

**LOWER PAXTON TOWNSHIP
AUTHORITY MEETING**

Minutes of Township Authority Meeting held March 24, 2015

A special meeting of the Lower Paxton Township Authority was called to order at 7:30 p.m. by Chairman William C. Seeds, Sr., on the above date in the Lower Paxton Township Municipal Center, 425 Prince Street, Harrisburg, Pennsylvania.

Authority members present in addition to Mr. Seeds were: William B. Hawk, William L. Hornung, Gary A. Crissman, David B. Blain, Robin Lindsey, and Justin Eby. Also in attendance were George Wolfe, Township Manager, Steve Stine, Authority Solicitor, William Weaver, Mark Hilson and Jim Wetzel, Lower Paxton Township Authority; Jay Wenger and John Hewlett, Susquehanna Financial Group; Jeff Wendle, Alton Whittle, Kevin Shannon, Mitch Collins, GHD; and Watson Fisher, SWAN.

Pledge of Allegiance

Mr. Seeds noted that the Pledge of Allegiance to the Flag was recited at the beginning of the Township meeting.

Approval of Minutes

Mr. Crissman made a motion to approve the February 24, 2015 Authority meeting minutes. Mr. Hawk seconded the motion. Mr. Seeds called for a voice vote and a unanimous vote followed.

Public Comment

No comments was provided.

New Business

Review of investment options of surplus operating funds

Mr. Jay Wenger, Susquehanna Financial Group, noted that he was asked to look at the cash balances and determine a means to invest the funds to come up with a greater return. He noted that one question that was asked was if the funds should be applied to the next project in order to borrow less money. He noted that he was tasked to look at tying together the future financial capital needs with the current cash balances and options to invest the funds.

Mr. Wenger explained that page two of his power point presentation was the interest rate history for the past 25 years. He noted that it shows where you can invest funds today which is

very close to 0%. He noted that the Treasuries closed today at 1.87% and if the Authority went out to a long-term investment it would be earning a very low rate. He noted that the borrowing rates are represented by the green line which is the Bond Buyer 20-year Yield General Obligation Index having a rate of less than 4%. He noted that the difference between the short-term rate of less than 1% and a long-term rate of 3.5% results in a difference of 350 basis points or 3.5%.

Mr. Wenger explained that he was asked if the Authority should use cash for the projects instead of borrowing funds. He noted what is important to understand is that it is rare when you look back over time at the interest rate cycles, it is the exception and not the rule that you can invest the short-term money at the same rate that you would for borrowing long-term money. He noted that more often than not, the yield curve is positively sloped meaning that long term rates are higher than short term rates. He noted that he would caution the Board that if you want to pay cash for projects just because you can match your earning rate even if short term rates were higher. He noted in most environments the long term earning rate is higher so there is still a gap between the short term investment rate and the long term costs, the exception being when the yield curve goes flat or inverted which is usually at the end of an interest rate or business cycle.

Mr. Wenger noted that the CD rates are as follows: 90 day at 0.15%; 180 days at 0.20%; 12 months at 0.30% and 18 months at 0.40%. He noted that he received some rates from Santander, previously known as Sovereign Bank who quoted a rate of .3% for a money market account and for a one-year collateral ICD of .35% that would be Act 72 collateral which would be a permitted investment for the Authorities funds. He noted that is pretty close to where you are now. He explained that he received a full investment proposal from PNC Bank but he is not sure if it complies with the State regulations so he will get back to them to ask for revisions to provide something that would be more appropriate.

Mr. Wenger noted that it ties back into the question to spend the cash or keep it. He noted that he looks at it that “cash is king” and it is easy to give it away but harder to get it back. He noted that he works with the premises that the Township should keep the cash as long as it can as it is reinforced by the rating agencies. He noted since the financial fallout of 2008 and recession, the rating agencies have come out with revised rating methodology which is heavily weighted on cash, He noted that they want to see that you have structurally balanced operating budgets, a fund balance that represents in a double A category a pretty substantial percentage,

and that the fund balance is not being depleted on a year-to-year basis, that the taxes revenues are meeting the general fund expenditures.

Mr. Wenger noted page six provides a summary of the categories that the rating companies look at: Economy/Tax Base, Finances, Management and Debt/Pensions. He noted inside those four categories they have levels for weighting and the good news is that Lower Paxton Township comes out with a very positive rating scale. He noted in the last rating report, the Township received high marks for its management, institutional framework, operating history and that the operating costs at this time are very manageable. He noted that the ongoing challenge is how much cash is enough to maintain a high quality rating. He noted when you look at the scope of the authority projects he thinks that cash is a very important thing to hang on to. He noted if he was to take \$10 million of cash and apply it to the next project when you get to the back end of the projects, based upon the current rate structure, there is a cash flow issue but it is also a drop in the bucket and would not provide for a significant reduction of principal that you would borrow over time. He believes that retaining the cash goes a long way towards to maintaining the Township's current rating and will be a more important issue moving forward as there is more debt, not necessary Township debt, but Authority debt that will be borrowed by the Township.

Mr. Hornung questioned what the penalty is for keeping it as cash versus paying off the debt in regards to the interest rate. Mr. Wenger noted that it would be 3% with cash earning 0% so there is a negative carry but we don't expect the short term cash investments to match the long term borrowing costs. He noted that it is an apples to oranges analysis in that if you were trying to match the borrowing costs you would have to match the term of the debt to get close to that.

Mr. Hornung noted if you use your cash for projects you don't have to borrow as soon. Mr. Wenger agreed. Mr. Hornung noted that you are carrying the debt at 3.5% interest rate where now you are not carrying it because you haven't borrowed yet. He noted that there is a savings of 3%. Mr. Wenger noted if we were speaking of the scope of the capital plan being \$10 million or \$30 million it would be a logical way to approach cash management but due to the scope of the capital plan and amount of debt as a percent of it, he believes that retaining the cash is actually a more prudent strategy than isolating just the interest rate differential. He noted that he is not just looking at the interest rate, it is the credit rating and cost to borrow over time that is influenced by the amount of cash that you do or don't have. He noted that the amount of debt

that you would avoid paying by using that cash does not change the rating analysis enough to move the yield.

Mr. Wenger noted that page 8 is the summary of how Moody's would look at the Township's debt and page 9 is how Moody's would look at the Authority if it were to borrow the money and we had system revenue bonds outstanding. He noted that they look at the condition of the asset noting that the Township has and will continue to invest substantial dollars into the system. He noted that the Township has a very affluent customer base, serving about 25,000 customers IDU's, so in terms of system size it is considered a large system to a rating agency. He noted that the City of New York would be very large and a rural Township would be considered small.

Mr. Wenger noted that there are some years where the curve and rate structure will create some friction between cash available for debt service. He noted that will require a harder look. He noted that based on what the Township has been doing and is doing today you would get high marks for management and legal provision noting that the 40% for cash flow heading is an important provision.

Mr. Wenger noted on page 9, it is a long-term projection noting that the numbers go out 30 years and once you get past about year five the value of a projection starts to get watered down. He noted that it is a good exercise to provide a sense of what the expenses would look like and the corresponding user rate structure has to be to cover the debt service and expenses. He noted that the quarterly user rate at this time is \$130 and it starts to escalate so in year 2030 it would be \$253.75 a quarter with an \$8 per year increase. He noted on page 11 he converted the numbers to a graph. He noted from 2027 to 2034 the revenues exceed the expenses which corresponds to the drop in the operating surplus or in this case a deficit in the same years 2027 moving out to 2034. He noted that the planned \$8 incremental change in rates will not be sufficient in that seven or eight year period. He noted that it is assumed that all future bond payments will be done as level debt service. He noted on page 12 the red bar represents level debt service, peaking in 2029 and starts to decline as some of the earlier debt is paid off as you are not adding as much debt moving forward. He noted that the peak corresponds with the negative cash flow. He noted that the cash reserves get down to where it is a very low number starting in 2032 through 2039 and looking at the long-term plan we think that cash retention is a more prudent approach than avoiding the borrowing of \$10 to \$15 million dollars in the next five

or fifteen years where you have negative cash in those years. He noted that even though you have a negative spread on that cash balance today relative to the borrowing costs, if we look at the long-term picture it is important to retain the cash as reserve account for your own comfort and from a rating perspective.

