

PUBLIC MEETING

HELD ON MONDAY, SEPTEMBER 10, 2007 AT

THE WYOMING AREA SECONDARY CENTER, EXETER, PA.

DISPLAY PRESENTATION AT 6:00 P.M.

FORMAL PRESENTATION AT 7:00 P.M.

Question and Answer Session

PRESENTATIONS BY:

Steven Urban, Luzerne County Commissioner

Technical Presentation: Paul DeBarry
Project Team from Borton Lawson
James Brozena, Executive Director of the Flood
Protection Authority
James Moore, US Army Corps of Engineers
Joseph Capasso, Chief of Project Evaluation
Division for DEP

Also Present: Exeter Borough Council Members
Residents
Hicks Creek Watershed Association
Pasonic Engineering

INTRODUCTION: **BY MR. URBAN.**

Mr. Urban introduced himself and the officials who will be making a slide presentation.

In his opening statement, he stated that \$2M dollars was put into a county fund to be made available for flood protection programs. He stated that a little over \$1M dollars was spent of that money, and that they were working in conjunction with Senator Musto's and Phyllis Mundy's Offices. Senator Musto's office funded half of the study that will be presented tonight. The said study is a draft, and tonight they are looking for the residents' input. The program will include a question and answer session from the audience and each speaker will be given five minutes to state their question or comment.

Mr. Urban stated that he and Mr. Brozena personally walked along Hick's Creek to get a true "lay of the land." Obstructions were noted and after what he had seen, said, "I believe a pump station is needed. I believe some things have to be done beforehand." He feels the obstructions have to be removed that are restricting the flow of the water. The first obstruction being debris, second the levy itself, and then when the water reaches a certain level the "flap" closes. This flap was closed for three days. When the water reaches a certain level the flap closes. "These things make me believe that we need a pumping station." The input from the audience will give a better idea of what is needed so the right decisions will be made and spend the money wisely.

He stated that the current pumps in Exeter Borough are what they consider a temporary pump station. The system is not adequate. One of the pumps works

and the other one does not. They are trying to get pumps, through the Corps of Engineers, some extra temporary pumps out of New Orleans, Louisiana, but they are not available. They want to come up with a more permanent solution.

BY MR. MURAWSKI, Exeter Borough President:

Mr. Murawski welcomed the residents and stated that there will be more meetings, this will be the first of many meetings, this will be a long process taking years to accomplish and he expects to see a lot of support. He encouraged the audience to continue their support and tell all neighbors to participate.

BY MAYOR JOSEPH COYNE:

Mr. Coyne thanked those who attended tonight and stated that this type of meeting is what is needed.

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SLIDE PRESENTATION: (The Borough was to be provided with a copy of the displays, maps and materials from the study for their records and use following the meeting).

BY PAUL DeBARRY, of Borton Lawson Engineering:

Hicks Creek flooding situation is very complicated and they did a very detailed analysis of what was occurring. The study consisted of:

Purpose of the Study: Analysis of current conditions of the watersheds and come up with an effective solution to minimize flooding, involving a regional study of Abrahams Creek Watersheds and Hicks Creek Watershed.

Following data collection, watershed analysis, water flow, elevations, alternatives evaluation, combinations of solutions, peak flows, final report, draft put out, input from residents. This meeting is to let the public know what was found in the study.

SUMMARY OF SLIDE ILLUSTRATIONS:

“Map” on screen of Hicks Creek Watershed illustrating study constraints, best available data was used. One problem is the lack of rain gauges in the watershed. This will be considered in the future, to put in rain gauges. The nearest gauge used was from the Avoca Airport, realizing that the rain amounts may be different from the Hicks Creek Watershed. Standard engineering protocol was used to develop an analysis. Three problems were found: localized drainage problems from inadequate storm sewers, ponding and clogged channels. These are typically the responsibility of the municipalities. Other problems based on surveys was basement flooding; ground water; regional flooding. Further complications were two scenarios: there’s what’s called a “low river scenario where the flood gates are open.” A typical design standard to look at is the 100-year flood, which is looked at as a 24-hour storm. The other is the “high river” situation and the gates are closed and the water cannot get out. Both scenarios were analyzed.

Illustration map of Abrahams Creek. Illustrated ponding areas, showing large storage areas. Map illustrating constricted flow and ponding in West Wyoming Borough at the Eighth Street Bridge.

“Comparison of Openings.” After analysis, five alternatives to alleviate existing and potential future flooding. “Action Plan.” Restoration of the channel. Replace railroad culvert.

HICKS CREEK WATERSHED:

More complex than Abrahams Creek. The topographic map was from 1892 illustrating the flow goes upstream. Some of the problems when there is a low river: restricted flow and backup of water. High river: the flap gate closes, the river is up and the water has no where to go, no movement. Another problem is the housing within the flood plain. Surface water that causes basement flooding.

“Map of surveys done.” Results from the survey are pending.

Illustration: Explanation of normal conditions. Surface water/ground water. “Surface flooding conditions illustration.” Reducing the water level of Hicks Creek will help alleviate some problems.

Survey of audience: Show of hands:

Q In June of 2006 how many in the audience had water in their basement?

Results: About 3/4.

Q If the water came into the basement, how many had water coming in from the drains and not surface water?

Results: About half.

Q How many people had surface water from Hicks Creek flood either on first floor or in basement?

Results: About 4.

Q. How many had surface flooding from Hicks Creek on the first floor?

Results: None.

Mr. DeBarry: This shows that ground water is a major problem. The comment made was because the soil is porous, a lot of the water that is hitting the surface of the ground is infiltrating and that's raising up the groundwater table.

Male voice from audience: I think you have to remember that the problem happens when the flood gates are closed.

Comments will be held until after the presentation.

Continued with slide show:

"Flood Map" -1954 – 1976 – 2000 FEMA flood map. 1954 Army Corps of Engineers—Due to the high cost of land, the area was not acquired by the County. In 1976 FEMA flood map shows the 100-year flood is backwater from the Susquehanna River as if the levies were not there. FEMA maps did not identify the ponding areas.

