MONROE COUNTY DRAINAGE BOARD
REGULAR MEETING MINUTES
HEALTH BUILDING MEETING ROOM
February 6, 2013

MEMBERS PRESENT: Robert Autio, James Faber, Scott Dompke, Bill Williams, Kevin Enright *(ex officio)*

MEMBERS ABSENT: William Riggert

STAFF PRESENT: Todd Stevenson (Highway), Donna Barbrick (Surveyor), David Schilling (Legal), Dana Wilkinson (Highway)

OTHERS PRESENT: Bicel Dale Brand (petitioner), Bailey Brand (witness), Logan Owens (witness), L. Ann Hays (respondent), Jeff Fanyo (Bynum Fanyo & Associates), Roger Watkins (witness)

CALL TO ORDER: The meeting was called to order at 9:03 a.m. by Robert Autio.

APPROVAL OF JANUARY 2, 2013, MEETING MINUTES: Faber motioned to postpone approval. Dompke seconded. Motion carried.

IC 36-9-27.4-9 BRAND CASE (7440 EAST STATE ROAD 46)

Mr. Autio outlined the procedure for the hearing today. He said first would be a presentation by the petitioner, and then by the responder; these would be 20 minutes. He said then there would be a chance for rebuttal by the petitioner and then rebuttal by the responder; these would be ten minutes.

Mr. Brand began presenting his petition referring to several exhibits which he had brought in to Kevin Enright previously. At the end of his presentation, two witnesses, Mr. Owen and Mr. Watkins, answered questions regarding the flooding they saw on the property on May 8, 2012.

Mrs. Hays was represented by Mr. Fanyo. Fanyo said we were not provided documentation in advance. He said in 1985 Steven Ramsey sized the pipe for the driveway and Rogers Construction put the driveway in. He said in 1985 the Hays contacted me to establish flood elevations for Stephens Creek. He said at the time there was a gauge station there from Stephens Creek and those readings showed that this property had flooded previously. He said we also topo'd this area and we found that the contour line of the 100-year elevation was 563.7 surrounding the three sides of the existing structure. He said that Mr. Riggert did a study in 1996 and used one method and made certain assumptions and we think if he would have used a different method he

would have come up with a different result. He said we went back and looked at it again and we just got the report this morning. He said there are 140-some acres that flow through here including about 25 acres on the north side of SR 46 that flow through culverts underneath to get to this side of the creek. He said there has got to be some retention in those culverts; we have not taken that into account and Mr. Riggert has said in his report he did not take that into account either. He said there is not data after 1991 from the gauging station. Mr. Fanyo said I would like to have a chance to look at the evidence that Mr. Brand has; this testimony tells me that maybe there is a problem. He said the elevations of the ground dictate the flood plain and Bill Riggert's survey and my survey show that the flood elevation does extend around the Brand home.

Mr. Enright talked about how the ordinance started with a beaver dam and a farmer. He said the neighbor had a beaver dam across a natural watercourse and he liked the beavers; but the farmer's field was flooding and he wanted to be able to remove the dam. He said so the legislature wrote this law so that the county surveyor could determine if there was a beaver dam that was flooding a field and he could go in and remove the beaver dam. He said that's where the law started and that was the mindset of our legislature. He said we were dealing then with a real situation where you could go out and see the water that was ponding and affecting an adjoining property owner's use of their property. Enright said this is different; this is flood water, a dynamic process not creating a permanent pond but a possible restriction that is impacting floodwater damage. He said I don't know that the legislature intended the law for this or addressed all the consequences of what the interpretations would be. He said so we are dealing with how the DB wants to interpret the intent of the law with this petition.

Mr. Autio asked is there surcharge caused by the driveway above the backwaters of the Stephens Creek; I know we've had testimony from witnesses that says, no there was no backwater from Stephens Creek but there was backwater behind the culvert. He said this also gets to Jim Faber's question about what are the elevations on either side of the driveway. Autio said this is one of the pieces of information that is lacking and this would be a way to obtain that information. Autio passed around an illustration of a stream gauge. He said the stream gauge is submerged in water and you can very easily look out and measure the water level and if the top of that stream gauge was surveyed then you would have a water elevation; so this is one possible way to answer that question, is there surcharge. He said the Riggert report says there is surcharge and the Fanyo report says that it is backwater.

Mr. Fanyo said he only addressed the backwater of Stephens Creek. Mr. Autio says we have the observations but we lack the data of the elevations; I bring this up as a possible way to obtain the information.

Mr. Dompke said that culverts are designed to have headwater conditions and for the water to be higher on the upstream side than on the downstream side. Mr. Autio said that drains or culverts are only supposed to have a very limited surcharge. Mr. Stevenson said that gets into how they are designed and what criteria they are designed for. He said Mr. Ramsey probably looked at an available chart or something to size the culvert; we don't

know for sure how he sized it; he probably did not go through an analysis for surcharge the same way you would, for instance, when the DNR put in that bridge. He said for culverts of this kind like this driveway, a quick design is usually done with charts; the charts do not tell you what the surcharge is because it is usually not that much of an issue. He said it is an issue here because of what is located just upstream from the culvert and the fact that it is in a position that is vulnerable to floods so that anything that makes the flooding worse can affect the house. He said usually we would not have stuff right there.

