THE CITY OF KENT, OHIO
STREETS, SIDEWALKS, AND UTILITIES COMMITTEE
WED., MARCH 3, 2010

This meeting of the Streets, Sidewalks, and Utilities Committee of Kent City Council was called to order by Michael DeLeone, Chair, at 7:00 p.m. on Wed., March 3, 2010.

PRESENT: **MR. AMRHEIN, MR. DELEONE, MR. FERRARA, MS. SHAFFER, MR. VALENTA, MS. WALLACH, AND MR. WILSON**

ALSO PRESENT: **J. FIALA, MAYOR; D. RULLER, CITY MANAGER; J. SILVER, LAW DIRECTOR; L. COPLEY, CLERK OF COUNCIL; G. ROBERTS, SERVICE DIRECTOR; AND S. HARDESTY, WATER TREATMENT PLANT MANAGER**

ABSENT: **MR. TURNER & MR. KUHAR**

Dave Ruller, City Manager, explained that the first item, Area Q Storm Water Project, has been deferred until a later date. He said the next item were the annual reports from the Water Treatment Plant and the Water Reclamation Plant. He said with the budgetary challenges, and the rate increases, he thought it would be a good night to share this information more publicly. Mr. Ruller said he felt it was a good time for everyone to hear from their plant managers about the financial situations and challenges they are facing.

Steve Hardesty, Manager of Water Treatment Plant: Mr. Hardesty said he would be providing justification and cost support of their budget for the last six years. He displayed their Operations and Maintenance budget for 2007, 2008, and 2009.

Mr. Hardesty said their travel and transportation consists of trips to Columbus, seminars and training. At this time Ms. Wallach asked if he would provide them with a copy of his powerpoint presentation, and he said he would do so.

Mr. Hardesty said in 2008, vehicle fuel reached $4.00 per gallon. He said they projected $16,000, and spent less than half of that money. He said that they used $235,000 in utilities, with $179,000 for electricity. He said this includes the plant, the booster stations, all of the wells and the tanks.

Mr. Hardesty said the communications and postage covered such things as their Consumer Confidence Reports and other mailings.

Mr. Hardesty said the next line deals with Rents and Leases. He said they spent $6500 from the budgeted amount of $7000. He said this is the rental of the track hoe used to clean out the sludge lagoons that they give to farmers, as it is a good fertilizer.

Mr. Hardesty said their professional services budget was $4500 budget and they spent $6500, because of some issues with ice.

Mr. Hardesty said their Maintenance and Repair was budgeted for $27,000, but they spent $32,000. He said this was not an over-expenditure. Mr. Hardesty said they bought a front end loader from their capital monies that included $8000 for a maintenance contract. He said the Budget & Finance Department “slid it in” to his Maintenance and Repair line of his budget.

Mr. Hardesty said their insurance and bonding is handled by Budget & Finance, and he has no control over that expenditure.

Mr. Hardesty said that Line 37, Printing and Photocopying, is self-explanatory, and covered the costs of various reports.

Mr. Hardesty said that Line 39, Miscellaneous Contractual Services, included nearly $10,000 on a plant license, payable to the EPA. He said they spent almost $15,000 on water testing by private labs. Mr. Hardesty explained they did a wellhead protection study, and have new wells and tests wells protecting their aquifer. He said the tests are done quarterly by a lab in Columbus. Mr. Hardesty noted it is half the cost of what they paid an Akron lab, and they are better.

Mr. Hardesty said Line 41, office supplies, is self-explanatory, and Line 42 represents their other supplies. He said they budgeted $210,000, and spent $240,000. He said there were astronomical increases in some of their main chemicals. He said that Soda Ash went up $15,000 in 2009, as the price increased from $281 per ton to $359 per ton.

Mr. Hardesty said they budgeted $5800 for small tools and minor repair, adding the $3,000 jump was moved from Line 35, Maintenance and Repair, which decreased by a like amount. He said he has staff that is talented enough to install their own equipment. He said they do most of their own maintenance. He said they are just as good and cheaper, saving a lot of money.