Mr. Wenger noted that page 13 is another way to look at cash reserves. He noted that the blue line represents cash reserves as a percentage of operating revenues and currently you have a healthy reserve which begs the question why would you keep that much cash, but that number gets down to what would be 15% in about 20 years. He noted from a system management perspective as well as a rating agency perspective, we think of keeping the cash, in spite of the negative carry is the right strategy moving forward. He noted that the green line represents the outstanding debt so you can see that it starts to drop and as the rate goes up you have more revenue to measure your debt against so the percent of debt against revenue really starts to drop in the out years.

Mr. Wenger noted page 14 shows healthy early years but as you get into 2015 through 2020, based on the rate structure that is contemplated, the cash reserves really go down to a level where we think the rating would be a bit in jeopardy and given the size of the system at that time, it is a low reserve amount and he would not want to see it go lower. He noted that it starts to build when you get to the out years as the debt starts to get paid down.

Mr. Wenger noted that page 15 highlights the negative carry, providing forecasts for the bond interest expense in the darker red line at 5.5% and the lighter red or orange at 4%. He noted that the gap between the earning rate and the bargaining costs persists for the entire life for the 30 life issues but at 4% they start to merge at the out years but it does take some time. He noted from his perspective it is more about managing the system with the cash flows then it is matching up interest rates on short-term investments versus long term repayment obligations or debt. He noted that page 16 is a similar graph that represents cash in and unspent bond proceeds. He noted that most of the analysis is for the operating cash and it does not take into account when you borrow money you actually have that money sitting there as it is not invested, but it shows a negative carry for a long time.

Mr. Wenger noted that page 17 is a picture of the current debt in blue which is relatively short for a utility system and low, but when you add the amount of debt that is required with each one being level debt service coming on line you see it peaks at \$19 million in year 2034 -2035 so

there is a bit of a bubble that creates that stress. He noted that there is a way to deal with that but it does have a cost and he will move to that soon. He noted that page 18 shows in the blue, net revenue available for debt service matched against annual debt service. He noted that the orange line exceeds the revenue so the green line which is the debt rate coverage ratio is below one to one. He noted that cash balances will come into play more importantly, but another way to look at debt service is the red line which is a straight line that is 110% rate covenant which means you have to generate at least 100% debt revenues to make the service as compared to the debt service.

Mr. Wenger noted that he was looking at a way to take that big bump out of the debt service in the middle years and the answer is yes as shown on page 19. He noted that if we do what is called a wraparound which is, we defer some principal to the later years so it results in higher debt service in the aggregate, you defer principal repayment which increases the amount of interest you pay over time but it makes the annual debt service more manageable particularly in the middle part of the loans. He noted as opposed to being at \$19 million, it would drop to less than \$18 million and if you turn to page 20 you see that it still goes negative for a few years but not as much. He noted as we move out with the financing there may be a time where it is not all done as level debt service. He noted that the caveat for all of this is if you take the picture on page 18 and the corresponding graph on page 20, the incremental interest expense on \$150 million to borrow over a 30 year period, the incremental interest expense to lower the debt service on a wraparound basis is almost \$100 million. He noted that we assume a borrowing cost at 5.5% to 6%. He noted that the wraparound is not a free lunch as there is a cost to be paid on the long end. He noted if you think back to the prior slide where the cash reserves were building substantially in the last ten years of the capital plan you certainly would have cash flow to cover that debt service but it is at a cost.

Mr. Wenger noted that the other alternative is to go back and reevaluate the rate increase and change it from \$8 to \$10 a quarter for a few years in order to get a little bit of lift for coverage in the early years that will carry you through the later part of the years. He noted that by compounding, the earlier you do it in the program the better benefit you get in the long term basis if you defer it and keep it at \$8 a quarter until you hit the crises then it will require more dollars. He noted that it comes down to how you want to approach it. He noted that there are ways to deal with the negative gap in years 2015 through 2020. He noted that retaining the cash

is the way to help with the rating process and prudent system management as opposed to focusing just on the differential between the earning rate and the borrowing rate. He noted if we took the \$10 or \$15 million and reduced the capital borrowing from \$150 million to \$135 million none of the pages would look sustainably different. He noted that it is not a big enough change for the debt to change the outcomes.

Mr. Wenger noted that it is a lot of information and he apologized for going through it so quickly.

Mr. Crissman noted that the debt service is extremely important to those who sit on this Board and who have to answer to the constituents for why we are raising the rates to offset the debt service and that is why he is a firm believer in level debt service noting that we have to do the minor increases to reach the level, it is easier for ratepayers than when it is not level debt service and having the rates jump up and down because once you raise the rate to offset the debt service the next year it drops, you are certainly not going to jump back and forth. He noted with what is found on page 20 there is still a sizeable increase until we hit 2033 and only then do we have a very small decrease. He noted that we could lower the debt service down and extend it beyond 2061 but when you start looking at what we are going to have to do to the rate payers starting in 2019, the jump that goes from 2019 to 2033 will continue to be a major increase on the rate payers and he struggles with that one.

Mr. Wenger noted that you are replacing pipes in the ground but you are talking about an asset that will have a longer life than the terms of the debt, particularly when you look at the average life of the debt, so there is some room to stretch out the repayment out over a longer term to better match the asset life. He noted that you will get to a point where there is not debt left on the system and you will have pipes in the ground that still have 25 to 35 years left in them. He noted that it is not completely a one-sided argument that it costs money to defer, in some respects you can stretch the payment out over the more appropriate useful life of that asset.

Mr. Crissman noted that he understands that and it also has something to do with the value of the dollar today versus what it will be in 20 years from now. He noted that he has to face the ratepayer and justify why they are getting a hit in their rates every year to reach the level.

Mr. Wenger noted that he thinks it is a good idea to retain the cash in spite of the negative spread between your borrowing costs and your investment rate.

Mr. Blain noted that he had no questions and understands where Mr. Wenger is coming from and it makes sense.

Mr. Crissman questioned when we will finalize how all this will play out or is this it. He questioned if you have time to get this structure and organized in the best manner possible. Mr. Wenger noted that there are limitations for how you can invest the funds, noting that he is not committing investment funds for three, four, five or ten years, so there could be a strategy where you say we could sit tight for a couple of years but you can change your position on how you want to do it and you could spend some cash in the future and not borrow money now, but if you retain it now it is not a permanent decision.

Mr. Weaver questioned if we should keep the cash in PNC or should we look around. Mr. Wenger answered that we have talked to a couple of banks noting that the Township should optimize what it can do, so if it can make five or ten basis point by moving some money to other places it would be a productive exercise. He noted that he needs more information to provide a firm proposal but he only received some of the rates today so he will get back with a more concrete representation with what is offered and what you can do to spread some money around to enhance the returns.

Mr. Weaver noted with PNC Bank, we need to go over the bank fees and see what the interest rate is projected for the checking account. He explained that they provided a summary telling him that we have to keep \$7.4 million in the account to offset the bank fees. He noted that it shortens the window for how much you can invest having about \$11.5 to \$12 million in surplus operating fund at this time. He noted that we are not talking about a whole lot of dollars to move. He noted that they are offering .3% and that is a 12-month interest rate. He noted when you look at it that way it is not that bad of a deal. Mr. Wenger noted that the money we would move would not have fees attached to it so you would not be doubling up on bank fees by taking it and putting it with other banks.

Mr. Weaver noted that he asked PNC if there is anything we can do to reduce our bank fees, noting that all our systems are in place that the process we do now, it is all electronic banking, so he indicated that the bank fees are the lowest that they could possibly make them.

Mr. Wenger noted that you have a banking platform at PNC that seems to work well and has the appropriate level of technology associated with it so while there are fees he thinks there is some merit in those fees and going to another bank and expecting the same technology will not

drive the fees down. He noted that he did not look at the banking services, just at investing the assets.

Mr. Weaver questioned Mr. Seeds if the Board wants to authorize Mr. Wenger to look at getting proposals for moving \$3 or \$4 million. Mr. Hornung questioned what would be the cost to do this. Mr. Wenger answered that he would do it at no charge as part of the client services.

