From: Shawn Patrick McElmurry

[mailto:s.mcelmurry@wayne.edu] **Sent:** Monday, October 12, 2015 9:41 AM

To: Marc Edwards <edwardsm@vt.edu > Subject: Re: Call me at 540 320 8740

Hey Marc, good talking to you today. I would love to continue working together on some level moving forward. As I said, please let me know when your team plans to be going back into Flint and I coordinate accordingly.

If you could send me the following information, it would be extremely helpful.

1) Map showing sampling locations

2) IRB material

Also, attached is the project summary of the NIH Rapid Response that we submitted and were asked to follow up with a full proposal. Obviously, given the dynamic situation, this will be changing but it gives you an idea of what we are doing.

Thanks, Shawn

Shawn P.
McElmurry,
Ph.D., P.E.
Associate
Professor
Wayne State University

From: Marc Edwards [mailto:edwardsm@vt.edu]

Sent: Monday, October 12, 2015 9:45 AM

To: 's.mcelmurry@wayne.edu' <<u>s.mcelmurry@wayne.edu</u>> Subject: FW: IRB #15-752: Revision(s) to Protocol Requested

Here you go. NSF Rapid grant (we've already done everything) and the protocol, and the rejection note from our IRB telling us it is exempt and is not human subjects.

Some schools allow you to piggy back on other schools IRB, if you are collaborating and co-PIs, etc.. Marc

<EDWARDS NSF RAPID GRANT FILE ATTACHED>

----Original Message-----

From: VT IRB Administrator [mailto:irbadmin@vt.edu]

Sent: Wednesday, July 29, 2015 11:18 AM

To: Marc A Edwards; Amy Jill Pruden-Bagchi; Joseph O Falkinham III

Subject: IRB #15-752: Revision(s) to Protocol Requested

Dear Investigators:

Thank you for your New Application for the research protocol titled "Consumer sampling of homes for lead and opportunistic pathogens in water.".

The IRB requires a revision/response to the following items:

1. According to the research protocol, the data being collected are water samples. Therefore, this is not human subjects research (even if you will be talking to "humans" as part of requesting the samples).

Please cancel this application and let OSP know that this is not human subjects research.

If there will be a survey or interview that accompanies the water samples about how people feel about the water issue, then there will be human subjects research. However, if it is only water samples and contact information, it is not considered human subjects research.

Respond to the above items and incorporate the changes into your online protocol, as appropriate using the IRB Protocol Management System link below:

https://secure.research.vt.edu/irb?ixSoST2i2sU

Note: the use of IRB Protocol Management to submit your response is required (in other words, please do not send the revised documents directly to the IRB office).

Once the IRB receives a response to the above and approves the project application, you will receive an approval letter via email.

If you have any questions about this email, please contact the IRB Administrator at irbadmin@vt.edu.

IRB office

Interested in keeping up-to-date with the Virginia Tech IRB? Click the link below to learn more:

http://www.irb.vt.edu/pages/events.htm

From: Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu] **Sent:** Wednesday, October 14, 2015 9:59 AM

To: Mona Hanna-Attisha <MHanna1@hurleymc.com>; Marc Edwards

<edwardsm@vt.edu> Subject: Sampling

Mona and Marc, I just wanted to give you both an update regarding my progress here at WSU. I received word my IRB exemption has been approved and I should have the documents necessary to begin collected samples this weekend. I am still waiting on internal

bridge funding but believe that should be made available by the end of the week too.

So, it is likely I will be sending out 2 or 3 teams of students to collect samples starting Sunday and into next week. While our focus will be on trying to characterize the water quality in the distribution system, we do have approval to collect water samples from people homes. If you can think of anyway we can best interface with your efforts please let me know.

Marc, if you have test kits you would like me to drop off at houses or split samples, I'm happy to do so.

Mona, if you have residents that want/need their water sampled, I'm happy to help.

