The Warrick County-Vanderburgh County Joint Drainage Board met in session this 18th day of July, 2018 at 2:01 p.m. in Room 307 of the Civic Center Complex with President Marlin Weisheit presiding.

Call to Order

President Weisheit: I've got 2:00. So, we'll call the Warrick County-Vanderburgh County Joint Board meeting here on July 18th to order.

Pledge of Allegiance

President Weisheit: If everybody would stand, we'll start out with the Pledge of Allegiance.

(The Pledge of Allegiance was given.)

President Weisheit: Thank you.

Approval of the March 28, 2018 Joint Drainage Board Meeting Minutes

President Weisheit: Come on in, Bruce. Appreciate everybody coming today, and if you haven't signed the sign in sheet, make sure you do that before you leave, so we have everybody in attendance here today. We'll go by our agenda here, approval of our 3/28/2018 Joint Drainage Board minutes. Has anybody had a chance to review them and approve the.

Commissioner Shoulders: So moved. I did.

President Weisheit: I have a motion.

Commissioner Bottoms: Second, Mr. Chairman.

President Weisheit: Okay, all in favor say aye.

All Commissioners: Aye.

President Weisheit: Show the minutes approved.

(Motion approved 4-0)

Indiana Department of Natural Resources (IDNR)
Overview of 2000 Report On Pigeon Creek

President Weisheit: We'll start out with old business today. I think Representative Bacon had invited a DNR representative here today. Is, are you guys present? Would you like to come to the podium and just introduce yourselves?

David Nance: We can do that.

President Weisheit: Yeah, and then we'll just try to answer some questions.

David Nance: Alright, I’m Dave Nance. I was the Engineering Geologist in the Private Development Section. I’m now Section Manager in the Private Development Section. This is David Smith, he is a Water Planner at the Private Development Section, and this is Wanda, I keep messing up your last name, Gaines, yeah. I knew another….Wanda Gaines. She is relatively new to DNR staff, she’s the Floodplain Coordinator/Water Planner for the southern half of the State of Indiana. So, she’ll be your new point of contact for your floodplain up there. So, that’s the three people you have here. The reason why, I guess, I’m here, is Jeff invited me.
Jeff Mueller: No, Ron Bacon invited you.

David Nance: Right, yeah, the message came around that way. The reason why we’re here, probably, is a line I wrote in a report 18 years ago. Alright, have you seen the report? Anybody?

President Weisheit: Freshen our memory.

David Nance: Okay. In the concluding paragraph, on a report I wrote in 2000, after doing a float (Inaudible), and after having several meetings down here, I wrote, let me read the whole paragraph; “Due to the local geology and hydrology, the area in question, four to eight miles either side of Vanderburgh/Warrick County line has been, and will likely continue to be, an area of recurring logjams. The current geomorphic conditions of the stream appear to be quite good, except for a few cross-channel logjams and some isolated bank erosion. Some corrective action is recommended for these areas. Periodic removal of problematic woody debris will be needed in the future, regardless of present actions. To that end, DNR recommends a cooperative relationship between the two counties be established for channel maintenance. This maintenance should not be extensive, but rather periodic removal of small cross-channel logjams. It should be emphasized that much of the in-channel woody debris observed on the float trip functions to provide some bank protection along with cover for fish and wildlife. Removal of debris in these settings would have a detrimental effect on the stream.” That’s the concluding paragraph of about a one page conclusion.

President Weisheit: And you, you probably still agree that that needs to happen, wouldn’t you say?

David Nance: I haven’t seen it for 18 years.

President Weisheit: Yeah, I mean, it’s a constant logjam issue, that’s for sure.

David Nance: What I do know, after being there, and since then, I worked in this area, I grew up in Pike County. I work in this area, I know these streams down here really well. I worked with Amax Coal years ago. So, I knew that specific site very well. That particular day, myself and a co-worker were put in a canoe at Heim Road and we took out at Green River Road, and we did it by ourselves. We didn’t appreciate that, first of all. That was the last time that’s every happened. I’ve never done that again. The, second of all, what we found in there was logjams that are not typical of a stream that’s unstable. It’s typical of a stream that floods out over it’s floodplain and brings all of the debris that’s there back in the channel. So, every time this stream floods out, you’re going to have debris in this channel. It’s at that critical width, and I’ve seen a lot of streams have this critical width, where it’s got enough floodplain above it to create a lot of water movement, but it hasn’t created a really wide channel itself. So, and then you had a wide floodplain. What happens is, you have this water coming down slow, it hits a flatter slope, broader floodplain, it picks up all of the debris that’s on the floodplain, anything that will float, floats, and then when the stream goes into the recession (Inaudible), it pulls a certain percentage of that material back in the stream. So, what you end up typically seeing in streams of this nature, is not a lot of green leaf tree falls, you see a lot of logs. A lot of brush that’s, sticks, logs that are larger diameter. A lot of them are broken, they have a lot of bark missing. They’ve been laying on the floodplain for awhile, they’ve traveled, they’ve had some transit time, in water transit time. That will continue to happen every time the stream goes out of its banks. But, the other side of that coin is, and I haven’t seen the maps yet, and I would recommend, highly recommend, that you use GIS to determine the differential elevation between the 1% floodplain and the actual, over the top of the bank topography, to see what that water depth is. We were just out there, I didn’t realize, where we took a canoe out, now there’s an actual canoe launch. So, fantastic, it wasn’t there in 2000. It was a much, it was a very long trip, and it was a really difficult time getting the canoe out of the water at Green River Road. But, the, we went out there and looked, and if you just go down to that canoe launch and look, I’m sure you’ve seen it in a flood, but when you’re going down there, it’s dramatic. This river gets really high. It engages its full floodplain, and it has to engage its full floodplain in order to pass the flow. So, the critical....and usually in streams of that nature, the critical feature is bridge crossings. If the bridge crossings stay free of debris and you keep that overbank area to the bridge crossings free, you maintain decent flow. So, what I saw in 2000, I doubt seriously is drastically
different than today, looking at the aerial photographs recently. There was one documented power line crossing there, and it was one of the sites I mentioned on there, because one of the footers for that utility pole, the footer was actually exposed at the edge of the stream. Now this is serious. This tower could fall, and it’s still there. 18 years later, it was on the cut bank side of the stream, that tower’s still there. So, nothing’s moved, it’s been, that’s what we were seeing when we were in there. The nature of these materials down there, they’re not sandy, they’re a silty clay. It’s actual glacio-lacustrine deposit off the Ohio River that tapers back in as you go up Bluegrass Creek¹ there. It’s this large lake feature, and any of you farmers that try to farm that, you know exactly what I’m talking about. What happens is, as the sediment from the river drains, during the glacial period when it’s really high, was being deposited, it deposited coarser materials towards the river, and they gradually fine back, or are fining backwards as you go up these valleys. So, all of these valleys down through here have this gradually finer and finer material as you work back up, and that’s where we are here. We’re dealing with a silty clay, steep, slick banks…yeah, it was. I was very fortunate, I had a 20 something year old, six foot six buddy with me that was in the front of the canoe that could scale the banks and drag a rope up and we traveled light, because we had to get around the bank three or four sites that way. The others we were just able to go either ride around, only a couple of them were really holding back water. None of them were fully obstructing to the top of the bank. During a flood, the top of the bank is almost irrelevant, because it’s using the whole floodplain to pass the conveyance. Some of this can be done with modeling to see how the flow actually works, the dynamics of the stream actually work. From a canoe safety standpoint, the debris is problematic. From an actual honest to goodness flooding standpoint, it may not be. One thing for sure, it’s still, I would stand by that component, if you’re going to try to keep this thing reasonably open, even for canoe passage, it’s going to take annual maintenance. It’s going to be a constant occurring problem. As frequently as that stream floods out over its banks, that’s how frequently you’re going to get debris in the channel. It’s the nature of the beast. The good thing is, it’s not inherently unstable. And, that’s, a lot of the things I’ve been called down on, that was the problem. They were doing what they call bifurcating. They’re so bad that the stream’s actually forming different channels. So, every year you don’t know exactly where the stream is going to be. It’s just all over the floodplain. It’s cutting new channels everywhere. It’s taking fresh trees in everywhere. It’s generating it’s own debris level. This one, it seems to be the debris is mostly laying there ready to be mobilized. Another thing I noticed in here that’s really surprising, after seeing several streams in Indiana (Inaudible), I didn’t note a tremendous amount of human debris. Androgenic materials, In this case I saw one, I think I documented one refrigerator. That’s rare. I’ve seen streams where, the same length, where we couldn’t even count them, it would probably be hundreds of tires, a lot of tires on wheels. And a tire on wheels is a whole different set of problems when you pull it out of the water. We had all kinds of small appliances, and general trash. This one didn’t have that. That could be because most of the area, upstream of Heim Road, has either been mined, or it really doesn’t have any immediate human contact with the floodplain. So, there may not be a source for that type of material. But, typically we see a lot of that, especially if it’s flooding out in people’s residential areas, cabins, things like that, it’s picking up everything imaginable. So, yeah, that’s what I saw. The report was out there, written in 2000. That’s why there was a Joint Drainage Board formed. I wasn’t involved past this, but I remember, at the time, that the wheels started turning towards a Joint Drainage Board. Does that answer some of those questions?