Mr. Crissman noted that he would like to discuss the level debt and the wrap around and all of that. Mr. Wenger noted that there is a lot of information and he did not cover everything for long-term decisions, he wanted to tie those two conversations together to make some sense. Mr. Crissman noted that he would like to have a plan in place that everyone could work with and know that it would be acceptable to the community.

Mr. Wenger noted that we are about 18 months from having to make a decision on financing so there is no rush to the next financing.

Mr. Seeds questioned if Mr. Weaver was suggesting that we move the money right away. Mr. Weaver answered no, he only wanted to know what the Board's thoughts were. He noted that we are getting a good rate now from PNC that is offsetting the bank fees but if he can find that we can do better it would be worthwhile to look into it and allow Mr. Wenger to pursue looking into it. Mr. Crissman agreed. Mr. Wenger noted that there are some good points in spreading the money around a little bit. He noted that he would come back with options and if the Board decides that it does not want to move the funds that is fine as it is the Board's call.

Mr. Seeds questioned Mr. Wendle if he had any questions. Mr. Wendle noted that the next borrowing schedule is three years from now. He noted that the Board wanted to know how much it would have to increase rates to maintain a 25% reserve for operating fees, and he did that. He noted that he did it for future borrowing but he kept adding debt service and the question came up if the Board should spend some of the cash now and that is what Mr. Wenger presented that it is a good idea to hold onto cash in order to make decisions when we look to determine what the rates should be for next year. He noted when you are looking at a 30-year program you have to put it in some frame of reference to know how you will head down the road. Mr. Wenger noted that the 30-year model is an excellent exercise but he wanted to caution that once you get past year five the numbers are getting a little fuzzy.

Mr. Crissman thanked Mr. Wenger for his presentation.

Mr. Seeds noted that he would like Mr. Wenger and Mr. Hewlett to stay and listen to the next presentation.

Presentation by Blackford Ventures, LLC for a Lease-Leaseback Transaction

Mr. Hawk introduced Keith Hite and David Nikoloff from Blackford Ventures. He noted that Mr. Eby suggested to him that these gentleman provide a presentation on a program known as a Lease-Leaseback. Mr. Eby noted that he saw a presentation on this program and with the Authorities current cash situation he thought that it would be appropriate to get more information on this program.

Mr. Keith Hite noted that he and David Nikoloff work for Blackford Ventures. He noted that it is a private equity firm based in Lancaster and was recently found by Richard Welkowitz, one of the leading real estate developers in all of Central Pennsylvania. He noted that he has developed a concept called the Lease-Leaseback, an alternative to a conventional means of financing public project or private projects.

Mr. Hite noted that he distributed a packet of information that explains the program in greater detail but he wanted to touch on some of the key points and then let Mr. Nikoloff discuss it in greater detail. He noted that Richard Welkowitz developed the concept of a Lease-Leaseback and it is really quite simple. He noted in the execution of the financing there are two leases executed concurrently. He noted that they run for a period of time agreed upon by both parties and they concurrently terminate at the same time. He noted that the lease is an operating expense to the budget, so if the arrangement was for \$10 million, you would enter into a lease where there would be annual payments made to the lease to start it off and the Township would continue to manage the asset and have all jurisdiction and oversight. He noted that the asset never changes, it simply monetizes the asset. He noted that the advantages from the more conventional ways of financing is not a debt, it is an operating expense, and there are no fees, the lease is the lease is the lease. He noted that it functions in relationship between the community, in this case, the Authority and Mr. Welkowitz and his firm. He estimated that it would take from 60 to 75 days to bring it to a close, noting that there are no bonds fees, no commissions that are associated with it and there are no restrictions for how you use the money.

Mr. Hite noted that the packet contains information for clarity and the ease of which the thing functions and there are copies of the lease agreement. He noted that there are 12 to 13 pages and the Township and Authority Solicitor can provide the Board with his legal review of

the program. He noted that he is not here to make a promotion, only to talk about the concept to see if it might be appealing to the Authority.

Mr. David Nikoloff noted that Mr. Welkowitz was observing how many communities have struggled with financing projects, having an income producing asset, a water, sewer or parking system and their equity is tied up into that asset. He questioned how he could get the equity or monetize it to pull the cash out. He noted that many communities are facing a significant level of distress, talking about sales or long-term concessions or leases for the party. He requested the Board to take those models out of their mind. He noted in the Blackford Ventures situation there is never a chance of ownership for the asset, we never intend to operate the asset, there is no change in management, employment and we have no input on the fee structure that you arrange. He noted that you look at the asset and take a particular element and place a value on it and he would negotiate an agreement whereby we would enter into a 25 year lease and on the first day of that lease, we would accelerate all of our lease payments to you in one lump sum on the first day. He noted that it is not like bond financing where you have specific uses for the money. He noted that we are not telling you how you can utilize those dollars. He noted that they can be used for capital projects, attaining an asset or to retire debt. He noted that is your determination. He noted with the 25 year lease, simultaneously where we lease the asset from the Authority, we have a lease back to you. He noted that they occur at the same time and extinguish at the same time. He noted in the lease back we ask that you make up a lease payment on a regular basis over the 25 year period. He noted that it is worth something to his firm and that is what they are looking for, the payment from the Authority over the 25-year period.

Mr. Nikoloff noted that what he has described is that there is no change in ownership, it is not a lease where we are basically come in and operate the assets, for instance Harrisburg City was in a very difficult situation and were forced to lease assets. He noted that the entities that are managing those assets have disagreement about the management. He noted that we will not do that at all in that situation where we would not manage the asset in anyway. He noted that we have no intention or interest in doing that. He noted that is why we have provided two lease agreements for you to review. He noted it clearly specifies that we will not manage, control, repair, and maintain those assets over the terms of the lease. He noted that the lease transaction

was put in place to get money in the Authorities hand on day one and then pay Blackford Ventures back over a period of 25-years.

Mr. Nikoloff noted that you can discuss this with your accountants and lawyers but we believe that it would be an off-balance sheet item as an operating cost. He noted that Blackford only came together about six months ago, noting that they have been speaking to other municipalities and that is where Mr. Eby heard his presentation regarding a parking garage that Lancaster is interested in constructing. He noted that we have spoken to other municipalities about parking or water assets and what they are interested in doing is just monetizing those and taking the cash value out to meet other obligations which the municipalities have. He noted that not all municipalities are as fortunate as Lower Paxton Township regarding your financial position. He noted that some distress municipalities are looking to take those dollars out and to pay pension obligations, maintenance costs, or to retire debt.

Mr. Nikoloff noted that he provided some background information to the Authority members. He noted that people think that it can't be that simple but it is. He noted that there is no appraisal, no underwriting fees, no loan origination fees, no bond counsel fees, no bond trustee fees, no remarking agents, so you don't have those upfront costs in this transaction. He noted that he provided drafts of the two leases for the Authority to review. He noted that we are offering a 25-year program where you will have the use of the dollars to use as you see fit. He noted that the elements of control never pass to Blackford Ventures, the control remains with the Authority or the Township.

Mr. Hawk noted that Blackford would pay the Authority \$10 million, so where do you get the \$10 million for the Authority to use. Mr. Nikoloff explained that Mr. Welkowitz has been very fortunate to have done well in his business life. He noted that we can close in as little as 45 days if the deal is under \$100,000 million. He noted for amounts over \$100,000 million to half a billion we have an agreement with an investment bank in New York, so he is able to do projects with as little as \$5 million and as large as \$200 million. He noted that we make the money on the spread between the cost of money and then the spread above that. Mr. Hawk noted that we could take the \$10 million and buy everyone a Maserati as long as we can make the lease back monthly payment. Mr. Hite noted that you are correct and as Mr. Nikoloff explained, the advantage to all of this is Mr. Welkowitz position to be able to take the money and bring it to the table for you.

Mr. Blain questioned what would happen if the municipality would default or can't make a lease payment. Mr. Hite noted that we have to be cautious as it is easy to say that the Authority must be of an investment grade quality. He noted that we have been offered opportunities to go into distressed communities and that will be the first test. He would suggest that the Authority can't go bankrupt and its position would not be a negative one. Mr. Nikoloff noted that it is negotiable depending on the credit worthiness of the individual borrower, we may take a lien on a particular asset. He noted in the agreement it states if you default in the payments of the lease we could operate and run it. He noted that we have that ability to enforce and get the income back. He noted that there could be other considerations as well. He noted that any of the typical mechanics that are used for credit enhancement we could look at.