Hydraulics complications: Ground water, river up, flood gates are closed, no discharge data, no active gauge.

An active gauge would determine how much flow is going down Hicks Creek.

Pictures of pumping station on Hicks Creek supplied by the Watershed Association after the June 6th flood illustrates clearing debris away from the trash

rack. The photos illustrate the debris bending the trash rack. There were nine alternatives evaluated and listed. Further illustrations depict Packer Avenue area, the railroad, and Exeter Avenue, constrictions of water flow. Water backs up because of the railroad culvert.

When the river rises, the flap gate closes.

In the analysis, it takes 30 hours for the river to crest, and it takes 7 hours for Hicks Creek to crest.

Simulated levy culvert, simulating the river rising and the gate closes.

Storm comparisons.

Hicks Creek Inundation Limits Map.

Information obtained from the Avoca Airport, five days worth of rain. 7.1" in five days. Some indications recorded 10" in Hicks Creek Watershed. This is the type of storm needed to analyze and design for when the flap gate closes. The standard 100-year storm that occurs when the river is low and you get 7 1/2" in one day over the Hicks Creek Watershed.

Pumping scenarios illustration. One scenario looked at was putting in a dam to hold back the water to lessen the flow of water. This showed to be ineffective. Small pumps like this do not have the impact on peak flow. The pumping rate is less than 1% of the peak flow rate. There would be more water coming in than going out and the water will continue to rise.

Pumping station currently: pumping 25,000 gallons a minute. The analysis showed that what is needed is 75-125,000 gallons a minute to have an effect.

Potential Remedies:

Flow Capacity Illustration.

Action Plan.

*END SLIDE SHOW



MR. BROZENA: At this point, we will begin with questions and answers. I would like to go over the rules of engagement for this evening, and that is that we are requesting you limit your comments to a maximum of five minutes. We have the Project Team here consisting of Joe Capasso who is Chief of the Project Development of DEP; we've got Jim Moore from the Corps of Engineers; Mr. Gibbons who is the County Engineer; and Paul DeBarry from the Borton Lawson Team. We have a reminder here as to the five-minute limit so that we don't overrun the program.

AUDIENCE QUESTION AND ANSWER SESSION BEGAN AS FOLLOWS:

PHILLIP MELVA, resident of Lincoln Park on Lincoln Street:

I am the representative of the Flood Control. We received a preliminary report. I understand from this meeting that it is just preliminary. Based on citizen's experience in the Borough over many years, we're coming to the conclusion that all three of the Alternatives will be required, and I think the

question we have is can we be certain that in the end a solution will be generated that will serve to alleviate the problems suffered by borough residents today. I don't think anybody is worried about what that solution is. We just want it to work, and that's what we're looking for from the representatives of government today.

MR. BROZENA: First of all, I can assure you that both the county and the state, by agreement with the US Government, are charged with either preventing development within the ponding area or, if need be, taking and designing a solution that will address the problems that have been created within the ponding area. So, both the state and the county are going to live up to its commitment.

MR. URBAN: I just want to add onto that. I talked to Jimmy before the meeting and we want removal of this culvert on our agenda in September on our agenda. That's one of the two recommendations. We are going to get permission from the owner to take that culvert out so we have flow and less restriction in that channel. We also want to make sure that we get a design plan as quickly as possible to put the additional culverts in the levy along with the proper size pump station. I think those two could be done simultaneously. We probably need wells for the pumps to sit in since we're not going to have the same type of pump station as a temporary pump station. And I think they both should be done at the same time. Jim, when can we take action?

MR. BROZENA: We have to work in conjunction with the state development scope of work.

MR. URBAN: Our flood protection meeting is the 3rd Tuesday of every month at the Luzerne County Court House at 11:00 o'clock.

TOM BARNARD, President of the Hicks Creek Watershed Association:

I have three degrees in civil and environmental engineering and am a registered professional engineer in the Commonwealth of Pennsylvania. The mission of the Hicks Creek Watershed Association (HCWA) is to restore and protect HCW by promoting environmental integrity including restoring Hicks Creek to a flowing creek, controlling erosion and sedimentation, reducing and preventing pollution and educating the public about the environmental issues concerning the watershed. It has been our role to serve as a conduit facilitating the exchange of information between residents, Exeter Borough, the County Flood Protection Authority, its consultants and other stakeholders. We have raised questions and pointed out instances when we felt that matters were not being adequately addressed in the study.

Neither HCWA nor I have ever advocated the construction of a storm water pumping station or any other particular alternative to alleviate the flooding problems the watershed has experienced. Instead, we have participated in the process because we believed that it would lead to a permanent, cost effective and environmentally sound solution to storm water and flooding problems in Hicks Creek. Approximately three weeks ago I wrote a letter to the Exeter Borough Council recommending that they postpone this meeting. My major concern was that I had not seen any commitment on the part of the County

Flood Protection Authority to inform the public and address concerns and so on. There has been a lot of discussion both written, informal since that time, and I think what we've heard so far is very positive. However, I have a variety of procedural and technical issues about this that I wish to address. First of all, there has never been a formal, complete identification of stakeholders that have interest in the study, and again, these stakeholders should have been contacted and briefed on their roles and their input should be solicited. The complete list of stakeholders, including contact information, should be included as part of the project record. It was beyond them to find exactly what the study was all about. One aspect of a problem with that particular situation, the first paragraph of the handout that was given tonight, it was the ...(INAUDIBLE)... This is the fundamental problem. The report described tonight fails to address the situation where backup in Hicks Creek has caused further backup in side streams. Basically, the complete failure to include any of the stakeholders in the sculpting of the study is one of the fundamental problems here. Mr. Urban mentioned about the study...please, Mr. Urban, include all stakeholders in the sculpting of this study so we all can have an agreement and knowledge of what you're doing.

