

Approved
April 18, 2024
as presented

PINE MEADOW MUTUAL WATER COMPANY

BOARD OF TRUSTEES MEETING

THURSDAY, MARCH 14, 2024

SUMMIT COUNTY, UTAH

Board Members in Attendance: Eric Cylvick, Shaun Baker, Scott Smith, Steve Anderson, George Sears - Board Members

Ex-Officio: Brody Blonquist, Trevor Townsend

Guests: Josh Bean and John Oldham with Bowen Collins Associates

Eric Cylvick called the meeting to order at 6:32 p.m.

Minutes

MOTION: Eric Cylvick moved to ratify electronic approval in January 2024 of the Minutes of December 14, 2023, as written. Steve Anderson seconded the motion.

VOTE: The motion passed unanimously.

Financials

The Board reviewed the Profit and Loss.

MOTION: Steve Anderson moved to approve the profit and loss/budget versus actual. Scott Smith seconded the motion.

VOTE: The motion passed unanimously.

The Board reviewed the balance sheet.

Mr. Anderson suggested that they work with Carol to figure out how to earn a greater return of interest on the money in the bank account. Mr. Cylvick explained that the board needs to get approval from the Division of Drinking Water in order to move the \$325,000, which is the escrow amount for the loan. Mr. Anderson pointed to the \$464,000 in Brighton Bank and noted that some money could be moved but leaving out enough to handle expenses for the year. Mr. Cylvick agreed that they could move \$350,000 into a CD

Mr. Cylvick noted that they had collected \$611,000 so far this year and they would still receive another \$230,000.

MOTION: Eric Cylvick moved to ask Carol Steedman to move \$350,000 from the Operations to the MM-4737 account a high interest bearing account. Scott Smith seconded the motion.

VOTE: The motion passed unanimously.

Eric stated that Carol was currently talking with the Division of Drinking Water about moving the \$325,000. If it is approved, the Board could vote via email to move that money as well.

MOTION: Steve Anderson moved to approve the balance sheet as presented.
Eric Cylvick seconded the motion.

VOTE: The motion passed unanimously.

Unpaid Bills

Brody Blonquist reviewed the unpaid bills. Badger Meter was the monthly meter fee. Hydro Specialties was showing a credit of \$8,660 which was for the two 6" meters they purchased for the meter station they were going to do with Mountain Regional. Brody sent back the meters and they were given credit. Brody noted that \$2517 were for the new 1" meters they purchased in anticipation of new installs this year. KGC Associates was Carol's invoice. Pine Meadow Mutual Capital Account is the account the Water Company chose to keep funding after they met the required loan escrow. Rocky Mountain Power was the monthly power bill. Summit County Health Department were monthly samples. The two Utah State Division of Finance were the loans. Verizon Wireless were cellphone services.

MOTION: Eric Cylvick moved to approve paying the unpaid bills dated March 14, 2024, in the amount of \$29,565.78. Scott Smith seconded the motion.

VOTE: The motion passed unanimously.

Manager's Report

Brody reported that the water system was running well and everything else looked good. He had nothing else to report and preferred to give the time to Bowen Collins for their report.

Bowen Collins Engineering Report

The intent this evening was to provide an overview of the engineering report that was provided.

John Oldham stated that the report involved supply and demand in the system, the existing facilities, storage capacity, and boosting station capacity. Bowen Collins redeveloped and reworked the hydraulic model from the original model and used that to look at distribution and system conveyance. Another scope item was integration with Mountain Regional because one of the driving factors when they were originally contracted was potential impacts to the Mountain Regional system if Pine Meadow were to be annexed.

Mr. Oldham remarked that Pine Meadow has its own water system, and they are also connected to

Mountain Regional, therefore, there is some interdependence for emergencies. The interdependency evolved over time. When the engineering analysis was first started there was a proposal for annexation and the Water Company's master plan was 25 years old.

The analysis looked at annexation, capabilities and deficiencies at buildout, recommended improvements and other things to help the systems work better together. There was also a question by Mountain Regional whether they should allow Pine Meadow to permit outdoor watering if annexation occurred, similar to the Mountain Regional customers.

Josh Bean explained that they first needed to decide how many connections there were and how many they needed to worry about at buildout. One of the themes throughout the report was looking at current conditions as well as buildout conditions.