Mr. Blain noted that he understands from Blackford's perspective how you would manage this as you would make your money from the difference between your cost of the money and what you charge. He noted that it will fluctuate over time depending on interest rates and inflation, does it mean that the lease agreement is a variable lease agreement where the rates change. Mr. Nikoloff noted that typically we are looking at a five-year fixed period, before we would make any changes. He noted that would be negotiated with you. He noted in the agreements he provided to the Authority we are looking at a 25-year lease term and every five years there is an opportunity to change the lease rate to increase it.

Mr. Blain noted that the first five years would be fixed and after that it becomes a variable rate thing... Mr. Nikoloff noted that it would not be variable, it would be agreed to upfront. He noted if for every five years there would be a 10% increase and interest rates would increase by 2% to where they were during the Regan Administration, that is his interest rate exposure, but the agreement would specify what the rates are going in, what the incremental increases would be, it would not be variable that would change according to market conditions. He noted that they would be assuming those market concern liabilities.

Mr. Seeds requested more information for staff. Mr. Hite noted that he could provide additional copies tomorrow as he only brought eight copies.

Mr. Wendle questioned how you value the asset based on income. Mr. Nikoloff answered that we don't do an appraisal or evaluation, we assume that you know what the asset is worth, so if you say that the asset is valued at \$10 million that is good enough as it is not a financial transaction. He noted that it is a lease so they look at the value of the lease and the owner would

know that best or the amount of cash to get a specific project done. He noted that it is not a mortgage loan.

Mr. Wendle noted that it is based on the idea that you would take money out of assets and he questioned what the value of that is. Mr. Nikoloff answered that he went to law school and is not a MBA, he noted that they like to use the term monetize which is a similar thing. He noted that you are saying that you have a certain value tied up in real estate or a hard asset that produces income and it is not doing me very much good sitting there, but if you can take that value out then you can do additional capital projects. He noted that it is a public process.

Mr. Hite noted that Mr. Welkowitz has used this concept in private relationship. He explained that he is a former head of the Lancaster County Redevelopment Corporation and has spent his time working for Township government. He noted when you look at the concept knowing that it works so well in the private arena why wouldn't it work as well for the public arena. He noted that it a very simple process and offers a great opportunity for municipalities.

Mr. Nikoloff explained that he wanted to introduce the concept and mechanics tonight and he would be happy to sit down with staff or advisors to develop a proposal if you would want to consider this in the future.

Mr. Hawk noted that we could hang on to the \$10 million and if we could add 5% on a regular basis. Mr. Nikoloff noted that is for you and your advisors to judge. Mr. Hite noted that the Authority would have control, in this case, of the Authority and if you feel you need to raise additional funds, you can raise the rates as you please.

Mr. Hawk noted that the only downside that he sees is if you leased \$10 million and squandered it on something. Mr. Nikoloff stated that he doubted that the other members of the Board would allow that to occur. He noted that it is part of the public process, it is not complicated, to look at the options for what you would want to utilize the dollars for. He noted that some municipalities have pension obligations that far exceed their budgets, discussing monetizing their assets to pay down pension obligations. He noted that another community may want to do an economic development project, but there are lack of dollars from the State or Federal resources to fund it. He noted if you need to build a bridge in your community that is necessary for a plan expansion where will you go. He noted that not every community is distressed, some of the communities are looking at it as an alternative to financing.

Mr. Nikoloff noted that the value that he is able to negotiate with the Township through an open process is of value to us over the 25 year period. He noted that there are interest rate expenses that we would be looking at but we are not getting any depreciation on the asset. He noted the Township has the value for an appreciation on the asset.

Board Members' Comment

No comments were provided.

Resolution 15-05; authorizing the destruction of specific records

Mr. Weaver noted that Resolution 15-05 authorizes the destruction of specific records that are allowed to be destroyed after a period of seven years. He noted that Appendix A contains the list of those items to be destroyed. He recommends the Board approve this resolution.

Mr. Crissman made a motion to approve Resolution 15-05 to authorize the destruction of specific records as appears in Appendix A. Mr. Hawk seconded the motion. Mr. Seeds called for a voice vote and a unanimous vote followed.

Resolution 15-06; authorizing a request from PennDOT for a utility Reimbursement agreement for the I-83 project

Mr. Weaver noted that Resolution 15-06 will authorize the submission of the attached request to PennDOT to provide for 75% reimbursement for all costs associated with adjusting one manhole and abandoning one existing manhole and 40 feet of pipe to install a new manhole at a new location. He noted that it is part of the ramp off of Route 22 onto I-83. He noted that there is a sewer extension on Linden Street that services one house. He explained that it was easy to abandon the sewer main as they will be installing a sound barrier on top of the manhole. He noted by eliminating the sewer pipe and running a lateral directly to the house, it is a simple process for us and the other one is an adjustment. He noted that it is a shame that we don't have more work to do as their reimbursement rate is 75% as it normally is only 50%.

Mr. Seeds questioned if we will be doing the work or contracting it out. Mr. Weaver answered that we will be authorizing to have it included as part of the project. He noted that we will abandon the manhole that is going to be located where the sound barrier is and set a new manhole and run a lateral to the house.

Mr. Hawk made a motion to adopt Resolution 15-06; authorizing a request from PennDOT for a utility reimbursement agreement for the I-83 project. Mr. Crissman seconded the motion. Mr. Seeds called for a voice vote and a unanimous vote followed.

I/I Program Review, Update and Considerations of Alternatives for
Beaver Creek and Paxton Creek

Mr. Wendle noted that he has several people from GHD who will be making the presentation tonight.

Mr. Wendle noted that we need to look forward and determine if we will continue to move ahead as we have in the past or make some plans to do something different. He noted since there are two new Board members, he wanted to go back to the beginning. He noted that Kevin Shannon will address some of the issue for the projects that he is managing at this time and Alton Whittle and Mitch Collins will discuss the modeling and metering. He noted that Mr. Whittle can discuss what the price per gallon is for those areas that are metered.

Mr. Wendle showed the map of Lower Paxton Township that has four metered drainage basins, Paxton, Beaver, Spring Creek, and Asylum Run. He noted that Spring Creek, Paxton Creek and Asylum Run all filter to the City of Harrisburg most of which goes through the Paxton Creek Interceptor, with a small portion going to Asylum Run and Spring Creek. He noted that Beaver Creek flows to the Swatara Township Treatment Plant.

Mr. Wendle noted when he first came to work for the Authority in 1999 as CET, it was under a consent decree to solve all the problems by 2020. He noted that it was very evident that it would not happen, so at that time the entire Township and its four basins were divided up into sub-basins. He noted for Paxton Creek, there is PC-1 through PC-6 and PC-1GD. He noted that there are two basins in Spring Creek, and two in Asylum Run and thirteen basins in Beaver Creek. He noted that staff does not anticipate providing service to BC-12 and BC-13. He noted at that time, we did two Act 537 Facilities Plans, one which involved treating the wet weather flows with Actiflo and proposed it to DEP which was rejected because they said it was not biological treatment. He noted that the Authority entered into negotiations with DEP until they came up with the second consent decree which did two things. He noted that it established that we would build a wet weather treatment plant in the Beaver Creek basin as it was the most critical at the time since there was a lawsuit with developers and we needed to provide some relief so that the Authority could continue to move forward to provide for additional development.

Mr. Wendle noted in that PC basin, the plan was to start doing a total system rehabilitation by mini-basins, prioritizing the basins by flow metering, rehabilitate by repair or

replacement of failed assets, and most of the time repairs were done putting liners in sewers and repaired laterals. He noted that we were supposed to go back to DEP on the Paxton Creek side and talk to them in 2007 about what we experienced, making a decision at that point to continue on with rehabilitation or do something different.

Mr. Wendle noted that we divided the Township up into the mini-basins and from 2002 to 2007 we rehabilitated basins in Paxton Creek and made plans to build the wet weather treatment plan in the Beaver Creek basin. He noted that staff did a project in Clermont and Old Pond and Paxton Creek IB and at the same time we were on a parallel track with looking at getting the design and land development plan completed for the wet weather treatment plant.

