

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION INTO)	
THE IMPACT OF MADISON COUNTY FISCAL)	CASE NO.
COURT'S USE OF MADISON COUNTY)	2021-00422
UTILITIES DISTRICT'S SYSTEM FOR ITS FIBER)	
OPTIC CABLE INSTALLATION PROJECT)	

RESPONSE TO COMMISSION'S SECOND REQUEST FOR INFORMATION

Comes now, Madison County Utilities District (MCUD) and in response to the Commission's Request for Information and states as follows:

1. Refer to the responses to the Commission Staff's First Request for Information filed February 14, 2022 (Staff's First Request), Item 2.
 - a. The response states that that (sic) Madison County Emergency Management Agency/Chemical Stockpile Emergency Preparedness Program (EMA/CSEPP) or its contractor will be onsite as soon as Madison District crews arrive. Explain in detail how EMA/CSEPP or its contractor will take no longer to be onsite for a water main break than Madison District Crews.

RESPONSE:

Upon learning of any water wain break, MCUD dispatches a crew to determine the nature of the break. Once it's determined that a break has occurred and in a line that would have fiber present, MCUD staff will contact the County designee regarding the fiber. MCUD and the County have agreed that the County designee responsible for fiber repair must be onsite no later than one hour from being contacted. This time frame would allow any fiber repairs to happen within the boil water advisory and would not impede MCUD's repair operation.

This language is in the draft MOU with MCUD and Madison County Fiscal Court. The MOU also contains language that would provide additional reimbursement for MCUD should MCUD staff be required to remain on site to assist the County designee or if the County designee is untimely.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

- b. Provide a copy of the contract, if one exists between Madison County Fiscal Court, Madison District, or EMA/CSEPP.

RESPONSE:

There is no contract existing between the parties. There is a draft of a Memorandum of Understanding between MCUD and Madison County Fiscal Court which was previously provided.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

- c. Explain the requirements, if any, in an agreement between Madison County Fiscal Court and Madison District that EMA/CSEPP crews be onsite for a water main break no later than Madison District.

RESPONSE:

As provided in the draft MOU, The Fiscal Court Employee or designee will respond to the site within one hour of notification by the MCUD staff assessing the break or leak.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

- d. Indicate the penalties, if any, should Madison County EMA/CSEPP crews not arrive onsite for a water main break no later than Madison District arrives onsite for a water main break.

RESPONSE:

MCUD shall have the right to charge the County \$20.00 per hour per employee and \$22.64 per hour per truck for any idle time waiting for the County designee.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

- e. For the previous three years, indicate the number of main breaks repaired after normal business hours, or repairs extended past normal business hours, for Madison District.

RESPONSE:

2019: 19

2020: 12

2021: 10

Jared Webb

JARED WEBB
Manager
Madison County Utilities

2. Refer to the response to Staff's First Request, Item 6b. The answer is unresponsive. Match the specific hydrants identified in the list provided with each link in the project plans.

RESPONSE:

See Attached.

Jared Webb

JARED WEBB
Manager
Madison County Utilities

3. Refer to the response to Staff's First Request, Item 7. The answer is unresponsive and stated in terms of a hypothetical situation.
 - a. Indicate the C-factor that was assumed in pipe calculations of pressure loss in the Hydraulic Regime or indicate why you do not have this information.

RESPONSE:

140

- b. Explain if the C-factor was confirmed through field testing or hydraulic modelling of the system, and if not, explain why testing or modelling was not conducted.

RESPONSE:

C-factor was not confirmed through field testing or hydraulic modelling. Friction within a pipe can and is modified over time (particularly in metal pipes e.g. CI/DI), by surface depositions and other effects. Actual testing to prove is difficult since we have many installs with many differing pipe materials, pipe diameters and Messenger Pipe diameters, and as is readily seen the difference in the real-world between with/without Messenger Pipe is really quite small, and so in reality this is very hard to measure with any degree of accuracy.

What we can state however, is that in all the installs we have undertaken, that in no cases have any customers identified any noticeable effect on hydraulic regime after introduction of Messenger Pipe.

Chris Iseral

CHRIS ISERAL
(as provided by Mike Parker, CRALEY)
Chief Information Officer
Madison County

4. Refer to the response to Staff's First Request, Item 8a. Indicate whether Madison County EMA/CSEPP or anyone from Madison County contacted the electric provider along the project route to determine if free pole attachments or reduced rates for pole attachments were available for this project.

