

**EXECUTIVE & FINANCE COMMITTEE MEETING  
MARCH 12, 2012**

Chairwoman Holzheimer Gail called an Executive & Finance Committee Meeting on Monday, March 12, 2012 at 6:30 PM in the Euclid Municipal Center Council Chamber.

AGENDA

Discuss sewer rate increase legislation.

Res. (039-12) A resolution supporting the use of membrane biological reactor (MBR) technology as the preferred alternative to be presented to the United States Environmental Protection Agency (EPA) for wastewater treatment in Euclid regional sewer system. (Sponsored by Mayor Cervenik )

Update from EPA discussions.

Members Present: Gilliham, Scarniench, Jones, McLaughlin, O'Hare, Langman, Van Ho, Holzheimer Gail.

Excused: Lynch

Councilman McLaughlin moved to excuse Councilman Lynch. Councilwoman Scarniench seconded.  
Yeas: Unanimous.

Others Present: Mayor Cervenik, Director Frey, Director Bock, Supt. Hall, Mr. Kiefer, Clerk of Council Cahill.

President Holzheimer Gail – We have had several meetings on this already. We have had three public hearings, one with the neighboring properties of the Waste Water Treatment Plant, two public hearings here at City Hall. Some other questions came up so this is hopefully a wrap up meeting, the legislation is already on the Council's agenda for the public hearing at the next council meeting. We have a resolution that was sent here from the last Council Meeting regarding the membrane technology and wanted to get an update on the rate structure and EPA discussions and a presentation on the membrane technology. I will turn it over to Director Frey.

Director Frey – As the Council president has indicated we are prepared this evening to provide you information on the membrane technology as an approach for the Waste Water Treatment plant. We can talk about the rate analysis and the update to that and then Mr. Bock and Mr. Hall can talk about their technical conversation with EPA.

I want to point out to Council that we have confirmed with the Cleveland Water Dept. that provided the rate information as transmitted to them shortly after our meeting next Monday, we will be able to have that rate structure in place for second quarter, which is what the legislation calls for. Any additional delay beyond that point, we're going to lose the opportunity for that second quarter. In all likelihood will cause us to have to adjust those rates to make up for that lost quarter or revenue. We would certainly urge, I urge the city council to plan to act next Monday evening on that legislation in its final form.

I will have a correction piece to City Council based on the analysis Mr. Fink has provided to us, looking to the future with the whole project cost and again we know that we're going to have the rate structure that we have before you in the legislation and we are going to need to implement a second and continuing program to fund the balance of our projects. We anticipate knowing by November or early December what that final project will look like.

We should start with Mr. Phil Kiefer from CT Consultants who has prepared and provided to you a hand out that talks about what the comparison between the membrane cartridge and that technology versus the clarifiers.

Mr. Kiefer – I was asked to come and present, to explain the difference between membranes and traditional clarifiers as to how they separate solids from the liquid in the Waste Water Treatment Plant. I provided a six page hand out. The first page at the top is a drawing of a typical traditional circular clarifier. In this circular tank water from the biological reactor comes in the bottom right pipe, goes to the middle of the tank and then from there it goes out radially towards the walls. As the circumference of flow gets larger, the velocity slows down, the water becomes less turbulent, the solids in the water settle out to the bottom, the scum and floatable material float up to the top. This shows a rake on the bottom which rakes the solids towards the center that goes out the bottom pipe on the right. On top of the rake is the scum baffle, that directs the scum up to the scum trough and that goes out the upper left. The clean effluent goes out the upper right pipe. From there it gets disinfected and goes to the lake.

A membrane bioreactor process is a completely different method. The bottom two pictures show what a membrane cartridge looks like. On the second page is a drawing that shows how they work. I must admit, I downloaded this from Wikipedia and it looks very simple, but it is something easy for the members of Council and administration to explain to the younger generation.

In the biological tank these blue pac-man shaped objects are the biomass. They are chewing up the bacteria, which are the pointed objects and they also eat the dissolved carbonaceous material. Then they hit the membrane. The membrane is basically a sieve but the holes are so small that the biomass cannot get through, the bacteria cannot get through, they stay in the bioreactor. The clean water goes through the tank, goes out to the disinfection if it is needed and then to the lake. In both cases it produces clean effluent. The MBR actually produces a higher quality effluent than the traditional circular reactors.

The third page shows how this process would be set up in the existing Euclid facilities. A new head works would be constructed to screen the material and remove the grids of the waste water coming in, then goes through the admin building where chemicals are added to remove phosphorous and to help promote the growth of the bio solids. Then it goes over to the MBR tank, which is currently the pure oxygen reactor. Inside that tank, all the biological treatment would take place. The membrane cartridges would be in that tank. The effluent from those would go to the pump building which is used to help extract the water out. From there it would be discharged.

The two existing clarifier buildings would not be needed to a great extent for this process. The first of the south building is planned to be used for the pumps and sludge storage. Because you have tankage available any extra sludge that we waste out of the system can be temporarily stored in the sludge. When you do that an aerate it, the sludge will cannibalize itself and it will further reduce the amount of solids that you end up needing to process.

The rest of the existing south tank and the north tank would be used for future treatment such as nitrogen removal if that comes about. The MLSS is mixed liquor suspended solids, those are the bio solids. They will float down through the MBR and then they will go to the recycle building which is the micro strainer building and be pumped back to the head end of the MBR.

Councilman McLaughlin – Can you just repeat the last? So it comes out of the MLSS which stands for?

Mr. Kiefer – Mixed liquor suspended solids, which is the biomass also known as activated sludge. It has had different names over the years.

Councilman McLaughlin – And goes where?

Mr. Kiefer – It goes back to the pre-air section of the biological tank. The effluent goes out to the Lake.

The fourth page of the hand out shows the advantages of using the MBR process. First of all you don't need to replace the clarifiers and put in those huge circular tanks that you saw in the alternative 1. Improved discharge. So the water going into the Lake is even cleaner than what you would do with alternative 1. You need less space for the treatment which is why it frees up the extra tanks. You get less sludge generated, as I said because you can use the sludge storage to reduce the amount of sludge. All the equipment will be housed in the existing buildings, so we will not need to construct new buildings for the treatment.

Theoretically you will not have any bacteria being discharged out of an MBR facility. We have demonstrated that in some of the plants we have constructed and have been in operation over the last several years. We maybe able to talk the EPA into not requiring a disinfection equipment.

Finally the effluent from MBR can be used as recycled. Out West they frequently use it for irrigation, golf courses and other plants. It is clean enough to use for that.

The fifth page is an update of all the costs for the projects. I can answer questions on that if any come up. The last page is a more detailed cost for the MBR alternative, which I'm told some of the council members asked for. We can answer questions on that also.

President Holzheimer Gail – Are there questions on the membrane technology or any part of that presentation?

Councilwoman Scarniench – A resident asked the question about the volume of sewage, the water that actually goes through the membrane. When we're having the big rains and we need to use the tanks, I would assume that's how it is regulated, correct? How much can actually go through there before we actually start using the tanks, if that makes sense?

Mr. Kiefer – The membranes, the more cartridges you put into the bioreactor the more water you can have go through the plant. We're designing it for 66 MGD, million gallons a day, which it can handle for 24 hours. Storms are usually gone by that time. Any flow rate coming in greater than that has to go to the equalization tank, or out the existing auxiliary treatment facility.

Councilwoman Scarniench – So there's no problem with that. The other question is about the maintenance cost. He seemed to feel, I don't know where he read it or whatever that there would be a high maintenance cost using the membrane.

Mr. Kiefer – We went through an analysis of operation maintenance costs and for the MBR alternative is actually about 10% less than for the existing plant. Part of that is because this is a pure oxygen treatment plant and the cost of supplying pure oxygen is significant. We will be changing to just plain air.

Councilwoman Jones – On the first page where you have the pictures of the cartridges, one of the pages looks like it is a picture of the inside of the cartridge. Are those filters that are the white part, looks like it is rolled around, or what is that?

Mr. Kiefer – The membrane, it is a sheet with microscopic holes in it that the water flows through.

Councilwoman Jones – What is the lifetime of those sheets or the membrane?

Mr. Kiefer – It usually runs 6-8 years. In the operation maintenance cost, we have an annual budget for replacing those periodically to keep new ones in place. That is accounted for.

Councilwoman Jones – You mentioned for the capacity because that was one of the questions I had, for the capacity that we would need would be 66 of these cartridges?

Mr. Kiefer – 66 MGD would be the peak flow capacity.

Councilwoman Jones – Does that mean 66 cartridges? How many cartridges?

Mr. Kiefer – No. I can't tell you the number. We can get that information.

Councilwoman Jones – Just looking at the picture, what's the size of one cartridge?

Mr. Kiefer – I'll have to get you that too.

Councilwoman Jones – I did have a question about the maintenance cost but that was answered. In the process with the membranes you mentioned about the filters going through. Is there some type of chemicals that have to be added to these filters or is that after it goes through the filter process?

Mr. Kiefer – We add chemicals to remove phosphorous from the water. Change it from soluble organic phosphorous to solid, so it goes into the sludge.

Councilwoman Jones – That's before it actually goes?

Mr. Kiefer – That's before it goes into the biological tank.

Councilman McLaughlin – Where does the 66 MGD come from because I thought that was the original capacity of the oxygen tanks?

Mr. Kiefer – The 66 is the capacity of the oxygen tanks. It was the original design capacity for the treatment plant. The problem was the settling tanks could not handle 66 MGD. At about 30 MGD you would start to get bio-solids going over the weirs and out to the lake.

Councilman McLaughlin – Is the price to handle say 100 MGD exponential from 66 MGD?

Mr. Kiefer – It should not be exponential, no. It would be limited on how much room in the biological tank.

Councilman McLaughlin – 66 million, if you did some work and it fits in nicely where the oxygen treatment is right now. Secondly, the MBR equipment package that you have quoted on the last page, where did that figure come from, who quoted that?

Mr. Kiefer – That came from a manufacturer, I don't know which one.

Councilman McLaughlin – Therein lies my question, have we gone out for bids? I know Siemens and Kabodo and there's several places that have membrane technology and I was wondering if we went for competitive quoting?

Mr. Kiefer – We have not gone for competitive bids yet. When we get into the design we would do that.

Councilman O'Hare – A question about the capacity. I may have this wrong but early on it seemed like we were talking about during extraordinary wet weather days we could have flows of 200 million gallons a day. If the membrane technology covers 66 and then we have pre-treatment holding basins ahead of time that seem like they add up to 25, where are we going to be on a 200 million gallon a day wet weather day? Bouncing that up against our compact that we will discharge no untreated water into the lake.

Mr. Kiefer – The 200 MGD that you would get during a rain event is a short term spike in the flow. It might last a quarter or a day. So if you take 200 minus 66, 130. Take a quarter of that, you're a little more than 25 there. But then you've got to take the, since it is somewhat parabolic, you've got to take 2/3 of that amount.

