1	STATE OF MICHIGAN
2	OFFICE OF THE OTTAWA COUNTY WATER RESOURCES COMMISSIONER
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4	IN THE MATTER OF:
5	JACOBS DRAIN
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8	Proceedings commenced at 10:00 a.m. on May 4, 2016, at the
9	Allendale Charter Township Hall, 6676 Lake Michigan Drive,
10	Allendale, Michigan - In Re: Jacobs Drain and Board of
11	Determination, held before Terri L. Zimmerman, Certified
12	Shorthand Reporter No. 2882 and Notary Public for Ottawa
13	County, Michigan.
14	
15	APPEARANCES:
16	Joe Bush, Ottawa County Water Resources Commissioner Jennifer Vandenberg, Assistant
17	Claire E. Schwartz, FTCH
18	Chairman Jerry Huntsbeger Secretary Larry Bruursema
19	Member Bill Cargo
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1	Zeeland, Michigan
2	May 4, 2016 - commencing at 10:00 a.m.
3	Jacobs Drain
4	Board of Determination
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7	WATER RESOURCES COM. JOE BUSH: Good morning,
8	everyone. Welcome to Allendale Township this morning. And I
9	appreciate you guys taking the time to come and figure out
10	what we're talking about and why we're here today and what is
11	the board of determination. So I do appreciate your time
12	this morning.
13	Again, my name's Joe Bush. I'm the Ottawa County
14	Water Resource Commissioner, which is also known as the drain
15	commissioner. I changed the name back in 2012. I figured
16	"water resources" really defined what we do. And this is
17	just one of those pieces of the puzzle of the hat that we
18	wear.
19	So a little introduction. Again, I'm Joe Bush. I
20	have Claire Schwartz here. She works FTC&H, and she has been
21	involved with Jacobs Drain for many years, even with my
22	predecessor. So she's got a lot of history, knowledge,
23	background. And she's the engineering firm that I've been

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working with. And Grand Valley also works with Fishbeck.

And one of their representatives from Fishbeck is here as

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well. So -- and pardon me; your last name?

KERRI MILLER: Miller.

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WATER RESOURCES COM. JOE BUSH: Miller. Kerri
Miller is here. And she works with the same firm. So we're
using Claire and Fishbeck's -- I mean, Grand Valley's using
Kerri. So, Kerri, thank you for coming and sharing your
thoughts at any time.

We have Jerry Alkema. He's your township supervisor. We got Jerry Olman from the road commission. And then Jen is back there. She's my secretary. She's the one that had you sign in and gave you an agenda. Jen comes to all these. And we have Bob Brown. He's from Grand Valley. These are major, key people of this situation and key players of why we're here today.

And then everything is court recorded, word for word. So if you want a copy, you can go on my website, miottawa.org, and we're more than happy -- after about three or four weeks, they send us the transcript and you can go on there and you can see the minutes. And, again, everything's word for word, court recorded. And if you don't have any way to access the Internet or you want a hard copy, we'll be more than happy to give you a hard copy.

Just to let you know, when there is public comment time and we want to have people up there to share your thoughts, concerns, and issues, give your name, address.

Speak loudly so Terri, who is our court reporter today, can help you out with that.

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So during the BOD process, the public hearing, I got to appoint a three-panel board. These three gentlemen have no land nearby, they're not in Allendale Township, and they have nothing to do with Grand Valley or the condos or the campuses or anything to do with this area.

But the drain code, I have to appoint three men.

Jerry Alkema has sat on this panel before. I try to pick supervisors, or past supervisors, road commission people who are kind of affiliated with drain code, number one. Two, drainage. And, three, how to run a meeting. It's important that they have that kind of expertise. And that's why these three gentlemen are picked.

And I'll give you the names right now. We got Bill Cargo that's sitting on the right. In the middle is Jerry Hunsburger. And then we have on the left is Larry Bruursema. And like I said, these three men have experience in drainage and drain code and sit on the BODs for me.

And these -- and then on this BOD process in this public hearing, I'm neutral. So I don't have any say in this. I just open the meeting. Once I give these three gentlemen the oath, then they'll run the meeting. And then from there on, you can state your question to them. And then in return, they can ask myself or the engineer the questions

at that time. So hopefully that clears it up.

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And another reason why we're here -- I guess I should state, why are we hear? I got a petition from the Allendale Township. And that's how -- in the drain code, that's how we start a BOD, is a petition to add possibly lands, depending on these three gentlemen, if they see it necessary. They're here for the necessity, not necessarily the project. So they deem it either, "Yeah, Joe, move forward," or, "Don't move forward," or something. That's why we're here.