A project records should be produced and made available for public review. This record should include drafts, supporting documents, maps and summaries of all public meetings (including minutes and list of participants), so the stakeholders know what you're doing and how to move forward.

It was noted that statements have been made at public meetings since the draft report that are either inconsistent with the draft report, not supported by the

report or presented some supplemental information. Such statements are confusing and make it difficult to review the draft report. The public record should include all information, explanations and revisions to the draft report.

The distribution of the draft report—printed copies of the draft report (including maps and figures printed in color and at easily readable scale, should be distributed to all stakeholders and made available for public review prior to holding the public meetings. The cost of printing distribution should be the responsibility of the Luzerne County Flood Protection Authority. Hicks Creek Watershed Association and Karen Szwast took on a monumental effort to help distribute this information on the website. I really feel that that's not our responsibility.

Notifications—we repeatedly asked for the 30-day review period after the release of information including maps, diagrams and programs before we had a public meeting. The information we're getting here is great, but it is very difficult for us to review, analyze and respond to and ask questions if it's the first time we've heard it.

MR. BROZENA: Your time is up.

MR. BARNARD: Mr. Murawski, with your permission, five more minutes?

MR. BROZENA: Wait a second. We're running the meeting. Wrap it up, please, Tom. We can come back to you later.

VOICE FROM AUDIENCE: He represents us. Let him finish.

MR. BROZENA: Go ahead.

CONTINUED BY **MR. BARNARD**:

In addition, there are numerous technical issues. Basically the description of the existing conditions in the report is incomplete and incorrect and fails to present a complete description of the features in the watershed that have led to the flooding events that the watershed has experienced. For example, the delineation of the watershed presented is incorrect. The description of the Hicks Creek pumping station is incomplete. The summary of existing problem areas is out of date. There is no description of the storm water controls structures that feed into Hicks Creek. The statement that sediment buildup in Hicks Creek has reduced channel slope warrants further discussion.

The report should include a summary of all projects that may impact the runoff flowing into Hicks Creek, and these include: Hicks Creek pump station; drainage into Hicks Creek, ongoing channel sediment removal program; Sturmer Street and Exeter Park drainage; channel restoration in upper basin; and sediment removal from upper debris and lower sediment basins; the hydraulic and hydraulic aspects of the projects should be included.

The hydrologic and hydraulic analysis is primarily based on numerical models. They are standard models used by DEP and Corps of Engineers which are not necessarily the best choice for the problems experienced in Hicks Creek. The report fails to present any justification for the selection of the models that were used in the analysis. It must include a list of models that were considered, criteria for model selection, limitations of each model, justification for each model selected. I note on the handout on page 2 there is a statement that the

models used were the only ones accepted that is just plain wrong. I'd invite you to go to the FEMA website and you'll see dozens of models that could be considered appropriate.

The draft report indicates (on pages 18 and 27) that the future development may increase runoff in the watershed. The report does not discuss how this increased runoff is accounted for in the analysis. The report must describe the ability of current regulations (state, local, and county), to restrict increases in runoff. This discussion must distinguish between site peak level runoff restrictions and total, watershed wide runoff occurring during the 3-5 day events typical of what was discussed here.

The report does not consider the possibility that there is an upward trend in the frequency of closing the flap gate. The analysis is based on the number of days when the gate was closed and does not account for the duration of closings. The analysis of the frequency of gate closings simultaneous with localized flooding in Hicks Creek is incorrect. The analysis must consider the events as correlated and not independent. The duration of localized flooding and the closings of the gate at the Susquehanna River should also be included in the frequency analysis. The description of the alternatives is incomplete. The report fails to present any criteria for evaluating alternatives. The cost analysis of the draft report is incomplete, or a complete cost analysis of the alternatives. Thank you.

MR. URBAN: Tom, I spoke with Joe, and we both agree that as we do the scope of work, and the pump station, that we're going to include you in.....

MR. BARNARD: It's not just me.

MR. URBAN: We can't have everybody to take part. We want to include you since you are the representative of the community. We want you to be involved in the process. I want to ask Joe because some of this is going to involve state money. Joe, how long is it going to take for us to get some money released so we can complete that scope of work so we can get this as quick as possible?

MR. CAPASSO: Just to let everyone know, that the money that the state is using is part of the Wyoming Valley Levy Raising money that we've been participating with the County and the Corps of Engineers. We have a significant amount of money that's been authorized. And by authorized, it's not real money, it's just a – it's the governor has agreed to spend a certain amount but it is not released all in cash. Right now we have approximately \$20 million dollars where we applied \$17 million towards the current levy raising project. So that leaves us with a little more than \$3 million, which I believe the County is still going to request some of that for some of the work that's going on in other areas, not including Exeter. So, what we need to do is we need to get the governor's budget office to release additional funds, and obviously that's out of our control, but we will be asking this fall for it and if the budget office agrees, it will happen. If, for some reason, they do not, then we have to wait until a later time. But we

will be putting in that request. In terms of the scope of work —Jim and I will comment on it a little later. But if we had to go back out with the RFP and hire a new consultant, that would be a longer process. If we just allow Borton Lawson to continue right into the design and possibly the construction, that would fast track it, but it's still a process that has to occur. We would need a separate agreement between DEP and the County to generate that additional funding source. Again, if the budget office releases that some time this fall—actually, we're probably talking—the governor's executive budget comes out in February. So even though we put a request in this fall, it's not officially released until February. If that happens, then with the money being available, we can move right into construction. But in the meantime, we could work out scope of work, work out the agreement, it just won't be fully executed until that money is available.

MR. BROZENA: Let me respond to some of your comments, Tom. First and foremost, this is the typical process that occurs when you conduct a study of this magnitude. You gather information, you prepare a draft report, you publish that report and provide it to the local participants of the municipalities, and then you hold a public meeting and brief the public and gather their input, so that if there are errors in the report, if there is misinformation in the report or if there is information that we simply were not aware of that we can incorporate that into the report. That's why we're here tonight, to hear if there is something materially that we missed that impacts on the result of this study.