President Weisheit: Yes. Yes, it does.

David Nance: Another component that I’ve done since then, I went ahead and talked to USGS, if you want to try to understand how this system works, data is important. I think there’s a gauge up at Ft. Branch, which is almost too far away to be that useful. What you’re wanting is something down here. What you have, if I wanted to show you I could, but, and if you wanted to get online, the screen’s a little small, you could get on our website and I could show you the floodplain map. What you’ll see if you pull up the National Flood Insurance Program Map, you’ll see a feature at the one percent flood level that looks like a lake. It’s a large body of flooded area. If you look just downstream, which downstream is about I-69 or Green River Road, it stops and it becomes more of a stream conveyance

¹ Should be Pigeon Creek.
from there on down. The stream slope increases as it approaches the Ohio River, it’s cutting through some of the sandier soils down through there. The depth, the width and all of the characteristics of the stream start changing right in there. So, to get a discharge measurement, it would be somewhere in that area. I talked to USGS, got some pricing structures on that, but also some location ideas. They can’t locate on an interstate bridge. We were just out there and drove around, Green River Road bridge doesn’t work, because they can’t get out of the flow of traffic. The next one down—

David Smith: Lynch Road.

David Nance: --Lynch Road does work. It looks to me like, with that border they’ve got there, in order to do a gauging station, what USGS….is everybody familiar with a USGS gauge? Okay, they collect data. A USGS stream gauge measures stage. It doesn’t measure flow. They publish flow. The way they go from stage to flow is they go out there frequently, at different stages, and measure the flow with equipment. Then they plot that against stage to determine a curve, and then use that curve to determine what the flow is. In order to get those repeated measurements, they have to have staff on a bridge deck, multiple times in a year’s time, and then for years they keep doing that. So, they have staff out there regularly measuring these flow measurements so that can get what they call a rating curve for that gauge. Then they use that rating curve to determine the flow. To determine what the flow is, they need a gauge in that location. The other component of this is, and when I was looking at it, I said, we have another site not unlike this, although no two are even similar, but anyways, and it’s nice to have an upstream gauge in what I considered a pool area. In this particular case, Heim Road would be on the upstream end of the pool area. That’s a good bridge. We didn’t have time to get out there and drive across it, but I remember putting in there, and my contact at USGS, that’s what they do, he looked at it and said, that looks like a much better bridge. I remember driving across Stevenson Station Road Bridge, unless it’s changed a lot, it was too narrow then. So, yeah, that would be the two gauge package that you could possibly get some data on this site. But, that just gives you data. Right now, from the report, it looks to me like, yeah, there’s some debris that could come out. Would I say should come out? From what I saw then, I did say it then, if you want to make it passable by a canoe, it needs to. If you want to make it passable to a natural flow, I don’t think it makes any difference. It depends on that depth. Once you get that map developed that shows BFE…and then there also should be, could be a published ten year event. What we see in a lot of these places, is the one percent flood, which is our regulatory flood, is what Wanda uses all the time for houses for the National Insurance Program, it’s what all of our mapping is done at is the one percent flood. That usually doesn’t cause people the problems. They don’t, that’s not why we meet, okay? We meet because of the ten year event.

President Weisheit: It seems like we’re having one of them about every six months now.

David Nance: Right, and you’re not the only one.

President Weisheit: Yeah, I know that.

David Nance: Okay, you’re not the only one.

President Weisheit: Yeah.

David Nance: It’s these ten year events that are just getting you. And, that’s what brings us into these meetings. So, it may be passing the one percent flow just fine. It may be passing the ten year flow just fine, but those maps will show you how much floodplain it’s engaging to do these things. So, knowing how much floodplain you’re actually engaging is important, but the stream itself still looks stable. I mean, you look at the aerial photographs over time, it’s still basically the same. But, if you look back at other streams in Indiana, you won’t find that to be the case. Over time they meander a lot. I live in Mooresville, I like on White Lick Creek. White Lick Creek is one of the most unstable streams in the State of Indiana. West Fork and White is also one of the most unstable. These streams will move over 100 feet a year.

President Weisheit: Really?

David Nance: Yeah.
President Weisheit: Cut new pathways, yeah.

David Nance: They just cut, they just eat their banks out and abandon channels and move back the other direction, and they’re just constantly moving back and forth.

President Weisheit: Well, I think we need to continually work with Warrick County, and especially Vanderburgh County on trying to clear these logjams. We have several farmers, at least a half a dozen here, in our Stevenson Station area that deal with this flooding every year. I mean, every year it seems like they’re getting wiped out out there and have to replant their crops. It’s very devastating to them. So, that’s why we started these meetings to try to—

David Nance: Yeah.

President Weisheit: -- help them with this problem, and to get the logjams cleared out, you know, Warrick County is willing to help Vanderburgh with that issue.