Councilman McLaughlin – I've got it. 95 million gallons.

Mr. Kiefer – No, no. Let's start over.

Councilman O'Hare – For the sake of discussion here, thank you Councilman McLaughlin for coming up with the math that boggled me. For the sake of here, the numbers don't add up to me if we talk about 200 million in a day whether it is a quarter day event or whatever. If the capacity to treat is 66 in the holding, that's something we need to be confident that we're going to make that commitment. We can all talk about 100 year rains and they seem to happen more frequently than once every 100 years. It is something we need to be convinced upon.

Mr. Kiefer – The problem is 200 MGD is a rate and the 25 million gallons is a volume. To convert the rate to volume. When you have a short event, that rate, that hydrograph that you get will fit into the tank.

Councilman O'Hare – We've never had a full day of rain where we had 200 million gallon rate for the whole day? We'd be building an ark.

Mr. Kiefer – We've had 24 hour rains but not hard enough to produce that rate. If you have a long rain of a more gentle intensity you can probably run it all through the plant and not have to store it. It is when you get the thunderstorms and the real high intensities that produce a huge spike in the flow.

Councilman O'Hare – Our current treatment, we're in the 20's or 30's, even during the spike that's what we can treat, correct?

Mr. Kiefer – Yes.

Councilman O'Hare – One other item about the membranes just from a matter or scale of these cartridges. I've been in paper plants and you've got the webs traveling 60 MPH. They're not in that scale but they're larger than a paper towel. Are they somewhere in the middle of that?

Councilman McLaughlin – They look to me to be about 15 x 20 feet, each cartridge.

Mr. Kiefer – Then too it depends on the manufacturer.

Councilman O'Hare – That's where I'm going with this. The reason for asking that is as we go with, currently there is a few people who produce this but eventually as this catches on there will be likely more as the restrictions go up and the technology improves. Are we getting ourselves into a proprietary situation sort of like a VHS or a Beta or a Blue Ray versus whichever DVD did not win, where we will into it and we will need to use that particular manufacturers cassette or membrane and then be locked into that and perhaps they're not viable for the future and then we're in trouble?

Mr. Kiefer – Unfortunately yes. Once you have a manufacturer, you will be buying spare parts from him, or her.

Councilman O'Hare – One of the benefits of this which I'm not sure we completely accounted for to our detriment would be the reduced annual cost. You outlined some of them in there would be, but I was wondering electricity, are we using more electricity as a result of this? I didn't see that in the advantage from 4, was sludge generation, lower operating maintenance costs. Is there going to be less water used? Is there going to be less electricity used because electricity is going up and it is not like it goes down. If we can't account for that, does it make this less favorable?

Mr. Kiefer – The electrical cost will go from \$656,000 a year to \$942,000. That's one of the costs that increase.

Councilman O'Hare – I thought during one of our initial explorations electrical was one that was going to go down with this?

Supt. Hall – I believe the cost reduction was in the lease of the Praxair. We pay close to \$21,000 a month for the lease of the actual oxygen generation plant. That would go away so that's a \$250,000 savings. As far as the electrical, I'm not certain, I'm just going by what the report says. Currently our electric bill at the Lake Shore plant is \$60,000 a month right now. I don't really know the part that's attributed to the pure oxygen portion of that. We've never done a study. But it is the major portion down there for sure. I think that might be where the cost savings was with the Praxair lease.

Councilman Langman – Mr. Kiefer going back to the 200 MGD. Can you translate that into the amount of rainfall per hour that would generate such a spike? Is that an inch per hour? Is it two inches per hour?

Mr. Kiefer – It was 2 inches in one hour that generated that. If it stayed at 2 inches an hour for 3-4 hours, you'd get a lot more flow.

Councilman Langman – I want to make sure I understand. We were happen to get a rainfall that equals 2 inches per hour, it would generate the 200 flow?

Mr. Kiefer – Yes.

Councilman Langman – If that sustained over a 2-3 hour period obviously the flow would be much higher.

Mr. Kiefer – Right.

Councilman Langman- Okay, I did get that. Mr. Kiefer back to the technology itself, has CT actually worked with municipalities to install this new membrane technology?

Mr. Kiefer – We actually have 4 plants, designed and in operation and we are designing our fifth plant right now.

Councilman Langman – Can you name those plants?

Mr. Kiefer – We have brochures on two of them: Delphos, on the west side of the State, Union-Rome. Right now we're working on Canton.

Councilman Langman- So you're doing work in Canton. My next question is, what is the size of these particular plants in relation to ours?

Mr. Kiefer – First two were smaller than Euclid. Canton is a peak of 108 MGD.

Councilman Langman – Their peak is at 108, but do they also use other technologies besides the membrane at their Waste Water Treatment Plant or are they strictly going with the membrane technology?

Mr. Kiefer – They're converting to membrane.

Councilman Langman – This is going to be over a period of years?

Mr. Kiefer – No, they have converted.

Councilman Langman – This is the plant that we are going to go visit or we have visited already, members of the administration?

Supt. Hall – I have not been to any plants yet. I went to McFarland Creek which is in Geauga County, but I didn't tour the membrane. I actually just went out there to talk to the guy. They were just putting the membranes in at that time.

Director Frey – The Canton facility is the facility that we have an invitation to visit.

Councilman Langman – How old are these installations at Delphos and Canton?

Mr. Kiefer – 2007 is the oldest.

Councilman Langman – Do you have data from them on maintenance issues?

Mr. Kiefer – I'm sure we have it at the office.

Councilman Langman – Can we possibly see? Anything that is relatively new, you're going to run into different scenarios that could change your estimates on cost and maintenance and so forth. Speaking of maintenance, I guess I wanted to go back to the durability of the cartridges and the membrane material on the inside. From CT's experience, that's where you got the figures of, I'm sorry if I got it wrong, that the cartridges last about 6-7 years?

Mr. Kiefer – The membranes.

Councilman Langman- The membranes itself. To replace the membrane you have to replace the whole cartridge, correct?

Mr. Kiefer – Take the cartridge out, take it apart and replace the membrane.

Councilman Langman – How involved is that?

Mr. Kiefer – I can't tell you.

Councilman Langman – Can we do that in-house?

Mr. Kiefer – Oh sure.

Councilman Langman – So our staff at the Waste Water Treatment Plant can remove and replace these cartridges? Yes?

Mr. Kiefer – Yes.

Councilman Langman – Sorry, we don't get the nods on the minutes. My only other question Mr. Kiefer is that in January we were presented with the clarifier solution and now we're being presented with this one. What changed in the timeframe between January and I know we started talking about it at the work session in February which was the 8<sup>th</sup>. I think this on the surface is a much better plan but I want to get a sense of the timeline.

Director Frey – Let me take a run at that. In part of the material that we submitted to the EPA, Mr. Stinehelfer from CT who is more conversant with this technology admittedly than Mr. Kiefer is. Phil works on the combined sewer and the system collection and Mr. Stinehelfer has been working on the plant portion itself. Indicated that the cost of this technology had dropped. When they first looked at it as one of the possibly alternatives, it was so expensive that it worked itself out of further consideration and presentation. That price has come down, so it is now a competitive alternative.

Councilman Langman – When did we first look at it?

Director Frey – In 2007.

Councilman Langman – Between then and now we waited and then we looked at it.

Director Frey – Right, price has come down considerably for that. This is not new technology as I understand it. It has been in use. To answer that other, we should be able to get that kind of maintenance information. It is like the wind turbines, they've been used overseas for much, much longer period. This technology is in full flower in Europe and Japan as well. We should be able to get good information on the maintenance.

Councilman Langman – I would like to see that. Mr. Kiefer are we seeing across the country a mass conversion to this technology?

Mr. Kiefer – We're seeing an increased conversion, especially for plants that have a river discharge because the water quality standards for rivers require much cleaner effluent. That's where a lot of these have been going in recently. We are seeing a trend towards this.

Councilman McLaughlin – I just want to clarify that membrane technology relies on pumping the water through the membranes, thereby needing horsepower to generate the pumps which is why the electricity goes up. I thought the savings was in the reduction of chemicals and man power to operate the plant, correct?

Mr. Kiefer – That's correct, yes.

Councilman McLaughlin – Secondly, of the plants that put in this new membrane technology, did any of them incorporate any other kind of technology such as green technology to slow down what is actually going to the membrane for treatment?

Mr. Kiefer – Not that I know of.

Councilman McLaughlin – Canton has 108 million, that is as much as went to the treatment plant and they said that is what we're going to design the membrane for?

Mr. Kiefer – Correct.

Councilman McLaughlin – When you go out for competitive bids is to get a table of how many gallons it can treat and what each additional cassette can treat and how much that cost is.

Mr. Kiefer – As an alternative bid to increase the capacity of the plant?

Councilman McLaughlin – Correct. If you can add a couple of more membranes, we would not need to have a hydraulic equalization tank, I'm just curious. It looks like from your drawing that we have plenty of space now with this new membrane technology. It is what is the cost for not only a new cartridge, but you need to have the base in and then you insert the cartridges into the basin. It is just a look at the capacity and cost rewards are.

Mr. Kiefer – Mr. Hall reminded me that there might be other hydraulic restrictions in the plant, such as the outfall sewers that go out into the lake. We'd have to look at it.

Councilman McLaughlin – Why'd you have to mention that?

President Holzheimer Gail – It is a good point and something worth considering if we can do it.

Mr. Kiefer – Right, yes.

Councilman Van Ho – My one concern is about the capacity because as you pointed out earlier, our capacity now is in theory 58 million but yet we don't get much more than \$28 million?

Supt. Hall – Usually we can get before we open the wet weather facility we get around \$32 million.

Councilman Van Ho – How can we be sure that we've got the capacity to handle this 66 million with this present system you're recommending? The second part of that question is, if this was such great technology, why did we even look at the circular clarifiers?

Mr. Kiefer – The answer to the first question, we know that the limiting process in the existing plant is the clarifiers. They cannot handle more than the 32 MGD before they start losing the solids. With this process we will be able to put more through the membranes, as long as we have enough membranes, to put them through. The reason we looked at the circular clarifiers to begin with is the project cost is less for those. At the time we were looking it was a lot less.

Councilman Van Ho – You mentioned one of Councilman Langman's question that there was more of these types of plants being made, but it didn't sound like everybody was rushing to this technology. If it is as good as what we think it is, why is anybody putting anything else in at this point?

Mr. Kiefer - A lot of it has to do with the EPA pushing this, not pushing but encouraging communities to use this process for their treatment plants. Any existing plants that are meeting their effluent limits won't necessarily change the process just because it is new technology. Until they start violating or have problems, or until they get real old and they need to upgrade, that's usually when they look at the new technology.

