

MINUTES OF THE BOARD OF PUBLIC WORKS
Tuesday November 22, 2022

The Regular Meeting of the Board of Public Works held on November 22, 2022 at 7:30 a.m. in the City Council Chambers located at 405 Jefferson Street, Washington, Missouri. The following were present/absent:

MEMBERS:

Chairman	John Vietmeier	Present
Vice Chairman	Brad Mitchell	Present
Secretary	Mike Radetic	Present
Member	Steve Richardson	Present
Ex-officio Member	Steve Strubberg	Present
Ex-officio Member	Vacant	

OTHERS:

Council Representative	Mike Coulter	Present
Council Representative	Duane Reed	Absent
Mayor	James Hagedorn	Present
City Administrator	Darren Lamb	Present
Public Works Director	John Nilges	Absent
Public Works Superintendent	Kevin Quaethem	Present
Water/Wastewater Admin. Asst.	Sarah Skeen	Present
Assistant City Engineer	Andrea Lueken	Absent
Waste Water Foreman	Kerry Duke	Present
Water Foreman	Dylan Voss	Present

Originals and/or copies of agenda items of the meeting, including recorded votes are available on record in the office of the Public Works Department for one year. Video/DVD and audio tapes are kept only until the minutes have been approved for the meeting. DVD copies of this meeting are distributed to Board Members if requested.

Minutes

A motion made by Mr. Mitchell and seconded by Mr. Radetic to approve the minutes from the regular meeting held October 25, 2022 meeting. The motion passed without dissent.

Priority Items

None

Wastewater

We have a bill from Trojan Technologies for \$20,961.07. Those are the UV lights at the treatment plant. April 1st through November 1st we have to disinfect our wastewater discharge going out to the Missouri River. We use UV technology from Trojan that the plant was built with. It works good, but we've had some glitches. We had a glitch this year so we will be getting a notice of non-compliance. We were over on our eColi for the month of October. These UV lights are what does the disinfection. There are two banks of 50 of them. We were buying aftermarket UV lights because they were a lot cheaper. Trojan, this year, has decided that anyone with a Trojan system now has to buy the lights from Trojan. The only way we could buy the lights at an economic price was to buy all 50 at once and do the whole bank. Otherwise, it would have cost us \$40,000 to buy them the way we were buying them previously. The other lights we were getting about a year, if we were lucky. These have a 4-year life guarantee.

Why do we only have to disinfect part of the year?

That is the recreational season that DNR and EPA has decided was considered full body contact waters, April 1st -November 1st. Every creek in Washington is considered a full body contact creek. If it goes to the Missouri River, which every creek in Washington does, it is deemed by the Department of Natural Resources as a full body contact stream. We are in violation of that NPDES permit for storm water. DNR came in last night for the workshop meeting. They are very serious. That permit ties into the Clean Drinking Water Act, every permit that we have ties into the Clean Drinking Water Act. After Flint Michigan went through what they did. They lied to the state and the federal government about what they were doing. Since then, EPA has stepped up and are saying that every state except three has violated the Clean Drinking Water Act since 1976. They are stepping in saying you will do this after it goes downstream. Storm water has always been something no one really worried about but now they are. It is also going to roll into the water and wastewater side of it because they are tied together as part of the clean drinking water act. Our side is safe since our permit is clean and cut. Storm water is not quite so clean and cut. That is why the UV lights are of such importance. We have to stay under a certain level of E.coli going out to the Missouri River. In October, our secondary lights failed and we did not get the intensity we needed. Even though it was only one sample, we violated for the whole month. We will be getting a notice of non-compliance. I have to respond back, this is my response back. We are now replacing a full bank this year and next year we will replace the second bank.

Is this the only kind of system you can use?

It would not be cost effective to try to go to a different system. UV is the number one type of system. There is a chlorination system but then you have to dechlorinate. We have had this expense all along but not just to this magnitude. Now that Trojan has said that we will buy the lights from them. There are a lot of proprietary things out there like our Flygt Pumps are proprietary.

