

MINUTES OF THE BOARD OF PUBLIC WORKS
Tuesday, January 25, 2022

The Regular Meeting of the Board of Public Works held on January 25, 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
Member	Brad Mitchell	Present
Member	Mike Radetic	Present
Member	Steve Richardson	Absent
Ex-officio Member	Steve Strubberg	Present
Ex-officio Member	Vacant	

OTHERS:

Council Representative	Steve Sullentrup	Absent
Council Representative	Mark Wessels	Present
Mayor	Sandy Lucy	Absent
City Administrator	Darren Lamb	Absent
Water/Wastewater Superintendent	Kevin Quaethem	Present
Water/Wastewater Secretary	Beverly Hoyt	Present
Public Works Director	John Nilges	Present
Assistant City Engineer	Andrea Lueken	Absent
Emergency Management Director	Mark Skornia	Absent
Fire Chief	Tim Frankenberg	Absent

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 December 28, 2021 meeting. The motion passed without dissent.

Priority Items

There are no priority items.

The usual water breaks around and about it is just that time of the year. We are definitely better than most, spring is when we get the most breaks rather than winter. Reverse hydraulic pressure. We get more when it warms up, than when it is cold. The nature of the business, not a big deal.

Wastewater

We are in the process of replacing 80 feet of a sewer line on Horn Street. This is all part of the slip-lining project. The slip-lining project expanded this year. We went from Project A to add a Project B, which is more line. We did not have time to televise that line before Insituform came in and found (5) five spots that we had to do point repairs on which meant we have to dig down to the main and actually fix part of the pipe that they could not slip line through. So we got those taken care of, we have added (3) manholes. The line we are working on now was in such bad shape it could not be lined. It is about 12 foot deep and egg shaped, the whole main had started to collapse so it could not be lined it had to be replace. The manhole at the intersection of Horn and Mc Clean we found a 6-foot diameter of pipe that was completely gone. This is the good thing about doing this much lining, as we are doing, it pays off really well. We have noticed on the last rain events that we had, except for the pump that was completely plugged and not broken, there has been no substantial increase in water flow on the West end of town. Now we are noticing some increase on the East end of town, which is on our next project. Everything we have done on the West end of town is really paying off and we can see it in the pumping levels at both West End and Walnut Lift Stations. The money we are spending is really paying off. We have had some work to get that to finalize the slip-lining project, which will come back in when we are done with this line. They will be able to come back in and finish the project with the manholes at that point.

I wish I could sit here and say we can televise every line here in town once a year, but we just do not have the man power available. Council did increase my labor load on the wastewater side. They actually gave me the ability to have one lead laborer on the collection side and two (2) maintenance workers. One of which will give me the power to increase the televising, but until we get them hired. Once those positions are filled we will be able to branch out and do so much more. The beauty of slip lining is you take care of your infiltration issues but you also create pipes. These are brand new pipe going under our streets, kind of a 2-fold benefit. The addition where we are working at now is actually coordinated with our paving projects. The work that you see Kevin is talking about, patches and point repairs. That sewer main replacement will be coming through this summer and paving the streets at the same time. It is a process and you try to get them done ahead of time and hopefully that is a benefit that scheduling and coordinating we are trying to improve on through the years. .

You mentioned the pump stations and the water flow, is the technology in those pump stations letting you know when the amount of water going through there?

Yes, we monitor the level of the wet well on a 24-hour basis 7 days a week. We monitor which pumps are running, and we can tell how many hours one pump ran from the other and use the levels as our main indicator. At any given time we can pull this up on our phone or get on the computer and check the SCADA system and tell us level of every well and lift station. The main

lift stations only, not every lift station is on the system. They are just not designed the same. The lift stations themselves the main ones, Walnut Street, West End, West Link and West Main are on the SCADA system. West Main Lift Station picks up the landfill and the leachate, which is important for us to know at all times. West Link picks up all the industrial park and then it pumps it up and over the hill, and down to the main line by the railroad tracks. It goes into the West End and then West End pumps everything from the West side of town, the industrial park to Walnut Street and Walnut Street pumps all of that to the treatment plant. We are able to watch all the levels and tell exactly where they are at any given time. This tells us we are seeing a benefit in what we are doing on the west end of town. Those levels have dropped during rain events.