And it's all based on your comments and all the research that we've done, whether they move forward; not me.

Once I get a petition, I get a public hearing and start the process. This is all through state statute.

So, again, I'll give these three gentlemen the oath. They actually run the meeting. And then they'll hear the history. They'll hear the presentation from the engineer. They'll hear from Jerry Alkema, if there's any comments from the township. And then they'll kind of -- once we do this, you'll kind of get the feel of going through the agenda. And this is why we go through the process. When it's all said and done, there will be more understanding.

But we're not here for a project, because we don't know what that is yet. We're here to see if we need to add land, add some drain, extend a drain, possibly.

I know there's another county drain not too far from Jacobs Drain on the north side of 45. And there's a lot of history here. It sounds simple. But when we start talking water management -- Bob Brown knows this, as well, on the golf course, and then you got the boulevard project going on 48 -- water changes now. We want to make sure that we protect people and make sure we're doing the right thing to the best of our ability. So that's another reason why we're here, so, to see if we need to do that and where do we go from here.

So once I've given these three gentlemen, again, the oath, they'll run the meeting. If you have any questions, be sure to ask. And if you're still confused, make sure to ask me, because I'll be more than happy to answer any questions, or the engineer, to help the process. All right? Thanks.

Gentlemen, please rise.

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Do you -- do each of you solemnly swear to faithfully perform and discharge the duties imposed upon you as members of the board of determination, appointed by the water resources commissioner of Ottawa County, to determine the necessity of drainage improvements in a certain drain to be known and designated as the Jacobs Drain in the township of Allendale, in said county, as required by law? Gentlemen? CHAIR. JERRY HUNSBURGER: I do.

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MEM. BILL CARGO: 1 T do. 2 SEC. LARRY BRUURSEMA: I do. 3 MEM. BILL CARGO: I'll start with the motion that 4 Jerry be appointed as the chair for this board of 5 determination and that Larry be appointed as the secretary. 6 SEC. LARRY BRUURSEMA: I'll support that. 7 MEM. BILL CARGO: Okay. 8 CHAIR. JERRY HUNSBURGER: I'll also support that. 9 MEM. BILL CARGO: All in favor? 10 CHAIR. JERRY HUNSBURGER: 11 MEM. BILL CARGO: Aye. SEC. LARRY BRUURSEMA: 12 Aye. 13 CHAIR. JERRY HUNSBURGER: Okay. Thank you for the 14 introduction, Joe. As the water resources commissioner 15 pointed out, our job is to listen. We are not engineers; 16 we're not attorneys. We've certainly had some experience 17 with drains and to listen to you. And our function is to, 18 after listening to testimony and discussing, getting answers 19 if need be from the engineering folks, to determine whether 2.0 or not this Jacobs Drain proposal is necessary. 2.1 So with that, we will open up public comments. 22 it's an opportunity for you to tell us what you want us to 23 hear, whatever your point of view. We need you to state your 24 name and your address. I assume that microphone up there is 25 Is that what we're doing, Joe?

WATER RESOURCES COM. JOE BUSH: Yeah. 1 2 CHAIR. JERRY HUNSBURGER: So if you'd go up the 3 podium please, state your name and your address. We'll be glad to hear your testimony. We'll start over on this side. 4 5 WATER RESOURCES COM. JOE BUSH: Jerry, chair? 6 CHAIR. JERRY HUNSBURGER: Yeah. 7 WATER RESOURCES COM. JOE BUSH: If we could start 8 off with Jerry Alkema, maybe, the township comments. 9 then, just being at the township --10 CHAIR. JERRY HUNSBURGER: (Inaudible.) 11 WATER RESOURCES COM. JOE BUSH: That's okay. Ι 12 just want to make sure that Jerry --13 CHAIR. JERRY HUNSBURGER: I don't mind. 14 Just to give you guys a little bit JERRY ALKEMA: 15 of background, this was a drainage improvement that was done 16 in the late '80s. The township put this extension in and 17 closed it for improvements all the way along 48th Avenue. did all the paperwork; but not all the paperwork, I believe, 18 19 got to the office of the drain commission. So it wasn't --2.0 it's on all the websites, the drain, county drain. thought it was a county drain for years. We anticipated it 2.1 22 being a county drain. 23 But when Joe looked at all the paperwork and we 24 started the 48th Avenue improvements, it was identified that 25 it wasn't a county drain and so we had some more paperwork we

