5,300.00	\$ 265.00
3	Above Ground Video Survey	LSum	5%	\$ 1,100.00	\$ 55.00
4	SESC Measures	LSum	5%	\$ 2,700.00	\$ 135.00
5	Erosion Control, Inlet Protection	Ea	2	\$ 110.00	\$ 220.00
6	HMA, Driveway	Ton	850	\$ 120.00	\$ 102,000.00
7	Nonreinforced Concrete Driveway	SYd	400	\$ 45.00	\$ 18,000.00
8	Turf Establishment	SYd	6,000	\$ 3.00	\$ 17,500.00
Roadway Subtotal:					\$ 144,675.00
Sanitary Sewer Items					
9	General Conditions, Bonds, Insurances and Mobilization, Max. 5%	LSum	50%	\$ 130,000.00	\$ 65,000.00
10	Traffic Control, Construction Signing and Barricading	LSum	50%	\$ 5,300.00	\$ 2,650.00
11	Above Ground Video Survey	LSum	50%	\$ 1,100.00	\$ 550.00
12	SESC Measures	LSum	50%	\$ 2,700.00	\$ 1,350.00
13	Clearing	Acre	0.5	\$ 7,000.00	\$ 3,500.00
14	Pavt, Rem	SYd	17,600	\$ 7.00	\$ 123,200.00
15	Erosion Control, Inlet Protection	Ea	15	\$ 110.00	\$ 1,650.00
16	Machine Grading	Sta	66	\$ 1,350.00	\$ 89,100.00
17	Maintenance Gravel	CYd	1,000	\$ 22.00	\$ 22,000.00
18	Subgrade Undercutting	CYd	1,600	\$ 25.00	\$ 37,500.00
19	12" Sand Subbase	CYd	7,400	\$ 12.00	\$ 88,800.00
20	8" 22A Aggregate Base	SYd	19,100	\$ 9.00	\$ 171,900.00
21	Bituminous mix, 13A	Ton	1,750	\$ 90.00	\$ 157,500.00
22	Bituminous mix, 36A	Ton	1,750	\$ 100.00	\$ 175,000.00
23	Rem and Replace, Concrete Curb and Gutter, Det F4	LFt	700	\$ 45.00	\$ 31,500.00
24	Gravel Shoulder	SYd	4,400	\$ 7.50	\$ 33,000.00
25	Sanitary Sewer Pipe, 8 inch	LFt	4,000	\$ 65.00	\$ 260,000.00
26	Sanitary Sewer Lateral, 6 inch	LFt	2,400	\$ 55.00	\$ 132,000.00
27	Sanitary Manhole, 48 inch	Ea	16	\$ 2,800.00	\$ 44,800.00
28	Sanitary Sewer Cover, MDDOT Type Q	Ea	16	\$ 900.00	\$ 14,400.00
29	Connect to Existing Sanitary Manhole	Ea	3	\$ 1,200.00	\$ 3,600.00
Sanitary Subtotal:					\$ 1,459,000.00
Water Main Items					
30	General Conditions, Bonds, Insurances and Mobilization, Max. 5%	LSum	45%	\$ 130,000.00	\$ 58,500.00
31	Traffic Control, Construction Signing and Barricading	LSum	45%	\$ 5,300.00	\$ 2,385.00
32	Above Ground Video Survey	LSum	45%	\$ 1,100.00	\$ 495.00
33	SESC Measures	LSum	45%	\$ 2,700.00	\$ 1,215.00
34	Clearing	Acre	0.5	\$ 7,000.00	\$ 3,500.00
35	Erosion Control, Inlet Protection	Ea	13	\$ 110.00	\$ 1,430.00
36	Water Main, DI, 8 inch, Tr Det G	LFt	8,300	\$ 80.00	\$ 664,000.00
37	Fire Hydrant	Ea	16	\$ 4,800.00	\$ 76,800.00
38	Hydrant, Rem	Ea	12	\$ 1,100.00	\$ 13,200.00
39	Gate Valve and Box, 8 inch	Ea	32	\$ 2,200.00	\$ 70,400.00
40	Valve Box, Rem	Ea	32	\$ 400.00	\$ 12,800.00
41	Water Main, 6 inch, Cut and Plug	Ea	4	\$ 500.00	\$ 2,000.00
42	Water Main, 8 inch, Cut and Plug	Ea	1	\$ 500.00	\$ 500.00
43	Bend, 8 inch	Ea	20	\$ 900.00	\$ 18,000.00
44	Reducer	Ea	4	\$ 850.00	\$ 3,400.00
45	Connect to Ex WM	Ea	5	\$ 2,800.00	\$ 14,000.00
46	Corp Stop, Curb Stop and Box	Ea	113	\$ 700.00	\$ 79,100.00
47	Water Service	LFt	3,600	\$ 23.00	\$ 82,800.00
48	Tee	Ea	5	\$ 1,300.00	\$ 6,500.00
49	Cross	Ea	2	\$ 1,300.00	\$ 2,600.00
Water Main Subtotal:					\$ 1,113,625.00

The Design Professional has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing. Bid prices may vary significantly based on these factors and market conditions at time of bid.

Design & Construction Engineering, Bonding, Special Assessment District: \$ 543,500.00
 Contingency (10%): \$ 271,800.00
Total: \$ 3,532,600.00



Attachment 4

Erik Wilson

From: Martin Village <martinmi49070@gmail.com>
Sent: Monday, March 14, 2022 12:24 PM
To: gdugan@allegancounty.org; rcain@allegancounty.org
Subject: Partnership with City of Plainwell

CAUTION: External Email

Dear Commissioners Dugan and Cain

It is my understanding that Plainwell is seeking to partner on a project with Allegan County, for water and sewer improvements.

As a customer community of Plainwell, I feel that this partnership would benefit the Village of Martin. We hope you will consider approving the partnership as it would help keep utility costs down for Plainwell and its customer communities.

Thank you for your consideration.

Darcy Doezema, Clerk

--
Village of Martin
269-672-7777

Re: Saugatuck Township – Shovel Ready Water Project Application
Riverside Drive Water Main Replacement

Application Cover Page

Project Title: Riverside Drive Water Main Replacement
Focus Area: Replace existing failing water infrastructure to improve water quality/quantity.

Location: Riverside Drive from #3449 Riverside Drive north 1,600 feet to Dugout Road and 800 feet west on Dugout Road to 66th Street (Total length 2,400 feet)
Saugatuck Township, T 3N R 16W, Section 4

Applicant: Saugatuck Township is the Local Unit of Government requesting funds.
Water System is Owned by Saugatuck Township
Water System is Operated by Kalamazoo Lake Sewer & Water Authority

Amount of Grant Requested: up to \$350,000 < Township ARPA allocation \$351,686
Amount of Match: \$332,000
Total project cost: \$682,000

Authorized Representative: Daniel DeFranco, Township Manager
Email: ddefranco@saugatucktownship.org
Phone: (269) 857-7721 Ex. 105

Application Attachments:

- A – Project Description & Background Narrative
- B – Project Impact to Water Quality & Quantity Narrative
- C – Project Location Map and Master Plan
- D – Existing Conditions Map
- E – Cost Estimate
- F – Project Schedule
- G – Fact Sheet

Re: Saugatuck Township – Shovel Ready Water Project Application
Riverside Drive Water Main Replacement

Attachment A - Project Description & Background Narrative

Saugatuck Township is requesting funding for a shovel ready water main construction project for the replacement of a nearly 100-year-old, two-inch, water line on Riverside Drive. The project's impact to water quality and quantity is summarized in Attachment B. The project location and overall master plan for the water system are shown in Attachment C. The existing conditions of the project area are shown in Attachment D followed by a Cost Estimate, Schedule, and Fact Sheet as Attachments E, F, and G. This project involves replacing the existing 2-inch water line with 2,400 feet of 8-inch diameter public water main along Riverside Drive and Dugout Road.

The replacement of this water line is a legacy project, identified as early as 2001 by the Township's water system operator, the Kalamazoo Lake Sewer and Water Authority (KLSWA), as a "priority" for safeguarding water quality. The two-inch water line, which services approximately 22 properties, runs through, rather than around, a pond in the area. This is a potential cross connection, and it is the opinion of KLSWA that the water line should be replaced if only for that reason; should this line break and negative pressure develop, pond water could contaminate the entire length of the line on Riverside and possibly impact other areas of the distribution system. It is also a dead end main, and its current size, condition, and location make flushing and routine maintenance challenging. In their 2001 review of the water line, MDEQ determined that the "situation poses a public health threat" and that "replacing the inadequate 2-inch line is the right thing to do."

