

**LOWER PAXTON TOWNSHIP
AUTHORITY MEETING**

Minutes of Township Authority Meeting held May 24, 2016

A meeting of the Lower Paxton Township Authority (LPTA) was called to order at 6 p.m. by Chairman William C. Seeds, Sr., on the above date at GHD Engineers, located as 1240 North Mountain Road, Harrisburg, Pennsylvania.

Authority members present in addition to Mr. Seeds were: William L. Hornung, William B. Hawk, Robin Lindsey, David Blain, and Justin Eby. Also in attendance were George Wolfe, Township Manager, Steve Stine, Authority Solicitor, Willian Weaver, Authority Director; Tim Nolt, Authority Engineer; Jim Wetzal, Authority Operations Manager; Scott Crosswell, Alton Whittle, Melissa Smith, Kevin Shannon, and Mitchell Collins, GHD; Jeff Wendle by conference call; and Watson Fisher, SWAN.

Pledge of Allegiance

Mr. Blain led in the recitation of the Pledge of Allegiance to the Flag

Approval of Minutes

Mr. Blain made a motion to approve the May 17, 2016 business minutes of the Sewer Authority. Mr. Eby seconded the motion. Mr. Seeds call for a voice vote and a unanimous vote followed.

Public Comment

No comments were provided.

Board Members' Comments

Ms. Lindsey noted that she wanted to discuss the email that was received in regards to Knisley Road. She explained that she went out yesterday and noticed that they are restoring the lawns. She noted that Mr. Wolfe was to have a Traffic Safety meeting this morning and she wanted to know the results of that meeting. Mr. Wolfe answered that there is no other way out for the trucks to travel from the work yard. He noted that there is a driveway coming out at traffic signal on Nyes Road but trucks can't navigate it as it is not constructed for trucks to come out from the north. He noted that it is a driveway with a driveway apron and tri-axels and tractor trailers can't navigate the turn, so there is no other way for them to get out.

Ms. Lindsey questioned how much longer they will be using the streets. Mr. Weaver noted that the contract is due to have final completion by October 31st and then they have 30 days to terminate the use of the work yard. He noted that you are looking at the end of November.

Ms. Lindsey noted if she lived there she would be very upset as the road cannot handle all that traffic and the dust and dirt is not fair. She noted that she spoke to Mrs. Deibert yesterday and she would be in people's faces if she lived back there. She noted that Mrs. Deibert stated that she has called numerous times to complain as the street is very narrow. Mr. Wolfe noted that the yards that have been set up in other locations have been equally obnoxious. He noted that the one on Irene Drive and behind the Linglestown Middle School are two other examples.

Mr. Weaver explained that every project has to have a yard for them to store their materials as you can't put them on a public street. He noted that the control that we have going forward is we can make the projects smaller and that way the work yard is not there as long and it helps. Mr. Wolfe noted that it may very well increase your project costs.

Mr. Hornung questioned if it is a dust problem. Ms. Lindsey noted that it is the traffic itself and it is constant back and forth and the street is very narrow as it is an old street in Paxtonia. She noted from what Mrs. Deibert told her, some of the workers have been parking on the street and when they go to back out of their driveways they can't see as the workers have their vehicles parked on the street. She noted that it is a mess and she questioned how the street will hold up for all the truck traffic.

Mr. Weaver noted that the problem is that there has to be a construction yard and since these areas that we are rehabbing are old, typically 30 years old, the area is built out so you don't have a space that you can go. He noted that the Authority does not pick the space for the contractor as we don't want to tell them how to do their business and the work yards are very hard to find. He noted that the question becomes where you put the materials as the contractor picks the site. He noted when he and Mr. Wolfe discussed this many years ago, the option was that the Township could issue a zoning permit but that leads to other issues. He noted that we have control either way as the contract can only go so long as they have to be done by the end of the contract or they would be in violation of the contract. He noted if you go with a zoning permit route then you can kick them out, but where will they go. He noted if you see the size of

the work yards they have to go somewhere. He noted that they only have five or six months left to finish this project.

Ms. Lindsey noted that Ms. Deibert is concerned with the summer and the little kids that live on that street and all the trucks coming back and forth as the street is very narrow and they will have to be very careful with all the kids in the area. She noted that the workers are parking in the street and trying to back out of the driveway, the residents can't do it. Mr. Weaver noted that the advantage is if you put a yard in a secluded area as there is only one way in and it will not disturb anyone except the people on Knisley Street. He noted that the disadvantage is you have the people on Knisley having a few people affected. He noted if you put the work yard somewhere else it could affect many people.

Mr. Wolfe noted that we can't kick them out at this point, but they should not be parking on Knisley Street. He noted that we can sweep the street and he stated that he will speak to Mr. Kline about getting it swept. He requested Mr. Weaver to speak to Mr. Ronca regarding having the workers park somewhere else. Mr. Wetzel noted that he has not seen any of their vehicles parked on the street. Mr. Wolfe noted that it looked like there were a couple of employee vehicles parked on the street. Mr. Wetzel noted that they have been told in the work meetings that they can't park on Knisley Street and he will reinforce that tomorrow. He noted that we have swept streets before in different projects to keep the dirt down. Mr. Wolfe noted that we will try to do that on a frequent basis until we can get them out of there.

Ms. Lindsey noted that Mrs. Deibert was in touch with the Township for when they come to restore her yard that they go around the back and she requested to receive a call the day before they do the work. Mr. Nolt answered that he was aware of that. He noted that it could be as early as Thursday of this week.

NEW BUSINESS

Approval of the Navarro and Wright Construction Inspection Services Agreement

Mr. Weaver noted that we have a construction and inspection services agreement for the Board's consideration tonight from Navarro and Wright Consulting Engineers. He noted that the compaction testing and paving inspection is currently done by two different agencies using Hillis Carnes for the compaction testing and HRG for the paving inspection. He explained that staff has been looking for someone who can do both at a lower rate and the rate provided by Navarro and Wright is \$70 per hour. He explained, rather than paying two people at a combined cost of about

\$130 an hour, he reached out to Navarro and Wright as they have an employee that has much experience in construction and design as he worked for PennDOT for 35 years. He noted that Mr. Nolt worked with Navarro and Wright on this project.

Mr. Nolt noted that we have the potential to go from \$130 an hour to \$75 an hour at a thousand hours capped. He noted that it does not mean that we will not be working with HRG or Hills/Carms on other paving projects when we have much paving going on in different areas in different projects. He noted that it would provide staff with more flexibility in our inspection operations.

Mr. Nolt noted that he could provide more information on the individual who will be working the project if you need it. He explained that Robert Konevitch has 35 years of experience, retiring from PennDOT District 8, noting that he has experience with paving inspection as well as the nuclear density testing. He noted that he spoke with HRG about providing an individual who could do both services and they indicated that they don't have anyone who is qualified. He noted that he reached out to GHD and he is waiting to hear back from them.

Mr. Seeds questioned why it states that they would get a half hour pay period for an eight hour shift but for ten hours there is not meal period. Mr. Nolt noted that is what is in the union contract for our employee inspectors. Mr. Hornung suggested that if they work the additional two hours they do not get an additional meal period.

Mr. Crosswell explained that Mr. Weaver reached out to us at GHD and currently we do not have anyone certified to provide the observation, especially for nuclear density testing at our local office. He noted that we have employees in other areas of the northeast so we will look into that for the future.

Mr. Hornung questioned Mr. Nolt how you control the costs of the overhead for professional services as it would be a situation for a license to add fees to it. Mr. Wolfe answered that they would have to be able to justify it. He noted if we got eight hours of work and \$10,000 worth of overhead we would question that. He noted that typically it would be for incidentals.

Mr. Seeds noted that it would be \$70 an hour with a not to exceed 1,000 hours but he questioned for what period would it be, for the remainder of this year or a one-year period. Mr. Nolt answered that it would be for any period of time. He noted that we have a 60-day termination clause built into it.

Mr. Hornung questioned if they can work two hours and go home. Mr. Nolt answered that he would be put on the paving operation schedule noting that it is a ten-hour day. Mr. Weaver noted that they have to drive here so it would not be good to schedule a person for only two hours. He noted that the operations are not sporadic as the paving contractors go full bore and work long hours. Mr. Hornung questioned what happens if it starts to rain during the day. Mr. Weaver answered that there is no guarantee for a certain time per day, only 1,000 hours at \$70 an hour.