needed to do. So just to let you know, if you don't get the 1 2 finished paperwork, you have to start all over. So that's 3 why we're here. 4 Today we have done a lot of reviews. Claire has 5 done a lot of work. She can go over the details. 6 definitely see this as a good thing from the township 7 standpoint. The township does not like to manage storm drain That's Joe. That's all I have. 8 improvements. 9 CHAIR. JERRY HUNSBURGER: Any questions for 10 Mr. Alkema? None. Thank you. 11 WATER RESOURCES COM. JOE BUSH: So I just wanted to clarify, Mr. Chair, what Jerry was talking about is the 12 enclosure on the west side of the road -- the Jacobs Drain is 13 14 established. This would be, possibly, depending on the 15 testimony and Claire's report, the addition of a branch, we 16 would say. But the Jacobs Drain on the east side, on Grand 17 Valley's side, is established where it is. And Claire will 18 go in more detail just to clarify Jerry Alkema. 19 He's talking about they did a project on the east 2.0 side -- or on the west side. Excuse me. And that part was 2.1 known, through history, as a county drain. But there's no 22 documentation to back that up, so . . . 23 CHAIR. JERRY HUNSBURGER: And our engineer, Claire, 24 if you could enlighten us. Claire Schwartz, please.

Yes. Certainly.

Thank you,

CLAIRE SCHWARTZ:

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members of the board of determination and attendees today. I have several slides. And what I'd like to do is just familiarize you a little bit more with the drainage district, the current drainage district, and then what has been discussed as a possible proposed drainage district and improvements.

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So I have my first slide here. And so north is up and this is the Grand River. Majority of the area here is the campus of Grand Valley State University. This road here is M-45, and then this road here is 48th Avenue.

So water courses, we have several. This is Ottawa Creek. The light blue tells you that it is an established county drain presently. To the west of the area that we're going to be talking about, there's another established county drain called the Curry Drain.

In blue here -- it's a little bit hard to see, but I'll outline it for you with my highlighters. This portion here in blue, which runs along the east side of 48th and the west side of the Meadows Golf Course, is currently established as the Jacobs County Drain.

It was established in 1912. And drain records that we got says that this black line here was the original drainage district that was associated with this drain. The drain outlets into a natural water course ravine. That's kind of shown here in the purple. And then it outlets into

Ottawa Creek, which eventually outlets into the Grand River. So that's the way the drainage takes place.

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What we've also shown on this slide is this red line. This red line is a preliminary proposed drainage district boundary. So those would be the lands that would contribute to stormwater runoff to a drain, if it were to be extended down to Ottawa Creek. It's also the lands that would benefit from the drainage provided by that drain or any improvements and maintenance of the drain.

So as you can see, it's a little bit different than the black line. And what's hatched here would be all the lands that would be proposed to be added to the drainage district, if this board determines that the petition that was submitted by the township is necessary.

So this area is about -- just so you get a sense, it's about -- well, almost 500 acres, about 470 acres.

What's shown in purple is what has been kind of anticipated as an extension to close the gaps here. Currently this is just a ravine. It is waters of the state, but nobody really has jurisdiction over it. MDOT has a culvert here. But between this point and that point, really, it's under nobody's ownership.

As Joe mentioned and as Jerry Alkema mentioned, what's this green line on the west side that runs all the way up to the top of the hill, is a storm sewer that was put in

by the township in the late '80s. And then we're anticipating that that could be, then, established as a branch of the Jacobs Drain and then be under the jurisdiction of the drain commissioner.

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And then finally, a little extension of the drain up in this area. And what's not shown on here, but if you got into the details of the files, there are also some administrative and legal description details that do need to be cleaned up on this drain.

So let's take a closer look along 48th Avenue. So, again, drainage district boundary. Now you can see a little bit better the open water course on the east side of the road, on the Meadows Golf Course, and the storm sewer that runs along the west side of the road. Storm sewer starts as a 36-inch right here, and then it runs up to 30 inch, 27, 24, 21, 18, and ends at a 12 inch, right here on the top of the hill by the Hill Crest Apartments.

There are -- this area, these developments, do have detention basins for their stormwater management per the Ottawa criteria. But since they went in over the years, Ottawa criteria has changed, so there's different various release rates, different various level of storms that they're holding back.

But Hill Crest enters the storm sewer right here.

They have a connection. Country Place has two connections.