Mr. Hardesty said he did a comparison of their variable costs, as compared to their fixed costs. He said he included their operating and personnel expenses from 2003 through 2009. He said variable costs include items like their utilities and chemicals that do vary. He said fixed items include things like the employees' salaries, Worker's Compensation, contracts with labs, uniforms, etc. He said the six year average showed that 27% of their costs are variable, while 73% are fixed. He said there is a six-year average of $350,925 in variable costs, with fixed costs averaging $923,208.

He displayed the budgeted and actual amounts spent for their Operations and Maintenance budgets. He said he became the plant manager in 2004, adding they went over their budget by $29,000. He said they experimented in the early 2000s, with the soda ash as it is the most expensive chemical they use. He said they cut back on the dosage and found out it was not doing their distribution system any favors. He said they were over the budgeted amount by $29,000 in 2004, with another $38,000 in 2005. He said that 2006 was relatively calm, and 2007 represented huge price increases in their soda ash, electricity, and gas. He said they were $18,000 over their budget in 2007 and $38,000 in 2008. He said that their 2009 budget showed that they over spent it by $7600, but they also used $32,000 from their contingency funds.

Mr. Hardesty said the cost to treat 1000 gallons of water was 0.49 in 2003, and increased to 0.68 in 2009. He said it does not include their personnel budget. Mr. Hardesty said they treated about 900,000,000 gallons last year, while they treated 1 billion gallons ten years earlier. He said their water usage is down about 10%. Mr. Hardesty said they found a leak of about 600,000 gallons daily near Plum Creek. He said Kent State also tore down some housing, and began using more energy efficient toilets. Mr. Hardesty said the Service Director also pointed out that people did not have to water their lawns last summer because of the regular rain intervals.

Mr. Hardesty showed thirteen years of costs for lime and soda ash. He noted that their lime has almost doubled, and soda ash is $359 per ton today, while it used to be $150.72 per ton in 1997. He said they used $232,000 in chemicals in 1996, and used $210,000 in 2009. He said they are squeezing their nickels to get the biggest bang for their buck.

Mr. Hardesty said their electrical costs for the last six years have increased by about $50,000. He said this includes their plant, wells, a separate meter at the booster station and the old booster/storage tanks. He said from 2005 to 2006, they had a huge jump to $161,000, which was an error. He said they have a demand meter for a better rate, adding Ohio Edison's meter was charging the maximum billing rate, resulting in an overcharge. He said the next year, they dropped to $135,000 because of a credit from Ohio Edison.

Mr. Hardesty displayed their personnel services cost per 1000 gallons. He said it has gone up an average of 5.1% per year. He said this includes items like salaries, overtime, worker's comp, insurance, and uniforms. Mr. Ruller asked if this included distribution costs, and Mr. Hardesty said that is not part of his

budget.

Mr. Hardesty explained their System Control and Data Acquisition equipment, adding the Service Director can control the water plant from his office. He said this program runs the whole water treatment plant and consists of nine screens. He said they can see how much water is in the tanks, and which pumps are on or off. He said they can start a pump with the click of a mouse, and can control the entire system from this equipment.

Mr. Hardesty said an operator looked at the screen a few months earlier, and noted a seven-foot drop in water at the Fairchild Tank. He said they knew there was a break somewhere, adding that was when the contractor hit a line on SR 43.

Mr. Hardesty said another beauty of the system is its versatility. He said it runs through radio signals, and each radio can handle twenty-seven separate functions. He said the radio at the wells can tell them which pumps are running. He said they have a tool that fits into the well and tells how much water is in the well. He said it can be hooked up to motion detectors. Mr. Hardesty said the radio signals are more reliable and cost effective. He said they were able to terminate with the security company for the well buildings and tank locations, as they are now controlled by sensors in the system.

