MINUTES
Springville Water Advisory Board Meeting – SEPTEMBER 11, 2018

MINUTES OF THE SPRINGVILLE WATER ADVISORY BOARD MEETING WAS HELD ON TUESDAY, SEPTEMBER 11, 2018 AT 6:30 A.M. AT THE SPRINGVILLE CIVIC CENTER, 110 SOUTH MAIN, ROOM 217, SPRINGVILLE, UTAH.

Committee Members in Attendance: Rollin Hotchkiss, Alton Beck, Bryon Boshell, John Clemons, Nile Hatch, Rod Andrew
City Staff: Brad Stapley, Shawn Barker, Juan Garrido, Cl. Jensen, Marcie Clark

CALL TO ORDER
Mr. Hotchkiss welcomed everyone and called the meeting to order.

APPROVAL OF THE MINUTES
Mr. Clemons made a motion to approve. Mr. Andrew seconded. All were in favor.

COMMITTEE BUSINESS

ITEMS:
- 400 South Well #2 Update. Mr. Barker gave an update on the well. The drillers have been developing the well. There was some "sanding" initially, but they have made four complete passes through every section of the well and at this point they feel prepared to continue with the project. This week they are scheduled to perform the sanitary seal and then they can test pump. Mr. Stapley explained what "well development" is - where the sand comes from and what happens to it in regards to the casing. We are taking our time developing the well and doing it right. This well should last a long time and be a good source of water, so any extra costs on it are worth it.

- Summer Water Demands. Mr. Hatch asked how we did with water this water year. Mr. Barker said it was tight. We had to start the evening, especially on the Spring Creek Tank, with all the pumps running (before the level hit 20 feet) or we would have been down to nothing by morning. There were several mornings where Lower Spring Creek Tank was only at 3-4 feet. There are large demands at night. We used around 17.6 million gallons on July 12, 2018 and the Spring Creek Tanks hold 2 million gallons.

- Bartholomew Tank Update. Mr. Barker stated that we're still looking at options to cut costs because the bids came in so high. One option is to tear down the existing tank and use the same site for a new one. We are in the process of updating our master plans for water and pressurized irrigation and the engineer is looking at what our future needs will be, as far as tank size is concerned. We are waiting for their analysis before we make any decisions. The costs were high because of the location, high price of steel and high labor costs. The timeline was also tight and that may have discouraged some bidders from bidding.
  Mr. Stapley explained that he has been working with the County Fire Marshall to find out what the city's responsibility is with fire protection in the canyon. Their fire protection rule for new canyon residents is that they need to have enough water on hand to give the people ten minutes to get out of their home - around 300 gallons per residence. The Springville Fire Department, who helps the County, is not trying to save the structures, but stop a wild fire. From what the County is telling us, the penstock itself can provide the storage needed to cover the County requirements for fire protection, which means we can take down the tank. Mr. Stapley is still waiting for the official email from the County, but that is good news because now we can build on the existing site. Mr. Barker stated that we don't have a timeline right now, but we are hoping to start construction next summer. Mr. Andrew expressed concern about our future, as it relates to conservation. He's not so sure our master plans are sustainable in the long term. Are we going to have 5,000 gpm in 50 years? Mr. Hotchkiss mentioned that it's obvious that Springville has a "green-

lawn culture" and we shouldn't have that when we are the second driest state. Mr. Stapley explained that the city code requires landscaping to be 70% live plants, which can be desert plants. If park strips are less than 6 feet, they don't have to be landscaped.

- Mr. Garrido distributed a handout on sewer plant highlights with all the changes coming from the State. With the nutrient removal requirements dropping our phosphorous limit to 1, we plan to conduct a 60-day pilot test for nutrient removal, adding ferric sulfate. This will also help with odor control. We should be able to remove half the phosphorous and knock it down to about 1.5. On the back end we will finish polishing with another chemical, aluminum sulfate, to hopefully get it down below 1. Other maintenance at the plant will include work on the digesters. We will be replacing the digester cover on the floating lid that has corrosion. Mr. Garrido explained the digester detention time on solids. The 60-day pilot program will help us know what kind of expansion we will need for solids removal and elimination. We are installing a new UV system to do the disinfection/removal of pathogens of the effluent and we are replacing equipment from 2007.