Replacement of the water line would be beneficial for water quantity as well. There is no way to verify the effective inside diameter of the line given its age and material, but the line is likely flowing at less than a 2-inch diameter. There are several existing services off this main currently. Some of these services are several hundred feet long and run to multi-story structures that are elevated 30+ feet above the main itself. We do not know the size of these services, the number of plumbing fixtures, or demand from irrigation and there are too many unknowns to judge the effective flow and pressure available at the structures themselves under a peak demand scenario. It is the opinion of KLSWA and the Township Engineer that the current water line cannot deliver the volume of water that customers connected to a modern distribution system have a right to expect and that the condition of the line indicates it can be expected to cause more, rather than less, maintenance problems in the future. This will lead to service disruption. Additionally, the line does not meet the minimum 10 State Standards for domestic service without fire protection, offering no reliable source of water for fire suppression.

The Township currently has a public water connection moratorium in this area. The existing water line cannot support any more connections. There is long-standing concern over the quantity and quality of water that the existing water line can deliver. This area is also master planned for a future municipal drinking water well and is within the system's wellhead protection area - making this project a great fit to align with Allegan County's goals for ARPA.

In addition to replacing the old water line, this project will replace associated lead service lines as required by the State of Michigan. The project will ensure properties in the Township are delivered clean and safe drinking water that meets all public standards. This will be achieved by completing system loops and providing replacement piping needed to support the future municipal well. The future well will serve the entire community. The project will prevent the installation of unnecessary groundwater wells among the 22 parcels directly served in this area and eliminate potential sources of cross-contamination to the system at large.

The project will loop the water system to 66th Street where it will tie into another recently constructed water main in the area. Both mains are needed to feed a new municipal well that will supply around 500 gpm. This will add roughly 20% more supply capacity to the system and benefit Saugatuck, Douglas, Laketown, and Saugatuck Township for years to come.

This project is beyond the planning phases and ready to immediately proceed to implementation - when funding is secured. The Township has already begun preparing design engineering plans and documents for late 2022 or early 2023 bidding. The project can easily be constructed within the next two years. The project is not dependent on any external grant funds. A project cost-estimate and project schedule are included as Attachments E and F. The estimate does not include any project cost incurred prior to March 3, 2021 and is limited to items directly related to the water line replacement. The estimate does not include road improvements or other unrelated costs. The project schedules show construction could begin as early as July 2023.

The project involves working in the public right of way to replace the existing water line. Currently the line runs beneath an existing pond on the south end. The project involves installing a directionally bored water line made of HDPE fusion-welded water main pipe to ensure the integrity of water system at the water crossing. The remaining pipe will be ductile iron water main with restrained joints. Fire hydrants and system valves will be added.

Approximately 12 existing water service lines will be fully replaced from the main to the house. The existing water lines are galvanized pipes that were previously connected to lead and must be replaced by Saugatuck Township. These lines account for roughly 10% of the Township's overall service line replacement obligation that must be funded within the next 19 years. Taking care of 10% will give the Township a great start toward meeting this unfunded system obligation. This project will provide water service directly to 22 residential properties, but will provide overall benefits to the entire water supply system of roughly 6,200 people that supplies 200-240 million gallons of water annually.

Re: Saugatuck Township – Shovel Ready Water Project Application
 Riverside Drive Water Main Replacement

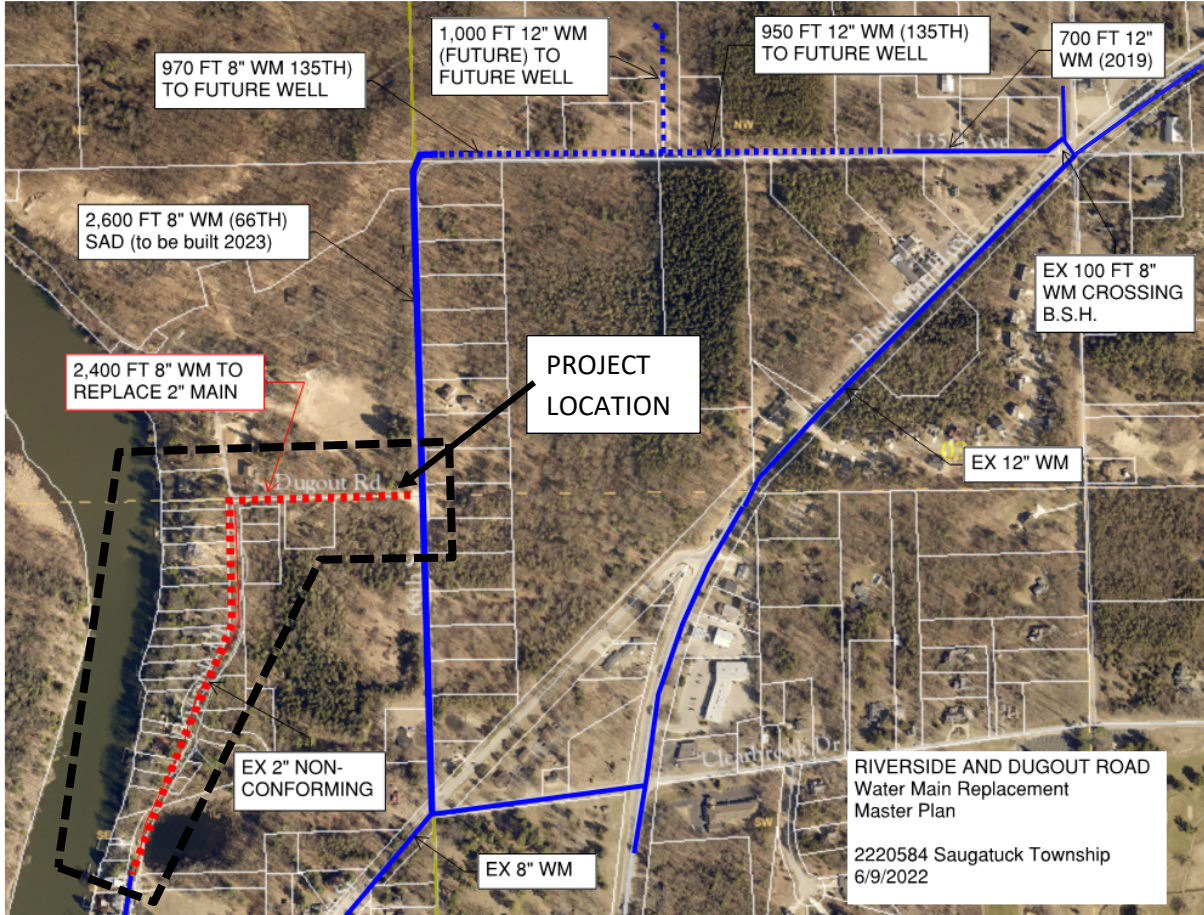
Attachment B -Project Impact to Water Quality and Quantity

Saugatuck Township has selected this project for consideration because it is shovel-ready and it will enhance, protect, and improve water quality and water quantity available to the entire community public water system. Items noted in the Fact Sheet (Attachment G) and Project Description (Attachment A) are highlighted here specific to Quantity and Quality benefits.

Benefits	How will the project Enhance, Protect, or Improve?
Quantity	Replaces a 2” line with 8” that meets EPA and State of Michigan Standards.
Quantity	Allows the moratorium on connections to be removed and prevents unnecessary wells from being installed near public water main. Directly benefits 22 properties.
Quantity & Quality	Removes an old galvanized sub-standard pipe that runs beneath a pond eliminating a long-standing health concern and possible source of cross-contamination benefiting 6,200 system customers.
Quantity & Quality	Removes aging and failing infrastructure that is inaccessible in event of a line break. Allows for replacement in a controlled manner.
Quantity & Quality	Removes a dead-end line with poorly circulated water and in which line breaks could result in loss of water service for prolonged periods of time.
Quantity & Quality	Provides system looping and critical master planned connections to a future municipal well site. Future well will improve system capacity 20% for current 6,200 customers and future customers.
Quality	Eliminates unneeded wells within the wellhead protection area that would be sources of possible cross-contamination to the aquifer.
Quality	Replacement is supported by KLSWA (the system operator) as a system priority needing to be addressed. Replacement has been supported for decades.
Quality	Replaces 10% of the Township’s obligated lead services as required by the State.
Quantity	Improves Fire Protection service directly by providing 8 inch main and adding hydrants and valves. Looping will boost overall available water for firefighting.