A motion to pay Trojan Technologies \$20,961.07 was made by Mr. Richardson and seconded by Mr. Mitchell. The motion passed without dissent.

The Vandevanteer Engineering bill ties into the maintenance agreement that you guys (the Board) approved for me and Council approved last night. This is to repair the backup pump that we had at Walnut Street. When we put in our big stormwater pump down at Walnut Street, we kept the pump that we pulled out and put it at the shop so that if we ever have a problem down there we would have a backup pump. Pumps are about \$40,000. Ironically, we had a problem with one of our pumps, a seal went out and it did some other damage to it. We are able to take that pump we had as a backup, put it in there and not skip a beat. Walnut Street Lift station is our most important lift station in Washington. If that goes down, 1.8 million gallons of sewage is not going to the treatment plant. Now that we signed that agreement with Vandevanteer we get a six percent discount on the repair of this pump. If we had to replace this pump, we would have to pay around \$42,000. It makes more sense to rebuild it. It will be sitting at the shop and we will rotate it so that the seal does not weight itself out. It will be on the reserve side just in case another one goes out. We don't want to have a triplex station sitting there and DNR come out and do an inspection and they ask where our back up is for when one of the pumps goes out and you tell them we could've repaired it but it was going to cost us \$16,000 so we didn't do it. Those are the kind of things you do not want to tell DNR. The estimate is \$16,000 if they have to repair it. If they just take it apart and clean it and put it back together, it is \$945. If we repair it, the \$945 is gone. We would not have to pay that. That is the good thing about these pumps; they are designed so that you can rebuild them at an economic price and still have almost as good as a brand new pump. We have smaller pumps that are being rebuilt. We will get it rebuilt this year, and then we have to rebuild it next year and then get it rebuilt the next year and then they are done and we have pay \$16,000 for one of those smaller pumps. This pump, rebuilt, should last us 7-8 years.

A motion to approve the work and estimate was made by Mr. Radetic and seconded by Mr. Mitchell. The motion passed without dissent.

Wastewater treatment plant water quality comparison is something I started because we need to have some information. We have a requirement to monitor our industrial users in Washington. That is all of our factories that have a byproduct that could damage our treatment plant. When we do our permits, which they will be rolling up here in 2 years, we use to do a whole lot of calculations that Cochran Engineering does for us now. There is a whole lot of information that has to go into this. Some of this is what we discharge into the Missouri River. We use to just check our sludge but we never really knew what was coming into the plant and what was going out of the plant. The two biggest things we have to watch are BODs (Biochemical Oxygen Demand) and TSSs (Total Suspended Solids). I use to come in here and say that we are discharging in the single digits and the plant is doing good but I never really had anything that I could show you guys what the plant is doing. One the influent side, the BODs (70-285.5) and TSSs (39-165) are extremely high coming in. The effluent is the discharge going out to the Missouri River you can see how efficient that plant still is after ten years (BODs 3.7-4.6 and TSSs 1.5-3.3).

What is optimal?

According to our operating permit allowances is 40/40, 40 mg of BODs and TSSs. It is the process of the plant that is doing this. It is one of the best plants in the region and that is why we do not have a lot of violations because it is a very efficient and well run plant. When we built the plant the discharge to the Missouri river were 39.6 on BODs and almost the same number with TSSs. If we did not build the plant back then we would be in violation every month. The