And Campus West Apartments has a connection to the little trunk sewer on West Campus Drive. Meadows Crossing and the Village they all outlet to the west, to the Curry Drain, presently. But there is some currently undeveloped land in this area that sheet flows, overland flows into the storm sewer.

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Once the storm sewer crosses the road, there's a 48-inch pipe on the other side of the road in a big junction chamber that outlets it into this open channel. And then a small sub of 48 inch on the east side that takes water from the open channel portion of the Jacobs Drain.

And that drains a large portion of Grand Valley's campus. But they do have a lot of ponds. They have a large wetland complex, that you can't see off of that, where their stormwater is treated and released at a controlled rate as well. So this kind of orientates you to what we'll be talking about here in a minute.

I want you to notice, too, obviously the intersection here of West Campus Drive and 48th Avenue. So back in 2011 we had a large rainfall that occurred in June. We had over 4 inches of rain that fell within a couple-hour period, like 4.4 inches of rain in two hours. And that is, we determined was like the -- that's a large intensity. That's a lot of rain in a short period of time. And that was like a 50-year storm or greater.

But during that storm we had a lot of flooding that occurred, not only of the streets but of some of the apartments. And in 2012 we completed -- the Ottawa County Drain Commissioner at that time retained our firm to complete a drainage study. And we looked at -- we analyzed the storm sewer, we analyzed the drainage from this area. And we had some conclusions in our report that was issued in 2012.

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So we determined that a lot of the flooding that actually occurred to some of the apartments was not as a direct result of the 48th Avenue storm sewer, because they weren't even tied into it. Now, granted there was overland flow, but there were other issues with buildings being connected where they should not have been connected, lower drains, et cetera. So that was a separate issue.

But we did identify that storm sewer improvements were necessary at West Campus Drive for conveyance of these types of larger storm events. And we recommended that they be implemented as part of the 48th Avenue widening project, which was on the road commissions capital improvement plan list for 2016. So it was a do-nothing recommendation at that time back in 2012, so that when the road commission project for the widening of 48th Avenue came about, these improvements were recommended, would incorporated into that project.

We also evaluated and determined that the 48-inch

diameter pipe outlet was adequate for a 50-year storm; but, again, it was the pipes along the network, particularly in the vicinity of West Campus Drive that needed to be upsized. And then, as was mentioned previously, we identified the insufficient Jacobs Drain coverage and some of the legal descriptions that needed to be cleaned up.

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So fast-forward. Now it's 2016. The road commission project on 48th Avenue is underway. And that's part of the reason we're here today. So the current issues that we want to address with this petition are, as Jerry Alkema stated earlier, the township -- it's often called an orphan storm sewer. So it's, again, constructed, but it needs to be -- administratively, procedurally, it needs to be now under the Ottawa County Water Resource Commissioner's jurisdiction. And this is the process to do that.

We need to ensure that there's effective drainage outlet for the Meadows Golf Course and all this and that there's additional stormwater runoff resulting from the road commission project. It's been widened. There's a lot more lanes. There is no detention of that water. It is being discharged into the ravine downstream off the storm sewer outlet. So that needs to be dealt with. And we have instability in those downstream water courses and ravines presently.

So, again, by extending the drain, incorporating it

into as part of the Jacobs Drain, we will -- the drain commissioner -- the water resources commissioner would then have the ability to address those issues and then finally resolve the gap in the easements. I guess we hit that enough.

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So let's talk a little bit about the township storm sewer. This graphic here, that little dashed line there, again represents a storm sewer. Hard to see, but these little gold lines coming across are the proposed storm system for the 48th Avenue drainage. So we got new catch basins in the road that will discharge water to the east side of the road.

So essentially, when the road commission's 48th Avenue widening project is complete, stormwater that currently enters the storm sewer on the west side of the road -- the township storm sewer system currently -- will no longer do so. It will be collected in catch basins and brought over to the east side of the road and outlet either into the Jacobs open channel ditch or in a separate storm pipe that will be constructed by the road commission as part of this project, which will then ultimately outlet into the Jacobs Drain ditch.

So that's an important change, because what it does is -- it's currently under construction, but all stormwater will be removed from the storm sewer. There's a small

section at West Campus Drive here that will not. But it results in making capacity available in that storm sewer for larger storms. So that's a good thing.

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But we still need to look at, you know, as part of that project, some of the pipe sizes right in that vicinity there, and then establish a township sewer as a county drain for future operation and maintenance.

So that's an important part as we move forward.