Mr. Seeds noted that you have administrative costs and professional services at \$125 per hour. Mr. Weaver noted that we shouldn't have any administrative costs as we don't anticipate using them for any other activities, but we did provide them the paperwork that is required. He noted that most of the paperwork is done by our own employee who does all the pay applications. He noted that Mr. Hilson started this and Mr. Nolt will continue this practice using Dave Chilson, the lead inspector, who will gather the payment applications from all the contractor inspectors and do the pay applications. He noted that there is no administration costs from Navarro and Wright.

Mr. Seeds questioned what would be the period of time. Mr. Weaver suggested that it may be about six months going through the rest of this year. Mr. Seeds noted that a motion would include for the year 2016. Mr. Weaver answered no as the Board is approving this agreement to provide 1,000 hours of work at \$70 per hour. He noted that there is no period of time, noting that the terms of this agreement shall remain open for a period of 30 days from the above date after which Navarro and Wright reserves the right to review and withdraw it. He noted as long as the Board approves the agreement, it will become effective within 30 days that it is signed. Mr. Seeds noted if we get near 1,000 hours they will come back to us. Mr. Weaver answered that is correct. Mr. Seeds noted that we would have to approve another agreement.

Mr. Blain made a motion to approve the Navarro and Wright Construction Inspection Services Agreement as presented at the rates specified within the contract. Mr. Eby seconded the motion. Mr. Seeds called for a voice vote and a unanimous vote followed.

Property Owner request for installation of roof drain infiltration bed

Mr. Weaver noted that the Board received a letter from Gayle Rank who lives at 4805 Lancer Street. He explained that she spoke to him initially and then Mr. Wolfe regarding her

request to have the roof downspouts associated with her townhouse and her neighbor's corrected after the sewer work was completed. He noted that she would like to have an infiltration bed installed. He noted Mr. Hilson day-lighted the roof downspouts as they were buried over the sewer line, steps, and retention wall, and he did not think he could effectively replace the steps and the retention wall and have the roof drainage underneath it. He noted whatever we build could potentially fail.

Mr. Weaver explained that we day-lighted the roof downspouts, winter came, and she started to get ice on her sidewalk. He noted that Ms. Rank reached out to him and he stated that he would look into it, and after talking to the solicitor he was reminded that the Authority is limited in what it can do as Ms. Rank signed a Hold Harmless Agreement. He noted that it holds the Authority harmless from all activities with the sewer work. He noted that he met with HRG to see what alternatives would be available, and provided the email response that you have from Justin Hinz. He noted since Ms. Rank signed a Hold Harmless Agreement staff can not recommend to do anything.

Mr. Wolfe noted that he told her that she would have to appeal to the Lower Paxton Township Authority and that is the letter you have before you this evening.

Mr. Seeds questioned if Ms. Rank was aware of this meeting. Mr. Wolfe answered yes.

Mr. Seeds questioned if the preconstruction water went into the ground. Mr. Weaver answered yes. Mr. Seeds noted that now it is opens into the ground. Mr. Weaver answered that her spouts daylight into the grass area which is permitted by the ordinance. He noted that the problem is, when you put six townhouses in a very small lot you don't have much surface area and it goes out to the sidewalk and freezes. He noted that you can put ice melt out.

Mr. Seeds questioned if this happens to the other residents. Mr. Weaver noted that the other residents have some roof drains as well but he doesn't remember how they all drain. He noted that Mr. Hinz did look at them and some daylight. Mr. Seeds noted that they run on the ground or on the concrete walk. He noted in a heavy rain they work their way down to the street and end up in the storm drain.

Mr. Seeds questioned who Tanya Flemister is. Mr. Weaver answered that is Ms. Rank's neighbor. He noted that their roof drains come out together and they were both originally in the ground. Mr. Seeds questioned if the other ones were out in the open. Mr. Weaver answered that some of the roof drains were not affected by the sewer work as they day lighted into their

driveway or some other area that we did not touch. He noted that these are the only two roof drains that we touched and did anything with.

Ms. Lindsey questioned if the other ones were exposed. Mr. Weaver noted that the one on the end goes into their driveway. He noted that he can't recall how all seven go but four or five may be day lighted.

Mrs. Lindsey questioned if some slips and falls on the sidewalk would the owner be responsible. Mr. Stine answered that the owner is charged with the maintenance to the sidewalk under the ordinance which includes the removal of ice and snow but general slippery conditions are not enough to justify liability. He noted, in Pennsylvania, there is the Hills and Ridges doctrine, so smooth and slippery surfaces are not recoverable but if it was never shoveled and it is lumpy and hilly then a victim could recover. Mr. Weaver noted that Ms. Rank's only complaint is the slipperiness in the winter.

Mr. Eby noted that the water is away from the foundation so she would have no claims that the work itself had any issues with the outcome.

Mr. Seeds noted that the water is not going into her basement.

Ms. Lindsey noted that she had no issues until we did the work. Mr. Weaver noted that we don't know where the water went before as it was going into the ground. Mr. Wetzel noted that it was piped into the ground where the sanitary sewer came out of the building which was causing an erosion problem at the foundations and getting into the sewer pipe. He noted that is why Mr. Hilson made the decision to daylight them rather than put it back into the sewer trench.

Mr. Seeds questioned what would it take to put them back into the ground. Mr. Weaver answered that he asked Mr. Hinz to provide a description of an infiltration bed and he provided the DEP description for the Board to review. Mr. Nolt noted that it would be stone in geotextile fabric but we don't know what the existing soils are on the site and if it would work. He noted that you need good soils for it to work.

Mr. Hornung questioned what the other options are. Mr. Weaver answered that there is no other option other than running it up a clearwater pipe. He noted that we did that on Blanchester Street and you are looking at \$35,000 to \$40,000. He suggested that an infiltration bed would cost between \$5,000 to \$6,000. He noted that we could work with the I/I Crew to do it, but they have never built one before and Mr. Nolt stated that he could show staff how to do it.

Mr. Nolt noted that he has designed them before but we don't know what kinds of soil is in there. Mr. Hornung noted that you don't know if it will get rid of the water.

Mr. Wolfe had staff display the site on Google Maps that show the area during construction.

Mr. Weaver noted that you can see the sewer work and to the right of Mr. Hilson you can see all the concrete that was laid off to the right, it was the retaining wall off of Ms. Rank's steps where Mr. Hilson is standing. Mr. Wolfe noted that Ms. Rank got new steps and a new retaining wall. Mr. Weaver noted that you can see where the hoses are. He noted when we went to replace the steps and retaining wall there was some erosion on site already. Mr. Wetzel noted that there had been previous erosion as the drain pipes dropped into the ground at their steps and the retaining wall.

Mr. Weaver explained that Mr. Hinz did not see any ponding as it is a good slope and natural drainage for the entire area.

Mr. Hawk noted that it would not be a long distance to run an infiltration basin to. Mr. Seeds noted if we do it for one then the others will want it done. Mr. Wetzel suggested that it is about 30 feet to the street. Mr. Weaver noted the costs are not in putting the roof drains out to the street, it is in digging up the street and running an eight inch pipe all the way down to the stormsewer at the bottom of the hill.

Mr. Eby questioned if the other people had buried lines. Mr. Weaver answered these two are the only ones that were affected by the sewer work. He noted that he does not recall what is going on for the other ones. He noted that he could have Mr. Hinz go out to look at them. He noted from road tour he did see the one on the end was day lighted.

Mr. Weaver noted when we first did this work the main sewer line originally went up through their driveway, an eight inch main that serviced each townhouse, dealing with a developer that did not do it properly and we were not going to do any work at all. He noted that Mr. Hilson convinced him that if you want to get the I/I out we need to do it as he could not air test the lines. He noted that he could not guarantee the line and stated that they needed to be replaced. He noted Mr. Hilson's recommendation was to run a main up the street and run laterals to each house. He noted that we told the people that we hoped they could pass air tests and then they would not have to do anything. He noted that we could not air test the lines so that is why she was upset. He noted that Ms. Rank put in her letter we were first told that nothing would be

done, but that was not completely true. He noted that we stated that we were going to air test the lines, so the whole neighborhood of seven homes were mad because we had to do something. He noted as we did the work, it was very intrusive because you can see how small the lots were. He noted that these people were not happy about anything as he got many emails and phone calls. He noted that he wanted to provide some history for the Board as it was not an easy job, and it cost some money to do it, as we had to replace all the steps.