Councilman Van Ho – It is not new plants that are being built for the most part with this other technology, it is the old plants that are not going to convert until they have to, is that correct?

Mr. Kiefer – I'm sorry, new plants would generally use this technology. New plants you would need a cleaner effluent the way the EPA is going now. So they almost have to go to this type of technology.

Director Frey – The other thing to take into consideration is land space. If you have a much larger footprint on which to build the plant or you have a plant on a much larger footprint, there's less likelihood of wanting to rework your existing facilities to go with this type of technology. I think that is also something to, if the Southerly Treatment Plant for instance in the south-side of Cleveland has the capacity to expand and it already has multiple circular clarifiers on that facility, it is not likely they would put this technology in place if all of their process fits and works with the clarifiers and they can expand that if need be. Of course what they're taking is a much more expensive route and that's the tunneling for their equalization essentially. One of the things that drives this decision for us is the amount of space that we have. The clarifier alternative which we have pulled away from in part was because it rendered the Lakefront Community Center less usable. It is a significant reason why this technology looks good is the impact on the adjoining properties.

Councilwoman Jones – The breakdown of the cost where the total construction cost, item #23, is this the cartridges and membrane item?

Mr. Kiefer – Yes, the equipment package.

Councilwoman Jones – Based on this cost, how many cartridges does this equate to?

Mr. Kiefer – I could not give you a number of cartridges. Whatever it takes to get the 66 MGD.

Councilwoman Jones – How did we come up with this number?

Director Frey – We'll get that information from Mr. Stinehelfer. He'll know how many cartridges that worked out to and we can email that and several of these other questions to council tomorrow.

Councilwoman Jones – I think it was brought up about adding cartridges if needed to be able to expand if the, whatever the other process would be able to handle that. Would that be in this MBR structure building, or would that be in the future treatment section?

Mr. Kiefer – It would be in the proposed MBR structure building.

Councilwoman Jones - The building that we're proposing with this construction, whatever number of cartridges that we're planning to start with, the structure will be able to handle additional cartridges if needed?

Councilwoman Jones – The building or the structure that says sludge storage, is that for any of the sludge that comes out of the treatment of this plant? I know we mentioned in one of the public meetings it was mentioned that the Lakeland Plant would be used for sludge storage. Is that still the case or no?

Mr. Kiefer – Yes. Lakeland would still be used. This is for what we call the waste sludge. Most of the solids you recycle back to the front end of the plant and then they consume more of the bio-waste. But you have to remove a certain amount of the bio-solids everyday and then they would go into the sludge storage where they would be aerated and they would cannibalize themselves. Then there would be less solids to send to the Lakeland plant.

Councilwoman Jones – In the sludge storage, is that like a day's worth, a week's worth? How do you measure? What's the capacity that could handle?

Mr. Kiefer – Depending on how much room we want to use, we could have several days worth. In the smaller plants that I run we usually have sludge storage for about 2 weeks and let it reduce its mass and then we get a truck to take it out. It would be 3-4 days to 2 weeks worth of sludge.

Councilwoman Jones – When it is taken out of the storage here, is that when it goes to the Lakeland plant?

Mr. Kiefer – Yes.

Councilwoman Jones – From the Lakeland plant it is disposed of through the normal process that we use now?

Supt. Hall – Correct.

Councilman Gilliam – Mr. Kiefer, you had made a statement on the third page on the actual drawings that you submitted that there would be areas for future treatment and you used the word, nitrogen, if that was present that would require future treatment. Is that something that is a major detriment or how does that affect the processing if the nitrogen was present? I'm green here so you could tell me anything. I just wanted to hear it for the record.

Mr. Kiefer – In the process of consuming the carbonatious material, you have nitrogen, such as what you use in fertilizer. That gets converted to a nitrate form. That may or may not need to be removed from the waste water before it is discharged to the lake.

Councilman Gilliam – Is that based on certain levels of nitrates present?

Mr. Kiefer – Yes.

Supt. Hall – Currently we do not have a nitrogen limit, we have a phosphorous limit. Phosphorus and nitrogen and the two nutrients that the EPA is concerned about with the algae blooms and all that taking place in the lake. I would expect there would be nitrogen limits in the future. The future treatment, the way I understand it is the bacteria that need to be, to remove the nitrogen, need a longer time to grow. They don't produce themselves as rapidly as other bacteria. You need a zone where there is very little dissolved oxygen, it is called anoxic zone and what happens is the bacteria will take the nitrate which is NO<sub>2</sub>, the chemical symbol, I don't want to get too in depth but the bacteria will break that down, use that oxygen, that O<sub>2</sub>, that chemically bound oxygen for the energy source. Then they turn that into nitrogen gas and that's how the whole nitrogen cycle goes through. It starts at ammonia, goes all the way through to nitrites and nitrates and then denitrifies back into nitrogen gas. That's the whole nitrogen cycle.

Councilman Gilliam – You do expect the EPA, even though they've talked about reducing phosphorous and nitrogen as well that there will be some level of allowable levels and that will have to be monitored by your staff to determine whether or not future treatment is necessary, correct?

Supt. Hall – Correct.

Councilman Gilliam – I was reading over the advantages and one of the things that I was pleased to know is I didn't want to disturb the neighborhood. With the large clarifiers, my first comment on those were that, to me that's excessive. I see that issue has been addressed. #7 says the potential for eliminating the effluent discharge disinfection requirement maybe realized on recent CT Consultant conducted studies. Could you explain what studies tend to think this is an advantage for Euclid?

Mr. Kiefer – We've been doing studies with the plants that we designed and had constructed. Tracking the amount of bacteria that are being discharged. We found that it is very low bacteria, well within the limits that we need to discharge even without any kind of disinfection.

Councilman Gilliam – The plant that was initiated in 2007, have they been able to document this information to avoid, possibly disinfection?

Mr. Kiefer – I don't know if they've done that.

Councilman Gilliam – The project costs for 2012, very generate question. Is this a pencil estimate or a pen estimate? In other words, my concern is, this could actually go up or down depending on the particular vendors we use and how we bid this out, am I accurate with stating that?

Mr. Kiefer – You are correct. You're talking about the last page. I would say it is a pen estimate but we don't bid it.

Councilman Gilliam – There are certain things on here that you could bid out, correct?

Mr. Kiefer – Correct.

Councilman Gilliam – I just wanted to hear how you felt this was a pretty solid cost?

Mr. Kiefer – Yes, based on today's climate. Right now bidding prices are good.

Councilman Gilliam – It doesn't fluctuate like gas prices does it?

Mr. Kiefer – I don't see the economy improving that much where all the contractors will be busy in a few years. I would say these would be pretty good in the near future. Now we're getting into finance.

Councilman Gilliam – I don't want to get too deep. Thank you for your answers because I was just looking at the actual savings but could those savings be minimized in the future if things were delayed. That is really where I was going with this. I thank you kindly.

President Holzheimer Gail – I just want to confirm that it was not bid for the sake of these numbers, but any materials would have to be bid before it is done. We will go into competitive bidding for any materials.

Director Frey – Absolutely, the whole project will be competitively bid.

President Holzheimer Gail – I just wanted to make sure that was clear. Let's take a couple more questions on this, we can come back to it, but I want to make sure we have enough time to hear the rest of the presentation.

Councilwoman Scarniench – On that sheet that's got all the numbers, down on the bottom, #36, I can see that on the drawing, on the map where the storm relocation is. The CEI substation relocation, is that the two tiny little buildings, or is it just one building? There's one building real close to the property on the east side and then there's the little building in front of the future treatment. Is it both of those or one of them?

Mr. Kiefer – It is not a building. If you look at the back of the parking lot where Alexander's parking lot, the very back, just to the left you see where that substation is. It is above the new head works. That's where the substation is. It is open right now, it is not a building.

Councilwoman Scarniench – The property acquisition, I would assume it is the Alexander's property?

Mr. Kiefer – Yes.

Councilwoman Scarniench - What is the commercial building demolition?

Mr. Kiefer – That we kept in there because it was in all the other estimates. As everyone on Council should know, that building has already been demolished. We wanted to leave it in so you can compare these costs to all the other ones in the report.

Councilwoman Scarniench – We're still talking the \$1 million then. Thank you.

Councilman Langman – Turning the CSO & SSO's, I noticed in January, we were given figures on this CSO Long Term Control Plan \$4.9 million and now the estimated cost has jumped up to \$8.2. What are we doing different if anything to cause that increase?

Mr. Kiefer – Part of the conference call EPA asked us to look at different combinations of alternatives. So this is looking at a different set of improvements at the CSO's.

Councilman Langman – When was the conference call where you discussed this?

Supt. Hall – March 6<sup>th</sup> is when we discussed it but we've kind of gotten some feedback from them through the last couple of months when they gave us their comments on the NFA and the Long Term Control Plan.

Councilman Langman – The reason why I asked, I'm trying to get out, would each CSO location, would that be then rebuilt differently? Would there be tank combinations that would be different? Would the EPA say this is good or this is not good? Would they give us a definitive answer?

Mr. Kiefer – They have not given us a definitive answer, yes, yet. This would be different combinations maybe additional transportation sewers, relief sewers, interceptor sewers.

Councilman Langman – But this is not simply an inflation of cost from 2010?

Mr. Kiefer – No.

Councilman Langman – I guess then my question regarding the CSO's is that obviously we passed rate increases in 2008 to pay for 17 which subsequently we didn't do. If we would have gone ahead and done those projects then would we be out of compliance then?

Director Frey – We don't have authorization. We have to get under the Consent Decree, we have to get authorization on those projects. Part of that what Mr. Kiefer is talking about is looking at one of a variety of methods to best treat that individual CSO. Until we get approval from EPA we can't go forward with those projects.

Councilman Langman – So you're saying that back in 2008 when we approved the increase in capital to address the CSO's we were not yet under that mandate to have sign off on each individual CSO?

Director Frey – We didn't have approval. We knew we were going to have to address the CSO's and we knew we had to address the SSO's. We did not have approval on the method to address those.

Supt. Hall – I think what Council has to realize is this all started in 2005 when they came to visit us. It started with just looking at our CSO's. Then at the end of 2006 we went to Chicago and they said, you guys have SSO's still, so now we got SSO's, you have to get rid of those, like now. Then they said you need to stress test your plant and do the no feasible alternative. This thing has snowballed from our original long term control plan was \$780,000 back in 2006 I believe is the first one. Now it has snowballed to \$135 million is what we're looking at. The whole thing is we can't get anything done because we have no approval from EPA. I can't get loans for anything because we don't have the rate increase the structure to do anything.

Councilman Langman – Mr. Hall, I'm going to interrupt you right there. The Council did approve a Peterson Rate increase at the end of 2008. We were told these would address the 17 or so CSO's, which subsequently were not addressed. Many of us asked at that time if we go ahead with these projects would EPA come back and say this is not satisfactory. At the time we were told, no these improvements need to be made.