The second thing is that the proper record is the final document that would be prepared. This is the draft report. We will take the information from this evening, Borton Lawson's team is here, they're transcribing this information. I see that you also have someone here. We're going to incorporate this into the report at least in the technical appendices to make a record of the entire document.

Third, the municipalities were provided an electronic copy of this report for their review. Once a final report is issued, they will receive full, complete printed version with the maps for their reference.

And Tom, the last part is that we have given you unprecedented involvement in this study. Borton Lawson sat down on two occasions with you to review your technical concerns on this project. Both times you left those meetings with what we believed and what you had told us was that you overall agreed with the findings of the study and you continue to nitpick the details. We appreciate that because we want the record to be accurate. However, the important thing here is that the final information here, the thing that is most important, is that we now know the magnitude of the flooding problem. We confirmed something tonight that, unfortunately, we were not able to confirm throughout the whole length of this, is that there was no first floor flooding. We thought that was the case, but we unfortunately could not obtain that information. But we will include all of the information from this document that we have tonight, that you may submit to us. The 30-day time frame, Tom, unfortunately, I think you're confusing the differences between a public meeting and a public

hearing. They are entirely different. One is a very formalized process with timelines and review times, 30-day windows. This is not the case. This is a public meeting. We're here to gather your input so that we can put together a plan that best addresses flooding problems along Hicks Creek and addresses them as quickly as we possibly can. Anyone else?

RONALD SMITH, of Wildflower Village, Exeter:

I have three questions. One is I am puzzled by the total omission of any impact on recent developments of any properties as the increased flow of water in Hicks Creek. And the second is I'm puzzled by the conclusion that since ground water is such a problem, how using Hicks Creek as a holding ground for flood water will help our situation.

MR. BROZENA: Let me answer the first question. The first one is that you have to remember the reason that the County and the State are doing this study. And that is that in 1954 they signed an agreement with the federal government that said they will prevent developments within the flood plane. We have a problem out there. That's the responsibility of the Commonwealth and the responsibility of the County to address. If there is future development planned in this watershed, that is not the responsibility of either one of those entities. We have had discussions with representatives of Exeter Council and have identified them a means to possibly contribute to this study that will not impact you financially for the most part but if we were to allow for Exeter to develop additionally in that ponding area in the future. Our responsibility under this study

was to just look at the existing problem because that's what our legal requirements are.

MR. DeBARRY: Can you explain what you mean by holding ground?

RONALD SMITH (resident): Yes. According to the report, the object of expanding levy and moving the railroad obstruction was to increase the holding capacity of Hicks Creek when the flood gate closes. when the water level rises from underneath rather than surface flooding, I can't see how holding water in Hicks Creek is going to solve the problem of basement flooding.

MR. DeBARRY: Okay. There's a little misunderstanding there. We are not using Hicks Creek as a holding ground. We are trying to get the water out of Hicks Creek as quickly as possible. That's the bath tub situation when you have one drain versus two drains. You want to put a second drain in to get that water out of Hicks Creek and into the river as quickly as possible. What that does is lowers the water level in the ponding area. That means if it does close, there's going to be additional area to store the water above the lower level. So I think you kind of misinterpreted some of the terminology there.

HAROLD ASH, of Pasonic Engineering, also a resident of the Borough:

I just have a few quick comments. Commissioner Urban had indicated that one of the first things was to remove the railroad culvert and that was the quickest item that can be accomplished of all the improvements. The question I have is I know the draft report that I reviewed, removing the railroad culvert

without supplying any additional capacity, could raise the surface below the railroad by approximately two feet or more. The concern that I have is that I know in the June flooding of 2006, the water surface in that area along Exeter Avenue was basically right at the roadway of Exeter Avenue. I'm a little concerned that if that railroad is removed without having some type of additional capacity in that area, it might end up flooding Exeter Avenue and cutting off portions of the Borough. Possibly, if we were to do that, would we be able to have some type of—I know you indicated that you were looking for some type of temporary pumps, to help us improve the capacity down stream. The other one I think Mr. Barnard mentioned was the opportunity for all concerned parties to review the revised draft report before it becomes finalized. I think that's important. Thirdly, the final study, when it's completed, will it address the FEMA flood insurance study mapping and how is that tied in with that, because a lot of these residence obviously are—right now, the flood insurance studies, they are not listed in the 100-year flood plan. Through your analysis, they are. When the new flood insurance mapping is done—my concern is that any improvements that we do to Hicks Creek, that should be reflected in the flood insurance study mapping. If it's not done through the design portion of this project, it would be a very costly thing for the Borough to do, to get that mapping done at a later date. So, I think that should be looked at and addressed in the study.

Finally, a gentleman had mentioned storm water management. The Borough's Ordinance right now in subdivision land development ordinance basically requires a developer to provide storm water management so that the

peak flows from his development do not exceed the peak flows with the existing conditions. We're going through Luzerne County Act 167 project right now which is on a county-wide basis, but I'm just wondering whether the study that we're doing for Hicks Creek can also address the need for a more detailed 167 study on Hicks Creed Watershed so that when we do come into future developments, like the Black Desert area, a lot of areas that are not within the flood plane that will be within the watershed are going to be properly implemented with the storm management project. Those are areas that I think should also be addressed in the study.

MR. BROZENA: As far as the railroad culvert, we will, obviously anything that we do before we go ahead with the removal of that bridge, we will be sure not to exacerbate any flooding situation downstream. The temporary pumps, we will continue to work with the Corps to try and identify if there are any pumps left in New Orleans But as of a month ago, there aren't any pumps available. The review of the final report, we do not have a problem with providing it electronically before we go to final printing. As far as the flood insurance, FEMA is preparing a county-wide flood insurance maps for the entire county, but it will be about three years before they are complete. We have been in close communication with the FEMA people and they are fully aware of this study and ongoing effort that we're undertaking to reduce that, and should we get to the end and there's a requirement for a homeowner, map revision to the map, we would go ahead and address that issue as well as part of the design cost

involved in whatever we are doing here, be it culvert, replacing pump stations, we will provide that information.