RESPONSE:

No, the electric providers were not contacted. The original plan was to bore the fiber to these locations. When the CRALEY technology was identified with the cost savings and the speed at which it could be deployed over boring, it became the primary deployment option. Ariel fiber is an option of last resort for Emergency Management purposes as ariel fiber is subject to disruption from vehicles, ice storms, tornadoes, and other weather events. Fiber installed underground either by boring or in water lines is the much preferable alternative.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

5. Refer to the response to Staff's First Request, Item 9d. Identify where a presentation took place for Kentucky American Water representatives of CRALEY and list the specific representatives from Kentucky American Water that were present.

RESPONSE:

There was no specific presentation to Kentucky American Water (KAW). The former Madison County Deputy Judge Executive, Colleen Chaney, contacted a representative of KAW. The technology and the opportunities CRALEY could provide were discussed and it was relayed to County Staff by the former Deputy Judge Executive that KAW expressed interest in the technology and was open to further discussion. Mrs. Chaney may have also provided staff of KAW with a copy of the CRALEY power point presentation but that is not known with certainty.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

6. Refer to the response to Staff's First Request, Item 10a.
 - a. Indicate any impact to the overall fiber system or emergency communications system if this is the only segment of CRALEY installation that occurs.

RESPONSE:

Not expanding across the river into Fayette County would not impact the Madison County project. It could impact the regional communication network that is being built but would not impede CSEPP's project in Madison County.

The CRALEY solution provides the fastest and most economical fiber deployment method. Ariel deployment includes too many risk variables. If the CRALEY solution is unavailable, directional boring will be required to the sites needed for upgraded connectivity.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

b. If so, explain how that will impact the efficiency of the network proposed.

RESPONSE:

As stated, the Madison County network would not be impacted if it is the only network using the CRALEY method.

If this question is addressing the impact on the regional network without the CRALEY solution, it is a matter of cost and efficiency. Directional boring will add cost and time to the completion of the regional network. Every day the region does not have a solution in place is a chance for a life to be lost because of inefficient communications.

Having a regional system where the entities responsible for public health and safety can communicate with each other and with the hospitals that are in the region is one of the key benefits. Pre-arrival information can be shared, and public safety personnel can easily and efficiently communicate with partners from other regional entities to provide lifesaving services.

A microwave (wireless) ring will serve as a backup communication path for this system, but it is the preference of the communities and agencies involved in the regional system to have a fiber optic network as the primary method of communication.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

c. Explain whether other segments may be constructed using other methods.

RESPONSE:

The CRALEY method makes the deployment of fiber much more affordable. The use of the method in Madison County will provide a real-world example of the efficacy of the method and make expansion into other segments more viable. Without CRALEY it is

unknown whether fiber will be expanded into other segments. The costs of boring and the risks of ariel deployment may be prohibitive.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

7. Refer to the response to Staff's First Request, Item 12a.
 - a. Identify the person or persons from HMB engineering who prepared the engineering study.

RESPONSE:

Brandon Baxter, PE, Water Resources Division Manager with HMB Professional Engineers, Inc., completed the study that was submitted.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

- b. Indicate Mike Parker's credentials as an engineer.

RESPONSE:

Mike Parker received an electrical engineering degree from the University of Southampton in Southampton, England. He is the Chief Technical Director for the CRALEY GROUP Limited from the United Kingdom and is credited with owning the Patent for the technology used for deployment.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

- c. Indicate whether Mike Parker is licensed to practice engineering in the Commonwealth of Kentucky.

RESPONSE:

No.

Chris Iseral
CHRIS ISERAL
Chief Information Officer
Madison County

- d. Indicate whether Madison District intends to file Final Engineering Plans and Specifications including a hydraulic analysis for the project with the Division of Water in response to the letter from the Division of Water filed December 13, 2021.

RESPONSE:

It is the goal of both the Madison County Fiscal Court and Madison County Utilities District to provide whatever information is necessary to the Division of Water to secure approval of this project. In meetings with the Division of Water for this never-before-seen application it was never communicated that 401 KAR 800:100(2) would apply to this project and such an analysis was not requested. It is now hoped that the plans as provided by CRALEY and the hydraulics analysis provided by Brandon Baxter, PE, and submitted in this case satisfies 401 KAR 800:100(2) and the Division of Water. However, if a more formal submittal meeting the requirements of the regulation are required, it shall be submitted as soon as requested by the Division of Water.

Chris Iseral

CHRIS ISERAL
Chief Information Officer
Madison County

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

- e. If so, indicate when Madison District plans to file.

RESPONSE:

Madison District will file a Final Engineering Plans and Specifications with a hydraulic analysis within a reasonable time from being instructed by the Division of Water (DOW) to do so.