What I'm driving at is we go ahead with the current list of improvements, will EPA come back again and make us do more work?

Supt. Hall – We can't do any of the improvements, even these ones that we have proposed here, until they give us approval.

Councilman Langman – What was the rate increase in 2008 for?

Supt. Hall – Basically because the Peterson Fund had no money in it. It hadn't been raised forever. You guys all know, it was at zero.

Councilman Langman – I understand that but the minutes are right here. It says that you were going to do 17 CSO projects with that increase. We didn't do those projects.

Supt. Hall – We didn't do the projects and we also didn't collect the money because of the revenue shortfall.

Councilman Langman – You didn't do the projects because you didn't collect the revenue due to the fall in consumption. That's what the Council was told. But if you had the money, would you have done those projects in 2009 and 2010 and 2011, or would you have just held onto the money?

Supt. Hall – No, we could not have done the projects until we had EPA approval.

Councilman Langman – That’s the answer I’m looking for. We were told something in 2008, it didn’t happen and the reasons we were given was because consumption went down and we didn’t have the money. So here we are again looking at the 17 CSO’s.

Supt. Hall – 2008 the consumption hadn’t gone down yet. 2008 is when Lehman Brothers filed bankruptcy.

Councilman Langman – I can read from the minutes of prior meetings. If we’re going to get into this is not what this is for. It is in the minutes of prior meetings, what the 2008 rate increase was for, for those 17 CSO projects. The question was asked at that time, if we go ahead with these projects, would they be compliant or would EPA come back and say no this is not good. I know the Law Director responded that we’re okay doing this basically. I guess I’m a little confused now, that no, no we never got the sign offs so we couldn’t have done the projects anyway.

Director Frey – Councilman I think you’re misunderstanding. We have done some CSO work and we have done a multitude of SSO projects. To the extent the Peterson Fund funded those projects we’ve done those. The CSO and the SSO’s so long as they are Euclid specific are all coming out of that Peterson fund.

Director Bock – I was just going to state what the Law Director had stated. We have done many SSO projects from Dille Rd. to the Euclid Avenue Sundry Streets project which handled about 5 SSO’s within that project. There were SSO’s eliminated on E. 250<sup>th</sup> St. We’ve had water in basement issues on E. 248 or E. 214 which we eliminated there with the new outfall sewers. We haven’t not done anything. For the extent of the money we had in Peterson even though there were shortfalls, we were under notice and fully aware of the fact that SSO’s are illegal and need to be eliminated and that’s why our list has gone from where it was to the point where we’re at now with approximately 14-15 that remain. Funding for eliminating ten of those are in place already. All we need is the matching fund. We have worked on our system, which is what Peterson is for. We’ve made the improvements on the system and we’ll continue to make those improvements. With the shortfall in the funding that we’ve got right now due to consumption lagging, if we’re going to continue, if we’re going to do the remaining SSO’s which are illegal and we are going to fix the CSO problem, we’re going to need the additional funding. It is not that we didn’t do anything. It is we continue to work on the system whether it is CSO’s or SSO’s and we need to continue to work.

President Holzheimer Gail – The question though that I don’t know was resolved and this perhaps gets to the next part of the presentation is the projects we have in place in the works that we’re waiting for our match, do we have approval from the EPA to do those?

Director Bock – Those are SSO elimination projects. As I said SSO’s are illegal. We do not have engineered plans in place. We have Issue 1 funding in place, which includes grants and zero percent loan amounts and we have a matching share we have to put in there. Even on the loans, even though they’re zero percent, they still have to be paid back. It is great we don’t have to pay interest on the money, but we do have to repay the loans. That funding is there but we can’t start that funding, we can’t start those projects until we have our matching amounts in place and we can show we can pay back that loan. We do have approval from the State in the Issue 1 funding that they’re willing to give us those grants and to give us those zero percent loans, we need to come up with our part of it.

Councilman Langman – I do want to just read for the record what was said in January and see whether the folks will stand by it. I asked the question, were we able to do any of the CSO’s based on, wait a minute, let me go back. Final question, I promise it will be the final question, four years ago we increased the Peterson Fund to primarily address the CSO. I think there were 15-17 we needed to take care of. Were we able to take care of those based on that increase? Supt. Hall, no, unfortunately the increase coincided with a drop in consumption. It barely broke even as far as what we collected. Our consumption dropped, we are getting 220,000 mcf’s and you just multiply it out in 2010 we only collected 163,000 mcf’s. Were you able to do any of the CSO’s based on the increase? Was my next question. Yes we did complete a couple of these projects. Supt. Hall you list the SSO project on 264<sup>th</sup>. Let’s see we put floatable baffles on some of the new manholes. Upper Terrace we put a deeper manhole in, etc. So which is it?

Supt. Hall – Those were some modifications to the CSO’s, those weren’t eliminating them or bringing them into compliance.

Councilman Langman- Supt. Hall, were we able to address any of the CSO’s with the increase we passed in 2008?

Supt. Hall – No.

Councilman Langman – Okay but you’re telling me we did this, we did that.

Supt. Hall – But we did do that. But it doesn't eliminate the need for this other work. I don't know what to tell you. On Upper Terrace the thing overflowed when it was humid outside. We put in a new manhole up there and now it only overflows 8-9 times. I don't know what else you want me to say. We did 264 Street which was an SSO. The money isn't there.

Councilman Langman – If you would have had the money, would you have done the work on those CSO's then?

Supt. Hall – No because we would have had approval.

Councilman Langman – Okay, that's what we're driving at. If you would have had the money, you still wouldn't have done the SSO's pending approval from the EPA?

Supt. Hall – The CSO's or the SSO's?

Councilman Langman- CSO's, I'm not talking about the SSO's.

Supt. Hall –No we would not do it until we had approval from the EPA. That's why Upper Terrace now if you look at, what I'm confused. Why are you laughing?

Councilman Langman – It doesn't make sense to me that you would come and say you need this Peterson increase in 2008 to do these 17 projects and yet well okay we're going to wait until we get EPA sign off that's 3 or 4 or 5 years later.

Supt. Hall – Trust me. If you would have told me we'd be doing this, still waiting for EPA sign off when this started, there's no way I would have thought that. If these people were private industry, I've said this all along, I don't see how it functions because it has been 7 years. I had to, in our March 6<sup>th</sup> conference I said you have to approval something when I talked to Kay Plaza from US EPA. I said you have to give me some kind of approval because Council doesn't want to raise the rates, I can't get loans for anything, there's no money.

Councilman Langman – So you want us to raise the rates again and we don't have any approval for any of these, right?

Director Frey – That's not true. We have the SSO elimination.

Councilman Langman – I'm not speaking about the SSO elimination.

Director Frey – That's part of your rate increase is the SSO elimination. The head works building at the treatment plant is part of this rate increase. The sludge line replacement is part of this rate increase. Those are projects we have to do as part of this overall improvement that we can go ahead and do as soon as we can fund.

Councilman Langman – Do we have something in writing that says that?

Director Frey – We have the approval, I believe, don't we from the head works and the sludge line from EPA? Or is that Ohio.

Mr. Kiefer – Sludge line would be Ohio.

Director Frey – Ohio EPA. The SSO elimination ....

Supt. Hall – Like I say, I should have approval April 18<sup>th</sup> for the SSO elimination. I don't know what else to tell.

Councilman Langman – What it points out is we need to be kept up to date far more timely than what we are. We thought, okay we're going to pass this, these projects are going to get done, it would have no bearing ultimately on what we do at the plant, these need to be done. The EPA basically says that we can't have all these CSO's going on, etc. That's what we passed in 2008 and that's what we based our approval on. Then to find out that we couldn't do anything because we didn't have the money and then the final step is we don't have the approval. We need all this information on a far more timely manner if we're going to approve tens of millions of dollars in additional rate increases. We're just hearing this presentation for the very first time. If you didn't attend the Mayor's presentation, you're operating off the Committee meeting that was done in January. From the numbers provided the cost of the project has gone up by \$45 million from the numbers that were presented January 18<sup>th</sup> of this year. That's a tremendous jump. I'm not saying it is not worth the investment, but everything seems like it is being pushed through, we've got to do this now. The answers I've gotten are not clear, they're not concise on a lot of things. There are still tremendous variables with the improvements to the plant. I'm willing to go ahead with the SSO's and the CSO's like we assumed would happen for the CSO's four years ago. We

know we have to do that, we should do that. As far as the plant work, we need more information on this for sure.

Director Frey – Councilman, you have an estimate that was brought to date to 2012 dollars on the plant improvements. You have the 1A option is the circular clarifiers and the equalization option 3A is the membrane technology and equalization. Those are 2012 estimated numbers from our consulting engineers. One of those two projects is what's likely going to happen. The EPA has indicated to the city that they will not allow us to continue to operate in this Consent Decree the Wet Weather Treatment facility in its current configuration as a by-pass, as a swirl by-pass operation. That isn't going to get their approval. They have not given us a written conclusion but they have certainly indicated it from every phone conversation we've had with them in the last month that they are not going to approve the current use of the wet weather facility as a primary by-pass at the treatment facility. We know that we've got to do the CSO improvements. We are looking and trying to negotiate with EPA exactly what those project parameters are going to be. As Mr. Kiefer has indicated, one of the options at certain of the CSO's will be to transport that flow to the plant. Some options at some of the CSO's will be improve the current swirl concentrators. Some options at certain CSO's will be to install new swirls and finally some of the options to put in equalization for certain of the CSO's. That is all still trying to be developed with EPA. That's the CSO portion of it.

The SSO projects, we have identified the SSO's. We have plans for the elimination I believe of all but 10 more of them.

Director Bock – Somewhere around there and that would leave us I believe 4-5 remaining.

Director Frey – Our two options at the treatment plant right now are the circular clarifiers at \$97.4 million or the membrane technology at \$113.9 million. The membrane technology promises the operating reduction in cost in large part because of the pure oxygen facility is not needed, somewhere in the neighborhood of \$400,000 a year. It is why CT's report that you have indicates that it is the least present value cost is the membrane technology. It has as we've indicated in the report Mr. Kiefer gave tonight, a list of other advantages we believe is to why that's the technology that should be used. It is absolutely expensive. In any event it is going to be expensive. We're going to have to fund those improvements.

We can wait and do nothing and have no funds and run the risk of being behind on the SSO eliminations, not being able to go forward with the head works, not be able to acquire the property that we need to acquire. We can do that. We can wait for that day when we have EPA's final approval and it is all guns go and we've lost the advantage of a more gradual rate increase accumulating funding to fund the debt service on those projects. We can delay the timeframe because their clock isn't stopped.

Councilman Langman – What are we doing from a legal perspective because to wait four years and not have any approval on these CSO's is outrageous whether we had the funds or not.