Dompke asked did either of you run a culvert analysis with inlet control conditions comparing the existing watershed … Q-10, Q-100, whatever … to determine what the headwater conditions would be to establish some known and agreed upon designed storm.

Stevenson said the only thing that I have done is looked at the discharges. He said with hydrology there is a range of different numbers that different people could come up with. He said if you are just looking at a quick analysis and divide that by the area that is available to the culverts, from my experience if the velocity is over about 5 feet per second then there is going to be some significant surcharge. He said probably you would need something on the order of a ten-foot wide or twelve-foot wide by five- or six- feet tall box culvert to not have significant surcharge at that location (just based on a quick analysis). He said one of the things that I wanted to point out, if you look at these photos this is the 2012 flood and this is further upstream here; it's not right at the culvert. He said there is a drift line here and this is probably not under the influence of the culvert so much; this is what I would call channel control (the channel hydraulics are controlling the water elevations). He said you can see that the water level here is probably about two feet or so above the creek bottom and extends 10-15 feet outside of the creek. He said so that is what a channel control situation would be. He said then you have this culvert that is flowing half full here; now we have the testimony that it was completely full/submerged. Stevenson said this looks to me like what Scott Dompke referred to as culvert inlet control; so what appears to be happening here is that the water surface elevation here is being dictated by the culvert and especially by the inlet end of the culvert; it looks to me like the water is almost "waterfalling" down into the culvert and going through critical depth. He said I don't know if that is happening here for sure but you see this a lot of times with culverts when it's flowing full on the upstream side and you look at the downstream side and it looks only about half full. He said that is again agreeing with the testimony. He said what's happening on the downstream side is not affecting the water elevation on the upstream side. He said the elevation of the water here is being dictated basically by the entrance to the culvert; that's what it looks like to me. Stevenson said there are two culverts; the other one was added in 1998. He said when I looked at combining the areas of the three foot and the five and a half foot and take the 100-year discharge and divide it by those areas, it is significantly greater than 5 feet per second, which tells me that there is a high likelihood of surcharge. Stevenson said surcharge is just water that is above what it would be if it was just in channel control. He said I have not done the exact hydraulics but I have done some calculations.

Williams asked if Steve Ramsay's information was available for review.

Dompke said he had done some quick calculations as well. He said it seemed to be me that initially the culvert was appropriately sized and then they added in the second culvert. He said the finished floor is higher than the top of the pipe. He said nothing in any of these flood insurance things says that private property parked outside has to be protected from anything. He said what we are really talking about is damage to private property on ground that may or may not be in a flood plain but certainly may be in an elevation of backwater conditions under inlet control. Stevenson said if we are only looking at the first floor of the house, if it floods or not, then that would be one way of looking at it. He said but if we are looking at other issues such as the car flooding, mud in the crawlspace, flooding in the septic field, the constant concern and having to keep that culvert clear because if there is any obstruction there it will make it worse, then those are other issues in addition to whether the first floor of the house has flooded or not.

Dompke asked Mr. Schilling what makes this a dispute for the Drainage Board versus a dispute between two private property owners. Schilling said just the statute; the two property owners can engage in a civil action or they can come to the DB. Dompke noted that Stevenson had given testimony earlier that he felt it was an obstruction. Dompke said we had a list of questions for you, Kevin, and I still have not seen the answers to those questions; do we have a response to those questions? Enright said no.

Faber said Mrs. Hayes and her representative did not have the information before today. Autio said going back to the statute we can postpone and re-schedule the hearing in the interest of fairness, so in order to allow them to review

Dompke said I think it's also fair to request for answers to the questions we asked in January. Enright responded to some of the points. He said he has gone to hunt for the benchmark INDOT says is on the bridge. Mr. Fanyo said that a benchmark monument was destroyed during construction. He said they had set up their own benchmark based on that monument on the other side of the creek using 1983 datum.

Dompke said all flood plain mapping by the Feds is done in 1929 datum but everybody today uses 1983 datum for everything else, so we have to make that discrepancy calculation because the GIS will be 1983 but the flood maps will be 1929.

Dompke asked do you want to discuss intentional or unintentional? Autio says to me it looks like it was not intentionally created as an obstruction when the culvert was installed but through the course of history there has been flooding and we have Mr. Fanyo's report saying that flooding was backwater and Mr. Riggert's report saying there's headwater conditions and Mr. Stevenson saying he believes there is headwater. Autio said it seems that over time it has become an obstruction.

Enright said we are talking about different conditions and different storm events. He said a number of things have happened; one is the building of Lake Monroe. He said Lake Monroe never filled up to the spillway until 2002; since that time it has filled up a half dozen times. He said the adjoining property is the Army Corps of Engineers and Lake

Monroe. He said we start getting backwater effects; how does that impact the flood waters of Stephens Creek when it hits the Lake when it is full and the surcharge coming down from this tributary. He said when I saw it in 2008 that whole area was flooded; if you took this driveway out there was still going to be water up that valley.

