

September 9, 2014

Minutes of the regular meeting of the Yadkin Valley Sewer Authority (YVSA) held Tuesday, September 9, 2014 at the YVSA Operations Center.

PRESENT

Directors: Chairman Wayne Moore; Vice-Chair J. L. Lowe, Jr.; Directors Tommy Casstevens, Victor Varela, and Harold Lee Wagoner; Executive Director Nicole Johnston; Secretary/Treasurer John W. Holcomb; Attorney James Freeman; Engineer Benjie Thomas with West Consultants, PLLC; Operations Manager Brad Haynes, and Administrative Assistant Susan White.

Guests: Eddie Harris, Chairman, Surry County Board of Directors; Gary Stainback, Regional Manager, United Water/Hydro Management; and Todd Tucker, President, Surry Economic Development Partnership.

I. WELCOME

- Chairman Moore welcomed everyone and called the meeting to order with a quorum of five Directors present.
- He introduced today's Guests: Mr. Gary Stainback, Regional Manager with United Water, and Todd Tucker, President of Surry Economic Development Partnership.
- He informed the Board Eddie Harris, Chairman of the Surry County Board of Commissioners would be joining us soon but Surry County Manager Chris Knopf would not be able to attend.

II. Public comments Period

- Chairman Moore opened the Public Comment Period of the meeting. Hearing none, Moore closed the period.

III. ACTION ITEMS/UPDATES FROM STAFF

- Moore stated we would begin today's meeting with an update/presentation from Gary Stainback on the Weyerhaeuser Project as it relates to the Wastewater Treatment Plant. United Water is contracted to operate the YVSA WWTP.
- Stainback told the Board United Water was pleased to have been able to operate the WWTP for many years, and see it grow into a good, environmental presence in the community.
- He distributed a handout entitled "Yadkin Valley Sewer Authority Wastewater Facility Operation of Additional Industrial Discharges" to the Board and told them he would try to cover the bottom line in taking the Weyerhaeuser product in. The handout is a brief overview of operations of the Treatment Plant in consideration of taking Weyerhaeuser's discharge.
- Began with a background of the WWTP:
 - Design capacity of 1.8 Million Gallons per Day (MGD).
 - Averages 783,000 gallons per day now.
 - Stated they would like to treat more wastewater for the Authority as the closer we get to the 1.8 MGD cap, the more efficiently the plant operates. Pumps and everything in the plant are sized to run best closer to 1.8 MGD.
 - Have had some upgrades to the plant over the years. Have had some good additions; still some things to be looked at during each budget time.
 - Taking Weyerhaeuser's product will change things.
 - We do have the capacity to grow but their waste will change the way things need to be treated.
 - Plant was designed around domestic waste from your home and some commercial waste from restaurants. Can take some industrial waste but it has to be treated in a whole different way.

- 1.8 MGD is based on domestic strength waste, not industrial. If a lot more industrial wastewater comes in, that 1.8 MGD capacity number will have to come down.
- Industrial waste is physical/chemical. Our WWTP is biological/chemical. Industrial waste will drop the amount of flow that can be taken versus strictly domestic flow and will create additional costs to treat properly.
- Inorganics will affect the cost of operation. They will throw the living organisms off and actually get the biological system out of whack.
- Will take a lot of chemicals to try to get back to normal, which will cost more. Some inorganics will still slip through the treatment process.
- Inorganics cause a great variability in raw sewage. Magnitudes of order greater than domestic waste. It will cause us to violate our discharge permit and cause costly violations at our plant.
- We do look for growth but for smart growth. We cannot do anything that will cause us to be a polluter.
- Weyerhaeuser is a wastewater we would like to be able to take but we have to make sure their problem does not become our problem. They must be able to treat their wastewater accurately.
- They have sent some info on what they think they can send and what they think they can treat. We have all looked at it in great detail.
- Trying now to refine it at a level that we can take it and treat it.
- Even though we have the capacity their waste is so bad it cannot be cleaned up enough for us to take it. According to the info they sent it will cause our plant to go out of compliance.
- Need to be able to predict costs at the Treatment Plant including horsepower to run the pumps. Their waste will cause a lot more work on the pumps and the plant. This results in additional power used at the plant as well as additional maintenance, treatment, sampling and monitoring costs.
- This discharge also dictates how we do sludge hauling. Sludge hauling costs and electrical costs will be greater. One thing will cause several others to change.
- The Authority is also looking at a UV (Ultraviolet) Disinfection System down the road to treat waste in a cleaner and safer way. Weyerhaeuser's waste has a lot of color that will interfere with UV treatment.
- Depending on what Weyerhaeuser can pretreat the color down to, it can cause the color of our discharge to be darkened when it leaves our plant. If you get to a certain color that may not be acceptable to NCDENR, the State can then come in and put a limit on your permit. We don't want to get in to that, since we are currently not permitted for color.
- Their color is some sort of an inorganic. We are not sure what is causing their color and can't tell by their report to us.
- Thomas stated at the last meeting with Weyerhaeuser the numbers they mentioned were sky high. If they pretreat, some of the numbers should reduce and the color should fall out some but still everything changes when one thing changes.
- Johnston stated Weyerhaeuser gave the Authority some unbelievably high numbers. We must have way less than that. We provided our permit to them, including our local limits, 18 months ago. They know what they have to get to.
- Tucker stated those numbers are from domestic, not industrial.
- Johnston said industrial is harder to come down. Weyerhaeuser will have to pretreat severely to get to our limits.
- Thomas stated we must always keep some space in reserve for current customer's growth. We must allocate some space for things we cannot control. We must set the permit for each industry so we do not over allocate ourselves. DENR must approve all permits first and will not let us over allocate.