Director Frey – It may well be outrageous and Mr. Hall is outraged by the lack of getting approval. The reality is we don't have that approval yet. We know what we can start and we're suggesting to you that this rate structure will get us moving.

Councilman Langman – My final question is, on January 18<sup>th</sup> why was the council presented 2010 numbers and not the most current numbers?

Director Frey – Because we hadn't updated them to the 2012 numbers.

Councilman Langman – That doesn't make any sense quite frankly. If you're asking for certain dollars from the community and you're presented that this will pay for the improvements, then you come back a few weeks later and say no, this goes up by \$45 million. Even if it is worthwhile, that creates a lot of discomfort and upset in the community and perhaps unnecessarily so. Thank you.

Councilman McLaughlin – I understand what Councilman Langman is getting at is that we gave money to have the CSO's done and it wasn't done and we're asked to put more money in for CSO's with no guaranty because we don't have approval that they will be done. I think everybody on Council understands that we need to get the money in so these projects can start. CSO's are almost a separate part which brings me to this page on the project cost at almost \$114 million. I don't see anything in that \$114 million for CSO's. That's just the membrane right?

Director Frey – That's just the plant.

Councilman McLaughlin – Okay, just the membrane. And then, to lighten the mood, I would like to say the future treatment plant that is on the north side, is there any construction cost included in this plan to eliminate it or are we just going to leave it as is, just leave those tanks sitting there?

Mr. Kiefer – I would recommend that you leave the tanks there in case we get additional requirements such as the nitrogen removal.

Councilman Van Ho – My questions are going to be much simpler. The first one is, you mentioned that there would be a cut down on the sludge, does that mean a decreased operating cost at Lakeland?

Mr. Kiefer – It would definitely be a decreased disposal cost. With the new sludge line we can look at reducing the number of shifts eventually which would further reduce costs.

Director Bock – In addition to that we're looking at running, when we put the new sludge main in, adding an additional pipe with it because the majority of cost during construction is actually digging the ditch and the pipe is minimal. Piping in and recycling the water for our usage at the plant which could be another \$250,000 a year savings in water usage on top of it. Not only are we looking at the new sludge main, we lay a water main next to it and we could possibly save another \$250,000 in water.

Councilman Van Ho – Will this new process, will there be any odor problem like there has been from time to time with the present plant?

Mr. Kiefer – I would say there would be less odor problems if anything. No more but possibly less.

Councilman Van Ho – Is there a way we can eliminate that so those people down there can use their backyards during the summer rather than have to be inside?

Mr. Kiefer – We can look into that. There are treatments that can be done.

Councilman Van Ho – I would hope that we would and we can get some type of a cost. Once you're spending the first \$136 million if we need another half million to clean up the odors for those people we might as well go ahead.

From what I understand this new plan will not affect BP at all, it will just affect the old Alexander's property is that correct?

Director Frey – It is likely that it would also require us to either acquire or get an easement from Walgreen's from the owner of that property as well.

Councilman Van Ho – What I'm saying is, 15 years from now assuming they don't pull out, we'll still have a BP station there? Is that a valid assumption?

Director Frey – Unless some other development project came along, yes.

Councilman Van Ho – The other question, we keep talking about 2008 and so forth. If we go ahead and say take this debt, this is going into an isolated fund. It is not like this money could be in any way used to subsidize the general fund or sent to any place else. It has to go for this sewage treatment improvement, is that correct?

Director Frey – Yes.

Councilman Van Ho – I will, unless something dramatic turns up, I will vote for this based on what the staff has recommended. I don't know where the money went from 2008, but it sounds like it was spent on something that benefited our system, is that a fair statement?

Director Frey – What came in was used for qualifying projects. CSO or SSO projects.

President Holzheimer Gail – We'll allow for more questions, but I do want to make sure we get to the rest of the presentation.

Councilman O'Hare – That's actually where I was leading. We talked about the call and I guess if I heard the details of the call I could kind of blend in my question with that. Is that where you're going?

President Holzheimer Gail – Can we get an update from the EPA call and the conversation?

Mr. Kiefer – From the call there three topics that were discussed at length were the MBR alternative. The EPA is willing to give partial approval of the study to eliminate SSO's, as John said, that should be coming in April. Then they asked for these additional combinations of control alternatives at the CSO sites. That's basically what happened.

President Holzheimer Gail – Did they give any feedback?

Supt. Hall – They seemed excited about the MBR technology. Again I conveyed to her that I need some kind of approval on something and she promised me she would give me partial approval on the SSO's. With the CSO's she said we need to look at other combinations. What we proposed she basically said that she didn't think that was good enough.

President Holzheimer Gail – Did they provide suggestions for what we should look at?

Supt. Hall – This could have been over day one if we just did what they want at the cost of \$200 million or whatever. Again we did the pilot program because the former Superintendent thought that was a viable alternative so we did that. We've just been negotiating back and forth with these people for six years basically. She didn't tell me exactly what she wants done, that's what she wants CT to look at, the additional combinations for the CSO's. Again I think they're happy with the membrane choice if we decide to go with that. They're going to review it, we had to send them the proposal and they're going to review it and give us comments on it April 18<sup>th</sup>. She suggested we talk more often because she's the only one, due to cutbacks on their place, she's the only one working on our case. She's working on other cases that she said are communities that are not as cooperative as we are. They've kind of taken precedent over ours. I told her we have to get something and that was basically the call. The next call is April 18<sup>th</sup>.

President Holzheimer Gail – That doesn't provide a whole lot more clarity.

Director Frey – CT is looking at the CSO's at the various alternatives. Obviously focusing on those CSO's that carry the highest volume of overflow events and what will be potential solutions or the various options, just like we did for the treatment plant. Here's one option and its cost, second option and its cost and they are putting that information together for the CSO's. The swirl technology is not technology that EPA favors. We are aware of that. However it is the technology that we have already in place in our combined sewer areas and we would like not to have to abandon like. We'd like to convince them that we should continue to use the swirls in the system. In fact our original plan that we presented was to increase the number of swirls because they can be done in the public right of way generally. They're less expensive to construct and they are hydraulic, there's no mechanical component to them so they are also less expensive to maintain and operate. Those are the alternatives that the CSO's that Phil and the staff at CT are evaluating and will be providing that follow up information, much like we did for the treatment plant alternatives.

President Holzheimer Gail – Something that you said, I want to just make sure is clear. The EPA has said you can do a certain level of replacement or new technology but we're negotiating to get a better cost for our residents. We could do certain things that are well above the cost prices that we're looking at, is that fair to say?

Director Frey – Absolutely we could.

President Holzheimer Gail – The process of why we don't have approval and the process of negotiation is because we're trying to do this while maintaining the integrity of the water going out, making sure it meets the standards. We're trying to propose alternatives that are less costly in order to save that money for our residents. I think that's an important distinction to say. It is not that the EPA hasn't said this will work. It's what will work is a much more costly option.

Director Frey – We are also trying to, if you will, leverage the membrane technology at the treatment plant for perhaps less expensive alternatives in the combined sewer areas. That's not something we want to give up on. We would like to use the improved technology at the treatment for two purposes. One, to phase in equalization at the treatment plant and perhaps if we're very good be able to eliminate the second of the equalization tanks but also to look at the total quality of our discharge into the lake and say that maybe swirls aren't the favored technology or they don't produce the cleanest outfall. But when you combine that outfall level with the plant's outfall level, that total is so much, and it is within the limits set by the EPA that accept this technology in our combined sewer areas. That's where we're having the back and forth. We are obligated to look at the various alternatives.

Councilman O'Hare – I apologize, it is not a question, it is not a rant, but it is probably somewhere in between. Are we driving towards a technology or an outcome standard? It seems like in a lot of things that I do, wind up saying it is not the medium it is the message. Or it is not how you get there it is where you need to get there at the end. If we're looking at standards that are based on the effluent going out into the Lake, honestly what does the EPA really care, how can they legislate that, or is that exactly what is going on? What matters is that pipe that is going out, the effluent at the end of the lake, or is that oversimplifying?

Mr. Kiefer – The Justice Dept. in the initial go around said they want the effluent coming out of Euclid, out of the pipes to either make the Lake meet water quality standards are at least not add to the impairment of the water quality standards. They had an outcome based solution that they wanted. EPA wants more of a technology based solution. They want the best technology that they can convince the city to implement.

Councilman O'Hare – That probably defines some of the rock in the hard place that you're in and it is just mind boggling to me of where that goes. Who issued the Consent Decree the Justice Department or the EPA?

Director Frey – The Consent Decree is approved by the Justice Department by the US EPA by the Ohio EPA and by the City of Euclid. It is then lodged with the Federal Court and it was open for inspection for a period of 30 days before the Court acted on it. The Court in our case accepted the Consent Decree. It is not uniformly the case. As you undoubtedly know, the District Judge that had Akron's case rejected theirs. They had to go back and rework the Consent Decree with the US and Ohio EPA before the Court would approve it.

Councilman O'Hare – Regardless it is a combination that we have to live with. It is a combination of technical standards as well as the technology which some people are apparently enamored with and they really want to push an agenda one way or the other sounds like.

An unrelated question, with the CSO's, SSO's, we know we need to do that. We know apparently that there have been issues before whether it was from revenue shortfall or whatever it was in applying all those funds and/or communicating with Council, here's what we thought it was going, it didn't go to all that. We do know we do need to do that portion. We know that their eyes kind of glaze over, the EPA kind of glazes over and gets a happy feeling when we talk about membrane and they say that's good. We talk swirl they say oh not so good. No matter if you can put clean water out in the end. Swirl bad, membrane good. So we know how to work that through. When would we get to the point with actually installing, going out for a bid, and doing engineering and installing the membrane? The reason I'm asking that is just as the prices come down dramatically on the membrane technology in 1, 2, 3 years. If there's more people jumping in on this, there's more standards, would it not behoove us to wait as long as possible before we actually pull the trigger on that. Knowing that we have to do the CSO's and the SSO's and some of the modifications of the plant. We can wait as long as we wish if the structure is already in place, we know we're going to an existing building. I know it needs to be phased in because you have to account for, you just can't do it in one week because if you have a big rain then you're in big trouble, I understand that. The thought is we would wait as long as possible, is that correct?

Director Frey – I think that's the sense Mr. Stinehelfer has provided to us that there are some things that we would need to do right off and there are some other parts of this project that we should do then next. I think you make a good point. If the pricing continues to drop on the membrane technology then waiting was a big advantage to us. At some point we'll have to start it because there's a fair amount of engineering work before you actually go out and bid the technology. Before you go bid the cartridges, there's an awful lot of engineering work. That part will get started ahead of time.

Councilman Van Ho – A little bit back you had mentioned it when you first started out negotiating this was about a \$200 million price tag and you've gotten down to \$136. Did I understand that correct?

Supt. Hall – No, when we first started it was only \$780,000 is what we proposed.