And we want to take advantage of the road commission project, if these improvements are going to be done. They should be done in conjunction with each other.

In terms of Grand Valley State University and the drainage requirements for the Meadow Golf Course, as I just said, you know, now all the road runoff is coming over to the east to the Jacobs Drain. And so there needs to be assurance that the Jacobs Drain itself is improved to have adequate capacity. Whether it needs to be deepened, widened, in order to handle the additional stormwater runoff without compromising the level of drainage and flood control currently provided by the drain to the golf course.

So the road commission, as part of their project -- and they're paying for this, then, as part of that project -- is relocating the drain eastward, widening and deepening it and also enclosing the lower 200 feet. So that's shown right here, 200. We'll extend the 48-inch pipe up. And then

through this area, the drain needs to be widened and slightly deepened to the original design grades of the drain when it was cleaned out in 2006.

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Back when the flooding occurred in 2011, there was some observation that water from this area, that could not make it through the culvert under West Campus Drive here, just stacked up and then flooded over the road and contributed to a lot of that flooding. That culvert has been observed to be half full of sediment. So as part of this project, that culvert will be left in place, it will be cleaned out. But the road commission will install their own separate 24-inch storm sewer, essentially doubling the capacity of stormwater to get from the south side of the road to the north side of the road. So that will also be a great help during large storm events. And then easements are necessary along the east side for all the improvements.

So the downstream ravine, I have a couple of photos here. Those were taken last fall. And they're currently the condition. This happens to be on Grand Valley property. Highly unstable. And that's due primarily to the wooded corridor. Because once we get out of the woods, where there's sunlight and you get growth on the channel, the stability increases greatly. You got the roots there.

But in the woods, and because of the flashiness, you can just see how there's a lot of erosion, a lot of trees

lost, and then it just continues to unravel and get worse. It builds on itself.

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So with the additional stormwater being added to the system, we want to make sure that this existing problem, issue, is not being made worse. So the proposal would be that, then, to be able to establish that as a county drain for future stream bank stabilization work and operation maintenance.

So the next step, should a project or should the petition be determined necessary this morning, we would need to obtain route course descriptions for the drain, updated ones; permanent easements for the drain based on that route course; determine the final district boundary; come up with project cost estimates, based on a project scope; and then determine an apportionment of benefits; investigate grant funding to help assist in paying for some of the cost, if available, particularly if we are improving water quality with our projects, which would also be an intent of the water resources commissioner; and then design the improvements. And that would be in addition to what's already been designed by the road commission and being incorporated into their project. We'd have to go through an environmental permitting process and then finally bidding and construction, which would be down the road a ways.

So that's all of my formal presentation to the

board. But I would then open it up for any questions. 1 2 CHAIR. JERRY HUNSBURGER: Mrs. Schwartz, just for 3 clarification, if you go back to your first one that showed 4 the existing boundary of the Jacob, the brown, and then the 5 orange, what happens on the right-hand side of the gap in 6 between? And I know it's a proposal and it could change. 7 But if you could state something about that. Good question. So, yeah. 8 CLAIRE SCHWARTZ: These 9 are the lands added. And this gap in here is what you're 10 talking about? 11 CHAIR. JERRY HUNSBURGER: Yes. Those would be lands deleted from 12 CLAIRE SCHWARTZ: the district. 13 14 CHAIR. JERRY HUNSBURGER: They would be deleted. 15 CLAIRE SCHWARTZ: Right. Good question. 16 CHAIR. JERRY HUNSBURGER: Any other questions? 17 SEC. LARRY BRUURSEMA: Not here. 18 CHAIR. JERRY HUNSBURGER: Stand by. Okay. 19 that we'll go to open up the comments for public testimony. 2.0 And if you get into a technical question, we may refer to 2.1 Mr. Bush or to Mrs. Schwartz. 22 Let's start over on this side. Anybody that would 23 like to address the board, please go to the podium, with your 24 name and your address. 25 Good morning. ALAN HOFFMAN: My name's Alan