- Stainback continued his presentation by stating we must regulate industrial waste as we cannot regulate domestic. When getting any industry on our system, we must not violate water quality limits, the limits regulated from the State, or limits the plant was designed to treat. Metals, color, and inorganics in their wastewater will all inhibit the treatment plant.
- Anything you put in there that is higher than the plant was designed to treat will cause a disruption in the plant, causing more costs and a poorer discharge.
- Our goal here is to protect the Treatment Plant and prevent any pollutants from passing through the discharge stream to rivers receiving those streams.
- Sludge going on to land is governed by the State, but it is really a Federal Program. It is designed to be no cost to the land owner or the customers. Getting accurate data from them is key to us getting the correct numbers for them. We must have correct numbers to get figures to them showing what they must get their numbers down to when they pretreat.
- These numbers in the Federal Pretreatment Program are federal law. They must get to those numbers before we can take it and release it.
- Tucker asked if the Authority had given Weyerhaeuser any numbers they will have to get down to when they pretreat.
- Johnston stated yes, at the last meeting we had with them.
- Thomas stated he had been in staff to staff conversations previously with them and let them know what we could take.
- Stainback showed another slide explaining in more detail the objective of the Pretreatment Process. He stated we definitely want a waste stream brought into the plant that we can successfully treat. We must protect the welfare of the plant and staff, cover all costs incurred in treating the stream, and cover all federal limits.
- YVSA as owner of the Plant wants to take growth but safe growth. The permit is fashioned so the owner becomes the administrator of the discharge. We must monitor the discharge and they will have to meet the discharge numbers. The Pretreatment program sets us a stage that provides the following: It is more economical to treat a concentrated waste stream at their site than treat it when it mingles at our Treatment Plant. According to the numbers they have given us, they are not there yet. It is highly recommended the stream must be treated at the source.
- Slide number seven showed the potential for sludge hauling, maintenance, and power cost increases; a calculated comparison of what is being producing currently versus what numbers would look like if we added their values as they presented them to us. The last column shows we cannot handle these values. We tried to craft a permit that would work for us. Just looking at conventional pollutants at conventional concentration double of domestic for example, calculated with them treating to get to 500ppm for TSS (Total Suspended Solids), these are the sludge numbers.
- No matter if you are treating industrial or domestic waste, it takes time and horsepower and energy to treat. Just calculating sludge calculations, everything can affect this but the calculations are consistent. The Authority currently pays \$0.04/gallon to haul sludge. Using this cost value of \$0.04/gallon if we hauled everything we produce in a year, the total cost would be \$89,104. Weyerhaeuser's waste would create additional sludge and drive the hauling rate to approximately \$162,104 per year. That shows the strength of this waste water. Based on their number of 57,000 gallons per day, their waste will produce almost as most as much sludge as our entire system does now. If they can reduce their numbers, then we can probably reduce that cost to \$102,521, a 15% increase. Solids can stay until they are condensed down but we do not have the tankage to hold it long enough.