Mr. Ruller asked when this went online, and Mr. Hardesty said it was a few years before he was hired.

Mr. Hardesty said he had a few examples of the work his staff does. He said they were able to purchase a better piece of equipment, because they did not need $23,000 for installation, as it was done by his staff. He said he is proud of their work.

Mr. Hardesty displayed a photo of their power shaving generator. He said they can run any combination of pumps from 9:00 p.m. to 8:00 a.m., without getting penalized. He said that two high pressure pumps cost about $8000 daily, and with the generator, they are able to generate their own power. He said it had a payback of about four years, cost $52,000, and was installed by his personnel.

Mr. Hardesty showed a photo of a high pressure gas pump that was used, previously, as the power shaving generator. He said the old one threw a rod, and they got a bid to replace it for $52,000. He said his employees went online, found it in a warehouse in New Jersey, and traveled to New Jersey to pick it up. He said they paid nothing for installation. Mr. Hardesty said his costs went from $52,000 to $17,000 because the staff was willing and handy.

Mr. Hardesty showed a photo of a large concrete block that held a bearing, which held a drive shaft, to run a pump. He said the concrete barrier vibrated and broke apart. Mr. Hardesty said he asked his new mechanic to weld a unit, lagging it into concrete so it will not vibrate. Mr. Hardesty said his mechanic welded it, put it on there; and made adjustments for the drive shaft. He said it runs smoother than ever.

Mr. Hardesty showed a photo of their sludge lagoons. He said this waste is calcium carbonate sludge, adding that the farmers love it. He said they have two lagoons. He said they previously filled them, and paid a contractor to truck it away. Mr. Hardesty said his predecessor decided to put in sludge presses. He said they dump the sludge into a tri-axle dump and take it to the farmers. He said they only use the lagoons when the presses go down. Mr. Hardesty said they have about four acres of lagoons, and one is 4/5 empty at this time. He said it is not a huge priority, adding he cannot see spending the money to empty the lagoons. He said about once a year, he spends a few weeks on them. He said for those farmers who pick it up, they receive it first as the City does not have to deliver it.

Mr. Hardesty said he is proud of their Wellhead Protection Program. He said in 2008, Kent was one of six communities to devise such a program. He said they took the wellfield delineation, and give it a travel time of one to five years for the contaminants to get to the aquifer. He said after the EPA did the delineation, they went to every place within the delineation to find out what chemicals they use, as well as treatment processes, etc. He said they also have an emergency contingency plan should spills occur. Mr. Hardesty said the plan was approved in 2008 for cost savings of $40,000. He said they also did their

own Risk Management Plan, saving about $7,000 by doing it in-house.

Chair DeLeone called for questions at this time.

Ms. Wallach asked Mr. Hardesty to forward the slide presentation, and Mr. Ruller said he would do so after Mr. Hardesty sent it to him.

Ms. Shaffer noted Mr. Hardesty spoke of the decrease in water usage, but an increase in the costs, and Mr. Hardesty agreed, adding it was a great increase. Ms. Shaffer asked how a decease in water contributes to the budget's bottom line, and **Gene Roberts, Service Director,** said if they sell less, they bring in less revenues, but their costs are fixed. He said they are seeing 10% less revenue than they received ten years ago, resulting in less to spend. He said they are seeing this decline with their capital money.

Ms. Shaffer asked if there are any plans to sell water, and Mr. Hardesty said that Portage County is taking care of a lot of the surrounding areas, such as Brimfield, Ravenna Township, and Streetsboro. He said their only chance to sell water would be toward Brady Lake. He said they do have a twenty-inch emergency line with Ravenna, adding that any monies would be split between the two cities. He said it holds about 250,000 gallons of water.

Mr. Valenta said from 2003 to 2009, Hudson Lime was the only company they used, and Mr. Hardesty said they bid every year, adding the price has stayed about the same.