The numbers determined after speaking with Brody showed 520 obligated connections that were either being serviced currently or in the future. Another 294 connections are anticipated for buildout. Steve Anderson asked if the numbers included all the annexed lots. Brody answered yes, as of right now. Mr. Bean stated that they anticipated adding some potential annexation/combined lots, which should balance out with the numbers.

Mr. Bean stated that they went through metered data and information that Brody supplied to figure out what existing and buildout conditions would look like. Existing conditions were straightforward because they had actual data. For buildout conditions, the challenge was seasonal or infrequent owners who are not full-time but could become full-time at any point. They tried to determine a theoretical worst-case condition to plan for at buildout. He reviewed a chart showing the ADD, which is Average Day Demand, that the average customer will draw water out of the system. Existing was 42 gallons per minute and that number jumped to 200 assuming full-time for every connection at buildout. The peaking factors were different from what is seen in a typical system because of seasonal or holiday users. The State Division of Drinking Water requires them to look at the peaking factor versus average day demand when they do these evaluations. The number went from a 3.5 peaking factor existing to 2.2 in the future, which levels out and shows there is less spiking of water use and the use becomes more consistent. Mr. Bean clarified that the 2.2 number came from Mountain Regional's system and what they experience for peaking factors and summer conditions.

Mr. Bean stated that with the limited data set and periodic data, the numbers were established to show what they were currently seeing and what they could be dealing with if they plan for full-time occupied.

Mr. Bean commented on indoor and outdoor water production requirements. They looked at possible outdoor demand and how it will impact the Pine Meadow Water system if they allow it. Mr. Bean pointed out that the end result is that allowing outdoor demand is a bad idea. The usage goes to 4,000 per day per connection versus 168 gallons per existing connection.

Mr. Cylvick clarified that Pine Meadow does not want outdoor water usage. It is prohibited in the Rules and Regulations, and they do not want to change it. He understood that Mountain Regional wanted to

standardize which is why Bowen Collins even studied it.

Mr. Bean presented the existing water source capacity. They looked at what the sources provide and compared it to the demands. The three primary sources combined produced approximately 32,000 gallons per day based on reliable flow. The reliable flow was based on what consistently pulls out of the ground. For example, the Lower Tollgate well could do 10 gallons per minute but not for an extended period of time. Contact and Bobcat were considered backup sources in an emergency. Bobcat has a potential contamination problem which creates issues in terms of relying on it as a primary source. Mr. Bean remarked that Mountain Regional's booster station is by far their largest source of water at almost 20,000 gallons per day. He noted that in total, the Pine Meadow Water Company has potentially up to 522,000 backup and 32,000 primary sources. Mr. Cylvick asked if 522,720 is based off reliable daily flow or a theoretical number. Mr. Bean replied that it is the reliable daily flow.

Mr. Bean presented a chart showing various scenarios including existing without outdoor irrigation, buildout without outdoor irrigation, existing with outdoor irrigation and buildout with outdoor irrigation. He noted that the existing average day demand showed approximately 8,000 gallons per day surplus. Mr. Oldham pointed out that Pine Meadow sources produce approximately 32,000 to 33,000 per day on average. Mr. Bean stated that the average current day conditions are fine; however, once they reach buildout with outdoor irrigation, they will have a 152,000-gallon deficit.

Mr. Anderson asked how many connections the Water Company can have to their sources. Mr. Bean replied that they need to satisfy State requirements. If they have 8,000 gallons per day available on an average day and that is one criterion that needs to be met. Another criterion that needs to be met is peak day and the sources need to keep up with the actual usage. He explained that the sources need to meet it on an average over the course of the year. If the usage out matches the source two days in a row and the tanks are drained, they will be out of water. Mr. Bean remarked that tanks are designed to regulate for one day and the source needs to be able to replenish the tank over the course of 24 hours.

Mr. Bean stated that the Division of Drinking Water basically says they need to have enough water source for the whole year to provide the average day volume throughout the year. Mr. Sears asked if they factored in the fact that two-thirds of the current buildout are part-time residents who are not on the Ranch year-round. Mr. Bean replied that it was factored into the first table where they showed that system-wide, the average 42 gallons per connection per day. Everything that says "existing" uses 42 gallons per connection. Everything that says "buildout" uses 200 gallons per connection.

Brody pointed out that 95% of the report was information for Mountain Regional based on annexation occurring. Mr. Bean noted that the report shows what the water system could look like in the future, but the information was also a function of the markets and other factors. He thought the study had more value to the Water Company in terms of considering the existing scenarios. The existing numbers are real and apply now. The buildout numbers are theoretical worse case scenarios.