- Basically all our system knows how to do is eat. We can produce a million gallons per day but not hold it for 360 days.
- Weyerhaeuser put on their form they would send 57,000 gallons per day but their system is being built with pipe for 100,000 gallons. Originally Weyerhaeuser said they would discharge 60,000 gallons max, now they are asking for 100,000 permitted gallons per day. PGW is 140,000 GPD but they have different ratios. It is reasonable to think they (Weyerhaeuser) can be permitted to release 100,000 once in a while but not on a regular basis. Still trying to figure out what can be permitted.
- We must have Weyerhaeuser further reduce their solids, potassium, and color to give us the best numbers they can give us so we can get on with firming up the Pretreatment numbers. Our process is pH dependent. For the system to operate, our pH must be between 6 and 9 standard units. Copper and Zinc are not listed on their report but the state will want to see these numbers. We must cover the additional costs, not cause performance issues. We have a limit with our permit. Permit monitoring page one is toxicity, the most straight forward limit. Toxicity is a biological test where the lab calculates how your discharge affects everything in the rivers. They subject your wastewater to river water and calculate how clean your wastewater will be when discharged. This is accomplished by documenting if the water fleas will live and reproduce – based on the lifespan of a week. We currently have an excellent record of passing this test. Any changes in these parameters can easily cause an adverse effect in these figures. The Plant is currently set up to use chlorine to clean waste. Chlorine is toxic to these bugs. We must use another chemical to kill the chlorine that must be used to clean now. That is why we want to change to UV to eliminate these two chemicals.
- Last slide shows the treatability study if we take the waste. Forecasting is done by taking some of our raw sewage and treating it to the level that if it was fed into a small lake it would mimic our container that has our own micro-organisms in it. That sample is then run through our system and taken to the lab. You can run any test you want. This is the easiest way to judge if we have a chance of passing this toxicity to the stream. If we take it, it becomes our problem.
- YVSA would select the group – owner will pay for the testing. May be as much as \$12,000 – \$15,000 to run the test. Takes anywhere from 3-4 weeks to get a good lifespan. Additional sampling and monitoring will also be an additional cost on the owner.
- Vice-Chair Lowe stated that we have been waiting on a TCLP report for 18 months. It was noted; however, that we did get some data near the end of June, but it does not include the numbers we really need.
- Tucker asked if The Authority had the numbers Weyerhaeuser needs to reduce to – have we given them the numbers.
- Thomas stated this plant was designed for household waste and restaurants. Can only allocate certain amounts to them. Some things can be calculated and have been told to them. Some things cannot be calculated. We do not have the capability – they are just unknowns. We just cannot give them a hard number. We can give them general numbers they have to get to but we cannot give them anything else until they bring their samples and we run numbers. Some things are not regulated; they must just prove that they can treat it to the point that it will not kill our bugs. There is no standard because you cannot take any of it and still be clean at the pass through stage. This Treatment Plant was only designed to treat domestic waste. It was never designed to take metals and other things in industrial waste. They are not destroyed in our process and would be deposited on fields or into the stream. If we had to, our only choice right now would be to draft them a permit showing next to zero but that may not be feasible.