We have a lot of infiltration. On Horn Street we are working with a lot of ground water about eight (8) foot filling up the trenches as we dig.

Washington is very lucky on the water end. Our deep water table is very high. There are two (2) different water tables. There is an upper aquifer and a lower aquifer. The upper draws out with the residential wells and the lower one is where municipalities draws from. Our water level is very high on this side of the river. Why this side and not the other, I do not know. It is just not as good. We are very fortunate but what that also does is raise the upper aquifer level, which then raises the ground water level. This is all in unison so around here when you drive by the Cinema you see water coming out of the ground. This has run for years like this over 22 years. There is another one on High Street, when it rains the water table is high enough that we have what looks like a fountain coming out right at the curb, it has nowhere else to go. This is not a water main break its just ground water.

We are very fortunate for that because you never know when something could shift. It also adds a problem that look like water main breaks but they are just groundwater.

Treatment plant is working good, slip lining and manhole lining is our biggest thing out of wastewater. We are running still about 2.4 million gallons a day. The design of build is actually 4 million gallons so we are running just a hair over half throttle. We have a lot of growth there, we can expand to six (6) if we have to, if we get more people on line. We would love to see more people on line because it is harder to run the treatment plant at half throttle than it is at full throttle. They are doing a great job at the treatment plant.

On the monthly report the amount of sewage pumped versus the amount of water pumping the numbers are quite a bit apart from one another. Obviously, we are burning through a lot more sewer than water we are pumping. I am sure there is some coming from this infiltration, why is there that big of a difference?

Yes, it is the infiltration and it ties back to our higher water table. If you have a 12-foot line like we have over there, 12-foot deep at 8-foot it is coming into the trenches. That tells me right there we are getting continuous infiltration in that line. When you lift a manhole and look at flow you do not really know if its infiltration cause it is clear. You do not see dirty water like its dirt or mud it is just clean water when you look. It is flowing cause we do not have a way we can look at it every day at the same time to know that level is this or that. It looks like normal flow. We have lines that have a flow we assume is usage cause you cannot really tell, it could very easily be infiltration from ground water because our table is so high. We do treat a lot more than we pump and the only thing we can find that attributes to that is infiltration from ground water. Manholes

too that is why we are lining manholes. What we are paying for is energy the more we take care of the more we can spend on slip lining and getting all the lines that we can lined. It improves the longevity of the plant because it will not work as hard, less energy to run. Lift stations will not have to pump as much. We use VFDs now, which lets the power to the motor drop, which is less energy and less electrical consumption. We are trying to be as efficient as we can. There is a considerable amount of difference.

Are these numbers being tracked, is the gap getting smaller?

We have the ability to track this, we could do a graph, just has not been one of our steps. We have been focusing on doing the job and not really looking.

We do this report every single month and it is something we can do. If that number is not coming down then there is another problem.

In a perfect world, you would have everything sealed from water coming in on every side. There are sources you could have some water breaks mixed in there that we do not know about. There are just all kinds of things. Tracking it would be a part of figuring it out. This is something we will be looking into, yes. We have actually done a good job over the past years using software and things that we have to help us program these things. This is all somewhat new concepts. It would be easy to track it over monthly. There is fluxuation there you are going to have rain events.

Not so concerned on the month-to-month, two (2) years ago, three (3) years ago there should be a noticeable difference from now.

The biggest thing you are going to have is your inflow. Inflow is direct pumping into the sewer main, which is your sump pumps, down spouts that maybe connected. So the problem if you look at it is if you have a wet January or February and you did not have one the year before it kind of throws it all off. Because the inflow will be a number there as well.