**Update on Discussions with Peabody Coal: Retention Areas**

President Weisheit: But, before we go into that any further, one other conversation, which we’ve got on the agenda here, in talking to Peabody they have, since you guys are here, I know we have one representative here from Peabody, and I’m not trying to put her on the spot by any means, but they have several areas of the Pigeon Creek area that they’re trying to get bonded and permitted to mine coal. I mean, it’s probably three years out the way they’re working, but it’s in the Elberfeld bottoms, but it’s right in Pigeon Creek. Is that something that DNR would be willing to have open talks with Peabody to see if there could be a reservoir put in there or something?

David Nance: I can’t, yeah, I can’t say what we can and cannot do. If she looks back on some of the drill records, my name is probably on them.

President Weisheit: Uh-huh.

David Nance: Alright.

President Weisheit: Yeah.

David Nance: I know that, yeah, they have mosquitoes down there that long.

President Weisheit: But, I mean, yeah, Commissioner Ungethiem here brought it up here at one of our first meetings about, gosh, that would be a perfect place to put a reservoir in, and while they’re mining in that area, it would be something that might work. It might work very well for Peabody and DNR and everybody in general.

David Nance: That’s one of those things where you start with the data.

President Weisheit: Yeah.

David Nance: And, you have to have that flow data. It depends on how much water you’re moving and how, it depends on the rate of movement and the quantity of movement. For a reservoir to work for flood detention, it has to have capacity. It’s really hard to get capacity without a lot of topography.

President Weisheit: Uh-huh.

David Nance: It can’t have a pool in it. So, the capacity is all of the area above water surface. One, yeah, Patoka has just seven or eight feet. Monroe doesn’t have very much. But, Lieber, Lieber has like 50 feet of capacity. That means that our facilities at Lieber go under water. Our beachfront facilities are designed to go, will be submerged on a regular basis. The bath house, everything there goes completely under water, because they use that storage capacity for flood (Inaudible).

President Weisheit: Uh-huh.

David Nance: To design something that does that as a passive system is really difficult. The Army Corps of Engineers reservoirs are active. They have staff on them 24 hours a
day, seven days a week. It would either have to be automated or it would have to be staffed—

President Weisheit: Uh-huh.

David Nance: --or both, in order to maintain that relationship. You’re trying to store water, you’re trying to detain, not retain water. Most lakes that we think of are retaining water. You’re trying to detain it, so you have to hold it for awhile and then let it go.

President Weisheit: Regulate it, regulate it.

David Nance: Right.

President Weisheit: Right.

David Nance: And then let it go. You have to let it go, and, you have to let it go before the next rain event. That’s the problem. It’s a constant, if you ever go on the Army Corps of Engineers site, you can, and weed your way through those lakes, you can get down to seeing some of the operational plans for, that they use for their flood reservoirs, and see how well they stay on there on their operational curve. It’s really difficult, even with full staffing to stay on an operational curve.

President Weisheit: Yeah, but, you know, our Bluegrass area out there, that’s the results of Amax mining, and that’s turned out real well, real beneficial to Warrick County and the surrounding area.

David Nance: I was involved in that too.

President Weisheit: Yes, you was. You’re very familiar with that, but as we plan ahead and as Peabody’s trying to plan ahead to get this ground permitted to mine, I mean, they own a lot of acres in there. I’m just guessing, well over a thousand, I would assume. Or you would have that much coal resources there that they’ll want to mine that would last them, the mine for several years, and if DNR could work with them, at least to consider a reservoir in that area, and that’s about all that ground would be worth out there. I mean, that ground is bottoms, and I know you’ve got to deal with IDEM and everything else out there, but like you say, that’s got a lot of swamp and a lot of mosquitos, but that could turn out to be beautiful reservoir and be a real asset to the community, and then be beneficial to the farmers here, you know, to control the water, you know.

David Nance: It won’t be a beautiful reservoir.

President Weisheit: It won’t?

David Nance: No. Not if it’s used for flood detention.

President Weisheit: Yeah. Well, it would be better than what it is currently though. Have you ever been out through the bottoms there now, I mean, it’s just growed up—

David Nance: I’ve been that deep in it before.

President Weisheit: Yeah, so you know what I’m talking about.

David Nance: I’ve been that deep in it, okay?

President Weisheit: Yeah.

David Nance: Yeah, yeah, I’ve been this high off the ground in a piece of equipment and having my feet get wet.

President Weisheit: Yeah.

David Nance: I’ve been, you know, that’s, yeah, I know what that’s like out through there. The problem is, you have to, in order for it to work, you have to store water. How much water do you have to store? I don’t even have a guess. I have no idea how much water
is going underneath Green River Road. Over how much time, how fast, nothing. I have no idea what that storage component is. So, the first thing you have to have are those numbers to plug in there in order to make something that will work.

President Weisheit: But, you know, I'm just thinking, while they're mining and if they're mining coal 90 and 100 foot deep, they could end up with 50 foot of water, and it wouldn't have to be, it could still be a detention basin, but it could be regulated and have a lot of depth too, and really turn out to be a lake, in a sense. Like Patoka Lake.

David Nance: (Inaudible. Talking over each other.) From a dam safety standpoint becomes another thing.

President Weisheit: Right.

David Nance: You have to design it so it handles the full load without failure.

President Weisheit: Uh-huh.

David Nance: Worse case scenario is that a reservoir fail at its design pool.

President Weisheit: Uh-huh.

David Nance: So, it has to be extremely well built.

President Weisheit: Yeah.

David Nance: There is good (Inaudible) out there to build something like that.

President Weisheit: Yeah.

David Nance: But, that's what that (Inaudible) is.

President Weisheit: And, you know, a company the size of Peabody could do that. I mean, while they're mining and save them probably on reclamation as well. I mean, I'm just taking a pipe dream and trying to put some reality into it where we have open communication, that's all I'm thinking of.

David Nance: It is post land use.

President Weisheit: Yeah.

David Nance: I know, from the mining standpoint, it is a post land use. I have no, I've been out of the mining end so long, I have no idea what the wetlands impacts are.


David Nance: Yeah, yeah, I would think that that one thing would make...that reservoir does not mitigate the wetlands (Inaudible).

President Weisheit: Yeah.

David Nance: That's the problem they would have there. If they go back as a wetland, they at least are down the road on that a little bit. Yeah, from the wetlands impact standpoint, but, yeah, I think that's one of the problems we had with it at the time was, just, yeah, it's a tough site to mine. But, yeah, if you're trying to store your, if you're trying to use storage, and that is a key component, you're right—

President Weisheit: Uh-huh.

David Nance: --if you try to use storage, and we use that in several basins in Indiana, but they're all Army Corps of Engineers. There are no storage reservoirs, that I'm aware of, in the State of Indiana that are used for any kind of flood control, actual flood control, that are not operated by the Army Corps of Engineers. It's just a very difficult proposition, and it's a difficult thing to manage.

President Weisheit: Okay, well, appreciate the information on that.

Commissioner Ungethiem: David, could I ask a couple of questions?
Madelyn Grayson: Turn your microphone on. Now try again.