Mr. Eby questioned what the cost per house was. Mr. Wolfe suggested that it was \$15,000 plus for each unit, counting the new interceptor. Mr. Wolfe suggested that was close. Mr. Wolfe noted that it was not built right from the beginning, and we looked at trying to keep it as it was as we are putting all this money into a sanitary sewer system to remove I/I, it was stupid to leave the mess there and just tighten it up.

Mr. Seeds questioned where we go from here.

Mr. Hawk questioned how many more residents want to have this done. Mr. Weaver answered that it is only Mr. Cooper and Ms. Rank. He noted that he has not been contacted by any other person. Ms. Lindsey noted if the other ones see that those two are getting work done, they will want it as well. Mr. Wolfe noted that is what staff was thinking as well. Mr. Weaver noted that is what Mr. Hinz mentioned in his email. Ms. Linsey noted that you can't do one without doing the others.

Mr. Weaver noted that it may help if Solicitor Stine explains that she is not liable for someone slipping, then maybe she won't argue anymore.

Mr. Seeds noted that it would cost over \$35,000 to fix it by running a pipe to the bottom of the hill. Mr. Weaver answered that he did not get an estimate but it is what it cost the last time staff did it. Mr. Wolfe noted that you will have utility issues, street repairs, and driveways and sidewalks to fix. Ms. Linsey questioned what is the cheapest. Mr. Wolfe suggested that it will be about the same. Mr. Wetzel noted that you would have to deal with all those items. Mr. Eby noted that you would be digging up restoration work and that is not very efficient.

Mr. Weaver noted that he did not advise them of the fact that they signed a Hold Harmless Agreement so the Authority does not have the liability. He noted that he told her that he met with the Manager, and the engineer, and they felt that no work was required as the roof drain complied with the ordinance, and that was the end of it.

Mr. Seeds noted that Ms. Rank's was underground before but he questioned if another one was underground. Mr. Weaver answered yes, Mr. Fleming. Mr. Seeds questioned if we could fix the two of them. Mr. Wolfe requested a close up on the steps. Mr. Weaver noted that you can see the two roof drains coming off the roof. Mr. Wolfe suggested that they should look at Mr. Fleming's steps. He noted that the water went straight down into the ground between the two sets of steps and you can see what it was doing to the steps. He noted that we rebuilt their steps as they were collapsing due to the water underground. He noted that we did not want to put new steps in only to create the same situation. Mr. Seeds questioned Mr. Weaver if he explained this to Ms. Rank. Mr. Weaver answered yes. Mr. Wolfe noted that they had a problem, we fixed it, put new steps in; they just don't like the fix as they don't believe that if the water goes in the ground between the sets of steps, it would hurt anything.

Mr. Hornung questioned if we installed a retaining wall. Mr. Weaver answered that we rebuilt the retaining wall that was there. Mr. Hornung noted if you put the water back underground you would blow out the retaining wall or you will push it into the basement and crack the basement wall.

Mr. Eby questioned if you are looking for a motion to do anything based off the guidance of Mr. Stine. Mr. Wolfe answered that staff would recommend that you do that.

Mr. Hornung questioned what percentage of the houses in the Township have open drains. Mr. Wolfe answered that more than half have day lighted roof drains.

Mr. Eby questioned what the requirements for new construction are. Mr. Wolfe answered that it has to be day lighted ten feet from the property line as they don't have to go underground. Mr. Stine noted that they daylight. Mr. Weaver noted that they have more absorption area. Mr. Wolfe noted that someday we will get to infiltration pits for all. Mr. Weaver noted that there is no impervious material in the area as it is only a small lot.

Mr. Hornung questioned about apartments and townhouses, are they day lighted. Mr. Weaver answered yes but he does not know what they do with theirs. He noted that he never researched that. Mr. Hornung noted that this fits into the majority of homes in the Township whether they are apartment or homes or whatever, it is probably similar in their nature. Mr. Weaver noted that it is a requirement of the ordinance. He noted that the roof drains have to discharge to pervious area or an infiltration bed.

Mr. Seeds noted that we don't need a motion to do nothing.

Mr. Wolfe suggested that the Board needs to take action to accept or reject Ms. Rank's request. Mr. Eby noted that we are rejecting the specific installation of a roof drain.

Mr. Eby made a motion to reject the request for the installation of a roof drain infiltration system for the property of Gayle Rank. Mr. Blain seconded the motion. Mr. Seeds called for a voice vote and a unanimous vote followed.

STRATEGIC PLANNING

Review of the Beaver Creek Alternatives

Mr. Eby noted that GHD did a good job formulating the data for this discussion. He noted that it is a very good visual representation of displaying information.

Mr. Scott Crosswell noted that Mr. Jeff Wendle is joining us in the meeting by means of the internet. He noted that is part of the reason for asking to hold the meeting at GHD's office. He noted that we are working to discuss the Beaver Creek Alternatives now and then join it with further discussions for the Paxton Creek Alternatives in August.

Mr. Crosswell noted that he is the principal at GHD in Harrisburg and has been with GHD for 17 years. He noted that his staff would like to discuss where we are and where we are going. He noted that Mr. Wendle is present to bring his knowledge and long term history with the project to the table.

Mr. Crosswell displayed the GHD organizational chart for the Township. He noted that project teams change over time, noting that your own Mark Hilson has left your team and Mr. Wendle has taken a different role in our team. He noted that we conducted a client care meeting on March 21st with Bill Weaver and George Wolfe and two independent senior managers from GHD, Brian Smith and Joel Kostelac. He noted the purpose of that meeting was is to find out how we are doing and he found that the Authority's staff needs to understand structure for project team and the makeup of the organization in the Harrisburg area. He noted that we have three principal groups in Pennsylvania that focus on water and wastewater. He explained that he helps to lead the water group in Harrisburg as a principal with Alton Whittle as an associate along with Joel Kostelac and Peter Larsardi who are also associates.

Mr. Crosswell noted for the Lower Paxton Township Authority, Mr. Wendle is still very involved as a project program consultant to help develop this presentation. He noted that Mr. Shannon, Ms. Smith and Mr. Whittle are the project management team who will continue to serve in that capacity. He noted that he will take over Mr. Wendle's former role as the project

director to make sure GHD has the resources for the projects, help with strategic planning, and oversee the general quality of all the projects. He noted that he has met with staff over the past two months and tonight we will go through some of the items we have discussed as we reevaluate the programs going forward.

Mr. Crosswell noted in March and November of 2015 GHD provided some presentations for where we are in the program presenting a lot of data and graphs that can be a challenge to digest. He noted in the nine years since the 2007 Consent Decree, we have had great success in the complete replacement of 23 mini-basins providing a removal rate of I/I of between 82% and 100%. He noted that the cost per gallon for I/I removed is between \$.94/gpd to \$4.10 gpd. He noted that these numbers are showing cost effective projects.

Mr. Crosswell noted for the Paxton Creek projects there were 19 sites that historically where subject to wet weather overflows and there have been no overflows since May of 2014. He noted that there has been a significant reduction in peak flow and volume in this basin.

Mr. Hornung questioned how much money we have spent in Paxton Creek so far. Mr. Wolfe suggested that it would be about \$100 million. Mr. Weaver questioned if you are asking from 2007 as work was done in Paxton Creek before he started to work for the Authority. Mr. Wolfe noted that this I/I program started in 2007 and what was done before was repairs. He noted after the Second Consent Decree the work began in earnest for replacement.

Mr. Weaver noted that the original estimate for Paxton Creek was \$85 million. He suggested that the total spending will be over \$100 million. He suggested that 23 basins are about 65% into completion and it would be closer to \$60 to \$70 million remaining.

Mr. Crosswell noted for the Beaver Creek basin there were 22 sites that historically were subject to wet weather overflows and now the entire basin is able to withstand larger wet weather events before overflows are experienced. He noted that we are down to four or five sites that experience overflows. He suggested that it is a very successful program and there is much data to support that.

Mr. Crosswell noted that there are many aspects to the projects as we have revisited the costs for paving, compaction testing, seeding and the work zones. He noted that the Authority is looking to reduce the compaction costs. He noted that Mr. Weaver mentioned that the work zones could be broken down into smaller area providing less impact on the rate payers, but it

would probably increase the project costs. He noted that we regularly evaluate program enhancements to balance bid costs and work quality.

Mr. Crosswell noted that staff has completed the prioritization and hydraulic capacity and will discuss the program costs for the Beaver Creek basin. He noted that the DEP Annual Report is due in June so they are working to finish the modeling for Paxton Creek to develop the program costs for this basin. He noted that GHD plans to present in August at the Authority meeting, the impact on rates and develop a bond drawdown schedule.