This sampling effort is really consuming my time right now but the NIEH proposal is moving forward and I will follow up with both of you before the end of the week with more details.

Shawn

Ps. As always, feel free to call me on my cell (517-944-0996) to discuss.

Shawn P. McElmurry, Ph.D., P.E. Associate Professor Wayne State University Dept. of Civil and Environmental Engineering 2158 Engineering Building 5050 Anthony

From: Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu]

Sent: Wednesday, October 14, 2015 10:53 PM

To: Marc Edwards

Subject: NIEHS Rapid Response Proposal

Hey Marc, when we talked last I mentioned the possibility of having you join in the NIEHS proposal I am working on. My vision for this proposal is that we will monitor water quality at strategic locations throughout the city over the year following the change back to DWSD water to evaluate how long it will take for Pb and residual chlorine to return to acceptable levels. Along with strategic locations within the system, I would like to also monitor drinking water at a few residents (maybe 20) that have reported high levels of Pb. My hope is Mona will help us recruit these residents. I think we are covered on the water chemistry but am happy to discuss.

One aspect of the proposal that we are missing is biological monitoring. I know this is

something that you are interested in and working on. I currently have about \$13k (+IDC) that we could put toward this effort. I know it isn't a lot but would you be interested in joining our team and leading this part of the effort?

If so, we should discuss. We'll need to figure out hypotheses, approximately how many samples you believe we could measure, what you would be measuring, etc.

I'm swamped tomorrow but you're always welcome to give me a call on my cell (517-944-0996) to discuss.

Shawn P. McElmurry,

From: Marc Edwards <<u>edwardsm@vt.edu</u>> Sent: Wednesday, October 14,

2015 11:11 PM **To:** Shawn

Patrick McElmurry

Subject: RE: NIEHS Rapid Response Proposal

Hi Shawn,

Bacteria and OPPPs samples are super expensive.

For that price you could get BART tests and do some of those for microbial corrosion. LaMotte has some that are pretty good.

Our school won't touch grants less than \$25K.

Our team left today to do our microbial sampling for Legionella. We'll figure out how to pay for it later.

Best Regards,

Marc

From: Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu]

Sent: Thursday, October 15, 2015 7:11 AM

To: Marc Edwards

Subject: Re: NIEHS Rapid Response Proposal

I understand. What would you need? Not sure that I could squeeze it out of other parts of the project but would \$25k be enough to do anything interesting?

If we can't make it work, would you be willing to share the data you have already collected and provide a letter of collaboration? I'm happy to share authorship, etc.

I hear the switch over is eminent. I still believe sampling this weekend will be useful since it will take days for the system to flush out. Agree?

From: Marc Edwards
<<u>edwardsm@vt.edu</u>>
Sent: Thursday,
October 15, 2015 9:14
AM To: Shawn Patrick

McElmurry

Subject: RE: NIEHS Rapid Response Proposal

Hi Shawn,

Thank you, but I hope you understand that \$25K would not be worthwhile for me.

I support open science so I would certainly share data and authorship with you, and if you wrote a letter outlining that, I would be happy to sign it to help on your grant.

My team of a research scientist and two PhD students left yesterday morning (after I told them to forget it...) with a van load of bottles/samples to again try to do pathogen testing.

Their plan is to just do the best they can today and tomorrow. They have to return within 48 hours of the first sample for the biological samples, which given a 13 hour return trip means they only have 35 hours to sample. I guess they could Fed Ex the samples.

I also think that they probably jacked the pH up after I showed how it was plummeting.

Best Regards,

Marc

From: Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu] Sent: Thursday, October 15, 2015 8:23 AM To: Marc Edwards <edwardsm@vt.edu>

<edwardsm@vt.edu>
Subject: Re: NIEHS Rapid
Response Proposal

I completely understand. This is the part of science/academia that I despise.

If I can be of assistance to your team please let me know.