  Mr. Hotchkiss asked what influences digester detention time. Mr. Garrido explained that as we get water coming in from residents, it goes into the primary clarifiers where we settle the actual solids, then pump them into a digester. We have three big tanks (digesters) with the capacity of about 850,000 gallons. There, we capture the methane. Because we're not producing as much methane, it's not cost effective to try to clean and recycle it. There are some new technologies out there that will enhance the digestion process and actually increase our methane, and then at that time we can probably re-use it to put in another generator or boiler.
  Mr. Garrido explained that the plant is at about half its capacity right now, treating about 3.5 million gallons per day. Our plant capacity is 6.6 million gallons and if we need a new digester or different process, this site may be tight. And, if more growth happens, we may see more complaints on odor.

  Mr. Stapley talked about re-using water from the wastewater treatment plant. Once the 3.5 million gallons of water leaves our plant, it becomes somebody else's water. According to current Utah Law, if we held onto it, and put it back into our system (PI system), it's ours. We have rights to this water. Mr. Stapley has asked Hansen, Allen & Luce engineers to look at how we can re-use this water in our PI as they work on our sewer master plan. He would like to start doing this now, before everyone else starts doing it. There are 20 million gallons of water a day between Provo, Spanish Fork and Springville that goes into Provo Bay. If all of us start re-using that water, that is 20 million gallons of water not going into Utah Lake. Mr. Hotchkiss mentioned that the Great Salt Lake is drying up because people are using water more efficiently and we may start to have horrible dust storms off the desert in the future, and the algae blooms and phosphorous concentrations only get worse if you're not diluting. There's a price to pay. Mr. Stapley wants to be on the front end of it, before the State won't allow it. It will cost a little more because we would have to build another tank and pump the water. Mr. Garrido also mentioned that we would have to clean the water more. He talked about the Total Suspended Solids (TSS) and turbidity.

  We are also working on a regional study as part of the variance letter we submitted to the State to delay meeting the phosphorous limit. The State offered to extend another year on that variance letter if the cities will band together to do a study on doing a regional plant. Mr. Garrido explained the map he distributed for the regional plant. Provo is already underway on their new plant near the Provo airport. Springville is looking at the old SUVMWA property we had purchased years ago. The other big player involved is Utah County, with areas such as Lake Shore, Benjamin, and Palmyra. That is where the State is estimating the next population boom will happen.

  Mr. Garrido explained that this study will help us determine how much more sludge we will have to process and how big the compost pile will have to grow. We are estimating it will cost the City $250 - $400,000 a year just for the chemical. If we end up going with that process, we will have to build a 10,000 gallon tank. The EPA is saying there is technology out there to get the phosphorous levels down and they want everyone to move in that direction.

  Mr. Stapley talked about Bird Island in Utah Lake, where there are natural springs coming up. The island is a result of the springs. There is more inflow to Utah Lake in the springs in Utah Lake than there is from surface rivers coming in. So, as much as we can control what might be going in, that's not as much as is going in on natural springs in the lake. The water on Bird Island is full of minerals and it is not very clean.

Mr. Stapley mentioned that we also have the option to build a new plant further west. We have to decide if it's worth putting more money into the 1955 plant or starting new.

Mr. Garrido referred to the metrics on his handout. The WRF section shows average daily flow (3.03 – 3.86) is pretty constant. Nestlé's flows vary from 9 million to 13 million gallons. We also track rainfall. The compost yard keeps increasing. We accepted almost 22,000 loads from July 2017 to June 2018. Mr. Garrido checked with the transfer station since Spanish Fork closed their compost yard and they don't get more than 8,000 tickets a year. More of their green waste is going into the garbage cans.

Mr. Stapley distributed a handout on water produced in Springville. Last month there was almost 471 million gallons produced, which is a combination of all of our sources (springs and wells). We are averaging almost 12,000 gpm out of our wells. Our springs are a huge resource to the community; however, they vary greatly depending on what kind of winter we have. We track the static level on our wells, to get an idea of aquifer depletion, and the trend is not going down. Mr. Stapley mentioned the artesian wells on 400 North that have stopped flowing because of recent development. Because those aquifers are shallow, there is some change on where the water is going.

Mr. Hotchkiss asked about effluent from watering Ag fields. He has heard that in the summer the return flow from our Ag fields in the west fields collects in a pipe or a ditch and discharges into Utah Lake (kind of a point discharge) and that that quantity sometimes exceeds that of Hobble Creek. Is that legendary? Mr. Garrido explained that the water is going into the Packard Drain and also from Dry Creek. Mr. Stapley showed two places on the map near 2500 West 400 South and also 500 North and I-15 where water flows to the lake.

Mr. Beck made a motion to adjourn. Mr. Clemons seconded. All were in favor.

The next meeting will be in November.

ADJOURNMENT

Meeting adjourned at 7:36 a.m.