Autio said this is where we are lacking information; if there was a gauge on either side, you could measure that and know if it's a backwater condition or is it a surcharge coming down through your watershed.

Brand said we have not had a 100-year flood since 1985; I have witnesses that have testified. He said it is a headwater issue. He said I built my house in 1995, but I was born in the middle house and lived in that hollar all my life and Stephens Creek has never backed up there. He said I got a septic permit from the Health Department.

Autio said from the USGS elevations, they do have elevations up to 563 which would come up to the low end of your property.

Fanyo asked about the crawlspace. Brand said it's at least a three-block crawl, about three feet basically. DNR considers the crawlspace to be the lowest floor.

Mr. Fanyo said he has done some preliminary calculations and plans to do more calculations after looking at Mr. Riggert's report. He said he is looking for a solution to the problem. He said having the gauge information would be wonderful but spring rains are coming. Mr. Brand said the elevation of the finished floor on the Riggert report was 566.94.

Mr. Autio asked if DB had any more comments concerning intention. Mr. Dompke said it looked to me like they hired an engineer to size the culvert and it appeared to me that they tried not to flood the house, but that it would naturally back up as an inlet control culvert. He said on short duration storms, which is what seems to be causing the issue here more often than the culvert is designed to surcharge at least to the top of the pipe and the top of the pipe is still some dimension below the finished floor. Dompke said I don't think they intended to cause an obstruction. Mr. Faber said those are my thoughts exactly; it is not intentional. He said they tried to counteract it by putting in the culverts and it was designed by an engineer, but apparently it was insufficient. Mr. Williams said I agree with what both of you are saying. He said but I also see what Bob Autio is saying that over time that there's been a problem and people have known about it. He said hopefully with Jeff Fanyo taking a further look at it, hopefully we can get it remedied.

Mr. Schilling said the bottom line is there may always be a flooding problem on that property and the question is does the condition created prevent or significantly impede the flow of water through the drain. He said the way that it is written it could impede the flow of water to some extent but it can't impede it significantly. He asked is "significantly" determined by the impacts it has or by some reasonable calculation where you say culverts can create a surcharge of one inch over a certain area or whatever numbers that engineers say. He said that is the issue of significance as well. Schilling said

looking down the road, there has to be some recognition that based on some of these studies in certain cases there is always going to be water on that property.

Schilling said drain is defined in this statute as a mutual drain. Dompke asked what is a mutual drain here. Schilling said a mutual drain is a drain on private property serving more than one private property that is made subject to the drainage law, a legal drain. Dompke asked legal drain or regulated drain? He asked if it's not a regulated drain or a mutual drain is it subject to the statute? Schilling said this statute is not written clearly; the definition of obstruction relates to a drain and not a natural surface watercourse; but later on it says that if there is an obstruction in a natural surface watercourse a person can petition. Schilling said so I think that makes it legitimate to be here.

Faber said one of the situations is that the drain now is only 44 inches in the center so it is obstructing some of the flow by not being 66 inches fully in diameter. Schilling said that gets to whether it is an obstruction not to whether it is intentional.

Mr. Brand said that he is not contending that the obstruction was intentional. He said the result of what got done is an obstruction and impedes the flow of the creek. He said I would like to try to work this out mutually so we can go on down the road and not have these problems.

Dompke said you are aware what the statute says about what we determine about whether it is intentional or unintentional because it matters. Mr. Autio says it does matter. Mr. Brand said the driveway and culvert were intentionally placed; they were mis-designed because they have never worked since there were placed and that very summer our property started flooding. Brand said the other thing about this code is it does not say it is to eradicate flooding on our property altogether; it is to promote better drainage on our property; that is what the code says.

Autio suggested a motion to continue so that the respondents can have an opportunity to review the information and then schedule an additional hearing or discussion at the next DB meeting. Mr. Williams brought up the point that Purdue Road School takes place during DB's regular scheduled meeting date. There was a discussion of rescheduling.

Mr. Autio suggested a motion: first to get the report from the county surveyor answering the questions that DB asked in November; secondly to postpone until March 20 the hearing on the Brand case so the respondents can review information.

Faber seconded Autio's motion. AYES: 4, NAYS: 0. Motion carried.

APPROVAL OF MEETING MINUTES JANUARY 2, 2013 AND DECEMBER 5, 2012. Dompke made a motion to approve the December minutes. Autio seconded the motion to approve. AYES: 4, NAYS: 0. Motion carried.

Faber motioned to approve the January minutes. Williams seconded. AYES: 4, NAYS: 0.

PUBLIC COMMENT

None.

ADJOURNMENT

Meeting adjourned at 10:45 a.m.

Approved:

Signed: Attest:

_____ _____

Robert Autio, President **Donna Barbrick, Secretary**