Shawn P. McElmurry,

From: Faust, Kasey M

<faustk@utexas.edu> Sent: Friday,

October 2, 2015 4:37 PM

To:djohnson@cityofflint.co

m Cc: Shawn Patrick

McElmurry

Subject: Articles arising from shrinking cities research with Flint and

introductions Hello Mr. Johnson-

Thank you for all the help you provided me during my dissertation research on water sector challenges in shrinking cities. Attached are two of the articles from that research project on (1) public perceptions in shrinking cities, and (2) water and wastewater issues in shrinking cities. I really appreciate the time you took to meet with me over the years.

I would also like to introduce you to Shawn McElmurry, cc'ed on this email. He is a professor at Wayne State in Detroit that is a co-author on this work. His interests also align with challenges experienced by cities in Michigan, from the water quality lens.

Thank you, again. I hope to continue to work with Flint in the future.

Best regards,

Kasey

From: Shawn Patrick McElmurry

[mailto:s.mcelmurry@wayne.edu] **Sent:** Friday,

October 16, 2015 6:18 AM

To: djohnson@cityofflint.com

Cc: Faust, Kasey M <faustk@utexas.edu>

Subject: Re: Articles arising from shrinking cities research with Flint and introductions

Hello Mr. Johnson, I'll be in town collecting water samples Sunday and was hoping I could get sample of untreated and treated drinking water. My sample collection is in coordination with Dr. Mona Hanna-Attisha from Hurley Medical Center; however, my focus is on understanding how the water quality in Flint has experienced since switching over from DWSD has impacted the infrastructure. Is there someone I can contact to acquire a few samples?

I'm sure you're absolutely inundated with requests so I apologize for adding to your burden. I would greatly appreciate your assistance.

Sincerely, Shawn McElmurry From: Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu]

Sent: Friday, October 16, 2015 7:04 AM **To:** Mona Hanna-Attisha; Marc Edwards

Subject: Water Utility Contact

Marc and Mona, do either of you have contact info for Howard Croft? Or some other person that can help me obtain a water sample from the treatment plant on Sunday?

Looks like my contact may no longer be working for Flint.

SHAWN'S CONTACT!!

Thanks, Shawn

Shawn P. McElmurry, Ph.D., P.E. Associate Professor

On Fri, Oct 16, 2015 at 7:31 AM, Marc Edwards <edwardsm@vt.edu> wrote:

Hi Howard,

Shawn would like to coordinate collection of a Flint treatment plant sample. Please help him. He wants to research the change in water sources.

Marc

From: Howard Croft

[mailto:hcroft@cityofflint.com] **Sent:** Friday, October 16, 2015

7:04 AM

To: Marc Edwards <edwardsm@vt.edu>

Cc: Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Mona Hanna-Attisha

<MHanna1@hurleymc.com> Subject: Re: Water Utility Contact

Shawn,

This is Howard Croft, please feel free to contact me directly on my cell phone 810-577-1202 or at my email address here.

I will attempt to assist you with your research, If you wold like to come to the Treatment Plant we can quickly arrange that, simply let me know what will work best for you. It is very possible that the switch to Detroit will occur today, we are only waiting for a final contract signing which could happen this morning.

Marc,

I am looking into Flint changing test methods as you suggest, I may need some support in clearly defining the process. Mike Glasgow is out today but on Monday I will plan to reach you with him for a brief discussion.

Howard Croft

hcroft@cityofflint.comcelmurry

On Oct 16, 2015 7:33 AM, Marc Edwards < edwardsm@vt.edu> wrote:

You can also obtain a reasonable proxy at the McDonalds that is literally across the street from the plant on the Flint River.

Marc

From: Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu]

Sent: Friday, October 16, 2015 6:48 AM **To:** Marc Edwards <<u>edwardsm@vt.edu</u>>

Cc: 'Mona Hanna-Attisha' <MHanna1@hurleymc.com>

Subject: RE: Water Utility Contact

Thanks Marc, we'll be sure to collect a sample there.

Shawn P. McElmurry Associate Professor Wayne State University