Ms. Wallach said she knows the water usage was down, and when it goes down, the chemical usage also reduced, but not proportionately. Mr. Hardesty said the prices went up more than the usage decreased.

Mr. Ferrara asked if they sell the sludge, and Mr. Hardesty said they give it to the farmers. He said there is no charge, even if they deliver it. He said that sooner or later, it has to be valuable, and they will sell it. Mr. Roberts said it is cheaper to give it away than to pay the dumping fee.

Mr. Ruller asked Mr. Hardesty if he is comfortable with their water levels, and Mr. Hardesty said they have a contingency plan, which is a water recharge basin near the wells. He said they can pump from the creek, raising the sand/gravel aquifer.

Mr. Ruller asked Mr. Hardesty if there is anything on the horizon with the EPA that keeps him up at night, and he said if they came under the influence, their regulations and associated costs could go through the roof.

Ms. Wallach asked if there is a reason for the increase in the chemicals, and Mr. Hardesty said they do competitive bidding, adding that they all went up. Mr. Roberts said the chemicals are made in plants that consume gas and/or electric, and the companies are charging the cost back. He said it is like rock salt, adding there is no reason for it to be where it is, and is up in cost because the companies can get that price.

Ms. Wallach noted that the gas prices have not increased much, and asked if they expect them to level off, and Mr. Hardesty said they have come down. Mr. Roberts said he does not see the chemical prices coming down. Mr. Hardesty said that Floyd Brown & Associates is doing a study on efficiencies and things they can improve. He said it relates to the physical plant, demand, motors, and they even go through the chemical process to see if they can use a different chemical. He said it is underway at this time.

Mr. Valenta asked if they would receive a discount if they buy it in larger bulk and store it, and Mr. Hardesty said they would not.

Ms. Shaffer asked if they entered the Best Tasting Water Contest, and Mr. Hardesty said they were

entered. He said over the years, they received First Prize, Silver, Bronze, and two Fifth Places, but nothing this year. Ms. Shaffer said if they win, they can do bottled water, and Mr. Hardesty said it would not be a bad idea. He noted they are doing with ten people what fourteen used to do. He said if they want to sell it, they need a bottling crew, shipping crew, and advertising crew.

There were no further questions nor comments at this time.

Mr. Roberts said he would present the report for the Water Reclamation Facility. He said that Bob Brown, plant manager, was unable to be present.

Mr. Roberts explained that no matter what is dumped throughout Kent, it ends up at the reclamation facility. He showed an aerial phonograph from the late 1980s. He pointed out the Cuyahoga River that runs next to the plant. He said the plant's entire purpose is to protect the Cuyahoga River. He said they take dirty water, clean it, and discharge it.

Mr. Roberts showed the influent and the effluent being discharged in the river. He said most days, the effluent is cleaner than the river water. He displayed a photo of the stabilized bio-solids, which is what is left when they are done.

Mr. Roberts said the staff takes care of the exterior building maintenance, and recently painted it. He said they also remodeled the office and the alarm room, and put an addition to the maintenance bay. He said they bought some used equipment because of an increase in the grease, hauling it to a waste landfill. He said the staff also put a temporary building over the bar screen, designing it to lift it off with a crane.

Mr. Roberts said there have been process upgrades from 2003 to 2009, adding there were two major construction upgrades. He said one was the bar screen. He said they also replaced the lid on Digester #1. Mr. Roberts said they used to have a gate valve, which was a big steering wheel used to lower the gate. He said they have automated dissolved oxygen controls. He said if it is too low, it turns up the pump, lowering the gate. He said if it is too high, it is adjusted. Mr. Roberts said they also put a sun screen shade over the weir system because of the algae bloom. He said this dropped it off almost completely, adding they used to unclog it.

Mr. Roberts said the pipe gallery, blower motor, and all electrical are all done in-house by the Central Maintenance staff. He said Mr. Brown has offered to give them a tour.