fluctuation on the influent has something to do with the timing on when the samples were drawn. We want to see what the whole picture is. The Fair in August is a big reflection of the bigger number, due to the livestock. I do not know what we had in October. This is the first year we have done this. We have to get some trending going so we can see if this happens every year. Until we get more information, it is hard to give a good answer. I will do this every quarter so that it does not get monotonous to look at again. This is being done so that when we have to do our new permits with our industrial users. The inspectors always like to put out suggestions, and every inspector has a different opinion. One of things that came up in this year's inspection is that we do not 100% know if we are actually requiring the industrial users to do what they are doing because we do not have information. We are saying as a blanket, everyone has to monitor for this. It is not really fair to every industry just to put them under the same blanket. With this, we will be able to tell what is really coming into the treatment plant. We are doing the chemicals too, but I just gave you the BODs and TSSs because the other stuff is monotonous. Each industry is different but because we do not really have a good picture of what is actually coming into the plant; so that is what this is going to give us. Then we can go out and sample each factory to see what they are actually giving to us. We can make that permit more accurate for each industry.

What is the cost for this?

Nothing, except manpower. We always had to do the effluent so we just set up the sampler to do the influent at the same time. Influent was every six months but now we are doing it every month. We do the BOD's and TSS's in our lab, we do outsource the chemicals so that is costing a little bit more, but it is still valuable information for our next permit.

Water

Chad Alfermann has changed careers and Dylan Voss, who has been with us for 6 years, is moving into the Water Foreman position. I just wanted to introduce you to him.

Cochran Engineering is working on the South Point tank. It is the engineering process they have been going through to get everything ready for the permits. We should be going out for bids in December and see what we get. A motion to pay Cochran Engineering for \$7,496.00 was made by Mr. Richardson and seconded by Mr. Mitchell. The motion passed without dissent.

Certain people in Washington have to have backflow preventers. There is a list of them in the packet of anything that shall require a backflow preventer. This is a requirement by the Department of Natural Resources. Everything we do is backed by a requirement by the Department of Natural Resources and it is all tied to the Clean Drinking Water Act. You are going to hear a whole lot about that. We are working on a Lead and Copper Inventory right now; that is the newest thing through the EPA. We will talk about that later. We have a lot of backflow preventers in Washington, anybody that could possibly have cross contamination in their facility that could jeopardize the health of the residents in the surrounding area shall have a backflow preventer. We, as the city, are responsible for keeping an accurate inventory of those backflow preventers, and having on record that they have been tested every year by a Missouri State certified tester. There is a report sent in and we have to keep that on file and the property owner has to keep that on file. We have been fighting this battle for years of getting people to get us the inspection sheets. We have been working very hard trying to get that information together by 2024 when we will have a sanitary survey by the Department of Natural Resources. They go through all our paperwork, they go to our wells, they inspect our tanks, and it is a whole day process. We have to have that accurate

and on record. We struggle to get people to respond because our current ordinance says very little. I got with John (Nilges) and talked about it and I have the proposed code change that will add a little bit of bite to our bark. We have a regulation with no enforcement to it. We have a lot of codes like that that says you should do it but if you don't do it, nothing happens. This is one I wanted to work on first because we have been working so hard on it but we still have people that do not think they should do it. We have no recourse if they do not do anything. We have requirement that if we do not follow the requirement then we, as a city and water department, can get in trouble. I do not want to get the water department in that situation. When the EPA gets mad, it trickles down. The MoDNR got in trouble for not following the Clean Drinking Water Act and that comes down to us. We do not want to get to a point where we have a code but we do not have anything to enforce it, and they are going to look at us and say that's your fault and we are going to get a violation for it. I do not like violations so I try to keep from having them as much as I can. This is one of the things that we need to address to keep from having those violations.

Average citizen with a lawn sprinkler system and the inspector comes and does the backflow testing and then you get a letter in the mail that says, "Are you in compliance?" Sometimes it seems that there is a miscommunication. Who is responsible for the (compliance) of this?

It is the property owner's responsibility to manage their system. Whenever a company comes in to put in an irrigation system, they know it has to have a backflow preventer. They put the backflow preventer in and the first year it is automatically certified because it is new. It is their responsibility and the homeowner's responsibility to have it inspected every year. A licensed backflow installer know the state regulation that it has to be inspected every year. If I own an irrigation company and I knew that you had a backflow preventer and I'm licensed with the State of Missouri, I know that I need to contact you, as my customer, to say I need to inspect your backflow preventer. I do that for two reasons; it is a requirement of mine, as a certified backflow inspector, and it is also business.