Mr. Wendle noted that the wet weather treatment plant provided for improvements to the interceptors upstream of Beaver Creek pumping station, expansion of the pumping station, construction of a force main from the pumping station over to the Nyes Run interceptor and manhole 44, improvement of the interceptor from that point all the way down to the end of the Township system, and construction of a wet weather treatment plant as well as doing some system improvements for the Trunk J. He noted after getting the land development plan approved, South Hanover Township decided to change their zoning ordinance after having provided a verbal okay from the zoning officer so it became impossible to do what we wanted to do. He noted that the Township took legal action and the courts did not agree and it became an impossibility to construct the wet weather treatment plant. He noted that it was the only reasonable place to construct the plant because anywhere else they would have had to be pumping constantly up over 170 feet to keep the treatment filter going. He noted that it was very impractical compared to other things, noting that it was right next to the sewer and was the more logical place.

Mr. Wendle noted in 2011, the Authority redid the Consent Plan for Beaver Creek and it was accepted by DEP. He noted that it was the only alternative that we had available in the same manner as we did in Paxton Creek. He noted that there are not many alternatives available because we need to remove I&I and build storage at some point. He noted that similar to what we did in Paxton Creek, we developed a plan where we would prioritize the basins, noting in 2007, we determined where we had done rehabilitation, spot lining and repairing individual leaks and then the asbestos cement pipe (ACP) would break and we would have to start all over again. He noted that it got to the point where the only way to deal with it was to develop a long-term

control program to replace the ACP in the Township and the vitrified clay pipe (VCP) because every time staff repaired the ACP which was the majority of the system put in the mid 1970's, it just continued to break even at the point where we repaired it. He noted that is where we started to design a long-term program to replace all the ACP and VCP and rehabilitate areas that have PVC where most of the problems appear to be in the transition point between the building sewer and the lateral that comes from the main at the curb line.

Mr. Wendle noted as time has gone on, the costs have gotten higher than originally anticipated. He noted that the original cost for Paxton Creek was estimated at \$75 million and noting that the costs were based upon the costs for PC-5C, which when we did the repaving, it was a three inch airport mix and it was not anywhere near the requirements that we are using today. He noted that the paving costs have escalated the prices, but the Township gets a new street out of it. He noted that the cost update to complete the Paxton Creek basin is roughly \$41million after which some storage will need to be built. He noted that there is \$11 million in projects that are underway and scheduled so there is still \$29 million still to go for Paxton Creek.

Mr. Wendle noted for Beaver Creek, the cost to complete the basin is \$94,400,000 to be finished by 2023, however, after the current basins that we are working on now are completed it would be \$80,700,000. He noted if you take out all of the upstream of the Beaver Creek Pumping Station noting that we have to get the flows down below the pumping station as they have to be rehabilitated as we only have so much capacity in the pumping station, once they are done, there is still about \$65 million strictly on rehabilitation.

Mr. Wendle noted for the last spreadsheet, the last two columns, where we had flow data, he is showing the cost per gallon per day removed of peak flow. He noted that we originally started out at \$1.50 to \$2.50 and there are some basins in that range but there are some basins that cost \$5 to \$11 dollars per gallon per day which is significantly higher than originally thought.

Mr. Whittle explained that we are getting a good way through Paxton Creek and had very good success, noting that we have had great success in removing the overflows. He noted that the goal from the Corrective Action Plan (CAP) is to have overflows eliminated in 2022. He noted as of this year we were down to two overflows, one being eliminated by the decommissioning of the Gale Drive Pumping Station, so short of an excused event, which is due to generally flooding or emergency, we are not experiencing any overflows in Paxton Creek except for one location.

He noted on the map all the gray locations show the historic overflows; having 18 locations when we started the project and now, only two are left, although Gale Drive that was removed and one that is near the Paxton Towne Centre that we believe may be more of a maintenance issue with grease. He noted that short of doing some maintenance at that location he thinks that we are very close to saying that we have eliminated overflows short of an excused event. He noted one or two more of the large events and we will be able to justify it. He noted that we have met one of the primary objectives for this program.

Mr. Whittle noted that the graph shows that anything in green had no overflows, and anything in blue had one or two, noting that yellow or red shows a system-wide overflows. He noted for Paxton Creek, over the past few years, it did not take a large storm for overflows, but as of the past year the green line up and is able to withstand I&I and convey the flows what was previously only an excused event. He noted if the system would be in the condition that it is today, 42 of the past events where we had overflows would not have occurred, having four or five excused events.

Mr. Weaver noted that the consent decree for Paxton Creek was to remove all overflows by 2022 and to eliminate the hydraulic overload by 2027. He noted that we are way ahead of schedule as we have one overflow left.

Mr. Whittle explained, when you look at the flow metering, at the total Paxton Creek flow that is going to Susquehanna Township, and when you look at the limit of 9.0 for the three locations that leave the Township, he noted that there has been a significant reduction in that volume over 9. He noted that we had a 67% reduction in volume so that we are down to 2 million to 3 million gallons of excess flow as per the agreement with Susquehanna Township Authority.

Mr. Hornung questioned if we are still in a hydraulic overload situation. Mr. Whittle answered yes. Mr. Hornung questioned what would it take percentage wise to get under that. Mr. Wendle answered at this time the Township has a peak flow of 18 million so you need to get it down another 9 million and that is why he thinks storage will be required. He noted that the size of storage keeps getting smaller.

Mr. Weaver noted that we are talking about two different things as they are showing a graph for total volume and Mr. Hornung is taking about peaks. Mr. Whittle noted that the reason we are looking at volume is, although you had a reduction that was probably 25 to 26 million,

and substantial amount was removed, but it is almost impossible to measure because we did not measure all the overflows. He noted that the reduction is more significant because what is coming in is I&I even though you have a sharp peak it goes down rather quickly compared to what you had before as it would stay for days at an elevated surcharge level.

Mr. Whittle noted with the reduction, many of the basins were in the outskirts of Paxton Creek where we notice the largest removal percentage that we could achieve. He noted when you get to the concentrated areas within the system, the pipe are completely full. **He noted** that those areas in the lower parts of the basin were not getting any I&I into the pipe because you had a pipe that was 100% full and surcharged so you were not able to get any more I&I into it. He recommends doing more metering in those lower areas to see what kind of I&I you are getting. He noted that this is occurring even more in Beaver Creek as you have a lot of overflows, and the lower areas don't have a good estimate of how much I&I is able to get into the pipes. He noted with Beaver Creek we are well underway with prioritizing all the basins, noting that Paxton Creek is prioritized, but they may need to go back to see if anything has changed now that we have reduced much of the flows.

Mr. Whittle noted for Beaver Creek we have 22 mini-basins prioritized with nine to go. He noted that we are a little behind on schedule as he intended to have this done by 2014 but due to some metering and staffing issues, and the weather, we had hoped to finish it this season but staff may need more support from GDH to facilitate this.

Mr. Whittle note that the graph shows a basin where there are no restrictions in the pipe showing a pattern that as the size of the storm gets larger you have more I&I coming into the basin. He noted that it shows a nice straight line pattern. He noted that the second graph shows one for BC-2 that is at the lower end of one of the sub-basins. He noted instead of the line continuing upward it plateaus at the capacity of the system and creates a horizontal line as the storm gets bigger. He noted that some of the dots indicate that there was some unmetered overflows in that area. He noted that, historically in Paxton Creek, and for what he is dealing with in Beaver Creek, we are unable to measure what is there for some of the basins. He explained, if he takes a peak flow and looks at the removal rate, we are getting a very low removal rate so when you look at the cost per gallons removed, the removal rate from here down to 1500 give you a very high dollar amount for costs removed. He noted that after we rehabbed the basins, it contributes more flow in the systems and as they are re-metered, you will get more

points at a higher level where if you had uninhibited I&I it would come into the pipes. He noted that it would provide a closer removal rate for what we are expecting in some of the other basins in the \$2 to \$3 range. He noted that we wanted to provide some leniency to the numbers projected for the costs per dollar for gallons removed since some of the basins are not measuring the full potential for removal. He noted that we may not be able to get good numbers until we do other basins nearby and have the capacity in the system.