**Discussion of Possible Dredging of Pigeon Creek & Maintenance**

Commissioner Ungethiem: Okay, now it’s on. We have been looking at Pigeon Creek from the mouth to Warrick County line. There’s about 13 miles of Pigeon Creek, give or take, that meander through downtown Evansville, for the most part, and then meander out towards the east side, cross over I-69, and then cross into Warrick County. What we have been trying to understand is who has the responsibility for that section of the creek. It is my understanding that about 5.9 miles of that creek, from the mouth up to about Stringtown Road, is designated as navigable waterway, and my understanding is that falls under the Army Corps of Engineers. Is that a correct assumption?

David Nance: It was declared navigable at Statehood, I believe. Yeah, it’s—

Commissioner Ungethiem: Well, they used to actually float barges up there—

David Nance: ---it’s a change of regulatory status, but in terms of maintenance, it’s not. Just because it is or is not a navigable stream doesn’t mean that there’s any change in the maintenance end of it. No one maintains it just because it’s navigable, unless the Army Corps of Engineers were using it, like the Ohio, for navigational purposes.

Commissioner Ungethiem: Right.

David Nance: Then they maintain it for navigational purposes, and they are budgeted to do so.

Commissioner Ungethiem: I guess, that is our dilemma, as we look at Pigeon Creek going through Vanderburgh County, is that it is not a regulated drain, so Vanderburgh County, in and of itself, does not have jurisdiction to go up into that creek and do any cleaning or any kind of maintenance work, because we simply don’t own the right-of-way to do that.

David Nance: Uh-huh.

Commissioner Ungethiem: Each individual property owner that’s on each side of the creek owns a piece of that ground, and in order to get on their land and do the proper clearing and do the stuff that you need to do, obviously, there’s a whole lot of legal activity involved in that. Given that, how would you suggest that we, as county government, or we, as city government, maintain that creek?

David Nance: First of all, without data, I’m not sure if, it depends on what you define as maintain.

Commissioner Ungethiem: Well, I’m just thinking keeping it clean.

David Nance: If you define it sufficient to pass the 100 year flow, probably nothing. If you define it to pass bank full flow as efficiently as possible, yes. Is that what you want? Probably not. It probably doesn’t have enough capacity, bank full, to make any difference. It’s getting so much capacity as soon as it goes a foot higher, as it spreads out over that broad floodplain, but we just simply don’t have the data to know that. We have hydraulic engineers in our division that work on problems like that, but you’ve got to have data. Right now, we’re fortunate in that there is a lot of mapping data available, there’s just the missing flow component. So, it’s, with Lidar, you know, I think both counties, but I know Vanderburgh County has really good Lidar and a really good GIS staff, you can do an awful lot of that detail mapping, and it’s not a big exercise for a GIS technician to generate that map I’m talking about. If they, I know we’ve got a BFE of one percent flood elevation. If there is a ten percent flood elevation, in a ten year flood elevation, and a ten percent chance occurrence elevation, then to plot that out, see how high it is over that bank. Then, in some cases, there’s even a two year. It, typically speaking, a lot of streams develop their overbank areas at the two year floodplain. That’s pretty typical. So, the fact that it’s breaking out more frequently over that two year is not uncommon, it’s been doing that all over.
Commissioner Ungethiem: We spoke with a dredging company, it’s the same dredging company that does the dredging of the Ohio River and creates the sand pile out here in front of the horseshoe, and I asked the guy who was doing that to give me an estimate of what it would take to clean Pigeon Creek, to go in and clean and snag all of the, at least the dead wood laying in the bottom of the creek and get it out of there, and he came back and he gave me a price, and it was $380,000, or whatever it was, and he planned on doing it by water, coming up through the water as it was sufficiently high enough to go in with a barge and clean everything out and pull it out. But, the other thing he told me when he did that, he said, if you’re planning on this being a solution to your problem upstream, you’re fooling yourself, because it won’t change the dynamic, or the flow dynamics of that stream significantly. Do you agree with that concept?

David Nance: Need data. Just need data. Without data, and I’m the Engineering Geologist, it’s not my area of expertise. Once you get the data, I’m looking at it from a natural setting, with my area. They would be looking at it with data to try to actually figure out how it’s behaving. But, what I’m saying is, I would have to agree with him, number one, and number two, I’ve seen it in other places when you go in and get too aggressive and you take something that’s stable and make it unstable. And, once something becomes unstable, it tends to stay unstable. So, instead of having logs you have trees. That’s worse. The logs that are in there, I would say, unless somebody’s done a major maintenance project out there since 2008, it may or may not be much worse than it was in 2008. What I saw just at Green River Road, probably looked better than, yeah, at Green River Road looked a little bit better than what it was when we were down here. I doubt that anything’s been done. The smaller debris that floats in, tends to flush out, and new debris takes its place. So, it’s that new debris taking its place that’s going to be a constant problem. That may be what he was talking about. I can’t advocate for dredging, because I’ve seen it cause major problems, partially, and secondly I know how expensive it is. If I took, if I take the numbers that I generated, which I can’t say how I did that, it was 18 years ago, don’t have that sheet in front of me at all, I was working with a colleague that had a lot of experience doing it, at the time, and working through those numbers. If I take that today and bring it into today’s standards, it would be a one time occurrence of somewhere around $75,000-$80,000. I look back and say, wow, I don’t know if we can do it for that much or not, but that’s what it would be. That was only a partial, ignoring a lot of the sites completely, where we were able to get through them. There would still be a lot of debris left in the channel. There’s debris that’s completely beneficial to the stream, that’s holding the bank together. If you take it all out, there’s a pretty good chance it could go unstable. I was amazed, when I looked at it from my standpoint, that at Heim Road, immediately downstream of Heim Road, it doesn’t go more unstable. I think that may be some testament to the mining activity up above. You’re getting a tremendous amount of water flow coming in, and usually when you transition on that size drainage area from a ditch drainage basin, into a natural drainage basin, the natural drainage basin just falls apart. This one didn’t. That’s a pretty good testimony to the stream itself being able to hold up pretty good. Mississinewa, up at Ridgeville, they have GIS, you can pull your phones out and look at it. Go up into the Central Northeastern United States, Indiana, right near the Ohio boundary and look for the community of Ridgeville. The Mississinewa River is completely dredged to Ridgeville. There is not one mile of natural stream conveyance, it’s about a 50 mile drainage area upstream of Ridgeville, and then it goes natural, and the stream absolutely fell apart. It’s bifurcating in several places. It’s constant logjams, and it’s causing true flooding because of the logjams. There was a letter written in the 1960’s when the Army Corps of Engineers was going to dredge that section, protesting it, because the lady, the local lady said it would probably fail the rest of the stream. She was right. It did. It can’t go back. This is the way it’s going to be now, and it’s not going to go away in a hundred years or more. It’s just the way it’s going to be. This is the new normal for that stream. It will take it a long time to find any kind of normal channel to stay in. It’s just going to be a very irregular stream. Will this one ever go that bad? I don’t think so. I don’t think the geologic conditions are right to make this one go that bad, or it would have. So, I think the limiting factor here is the geology. It’s keeping this stream from pulling apart, and it may be some of the mining upstream has created more of a morainal type drainage basin, the infiltration rate and the soil is high enough, you’ve got enough water, natural, you’ve got enough man made detention, in spoil, (inaudible) inner areas, that you’re getting a detention benefit up there that can’t be quantified, because we don’t have any numbers. That’s part of the problem. That would be a major research
project to even understand what that would be. There’s a bunch of…I have a supervisor that used to say, that without data it’s a bunch of arm waving. What I’m doing right now is a bunch of arm waving. There’s just no data to say what’s going on there for sure. What data we have, what little bit I’ve got, a little bit in that 2000 report, would suggest that there’s no problem at the one percent level, in terms of being able to pass its flow. What I’m hearing is the stream (Inaudible) all the time, and floods the floodplain. That’s what streams do. Is this one doing it more often because of something wrong, or is it doing it more often because it’s raining? We don’t know. But, we are seeing this in all areas.