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

- f. If not, explain why.

RESPONSE:

It is unclear to MCUD and Madison County whether the hydraulic analysis provided by Brandon Baxter, PE satisfies the Division of Water or whether additional information is required to be submitted. MCUD and Madison County believe it prudent to await specific instruction from DOW as to what analysis is required for approval. MCUD and Madison County sincerely wish to create an environment of collaboration on this project and are willing to comply with whatever DOW requires.

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

8. Refer to the response to Staff's First Request, Item 13a. This response is unresponsive.
- Identify the anticipated pressure and flow loss during a fire flow at the hydrant furthest along Lexington Road due solely to the fiber installation at an average day and peak day system demand.

RESPONSE:

This answer will be provided by Brandon Baxter, PE. He anticipates he can supply the answer by March 23rd, 2022. This answer will be supplemented when his analysis is received.

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

- Identify the person preparing the analysis, the assumptions used, and method of calculations.

RESPONSE:

Brandon Baxter, PE. HMB Professional Engineers, Inc.

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

9. Refer to the response to Staff's First Request, Item 14. The answer is unresponsive.
- Indicate whether Madison District owns any private easements for any length of the project.

RESPONSE:

Yes. Madison District owns private easements for some length of this project.

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

- If so, indicate how much of the project, as a percentage of the overall project length, will be installed in water mains that currently lay in existing private easements.

RESPONSE:

This response is limited to the project that involves Madison County Utilities, excluding any mains owned by Kirksville Water Association. 84% of the project length is believed to be in private easements.

Jud Patterson
HON. JUD PATTERSON
Counsel for MCUD

- c. Explain whether all the existing easements are documented and recorded at the Madison County Clerk's Office.

RESPONSE:

This information is still being retrieved. This answer will be supplemented when information is received. It is believed that all the easements are documented and recorded.

Jud Patterson
HON. JUD PATTERSON
Counsel for MCUD

- d. Indicate whether any of these are easements by prescription.

RESPONSE:

This information is still being retrieved. This answer will be supplemented when information is received. It is believed that all the easements are documented and recorded and very few, if any, will be by prescription.

Jud Patterson
HON. JUD PATTERSON
Counsel for MCUD

- e. If so, indicate how much is a footage of mains.

RESPONSE:

See response to 9(d).

- f. Indicate how much of the project, as a percentage of the total project, will be installed in water mains that currently lay in public right-of-way owned by the Commonwealth of Kentucky.

RESPONSE:

16%. This response is limited to the project that involves Madison County Utilities, excluding any mains owned by Kirksville Water Association.

Jud Patterson
HON. JUD PATTERSON
Counsel for MCUD

- g. Indicate how much of the project, as a percentage of the total project, will be installed in water mains that currently lay in public right-of-way owned by either the City of Richmond or Madison County.

RESPONSE:

0%. This response is limited to the project that involves Madison County Utilities, excluding any mains owned by Kirksville Water Association.

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

10. Refer to the response to Staff's First Request, Item 16b. Provide a copy of the legal opinion that states that all the current easements are broad enough to allow for all appurtenances "connected with" the water line.

RESPONSE:

See attached.

Jud Patterson

HON. JUD PATTERSON
Counsel for MCUD

11. Refer to the response to Staff's First Request, Item 16b.
a. Indicate whether any vaults will be installed in public right-of-way.

RESPONSE:

It is not anticipated that any vaults, as commonly defined, will be installed in the public right-of-way.

JARED WEBB
Manager
Madison County Utilities

- b. Indicate whether Madison District received any necessary permits for that installation.

RESPONSE:

Madison District has neither applied nor received any permits for vaults.

JARED WEBB
Manager
Madison County Utilities

- c. If not, explain why.

RESPONSE:

DOW has not indicated permits are necessary for the plans that have been reviewed. If permits become required or are requested, Madison District will make the necessary applications.

JARED WEBB
Manager
Madison County Utilities

12. Refer to the response to Staff's First Request, Item 17a.
a. Identify the cost of the sensing technology.

RESPONSE:

In 2020 it was quoted as \$302,435.00 plus travel expenses + 10% to do up to 25 miles.

CHRIS ISERAL
Chief Information Officer
Madison County

- b. Explain whether Madison District considered purchasing and using the technology.

RESPONSE:

Madison County Utilities District is always looking for methods to reduce water loss. Most recently, MCUD investigated drone technology and other more advanced leak detection methods. The sensing technology was discussed as an option to consider. No action has been taken though.

JARED WEBB
Manager
Madison County Utilities

Respectfully submitted,

Jud Patterson

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