And finally, the Act 167 issue, we will have to take that to the Planning Commission because they are going to manage that study to see if in fact we can have a detailed study. However, I can tell you that the trend at the state level is to move towards county-wide plans, rather than individual watershed plans and it all becomes part of a comprehensive plan which this county is also preparing to undertake as well through the Planning Commission.

Any other questions?

MALE VOICE FROM AUDIENCE: Just a comment. If the pumps from New Orleans are not available, what would the cost be if you come up with a lease/purchase?

JIM MOORE: As part of the discussion, the pricing of the alternatives, specifically what types of pumps we are using in New Orleans, they were two hundred thousand dollars a piece for pumps that were capable of 25 to 30 thousand gallons a minute. So, depending on which ones are selected, we're probably talking about a half a million to a million dollars in temporary pumps. Part of that construction, I contacted some of the people that I worked with in New Orleans to see if any of the stuff they bought will become available soon, and I'm sorry to say that, having been there just last month, they're just finishing those temporary pump stations and building them now. So, it's unlikely there will be anything for free any time soon. So we'll have to take a look at whether or not a lease/purchase is an alternative to buying and how much that would be.

KAREN SZWAST, a member of the Watershed Association:

I have a couple of things. One of the things we thought about was the publicizing of this evening. We distributed a lot of flyers, that's kind of how we got a pretty good showing here, I think. The West Wyoming Council, I spoke to several of them, and they would have liked to have been here, but unfortunately the coordinating was not there. They had a council meeting tonight and they all had to attend that. Of the eight municipalities that are involved in the two watersheds, only three were invited to this meeting, and I don't think that's probably the best recommendation. I understand your reason was that the three towns are the ones that are the most effected by this specific water areas. However, we have to remember that the upstream development effects us downstream. So, when you said, Jim, that the future development is not really part of the scope of work or part of the problem of the county and state, I think it is because it this creek and this pumping station not only handles Exeter Borough's water, it handles Exeter Township's water too. And so if Exeter Township should decide to do more development and more water does wind up in the creek as a result, well then the impact is going to be on us, Exeter Borough. And it's not just the people that live by the creek that are impacted—it's all residents in Exeter Borough that pay taxes because those tax dollars, and this is a tax burden, we're the only town that owns and operates our own pumping station. So, the Exeter Borough residents would like the county, and I believe and correct me if I'm wrong, but the Luzerne County Flood Protection Authority was developed for the purpose of mitigating flooding and so I think Exeter Borough

would like to see the county take over the pumping station and then it is no longer a burden to Exeter tax payers when the water is not only coming from just our municipality.

And then one of the other things mentioned – you did say something about Tom nitpicking a bit and about the scope of work of the study. And I know there were several things that he did send up via emails, questions and comments, and most of the answers came back that “it was beyond the scope of work of the study.” Okay. So, maybe that is why he is re-asking those questions. So, we’re hoping that we don’t find responses that do not address our comments and our questions. We don’t want to see a response to our question or comment “If applicable.” Like mentioned, “if applicable” leaves a lot of room for whether it is applicable or not.

Again, what Harold said about the railroad bridge, I think he’s correct in that the, although I think it’s a great idea to take out that railroad trestle, without any kind of mitigation downstream—we did have surface flooding on Byrd Street in several houses. So it wasn’t only ground water, it was actual surface water that poured out of the creek and into the window of the basement. And, so that’s almost first floor damage, I mean, it was like about a step away from the first floor. So, that’s something to look at. And when Paul DeBarry did the “raise your hands” of the people who had surface water, or ground water flooding, that was a very good example. But one thing I would like to point out that I’m not sure you are aware of is that surface water comes off the mountain, comes down into swales into Wildflower Village. And in 2006, we experienced a lot of

flooding in those homes—\$2 million dollars to be exact of flood damage between homes and borough municipal repairs. When you look at the maps with those homes and what ones were damaged, it was the ones along the swales. So, when the water comes down, surface water, comes down and sits in that swale and that creek is not moving because of backwater, as you said, then that swale can't drain into the creek like it's supposed to. So the water does, and I'm just using logic here, the water will then come out of the swales and into the basements. And I believe that's why it was the houses that line that swale on either side that had flood damage for the first time in their finished basements.

That's all I have.

MR. BROZENA: Yes, there were only three municipalities invited this evening because of the fact that we're talking about projects, as we said, directly impacted because it is within their municipal boundaries. Yes, there are other municipalities that are in the watershed. But again, they will be addressed as part of the Act 167 Plan because it is under the Act 167 Plan that the storm water management ordinance that we adopted that limits the amount of runoff, pre-development versus post-development. Another thing, you have to realize that there are two different constituencies here, and that is that the Commonwealth and the County have a specific requirement to address the 1954 agreement that says "prevent development within the ponding area, and if it does happen, find a solution" – realizing there are other things that may happen upstream, they need to happen outside of what our study is. And again, the Act 167 Plan, I believe, will address those types of problems.

And the last thing you talked about was the County taking over the pumping station, I assume, currently the existing pump station, that is something that the Borough would have to talk to the Board of County Commissioners for them to make that decision and certainly that decision will not be made this evening.

Any other questions?

DON FLANNELLY, resident of Donna's Way in Fox Meadows:

With that Act 167, did anybody do anything with a study up there, Fairway Hills, that was like Niagara Falls up there. There was one ponding area that wasn't even filled, the water was flowing down from everywhere. I didn't see any of the retention basins holding the capacity of water that came down that mountain.