Discussion of Transition from a Ditch to a Natural Stream @ Heim Road

Commissioner Ungethiem: You mentioned that this watershed transitions from ditch to a natural stream, I think is what you called it. Where does that transition take place? And, what is the designation between the two? Is it pitch?

David Nance: You can see it on the aerials.

Commissioner Ungethiem: Okay.

David Nance: Yeah, pull up the aerials and look at it, it’s Heim Road. The, yeah, anything linked to that, yeah, if you go on our website, but anyway, if you wanted to take time I can show you how to find that out. But, if you just look at an aerial photograph, you’ve got straight, linear features with isolated bodies of water that are sickle shaped on the sides, that’s where the original oxbows were cut off. Okay? And, they were ditched down the center. At Heim Road that stops, and we go back into more of a meandering stream.

Commissioner Ungethiem: So, you see the meandering portion of it, which tells you that—

David Nance: It’s a natural—

Commissioner Ungethiem: --number one, it’s a natural watershed, and most likely it is at a lower pitch, or a flatter pitch?

David Nance: No, it’s just that it’s, the meandering section of it would indicate that it’s, more than likely a natural stream. I don’t know of any in Indiana that maintain their meandering pattern once they were ditched. All major streams I know of, the whole point of the ditching was to make the water flow faster. So, the one thing they did not invest money in was keeping that length in there. That stream length that comes in that pitching, back and forth, going back and forth, what that does is it provides a longer flow path for the distance being covered, when it’s in channel. Okay? When you ditch it, you shorten that flow path of the distance being covered. So, the velocity goes up and so does the erosion rate, with the velocity. You know, as you say, the pitch of the stream, and that’s in the report too, it’s mentioned in the report as showing in there, but when you can take something that’s maybe a foot per mile, it meanders, and ditch through it, and end up with something that’s maybe a foot and a half to almost two feet per mile, depending on the depth of the (Inaudible). Well, that increased differential in elevation and shorter length, means your velocity has increased substantially. A stream that was stable, for its particle size and load at one foot, may not be stable at all at two feet per mile. So, that’s, well, you can see it on an aerial photograph, you can see what I’m talking about. You can look in there, and you can look through and you can see that it’s ditched. When that was done, how that was done, that was beyond the review of the paper I did. Thankfully, I wouldn’t want to dig back through there. Who did it, or anything else about it. A lot of these things happened before 1970. Yeah, and all the way back to 1900. Yeah, I’m again, I’m from Pike County, the Patoka River is the same thing. It was ditched by the Army Corps of Engineers, it caused a lot of problems, yeah.

Commissioner Ungethiem: Okay.

President Weisheit: Dave, can we get a copy of that report?

David Nance: Yes.

Jeff Mueller: I’ve got it.
David Nance:  Yep.

Jeff Mueller:  I'll email it out.

David Nance:  Okay. Yeah, it’s, again, it was early in what I was doing, but I read through it and I say, yeah, (Inaudible) the same canoe trip that I remember, I would probably write almost the same report.

President Weisheit:  And, was the purpose of the report basically the same purpose that we’re discussing today?

David Nance:  It stated in there, yes, yes. It's stated in there, and it starts out...it's only nine pages long.

President Weisheit:  That's good.

David Nance:  Okay, by report standards, it's short, and by text standards, it's short. The response to Representative Stillwell’s (Inaudible) that IDNR, the Division of Water staff, conduct a meeting with some of the concerned citizens to identify the reach in question, and their specific concerns, review aerial photography and flood insurance studies, along with reach in question; conduct a float trip to evaluate potential channel obstructions; coordinate preliminary findings with IDNR and Fish and Wildlife, along with U.S. Fish and Wildlife, and prepare summary document of the findings and recommendations for (Inaudible). That was the purpose of that trip and this report. It sounds kind of like what we’re here today doing, yeah.

Tim Mosbey: Can I ask you a question?  You made the statement earlier, and I wanted to make sure I understood you correctly, I mean, we’re all farmers (Inaudible), economically speaking it's disastrous. But, did you make the statement that we went in there, the meandering areas, Bruce and I did a canoe trip six, seven years ago, I think, to be honest with you, there is a lot more logjams than there were 30 years ago.

David Nance:  Okay.

Tim Mosbey: Ten years ago, you know, but if we remove those logjams, you’re saying that wouldn’t help our flooding problem, between Heim Road and the county line?  

David Nance:  It may help your flooding problem, but it also may completely blow out the stream downstream.

Tim Mosbey: We don’t care about downstream.

David Nance:  The amount it helps your flooding problem may be (Inaudible. Talking over each other.)

Tim Mosbey: The City of Evansville can go (Inaudible) the Ohio River right on in there.

David Nance:  You may still flood. Instead of flooding out and destroying 40 acres, you may only destroy 30, with the same event. You’ve spent a tremendous amount of money to do that. We need to have the data to show how much benefit, your cost benefit ratio is ahead of time, and the data to (Inaudible).

Tim Mosbey: So, we get started on collecting data for the purpose that we’re looking at here—

David Nance: How long does that take? How much does that cost?

Tim Mosbey: We’ll be dead and gone. This is very frustrating.

David Nance:  I can appreciate that.

Eldon Maasberg: Wouldn’t you also need to know (Inaudible) from the Ohio River, because that holds their water from getting out too.

Tim Mosbey:  No, it doesn’t.

Eldon Maasberg: Yeah, it does.
Tim Mosbey: Ohio River levels have no effect on Pigeon Creek. As an old timer, and I consider myself, I'm becoming an old timer, we've watched it too many times, it don't matter what level the river is, the water doesn't get to the river. It's all getting backed up before it gets to the river.

David Nance: Exactly.

Tim Mosbey: All the meandering logjams that we discovered on our canoe trip, there's a lot of major logjams, from Green River, Lynch, Oak Hill, Stringtown we went all the way, I forgot how, we finally got tired of (Inaudible) on logjams.

David Nance: What I'm saying is, if you took all of the logjams out of there, (Inaudible) two foot over the top of the bank problem may go away. But, does a two foot over the top of the bank problem solve your problem? Or is it an eight foot over the top of the bank problem that's causing your problem? I don't know. It may not affect that eight foot. (Inaudible).

Tim Mosbey: Two foot less (Inaudible) a lot of acreage.