Mr. Wendle noted when we started this program back in 2002, the Authority did not have its own treatment plant and it is restricted by the amount of discharge by Swatara Township and the City of Harrisburg, limiting the Authority's options. He noted for the Paxton Creek side, we worked on repairs and in 2007 a decision was made to replace or continue to repair or build storage. He noted that DEP refused to look at any other alternatives so we continued to look at the City of Harrisburg to see if we could work with them and Susquehanna Township to provide more capacity. He noted that the results are to do storage or remove the I/I, and we decided to remove as much as possible and replacement was the only effective way to remove significant quantities.

Mr. Wendle noted for Beaver Creek, the Township proposed a Wet Weather Treatment Plant that would have been very cost effective, and originally the South Hanover Township Supervisors gave their blessings. He noted that plans were drawn and they rezoned the land due to the complaints from their citizens. He noted that Swatara Township also told Lower Paxton that they would not build a larger plant to accommodate our I/I so it left the Authority with a restriction for our alternatives. He noted that we were left with removing or storing the I/I. He explained that we started a replacement program in Beaver Creek, but we were able to purchase additional capacity from West Hanover Township, and when Swatara rehabbed their plant, they increased the size to provide an increase in the peak flow capacity. He noted that before the Authority was restricted to a 7.5 mgd but now we have a peak hourly flow of 9.5 mgd. He noted in the long run we will have to do something to allow for future development. He noted that the amount of alternatives to avoid overflows and allow capacity for future development is very narrow.

Mr. Whittle noted that we are looking at rehabilitation with some eventual storage, and other minor considerations that may take the edge off the needs for these solutions such as how

you manage future growth, or negotiate for what design storms we have, and other capacities that we can purchase in the future.

Mr. Whittle noted under the current program we had five years to complete Phase I and II of the Corrective Action Plan (CAP). He noted that we are a little ahead as the original plan was to start in 2011 and the signing was delayed so we have a 2013 CAP. He noted that we are two years ahead of schedule. He noted that everything listed for the 2013 to 2018 projects are either done or under construction. He noted that they were able to group some basins together that are part of the 2018-2023 requirements and these parts of Phase III will be completed this year. He noted that although we are two years ahead of schedule we continue to have a lot of work to complete. He noted that the graph shows the five year steps that will bring us to 2033. He noted at the end of 2023 it is recommended to do a re-evaluation of the metering to see how we are doing, and how we are meeting the overall goals. He noted by 2028 we have to eliminate sewer overflows, and by 2033 we have to reduce the hydraulic overload. He noted that we have to be able to show, through the model, that future growth will not put the Township in a condition where we will have overflows. He noted that we are allowed to have some surcharges and that was the big concession that DEP provided for the Consent Decree. He noted that the next slide shows the implementation schedule for what will be done over the next years.

Mr. Whittle noted that the next slide shows where we are in terms of cost for the 2018 to 2023 five-year plan. He noted that he used the current knowledge for how we are doing with our programs, looked at the costs in today's numbers, and tried to project those costs for the remainder of the current plan to do rehabilitation. He noted that these costs are in today's dollars so we can compare different basins and costs to see where we have gotten the best return on the removals. He noted when he shifts to the overall costs for programs we will be shifting into a projected cost.

Mr. Whittle noted that these are the low hanging fruit projects that we continuing to deal with in Beaver Creek, the high priority basins. He noted that the 100% removal rate are projected to be what we are typically seeing now for cost for removal per gallon, anywhere from \$1.73 to \$5.45 per gallon. He noted that it is pretty consistent for where we want to be as these basins have high I/I.

Mr. Whittle noted for the second period that would go from 2018 to 2023, the cost in today's dollars would be \$30,866,000, roughly \$6 million per year.

Mr. Whittle noted for the next five years we have interceptors to be upgraded and the Beaver Creek force main. He noted there are a couple of basins that are currently at the threshold for what we would need to repair. He noted that some may come off of the list, noting that we will watch to see if they increase as there will be more capacity in the lines or if they are low basins. He noted that we see the costs per gallon in this phase starting to creep up. He noted that it is due to the fact that the flows are not as significant, the medium hanging fruit. He noted that we started to look at alternatives for ways to deal with this, noting that we are looking at costs for this program to be around \$47,113,000, averaging \$9 million a year. He noted by 2028 we have to have all of the overflows removed.

Mr. Whittle noted 2028 to 2033 deals with matching growth, so it would be addressed on this end with a cost of \$41,927,000. He noted that we don't have a cost for some of the basins as we have metered them successfully and they are low enough. He noted that they are the low hanging fruit with some having no meter data, but they are along the major trunk lines and they are full, so there is not positive flow coming into them, since they are not able to receive I/I. He noted with Paxton Creek, as the flows come down, it is much easier to meter the flows to get an actual reading. He noted that he has spreadsheets to share with anyone who would like to look at them but they are very cumbersome to put on a screen.

Mr. Hornung noted that we are 2½ years ahead of schedule but what would happen if we slow it down in hopes that new technology become available for doing something with I/I, for example Actiflo, and lining pipes as compared to digging them up and replacing them. Mr. Whittle answered that the initial purpose is to reduce overflows, but if we put a force main in we could do something with the interceptors in the second phase, and if we did it, it would help to reduce overflows and solve part of the problem ahead of time, especially since we will have to do storage anyway. Mr. Hornung questioned how does it coincide with the bonds that we have; are there any coming due that if we wait a while they will be paid, and as we borrow more money we keep a more stable rate so we don't have to raise the rates.

Mr. Whittle noted if we look at the timeline for option one, the current option, there is much rehabilitation and interceptors that need to be done by 2028. He noted if you moved the interceptors up earlier you would get overflows removed earlier, but the remaining issue is how much flow you provide to Swatara Township. He noted that is the major constraint that we have in Beaver Creek that we don't have in Paxton Creek. He noted that we don't have as much push

back on increasing that flow. He noted if we did the interceptors early you could increase their peak flow.

Mr. Hornung questioned what we are giving them now. Mr. Whittle answered it is around 12. He noted that the flume stops at 10 but it is around 12 or 12.5. He noted that it has gone up a little since they have done their headworks and capacity improvements at the plant which has reduced some of the overflows. He noted if you were to do the interceptors you would give them more. He noted if you do interceptors and storage which is not a favorite topic it provides the ability to significantly change the schedule as long as you negotiate with DEP.

Mr. Hornung questioned what would be the downside if we don't do anything in the next two years. Mr. Wolfe answered that you have money to spend and you have a lot invested in a program administrated in-house and with two consulting engineers, relationships with the construction community, all of which would go away and you would have to reestablish it. He noted that he can't quantify what it cost to get to this point in a workable program, but you have invested to get here in this size of a program. He noted if you would shut it down and try to reestablish it in two to five years you would incur costs.

Mr. Hornung questioned if there is a way to slow it down but still keep it going. Mr. Wolfe noted that we are doing that. Mr. Whittle explained that is his recommendation, noting if you look at Option 2, for the next five years we are ready to go, and the cost per gallon removal for that program is very favorable. He noted while you are doing this you have to determine the perfect timing for when to stop, do interceptors and do storage. He noted that it saves money and balances the rate increase over a longer period of time. He noted as you get into the basins that have a higher cost per gallon you may want to determine if that is the way you want to invest your money or slow it down, as the basins deteriorate over a 50 year period.

Mr. Wolfe noted when you slow down you want to do that for long term not with the idea that you will have to speed back up again. He noted that it is a hard thing to get moving and to slow down.

Mr. Eby noted that we are getting good bids. Mr. Wolfe noted that is true when you get ten contractors showing up and it is under the engineer's estimate.

Mr. Hornung questioned what it will do to the rates. Mr. Whittle responded that the answer to that will be coming at the August meeting as we have to take Beaver Creek and Paxton

Creek together to look at how those drawdowns will occur. He noted that there is a lot to look at when you have all these together. He noted that we are looking to provide for level debt.

Mr. Blain questioned if Mr. Hornung was trying to focus more on saying that we should do the replacement where it is covering the full service life of the pipes in the ground. He questioned if the pipes we are putting in the ground have a service life of 50 years. Mr. Whittle answered more like 60 years. Mr. Blain noted instead of compressing everything as quickly as possible to get it done over the next 15 years why don't we spread it out over 25 years and by doing that we are slowing it down a bit which could help us better manage our rates. Mr. Hornung noted that he did not think of it that way, but we had decided to accept \$5 a quarter increase per year but now it is up to \$8 or \$9. Mr. Blain noted that is because we have accelerated the program taking advantage of construction costs. He noted that option two basically says that we will shut it down for a while and ramp it back up in the later end of 2020's. He noted if the goal is to keep it at \$5 a quarter raise every year then what do we have to do to keep it there. Mr. Wolfe noted that Mr. Whittle will answer that question.