Is there a paperwork file that somebody has to follow through with?

The inspector comes in, checks everything, and then fills out a backflow inspection sheet. He gives it to the homeowner and then the homeowner gives it to the city. The only thing that we can do, as a city, is check for the reports and then generate a letter from our office that says, "our records show that you have a backflow device, you need to have that inspected." The assumption is that the inspector came in, checked it, my receipt says it's checked, and I feel like I am in compliance. Typically what happens, is that when I send out the letters, the (homeowner) contacts who did the work and says (the city) does not have the documentation and then all of a sudden the backflow reports come in. This is not for the people that actually do it. This is for the people that think they do not have to do it because there is nothing in our current code that says anything is going to happen if you do not do it. We have to have codes that have enforcement so when DNR comes in and says, "what do you do when they don't do it?" Right now, we call them and say, "you have to" but there is nothing there that says that this is what is going to happen when you don't. This is for the few that are not doing it. So, when somebody comes in that says they are not going to do it, and DNR says, "how are you going to handle that?" When we institute this, then this is what will happen. Once we approve this, this will go to council.

Of these things that are listed, which has the biggest problem?

Irrigation systems are the biggest issue; many times people do not even know they have a backflow preventer, homes have change hands. If someone removes one, it has to be verified that they did. We cannot just take their word for it.

A motion to approve to accept this change and send this to council was made by Mr. Radetic and seconded by Mr. Richardson. The motion passed without dissent.

Other

Precoat has their own treatment plant, if any of you are concerned about their influent that they are going to put into our system. It complies with our low numbers that we put out. They will still be considered an industrial user, they will still have to have a permit, and they will still have to be monitored. I am very confident that they will do everything that they need to do, but as time goes on, things change. Things just happen and so that's why we have to monitor them. The permits last five years, then we address it and double check. We also go out and do spot inspections and sampling twice a year to every factory. It is what we have to do, we have no choice. We have a lot of codes and regulations that the water and wastewater departments have to follow that the rest of the city does not have to follow. We have to follow the city codes, the DNR and the EPA regulations. DNR is suppose to be equal to or more stringent than the EPA regulations and the city codes are suppose to be equal to or more stringent than the DNR codes. The current code we have for backflow preventers would not meet the current regulations through the Department of Natural Resources. It did not say anything about having to have a state certified backflow inspector. There was nothing in there that gave it a what if you don't do this. I follow the codes as close as I can. The codes are what keeps us safe.

We have always been on a Lead and Copper Rule since 1970. Lead and Copper Rule says that there should be no lead influence into the system. Lead was used readily from the 1800's until the 40's and was used to tie galvanized lines into service lines at the main because you can't bend galvanized. Some homes, we think, have a lead line from the main all the way into the house. We have been reluctant on replacing it and now we have no choice. In 1989, they came in with a Lead and Copper Rule Revision. Which was a revision to the original rule, in which they took out any lead solder joint. Solder had to have lead removed from it. Then, in 2014, they came in with no lead in brass at all. Lead was used to make brass fittings and connectors. They went to zero lead in everything that was being manufactured. Flint Michigan stopped the process of coating lead lines which keeps the lead from flaking off. Then they started getting water from a different source, which reversed the flow of water, and they didn't tell anybody and people started getting sick. Because of that, the EPA says that everybody is not telling us. Now we all have to follow a more stringent and new rule, called the Lead and Copper Improvements Rule. Everything in the other two rules is going away and 99 percent of the Lead and Copper Rule is changing. No one knows what it is going to be yet. The one thing that is not changing is the Lead and Copper Inventory. They started it in 2021; it is enforceable in 2024. Every city has to have a Lead and Copper Inventory. EPA wants the community to go to every home and pothole every service line; go in the house, get a picture of what is coming into the house and have that on record. What they are allowing us to do, is if we have records showing that we used copper to a certain point we only have to do 10% +1 of that number. We have records back to 1940's that show we used copper; that number is 4,200 roughly; so we only have to do 430 random inspections throughout the area that verify that we used copper.