David Nance: (Inaudible) it won't be two foot less. That's the problem.

Tim Mosbey: (Inaudible. Not at microphone.)

David Nance: Yeah, it won't lower that eight foot, two feet. Once you get, once that stream breaks out over its banks, it gets huge. Yeah, and it's ability to transmit water downstream gets larger with it.

Discussion of Jurisdiction & Possible Funding

President Weisheit: David, two questions that I would have here, I think's been in everybody's mind, would we have jurisdiction to go in and clean them logjams. I mean, the City of Evansville and Vanderburgh County, if they wanted to do that, with some assist from Warrick County?

David Nance: I can't, I'm not, it's not my position to answer a jurisdictional question.

President Weisheit: Yeah.

David Nance: Is this a regulated activity? Yes. Is it a permissable activity? I'm sure it is.

President Weisheit: Yeah.

David Nance: You can apply for a permit for anything, and, as far as I know, I always say it's called a permit, not a denial process.

President Weisheit: Yeah.

David Nance: You may just not like the conditions on which you get permitted.

President Weisheit: Yeah, and I think it should be permitted, so, like you said, you don't do anymore destructive damage. You wouldn't want to take any trees out on the bank, but just clear the logjams without disturbing the bank. I mean, I think we're all clear on that. I guess, the other question I would have, is there any funding through DNR, or Army Corps of Engineers to help with that, that you're aware of?

David Nance: Again, funding is not something that I answer directly. I can say that I know of no identifiable funding source in DNR, outside of our Lake And River Enhancement Program.

President Weisheit: Okay.

David Nance: LARE, that would provide anything for logjam removal. Logjam and debris removal. They do, it's competitive, they normally have about four times as many requests as they have money to grant. That is a funded mechanism through boating fees.

President Weisheit: Okay, thank you.
David Nance: I can't, yeah, I can't say how this would be reviewed at all, but that's the only mechanism I know of now.

Joe Harrison, Jr.: Well, we've got a canoe launch.

David Nance: That's right, and you've got a lot of sponsors for that canoe launch. I took a picture of the sign. You've got a lot of sponsors.

Public Comment

President Weisheit: If anybody else has got any questions, I know Madelyn's writing down names, but please just come up and use the mic and state your name, but she knew you too, I think she got the notes.

Madelyn Grayson: He talks loud enough that it picked it up.

President Weisheit: Yeah.

Tim Mosbey: My wife tells me that all the time.

President Weisheit: So, and at this time I would like to open it up for anybody else that's got anything to say, but please just come up to the podium, state your name and where you live.

Manfred Stahl: Manfred Stahl, I farm in Vanderburgh and Warrick County. Just to clarify a few things, and if I'm wrong in what I'm saying, tell me so or back me up, whatever. What we're concerned about is, living in the community and farming in the community, and also letting our neighbors hunt and fish or whatever they want to do in the Pigeon area, Pigeon Creek area. We're, what we want is the bigger logjams cleaned out. The ones that's choking up better than 25 percent of the creek flow, or creek volume. We don't want every little thing cleaned off the bank, and we know that's not even practical. Now, since 2000, there was a big logjam cleaned out back there on the Wagner's in Warrick County.

Tim Mosbey: '07 or '08, wasn't it, when we—

Commissioner Ungethiem: Uh-huh.

Manfred Stahl: And then that was a huge one. That was cleaned out. Do you have any idea of how long they worked on that? A couple days?

Unidentified: (Inaudible. Not at microphone.) Wagner property—

Manfred Stahl: Yes.

Unidentified: (Inaudible. Not at microphone.) 2013.

Manfred Stahl: Yeah, about three days? Yeah, that was a huge one. Sometimes when those logjams get in there, if they're more or less on one side, if they're not taken out, then it diverts the water and just cuts out the other bank, and then you've got more than the meandering, you've got a mess.

President Weisheit: Yeah.

Manfred Stahl: So, what we're concerned about is just trying to get those larger—

President Weisheit: Logjams.

Manfred Stahl: --logjams out, and get them out when they occur, rather than have them in there for years and years, where they keep collecting, and quite often those, what I see where we're involved, is usually a damaged or dead tree falls into the creek, and they've still got all of the limbs on it, and then it just starts collecting everything. So, I think that's what we as community members out there and farmers—

President Weisheit: And I agree with ya. I agree with ya.
Manfred Stahl: --that’s what we’re concerned about is these bigger logjams, that they need to be cleaned out whenever they occur, and some of them been there way way too long.

President Weisheit: Thank you, Manfred.

Manfred Stahl: Yeah.

Mark Lant: Mark Lant, I’m from Stevenson Station. There’s just so much to be said, and if we figure it out here, but it looks to me like, you know, the money needs to be spent on the study that tells us what you can do to make it work.

President Weisheit: Uh-huh.

Mark Lant: You know, I guess it all depends on who’s ox is getting gored, but our farm has been in the family a hundred years. It’s never been in the house there, but have to move out about every three or four years now. It covers the entire farm. Rexing is right down the road there, they lose crops. This didn’t happen as often. I mean, maybe the creek hasn’t changed in ’18 years, but it hasn’t gotten any better, that’s for sure.

President Weisheit: It’s got worse.

Mark Lant: It isn’t changing that way.

President Weisheit: Yeah.

Mark Lant: You know, so, whatever the answer is, I don’t know, maybe it can’t be dredged, but I can’t see that something can’t be done, and if it takes the money to do the study to say, yes, it can, or, no, it can’t, but otherwise what are we just, let it go? I mean, and I’m sorry, but I’m not real, a huge fan of engineer’s predictions, Telephone Road was widened and raised, and it still gets under water. Three quarters of a mile, the length of our farm, every year, more than once, and continually more and more. So, who was wrong there, you know? I’m not saying just because you’re an engineer makes you right on every occasion, but it looks to me like there’s got to be a couple of opinions on this, you know.

President Weisheit: I agree with ya. Thank you. Anybody else? I do thank everybody for coming today, and, you know, we’ve got some things to work out.

New Business

President Weisheit: As far as any new business, does anybody have anything to bring up today before we set another meeting? I appreciate everybody’s concerns, and we do need to work together. I know we’re willing to work together. If we need to get a study done, whoever needs to do this study. Who would you recommend, David, for, to do the study like you was recommending? So, we do have the—

David Nance: That’s the other problem, we are not allowed to recommend anybody.

President Weisheit: Okay, so, we’d need to get an engineering firm that specializes in that?

David Nance: Because that means that we’re actually preferring one over the other, and they’re all businesses in the State of Indiana. There is a list, you can get a list of companies that have done things for us.

President Weisheit: Okay.

David Nance: That have, you know, that’s, when we, I’m used to answering that question for dams more than streams and flood studies. I’m sure there are engineers that have something for flood studies, but I know from our standpoint on dams, here’s a list of companies that have managed to get permits for dams, and that’s it. Then, you know, a person can look through that, where they are geographically in terms of which ones they want to interview.
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President Weisheit: Thank you. You know, I’m for getting the study, for sure. We don’t know how long it’s going to take, but I’m also in favor of trying to get the logjams removed, ASAP, the majority, without destroying the banks of the creek, you know, being very careful how we do that. Not only would we have to apply for a permit, but that would probably be, you know, for Vanderburgh and Evansville to work together on, and maybe Warrick could help with some of the funding on it, if we could. I’m just one Commissioner, I can’t speak for everybody, but….go ahead.