Mr. Whittle noted that before the next meeting he needs to look at Paxton Creek and how the two combined give you the best rates. He noted that is what he is showing; Option 1 is the current program rehabilitation with some interceptor updates by 2028 to remove overflows with additional full bore of the remainder of the basin and storage by 2033. He noted that every basin would be touched or has already met the goals, so by the end of 2033 you would have a like new system. Mr. Stine noted that Option 1 complies with the current Consent Decree but Option 2 does not. He noted to do Option 2 we would need help from DEP, and if they don't allow you to do it then you can't do it.

Mr. Wendle suggested that it is not an issue. Mr. Weaver noted that the sewer replacement program works great as we have showed DEP that it works and we are the poster child for Pennsylvania. He noted that the Director of the Central Office for DEP provides people with his phone number to find out how to do sewer replacements. He noted that showing Option 2 is the preferred method to stretch the rates out and the replacement over the life of the sewers that Mr. Blain was referring to. He noted that the problem is you need DEP approval but Mr. Wendle noted that as long as you resolve the overload, having new people at DEP, noting the GHD has a relationship with DEP through other clients, he feels that GHD can convince DEP to do it. Mr. Weaver noted that he does not feel that way.

Mr. Wendle noted if you can show DEP that you will reduce the hydraulic overload that is what they are concerned about.

Mr. Blain noted that he is not an advocate for Option 2 as he does not want to shut down rehabilitation for a period of ten years. Mr. Weaver noted that it would be for a couple of years. Mr. Blain noted if you took Option 1 you could extend it out with rehabilitation five more years and slowed down the amount of annual construction, still replacing pipe every year. Mr. Wolfe noted you have to hear the explanation for Option 2. He noted that there is more to it. Mr. Seeds noted that Option 2 has to do with how much we spend per gallon of removal and if the costs go too high you may not want to do that.

Mr. Whittle noted for Option 2, once you do the interceptor upgrades and storage, why it is shadowy for Option 2, is you can do the rehabilitation at whatever schedule you really want to do as long as you are keeping up with growth and deterioration. He noted if you decided you wanted to take 10 years or 20 years, it provides some flexibility, not having a set beginning and end. He noted if you want to keep a certain amount of work and just do it for the next ten years, you could.

Mr. Shannon noted that the gap that we show between 2023 and a few years later does not necessarily need to be there. He noted for the purposes of our evaluation, we costed it out that way but it could really go from 2016 to 2028. He noted that the low hanging fruit could be spread out just so we eliminate the overflows by 2028. He noted that this does less work in the next six or eight years, doing storage to eliminate the overflows, and it also takes care of the overloads.

Mr. Seeds stated that maybe we don't want to do the high hanging fruit at \$4 to \$5 a gallon for removal. Mr. Whittle noted that he would recommend doing them because if you do not do the next five year program, the amount of interceptor upgrades and things to get the flow to the storage is significantly higher.

Mr. Seeds questioned where you cut off the costs, at \$5 or \$10 a gallon. Mr. Whittle noted that it is more in terms of what sort of infrastructure you have to put in place to be able to store it. He noted if you do the next five years of work between now and 2028, it has a significant impact on reducing your storage and reducing the amount of interceptors that have to be upgraded. He noted once you get past that point, it is about getting your flows below

Swatara's limit, which is where you start to lose the cost effective basins for removal to meet their Intermunicipal limit.

Mr. Whittle noted that Option 1 would address all I/I sources for what we are currently doing at the end of 2033. He noted you would have rehabilitated any basin that is over 1,000 or 1,500 gallons per day per EDU. He noted that Option 2 you would only address the high priority basins in the next five years. He noted under Option 1 you would also see significant street improvements across the Township anywhere sewer work was done. He noted that we know the process and we have gotten proven results and have the staff to do it. He noted that you would get a reduction in your peak flow, but it is also reducing the annual and monthly flows to Swatara. He noted at the end of 2033 we estimate that you would need storage of about 1.5 to 4.5 million gallons of storage. He noted that you still need storage not to remove the overflows but to meet your Intermunicipal limit. He noted even if we had every basin at 1,000 gallon per day per EDU you will not be below the 9.49 at a peak storm event for full build out for future growth. He noted that Swatara does not have any additional capacity to offer at their treatment facility. Mr. Wendle stated that is correct. He noted with Option 1 you have the staff in place and can continue to roll through the basins, but the downside is that we will have to do more work in the next ten to fifteen years.

Mr. Whittle noted that Option 2 addresses the streets in the high priority basins so you would only have partial streets paved in a good portion of the area above and below I-81. He noted that some streets would be redone, but it is a balance between the I/I process that is going well to remove the peak flow that enables us to use the storage to balance it out. He noted if you don't meet your goals in the basin it gives you some room to take care of them though a cheaper storage route rather than going back into a basin a second or third time where you are not getting great results trying to resolve individual issues. He noted that you would get a moderate reduction of your annual monthly flows but you are equalizing your peak. He noted that although you might not be removing it all, you are basically pushing it back to a time period where it can go back into the sewers and you are still giving them higher monthly flows. He noted that storage would be for about 5 to 8.5 million gallons so it is a bigger storage, but not too onerous.

Mr. Hornung questioned what the price of storage is devoid of the cost of the land. Mr. Whittle suggested that the current cost is about \$16 million in 2015 dollars. Mr. Hornung

questioned if it is about \$4 per gallon. Mr. Whittle noted somewhere in that area but you don't get any roads paved.

Mr. Whittle noted that Option 2 provides the ability to take the staffing and keep it even or have a nice steady decline over time at what you need for engineering for construction and management of the field and gives you control over that. He noted for Option 1, you have to stay on schedule to meet the consent decree by 2033. He noted that the real benefit of Option 2 in this comparison is that it extends your rate increases for the need to increase them. He noted that it would provide for a more steady increase than a rapid increase in the beginning.

Mr. Whittle noted that this is a redesign of what Mr. Wendle presented back in March of 2015 which was to do storage immediately and then have the program spread out over time. He noted if you hold off on storage until 2026 to have it completed by 2028 and still deal with the top high priority basins it give a favorable cost comparison in total present value

Mr. Weaver questioned if there is a math error because the program costs in the packet was \$80,900,000. Mr. Whittle answered yes as he corrected it. Mr. Crosswell noted that we extended the Township to the last time period of 2033 to 2066. He noted in the packet we did it over a ten year period and we extended the pipe replacement out almost 30 some years to show the benefit of Option 2. Mr. Whittle noted under Option 2 the rehabilitation that you need to do to keep up with future growth and deterioration may or may not even happen.

Mr. Hornung noted that the difference in deterioration is with the type of pipe that you have in the ground. He noted if you fix one problem it just goes somewhere else since the pipe is so bad. He noted for the PVC pipe if you have a failure you should be able to fix it and it won't go anywhere else. He noted that you will have some advantages when you do have to rehab it as you will not have to spend the kind of money as you don't have to replace all the pipe.

Mr. Whittle noted that he added a chart to show the costs for the options. He noted for the current options, the present worth value you would have expended almost \$90 million for your current program but Option 2 allows you to go out to 2066 spending \$65 million. Mr. Seeds noted when he added up the numbers it came out to be much more. Mr. Whittle noted if you use the current 2015 dollars, if you built everything today. Mr. Weaver noted that this is going forward and not including what was done in the past. Mr. Whittle noted that there is a discount of 3.125% for every year. Mr. Crosswell noted that these are present worth dollars, he noted that the costs that were in the tables for each five year time period were actual costs.

Mr. Blain noted if he was looking today to sell the sewer system he would look at the discounted cash flow model, but that is not what you are looking to do. He noted that he does not want to know what the discount is, and shouldn't you inflate the rates going forward. He noted that you had to inflate the costs going forward to try to pick up the capitalization on the costs. He noted that discounting the numbers back to today's dollars doesn't tell him anything because in 2050 it will not be \$65.7 million in real dollars it will be something much greater than that which is going to tell him what the rate will be to charge. He noted if you want to try to manage \$5 you can't look at a discounted dollars. He noted that you need to build it out using historical inflation rates for what the cost of capital has been historically and you need to build it out using that model.