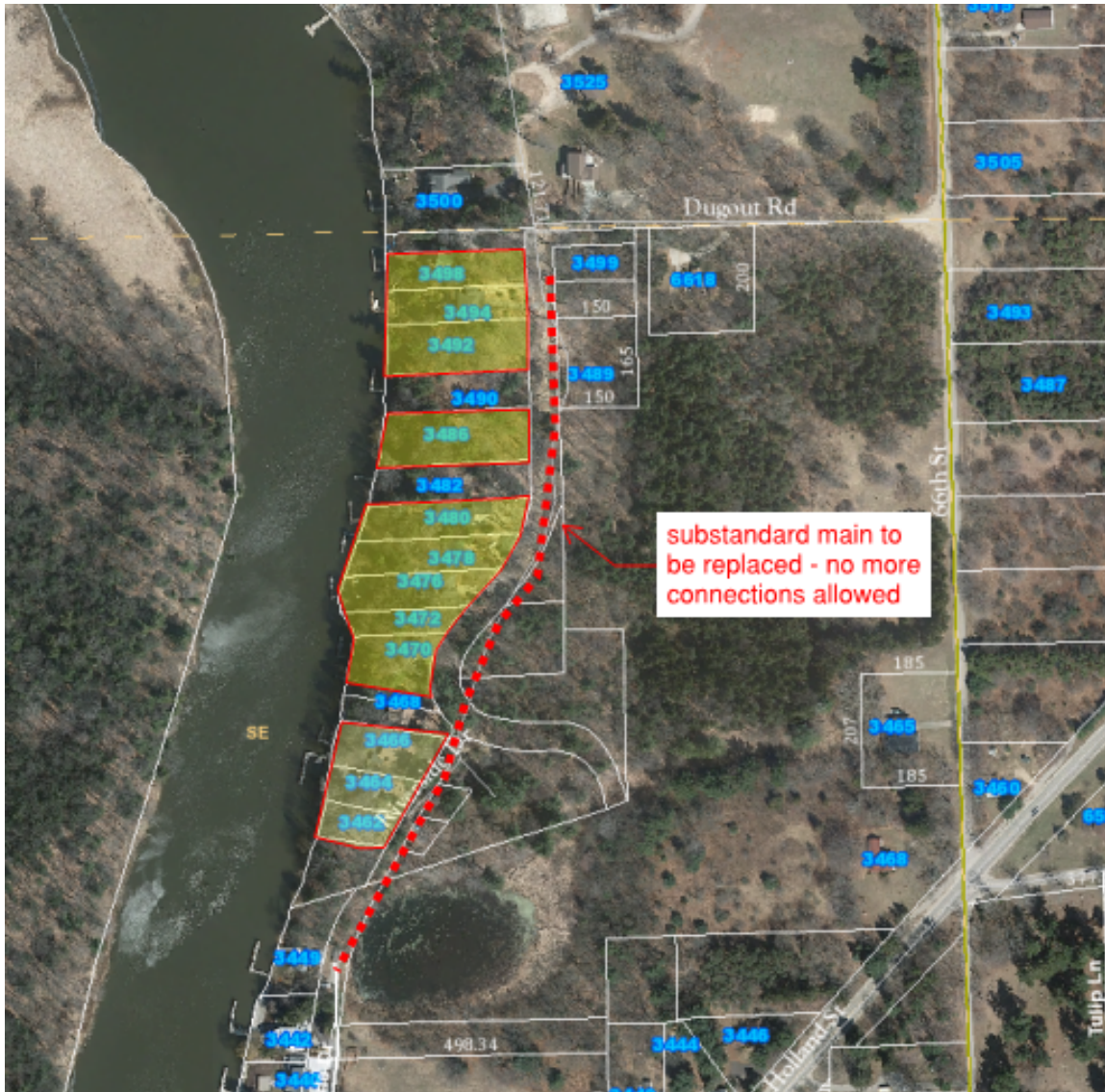
Re: Saugatuck Township – Shovel Ready Water Project Application
Riverside Drive Water Main Replacement

Attachment C - Project Location Map and Master Plan



Re: Saugatuck Township – Shovel Ready Water Project Application
Riverside Drive Water Main Replacement

Attachment D - Existing Conditions Map



Existing Water Accounts /Full
Lead Service Line Replacement

Re: Saugatuck Township – Shovel Ready Water Project Application
 Riverside Drive Water Main Replacement

Attachment E - Cost Estimate



Estimate of Probable Cost

Owner:	Saugatuck Township
Project Title:	Riverside Drive & Dugout Road Water Main Replacement and Loop (to replace 1,600 feet of 2" water main)
Date:	2023 prices - Estimate Date June 16, 2022
Project #:	2220584

<i>Item No.</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Total Amount</i>
1	Water Main, 8" Dia (Riverside & Dugout)	2000	l.f.	\$80.00	\$160,000.00
2	Water Main, 10" O.D. DR11 Directional Bore	400	l.f.	\$200.00	\$80,000.00
3	Hydrant, Complete	7	ea	\$4,500.00	\$31,500.00
4	8" Valve	3	ea	\$2,000.00	\$6,000.00
5	8" Fittings and Sleeves	4	ea	\$2,500.00	\$10,000.00
6	Water Service (Public-side) Install; tap, pipe, curb box	22	ea	\$4,000.00	\$88,000.00
7	Water Service (Private-side) Install; replace galvanized	12	ea	\$5,000.00	\$60,000.00
8	Removals, Clearing, and Trench Restoration	1	lsum	\$81,000.00	\$81,000.00
9	Mobilization, Permitting, and Traffic Control	1	lsum	\$28,500.00	\$28,500.00
Estimated Construction Sub-Total:					\$545,000
25% Contingency & Engineering:					\$137,000
Total Estimated Project Cost:					\$682,000

Re: Saugatuck Township – Shovel Ready Water Project Application
 Riverside Drive Water Main Replacement

Attachment F - Project Schedule

	2022									
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar		
Project Funding Application										
Application to Water Study Group	█									
Review by Water Study Group	█	█	█	█						
County Board Funding Approval - TBD			█	█	█	█	█	█	█	
Project Design										
Topographic Survey & Soil Borings	█	█	█	█	█					
Design (ongoing)	█	█	█	█	█	█	█	█	█	█
Permit Applications							█	█	█	█
Public Bid Solicitation										█
Bid Opening & Contract Award										█
Project Construction										
Contract Books, Bonds, Insurance										
Order Pipe Materials										
Construction Contractor Mobilization										
County ARPA Funds Appropriated										
Project Construction										
Project Completion										

	2023									
	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
Project Funding Application										
Application to Water Study Group										
Review by Water Study Group										
County Board Funding Approval - TBD										
Project Design										
Topographic Survey & Soil Borings										
Design (ongoing)										
Permit Applications										
Public Bid Solicitation	█	█	█							
Bid Opening & Contract Award		█	█							
Project Construction										
Contract Books, Bonds, Insurance		█	█	█						
Order Pipe Materials			█	█	█	█	█			
Construction Contractor Mobilization					█	█				
County ARPA Funds Appropriated										
Project Construction					█	█	█	█	█	█
Project Completion										█

Re: Saugatuck Township – Shovel Ready Water Project Application
Riverside Drive Water Main Replacement

Attachment G - Fact Sheet



Riverside/Dugout Water Main Fact Sheet

- Saugatuck Township proposes to replace a 2" galvanized water pipe with 2,400 ft of an 8" water main along Riverside Drive and Dugout Rd in the Township.
- Long-standing health concern: 2" galvanized pipe of unknown/sub-standard materials that could easily be over 100 years old.
- Existing pipe runs **through**, rather than around, an existing pond which is a cross-connection contamination concern. In the event of a line break, it is completely inaccessible and could potentially contaminate the entire length of the line of Riverside and possible impact other areas of the distribution system.
- The project removes a public health risk by providing roughly 22 properties access to a new water main that meets EPA and State drinking water standards, and eliminates private residential wells within to the municipal aquifer. The project site is located within the Township's Wellhead Protection Area given its proximity to existing Municipal Wells.
- Replacement is supported by EGLE (regulatory) and Kalamazoo Lake Sewer and Water Authority (operations) as a system priority needing to be addressed. Has been supported for decades.
- The project would replace 10% of the Township's lead service line regulatory obligation mandated by EGLE: improves water quality by eliminating two dead-end water mains and removing lead service lines.
- The current 2" line is inadequate for fire protection service. When constructed the project will exceed ISO/Fire Code standards for residential fire flow and improve fire flow on dead end mains that have been a concern to the fire department.
- Would improve water **quantity**: pipe would be installed adjacent to a property that will be the site of a future municipal well servicing the Township, and Cities of Saugatuck and Douglas. The pipe will provide a system benefit and be used to distribute water throughout the system once the future well site is developed.
- Project is shovel ready; could be bid by the end of this year and easily built within the next 2 years if the Township obtains funding
- Estimated Project Cost: **\$682,000**
- Total ARPA Funds Received by Saugatuck Township: **\$351,686**



KENT COUNTY DEPARTMENT OF PUBLIC WORKS

July 29, 2022

2022 BOARD

Emily Brieve
Chair

Cynthia Janes
Vice Chair

Ben Greene
Secretary

David Bulkowski

Dan Burrill

Phil Skaggs

Ken Yonker

Darwin Baas
Director

Mr. Randy Rapp, RS
Environmental Health Services Manager
Allegan County Health Department
3255 122nd Avenue, Suite 200
Allegan County MI 49010

RE: Allegan County Ground Water Study Ad-Hoc Work Group – Request for Additional Information, dated July 15, 2022

Dear Mr. Rapp,

Thank you for your email dated July 15, 2022 requesting additional information concerning the Sustainable Business Park project. The questions and responses are provided below

3. Impact to Water Quality and Quantity. Provide a narrative justifying how the proposed project will enhance, protect, improve or mitigate water quality, and/or water quantity (availability).