Commissioner Bottoms: Mr. Chairman, we have the Gibson County Surveyor, and the past Gibson County Surveyor, I just wanted to see if they had any comments to make concerning this, if you would please.

President Weisheit: Yeah.

Michael Stevenson: Hi, Michael Stevenson, former Gibson County Surveyor, now with SJCA. Just to let you know, Gibson County, when I was County Surveyor, hired Christopher Burke Engineering to do a watershed study, an overall study on that portion of the ditch that was in Gibson County. So, that could be beneficial to you guys, because part of that is already done. So, that might be something you want to look into.

President Weisheit: You’ve talked to me about that before.

Michael Stevenson: Yeah, no problem.

Jeff Mueller: Michael, can you tell them how much it cost for the Christopher Burke study?

Michael Stevenson: I believe it was about $125,000. Does that sound right to you, Steve? That was just Gibson, yeah.

Commissioner Ungethiem: And how long did it take?

Michael Stevenson: It seems like it was a little over a year for the process.

Commissioner Ungethiem: How many miles did that study encompass?

Michael Stevenson: Oh, you’re, you guys are killing me with all these questions.

Commissioner Ungethiem: Just trying to get a little idea here.

Michael Stevenson: Man, I can’t remember, Bruce. It, maybe nine or ten miles, something like that. We also, with that money we also had them improve our FIRM panel maps, the actual floodplain, they did a study on that and we passed in on to FEMA at the time. So, some of that money was in addition to probably what you guys are going to need, but, yeah.

President Weisheit: Thank you.

Michael Stevenson: No problem.

President Weisheit: Does anybody have anything else? Questions?

Discussion of Updating 2000 Report

President Weisheit: I would like to set another meeting, so we can continue on. That doesn’t mean we can’t meet county to county, and in between our meetings here. (Inaudible. Microphone not on.) making some progress. I really appreciate DNR coming today. That was some good information, thank you for being here. Does anybody got any ideas on the next meeting?

Joe Harrison, Jr.: Some time in September maybe? Or is that too soon?

President Weisheit: That might be a little soon. What do you think?

Commissioner Ungethiem: (Inaudible. Microphone not on.)
President Weisheit: (Inaudible. Microphone not on.) the other day. I appreciate the hospitality here in Vanderburgh County, and Madelyn taking the minutes, and sending the emails out.

Joe Harrison, Jr.: Maybe the end of September.

President Weisheit: That would be good.

Commissioner Ungethiem: Let me ask David another question, if I could? The study that you did in 2000, who precipitated that study?

David Nance: That's in there, that's what I just wrote, it was a request from Representative Stillwell.

Commissioner Ungethiem: Okay.

David Nance: That started that whole process that came down to us.

Commissioner Ungethiem: And, that study was done by—

David Nance: That was not a study, that was a reconnaissance level report. Yeah, it was a high (Inaudible) level type look, here's what we got going on.

Commissioner Ungethiem: Okay.

David Nance: Not a detailed study at all.

Commissioner Ungethiem: Could that be repeated, if we had a request to do so?

David Nance: That could be repeated. I could say that.

Commissioner Ungethiem: Would that be advantageous?

David Nance: Do I want to do it?

Commissioner Ungethiem: I didn't ask if you wanted to do it.

David Smith: Well, what's changed from then to now is a lot of the surveys are being done by drone flights.

David Nance: Yes, that's the way it's done now.

David Smith: So, that's the way it's done now—

Commissioner Ungethiem: Right.

David Smith: --(Inaudible), more reasonable, and, you know, there's several communities that have set up contracts with the firms that fly those, almost on an annual basis, so they can kind of keep up with the changes.

Commissioner Ungethiem: Well, my question is, is if we could talk to one of our State Representatives, or one of our State Senators to put in a request during the next budget session, which starts in January, for a repeat of that study, do you think that would be an appropriate thing for us to do?

David Nance: For a repeat of a reconnaissance level?

Commissioner Ungethiem: Or whatever—

David Nance: Yeah, this is, what we're talking, what I did in 2000 was just, it was maybe five days worth of work, maybe ten. You don't need funding. It's staff funded.

Joe Harrison, Jr.: You just do it.

David Nance: It's just staff funded, yeah. We can, yeah—

Joe Harrison, Jr.: To just update that report.

David Nance: Yeah, and, yeah, we could update a report, but what we would do today, and we don't have the ability to do it, we would want to talk to, the county probably does,
is the drones. Yeah, so if your counties have, a lot of County EMA’s have drones, and that’s what we ran into, this one and on others, we helicopter flew the next two after this, and never did another canoe anymore, until we had aerial reconnaissance first, so we knew what we was getting into.

Commissioner Ungethiem: Well, I think we have drone capability, and we’ve also contracted one of our legal ditches to be flown through, flown by a drone. So, if we don’t, we can have contract people do that.

David Nance: Yeah.

Commissioner Ungethiem: I just want to, I want to make sure I understand the data that needs to be collected, so that we can get an accurate picture of where we’re at here.

David Nance: An update of what I did in 2000, drones would be one component, your county GIS, you already have the tools, you have them.

David Smith: You’ve probably got one meter of aerial imagery that you can look at.

Commissioner Ungethiem: I think we’re better than a meter.

Dave Ballew: Six inches.

Commissioner Ungethiem: We’ve got six inch capability.

David Nance: Yeah, you’ve got the definition, you, you, what, is it one foot contours? Can you do one foot contours, or better? Can you do one foot contours or better?

Dave Ballew: (Inaudible. Not at microphone.)

David Nance: Yeah, what I’ve heard is you’ve got a two, and you can split a two, typically, (Inaudible) cross sections. You have to go out and supplement that with actual hard survey cross sections to get down to a one foot topography. Depending on what the two foot topography maps look like, you may want to refine it to that level, you may not. It may tell you all you need to know, when you do a two foot topography, subtract it from the ten year, if we’ve got a ten year. That’s the way to update this. We didn’t have that capability in 2000. There’s things that can be done today that just couldn’t be done then.

Commissioner Ungethiem: Right.

Is the best time to do that when the river is at low level?

David Nance: The best time to do that is with leaf off.

David Smith: Leaf off.

Commissioner Ungethiem: Leaf off—

David Nance: And not frozen.

Commissioner Ungethiem: --and low level?

David Nance: Low level is preferred, but the big factor is leaf off and not frozen. You don’t want ice and snow, and you do not want leaves obstructing your view.

Commissioner Ungethiem: Unless you can fly the drone under the canopy.

David Nance: Yeah, yeah, right.

Commissioner Ungethiem: You’ve gotta be good.

David Nance: Real good.

Commissioner Ungethiem: I’ve been practicing.