Mr. Wendle noted that he agreed but and rates need to be inflated moving forward but if you are just looking at the costs of trying to compare the two alternatives, noting if we had all the money today, it would show what is more economical. He noted that is what we are trying to show here on a present worth basis that the one is less expensive. He noted in terms of how it will affect rates, that is the second thing we are talking about, preventing a large rate increase going forward. He noted, who knows what will happened if we push it out 50 years from now, but the point is here to say that the total dollars for what is advantageous is option 2 and there are other things to talk about other than storage. He noted that we may have time in the next five years to look at reducing storage lines.

Mr. Blain noted that he does not buy the numbers. He noted that something doesn't make sense for Option 2, in that between 2033 and 2066 even discounting it back to today's dollars, the cost is only \$65.7 million. He noted that is less over a 30-year period for pipe replacement then what we are going to spend between 2018 and 2023. He noted that a significant amount of pipe will have to be replaced because in option 2 we are saying that we will have to have storage to hold up 5 to 8 gallons per EDU. Mr. Hornung noted that for the one you are trading dollars at \$3.5 per gallon versus \$7 or \$8 per gallon, not counting present value. He noted in real time you are trading off storage which is less cost per gallon then trying to fix the pipes in the ground. Mr. Blain noted that he gets what you are trying to say but he does not think that the 2033 to 2066 is going to be cost beneficial to us.

Mr. Hornung noted that he always brings up the Actiflo and lining the pipes and everyone says that it is probably not going to happen but things happen. He questioned if he should hedge

our bets and take a wait and see approach to keep the rates from going up as fast or do we just plow forward and continue on with our system. He noted that he does not think that we should stop, but should we back off for a little. He noted that we push staff very hard in all of this and maybe we should back it down by 25% and keep going. He noted that it would slow down the rate increase.

Mr. Eby noted that the goal is to get rid of the consent decree. He noted that we don't know what the technology will be in 2033 to 2066, but what he is seeing with the two options is our borrowing capacity and the thirty year obligation bonds. He noted that we are potentially inflating our rates quicker in Option 1 or our borrowing capacity, whereas for Option 2 we hit 2028 with storage and we could delay future borrowing from the general obligation fund. He noted that we don't know if we could be mandated with another consent decree. He noted that his goal is to get to 2028, being able to stay in his house and not having \$20 increases from what he is currently paying. He noted that is what he is getting from these two models. He noted that he is leaning towards the one that we don't borrow as much money.

Mr. Whittle noted even with Option 1 you have future rehabilitation to keep up with the deterioration and it would be complete buildout but not as much growth. He noted if have the basic deterioration, even though you fixed everything, some pipe will be 30 years old by then and we are already five years into Beaver Creek so it will be 20 years old by that point. He noted even if you had a 100 year lifespan, you will eventually have to start to keep up with deterioration. He noted with Option 2, with the larger storage you don't need to fix as much pipe in the ground at the current pace. He noted that it lets you take it out over a longer period of time and allows you to evaluate your pace. Mr. Eby suggested that by 2033 Swatara may have more capacity for buildout. Mr. Wolfe answered that they are landlocked. Mr. Eby noted that they will not expand their plant.

Mr. Seeds noted that Harrisburg had a meeting about their improvements and we don't know what they will spend or where our rates will end up, and it all adds up for what we need to charge the residents. Mr. Weaver noted that they don't know what they are doing and they won't know for two years. He noted that they are studying their problems. Mr. Seeds noted that they will have to do a lot of upgrades and we don't know where the rates will go.

Mr. Whittle noted that he hopes to address these questions when they get all the rates together to see where the expenditures will come in and how it would impact the rate structure.

He noted that is the goal for the August meeting. Mr. Blain answered that is fine. Mr. Hornung noted that you are assuming a 3% increase in inflation as you project your rates back to present value so you are still assuming some type of inflation going forward. He noted that the assumption is still there and for us it would be more clarifying to not discount it going forward and inflate it so that we are pushing expenditures forward but not getting a discount. He noted now it looks like we are getting a discount but we aren't. He noted that it looks like we will be spending less money if we take Option 2 but that is not true because we could be spending almost the same by the time if you increase your rates at 3% per year. Mr. Whittle answered that there is a portion of that but you will have the larger storage, there is a portion of the system that would be safe.

Mr. Wendle noted if you are trying to allow for inflation it is difficult for if you assume 30 years from now that we will have inflated costs, it is true but people should be making more money and everything else should be inflated as well. He noted that they will take these same numbers to see if the rates are keeping up with inflation or if they are ahead of inflation. Mr. Weaver noted that inflation going out forward doesn't mean anything. He noted that we started this program in 2007 and he told you that it would be \$5 to meet the consent order but we are at \$9. He noted that is only nine years ago so we have almost doubled the rates. He questioned if we are getting good bid prices, he does not think we are. He noted that the inflation rate has been incredible. Mr. Wolfe noted that Mr. Weaver is acting emotionally since he is the one who gets the brunt of the phone calls. He noted that we are two years ahead and that is factored into our costs. He noted that he is speaking to inflation and inflation going out at staff level, in nine years you have doubled the rate increase. He noted that asking the engineer to gage inflation...

Mr. Blain noted that there is historical data that is done by valuation experts all over the world that goes back to 1933. He noted that they have tracked the rate for what it has been for the time periods of 1933, to the current period, and 1959 to the current period and they use that data when calculating. He noted if you are doing this, it is okay to use that type of data or piece of information as it is accepted information used by experts around the world. He noted to figure this out in real dollars you apply that factor across the board. He noted that the ultimate goal is that the Board has said we want to keep the rate increase at no more than \$5 a quarter so how does it play out. He suggested that GHD figured it with real dollars first and you can see how it plays with an increase of \$5 per quarter increase. He noted then you take the historical

information that is available and he can provide that information to GHD. Mr. Weaver noted that there is a misunderstanding as part of this strategic plan is that you can never get to \$5 a quarter, it is impossible. He noted that we have a consent order and he is trying to be honest by providing staff comments, it is impossible. Mr. Blain noted that you can't do \$5 a quarter if you are trying to meet the mandate of 2033, but you could be \$5 a quarter if you laid it out. Mr. Weaver noted that DEP must approve it and you have to be reasonable. He noted, we have this consent decree and we had a budget but it has gone up unbelievable. He noted that Mr. Eby asked about sewer rates and we looked at it, and no matter what you do, you have to solve an overload. He noted that you are limited to two options, storage and replacement. He noted that no matter what you do, it will cost a lot of money. He noted that you have x amount of gallons that you have to remove, but it will cost a lot of money. He noted that the good news is we are removing a lot of flow in a quick fashion. He noted that since Mr. Wendle is looking at the costs for storage, you have a known cost for storage, and that is why he has been asking the Board to discuss this for the past five years. He noted that the costs are going up and Mr. Wendle is concerned if we should be looking at something else; that is why we are here. He noted to solve the overload you have to spend money. He noted that Mr. Wendle will show you the rates in August but at \$5 a quarter it is not reasonable with DEP.

Mr. Hornung noted that originally that is what the Board decided upon, \$5 a quarter per year but now we are at \$9 a quarter. He noted that he is not saying that it has to be \$5 a quarter but his concern is that we need to see what we will accept at this point and look at the other options. He questioned what will happen with technology in the future and will other options become available that are cheaper as we get more and more municipalities that have to conform to DEP's standards. He noted that it normally generates new technology as you get more pressure, you get more money in the game, and you might come up with something else. He noted that we are betting that it will not happen by spending the money now. He noted that he believes that there should be some type of rehab program that eventually rehabs every piece of pipe in the Township as the asbestos pipe that we leave behind is eventually going to fail. He noted that it is way past its useful life, noting that it is like Verizon who has to pick that customer who is 80 miles out and pick them up. He noted if we are going to be a public supplier of the service you have to service everyone who is on the system. He noted that we will have to get the

asbestos pipe out of the ground and replace it with PVC. Mr. Eby noted with Option 2 could be on our own terms. Mr. Hornung noted that it can't take 100 years either.

Mr. Wendle noted for the next seven years we are tackling the basins in Beaver Creek that have to be done now. He noted that there are a number of alternatives that we are looking at, for example, there is not a lot of technology to remove I/I but grinder pumps was something we discussed earlier. He noted that we could require all new developments to have low pressure sewer as it would drastically reduce the impact of the new development. He noted that he did not know if it was feasible but that is one thing. He noted if we get the flows down to a certain level, the Conway Road site is for sale, storage is an option that we need to look at. He noted if we had a wet weather facility using bio-Actiflo, as long as you use an anaerobic treatment organism, getting the system down to a reasonable amount. He noted that we will look at those things over the next six years.