Response

The SBP project is pursuing sanitary sewer extensions – so ground discharge is not being proposed. This enhances protection of groundwater since the only current approach is to discharge sewage to drain fields.

The original plan to expand the landfill has a greater risk for groundwater impact compared to the proposed approach of the business park that enhances protection of groundwater quality. Wells are limited around landfills; should Kent County move forward to construct a new landfill, more area would be encumbered and limit well development with required setbacks of 2000 feet from the waste boundaries.

The proposed watermain connection reduces use of groundwater quantity and proposed development standards will promote groundwater recharge through quality stormwater management practices.

Digestate from anerobic digestion of food waste provides micronutrients, reduces pesticide, herbicide and fertilizer need by growers; reduces the spread of invasive weeds, and risk of water and soil pollution from landfilling/open storage of raw organic waste, or high concentration of mineral based fertilizers.



1045 Wealthy Street SW
Grand Rapids, MI 49504

616.632.7920 tel
616.632.7925 fax
kcdpw@kentcountymi.gov
www.reimaginetrash.org

4. Project Schedule. Provide estimated project start and completion. Include design and construction as separate dates if applicable. Identify when the funds are desired to be appropriated.

Response

The project is anticipated to begin construction in Spring of 2023 and will continue through the end of 2024 for initial phases of construction. Parcel/tenant site and building construction is anticipated to follow the start and duration of the infrastructure construction.

Desired appropriation of funds would be Q2 2023

5. Funding Ask. State the exact amount of funds requested. Provide a cost estimate with line items to justify the amount of funds requested. Include in the cost estimate only those line items directly related to the impact to water quality and quantity.

Response

Dorr Township and Kent County are requesting \$500,000. The engineer estimate of probable cost is provided below:

BGUA Water and Sewer					
Planning Phase Construction Estimate					
Note: This is to provide a budget, planning level estimate.					
A more detailed estimate needs to be performed once the project develops and actual quantities are known.					
Item #	Items	Units	Est Price	Quantity	Extended Amount
Utilities					
1	Sanitary Sewer, 12", PVC, 5-15' depth, includes MHs	LF	\$170.00	4,600	\$782,000.00
2	Sanitary Sewer, 12", PVC, 15-20' depth, includes MHs	LF	\$185.00	1,200	\$222,000.00
3	Sanitary Sewer, 12", PVC, 20-25' depth, includes MHs	LF	\$200.00	2,100	\$420,000.00
4	Bore & Jack Beneath RxR/Buck Creek	LF	\$500.00	400	\$200,000.00
5	Bore Pit	EA	\$25,000.00	3	\$75,000.00
6	Water Main, 12", DI, Class 52, 5-7' depth, includes fittings and Hydrants	LF	\$190.00	12,600	\$2,394,000.00
Utilities Subtotal					\$4,093,000.00
Project Items					
7	Maintaining Traffic, Residential Area (2%)	LS	\$81,860.00	1	\$81,860.00
8	Soil Erosion and Sedimentation Control (2%)	LS	\$81,860.00	1	\$81,860.00
Project Items Subtotal					\$163,720.00
Construction Subtotal					\$4,256,720.00
Contractor Mobilization (10%)					\$425,672.00
Design & Permitting (10%)					\$425,672.00
Construction Contingency (25%)					\$1,064,180.00
Planning Phase Construction Estimate					\$6,172,244.00

Sincerely,



Darwin J. Baas
Director



Request for County ARPA Funds

1. **Requestor Information:** Otsego Township is requesting funds for water system expansion projects. The authorized requestor for funding for this project is Supervisor, Bryan Winn. Bryan can be contacted by email at bwinn@otsegotownship.org.

2. **Project Description:** The scope of the project is to install water and sewer mains to residential neighborhoods and water main loops to complete system water main dead ends. Otsego Township currently has 3 wells, the cumulative flow rate for the wells is 1,440 gpm.

"Sewer mains" is stated here, but no description of sewer main work is stated in parts A or B. Clarify.

A.) The residential neighborhoods expansion project will affect approximately 242 individuals residing in 100 households. The residents affected by this water expansion reside on 12th street, 103rd Avenue, Timber Oaks Court, and VanBruggen Drive. This project does not affect any current customers. The pipe length needed for this project is 6,938 feet and includes 14 fire hydrants. *See Exhibit A: #4, #5, and #6 attached for the map.

B.) The water main loops project will affect areas of our water system that currently have water main dead ends. The population affected in this area is unknown due to it being a commercial area where transient people utilize the water services regularly, however all 280 customers currently on the water system will be affected. The pipe length needed for this project is 1,418 feet and includes 3 fire hydrants. *See Exhibit A: #1 & #2 attached for the map

Are transient people using the water system without the township receiving revenue? Will this project resolve this issue?

*Exhibit A also refers to a #3. #3(Hazelwood) is receiving funding via a grant from the State of Michigan and is not included in these projects.

3. **Impact to Water Quality and Quantity:**

A.) **Residential Neighborhoods Expansion:** This project is designed to offer services to the residential areas located between 12th Street and Cross Oaks Drive as neighborhoods surrounding the project area have recently had PFAS contamination issues as well as several well failures. The area has also been impacted by septic system failures.

Explain how septic system failures are being resolved by the water main work.

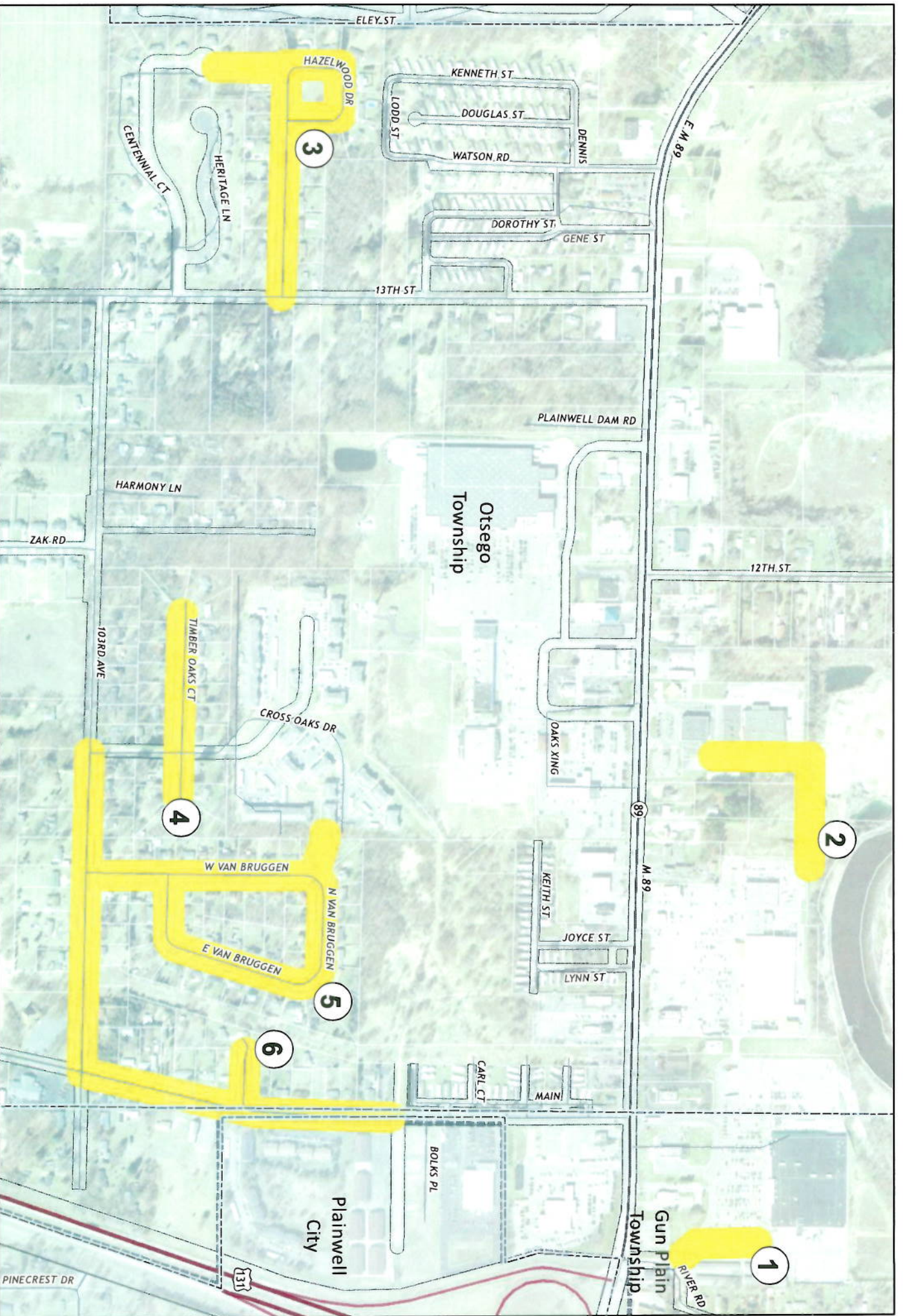
B.) **Loop Projects:** The loop projects are designed to eliminate three dead ends, improve the water quality and volume for fire protection and customer service for the entire water system. How does a looped main "improve water quality?"