And if we can't have any more pumps, the other questions is how long, realistically, do you think it will be before anyone who lives along that creek has to worry about flooding?

MR. BROZENA: First, you mentioned a problem up at Fairway Hills. I don't know if Pasonic engineers with the Borough can investigate that. But that would have been a Borough responsibility and their engineers to evaluate if that development was in accordance with the subdivision land development requirements and the property storm water facility being constructed.

Your second question, what's the timeframe on this? That's a difficult one to answer. As Joe alluded to earlier this evening, we have to go back, we have to get additional agreements with the Commonwealth, a release for this project, but the study was the most important thing and it would be my hope that

we work with the Commonwealth to at least set the necessary studies under way by the beginning of next year. How long it's going to take beyond that to see actual construction, it's too early to be guessing. I found out in the past when you make guesses, people come back and haunt you with it. So, I'm going to hold off on that and give you an I don't know what that answer is, but I would certainly suspect that it will be several years or more before we have a permanent solution.

FEMALE resident of Donna's Way: Who do we talk to to address why that retention pond did not hold the water back? The developer? Who did you say?

MR. BROZENA: I would guess that you would have to go to the Borough and they can talk to their engineer to check and see what happened there.

HAROLD ASH, of Pasonic Engineering: One of the major problems that occurred in that 2006 flooding was that a lot of the storm pipes within Fairway Hills blocked with debris, some got blocked completely, and the water(INAUDIBLE).... Also, some problems resulted from the developer not maintaining the retention basin. (INAUDIBLE) But one of the main problems was that sediment came in and blocked the pipes.

FEMALE RESIDENT: Who did you say we should see about the County taking over the pumping station?

MR. BROZENA; Again, the Borough would have to take it to the Board of County Commissioners. Any other questions?

QUESTIONS BY **MIKE BOLOGA,** resident of Fox Meadows:

Q. (INAUDIBLE)

RESPONSES BY **MR. DeBARRY:**

A. The question was, from the report, it states that it was not in favor of a pump station? Is that it?

Q. Is that what you were saying?

A. No.

Q. What was your conclusion on that? You did the study?

A. Right.

Q. You didn't have measurements about how much rainfall, right?

A. Not for the 2006 storm.....

Q. You didn't have water flow studies then either. Did you?

A. What do you mean by water flow studies?

Q. Water flow measurements.

A. No. There was nothing established on the creek...

Q. You didn't have rainfall measurements either.

A. Correct. But we used the Avoca information.

Q. What's your conclusion? How did you come to al conclusion then?

A. The conclusion was that there are 9 alternatives, and that...

Q. How did you come to the conclusion?

A. Based on the data.

Q. What data?

A. The way models work is you put in the best available data to run through the scenarios and come up with conclusions. It's the same process that

FEMA uses to come up with flood insurance studies. All watershed don't have stream gauges, all watersheds don't have rain gauges. There's a set standard procedure that is followed to determine these studies and come up with the best available information. This was analyzed and re-analyzed and analyzed again....

Q. Aren't you analyzing with fictitious data? What would be your best conclusion? Would that be to make the hole bigger? Or would that be to put a pumping station in?

A. What do you mean by the hole?

Q. Well, the culvert, the hole going through the dike—see, we have a creek that runs into a dike. That dike closes at 17 feet.

A. Right.

Q. When that gate is closed, how days a year is that gate closed?

A. One report from DEP said 7. We looked up data the river and transposed it up from Wilkes-Barre, and found about 14, so somewhere between 7 to 14.

Q. So it's very slow at 16, it's very slow flow at that, if it's flowing at all.

A. Right.

Q. So, even up to that date, you're extrapolating that out to at least three times that because at 13, 14, 15, this flow is very slow. So you're looking at 40 days, at least, 40, 45 days a year.

A. A year?

Q. Well, you said 14, you times that three or four times. 45.

A. I don't know what you're getting at.

Q. I'm getting at...

A. It's set between 7 and 14 days on an average one year, it would be 40...

Q. 14 days a year. What I'm saying to you is I live in an area where we have ponding of this, quote "creek" because we can't get it over the dike. I'm not an engineer, but again, using common sense, the water has to get out to the river somehow. We need a pumping station. I've lived in Fox Meadows for 15 years. Since I've lived there, there's been a lot of development in Exeter. Our Borough is working very hard to get this water out for us, but we need county help. We've had developments, Ida Acres put in, the townhouses 200 of those put in, Fairway Hills up the hill, Hall's Nursery and greenhouse, the pallet plant, we had development with Schooley Avenue a new development there. It's being developed, developed, and developed, and nothing happens with the creek. We're coming to the County tell you 'we need help.' Okay. Just because our first floors weren't hit, doesn't mean it's not a health hazard. Just because our first floors weren't hit, doesn't mean it's not ruining our homes. I don't want to hear that you took a survey and your first floors weren't hit. Well, you know what, if that's your idea of a survey, then you're not using the right measurements there either.

A. It wasn't a survey.

Q. Yes. You had us raise hands and Jim there said, "Well, now I know there wasn't any first floor flooding. Mold also is dangerous. Water is dangerous. Erosion. This is something that shouldn't be happening. It hasn't

happened in 15 years, I haven't gotten water at all. The last several years we're getting flooding more often and more often. This is happening because of the increased developing and we can't get the water out. Okay. Making the hole bigger, with the gate that closes at 17 feet, is not a solution, especially without measurements.

A. I believe the last slide we showed was the steps that we would take. One of them was to analyze opening the railroad culvert; another one was to analyze opening up the levy gate and the third was to analyze the pump station.

Q. How far is that railroad from the dike?

A. 300 feet maybe.

Q. Now, from that dike to the railroad culvert, it's probably just as high as from the railroad culvert over to Packer Avenue.

A. When the gate is closed, sure...

Q. What I'm saying to you then, you can take that railroad culvert out next week. That's not going to solve our problems.