Mr. Hornung noted from what he is hearing that we need to stay the course for the next four to five years. Mr. Whittle suggested we could make a better informed decision at that time, looking at different options. He noted that the question provide to his staff is to go back and look at other options. He noted that BC2 and BC7 are really bad as they are old systems.

Mr. Weaver noted that it comes down to what you have always asked, what is the cost per gallon and what they described tonight is since we are landlocked and can't build our own sewer facility, we have two options, storage or replacement or a combination of both. He noted at a certain cost per gallon, you go to storage unless you want new streets. He questioned if we should take a risk and let this property go or do you want to buy it for future storage. He noted that you do have the land fill sit but it will cost three to four times more in force main costs and pumping costs is it feasible.

Mr. Hornung suggested that there are more than two options, he noted in three or four years we will probably know more about those options. Mr. Weaver noted that he loves the optimism but having done this for 35 years it doesn't get better it gets worse. He noted if you look at history with inflation, the environmental agencies don't let you dump more in, they want less, so what he sees 15 years from now is that it will be harder and cost you more. He noted that they are now studying shampoos as they are harmful to the environment as well as hand sanitizer. He noted in 15 years they could have us treating who knows what. He noted that there

could be another option with storage in terms of treatment as it would work great for us but that is five or ten years away. He noted that staff sees things getting harder and not easier.

Mr. Wolfe noted that he would like to get to the storage question and Mr. Wendle is looking for an answer to that.

Mr. Blain noted in regards to the consent decree, there must be other municipalities that share our issues and have consent decree. He questioned what their success rates are. Mr. Eby questioned are we the only ones who do not have a treatment plant. Mr. Weaver noted that we are limited. Mr. Wolfe answered that we are difficult to compare to as we are much larger than everyone else. He noted that we don't have a treatment plant and we started out in a much worse condition than everyone else. Mr. Blain noted in general, even if you do have a treatment plant, are they meeting their consent decrees. Mr. Weaver answered that we are way ahead of everyone else, as they are only getting started, and as he noted, DEP is using Lower Paxton as the poster child. He noted that they are telling everyone to replace sewers and DEP is starting to issue many consent orders, noting that Susquehanna Township is going through it now with GHD. He noted that the difference is that we are limited in options as we are landlocked. He noted the age old question is, is it cheaper to remove it or is it cheaper to treat it and if you have a treatment option you have that extra option to look at it. He noted that we don't have that option as we are limited sending our flow to Swatara Township and the City of Harrisburg. He noted that Mr. Wendle asked Swatara why we could not build an Actiflo plant but they said they don't have the space. He noted that we could look into it but it probably won't go anywhere. He explained, to get back to your question for what other municipalities are doing, they are coming under a consent order now where as we have been under one for ten years, and they have more options.

Mr. Wendle noted for East Pennsboro they have a treatment plant and they designed it for a peak flow of 24 gpd. He noted that it is a huge peaking factor. Mr. Shannon noted that they put \$25 million into improving their treatment plant and they were done, being able to put peak flow capabilities into the system. He noted that the Township does not have that luxury.

Mr. Blain noted that because the program that we have put in place is a successful program and you used the words "poster child", are we building good will with DEP that will allow us to go back to see if we could get an extension of the period of time on our consent decree to allow us to continue to do the replacement program, but better manage our rate

increases as they are above what we would like to see for the people of our municipality. Mr. Eby questioned if Swatara would need to have a word on this.

Mr. Hawk noted that GHD is the expert and he is conscience of what Mr. Whittle said but Mr. Blain is the accountant who is looking at the financial implications. He noted after listening to all of this there could be or could not be new technology. He noted that we never know what DEP or the EPA will do in the future. He noted that he would like the Authority to take the initiative to get the thing fixed as quickly as we can. He noted that he does not like to spend money if he doesn't have to but, if we would like to get it over within a reasonable period of time as opposed to passing it along as a lifetime project for the next generation.

Mr. Blain noted that he understands the extension but he thinks we are missing the boat on some of the costs and we continue down the road with replacement and in five years we see that we are on track, there may be things that we can do to extend it out. He noted that we are trying to manage costs and getting the project done, and he suggested that there are ways to work with Swatara and everyone else involved to try to extend it because we are doing the things the right way which is replacing the pipe which is what everyone is saying we need to do.

Mr. Hawk noted if we get lucky we may not have to increase the rates \$5 every year. Mr. Crosswell noted the question for how we show the costs, part of the reason we showed the costs the way we did was last March we showed a similar one and that is when we looked at doing storage immediately. He noted that we wanted to continue with the same methodology looking at the present value costs. He noted that we are at the point that going forward for replacement in the next five years makes sense. He noted that it give the Authority time to look at the models to see what size storage we will need. He noted that Option 1 and 2 show the next five years.

Mr. Seeds noted that we need to be careful because this year is the first time that he has received many complaint about the sewer increases. He noted that we can't keep going the way we are going.

Mr. Blain suggested that they should run the numbers and then we can talk about it again in August. Mr. Crosswell suggested that they should run over a 20-year period. Mr. Blain noted that he would not extend it out past that either.

Ms. Lindsey questioned if we have received a lot of phone calls. Mr. Wolfe answered yes. Ms. Lindsey questioned if it is the most ever. Mr. Wolfe answered yes.

Mr. Eby requested to move this along as he has to leave and he wants to discuss the site.

Mr. Shannon noted that most of the Board members are familiar with the site from road tour. He noted that all the storage options that we have looked at have talked about using the land fill site in relation to Option 2 which is the Conway Road site at Nyes Road that is on the market now. He noted the PS on the map is the location of the wet weather treatment plant site is, so that is where the pumping station would be as the zoning does permit pumping stations to pump to either of those storage sites. He noted that the green lines are sewers, red dash line is a force main that goes up to the landfill. He noted that the Conway Road site is 7.5 acres. He explained that Mr. Wendle worked up the pros and cons for using both sites. He noted that the big advantage of using the land fill site is that you own it and it is a relatively remote location, but there are higher costs for pumping and a longer distance that are significantly higher than the Conway Road site. He noted that there is limited area for development at the landfill so you are looking at filling in a ravine area to have some buildable area. He suggested that there is a nearby water supply after doing research with Suez Water, and you would have to manage two remote sites, the pump station and the storage site, being a distance apart. He noted that the only negatives for the Conway Road site is that you would have to buy it, suggesting that it is listed for \$350,000. He noted that it is at a visibly intersection that could be screened with the use of some subsurface storage.

Mr. Seeds questioned what is wrong with the site that we already own. Mr. Wolfe answered that it is not zoned for storage in South Hanover Township. He noted that we bought one parcel in South Hanover Township for the wet weather treatment plant and we still own it. He noted that we bought a parcel in Susquehanna Township for storage and there is nothing on that. He noted that we have tried to do a 3 megawatt solar facility on the Compost Facility which should have been completely environmentally acceptable to anyone but that was rejected by the surrounding neighbors. He noted that we have some experience with a public project on Locust Lane that isn't going so well from a public perspective. He noted that any time the Authority mentions that we are looking into storage in Kendale Oaks, we will have trouble. Mr. Blain noted when he read that is what we were going to talk about he thought you were crazy. Mr. Shannon noted from an engineering standpoint it is an ideal site.

Mr. Seeds suggested that he would rather discuss this with South Hanover Township on that site that we own. Mr. Wolfe answered that there is no fight. Mr. Seeds answered that it was not storage tanks. Mr. Weaver noted that it is not allowed. Mr. Blain noted that they zoned all

that out. Mr. Wolfe noted that the only thing we can do is a pump station. He noted that everyone driving out by Kendale Oaks will see storage tanks across the street at Conway Road. He noted that wherever we put it, we should be prepared that the public is not going to be happy. Mr. Seeds note that it would be more visible at the Conway Road site. Mr. Weaver noted that you could bury the tanks and put a park on top of it, it would cost more and Mr. Wendle could run the numbers for you on that. He noted that the issue for tonight's meeting is, will you authorize staff to negotiate an agreement with them that would not bind us providing an option for an agreement or do you want to take the risk, get more information on storage to see if you are going to do it someday and use the landfill as your safety net which will cost three times more.