1 Hoffman. I'm a property owner on Campus Drive, Campus West 2 Apartments. 3 CHAIR. JERRY HUNSBURGER: Is there a way for him to 4 point where that is on that map? 5 ALAN HOFFMAN: Do you have your pointer? 6 CLAIRE SCHWARTZ: Right here, sir. 7 ALAN HOFFMAN: Right -- let's see. This is Campus 8 Drive right here? 9 CHAIR, JERRY HUNSBURGER: 10 ALAN HOFFMAN: So this right here would be added, 11 and that's Campus West. Campus West actually extends back 12 here. We are part of --13 CLAIRE SCHWARTZ: There's Campus West right there. 14 ALAN HOFFMAN: So this portion of the development, 15 which is about half of the development, would be added to the 16 drain, which is news to me, because I thought it always was 17 part of the drain. 18 This area up here is where we experienced the 19 flooding in 2011. And at the time that that happened, we 2.0 discussed the drain, the drain system along 48th Avenue here. 2.1 And it was, to my knowledge, determined that when all of this 22 water filled up -- and I'm not an engineer, so I'm not going 23 to have the right terminology. But what happened is, there 24 was so much water going through here, that it basically shut

The hydraulic sheer or

off the west side of the road.

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something. And once that -- once that occurred, all this water backed up and then everything -- everything just flooded at that point.

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So what I'm hearing today, to me, sounds like good news. We're going to open this up. We are going to install more drainage here. The water was sheeting across the road and contributing to my flooding problem. Once this -- once the water level went down right here, this -- then the west side freed up. And it basically -- I mean, I was standing there. It sucked the water right out of those apartments, I mean, really fast. I was amazed. But it still left a lot of damage. I mean, I incurred a lot of -- I mean, thousands and thousands of dollars' worth of damage.

So really my intent today was just to hear what the plan is. And it sounds like these are good improvements to ensure that this doesn't happen again.

CHAIR. JERRY HUNSBURGER: Okay. Thank you.

Anybody else on this side that would like to address this?

DON JARRARD: Good morning. My name is Don

Jarrard. I live on Ottawa Creek Drive, which is in this area
here. We have a condo there that is built on the edge of the
ravine overlooking Ottawa Creek. I don't know how much rain
there was last night. Yesterday Ottawa Creek was maybe 6, 8
inches deep. This morning it's nearly overflowing its banks.

Within four hours of a rain we had a dilution of water down

there.

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And what we're worried about is not only our taxes, as all of us are, but more water. You know, I understand you guys need to manage the water drain. But it just seems to me that ravine right there is fully eroded and Ottawa Creek is continuing to erode. It doesn't seem like there's enough maintenance done there to make that a clear pathway for the water to flow. There's trees down. And with all these dead ash trees, there continues to be trees falling in the creek every time we get a wind.

So my only thought is, if you're going to put more water down there, clean the creek out. Let it flow a little more freely. And don't raise our taxes. I'm good with that. Thank you.

CHAIR. JERRY HUNSBURGER: Thank you. Over to this side. Anybody in the front row that would like to address us?

ROBERT BROWN: I'm Robert Brown, assistant director facilities planning for Grand Valley State University. And we've had numerous discussions over the past few months with Joe and Jerry and the road commission over the drainage issues and difficulties that we have with drainage. The university has, for many years now, recognized the issues of drainage that just goes wildly into the ravines. We've spent a considerable amount of money and we're ready to spend more

money to deal with that problem on the east side of our campus where, in past practices, water has been discharged into the ravines. And so we're trying to deal with that to slow down those flows and abate the erosion that occurs in those ravines for the same reasons that Mr. Jarrard just addressed, because we have buildings on campus, too, that we would like to see remain stable.

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We have, it was mentioned, the ponds on the south side of our campus along Pierce Street, which we put in back in 2010-2011 to help redirect stormwater and control the flow of water off of our campus into the county drain systems, Curry Drain, as well as the Jacobs Drain. But the Jacobs Drain has been kind of out there as an orphan drain.

Nobody's been responsible for it. Nobody's maintained it.

Some years ago the university put money into cleaning the drainageway along 48th Avenue, because it had become so overgrown and was starting to obstruct drainage, just the drainage that comes from the golf course area.

So it would seem time to really get this district defined, get it under the jurisdiction of the water resources commission, and then address some of the issues that we have with the flows going into the ravine system that the Jacobs Drain comes across the golf course. We're going to have increased flow, as a result of the road construction. It's going to increase the flow in the drainageway across the

university property where it hits the ravine and then that ravine hits -- goes across M-45 into the Ottawa Creek.

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And if we don't do something to help address that flow, slow it down, all it's going to do is exacerbate the erosion that we see, not only along the drainageway across the golf course but up that ravine system heading north into the Ottawa Creek drain.

So I think it's time that we really do start to address those issues and try to correct and eliminate some of the problems that will continue to develop if we don't do anything.