Councilman Van Ho – Somewhere I heard the number \$200 million.

Director Frey – Mr. Hall used that number to say if we would have agreed we would have had final EPA approval right off the bat. If we would have taken the most expensive approach or if we allowed EPA to tell us everything we're going to do and we'll do it, we probably would be spending \$200 million.

Councilman Van Ho – This process has in effect saved up probably \$60 million?

Director Frey – Yes. We're going to continue to push what we believe is the right combination of alternatives for the CSO's.

Councilwoman Jones – You mentioned in the phone conversation that the EPA gave partial approval to eliminate SSO's. What is partial approval mean? Does that mean the number or the process, what does that mean?

Supt. Hall – What EPA wants to give us is a holistic approval for the whole plan, for the no feasible alternative at the plant, for the CSO's and SSO's. They want it all at one time is what they want to give us. I said I can't have that, nothing is getting done period. The SSO's have to be eliminated, it is not a question. She said she would give partial approval for that. It is partial approval for the SSO EP, Sanitary Sewer Overflow Elimination Plan. She would give us that.

Councilwoman Jones – Partial approval of the whole plan, the SSO part.

Supt. Hall – Would be approved, right. She said she would give it to me in writing April 18<sup>th</sup> is what she said they would approve the SSO EP April 18<sup>th</sup>.

Councilman Langman – Law Director Frey, what role do the courts have to play in this? Obviously we've been at it a very long time and everybody is frustrated with it so can the courts speed up? I don't hear that we're proposing anything that is so outrageous or outside the box that we're polluting the lake more.

Director Frey – We're not polluting the lake more say for an extraordinary wet year last year where the wet weather facility was used far more than it would normally have been used. Certainly more than a typical year. If we do not come to an agreement on the holistic plan as Mr. Hall has referred to it, the dispute mechanism is for us to go back to the District Court and say here's where our negotiations on a resolution have broken down and ask the court to listen to essentially the expert arguments as to why this approach is the better approach versus this approach. Then the Court will make that decision.

Councilman Langman – What's the timeline for engaging in that?

Director Frey – At the point where we get to a situation where EPA says we're not approving your plan. Or this is the only plan we will approve and the city's says we're not accepting it. That's the point. The stumbling block is likely to be the CSO's.

Councilman Langman – I'm going to assume that over the period of time since the Peterson increase in 2008 we've been in contact with EPA about the CSO, is that a fair assumption?

Director Frey – It sure is, yes.

Councilman Langman – How many hours do you think you've been engaged with the EPA to try to come to some kind of agreement to move some of these projects forward? How many months out of your life has this taken over for you Law Director Frey?

Director Frey – I've spent a lot of time on this project. I'm going to say, my time that I've spent on this project has been internal meetings, in discussions with our outside legal counsel and discussions with the US Attorneys office. I've been less involved in the technical conferences, in fact I have not been involved with the technical conferences with the US EPA. Certainly we have internally reviewed where we are and what we are submitting to EPA but I have not been involved with those technical calls or the plant visits that EPA has conducted. I couldn't tell you how many hours I've spent on this, it has been a substantial amount of time on it and I anticipate I will continue to spend a substantial amount of time on it. The bigger time constraint is the engineering work that CT has done and all of the modeling that has gone on. The data collection analysis and modeling and I can't tell you how many hours that is because I don't know.

Councilman Langman – My point is you've already spent and the team has spent years and years with this, isn't it time to engage the dispute resolution mechanism? It sounds like the CSO's this could drag on for a lot longer.

Director Frey – I don't know that we're at that point because we have not gotten a determination back from EPA saying this is what you must do with the CSO's. We are not there yet, she has not given us that answer. I know that's a frustration. What she has said to us is that we have to provide alternative options for the various CSO's and CT is working on that portion of the update to the plan now. I think we're going to have to submit those, then we're going to be where we were today with the plant. Here are the alternatives for the plant, they're pretty clearly defined. There's flow charts for them. This is going to work or this is not going to work. We can come to that understanding with EPA. We aren't there on the CSO's yet because what we proposed to them essentially is swirls and they're saying we don't want swirls or we certainly don't want them exclusively as your only option.

Councilman Langman – Did they say that in your earlier conversations?

Supt. Hall –No.

Councilman Langman – I kind of feel like we're at the carnival where the pea is under the shell and you don't know where it is.

Director Frey – That's a fair comment. It has been very difficult to get pinned down. On one hand you're afraid to ask certain things because you don't want the answer that has the \$200 million price tag to it. You're careful in what you ask. We are trying to provide this thorough comprehensive analysis of the different options with the CSO's so we have the basis to say, if we do this combination of projects at the CSO's and this plant improvement and these SSO projects that are total effluent quality will and I would imagine we will be seeing is improving the lake quality. Hopefully at that point we get them to agree.

Councilman McLaughlin – As far as the membrane technology goes, I'm sold on it. There are at least three major players that I've researched that have done municipalities of our size that we can get competitive quotes from that will tell us what the best material for the membranes and the frames for the cassettes and everything is out there. I think the technology is viable. What seems to be the problem here is we have a vote coming up. Correct me if I'm wrong but these increases will be about \$70 million worth towards the total project, is that correct?

Director Frey – The increases in the base user charge, the capital charge and the rate associated, the change associated with the Peterson will fund both the improved maintenance of the system, offset the reduction of consumption at the plant and about \$70 million of the capital improvements.

Councilman McLaughlin – We can eliminate the problems with these CSO's and we can just throw those out for right now and say that this increase will be to satisfy x, y and z and some firm numbers on what we think this \$70 million is going to accomplish. If we want to say that we're going to put a portion of it so we get a better bond rating or whatever for future CSO's that's fine. I think with the work we need to do with the SSO's and the engineering work that needs to be done for the Waste Water Treatment Plant, we have enough that we can actually line item what this money, what this increase is for. That will eliminate some of the confusion and some of the questions that we might have of, we don't have approval from the EPA, why are we giving the money now. Unless you specify that we know we have to do it and say this portion is so we can accrue some money because we know we have to do it. I'm looking for a line item of where the \$70 million is going and if we knew it was finite and knew it was going for we'd probably be better apt to approve it. That's all, thank you.

Councilman Gilliam – Just a couple of quick questions. Director Frey, you said the EPA wanted CT consultants to provide alternatives to the controls of the CSO's. I guess are you aware of how many alternatives were provided? The second question would be, when CT Consultants were saying Delphos and Union-Rome and Canton, did they have the same type of impediments when you were trying to process and doing the work with those particular entities? What I'm hearing is and please correct me if I'm wrong, what I'm hearing is that EPA wants something that they haven't defined yet we haven't given them anything to the extent that maybe could push this along. I'm not saying the work wasn't done, but when I hear that we have to provide various alternatives for the control of the CSO's, how is it that other entities that CT Consultants has worked for has been able to do this and we just seem to have all these impediments and hazy or nebulous conversation? Those are my two questions. One is, how many alternatives have been submitted? Secondly, to CT Consultants, how were you able to avoid this situation with those other four sites that you mentioned?

Director Frey – On the one part there's Ohio EPA and US EPA, those treatment facilities that empty into the Great Lakes are being managed through their consent decrees by US EPA. Those facilities that flow into eventually the Ohio River are being managed by the Ohio EPA, if I understand the breakdown. The Rome and Delphos are river facilities.

Mr. Kiefer – We dealt with Ohio EPA, on those not US EPA, big difference.

Director Frey – There's a substantial difference in the two organizations. I know that we have provided alternatives for the CSO's, but our preferred alternative, just like our preferred alternative initially presented for the treatment plant was the chemically enhanced wet weather facility, the swirls at the wet weather facility, we were presenting to EPA our preferred alternative for the combined sewer areas was the existing swirls with disinfection and installation of new swirls. Now, EPA is providing feedback to that long term control plan saying we're not in agreement you're going to have to provide us data on alternatives for those combined sewer areas and that's what we're doing.

Mr. Kiefer – For each of the existing CSO sites we looked at 18 alternatives to date. Some of these were the same alternative with different number of overflows. Zero overflow, one overflow, two overflows. There were actually 18 done so far.

Councilman Gilliam – With 18 alternatives, EPA has not approved any of them?

Mr. Kiefer – They want to see more, yes. Different combinations.

President Holzheimer Gail – Are there other, the other sheet and I do want to allow for questions from the residents. There is another rate structure.

Director Frey – I provided to Council tonight the information that we received on Friday or late Thursday from Bob Fink in trying to determine rate structure necessary to fund the entire \$134 million. As you can see that new rate would be \$2 an mcf higher than what we have in the legislation that's before city council in (018-12). We are not proposing that, but I know the question was, what will it take to fund the entire project and I wanted to provide that data to you. As I indicated to you when we introduced this legislation, we know that we have to come back and we know that we've got to fund the whole of the project cost. At some point going forward, we would like to wait for that second part of this until we have approval from EPA. We can get past the point of knowing or speculating on what we have to do and not do and actually have that kind of approval. If we don't have that kind of approval for the whole of the project but we know we're going to have the approval for the treatment plant and the SSO's and related engineering work for that, then we can cost out that next step in the project cost.

What I am going to propose to city council is I would send out an amended legislation, does not increase the Euclid rate, it does correct a typographical error in it. The Euclid rate would stay. This is in item (018-12), the Euclid rate would stay at \$32.68 and I took out any reference to future rate increases knowing that we will have to come back. On the second page where we have the rates for the master metered communities, there's an adjustment to the master meter charge, there's an adjustment to the other Cuyahoga County communities and an adjustment to the Willoughby Hills rate so that we are reflecting the amount that's being charged into the Peterson fund which is Euclid only projects for the maintenance and again reflects that 55/45 ratio on the capital projects. 55% charged to Euclid; 45% charged to the other user communities. On that legislation I struck out the future rate increases because we'll have to come back with a separate piece of legislation later this year for that. I'll send that out electronically tomorrow and get it to the Council clerk and I propose that (018a-12) is what I would like council to consider for approval on Monday night.

President Holzheimer Gail – So this rate increase form we have in front of us is really information. Not the recommendation at this point to move forward.

Director Frey – That's correct.

President Holzheimer Gail – The other piece that we really haven't talked about was if we start some green technology at the same time, looking at separating storm drains and things like that and offering incentives, that may make the operation even less water going into the plant, that would give us some time to see if some of those activities work and hopefully create even less of a need.

Director Frey – We review the rates every year. If we can through improved practices or through as Director Bock has talked about obtained more in grant funding that will affect the rates. While we are asking Council to improve a rate structure that's effective for the second quarter of this year and we have an analysis that shows what the rates will need to be going forward, those are subject to change every year should circumstances change. So should we reduce the inflow into the system through green approaches, that would impact the rate. If we were to get a higher ratio of grants to capital funding, that would affect the rates.