A. When the gate is closed, right.

Q. When it rains, the river goes up, the gate closes, even if the gate doesn't close, even if it doesn't close at 17, it's still slowed at 15. It's still slowed at 14. You're not going to get the same flow out because now we're reaching equilibrium. You understand, right?

A. Yes.

Q. So we have problem getting the water out. We need a pump. You don't have any accurate figures for me here, how could we reach a study? How

can we get any information from your study if you don't have flow figures, you don't have rainfall figures?

A. We do have the figures.

Q. No you didn't. You said right here that you didn't have flow figures.

A. I didn't say we didn't have flow figures. What I said was there is no stream gauge on Hicks Creek which records stream flows. So, in the absence of a stream gauge, this what is done across the board, you get the best available information and you develop these computer models to predict it. And it predicts it with extreme accuracy.

Q. You talked about New Orleans. They knew there that the dike wasn't going to hold. I'm telling you now—we need something done. Don't wait too long. They waited too long there—don't wait too long here.

MR. URBAN: I just want to state that he provided the recommendations to the elected officials and I think we started this program off here saying that we have an obstruction that backed up water causes backup of flow, because of events and the obstruction in the levy itself, and a hole that's not larger enough to take the water and push it to the levy, and I believe when the flap is closed for a three-day period, there's no where for that water to go and it causes flooding and my recommendation would be a pump station. ...(INAUDIBLE)... Believe me, let's not be too critical here—Jim and I walked this area, we looked at it and it's obvious to me there is a massive amount of water and it can't get through.

DEBBIE SERBIN, resident of Packer Avenue:

Q. If it's so obvious that we need a pump station, why isn't it on the first alternative?

RESPONSES BY MR. URBAN:

A. It's one of the three alternatives. They are the three things we're working on. The easiest thing to do now is to remove that railroad bridge and we are coordinating with the railroad company. The second thing is to design a proper pump station. That's got to be done. We don't have the funds fully available to go forward with that option right now.

Q. Why wasn't the option drawn up first for the pump station?

A. We are going to do all of this concurrently.

Q. If we're looking for the money for all this, it's going to take us an awful long time. I think the main focus should be getting the money for the pump station, and second go after the culvert.

A. First of all, we have the money right now for the culvert with the County Bond. We have \$800-900 thousand left over. We don't have the money right now to design and do the pump station. That's what we have to work for. But that doesn't mean we will not pursue it. That's an option that we're going to go with. We're going to do the culvert in coordination with looking at a pump station. Why would we want to go into the levy twice when we can do it once.

Any other questions?

BY JOSEPH GUTOWSKI, a resident of Exeter:

Your maps. I'm curious. In 1972 the dikes closed before we got any water. The flooding came from upstate New York when they opened the dams. During the three days of our flooding, the rain was nil. Our water all came from probably Forty Fort when their dikes broke. I ran sandbags down the river to the Pittston bridge and Exeter. I spent days running around. I notice that in all your timelines, '72 was totally ignored.

Another question is you recommended to use the area around Happy Valley Golf Course as a ponding area. Are you aware of the fact that during the flood last year there were (INAUDIBLE) across the railroad tracks for approximately two days? The water was probably 4 to 5 inches deep and ran through the area of the power lines. I didn't hear anything about that. I don't know if you knew about it, but the water – I know the area, I walk it on a twice weekly basis.

MR. DeBARRY: I'll do your second comment first. As far as the golf course goes, what we looked at there was trying to find an open area where maybe we could excavate to provide more storage to lower the water level. The analysis....

MR. GUTOWSKI: When Jimmy Oliveri was digging out the area near the tracks, I believe construction was taking the dirt out, there are voids under that area.

MR. DeBARRY: We discounted that option just because, again, we don't want to store the water—we want to get it out of Hicks Creek as quickly as

possible. So, we explored it, we determined in that case, it wasn't a viable option. Back to your first question, we did do what is called an 'interior analysis run' on the '72 Agnes Flood to see the timing of things there. The engineers had done that also. That's kind of different than what we're trying to do. We're trying to get the water out of Hicks Creek as quickly as possible.

MR. GUTOWSKI: In 2006, Exeter Township got minimal damage. During the '72 flood Exeter Township essentially got hammered. After the flood many buildings got washed out and had to be rebuilt above the flood area. In Wyoming, there was no dike at that time, and that was totally flooded. The water came up to the Midway Shopping Center. The damage up in Elmira pretty much mirrored the damage was had here in Wilkes-Barre.(INAUDIBLE)....

BILL CHROMEY, resident of Donna's Way, Exeter: Getting back to health hazards and the safety of the residents. I live in the Fox Meadows development on Donna's Way. I would like to see the new pumping station for one big reason. Not only is this a property concern, it's a health concern. And I'll tell you why. Maybe a lot of you don't know this, but the Mayor knows it and so do several others, I had water in my basement. I nearly died with a bacterial pneumonia from the sewage in the water in my basement. I don't want to ever see that again. I can't even go in my basement to this day, the doctor warned me if I go into that environment again, even remotely close to having bacterial pneumonia or the spores from the sewage water, it's not going to be good for me. I almost died. So, if there is going to be a pumping station, you better do it soon,

because I don't want any neighbors or friends being effected like I did. That's my concern.

MARY KAY BALOGA, resident of Donna's Way, Exeter: It's not just water. There's a certain area that ponds, and in the summer all the backyards, it's filled with mosquitoes, the bacteria—it's just not right. It really should be concreted in. Other towns have them concreted, it's clean. You can dredge that all you want, it's coming back. It's not just water, it's a health hazard.

MR. URBAN: There is a program with the County where those areas are sprayed. But we will look at that a little more closely.

FEMALE resident:(INAUDIBLE)..... it boils down to one thing. We have water that does not flow. The only way to get it out is to pump it out. I don't see why we can't just focus on the pumps. This is going to be going on two years when we started this, and ..(INAUDIBLE)...