Mr. Roberts said the Water Reclamation Manager developed a process for training new operators as well as a reference manual. He said when the original plant was designed in the 1980s, they had large Operations & Maintenance manuals, which did not help the operators. He said Mr. Brown distilled it down, and uses it for training. He said the operators use the reference manuals on a daily basis.

Mr. Roberts said the big graph that rotates on a motor has been replaced, and the SCADA system was installed. He said they are able to gather extremely accurate data that is computerized.

Mr. Roberts said they are treating less water. He said the water goes through distribution from the Water Plant, and is discharged in the sanitary sewer collection system. He said in 2002, they did the I & I study, which is the Inflow and Infiltration study. He said they had ground water leaking into the sanitary sewer, costing the same to treat. He said this has decreased, and they have saved money on the volume treated.

Mr. Roberts displayed fixed costs versus variable costs. He said the average fixed cost was $1.1 million, with the variable cost average for seven years being 22% or $323,220. He said when they decrease the flow at the plant, they only see a 21% savings, as they have no control over their fixed costs. He said both plants have downsized in terms of the number of staff members. He said the last decrease in the Reclamation Facility was in 2006, when they reduced from eleven staff members to ten staff members. He said they run on sixteen hours of manpower, with eight hours manned by a security guard. He said in

event there is an alarm or a problem, the security guard calls the chief operator, and this happens once or twice a week. He said Mr. Brown can monitor all of the lift stations from his facility.

Mr. Roberts said from 2003 to 2009, personnel services has seen an increase of $10,437, largely due to the decrease in staff. He said that is about 0.2% annually for labor. He said the cost per 1000 gallons is not equal. He said they are developing a higher strength waste, the increasing the cost to treat it. He said their operation and maintenance actual costs only increased $1519 from 2003 to 2009, representing an increase of 0.04%.

Mr. Roberts said the capital is always changing, with the lowest being in 2007 and $237,000 spent in 2009. He said the average is $124,000 in capital.

Mr. Roberts said they combined the personnel services with the operations & maintenance. He said 23% is flexible and changes with the flow. Mr. Roberts said the budget was $153,000, or an average annual increase of 1.7%. He said they are beating the cost of living in their operations. He said those were budgeted amounts, while the actual amount from 2003 to 2009 was an increase of 0.1% annually.

Mr. Valenta asked what happens to the solid waste, and MR. Roberts said they signed an agreement in 1998 with PPG of Barberton. He said they take it, mix it with lime, and will have a park in Barberton. He said the City pays a small fee to haul it over there, adding it is half of what they would pay in the landfill.

Ms. Wallach asked if it would not be good for the farmers, and Mr. Roberts said there are two classes of sludge from the EPA's viewpoint. He said they have Class A and Class B, with Class B having no human waste left. Mr. Roberts said they do not take the final step, adding they are at 99%. He said it is cheaper to haul it to Barberton. He said that once they fill up, the City will need to change. He said that Portage County is putting in a kiln, cooking their sludge, and the City could look at partnering with them.

Ms. Shaffer asked the major cost increase, over time, for the plant, and Mr. Roberts said it was the electrical costs and the chemical costs. He said in the late 1980s to the early 1990s, they were spending about $100,000 annually. He said they made some major modifications in the treatment processes, using cheaper chemicals and good quality effluent. Mr. Hardesty noted that the Reclamation Facility is a bio plant, and the Water Plant is a chemical plant. He said the Reclamation Facility's electric bill is probably twice the cost of his plant.

Hearing no further questions or comments Chair DeLeone adjourned the meeting at 7:54 p.m.

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Linda M. Copley, Clerk of Council

ACTION RECOMMENDED:

1) AREA Q STORM WATER PROJECT DISCUSSION WAS DEFERRED

2) REPORTS WERE RECEIVED, FOR 2009, FOR THE WATER TREATMENT FACILITY AND THE WATER RECLAMATION FACILITY. NO ACTION WAS TAKEN.