- Tucker stated we have been working 18 months on this project and have three grants going. You say they may have to spend three million dollars (\$3,000,000) on a pretreatment plant that still may not work. Can they pretreat to a level that you can take? We are 18 months into this and now find out they might not be able to pretreat to the correct level.
 - Chairman Eddie Harris asked how Weyerhaeuser is disposing of their waste now. Johnston stated they were hauling it to Danville, VA but they cannot do that now. Danville will not let them bring anything else to them. Winston-Salem has also cut them off from bringing to them. They can only spray on their fields a little bit.
 - Harris stated it seems if it has reached this critical stage they would be in panic mode but they seem to not be getting numbers to us. It is not a balancing act of how low can you go; that is not realistic. They must give you correct information in order for you to give them solid numbers they have to get to. If their situation is critical now, why can't they give you these numbers. YVSA should relay that information to them today in writing and copy everyone one it. Then the ball is in their court.
 - Stainback stated staff would want to see at least preliminary numbers that will allow our plant to stay in balance. The rest we will have to say must be shown to not harm our system. We must have a TCLP based on their final proposed treatment system, not what is being produced now. He reminded the group these numbers will still be changing as we go along. We can only determine certain things – other things are simply indeterminate.
 - Holcomb asked if it was too early to tell what surcharges may be assessed to Weyerhaeuser. He pointed out Stainback's figures are much higher than what we have budgeted for the entire year.
 - Tucker asked if they (Weyerhaeuser) know there will be additional costs to them.
 - Johnston stated they have our current rate info but they know we are currently in the process of changing our rate structure and will adopt this and send it to them as soon as we get it. We don't know the things they will be adding in the future so we can't say how to treat what we don't know is coming in. Anything that will prohibit us from land applying will not be allowed in. Until we see the TCLP we cannot tell them what they must do. If they were discharging into a municipal system we would have the numbers. They have been using spray fields because it is more cost effective for them.
 - Harris shared Weyerhaeuser is a big company; they should have these numbers available. Seems like the YVSA has done their part; the holdup is on Weyerhaeuser. They are holding things up.
 - Lowe stated to notify Weyerhaeuser of this information today in writing.
 - Tucker stated tell them you must have the TCLP no later than thirty (30) days from now.
 - Harris shared the grants are not in jeopardy. Weyerhaeuser is the one having the problems; it is on them to get in a hurry. They seem to not have the sense of urgency that it looks like they would be having. Document your communication to them and your progress. Leave it on them.
 - Thomas recommended the Board take action today to allocate 250 lbs. per day BOD and 250 lbs. per day TSS to Weyerhaeuser.
- *Chairman Moore asked for a motion to allocate 250 lbs. per day BOD and 250 lbs. per day TSS to Weyerhaeuser.*

Upon a motion by Mr. Lowe and seconded by Mr. Varela, the motion was approved with a vote of five to zero with no discussion.

- Tucker stated his question is what we do now. Elkin wants him to recruit people in here but what is feasible to bring in. What is a feasible industry to be able to recruit. We don't want to bring things in here that will not be able to be treated. We need to know what is a good fit.
- Lowe stated this just shows we (the YVSA) need to be involved in the recruiting process as early as possible to see if it is something that can work with our plant.

- Tucker said if every industrial user that comes in here has to pretreat before discharging that will be a deterrent. That is a box that cannot be checked off from the get-go.

This concluded Mr. Stainback's presentation and the Weyerhaeuser discussion. Chairman Moore called for a short break at which time Mr. Stainback, Mr. Tucker, and Chairman Harris left the meeting.

Tab A – Executive Director's Update – Executive Director Nicole Johnston Operations

Discussion:

- Reported three (3) spills in August; these were due to rain – Inflow and Infiltration.
- Have major issues at Ronda Park Pump Station.
 - Both pumps failed at once. One pump has been repaired and is back in service now. One is still out for repairs.
- Did not have time to work on updating the Customer Service Policy. Will try to provide and update on that at next month's meeting.

Tab B – Private Pump Station Discussion –Nicole Johnston/James Freeman:

- Johnston Informed the Board of a request by Ronda resident Jennifer Murray that the YVSA pay invoices for repairs on the private pump station in her yard. Johnston gave the following background on the issue:
 - Pump was put in at the home during Ronda's last sewer grant project.
 - Grants pay for the pump which is then turned over to the homeowner.
 - At the end of the project, David Poore of West Consultants gave the homeowner spec sheets on the pump and told them the pump was now theirs.
 - The pump was a single-phase pump that passed inspection by both West Consultants Electrical Inspectors and Wilkes County Inspectors.
 - Varela stated Murray brought the invoices to his attention and told him when the electrician, Harris Electric, worked on it for her he stated to her the control panel was not wired properly for three-phase service.
 - Harris Electric was contacted by the YVSA and was told they did not tell the homeowner it was wired improperly or anything about three-phase service there.
 - Varela said Murray texted her saying she never received any paperwork on the pump and was not told the pump was her responsibility. No one ever said it was her pump. She said it was all a total surprise to her.
 - Thomas stated the pump has worked several years with no problem so wiring is not an issue. Obviously it depends on what is flushed down as to what maintenance is required of the pump but normally that pump should last 20 years with proper maintenance. The pump is close to five years old.
 - Johnston stated the Authority did pay for a pumper hauler to pump out the waste and pulled the pump to check it but found no problem.
 - The Board looked at the costs on the invoices presented and thought they seemed high compared to what the pump and accessories cost when they were new. They noted Wilkes County and West Consultants Electrical Inspectors had both passed the pumps and wiring. If it had been a three-phase control panel it would not have worked on a single phase pump.
 - This concluded the discussion.
- *Chairman Moore asked for a motion to deny payment of the invoices presented by Jennifer Murray for service on May 19, 2014 and June 6, 2014.*

Upon a motion by Mr. Lowe and seconded by Mr. Casstevens, the motion was approved with a vote of five to zero with no further discussion.