Otsego Township
PO Box 257
400 N 16th St
Otsego MI 49078

July 21, 2022

4. **Project Schedule:** The estimated bidding date would be July 2023 with a construction start date of April 2024. The estimated completion date is October 2024. The funds are desired to be appropriated immediately for soft costs and engineering reimbursement.

5. **The Funding Ask: Total \$612,939.** The Township's ARPA funds were \$612,939 and will be used as a match to these 2 projects.
 - A.) **Residential Neighborhoods Expansion:** \$326,583 – See **Exhibit B** attached for breakdown.
 - B.) **Loop Projects:** \$286,356 – See **Exhibit C** attached for breakdown.



SCALE: 1" = 600'



LEGEND
 Water Project Area

Exhibit A

FIGURE 3: PROPOSED PROJECTS

OTSEGO TOWNSHIP
 Allegan County, MI
 USDA RD PRELIMINARY ENGINEERING REPORT

Estimate of Probable Cost

Owner: Otsego Township
 Project Title: Sanitary and Water Main Improvements (103rd, 12th St, Timber Oaks, Cross Oaks, and Van Bruggen)
 Date: 20-Jul-22 Project #: 2200309

Item No.	Description	Quantity	Unit	Unit Price	Total Amount	Sewer	Water	Project Notes	ARPA Eligible	WATER ITEMS ONLY	
										Eligible Amount	Non-Eligible
1	Mobilization (5%)	1	LS	\$166,600.00	\$166,600.00	\$103,800.00	\$62,800.00	5% or respected item	Y	\$54,505.00	\$8,295.00
2	Tree Rem. 6 inch to 18 inch	5	EA	\$750.00	\$3,750.00	\$0.00	\$3,750.00		Y	\$3,750.00	\$0.00
3	Tree Rem. 19 inch to 36 inch	5	EA	\$1,500.00	\$7,500.00	\$0.00	\$7,500.00		Y	\$7,500.00	\$0.00
4	Tree Rem. 37 inch and larger	1	EA	\$3,000.00	\$3,000.00	\$0.00	\$3,000.00		Y	\$3,000.00	\$0.00
5	Curb and Gutter, Rem	210	LF	\$10.00	\$2,100.00	\$2,100.00	\$0.00		Y	\$0.00	\$0.00
6	Pavt. Rem	895	SY	\$10.00	\$8,950.00	\$4,475.00	\$4,475.00	50% sewer, 50% water	Y	\$4,475.00	\$0.00
7	Machine Grading, Modified	85	STA	\$3,000.00	\$255,000.00	\$204,000.00	\$51,000.00	80% sewer, 20% water	N	\$0.00	\$51,000.00
8	8" Sanitary Sewer, Avg Depth < 16'	2,806	LF	\$55.00	\$154,330.00	\$154,330.00	\$0.00		N	\$0.00	\$0.00
9	8" Sanitary Sewer, Avg Depth > 16'	2,190	LF	\$70.00	\$153,300.00	\$153,300.00	\$0.00		N	\$0.00	\$0.00
10	10" Sanitary Sewer, Avg Depth < 16'	865	LF	\$60.00	\$51,900.00	\$51,900.00	\$0.00		N	\$0.00	\$0.00
11	10" Sanitary Sewer, Avg Depth > 16'	1,538	LF	\$75.00	\$115,350.00	\$115,350.00	\$0.00		N	\$0.00	\$0.00
12	8" Sanitary Sewer, stubs	32	LF	\$100.00	\$3,200.00	\$3,200.00	\$0.00		N	\$0.00	\$0.00
13	6" Sanitary Lateral	3,668	LF	\$40.00	\$146,720.00	\$146,720.00	\$0.00		N	\$0.00	\$0.00
14	Sanitary Property Line Riser	105	EA	\$500.00	\$52,500.00	\$52,500.00	\$0.00		N	\$0.00	\$0.00
15	48 inch Diameter Standard Manhole	25	EA	\$4,000.00	\$100,000.00	\$100,000.00	\$0.00		N	\$0.00	\$0.00
16	60 inch Diameter Standard Manhole	1	EA	\$5,500.00	\$5,500.00	\$5,500.00	\$0.00		N	\$0.00	\$0.00
17	48 inch Diameter Drop Manhole	2	EA	\$5,000.00	\$10,000.00	\$10,000.00	\$0.00		N	\$0.00	\$0.00
18	Connect to existing manhole	1	EA	\$1,000.00	\$1,000.00	\$1,000.00	\$0.00		N	\$0.00	\$0.00
19	Water Main, 8 inch, Ductile Iron	3,851	LF	\$85.00	\$327,335.00	\$0.00	\$327,335.00		Y	\$327,335.00	\$0.00
20	Water Main, 12 inch, Ductile Iron	3,087	LF	\$120.00	\$370,440.00	\$0.00	\$370,440.00		Y	\$370,440.00	\$0.00
21	Hydrant	14	EA	\$5,500.00	\$77,000.00	\$0.00	\$77,000.00		Y	\$77,000.00	\$0.00
22	Water Main, 8" x 8' x 6" Tee	5	EA	\$800.00	\$4,000.00	\$0.00	\$4,000.00		Y	\$4,000.00	\$0.00
23	Water Main, 8" x 8' x 8" Tee	3	EA	\$700.00	\$2,100.00	\$0.00	\$2,100.00		Y	\$2,100.00	\$0.00
24	Water Main, 8" - 11 degree bend	5	EA	\$700.00	\$3,500.00	\$0.00	\$3,500.00		Y	\$3,500.00	\$0.00
25	Water Main, 8" - 22 degree bend	9	EA	\$700.00	\$6,300.00	\$0.00	\$6,300.00		Y	\$6,300.00	\$0.00
26	Water Main, 8" - 45 degree bend	2	EA	\$700.00	\$1,400.00	\$0.00	\$1,400.00		Y	\$1,400.00	\$0.00
27	Water Main, 8" x 6" Reducer	3	EA	\$600.00	\$1,800.00	\$0.00	\$1,800.00		Y	\$1,800.00	\$0.00
28	Water Main, 8" Sleeve	2	EA	\$1,000.00	\$2,000.00	\$0.00	\$2,000.00		Y	\$2,000.00	\$0.00
29	Water Main, 12" sleeve	2	EA	\$1,000.00	\$2,000.00	\$0.00	\$2,000.00		Y	\$2,000.00	\$0.00
30	Water Main, 12" x 12' x 6" Tee	6	EA	\$1,000.00	\$6,000.00	\$0.00	\$6,000.00		Y	\$6,000.00	\$0.00
31	Water Main, 12" x 12' x 8" Tee	1	EA	\$1,200.00	\$1,200.00	\$0.00	\$1,200.00		Y	\$1,200.00	\$0.00
32	Water Main, 12" x 12' x 12" Tee	2	EA	\$1,500.00	\$3,000.00	\$0.00	\$3,000.00		Y	\$3,000.00	\$0.00
33	Water Main, 12" 11 degree bend	1	EA	\$1,200.00	\$1,200.00	\$0.00	\$1,200.00		Y	\$1,200.00	\$0.00
34	Water Main, 12' 45 degree bend	2	EA	\$1,200.00	\$2,400.00	\$0.00	\$2,400.00		Y	\$2,400.00	\$0.00
35	Water Main, 12" x 8" reducer	0	EA	\$1,000.00	\$0.00	\$0.00	\$0.00		Y	\$0.00	\$0.00
36	Water Main, 8" Valve & Box	5	EA	\$2,200.00	\$11,000.00	\$0.00	\$11,000.00		Y	\$11,000.00	\$0.00
37	Water Main, 8" Tapping Sleeve and Valve	1	EA	\$5,000.00	\$5,000.00	\$0.00	\$5,000.00		Y	\$5,000.00	\$0.00
38	Water Main, 12" Valve & Box	4	EA	\$3,500.00	\$14,000.00	\$0.00	\$14,000.00		Y	\$14,000.00	\$0.00
39	Water Main, 1" Service, Short Side	54	EA	\$1,500.00	\$81,000.00	\$0.00	\$81,000.00		Y	\$81,000.00	\$0.00
40	Water Main, 1" Service, Long Side	44	EA	\$2,200.00	\$96,800.00	\$0.00	\$96,800.00		Y	\$96,800.00	\$0.00
41	Water Main, 2" Service	520	JF	\$40.00	\$20,800.00	\$0.00	\$20,800.00		Y	\$20,800.00	\$0.00
42	HMA, 13A, Modified	4,204	TON	\$85.00	\$357,340.00	\$357,340.00	\$0.00		N	\$0.00	\$0.00
43	HMA, 36A, Modified	2,049	TON	\$95.00	\$194,655.00	\$194,655.00	\$0.00		N	\$0.00	\$0.00
44	Aggregate Base, 8-inch, MDOT 22A	25,037	SY	\$12.00	\$300,444.00	\$300,444.00	\$0.00		N	\$0.00	\$0.00
45	Aggregate Base, 8-inch, MDOT 21AA	0	SY	\$25.00	\$0.00	\$0.00	\$0.00		N	\$0.00	\$0.00
46	Shoulder, 6-inch, MDOT 23A	912	SY	\$12.00	\$10,944.00	\$5,472.00	\$5,472.00	50% sewer, 50% water	N	\$0.00	\$5,472.00
47	Shoulder, 4-inch, MDOT 23A	1,855	SY	\$10.00	\$18,550.00	\$9,275.00	\$9,275.00	50% sewer, 50% water	N	\$0.00	\$9,275.00
48	HMA Approach, 36A, Modified	3,102	SY	\$10.00	\$31,020.00	\$15,510.00	\$15,510.00	50% sewer, 50% water	N	\$0.00	\$15,510.00
49	HMA Approach, 13A, Modified	3,102	SY	\$10.00	\$31,020.00	\$15,510.00	\$15,510.00	50% sewer, 50% water	N	\$0.00	\$15,510.00
50	Approach, 6 inch, MDOT 22A	3,673	SY	\$12.00	\$44,076.00	\$22,038.00	\$22,038.00	50% sewer, 50% water	N	\$0.00	\$22,038.00
51	Driveway, Nonreinf Conc, 6 inch	895	SY	\$50.00	\$44,750.00	\$22,375.00	\$22,375.00	50% sewer, 50% water	N	\$0.00	\$22,375.00
52	Curb and Gutter, Conc, Det B2	210	LF	\$50.00	\$10,500.00	\$10,500.00	\$0.00		N	\$0.00	\$0.00
53	Curb and Gutter, Conc, Det F4	0	LF	\$50.00	\$0.00	\$0.00	\$0.00		N	\$0.00	\$0.00
54	Driveway Culvert, C1F, 12 inch	990	LF	\$50.00	\$49,500.00	\$24,750.00	\$24,750.00	50% sewer, 50% water	N	\$0.00	\$24,750.00
55	Culv. C1E, 12 inch	40	LF	\$70.00	\$2,800.00	\$2,800.00	\$0.00		N	\$0.00	\$0.00
56	Culv. C1E, 18 inch	190	LF	\$100.00	\$19,000.00	\$19,000.00	\$0.00		N	\$0.00	\$0.00
57	Rrapp. Plan	6	CY	\$300.00	\$1,800.00	\$1,800.00	\$0.00		N	\$0.00	\$0.00
58	Presto - Geogrid	0	SY	\$30.00	\$0.00	\$0.00	\$0.00		N	\$0.00	\$0.00
59	Pavement Markings	0	LF	\$2.50	\$0.00	\$0.00	\$0.00		N	\$0.00	\$0.00
60	Restoration (Topsoil, seed and mulch)	87	STA	\$600.00	\$52,200.00	\$26,100.00	\$26,100.00	50% sewer, 50% water	Y	\$26,100.00	\$0.00
61	Traffic Control	1	LS	\$35,000.00	\$35,000.00	\$31,500.00	\$3,500.00	90% sewer, 10% water	Y	\$3,500.00	\$0.00
62	Soil Erosion Control	1	LS	\$15,000.00	\$15,000.00	\$13,500.00	\$1,500.00	90% sewer, 10% water	Y	\$1,500.00	\$0.00
Estimated Construction Costs					\$3,499,574.00	\$2,180,744.00	\$1,318,830.00			\$1,144,605.00	\$174,225.00
Contingencies (10%)					\$349,957.40	\$218,074.40	\$131,883.00			\$114,460.50	\$17,422.50
Professional Services (Engineering)					\$391,000.00	\$195,500.00	\$195,500.00	50% sewer, 50% water		\$169,673.33	\$25,826.67
Professional Services (Admin/Legal/Bond)					\$27,500.00	\$13,750.00	\$13,750.00	50% sewer, 50% water		\$11,933.55	\$1,816.45
Easement / Land					\$0.00	\$0.00	\$0.00			\$0.00	\$0.00
Miscellaneous (township)					\$80,000.00	\$40,000.00	\$40,000.00	50% sewer, 50% water		\$34,715.77	\$5,284.23
Total					\$4,348,031.40	\$2,648,068.40	\$1,699,963.00			\$1,475,388.15	\$224,574.85
2022 Inflationary Increase 10%					\$4,782,834.54					\$1,622,926.96	\$247,032.34
2023 Inflationary Increase 10%					\$5,261,117.99					\$1,785,219.66	\$271,735.57
2024 Inflationary Increase 10%					\$5,787,229.79					\$1,963,741.62	\$298,909.13