Mr. Hornung noted that you talk about dollars per gallon and you said we would need to discuss the cost of road improvements. He noted if you were to remove the costs of the road improvements, can you do that and then provide a price per gallon. He suggested that it would normalize the costs. Mr. Wendle noted if you look at the total costs of construction, the repaving costs are about a third of the total cost of the project for what we are projecting for the next group. He noted that you can't assume that you would not have any paving costs as we always assume some paving costs. He noted if we could cut that in half we would drop 15% off the construction costs so it would take you from \$94 million to \$82 million for the work that is remaining.

Mr. Hornung noted, back when we were doing \$2 per gallon, how much of that was paving costs. Mr. Wendle estimated that it was the difference between 30% and 15% of the total costs. He noted that when we did the first basins, we were not doing total replacement. He noted that PC-5C was a total replacement basin with costs about \$1.4 million and we removed about 500,000 gallons per day, at about \$2.80 without a lot of extra paving. He suggested that we were doing three inches of airport mix at that time to put the streets back in order as opposed to rebuilding the streets.

Mr. Hornung noted that we made the decision to go to total rehab in the areas where you had ACP rather than trying to repair them. He noted that we were spending time and money making repairs and we dug up places where we found leaks in the ACP and due to differential settlement it cracked and let more water in. He noted that we turned to in-place liner segments and we replaced segments in the line and found that since the pipe had a different characteristics it sheared the segment. Mr. Hornung noted when we had the initial prices of \$1 or \$2...Mr. Wendle noted that they were for rehab. Mr. Hornung noted that they are not accurate as we would have to come back and fix it, so we didn't include the second visit with it.

Mr. Weaver noted that you have the peak I&I in dollars so when we started the process the peak I&I was high and the dollar amount was low because we were doing rehab, but when we got into replacement because of the bid prices and not having to do so much of the paving, initially we had very high peak and very low dollar costs because the bidding environment was good. He noted that the first couple projects that we did, PC-5C, SC-1E, they were \$2 or \$3 per gallon.

Mr. Hornung noted that he is trying to compare oranges to apples. He noted that initially you said it was due to the additional paving costs so now he can't compare them anymore; were you doing paving before at \$2. Mr. Wendle noted, lets go back to PC-5C, he noted if it would have been the normal success rate, we got down to about 1,500 gallons per day per EDU. He noted if we had gotten that in PC-5C, noting that he is providing projections based on what the potential is to remove only 70%, he noted in PC-5C if we had gotten down to 1,500 that would have been less than \$2. He would have cut that in half; but out of 7,500 we only got 4,000. He noted if we had gotten what was the potential we would have been close to \$2. Mr. Hornung questioned if there was a reason we didn't get it. Mr. Wendle answered that people have underslab problems, and we took care of some of them but there is still more left. He noted that staff estimated that some were 10,000 to 15,000 gallons per day of peak flow during a rainfall event because of the way the homes were plumbed as they had footing drains.

Mr. Weaver questioned Mr. Hornung if he wanted to ask GHD to take out the paving costs and look at a reduced paving number. Mr. Hornung noted that he understands that there is always some paving costs but he would like to know, when discussing the peak flow numbers, if he normalized over time; he noted if you are normalizing a number where you had no paving to a number that you had a huge amount of paving, it is not fair. He noted that the Township achieves some advantage to having the road replaced and it is worth something. He noted that he can't compare the number of dollars per gallon and at what point we should seek alternative methods of taking out I&I. He noted that he can't compare that because at \$8 per gallon he is getting a new road but if he puts in a tank or storage he is not getting a new road. He noted that it is not fair to compare that number with the paving in it to a tank storage where he is getting no paving. He noted without having it all normalized for him, how can he make a decision that says stop one thing and do something else.

Mr. Wendle noted that he could do that, but tonight when he shows some costs for alternatives you will be able to see that based on comparisons for what we think the current costs will be versus other alternatives. Mr. Weaver noted when you average out the dollars per gallon, 15 to 20 years, you still get the same analysis that you are asking by averaging out as the normalization of costs per gallon for the entire project. He noted that Mr. Wendle can project out based on data we have to show to you. He noted tonight he plans to get into the other alternatives, but you can still accomplish what you are asking with what Mr. Wendle is presenting tonight as he can average out the entire Beaver Creek costs per gallon and compare it to other alternatives, noting that you can still see that with or without the paving. Mr. Hornung noted as long as he can look at it both ways, with or without the paving, that is fine.

Mr. Wendle explained that he would like to present three alternatives for Beaver Creek based on current cost estimates. He noted after you look at these alternatives, if you want him to break out what is an extra paving cost amount he could do that. He noted that tonight he would present some estimates and compare with the system that we are doing, versus storage, versus a biological Actiflo using present day costs. He noted the next time he will be happy to break out the paving costs.

Mr. Seeds noted that Township-wide, the streets will have to be paved and it would obviously be a minus for the Township. Mr. Weaver noted that the streets still get overlaid noting that Mr. Hilson can speak more to that in terms of engineering. He questioned if you are going to design a road to last for 20 to 30 years or are you going to overlay it for five to ten years. He noted that is what we are talking about as we are rebuilding the roads to last. Mr. Hilson noted that is accurate as we are rebuilding the roads to last. Mr. Wendle noted that it is a different cost than going through the cycle. He noted that most of the roads have been paved over the last 20 or 30 years but some have no base and they just fall apart. He noted when they are fixed now you have a long-term asset. He noted that is what Mr. Hornung is looking at, if we are paying a premium of X dollars as part of our costs, what advantage is it for the residents of the Township or the ratepayers. Mr. Weaver suggested that Mr. Hilson supports the way we are doing it even though we are not crazy about paying for all of this. He noted that he would not recommend going to the old program where you overlay it and it lasts five years. Mr. Weaver noted that there are various options to look at in terms of paving.

Mr. Kevin Shannon noted that slide 18 shows the 2007 Decision, the end CAP for Paxton Creek, noting that it called for total replacement and the testing of non-ACP/VCP areas, and the elimination of underslab sources as practical. He noted that we are out running the utility to chase the underslab issues. He noted the next slides show that we are so far ahead we think we will have time to drop back and may be able to eliminate some underslab sources towards the end of the program.

Mr. Shannon noted that Mr. Wendle mentioned that it was a 20-year program from 2007 to 2027 broken down into five-year periods. He noted that there are several mini-basins for each five-year phase with the program to be reevaluated roughly every five years to make sure the goals are being reached and that it is still the right way to go. He noted that the SSO will be eliminated by 2022 and hydraulic overloads by 2027. He noted that the next two slides show how far we are ahead in Paxton Creek. He explained that Table 1 in the 2007 CAP identified projects to be done in the first five year period from 2007 to 2012. He noted that it included three conveyance upgrades which was replacement of the Valley Road trunk line and portions of Trunk B and A. He noted that all three of those projects were done by 2009 with five additional Table 1 mini-basins. He noted that all the basins on the table are complete except for four and there are some in the 2017 to 2022 schedule that are already done. He noted that two projects were moved up as they were in Forest Hills, and some extreme flooding in 2011 caused staff and GHD to reprioritize and move them forward. He explained that the work with Susquehanna Township on the Oakhurst Interceptor to get rid of the Gale Drive Pumping Station has all been done.

Mr. Shannon noted that there were four mini-basins shaded in purple, those are on schedule and they will be done with the current borrowing, two of them are being permitted now and two are smaller projects that we are getting ready to do. He noted that Table 2 has a list of mini-basins where we already did rehab but the results were not very good. He noted that it showed that in most cases it was over 4,000 gallons per day per EDU. He noted PC-3B and 5C was a partial replacement and some underslabs were addressed in Devon Manor. He noted that they were partially completed providing partial success, but both are around 3,000 to 4,000 gallons per day per EDU.