Item #5 – BB&T Borrowing Resolution Approval – John Holcomb:

- Director Lowe requested the BB&T Loan Proposal be discussed at this time due to his needing to leave the meeting early for a previously scheduled appointment.
 - Holcomb stated he had been collecting loan proposals for equipment purchases approved in the FY2015 budget.
 - He had contacted Capital Bank who chose not to bid because our yearly audit was not yet completed.
 - BB&T came back with a rate of 2.09% at six years. This is a very good rate, the lowest rate of any existing loan we have. He will need a Resolution to Approve Financing if the Board wants him to move ahead. The debt payment would be \$47,000 per year for six years, beginning in FY2016.
- *Chairman Moore asked for a motion to approve a Resolution Approving Financing Terms for a proposal from BB&T for financing \$263,000 for a term of six years at a rate of 2.09%.*

Upon a motion by Mr. Lowe and seconded by Mr. Wagoner, the motion was approved with a vote of five to zero with no further discussion.

Tab C – Engineer’s Update – Benjie Thomas

- A) – SW Elkin Rehab Project: Thomas stated he had received verbal authorization from DENR to let the bids out on the SW Elkin Project. Should have bids for the Board to review at the October meeting. Bids were advertised for in the Winston-Salem Journal today and the Tribune Wednesday. Expect bids to be higher than the projected figures used. Hopefully we will be able to look at how much 0% interest money we want to borrow next month.
- B) – Phase II Pump Station Rehab Project: Will soon be ready to install new pumps and abandon Welborn Pump Station.
- C) – PGW Downstream Improvement Project: Met with our EDA representative Asa Williams on Phase II Project progress. Plans are about 90% complete. DOT encroachment agreement and easements are all complete. Will be able to sign the papers stating we are in compliance with all of EDA’s requirements now – a major milestone.
- D) – Weyerhaeuser Extension Project: Design of the force main is about 50% complete. We will start getting the land permits done. Golden Leaf Grant will expire in one year which is October 2015. We will ask for an extension closer to that time.
- E) – 2015 Wastewater Treatment Plant Upgrades Project: Creating a grant application for a new clarifier to take solids out of the system after the bugs have done their job. Plant is a 1.8 MGD plant but would have a hard time realistically treating 1.8 MGD. Need an additional clarifier. Testing now to see if our wastewater is clear enough to begin to use UV. Just not sure right now. Also need a new office and lab building at the Wastewater Treatment Plant. Will take in the range of \$1-1.5 Million to make all these improvements happen. Moore asked if grants were available for this type of project because of the safety issue. Thomas said they might be able to get 0% interest loan money but otherwise the project would need to be job related to get grants. Of course it is not.
- Thomas stated unless there were other questions he would turn in that application. Johnston stated she had been helping Thomas and Jerry (Twiggs, West Consultants) work on the application.

Tab E – Financial Update – Secretary/Treasurer John W. Holcomb

- Audit not complete for FY2014 yet. Hopefully next month I can give you those numbers.
- Cash balance as of September 9, 2014 was \$124,565.08.
- Another debt service payment is due next Friday in the amount of \$40,000 on the Operations Center.
- Nothing really out of kilter right now.
- Sludge hauling is budgeted at \$50,000. Looks like we will have much more than that this year.
- Payments from the Towns are current.

- Noticing an increase in sewer billings from the rate increase. A substantial increase. Increases will help with cash flow.

IV. BOARD OF DIRECTORS' COMMENTS

- Chairman Moore asked if there were any comments from the Board.
It was mentioned again how important it is that the Economic Development people get the Sewer Authority in to any negotiations as soon as possible in the first talking stage.
- Chairman Moore asked if there were any comments from Staff. There were none.

V. ADJOURN

Being no further comments or discussion, Mr. Casstevens made a motion to adjourn. The motion was seconded by Mr. Wagoner and the meeting was adjourned.

Respectfully submitted by:

Susan White
YVSA Administrative Assistant

Wayne Moore, Chair

Attest:

John W. Holcomb, Secretary/Treasurer