CHAIR. JERRY HUNSBURGER: Thank you. Anybody else that would like to address the board on this subject?

JERRY ALKEMA: I got a real quick redirect. I don't know if you have to get up. Basically when I was out there with everybody -- I don't know if that pointer is still there. We refer to that sheet flow that was going across right there, you're talking there was some excavating going on, a whole lot of events going on at that same time.

As Claire mentioned, that cross tube there was partially clogged, so that created a water flow. I call it a sheet flow, because it was probably 20-some feet wide and about 6 inches deep, passing water to this side.

The roof drains on this complex, where they had some flooding in their basement, were connected to the storm

system. And, obviously, once you get enough water here -and Claire can correct me if I'm wrong -- but the 4 inches in
that period of time was considered a hundred-year rain. I
just want to be clear; that even with the improvements, we're
not intending -- I don't think Joe has any intention to
improve this where that incident won't happen again. You
can't. You can get a hundred-year-rain event and everything
is piped and plumbed for a 50-year-rain event, you're going
to have the same issue.

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So I know others had made improvements. But that one property owner we just met with did not disconnect his roof drains from his footing drains, which he incurred some of that. And I know the other property owner that had the same issue, put a backhoe in there, made sure that he was corrected and not having that future problem.

Outside of that, I just want to be clear that when we talk about the hundred-year-rain event, I don't think there's any anticipation that any type of improvement was going to be built to that, so . . .

CHAIR. JERRY HUNSBURGER: Thank you. Yes, sir.

ROBERT BROWN: Mr. Hoffman had alluded to the backup that occurred in the township drain or the orphan drain on the west side. Certainly, we know one contributing factor to that backup was blockage of the storm line that MDOT put in under 45. Again, as you get this erosion in the

ravines and then you get a significant rain event like we had 1 2 that year, that starts to wash the creek downstream and that 3 plugs up that orifice. The university cleared it out, 4 because I contributed to some significant flooding in that area on the golf course as well. So that was another 5 6 contributing factor for that backup during that particular 7 storm. CHAIR. JERRY HUNSBURGER: Thank you. Any other 8 9 questions or comments from the public? 10 I would ask the secretary: Do we have any written 11 communications on this topic? 12 JENNIFER VANDENBERG: No. WATER RESOURCES COM. JOE BUSH: 13 14 CHAIR. JERRY HUNSBURGER: With that, we will close 15 the public comment. And the three board members now need to 16 deliberate, if necessary, ask questions, relative to the necessity of this project. And with that --17 18 MEM. BILL CARGO: I think this is a pretty simple 19 and straightforward decision to make. There is a need. 2.0 We've heard about flooding. We've heard about plans for 2.1 this. We've heard about the need to bring the orphan drain 22 into the system. And so as far as necessity goes, without 23 commenting on specific aspects of the plan, I think it should 24 be a pretty simple and straightforward decision.

SEC. LARRY BRUURSEMA: I'll concur with everything

25

that Bill said. Something has to be done. 1 2 CHAIR. JERRY HUNSBURGER: Yeah. Obviously, there's 3 a problem. And, of course, this becomes under the 4 jurisdiction of the water resources commission. There's an 5 authority and a responsibility for going forward on 6 maintenance, likely the assessment for those that are going 7 to benefit, which would certainly include the township, the 8 road commission. I would assume the university is not exempt from an assessment. 10 WATER RESOURCES COM. JOE BUSH: They are exempt. 11 But just to make it clear, the university has mentioned that 12 they'd be willing to pay something, because they know that 13 they are --14 CHAIR. JERRY HUNSBURGER: So they are exempt? 15 WATER RESOURCES COM. JOE BUSH: They are exempt 16 from the special assessment, schools are. But we've had --17 numerous discussions have been had. It would be like a 18 voluntary, you know, contribute --19 CHAIR. JERRY HUNSBURGER: And is that your decision 2.0 as to what percent that might be? 2.1 WATER RESOURCES COM. JOE BUSH: Correct. 22 CHAIR. JERRY HUNSBURGER: Okay. Any other comments 23 from the board? 24 WATER RESOURCES COM. JOE BUSH: So I do want to 25 make it clear that Bob Brown -- and Grand Valley has shared