* "Soft Costs" are thru USDA is estimated at \$1,038,500. Approximately \$498,500 is assigned to this portion of the project

Match 50% of Eligible Requested Match \$981,870.81 \$326,583.00

Exhibit B

Estimate of Probable Cost

Owner:

Otsego Township

Project Title:

Water Main Improvements (Meijer and Home Depo Loops)

Date:

21-Jun-22

Project #:

2200309

Item

						WATER ITEMS ONLY		
No.	Description	Quantity	Unit	Unit Price	Total Amount	ARPA Eligible	Eligible Amount	Non-Eligible
1	Mobilization (5%)	1	LS	\$15,970.00	\$15,970.00	Y	\$10,390.00	\$1,930.00
2	Curb and Gutter, Rem	250	LF	\$10.00	\$2,500.00	Y	\$2,500.00	\$0.00
3	Machine Grading, Modified	15	STA	\$3,000.00	\$45,000.00	N	\$0.00	\$45,000.00
4	Water Main, 8 inch, Ductile Iron	1,418	LF	\$85.00	\$120,530.00	Y	\$120,530.00	\$0.00
5	Hydrant	3	EA	\$5,500.00	\$16,500.00	Y	\$16,500.00	\$0.00
6	Water Main, 8" x 8" x 6" Tee	1	EA	\$800.00	\$800.00	Y	\$800.00	\$0.00
7	Water Main, 8" x 8" x 8" Tee	3	EA	\$700.00	\$2,100.00	Y	\$2,100.00	\$0.00
8	Water Main, 8" - 11 degree bend	3	EA	\$700.00	\$2,100.00	Y	\$2,100.00	\$0.00
9	Water Main, 8" - 45 degree bend	15	EA	\$700.00	\$10,500.00	Y	\$10,500.00	\$0.00
10	Water Main, 8" x 6" Reducer	2	EA	\$600.00	\$1,200.00	Y	\$1,200.00	\$0.00
11	Water Main, 8" Sleeve	1	EA	\$1,000.00	\$1,000.00	Y	\$1,000.00	\$0.00
12	Water Main, 12" x 8" reducer	1	EA	\$1,000.00	\$1,000.00	Y	\$1,000.00	\$0.00
13	Water Main, 8" Valve & Box	3	EA	\$2,200.00	\$6,600.00	Y	\$6,600.00	\$0.00
14	HMA, 13A, Modified	215	TON	\$85.00	\$18,275.00	N	\$0.00	\$18,275.00
15	HMA, 36A, Modified	215	TON	\$95.00	\$20,425.00	N	\$0.00	\$20,425.00
16	Aggregate Base, 8-inch, MDOT 22A	1,270	SY	\$12.00	\$15,240.00	N	\$0.00	\$15,240.00
17	Aggregate Base, 8-inch, MDOT 21AA	510	SY	\$25.00	\$12,750.00	N	\$0.00	\$12,750.00
18	Curb and Gutter, Conc, Det F4	250	LF	\$50.00	\$12,500.00	Y	\$12,500.00	\$0.00
19	Presto - Geogrid	550	SY	\$30.00	\$16,500.00	Y	\$16,500.00	\$0.00
20	Restoration (Topsoil, seed and mulch)	17	STA	\$600.00	\$10,200.00	Y	\$10,200.00	\$0.00
21	Traffic Control	1	LS	\$2,500.00	\$2,500.00	Y	\$2,500.00	\$0.00
22	Soil Erosion Control	1	LS	\$1,250.00	\$1,250.00	Y	\$1,250.00	\$0.00
Estimated Construction Costs					\$335,440.00		\$218,170.00	\$113,620.00
Contingencies (10%)					\$33,544.00		\$21,817.00	\$11,362.00
*Professional Services (Engineering)					\$150,000.00		\$150,000.00	
*Professional Services (Admin/Legal/Bond)					\$10,300.00		\$10,300.00	
*Easement / Land					\$20,000.00		\$20,000.00	
*Miscellaneous (township)					\$10,000.00		\$10,000.00	
Total					\$559,284.00		\$430,287.00	\$124,982.00
2022 Inflationary Increase 10%					\$615,212.40		\$473,315.70	\$137,480.20
2023 Inflationary Increase 10%					\$676,733.64		\$520,647.27	\$151,228.22
2024 Inflationary Increase 10%					\$744,407.00		\$572,712.00	\$166,351.04

* "Soft Costs" are thru USDA is estimated at \$1,038,500. Approximately \$190,300 is assigned to this portion of the project.