Mr. Shannon noted for Beaver Creek, when it was found that the Wet Weather Treatment Plant was not able to be built, the Township adopted a revised Beaver Creek CAP similar to what

was done for Paxton Creek program, there were six mini-basins that were showed to be done in the first five-year period. He noted that BC-6A, B, C are completed and BC 3A is under construction now and BC4 A and C is in the bid process. He noted that they are all accounted for. He noted that the next slide shows the bigger picture for Beaver Creek, noting that the first five-year period is found at the top but in addition it shows the remaining mini-basins that need to be done. He noted that BC-3B and 4B are under construction or will be under construction. He noted that they are to be done by the end of 2018 but are scheduled to be completed by the middle of 2016, again showing that we are ahead of schedule construction wise.

Mr. Weaver noted that as GHD provided much detail, we are way ahead of schedule noting for the May meeting he would like to present to the Board more information to secure feedback from the Board for what it wants to do since we are four to five years ahead of schedule for both Beaver and Paxton Creeks. He noted that the funds that are borrowed are allocated until the end of 2016. He noted that we have until 2022 to complete Paxton Creek and we will be done with everything except for PC -3C which we will do in 2017 so we will be done four years in advance. He noted for Beaver Creek we have until September 2018 and because of BC-3B and 4B, we have bought another year stretching it out to September 2019. He noted that staff suggests that we should be somewhere in the middle, noting that there are many decisions that need to be made as part of the alternatives.

Mr. Crissman questioned what factors caused us to be ahead. Mr. Weaver answered that there were two, the Beaver Creek plan had \$42.5 million in BAB bonds that we borrowed to construct the Wet Weather Treatment Plant (WWTP) and the Paxton Creek improvements. He noted since the WWTP was not able to be constructed, which made up a large chunk of money, the bond counsel reminded all that it had to be spent in three years or at least have the funds under contract, we had to spend the funds. He noted that GHD had to get out a lot of work very quickly. He noted that the second factor was that we completed so much work initially with the loan that it made more sense to complete sub-basins to get more complete metering data and to finish the areas, so we added in the mini-basins to complete a sub-basin. He noted that it added to the costs and put the Township ahead of schedule

Mr. Wolfe noted that the third factor was that we could get 2012 work at 2007 rates as there was no inflation in the construction costs over that period of time. Mr. Shannon noted that there was very high competition among the contractors.

Mr. Weaver noted when we discussed this three or four years ago, the Board decided to keep going due to market factors. Mr. Seeds noted that we got more bang for our buck. Mr. Weaver noted that we will have the same question for the Board in May for what kind of decisions it wants to make.

Mr. Hawk noted that you have done a good job and you know where you are and where you are going at any given time. Mr. Shannon noted last fall for Paxton Creek we were very far ahead and we needed to see where we are and where we were going. He noted as we see the cost effectiveness for dollars per gallon increasing on these, we need to reevaluate the program and gather more metering data. He noted that we are getting different results from different basins from what you had ten years ago. He noted in some cases there may have been deterioration and now there is a place for I&I to get into the system where it wasn't before when it was so pressurized. He noted that we started that evaluation for Paxton Creek last fall and Mr. Wendle suggested that we take a look at alternatives for Beaver Creek. He noted that the Paxton Creek evaluation was put on hold because we think there is time and for the rest of the meeting we want to show you the rest of the alternatives for Beaver Creek.

Mr. Eby asked to be excused from the meeting as he has other business he has to attend to.

Mr. Blain noted if we are that far ahead at this time, when you analysis each basin you determined what was the worst problem that had to be done right away, the ones that had the most I&I issues. He noted if we are four or five years ahead then are we saying that the ones that have not been touched have a certain amount of life left that would not require us to go in at this time to do them. Mr. Wendle noted that there are issues, and areas that we could not meter before, noting that there are a couple of areas in PC-4 that were low priority, but when we took the water out, they went from 1,700 up to 4,500 gallons per day per EDU, because once the water was removed from other basins, then it no longer surcharged. He suggested to reprioritize Paxton Creek and do some additional metering to address the things that you are talking about. He noted that some of those have increased, and these are basins that we have not done anything yet, but have moved up in priority since we can measure the flow.

Mr. Blain questioned, based upon the current consent decree are we considered to be ahead of the CAP by how many years. Mr. Wendle noted that staff's interpretation of the consent decree is that it was a CAP that would have certain basins done in a certain amount of

years. He noted that we did those in front of those years. He noted that we still have work to do in the basin, we haven't solved the problem yet and we will never solve the peak flow issue in Paxton Creek without doing something different. He noted that we are ahead of the schedule according to the CAP.

Mr. Weaver noted that the CAP was done by Mr. Wendle and approved in 2011, and it took a long time for staff to get all the other details completed for the consent decree and the court had to approve it. He noted the court did not approve it until September 2013, so we had a two-year period where we got a head start with everything starting for the day of approval to September 2018. He noted that they met with CRW today and DEP changed the way they are making the dates to provide hard dates in their CAP. He noted that they are still working to get their court order signed. Mr. Wendle noted that is for Beaver Creek.

Mr. Blain noted that we need to tie the earlier conversation regarding cash flow to this one. He noted if we are five years ahead of the current consent decree from DEP, we are viewed as being that far ahead, then economically what would be the incentive to continue at that pace to complete the projects faster than normal. He noted that we will run into an issue with cash in the future, so couldn't we conserve cash up front today by slowing down the projects, noting that we will have rate increases over time to front end cash and then you can balance out the debt service issues in the future as you would not have to borrow at the same pace.

Mr. Wendle answered that we could look at that, but when he did the projections he did not look at the schedule and say that we were going to do this much this year and so much the next, he took the total that was remaining scheduling so much a year. He noted that there are a couple of reasons that remain and he is not pushing it one way or the other. He noted that the interest rates are still really low and you could lock in 3.5% for 30 years as opposed to next year when it could be 5%. He noted that the bid prices are still very low. He noted that you have a fixed cost and we could wait three or four years and then pick up again, but we would have to do a large borrowing as the borrowing table that he did was for the number of years by the total dollars.

Mr. Weaver noted that slowing down for three or four years for a 20-year program with the rate structure that Susquehanna Financial Group provided this evening, he did not think there would be a big impact in terms of cash that we are talking about. He noted that it is more

important to look at a five-year period, rather than a 20-year period, what would it mean if we slowed down for five years, looking at the rates for the next five years.

Mr. Weaver noted that he would recommend, at the end of the presentation that we get costs from Mr. Wendle to do the alternatives and costs and have Susquehanna Financial Group do a rate analysis for all the alternatives and that should answer some of your questions. He noted that it will take some study. Mr. Wendle noted that is the only reason that he would suggest to move forward since the prices are still good.

Mr. Wendle noted in Paxton Creek, no matter what you do, at the end of the day, something will have to be done if you want to develop the basin in accordance with the Township plan and develop it according to zoning. He noted that something will have to be done in addition to replacement and I&I. He noted when the 2000 decision was made it was assumed that at some point in the future we would look at a smaller tank than the original 16 million gallon tank and now it is down to 3 million. He noted that we will have to do something.

Mr. Wendle noted that he is not here to discuss Paxton Creek tonight as it has its own alternatives. He noted that staff met with CRW and Susquehanna Township. He noted that the EPA has put forth a policy that they want to see an integrated solution and if there is one that we can all benefit from by reducing our costs by storing and they pay us to store, or they treat it with Actiflo since the City's is a combined sewer system; there are alternatives that need to be looked at with them that involve other municipalities so we are not ready to say what the alternatives would be for Paxton Creek. He noted that CRW has to make a decision by 2018 and we met today about putting together a schedule over the next three years to look at joint alternatives and if there is one that can save the Township money, then we would put that on the schedule starting in 2018. He noted that it is his recommendation that over the next couple of years we work with them to see if there is an alternative other than just doing our own storage or with Susquehanna Township that is beneficial to all three communities.

Mr. Wendle noted for Beaver Creek we looked at three alternatives. He noted that Alternative 1 is the original 2011 CAP alternative. He noted that the basin in green are ones that are complete such as BC6 and the others are the upstream basins to the Beaver Creek Pumping Stations to be completed in 2016. He noted that the area in pink is the BC Pump Station and force main. He noted that the light green shows the continued replacement of the entire BC basin mini-basins by 2023. He noted in 2027, in order to meet the elimination of overflows, there

would have to be a small storage facility built to hold between 3 and 5 million gallons that we show at the landfill and a pumping station to be placed at the South Hanover Township site that allows permit pumping stations. He noted that interceptors will need to be replaced up to manhole 44 and a new force main from the BC Pumping Station is part of all of the alternatives.