Mr. Eby questioned what the terms of the option would be, would you put money in escrow. Mr. Weaver answered that Mr. Stine would need to negotiate with George Zimmerman and he wants to sell the land. Mr. Wolfe noted if you buy it or secure it and you don't want to use it for your intended purpose, you won't be able to dispose of it since everyone will yell at you for trying to sell property for development purposes. He noted once you acquire it, it will be yours forever. He noted if there is a way we could have an option or a period of time to further evaluate it, it might be good.

Mr. Eby questioned if it just came up for sale. Mr. Weaver noted we went on road tour and the property owner's realtor reached out to the Board about buying it as a park for the Township as the realtor can't get rid of it.

Mr. Weaver noted if you look at the slopes, they are saying that they could do cut and fill and they have a plan from Hartman Engineer's that showed several lot layout, but they say they can build it, but he questioned why are they coming to us to try to sell it. Mr. Hornung questioned what they want for it. Mr. Wolfe answered \$375,000.

Mr. Shannon noted that there is a sketch plan for ten lots. Mr. Weaver noted that one brother may take \$300,000. Mr. Eby noted that you do an appraisal as part of the option. Mr. Weaver noted that Mr. Zimmerman stated that they would do an appraisal for the Authority. He noted that he needs a decision to get back to Mr. Zimmerman with. Mr. Seeds questioned if we want to own more useless land. Mr. Weaver noted that land grows in value so when we sell Commerce Park we hope to break even or make a profit. He noted that he got a call from a realtor today in regards to that land.

Mr. Wolfe noted that the only lots that have any real value is one and six. Mr. Weaver noted that he will tell Mr. Zimmerman that you are still thinking about it. Mr. Hornung noted that there are 900 less houses for sell in this area then there were a year ago. He noted that the inventory is very low so development will start to ramp up again.

Ms. Lindsey questioned if the land is worth \$300,000. Mr. Wolfe noted that we would have to get it appraised. Mr. Weaver noted to run a force main up to the landfill you would save from \$500,000 to \$1 million if you buy this lot. Mr. Hornung noted that the only way he sees the Authority putting tanks in that location would be in the ground. Mr. Wolfe noted that he would have said that except for the fact that solar panels were not acceptable in that neighborhood. Mr. Blain agreed as it is right next to a residential neighborhood and they will complain about it. Mr. Hornung noted that they will complain about potential smells. Mr. Wolfe noted that he can show pictures of a nice urban park in Altoona in the middle of a residential area that you would never know had a sanitary sewer holding tank for years. He noted in our current environment he does not know how it would go.

Mr. Crosswell noted that he and Mr. Wendle thought about adding for what is being done in Alexandria Virginia where they just built a 15 million gallon storage facility underground and they have soccer fields over top of it. Mr. Hornung questioned if it was close to a residential area. Mr. Crosswell answered that it was in downtown Alexandria. Mr. Weaver noted that they did it in Pittsburgh as well.

Mr. Blain questioned if the storage plans were based upon using the landfill site.

Mr. Weaver noted that the issue with storage is whatever the public says, it doesn't matter as we have a court order as we have to do it or pay the fines of \$7,500 a day and in one year it would cost \$2.5 million. Mr. Stine noted the fine would be for missing the goal of having no overflows after a certain time. Mr. Blain questioned if everyone else will meet their goals. Mr. Weaver noted that DEP will make them or they will fine them. Mr. Eby noted that he would be interested in knowing how long you could go out for an option to purchase the land. Mr. Wolfe noted that we could go back and ask them. Mr. Eby noted that he currently has an option for a project for two months, but you may be able to go out for a whole year if you put something on the table. Mr. Wolfe noted that we could have the right of first refusal.

Mr. Eby made a motion to allow staff to discuss with the property owner an option to purchase the land on Conway Road. Mr. Hornung suggested, until the next meeting in August.

Mr. Eby noted that we could call a special meeting to discuss it. Mr. Weaver answered that we would have to sign the option, and we could act upon it at the June meeting. Mr. Hornung seconded the motion. Mr. Seeds called for a voice vote and a unanimous voted followed.

TOWNSHIP REPORTS

Review status of Second Consent Decree mini-basin sewer replacement projects

BC-3A/B/C Project

BC-4A/B/C Project

PC-4C/E Project

PC-4A Design – Alternatives for Creek Drive Sewer

Mr. Weaver noted that no decision is needed for Creek Drive, but we will recommend that we bid the PC-4A job with an alternative to do Option 2 that would allow first floor service for the 10 properties on Creek Drive. He noted all the sewers are run out the back of the homes at this time underneath the creek. He noted when and if their sewers fail or start to contribute I/I they would need some options. He noted at staff level, the only thing that was reasonable was at \$180,000 you could provide first floor elevation and run it out the front to Creek Drive, and if they want to keep their basement service they could put a grinder unit in.

Mr. Seeds questioned if the residents will fight this. Mr. Weaver answered no as we will be doing them a huge favor. Mr. Seeds questioned if they will fight not having service from the basement. Mr. Weaver answered that he did not think so as their option is if their sewer fails and have to replace it, it will cost them \$30,000. He noted that we will provide a lateral for them. Mr. Seeds noted that the people who have bathrooms in the basement will have to get pumps. Mr. Stine noted that they can get a sewer ejector. Mr. Weaver noted if their sewer fails and we are done with our project and they have to replace their sewer, he would have to have a contractor go out and estimate it, but it could be \$30,000 for each.

Mr. Seeds questioned if you have had a meeting with them. Mr. Weaver answered no. Mr. Hornung suggested that they will come back and ask for up-flow toilets. Mr. Weaver noted that there is no decision to be made at this point, but he wanted to make sure that the Board did not have a problem with doing the extra work to bid it. He suggested that it would only cost about a \$1,000 to do this.

ENGINEER'S REPORT

Mr. Seeds noted for section 2.4 in the report, what is the SCADA system in Beaver Creek. Mr. Crosswell answered that it is Supervisory Control and Data Acquisition. He explained that is what helps the pump station communicate information remotely back to central location. Mr. Seeds questioned who will pay for it. Ms. Smith answered that there was a sub-contractor to the main contractor who was responsible for getting the system to function again once the panels were replaced, and there were some issues with the doing it, and a separate company had to come in and review the computer programing. She noted that we are discussing with the main company as he is saying that it is not his responsibility to pay it but, he is the only one that we have a contract with and we feel that we paid for it under the main contract. He noted that either he has to pay for it or negotiate with his sub-contractor to pay for it. She noted that we are still working on it.

Mr. Seeds questioned section 8.0 with the 65,000 gallons that the City of Harrisburg is saying that the average home uses. Mr. Wendle noted in 1976, there was a supplemental agreement that if the home did not have a water meters that they would be charged a flat rate of assumable consumption of 65,000 gallons a year which turns out to be about 178 gallons a day. He noted that has continued since 1976. He noted that even though we have metered water consumption for a good deal of the Township as the developers are putting in public water supplies, all the residential units, to include the apartments and single family homes are all assumed for the cost of treatment and conveyance to Harrisburg at 65,000 gallons a year. He noted that is the basis for billing residential for Lower Paxton Township and Susquehanna Township as well as Paxtang and Penbrook. He noted as part of the service study that we are working on, on behalf of the suburban customers and Gary Shambaugh, we did a water consumption study and found that the current usage doesn't seem to be that great noting that the City of Harrisburg is down to 42,000 gallons a year. He noted that the study showed that we are in the 45,000 gallon a year range for a single family home or apartment. He noted when the new Intermunicipal agreement is worked out that will change and we would hope to get a break on our costs. Mr. Seeds suggested that they could get numbers from Suez Water. Mr. Wendle answered that we have those numbers. Mr. Seeds noted that they could average that out with those who have wells. He noted that he and his wife only use roughly 2,000 gallons a month,

averaging 24,000 gallons a year. Mr. Wendle noted that the average apartment uses 100 gallons a day and a single family home uses 125 gallons a day.

Mr. Shannon noted that there were a few new items in the report, the Gateway Corporate Center Pump Station should be granted permission to be removed from service and he is working with Eric Kessler and his engineer on his property behind the Sheetz on Linglestown Road to reroute the trunk portion of Trunk A that is in the wetlands that goes under Linglestown Road.

SOLICITOR'S REPORT

Mr. Stine answered that he has no report.

Adjournment

Mr. Blain made a motion to adjourn the meeting, and the meeting adjourned at 8:27 p.m.

Respectfully submitted,

Maureen Heberle
Recording Secretary

Approved by:

William L. Hornung
Township Se

cretary