Match 50% of Eligible \$286,356.00
Requested Match \$286,356.00

Exhibit C

From: [Chuck Cushman](#)
To: [Randy Rapp](#); [Supervisor](#)
Cc: [Tom Kunetz](#); [Clerk](#)
Subject: RE: Otsego Township Request for ARPA Funds
Date: Monday, July 25, 2022 4:30:21 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Randy,

2.The sewer mains are part of the overall project that Otsego township is preparing to move forward with, however the request for funding is not being asked to help with the sewer main part of the project. We left sewer mains in the description so the county could see that the projected project is for both water and sewer infrastructure.

2.B.)The transient population is not using the water system for free. When describing transient people that use our water system we are speaking about all the customers to the many businesses in the area. The State of Michigan views our water system as much larger then it is due to the large number of transient customer population(restaurant, shopping center, etc.) that use the water daily. When answering the question for population effected by the looping part of the project we did not feel it would be correct to narrow it down to only the bill paying customers served.

3.A.)Septic system failures are not resolved by water mains being installed, however the projected scope of work is water and sewer, the Township plans to install both if the project moves forward. The line mentioning the septic system failures can be removed if need be. I added that line because Randy had mentioned the many septic system problems when Otsego Township was presenting on 7-13-2022.

3.B.)Any time you can loop a dead end line it will lessen the possibility of bacteria growth in the water system by eliminating large sediment areas at the end of the pipeline. The water volume for fire suppression is also improved greatly.

If you need us to make any changes to the request form please let us know.

Chuck Cushman
Public Works Manager
Otsego Township

From: Randy Rapp <RRapp@ALLEGANCOUNTY.ORG>
Sent: Friday, July 22, 2022 10:07 AM
To: Supervisor <bwinn@otsegotownship.org>; Chuck Cushman <ccushman@otsegotownship.org>
Cc: Tom Kunetz <tomkunetz@gmail.com>
Subject: Otsego Township Request for ARPA Funds

Bryan & Chuck:

I forwarded the letter to Tom Kunetz, the Chair of the Work Group, and he read the letter of request and is unclear on several points. He added questions in blue to the letter. See attached. Could you please clarify? If you would please revise and resubmit the request it would be appreciated.

Thank you and please let me know if you have any questions.

Randy Rapp, RS
Environmental Health Services Manager



Allegan County Health Department
3255 122nd Avenue Suite 200
Allegan, MI 49010
Phone: (269) 686-4506
Fax: (269) 673-4172

Together; striving for a healthier Allegan County in which to live, learn, work, and play



Tell us how we are doing. Click on this link and go to the bottom of the webpage to provide your feedback. www.allegancounty.org/health



July 20, 2022

Via Email: rrapp@allegancounty.org

Randy Rapp, RS
Environmental Health Services Manager
Allegan County Health Department
3255 122nd Avenue
Allegan, MI 49010

RE: Saugatuck Drinking Water Asset Management Plan

Randy,

Thanks for the opportunity to present our project to the Water Study Workgroup on July 13 and providing the application information. In accordance with the June 24, 2022 memorandum for ARPA Update/Broadband & Water Study Projects (Shovel Ready), we offer the following:

1. Requestor Information:

City of Saugatuck
Attn: Ryan Heise, City Manager
102 Butler Street
Saugatuck, MI 49453
(269) 857-2603
ryan@saugatuckcity.com

2. Project Description:

The City of Saugatuck is part of the Kalamazoo Lake Sewer & Water Authority (KLSWA), along with the City of Douglas and areas of the surrounding townships. KLSWA operates and maintains the water and sewer systems within the authority, but the municipalities own the infrastructure within their borders and are responsible for capital repair and improvements and development projects within their jurisdiction. KLSWA has an asset management plan in place for the overall water system, but it is limited in scope with respect to the individual municipalities. The Michigan Department of Environment, Great Lakes and Energy (EGLE) has required that each municipality develop their own asset management plan to identify system needs and priorities along with estimated costs and a rate structure to fund capital projects so that the system is sustainable. In late 2020, the City applied for a Drinking Water Asset Management (DWAM) grant from EGLE. Being a 90-100% grant program, it was very competitive and

also underfunded; the City was not selected for funding. A copy of that application is attached for reference. It includes a Project Summary, Project Scope of Services and related information that describe the project in detail.

The City of Saugatuck has approximately 907 water customers and a population of 1,012 (though the population increases significantly during summer months). This project will benefit the entire population.

3. Impact to Water Quality and Quantity

An asset management plan (AMP) is a very important tool for the City to be able to provide safe and reliable drinking water, hence the mandate from EGLE. As part of the AMP process, the City's wells and storage tank will be evaluated so that needs can be incorporated. The public water mains will be evaluated using a combination of available construction and maintenance records and operator knowledge. Notably, water service materials will be evaluated to comply with EGLE's Lead and Copper Rules, which require the City to identify and eliminate water services that contain or may have contained lead components. The AMP is an important step in that process.

City ordinances require that properties connect to the public water system – private wells are not typically allowed within the City Limits, primarily due to wellhead protection issues (it is desirable to limit the number of connections between the surface/surface water and the aquifer that feeds the municipal well field). Recently, the need for an AMP was reinforced when development occurred along a road in the City beyond the public water system. Due to the cost involved in extending the system and without a funding mechanism in place, City Council allowed a variance for the installation of private wells in the area until such time as a public main can be extended.

4. Project Schedule

Due to the nature of the project, it can be started relatively soon after a funding award is made. We anticipate beginning the work in fall 2022 with a completion date by December 31, 2023. Funds would be utilized throughout that time period, depending on the County's disbursement process.

5. Funding Ask

The City's request is for \$100,000 in Allegan County ARPA funding to match \$100,000 in City ARPA funding to complete the asset management plan as described in the application. The original project cost submitted to EGLE was \$204,000. Since that time, we have adjusted our approach slightly to account for inflation. A slight reduction in the number of water services that will receive exploratory digging results in the \$200,000 project cost presented here (40% was used for the application; we anticipate the budget will allow 30-35%, which is adequate for EGLE reporting).

Thank you once again for bringing this unique opportunity to our attention. We feel this project will be a great value for the City and the surrounding area. If you have any questions, please feel free to contact me.

Sincerely,

Ryan Heise, City Manager

102 Butler Street • P.O. Box 86 • Saugatuck, MI 49453
Phone: 269-857-2603 • Website: www.saugatuckcity.com

Village of Martin
Storm Drain Reconditioning
Proposal

Village of Martin
1609 North Main St.
Martin, MI. 49070
Rick Martin DPW Supervisor
269 650 0471

The Village of Martin has two storm drain collection areas, one on North Main St, and one on Marshal Plastics Dr. The one on North Main St was reconditioned a few years ago and is working perfectly. Our one on Marshall Plastic Dr however is not functioning very well, as after a decent rain we end up with standing water and it takes a few days to drain. After taking time to look into the issue we found that when installed our village had put in a leach basin and a stone field thinking that it would be plenty. At the time, it was. Now we have cleaned and updated our street drains which is sending more street water to our storm drain area, and our High School recently built a new baseball field from a former corn field, and the drain system they use to keep the ball field dry has added to the amount of water that comes into our drain, which is now overwhelming our system.

We have had the drain area inspected and found that our drain is setting on a clay field. The clay needs to be removed and replaced with sand and stone to allow the water to drain properly.

We have received a quote from a local company to remove the clay down to a sand base and replace the clay with sand and stone. The area of the drain is 175 feet by 55 feet. Based on our local company's experience in working in our area for years, they believe there is approximately 8 feet of clay that needs to be removed. The sand to replace the clay is 2NS and the stone is to be 6A.

Attached is an itemized Estimate at \$ 49,300.00 and the only hold back on the start time, is for the current standing water needs to drain away, which could be any day after a rain free streak. The estimated time to complete the project is 2 weeks.