We would have a pretty good idea that there are certain sections of town that (has copper). We got to have record, or it didn't happen. We have a good idea where the lead pipes are and we have some gray areas. There is a big push of making sure that everybody is following the Clean Drinking Water Act. Every piece of it is getting hit; lead and copper is the biggest one. If Flint Michigan did

not happen, we wouldn't be having this conversation right now. You are going to see us potholing a bunch of roads, streets, and curbs in the very near future. If anyone sees and questions why we are poking holes in their yard, that's why. It has to be done by October 16 2024.

If you find lead, who is responsibility is that?

We are responsible from the main up to and including the curbstop. The resident is responsible from the curbstop into the house. We do not know if the EPA is going to say because we are the purveyor of water we are responsible all the way to the house or will our ordinance stand, and because we have an ordinance in place, it is the property owner's (responsibility). Then, is there going to be money for this? Who is going to pay for it? Washington will not going to get any money. The state feels that we are the wrong right size community. We are big enough and our median income is big enough that we should be able to sustain ourselves. We scored very low on the ARPA grants. All because of our median income and our water rates are low.

Right now, we are not in compliance with our MS4 permit. In my mind, it is more DNR's fault that we are not in compliance for their ambiguous regulation over the course of the last 20 years. We got that permit when our population went over 10,000 people in 2002. In their mind, we had 20 years to comply with the regulations, but whenever we asked them what we needed to do they would say they do not know and that they would get back to us. How are we suppose to comply with something we do not know what to comply with? John, Kevin, and their guys are going to be focusing big time about bringing us up to compliance. John is trying to come up with some less costly alternatives and there is this whole gamut of education and other stuff. Just know that it is going to be there, we are working on it, and we'll see what the paper has to write about it.

Old Business

A few years back the staff went through a very organized plan on water rates. Several months ago we talked about wastewater. In this meeting alone, not only wastewater but water, we need to express this to the community that these services cost a lot of money to maintain. I am just bringing it up because I know the staff was working on it. John has been working really hard on it, he has met with Mary Sprung (Finance Director). There is a plan in place; there are some numbers that are out there that staff feels are adequate and palatable to the residents. The plan as of right now, we are going to bring it out some time after April for discussion and more planning. We can't roll anything out until the next budget year. We are checking, double-checking, bring it back to the board April or May, have a full discussion and then bring it Council and have it activated in October for the next budget year. That is the unofficial staff plan. This is strictly operational, we want to let the public know, but this does not have to go to vote for operational increases to maintain the requirement to operate in the black.

In the last 5 years how much has the budget increased?

I can comfortably say from last year to this year, the budget has gone up at least 5%. When you get into the rhythm of managing the budget, I know that increases are there, and we try to be as frugal as we can when we are spending money. Our job is to be as efficient as we can for the residents of the city of Washington. We also give them the safest drinking water and the best environmental discharge that we can give them. We try to do the best we can. I am very proud of how the water and wastewater departments operate. We have a great staff and they all know it is our responsibility and they respect that.

Next Scheduled Meeting Date

The next scheduled meeting date is Tuesday December 27, 2022.

Adjourn

There being no further business the meeting adjourned on a motion by Mr. Mitchell and seconded by Mr. Richardson. All in favor aye, those oppose, none. We are adjourned.

Prepared by: Sarah Skeen
Sarah Skeen
Water/Wastewater
Administrative Assistant

Adopted and Approved by the Board of Public Works:

Date: December 27, 2022 Signature: M/E/M/A 005
Secretary