their feelings on it -- and had said, you know, we feel like 1 2 it's their ravines and their water; they would contribute and 3 work with us on how to come up with that figure. So it's not 4 a set amount. ROBERT BROWN: That is correct. 5 6 WATER RESOURCES COM. JOE BUSH: So I can't speak 7 for Bob Brown, but I've had numerous -- we've been in so many 8 meetings and --9 MEM. BILL CARGO: Really, that's not for our 10 decision. WATER RESOURCES COM. JOE BUSH: It's not for your 11 decision. But for the record --12 CHAIR. JERRY HUNSBURGER: All due to necessity 13 14 thing. 15 WATER RESOURCES COM. JOE BUSH: That's right. 16 CHAIR. JERRY HUNSBURGER: And there's no other comments. We'll entertain a motion. 17 SEC. LARRY BRUURSEMA: I'll make a motion that the 18 19 drain is necessary for the protection of the public health in 2.0 Allendale Charter Township and that a portion of the cost 2.1 shall be apportioned to the municipality at large. 22 MEM. BILL CARGO: And I would second that motion. 23 CHAIR. JERRY HUNSBURGER: And I support it also. 24 Without any further discussion then, let's have a formal 25 vote. All in favor say "aye."

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1
               MEM. BILL CARGO:
                                 Aye.
 2
               SEC. LARRY BRUURSEMA:
                                      Aye.
 3
               CHAIR. JERRY HUNSBURGER: Opposed?
                                                    The motion
 4
              We need to have a motion relative to the district
     passes.
 5
     boundary which, obviously, can be adjusted.
 6
               SEC. LARRY BRUURSEMA: I'll make a motion, also,
 7
     that the drainage district boundary be adjusted as necessary
     and lands be added and deleted as determined by the Water
 8
    Resources Commissioner as recommended by the engineer.
10
               CHAIR. JERRY HUNSBURGER: That's the motion.
11
               MEM. BILL CARGO: I support that.
12
               CHAIR. JERRY HUNSBURGER: Any discussion or
13
     questions on that?
14
               SEC. LARRY BRUURSEMA:
15
               CHAIR. JERRY HUNSBURGER: And call for a vote on
16
     that motion. All in favor say "aye."
17
               MEM. BILL CARGO:
                                 Aye.
18
               SEC. LARRY BRUURSEMA:
19
               CHAIR. JERRY HUNSBURGER: Opposed? That motion
2.0
              I think that completes the --
    passes.
2.1
               MEM. BILL CARGO: Do we need a motion to say that
22
     the financial -- some of the financial liability for this
23
     future drain project will rest with the township? Or do you
2.4
     already have that on the books?
25
               WATER RESOURCES COM. JOE BUSH: I thought you made
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1 that motion already. 2 SEC. LARRY BRUURSEMA: That was the --3 CHAIR. JERRY HUNSBURGER: The further --4 MEM. BILL CARGO: I just missed that in the motion. 5 So thank you. 6 CHAIR. JERRY HUNSBURGER: With that, no other 7 business for this board. Any closing comments? WATER RESOURCES COM. JOE BUSH: I just want to say 8 9 thanks for taking the time to listen and get the info. And 10 there is some good points. There's a lot of dead ash. There's a lot of downed trees. 11 I just want to make it for 12 the minutes, that that portion as you see was proposed in the purple, the ravine is unraveling. And we will be out there 13 14 and try to remove some trees. 15 And dead ash is a problem countywide and not just 16 Ottawa, but it's statewide. But we're having those 17 difficulties in every drain, it seems a lot. Just to make it 18 clear, we'll be out there to hopefully remove some trees, at 19 least get that portion out of the way. 2.0 So Bob Brown was right. What happened with the culvert under M-45 was plugged. We want to at least help 2.1 22 that not happen again. So that's all I have. I just want to 23 say thanks. 24 CHAIR. JERRY HUNSBURGER: With that, the meeting is

25

adjourned.

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1
                   (At 10:44 a.m., hearing concluded.)
 2
3
   STATE OF MICHIGAN
                          )
                               SS
    COUNTY OF OTTAWA
 4
5
 6
 7
                   I certify that this transcript, consisting of 32
8
         pages, is a complete, true, and correct record of the
9
         proceedings held in the matter of the Jacobs Drain
10
         held by the Board of Determination on Wednesday, May 4, 2016.
11
12
13
14
15
16
   Dated: 05/19/2016
17
                                    Terri L. Zimmerman, CSR-2882
                                    Certified Shorthand Reporter
18
                                    O'Brien & Bails
                                    141 East Michigan Avenue - Ste 206
19
                                    Kalamazoo, MI 49007-3943
                                    1.800.878.8750
20
                                    My commission expires: 2-12-2021
21
22
23
2.4
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