David Nance: Yeah, but yeah, leaf off. I envision that going like we did the helicopter (Inaudible). I mean, it worked absolutely great. We were able to see things from a low altitude, aerial view, and circling things that you simply couldn’t see when you’re in the river.
Commissioner Ungethiem: So, we’re probably talking October-November before we could do this, if we have to wait till the leaves are off the trees.

David Nance: And, what I’m saying is you probably have all of the tools locally to do that, in-house, in staff.

Commissioner Ungethiem: Okay, and, could you all, I mean, help with that though?

David Nance: I would think that my management would not have a problem with us assisting—

Commissioner Ungethiem: (Inaudible), the guidance component of that.

David Nance: Yeah, I don’t think that that would be a major obstacle, yeah, but (Inaudible).

Commissioner Ungethiem: So, if we called up and asked for assistance, we could count on getting some guidance?

David Nance: Guidance and a cooperative effort. Use your tools locally, and we’ll help you use, help you make the best use of those, and, yeah, provide some additional…they also have a group called the Indiana Silver Jackets, anybody ever heard of them?

Joe Harrison, Jr.: Could you all update and support (Inaudible)—

David Nance: (Inaudible), right, yeah, I mean, it needs to be a new report. This would be, the report that I wrote in 2000 would be a reference document for a new report, is all it would be.

Joe Harrison, Jr.: Then we can take that from there and go with more data?

David Nance: Right, and then from that you could actually look at what you need to do, where you’re going with this. You could start with, that report would give you some scoping services for an actual study, or gauge locations and placements, things like that. You know, what do we, what needs to be better understood?

President Weisheit: Well, let’s definitely try to get these logjams located in each of our jurisdictions. Jason, are you aware of any we’ve got in Warrick County right now?

Jason Baxter: Oh, yes.

President Weisheit: We need to get them documented, and then we need to figure a plan to get them removed and then sustain them (Inaudible) major logjams. Work real hard on that.

Jason Baxter: (Inaudible. Not at microphone.) Spencer County (Inaudible) last (Inaudible).

President Weisheit: Thank you. Alright.

Commissioner Ungethiem: A legal question, Joe. I’m assuming we would have to get permitting approval from the Army Corps of Engineers to do this?

Joe Harrison, Jr.: No, probably DNR.

Commissioner Ungethiem: Hmm?

Joe Harrison, Jr.: Probably just them right now.

Commissioner Ungethiem: Well, but doesn’t the Army Corps of Engineers keep 5.9 of those, the first 5.9 miles of the Corps, of the river, or, excuse me, the ditch, from the mouth to about Stringtown Road—

David Nance: At least that much.

Commissioner Ungethiem: --is their jurisdiction.

David Nance: The Corps can go all the way up. (Inaudible) DNR does. (Inaudible. Multiple people speaking at once.)
David Smith: Quick reference document. Normally, they changed it a few years ago, DNR for some logjam removals does not require a permit, but the permits that are required may allow you to get to that logjam.

David Nance: Right.

David Smith: Across private property, wetlands and so forth, that’s why you need to contact the Corps and IDEM, to make sure that there’s no issues. But, in general, you can remove logjams from navigable rivers without a permit, as long as it’s not a salmonid stream.

David Nance: There is a guidance document that’s really good on our website, that shows how to do that. Basically, if you’re not digging in a stream, if you can access a log from the top of the bank, throw a chain around it and drag it out, you can do that. If you try to dig a root ball out, that needs a permit. It’s the act of disturbing soil that causes, that triggers regulatory. If you’re using hand tools and not invading a stream to do it, then, there’s a general way, and you can go down there’s non-salmonid streams, so on and so forth, but you don’t…when’s the last time you guys caught a salmon in Vanderburgh County? I would say, yeah—

Tim Mosbey: Give us an idea on this company that dredges the river, if they come up stream, no permit? Because they (Inaudible)—

David Nance: Yeah, because they are dredging the river.

David Smith: Anything mechanical in the stream will require a permit.

David Nance: Right. (Inaudible. Multiple people speaking at one time.) It’s one of those cases where if you have, the biggest thing I can think of, the biggest example I can think of, is if you’ve got a hydraulic excavator, a regular excavator, with what they call a hydraulic thumb on it, see them? And, you reach out from the top of the bank, on a bridge or whatever, and reach down and grab that log, pick it up and take it out, and move it out of the floodplain, no permit required. If you take that same excavator, and then after you get the big logs out, dip, that’s a violation. That’s kind of the line that you cross, is when you start really tearing things up.

Commissioner Ungethiem: So, if it’s not connected to the dirt, you can pick it up? But, if it is connected—

David Nance: It’s a law. You’re not going to disturb something by picking it up. But, you’re not disturbing sediment directly if you (Inaudible).

Commissioner Ungethiem: Right.

David Nance: Yeah, it’s a fine line, but if you read the guidance document, and we can send it down, it’s a pretty decent guide.

President Weisheit: Does anybody have anything else.

Setting of Next Meeting Date & Time

Joe Harrison, Jr.: Do you got a date?

President Weisheit: September 26th work? The last Wednesday in September? How does that work for you guys? I’m flexible any—

Joe Harrison, Jr.: Could we do 3:00 instead of 2:00?

President Weisheit: That works for me. Does that work for you, Bruce?

Commissioner Ungethiem: Yeah.

Joe Harrison, Jr.: There’s a chance I may be out of town, but—

Commissioner Ungethiem: The 26th at 3:00.

President Weisheit: 3:00 p.m. Is here okay, Madelyn?
Madelyn Grayson: Yeah, I'll verify the room with the Building Authority.

**Adjournment**

President Weisheit: Okay, before we adjourn, does anybody have anything else? I do thank everybody for coming today. I think we're making headway here. We've just gotta keep pushing and trying to do our best to help improve drainage (Inaudible). Thank you all for coming. With that said—

Commissioner Bottoms: Move to adjourn.

President Weisheit: Okay, we are adjourned. Thank you.

(The meeting was adjourned at 3:06 p.m.)

**Those in Attendance:**

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<thead>
<tr>
<th>Warrick County Commissioner</th>
<th>Vanderburgh County Commissioner</th>
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<tr>
<td>Marlin Weisheit</td>
<td>Bruce Ungethiem</td>
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<td>Steve Bottoms</td>
<td>Jeff Mueller</td>
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<tr>
<td>Madelyn Grayson</td>
<td>David Nance</td>
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<td>Tim Mosbey</td>
<td>Eldon Maasberg</td>
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<td>Michael Stevenson</td>
<td>Dave Ballew</td>
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<td>Manfred Stahl</td>
<td>Ann Nelson</td>
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<td>Members of Media</td>
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**WARRICK COUNTY-VANDERBURGH COUNTY JOINT DRAINAGE BOARD**

_______________________________

Marlin Weisheit, President (Warrick County Commissioner)

_______________________________

Bruce Ungethiem, Vice President (Vanderburgh County Commissioner)

_______________________________

Ben Shoulders, Member (Vanderburgh County Commissioner)

_______________________________

Bob Johnson, Member (Warrick County Commissioner)

_______________________________

Steve Bottoms or Alan Douglas, Member (Gibson County Commissioners)

(Recorded and transcribed by Madelyn Grayson.)