Example, on High Street last year, the Shoe Factory roof that connected to the sanitary sewer system. We ran that number and two 2" of rain is about 120,000 gallons. Yet High Street had a box culvert that failed underneath the street that was going to the sanitary eight (8)" line. We had a 15" on Front Street a couple of years ago. Yes, you can track them the problem is it is hard to compare apples to apples from year to year.

Doing the Insituform there should be fluxuations. We could look at month by month. We had a rain event in January we could look back at that, that is a good idea.

With all these water tables, if you seal up over here all that water sitting there will push through weak spots elsewhere, so it will take a long time. Water will gravitate towards it and then spreads back out. It is in an area, not very large. Water will find the path of least resistance and will find a way to get where it wants to go. That is just the nature of water. It is an easy spreadsheet to keep track of.

Water

We have an update on the South Point Water Tower, we went out for RFQ's and had two (2) engineering firms come in. We did an evaluation (Kevin, John and Darrin) and we picked who we felt was most qualified which was Cochran Engineering. We met yesterday and started the process of getting the Scope and Proposal. We will have that for our next meeting. We are moving forward. The water tower will be known as South Point Water Tower. We are in the Scope of Work Phase slash Cost Proposal Phase and will have it for you by our next month's meeting.

Clay Street Water Tower looks good with that blue paint and South Point will be painted the same blue color. Prices are all over the place, which is a concern we have, trying to get this designed. There are only two (2) bidding schedules. We are trying to bid it this summer or in the fall. We do not know where prices are going to go they fluctuate every day. The dollar is going up and do not see when it will be stabilizing any time soon. It is budgeted, and will have a joint effort. The water fund cannot fund the construction. We have worked on this in the past years with water rates, but was unable to fund that. Our Capital Sales Tax funds a portion of that and then we also talked internally and Darren kind of briefed the Council on this but ARPA funds are potential as well that's the federal stimulus money that can be used for water, sanitary it has to be used by 2025. There is some opportunity there and I know we will be coming to Council with that funding breakdown. It was important that the water fund be able to handle all of these in the future. Because we are relying on sales tax and stimulus funds from the feds is not how you want to operate the water system. Trying to get us over the hump and on the straight and narrow.

The bill we have should have been under wastewater for work completed to date from Insituform on what they were able to slip line.

A motion made by Mr. Radetic and second by Mr. Mitchell for approval. All in favor aye, all oppose none. The motion passed without dissent.

Other

We are doing shut offs this week for delinquent accounts. We did not do any in December because Washington has customarily not shut off during Christmas time, so we just skip December. With doing that we only have about 85 accounts that are delinquent, 2-months we only do 2-month not the one-month. Anything could happen on that one-month, in light of things they are not excessive, there is new faces on there that have not been on before. We have 13 that we know we have problems with its either curb stops or units we cannot get into that we are working on. When we started doing this aggressively we had like 50 of them that we could not shut off, so we are weeding them down. What has really helped and we have not had the opportunity to ram up on is the fact we now are responsible for the curb stops. We can now just go and dig them up. Without having to worry about someone coming out yelling; why are you working on my curb stop and it was usually when we are there to shut off. Now they are curb stops and we can dig them up anytime we want. The ones we cannot get on will be our project once we get our sewer project done and when the weather gets a little better. The rest are accounts we turn off and they get right back on the list again. There are a couple delinquent accounts that we will be adding our new alley meters so they we can automatically be shut off. We have two (2) in the system now and they work great. Both accounts we had to shut off did not hesitate to come in and pay. Now they are pretty on time.

Those meters are expensive they are \$450.00 a piece but the first one we put in gave us the ability to collect \$1,200.00 that had not been paying because they knew we could not shut them off. We only have one person shutting off today since the others are working on Horn Street Sewer Project. Next month we will address them with a full crew.

Old Business

Any other discussion – None.

Next Scheduled Meeting Date

The next scheduled meeting date is Tuesday, February 22, 2022.

Adjourn

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

Prepared by: Beverly Hoyt
Beverly Hoyt
Water/Wastewater Secretary

Adopted and Approved by the Board of Public Works:

Date: 2/22/2022 Signature: MWLA DDS
Secretary