President Holzheimer Gail – If we were able to get an extension on the timeframe?

Director Frey – If we got an extension on the time with EPA that some of the communities have been pushing the US government that would be an impact on the rates, yes.

Councilman Langman – To the team, I'll ask the same question I did in 2008 when we had those discussions. The economy is still weak, so do you feel the rates proposed are enough to do what is required at least for this first phase?

Director Frey – Mr. Hall is going to tell you no that they're not enough. Mr. Fink would probably tell you no that they're not enough that we ought to be going up to the \$60.17 per mcf. I'm going to suggest on behalf of the Mayor and Director Bock that we know we are going to make a substantial increase in the rate. We realize there is a hardship anytime that there's a substantial rate increase. The fact that we have not increased the operating rate for the plant for 2000 doesn't make this increase in 2012 any less difficult to assimilate. We propose this rate increase, trust that Council will approve this rate increase, fully knowing that we're going to come back with the other portion of the rate increase to take us all the way to the end. That we are going to do this in multiple steps. It is not enough today by any stretch of the imagination. It is not going to fund the whole of the project, but it is enough to get those grant funds and those loans moving to get those SSO projects going. It is enough to get us started on the engineering work for the head works building and the sludge line. It is enough to get us planning and starting the maintenance program that we have to do. It will provide some offset for the loss of consumption. It is not going to make the system whole.

Councilman Langman – That changed at least from the comments that were made in January where we had the range of potential improvements based on 2010 numbers. The fees proposed were not enough to just about get us there then.

Director Frey – To our alternative, our preferred alternative.

Councilman Langman – Preferred alternative based on 2010 numbers.

Director Frey – Correct.

Councilman Langman – That's what's changed between now and then.

Director Frey – The alternative is different. The timing is different, absolutely those have changed.

Councilman Langman – So I understand how we need to accumulate funds then to begin to implement projects and borrow money, etc. Based on the membrane technology, do we have enough time to actually install that plant within the timeframe of the consent decree?

Director Frey – Mr. Stinehelfer estimates that takes about 6-8 years in phases to get that fully in place. Yes we do have the time.

Councilman Langman – My final comments and you touched on the whole green infrastructure approach, keeping water out of the system. Communities have done that around the country in adopting it and it is not as simple as planting a tree or disconnecting a downspout although that's a part of it. Communities like Philadelphia and Chicago and Washington and Cincinnati, Lancaster, PA, have adopted on a dual track along with the gray infrastructure the plant, the pipes, whatever clarification technology you want to adopt, they've also adopted a green approach. It is a dual track approach. Anything we can do to keep water out of the system, I think we have to explore, not necessarily we'll do a test case here or there. I think you need a whole systemic approach to see where if at all this type of technology can be a benefit to the rate payers of the city and the surrounding communities.

I know I've talked to the Law Director about some of this and hopefully the administration is interested in it. There are communities willing to discuss how they were able to cut their total investment by adopting some of this green infrastructure. It is a fascinating approach to it and anything we can do to reduce the burden on the rate payers we really need to explore. It will cost money to do a systemic approach or a system evaluation, but I think it will be money well spent considering that the cost of the alternatives have jumped up quite a bit in a relatively short amount of time.

What I would like to see us do as a part of this approach is number one, most of these communities that have adopted the green infrastructure approach, also have a rather substantial website presence that instructs homeowners and residents how they can mitigate storm water on their property. We've heard about rain barrels and cisterns and downspout disconnects. As far as I can tell we really don't put out anything to let people know in the community that they can do this. Without putting a burden on the neighboring property owners.

We also need and this is where the engineering comes in, we need to know where we can begin testing things like permeous pavement, green roofs, bump outs on our major thoroughfares because in most older communities what you're doing is retrofitting streets and playgrounds and parking lots so that the water does not enter the storm system. I don't know if it is CT's role and they can do it or they can partner with somebody, but I strongly suggest that if we're going to approve these rates that we have some mechanism to begin an overall approach to see whether green storm water infrastructure can be a benefit to us. It may not, but we need to investigate that alternative. Thank you.

Councilman McLaughlin – To go forward with Councilman Langman, I think the best place to be to where the areas where we have combined sewers would make the most sense to run a pilot program there. Thank you.

Director Bock – We have been very active in the storm water areas. We have brought on Cuyahoga County Soil & Water. They review all our storm water plans for all new construction in the city. They are very excited with the approach we have taken as is Euclid Creek Watershed Council and EPA who I just met with. All four of our schools have adopted storm water practices with bio retention basins, bio swales, they taken green approaches. Mount St. Joseph's nursing home has many of the bio retention basins and have signed on for long term control and inspections there. Ferzenious on Euclid Ave. has done the same thing. We have done a lot of retention on all new construction going back as far as Home Depot has underground retention underneath the parking lot that the city had them install in order to lessen the impact on our plant. We have been working hard on it. I am now working on some Swift grants for work possibly at Shore and some other locations for storm water improvements. CT is very involved with green infrastructure work and we hope to incorporate some of that with the plant. I'm working very closely with them on that. It is something we have been involved in and continue to be involved and we'll continue to do so as much as possible.

President Holzheimer Gail – I do want to all resident questions. If you have comments or questions come on up. While you're doing that, there are a couple of things that I heard council would like information. One was the size of the cartridges and the membrane and the number of cartridges estimated in these numbers. The other was data from other communities that use the membrane technology regarding maintenance and any issues that came up. It would also be helpful to see the change in operating costs from those plants. I know they're not the same size but if we could some data on the impact of membrane technology on their operational costs. Councilman McLaughlin had asked for a breakdown of the \$70 million, what does that cover. If we could get a summary of the Peterson fund, what that has funded since the increase in 2008, what projects have been completed. Thank you.

Mr. Jeffrey Beck – 25540 Chatworth. I've got a question – and then a couple of comments. I'm a novice at waste water I've learned more about it in the last few months that I care to ever learn. But, to bring it

down to simplicity, this membrane technology is like an air filter in the furnace. It takes in the dirty air, cleans it and puts out the clean air, is that correct?

Mr. Kiefer – That's very correct, yes.

Mr. Beck – I know one of the criticisms of this membrane technology has been that over time this membrane gets clogged and there's a decrease in the flow of water going through it. My question is, if it is 66 MGD on day, what's it going to be 4 years down the road, 5 years down the road, all the way up until the time you replace it? I would guess at the end of 4 years if it is an 8 year cycle, you're going to get 50% of the flow through it than you would on day one.

Mr. Kiefer – That's not quite true. First of all they're designed to have air bubbles going up against the plate to help keeping it from getting clogged to begin with. Periodically they get back washed so you wash out anything that's clogging them and that restores them back to their original capability.

Mr. Beck – Well then if you can backwash them and restore them to their original capability every so often, why would you ever replace them?

Mr. Kiefer – They do wear out eventually over time.

Mr. Beck- That was my question, what would the flow be in four years or five years, are we going to see a decreased flow because they're starting to wear out? They don't go from 100% to 0%, they must degrade over a period of time.

Councilman McLaughlin – I think they actually can fail more because they start getting holes in them and more flow goes through them.

Mr. Kiefer – That's a different type of failure that you want to avoid.

Councilman McLaughlin – There's a material life that the life is gone. I think they'll put differential meters on it to know when the life cycle is time to change it.

Mr. Beck – One of the criticisms I read on the internet was just the fact that there was a decreased water flow after a period of time. That's what it said on the internet. I had a couple of comments. After hearing what Councilman Langman talked about in 2008 when you approved a Peterson fund increase, which hit every taxpayer in the city including myself. The only difference between then and now is now you're being told that you don't have approval to do these projects and then you were. You thought you had approval and you passed the increase because and now you can't so, I don't know why you're going down this path again. Why do you need \$70 million upfront if you don't even have approval yet? Why can't you do it on smaller steps from that point? I just think that you're biting off a lot more than what we need right now.

This is no criticism to CT Consultants but if it is the US EPA that is kind of muddling the waters here, shouldn't we be looking at a firm that's dealt and negotiated with the US EPA in the past? Just a thought. I know they said they haven't, that it is a much different ball game than it is with the Ohio EPA so maybe we need to bring in somebody else so we can get this thing done. Thank you.

Director Frey – Chris Jones former head of the Ohio EPA is an attorney with Calfee, Halter & Griswold in their Columbus office and he has worked extensively with the US EPA in his role as the head of the Ohio EPA and has negotiated on behalf of communities with US EPA and is our representative on this case. We do have individuals experienced dealing with the US EPA. I will readily admit the time process involved with the US EPA differs significantly from what everyone's experience is with the Ohio EPA. Whether it is because Region 5 is in Chicago and deals with all of the Great Lakes. Ohio EPA is dealing essentially with those treatment plants that discharge ultimately into the rivers that lead to the Ohio river is a much smaller area to cover.

Ms. Mary Jo Minarik – 18870 Abby Ave. The first thing I wanted to do was apologize for my involuntary outburst in the audience. It was not directed at anyone in particular, it was addressed at the fact that council approved the Peterson increases which took \$5 million out of our economy, based on and I quote the Mayor when he said that, I think it is important that since we do realize that these 17 projects need to be taken care of that we show some good faith with EPA and we are willing to cooperate with them. He guaranteed that the 17 CSO's would be taken care of in November 2008. Now knowing that money, that \$5 million was transferred to projects that Council did not approve at the time and that basically we were, the council at that time was mislead, makes me wonder if the council now in front of me is also being mislead. We now hear about a membrane technology. There are alternatives to membrane technology, I'm sure that are even better.

My question now is, just before I start ranting. I would like to know how much \$1 mcf brings in, approximately. I know what it was in 2008, I would like to know if it still brings in about a quarter of a million dollars. That's what we were told back then.

On the Issue 1 projects that we need now to fund, when the State of Ohio approves grants and 0% loans, you can answer this when I'm finished Mr. Bock, doesn't the City of Euclid have to show that they have the funding in place before the State says yes to Issue 1 monies? If that's true, I'd like to know why the money isn't there any longer.

Then I understand and this is to Director Frey possibly, from a previous meeting it was admitted the Two Mil Sewer Levy, the \$500,000 that the voters rejected, has now been somehow put into these increases. I would like to know one, which part of the \$12 or so increase is it in OM&R, is it in capital or Peterson or waterline or billing? I would like to know the rationale for slipping in the \$500,000 increase after the voters specifically said that they didn't want it. So now the administration is going well again, the administration is going, we know better, we will overturn your vote. This is the second time that's happened.