As far as the amount of money we are requesting, we would ask if you are requiring a match we would ask for \$24,650.00 although any amount you could supply would be appreciated.

Thank you for your consideration on the project
Rick Martin
Village of Martin DPW Supervisor.

Arnsman Septic Service and Excavating

2862 12th Street
 Shelbyville, MI 49344

Estimate

Date	Estimate #
7/26/2022	0418-713

Name / Address
martin village 1586 S. Main St Martin MI 49070

Project

Description	Qty	Rate	Total
REDO SETTLING POND BY MARSHAL PLASTICS FOR EXCESS WATER Excavate / Remove clay down to sand aprox 8 ft in 75' x 55' area. Replace with 8ft of 2NS Sand 2ft 6A Washed stone Truck and dispose of clay fill upon removal to include all equipment, trucking charge, labor and delivery of materials to include: equipment delivery / man labor - \$500 excavator 10 hours removing spoil and loading trucks - \$1600 trucking / disposal spoil material 1600yds -\$8000 2NS sand 1600yds - \$25,600 6A stone 400yds - \$13,600		49,300.00	49,300.00
		Total	\$49,300.00







Village of Martin
Reconditioning Pump #2
Proposal

Village of Martin
1609 North Main St.
Martin, MI. 49070
Rick Martin DPW Supervisor
269 650 0471

The Village of Martin has a water system that supplies 35 commercial properties,(which one of the properties supplies 80 units in its properties), 140 residential properties, Also supplies our village with 30 fire hydrants. Our pumps monthly production is 1.9 million gallons of water. We have two 50 HP pump motors that supply our needs. They were installed in 1990 and have been reconditioned every 10 years since their existence. Our pump #1 was reconditioned in February of 2022 and our pump number 2 is planned for reconditioning in 2023. We could do sooner if funds become available. We are expecting a cost of \$26,000.00 based on the actual cost of our pump #1 was \$25,843.10. I have attached a copy of that invoice for your inspection.

As I stated before we have it scheduled for reconditioning in 2023, but if the funds were to become available we could start immediately.

Also it is difficult to pinpoint an exact cost because of the replacement parts we may need, a call to Peerless could get a more exact number based on the parts, availability of parts for the rebuild. At this time we are expecting to have a bill of \$26,000.00. If you are doing a match we would ask for \$13,000.00 Any amount would be of great help.

A question was asked if a single pump could supply our needs, and the answer is for a short period of time, is yes. Because the pumps run alternately I believe is why we have the luxury of reconditioning every 10 years.

Both wells are in very good condition at this time, per the tests that were run by Peerless in 2022.

Thank you for considering helping in this project
Rick Martin
Village of Martin DPW Supervisor.



Mishawaka, IN / 574.254.9050
Westfield, IN / 317.896.2987
Ionia, MI / 616.527.0050
Fenton, MI / 810.215.1295
Lombard, IL / 630.708.3212
Boulder, CO / 574-286-0765
Littleton, CO / 303-968-7920

February 21, 2022

Village of Martin
1586 South Main St.
P. O. Box 234
Martin, MI 49070

Attn: Mr. Luke Keyzer

Re: Annual Well and Pump Testing and Maintenance

Dear Luke:

Enclosed please find a copy of our inspection report from the recently completed annual testing and maintenance on the (2) well installations at the Village of Martin. Also enclosed is our invoice for the work. We would appreciate your processing it for payment.

Our test on the # 1 well showed a current specific capacity of 22.2 gpm/ft of drawdown, an increase from 16.7 when compared to our last test ran in 2021. The current specific capacity of this well remains stronger than when originally constructed in 1989 (13.4 gpm/ft of drawdown). No well rehabilitation work is recommended at this time.

Our test on the # 1 well pump showed it to be performing just below the curve at rated capacity. This pump was overhauled last year and no further work is required.

Our test on the # 2 well showed a current specific capacity of 22.2 gpm/ft of drawdown, down 17.5% when compared to our last test ran in 2021. However, the current specific capacity remains stronger than when originally constructed in 1990 (13.5 gpm/ft of drawdown). No work is recommended in the form of chemical cleaning and redevelopment at this time.

Our test on the # 2 well pump showed it to be performing 10.4% below the curve at full rated capacity. The unit was partially overhauled by another contractor in 2013. With the decline in performance and the length of time since the last overhaul, it is recommended that this unit be budgeted for overhaul in 2023.

In addition to the testing, we also performed routine maintenance on each installation.

We appreciate the opportunity to be of service. Please let us know if you should have any questions on this report, or if we may be of assistance to you in any way.

Very truly yours,
PEERLESS-MIDWEST, INC.

Frank T. Williams
FTW/rjo
Enc.

www.peerlessmidwest.com

55860 Russell Industrial Parkway, Mishawaka, IN 46545 Phone (574) 254.9050 Fax (574) 254.9650



49071

55860 Russell Industrial Parkway / Mishawaka, Indiana 46545 / 574.254.9050 / Fax 574.254.9650

WELL & PUMP SERVICE INSPECTION REPORT

Owner Village of Martin City Martin State MI

Location 1200' West of Main Street & North of M-222 (WEST PUMP) N. 42.54369 / W. 085.64564

Well No. 2 Date Drilled 4/23/1990 Dia. 24" x 12" Depth 168' Type Well GW

Screen ID. 12" Screen Length 40' Depth to Top of Screen 128' Type Screen SSWW

Dates of Cleaning _____

Phone 269-492-4581 Person to Contact Luke Keyzer

	DATE	STATIC	G.P.M.	PUMPING LEVEL	PRESSURE	SPECIFIC CAPACITY
ORIGINAL	1990	32.50'	800	91.67'	-	13.5
AFTER LAST CLEANING						
AFTER LAST TEST	2021	38'	700	64'	76#	26.9
AT PUMPS RATED FLOW	2022	40'	600	67'	75#	22.2
AT SYSTEM OPERATING PSI	2022	40'	690	68'	66#	24.6

Test Completed Through Meter _____ Flange Size 4" Confined Space Entry? No

Motor HP 50 Make U.S. Volts 230/460 RPM 1775 Phase 3

Gear Drive None HP - Ratio - RPM Meter Required Yes

Pump Mfg. Ingersoll / National Serial No. 456490A-1 Airline Length 100' Poly

Rated Capacity: 600 GPM 268' TDH Operating Pressure 65# Running

Total Setting 113' Size of Packing 3/8" Date Installed _____

Dates of Overhaul 1999, 2002, 2013 (new pump by others)

THE FOLLOWING IS TO BE PERFORMED DURING EACH INSPECTION

Is Check Valve Leaking? No Change Motor Oil & Grease X Repack Pump X Grease Pump _____

Pump is Presently Developing 600 GPM 240' TDH Projected Curve Capacity 600 GPM 240' TDH

Shut Off Pressure 136 PSI Rated Shut Off Head 352 ft. Calculated Shut Off Head 354 ft.

Electrical Data (With Pump in Operation): 489/493/491 V 54 / 54 / 54 Amps 65 @ 460v Full Load Amps _____

Location of Power Lines Underground Can Electrical Box be Locked Out? Yes

Distance From Top of Pump Pedestal to Grade 24" Materials Needed to Clean Well Drop spool, one (1) 6" elbow, two (2) hoses to tank, 150' to waste.

Need a Smeal to Raise Pump? No Remarks Test ran at 60 Hz.

Maintenance: (Meter) or 4" flange out wall, 2-fire hoses to waste. 80' 4" flex hose. Has VFD.

Inspected By Mike Kline Date Inspected February 10, 2022



ALLEGAN COUNTY – WELLOGIC INFO

Well Type	Number of Wells	Percentage of Total	Comment
Total	24302	100.00	Total wells in Wellogic (as of 9/14/22)
Total+ACT	23665	100.00	Total Active wells in Wellogic (as of 9/14/22)
TY1PU	166	0.68	Type 1 wells
TY1PU + ACT	148	0.63	Active Type 1 wells
TY2PU	575	2.37	Type 2 Wells
TY2PU+ACT	551	2.33	Active Type 2 wells
TY3PU	224	0.92	Type 3 Wells
TY3PU+ACT	203	0.86	Active Type 3 Wells
HOSHOLD	21800	89.70	Household wells
HOSHOLD+ACT	21348	90.21	Active Household wells
TESTW	452	1.86	Test Wells
TESTW+ACT	393	1.66	Active Test Wells
IRRI	694	2.86	Irrigation wells
IRRI+ACT	671	2.84	Active Irrigation Wells
INDUS	32	0.13	Industrial wells
INDUS+ACT	32	0.14	Active Industrial Wells
UNK	101	0.42	Unknown well type
UNK+ACT	77	0.33	Active Unknown well types
OTH	217	0.89	Other well types
OTH+ACT	203	0.86	Active other well types
HEATP	20	0.08	
HEATRE	8	0.03	
HEATSU	13	0.05	