MR. URBAN: Like I said at the beginning of the meeting, that taking out the obstructions and the three recommendations, you can pump that area dry and you're still going to have a problem if we do not take out that culvert. I believe those three recommendations from the slide, and I think we have a plan to get it done.

DAVE MATHUS, Resident of Donna's Way: I am a resident in Fox Meadows, and I have a couple issues that I wanted to address. One is I think the problem with the study, is it's based on presumptions. (INAUDIBLE) Plus, your study is based on a 24-hour rain event,. And I think our events have been well over 24-hour events. So, regarding the study, there are some problems there.

I'm not an engineer, I'm not sure exactly what logic there was in the 24-hour rain study. In 2005-2006, every time we've had a problem, the gates have been closed. Is there anything in the study that prevents from obtaining pumps? Because it seems that Option 1 and 2, (INAUDIBLE) of potentially not getting a pumping station if that's what the recommendation alternative might be. I would just hope that Mr. Brozena will tell them that we will not accept any option that does not include pumps.

And also, I think we are the only pumping station that is not run by the County, so we would respectfully ask Mr. Urban if he will initiate the taking over the pumping station in Exeter, and if he will do that it would be greatly appreciated.

MR. DeBARRY: I'd like to answer your question on the 24-hour storm. We did analyze other storms also. That's two different scenarios. I was talking about one scenario where we looked at the water coming down to the watershed and getting caught in the railroad culvert and causing backup. That was analyzed as the 24-hour study. We also analyzed longer duration of storms where the river was up, I used a different program to do that. So, we did do that, including the 2006 storm. The preliminary analysis of that prior to the meeting with the Borough, subsequently, conversations with some of the people there, we re-evaluated that and extended the map to see what was going on there, and pretty much we knew exactly what was occurring there. So, yes, we do realize that the flap gate closes and that's where there is a problem. And this step-by-step procedure will correct that.

MR. BROZENA: You had a couple comments. One being that Exeter Borough being the only one that operates its own pumping station, that's an incorrect statement. There are at least three municipalities that come to mind immediately; one being Wyoming, and Kingston and Swoyersville have internal pumping stations that pump water, through Forty Fort into Kingston. So, there are municipalities that maintain pump stations.

KAREN SZWAST: Going through a levy....

MR. BROZENA: Flood control pump stations are the ones that are maintained by the County as part of the Wyoming Valley Flood Control System.

MALE RESIDENT: Do any of them go to the river?

MR. BROZENA: They go through municipality to municipality, so it eventually get to the river.

MR. BALOGA: Are we the only pumping station that pumps directly into the river?

MR. BROZENA: You are.

MR. BALOGA: That's are point.

MR. BROZENA: That was a decision Exeter Borough officials made back in 1970.

MR. BALOGA: Well, we're not in the 70's now and now we are asking the County to take it over. That's misinformation. The other stations go borough to borough. Let's be honest.

MR. URBAN: One of the reasons why we operate the levy raising project is because we put together a project cooperation agreement between the

Corps of Engineers and Luzerne County Flood Protection Authority in 1976, an agreement to operate the pump stations that are part of the Wyoming Valley Levy Raising Project. This project right now is not a part of the Wyoming Valley Levy Raising Project. I think the comment said earlier for you is to ask the Borough officials to send in a request to the County Commissioners to see if they'll approve it—No. 1. No. 2, and I said this on the record, that in the event a pumping station is added, we will take it over and integrate it with the Wyoming Valley Levy Raising Project. I don't have a problem with that. And we have Joe Gibbons and Jim Brozena that manage these systems and keep them updated and maintained.

DEBBIE SERBIN: Are you saying you will take over the pumping station “if the study requires....

MR. URBAN: No, no. I said once the new station was built, we would take it over....

DEBBIE SERBIN: What are we supposed to do with this one?

MR. URBAN: Ask your borough officials to send a request to the County Commissioners and see if the County is willing to do it. The other thing we said is to have the borough engineers to come forward with the cost, a cost, of what it would cost to replace the pump that you have, or lease. I can tell you from the County standpoint, at this point in time, I don't have the dollars in the budget.

DEBBIE SERBIN: Then just keep in mind that the borough residents don't have any money for this station and can't do anything without the county's help.

MR. URBAN: I agree. Any other questions?

DAVE MATHUS: Is there a possibility that the alternative is not a pumping station?

MR. BROZENA: All I can tell you is that this meeting at this point indicates three things that need to be evaluated. One is the railroad bridge, second is the levy culvert, and third is a pumping station. We have shown you tonight with the mapping that if you had a storm event, an interior storm event of 100-year magnitude, you will have flooding. We know you have flooding when the flap gate closes. Now, even if we were to build a pump station, will that guarantee you will never be flooded again? No. Just like the county can't guarantee flooding over the levies. But we will certainly have a much better system that will minimize the effects of flooding in Exeter Borough.

MALE RESIDENT: So would you accept an alternative that does not include pumps?

MR. URBAN: Jim works for the Flood Protection Authority. We'll let the Authority make that decision in cooperation with Exeter Borough, and the state, and Senator Musto. Mr. Brozena is here to help and offer advice. I'm here to hear your input. And I heard what you have to say. There is a problem with the water backing up and causing flooding, and how do you get it out? Pumps. It's common sense to me. Now, it's coming up with the funds and the money and we need the help of the state and Senator Musto's office.

Any other questions?

(NO RESPONSE).

MR. URBAN: Thank you.

EXETER BOROUGH MAYOR COYNE: Again, we would like to thank everyone who came tonight. But the bottom line here is that we need the pumps, and we need help. And that's why we're here. All we are asking for is help. Thank you. Thank you folks for coming tonight.

(**NOTE:** For the record, Borough Council President, Richard Murawski asked Mr. Brozena if there will be another meeting to follow up. Mr. Brozena responded by stating that there will be no further meetings. This was the public meeting. There is only going to be one.)

THE MEETING CONCLUDED.