In terms of the OM&R, Councilman Langman had asked about a line item which listed other costs, that being \$1.9 million. Part of that in the breakdown, medical insurance and prescription was \$490,000, which seems an awful lot. But it seems that is spread over citywide. So, have that combined with general fund central services of \$286,000 which include Payroll, Finance, Law & Service Director, services provided to the Waste Water by the general fund. My question, this is to address the surrounding communities who pay one-third of these charges. Is it fair to those surrounding communities for us to take an average of healthcare costs and divide it by the number of employees in a department so that supposing Waste Water is only using 10% of the self-insurance fund, why would the surrounding communities be required to pick up the tab that other departments are using? Then when we get to finance, law and I understand Service Director, a portion of that, but Finance, how many hours, do we have someone who Waste Water Treatment pays for and is that 100% of this person's salary and benefits or it is pro-rated based on how many hours per week these people put into the Waste Water Treatment plant? I think that's pretty much it.

One more question, Senator Sherrod Brown brought up about 2-3 weeks ago that he is proposing legislation that whenever the EPA comes in with these unfunded mandates the Federal government is going to be required to pick up a portion of the tab. I was wondering in light of that coming forward, another reason perhaps to postpone paying for all of these. The CSO, SSO elimination, which fund is that coming out of, which part of the fund is that capital or OM&R? If you got all those questions I will now sit down and await your responses. Thank you.

Director Frey – As I indicated earlier to the last question. If there are changes in the grant formulas that will affect our rate and certainly can be factored and will be factored into the rates. We know we will spend at least the \$70 million in capital that this first rate increase is designed to cover. My best estimate is we will spend more than that in capital dollars. Certainly when we look at this and we look at the \$70 millions, a third of that is grant, a third is low interest loans and a third was debt financing. The low interest loan repayment, the debt financing comes entirely from user rates. There is already factored into this \$70 million calculus pay a significant grant portion. We're hopeful that grant portion will increase and it will decrease then the overall rate that is necessary. There's no question that we're going to spend at least the \$70 million that is envisioned in this first rate component.

Why the percentage of my salary or the law department and healthcare insurance and so forth that is allocated to Waste Water. I think Councilman Langman answered the question, he didn't ask it but he answered earlier on how many hours have I spent on this and how much time has Director Bock on this. It has been significant and there is going to be a post Consent Decree and there was a pre Consent Decree period where we didn't spend as much time. On average as verified and determined by the rate analysis we're spending some percentage of our time associated with waste water with collective bargaining issues, or grievance administration or the financing of everyone of these projects with the bond underwriter and bond counsel. There is a fairly significant administrative cost that is pro-rated to that department as a percentage of the overall cost of administration of the city government, including the health insurance. We do not break health insurance down by individual department. Because we are a claims paid system, we would have to track the how ever many employees and family members receive healthcare coverage to the City of Euclid and capture that data and assign it to each department if we were going to do that. We've chosen not to do that but to treat it as a non-departmental charge. Some portion of that and my guess is, and it is a guess on my part but predicated on the number of employees that are in Waste Water gets allocated to Waste Water. I don't know if I remember any of the other questions, so I'm hoping my colleagues do.

President Holzheimer Gail – Do we know how much \$1 mcf brings in?

Supt. Hall – For Euclid resident, obviously it depends on how many mcf's are used, but say in a year 160,000 mcf's 2010, so it would generate \$160,000, \$1. But again, if we take before the Peterson rate increased, let's say you have 200,000 mcf in 2008 before the rate increase at \$3.88, I don't know if you have your calculator. Just to show what I'm talking about, if you had 200,000 mcf times \$3.88 in 2008 and then say 2009 we collected 160,000 mcf at \$5.88 because of the \$2 increase that generates \$940,000. So you're talking \$163,000 extra for that \$2 rate increase and that's all. We were hoping to generate

based on 200,000 mcf \$400,000. It didn't materialized obviously the way we had planned. Again if anybody can tell me that they saw what happened in 2008 coming, I would say you would be a very rich man.

Director Frey – There was one question on what happened to the Two Mil Sewer Levy. Yes, the Two Mil Sewer Levy was defeated at the ballot. We nonetheless have the requirement that we maintain our sewer lines, our storm and our sanitary sewer lines. We've built into this rate the cost of maintaining those storm and sanitary sewer lines. That's what the MOM program is. It requires us to maintain the local collection system, that's being charged to Peterson. It requires us to maintain the trunk system and that's being charged to the overall plant system so the outside communities pay their portion. That is a requirement of the Consent Decree, the MOM program is a requirement of the Consent Decree and we have to fund it. It is part of the overall rate structure.

To answer the second part of that question, it would be in the ordinance (018-12) and it would be included in the user charge, \$24.64 user charge. It would also be, a part of it would be in companion piece (019-12) that increased the Peterson rate to \$13.88 mcf. A part of the Peterson fund is the MOM on the local lines. A part of the \$24.60 rate is the maintenance program at the trunk lines.

President Holzheimer Gail – The other question was, Director Bock, when you're applying for Issue 1, do you have to commit the match at that point?

Director Bock – No we do not. The only thing that's required on that application is we identify how we will pay for funding, whether it is user fees or an assessment or something like that. They're identified as user fees and we show the legislation for our rate fees and so forth as proof that we're collecting user fees. That's the only thing that stated in the letter. Until we do a final acceptance letter to the State identifying which fund and the Finance Director would sign off at that time.

President Holzheimer Gail – The last and you may have answered it already, Director Frey, which part of the rate is the elimination of the SSO's and the management of the CSO's? That comes from the capital component.

Director Frey – The SSO & CSO will come out of capital dollars. Some of that is going to be Peterson and some of that's going to be plant depending on what it is that is being eliminated. I don't know which portion of those total projects will be Peterson and what portion will be 510.

President Holzheimer Gail – Final questions, comments from Council? We do have the piece of legislation regarding the membrane technology. Does that have any impact at this point going forward with the EPA?

Director Frey – No we submitted the alternative 3 A to EPA. It was transmitted Friday of last week. It outlines that as an option. It also included an upgrade to the clarifiers to both include equalization. We've submitted that. It is up to Council. If Council is determined after this evening's meeting that the membrane technology is the approach that Council wants us to focus on, that would be the purpose of this Resolution and you can send it back to the full Council for next Monday for consideration or you can choose not to do so. We've now submitted to EPA alternative 3A which is the membrane technology.

Councilman Langman – Just for the record I do support the membrane technology. It looks like it can do the job to a higher level than the clarifiers. Obviously there's a very real impact the clarifiers have on the neighborhood. In hopes of avoiding future costs because we know the EPA will be back, the membrane technology is the way to go. I don't know if we want to send back the Resolution so everyone is on record or not.

My final comments about the green technology. I would only suggest you need to do a comprehensive study because just doing a test project at this point won't really help us. By the time you do it, install it and evaluate it, we're going to be deep into a lot of this stuff. The planning for the membrane technology. I wouldn't bother at that point. Either you do a comprehensive analysis and then you can begin or you don't do anything. Those are my comments, thank you.

Councilwoman Scarniench – I, too agree the membrane technology is the way to go. Disrupting the neighborhoods and everything that will happen with that, that's not good for Euclid at all. My question to Director Frey is, if we did not approve this on Monday, does the Waste Water Treatment Plant close down? Do we have the money to run the plant?

Director Frey – You're talking about the rate increase?

Councilwoman Scarniench – Correct.

Director Frey – We have money to run the plant based on what we collect through the Cleveland Water Dept. We would not have the funds to start with the project improvements that we've identified that Director Bock identified as having grant components. We don't have the local match for that. Nor do we

have the engineering funds to work on those projects. Without the rate increase on Monday night, one we can't collect it for the second quarter, it will be too late. Secondly we have a whole list of projects including the SSO eliminations that we would not be able to fund.

Councilwoman Scarniench – Next part of my question is, is it in June that we approve again the lighting fee? Is that done yearly in June?

Director Frey – I thought that was September but I don't remember.

Councilwoman Scarniench – We did it in June because they had to be notified before September.

Director Frey – We have to get the assessments to the County in September I believe.

Councilwoman Scarniench- At this point in time, I would like legislation drawn up to eliminate the lighting fee. I know we cannot say we can't pay for the sewers, I understand that. But people don't have this money. I don't know how the rest of Council feels, I know how a few do, but you can't get blood from a turnip it doesn't work and people don't have it. There has to be another way and this is one of those things that we have to do. I understand that. As far as I'm concerned, eliminating that fee, we have negotiations coming up, there's lots of things that we can do to lessen that blow on our residents because they just don't have the money. I would appreciate having that done.

Director Frey – Do you want that for Monday the 19<sup>th</sup>?

Councilwoman Scarniench – The following meeting will be fine.

Director Frey – Why I'm asking the question Councilwoman is because you have the budget for 2012 on Monday the 19<sup>th</sup>.

Councilwoman Scarniench – Correct, but that finishes this year.

Director Frey – I understand that. If we're not going to have the street lighting fee, I would suggest, I understand it is for next year, I would suggest that we need to look at amending the budget then at some point this year to eliminate some of that expense because we're going to lose an additional \$900,000 next year in Estate tax. If we lose another \$800,000-\$900,000 in the street lighting fee then we have a budget gap next year to overcome of \$1.7 million. I would caution.

Councilwoman Scarniench – Will you go ahead and put it into Committee and we can talk about it. Thank you.

Councilman Van Ho – Any resolution of that type, I would like to see what we're going to have to cut. If we're going to take \$900,000 out are we cutting 5 cops, 5 firemen, are we cutting parks? Where are we cutting because there is no free lunch and the Mayor is going to tell you that our budget is pretty close as it is so it is going to have to be people that are cut and programs that are cut. I would just like to know what I'm cutting before I would vote to do away with that lighting fee.

Councilman McLaughlin – Although it maybe moot at this point but I would like to move to send the Resolution back to council. The resolution for the membrane technology with recommendation for passage.

Councilman McLaughlin moved (039-12) to full Council with a recommendation for passage.  
Councilman Van Ho seconded.

President Holzheimer Gail – For the record I will remind you this is Resolution (039-12) A resolution supporting the use of membrane biological reactor (MBR) technology as the preferred alternative to be presented to the United States Environmental Protection Agency (EPA) for wastewater treatment in Euclid regional sewer system.

Councilwoman Jones – I would like to know if we can have some of the questions answered as far as the numbers that we have, how many cartridges does that include and how many cartridges would this be, we would be calculating for? How much would additional cartridges cost if we needed that?

Director Frey – I anticipate we'll have all of that information to you before the end of the week. The whole list of questions that were asked tonight.

Roll Call on Motion:

Yeas: Gilliam, Scarniench, Jones, McLaughlin, O'Hare, Langman, Van Ho, Holzheimer Gail.

Res. (039-12) to full Council with a recommendation for passage.

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President Holzheimer Gail – Any final comments Director Frey or Director Bock?

Director Frey – As I indicated we will work with CT and our staff to get answers to these questions including a list of capital projects that will comprise that first \$70 million and have that information out before the end of the week.

Councilman Langman moved to adjourn. Councilman O’Hare seconded. Yeas: Unanimous.

Meeting adjourned.