Mr. Weaver noted that this is the alternative that we agreed to with DEP and is in CAP. He noted that we have to get to 900 gallons per day per EDU for ultimate development and we are averaging between 1,500 to 1,000 gallons per day. He noted to get to 900 gallons we will have to do storage.

Mr. Wendle noted Alternative 2 would complete all of the basins upstream of the BC Pumping Station which is common to all alternatives and construct a pumping station at the original treatment plant site and to construct a much larger storage facility about 10 million gallons at the landfill. He noted the need for more interceptor replacement from manhole 44 up to 58 and replace a portion of Trunk J. He noted if the Board would choose to pick this alternative, it may be determined to replace the ACP sewers which could be more cost effective and not replace Trunk J.

Mr. Wendle noted if we eliminate the overflows we would still have to do some kind of a program to make sure we don't overflow the tank. He noted for cost comparison purposes let's assume we have to do the remaining replacements and some rehab over a 50-year term and compare it to present worth value.

Mr. Wendle noted Alternative 3 is similar to Alternative 2 except instead of building a storage facility you would build a pump station of similar size capacity and pump it to the Swatara Township Wastewater Treatment Plant to a Bio-Actiflo process that would be built alongside the plant to be operated during wet weather periods. He noted that the Bio-Actiflo is different from an Actiflo Plant in that it has contact with activated sludge and is considered to be biological. He noted that we would have to convince Swatara Township Authority that it will not mess up their process and be a problem to them. He suggested that it is competitive.

Mr. Wendle noted if we do a present value cost analysis using the current federal discount rate of 3.375% which the 2015 Corps of Engineers has set forth as the evaluating percentage for this year, they are all equal. He noted if you look at the present worth value of the ongoing value and replace everything you have about \$83 million present worth value. He noted for Alternative 2 it is \$82.1 million and Alternative it is \$87.2 million. He noted that the Board

may say that they are all equal and as we are getting new roads, let's continue based on the comparative price or cost. He noted that he is not asking for any decisions tonight as this is the first time he has presented this to the Board.

Mr. Wendle noted if you look at each one of the costs, for Alternative 1, all of those costs will be spent because it is the replacement program. He noted for Alternative 2 and 3, noting that he would pick Alternative 3, because we do a good job of measuring the peak flow knowing how long a rain storm will last, it is much more difficult to know how much to store,. He noted that the present value for both is the ongoing 50-year replacement program and that accounts for \$26 million in Alternative 2, noting that you could do the improvements for 2 and 3 and you might not have to do a 50-year program, but if flows get worse you would have to do something.

Mr. Wendle noted that there are similar alternatives for these in Paxton Creek, storage opportunities, but not the Actiflo, doing something with CRW that we can't define at this point.

Mr. Crissman noted that Mr. Wendle stated that he would choose Alternative 3 because in theory it would be a better system but the reality of the political issue is that we are faced with other municipalities, is 3 still viable. Mr. Wendle noted that he broached the idea with Swatara Township Authority at their meeting this year and he asked them if they told him no, he wouldn't even look at it, but they said they would be willing to consider it and he thinks that it is still viable until they say no. He suggested that it would be worth approaching them.

Mr. Wendle noted for South Hanover Township, one of their zoning issues was that you could not have a treatment plant on that site, although you could have a pumping station. He noted that his assumption is that you could put a pumping station at that location as it would be the ideal place to put it. Mr. Seeds noted that their zoning could change.

Mr. Weaver noted that he received some concerns from Swatara Authority's staff noting that Mr. Wendle will speak to them if the Board so desires to continue this study as they have a lot of questions. He noted that we can get those answers but we have to do the analysis first. He noted that their questions were good and the easiest one was how will the Township pay for this and separate it from the rest of the municipalities in the system. He noted that it is an important question and we have to be able to answer it. He noted that there are many other technical issues as well that they will need answers to. He noted that we have to get the Swatara Authority Director's support before we could go anywhere with this.

Mr. Wendle noted at this point it is a competitive alternative on a present worth basis as it allows the Township some chance that you might not spend as much money as projected, as long as you keep the flows below the capacity of the plant, there is not a lot you have to do, but you don't get a new system and new roads. He noted if the Board would like to see how viable it is then he would approach them but he won't do anything until the Board directs him what to do.

Mr. Hornung noted that he needs more numbers to make these decisions and one is how much percentage of ACP and VCP is left in the system. He requested Mr. Wendle to put a value of extending the life of the system by replacement and at some point in time, and what is the life expectancy of the pipe in the ground that won't have to be replaced for another 50 or 70 years. He noted without having that information it makes it more difficult to make the decision as to the worth of overhauling or fixing the stuff that is really bad and doing the Bio-Actiflo in addition to a pumping station. He noted when you come back in May those are some of the issues that he would like answers for.

Mr. Wendle noted for the remaining rehabilitation replacement page, there is a column that shows the linear feet of ACP/VCP. He noted that you could take a look at that information before the May meeting. He noted that he appreciates being able to talk about this in order to know how we should move forward.

Mr. Wendle noted that the life of the pipe is a question, noting that the textbooks state that the pipe has an economic life for interceptors of 50, but yet you have pipes that are 100 years old and still functioning. He noted that even though ACP leaks, it only leaks at a certain rate, so you could keep that pipe in the ground for a long time. He noted if you TV the pipe, there may be some crushed pipe that gets fixed here and there but it will work to convey sewage and extra water, it is hard to put a number on that. He noted that you could have a pipe in the ground functioning as a conveyance pipe that has extra water that you are treating that could do it for a lot more years. Mr. Hornung noted for Mr. Wendle's experience, what are the areas that will not last another ten years. Mr. Wendle suggested that Mr. Wetzel would have the TV records.

Mr. Weaver noted that the storms are getting more intense so the rate of I&I is going up. He noted that after Mr. Wendle has proposed the three alternatives for Paxton Creek in May, then you will have the information for Paxton Creek and Beaver Creek, he would like an answer from the Board if Mr. Wendle could finish the alternative study because once a decision is made, he can go to DEP and ask for 50% reimbursement for the planning costs. He noted that he does

not want Mr. Wendle to go too far, spending a lot of engineering fees for the alternatives if the Board is not interested. He noted that we plan to finish this discussion in May so you will have a complete understanding of Beaver and Paxton Creeks and Mr. Wendle will provide some engineering costs for what it would take to finish the Act 537 Plan. He noted that he would recommend getting Susquehanna Township back into the discussion noting that part of the decision making will be how the alternatives will affect the rates.

Mr. Seeds noted that he really liked the presentation and thanked GHD for their work.

Mr. Wendle noted in regards to the Act 537 Plan, some of the expenses that you have already incurred for this, you would apply to DEP to help pay for it if they still have the funds available. Mr. Seeds noted after we get all the information he will be looking to staff and GHD for a recommendation.

Mr. Whittle noted if anyone would like larger images from the slides he would be happy to print them

Mr. Hornung noted that he would like to know in May what the dollars are that we are looking at per gallon for peak flow elimination that will result in underslab repairs. Mr. Wendle answered that he has those numbers ready to go. He noted that they are cost effective. He noted that the only question will be if we have identified ten laterals that are leaking and we go out and repair them, he noted that we could spend \$10,000 on some of these and get a dollar a gallon per day removed. He noted Mr. Weaver's concern is if one person's lateral is leaking and his neighbor's is not and we fix the first one, is it going to impact the neighbors. He noted that we don't know that yet. Mr. Weaver noted that we don't know this for the outside laterals and if it acts the same way for the inside, you know what the results will be. Mr. Hornung noted that the only way we will know is to try it. Mr. Wendle stated that the numbers say that it is cost effective to repair.

Mr. Seeds noted that we have a monthly meeting scheduled for April 21st, but will wait until the May meeting to discuss all these issues.

Adjournment

Mr. Hawk made a motion to adjourn the meeting. Mr. Blain seconded the motion, and the meeting adjourned at 8:58 p.m.

Respectfully submitted,

Maureen Heberle
Recording Secretary

Approved by:

William L. Hornung
Township Secretary