Mr. Cylvick stated that it was good to know the numbers, but Trevor and Brody decide when they need water, and it is nice to have Mountain Regional as a source when they need it.

The outcomes from the study are to continue prohibiting outdoor watering. They can meet Average Day Demand, but not peak days demands for existing sources. They will have a 152,000 gallons per day deficit at buildout without outdoor watering. The preserve boost station from Mountain Regional can supply all average day and peak day demand deficiencies through buildout, not assuming any other Mountain Regional issues.

Mr. Oldham stated that Mountain Regional also wanted them to evaluate Pine Meadow Water's current infrastructure. He summarized the infrastructure as 6 water sources, 2 tanks, 5 booster stations, 28 miles of pipe, mostly PVC and HDPE, and 25 pressure zones. Mr. Oldham presented a few maps they produced while working closely with Brody. The maps broke down the locations and boundaries for all the different pressure zones within the system.

Mr. Oldham reviewed a system schematic showing how all the sources, the booster stations, and the pressure zones interact with each other. He noted that working with Brody was critical to develop the schematic and figure out some of the issues.

Regarding the existing infrastructure, Mountain Regional asked them to evaluate Pine Meadow Water's existing structures. A reservoir at Peacock and a 500-gallon tank are in good condition. Uncle Tom's Well and Tollgate Well are serviceable. Lower Tollgate is good, Bobcat Springs has bacteriological issues. Contact Well needs an overhaul, Peacock Pump Station is good. Switchback is serviceable and all the rest are good. The Water Company did a large pipeline installation project in 2009 and overall, the pipes are in good condition.

The recommended improvements included Bobcat Springs. Potential bacteriological issues are why it is currently not being used. It could be redeveloped, but there is not a flow or source and it is questionable whether it is worth the expense. Contact Well is such a small yield the question is whether it is worth investing in it. Mr. Bean did not think Bobcat and Contact were worth dealing with and suggested that they keep Contact as a backup emergency source

Another recommendation was the manual of transfer switch at Tollgate well that would allow them to hookup a portable generator to run the well in power outage issues.

Regarding Uncle Tom's well, the casing is below grade and if they try to build it up now the Division of Drinking Water would not allow it. A recommendation was to consider raising the casing above grade to lessen the likelihood of contamination issues. It is not critical but something to consider. Another recommendation was to add secondary disinfection to Uncle Tom's well. Brody explained that they used to have a secondary disinfection system at Uncle Tom's well; however, they eliminated it because of lack of access during the winter.

Mr. Bean reviewed the buildout storage facilities evaluation for the water system, which looked at the tanks. The process looked at peak day demand, required equalization, and Division of Drinking Water requirements. In response to an earlier question about why they should worry about peak day versus average day if they have storage tanks, Mr. Bean stated that storage tanks help with peak day, but the

sources and pump stations are incapable of doing peak day because there could be a week of peak day. Tanks help with peak day, but other sources are required by the State to also handle peak day.

The required equalization storage includes fire flow storage. Mr. Bean stated that North Summit Fire was not responsive after multiple tries for outreach, so they defaulted to the State's minimum required 1,000 gallon per minute fire flow demand to achieve the full required fire flow storage for two hours. Mr. Bean remarked that besides available storage from the tanks versus required storage, it would be nice to have emergency storage as well and there are different ways to achieve that storage. The State does not require emergency storage and it is optional. Mr. Bean reviewed a chart showing that Peacock tank has a 14,000-gallon deficit at buildout. Mr. Oldham clarified that it was not a deficit by Code. The deficit is only if they want what is required plus emergency storage. Mr. Bean outlined things they could do to get extra flow to the Peacock areas from other zones fed by other tanks. Overall, the Water Company has sufficient storage, and no other action is required.

Regarding the pumping evaluation, they wanted to make sure all the booster stations could adequately pump from their wells and springs. The evaluation showed there was adequate capacity and nothing to worry about.

Mr. Bean presented the hydraulic model. They redeveloped the hydraulic model and brought it up to standard. The static pressure, which is the pressure if no one is using water, cannot be higher than 100 psi per State requirement. The minimum for Peak Day demand is 40 psi. Peak Day demand with fire flow is 20 psi. Water age dating evaluation looked at what happens with the water over a 28-day period, including chlorination.

Mr. Bean noted that the full results were in the report provided. He summarized some of the examples.

Mr. Anderson asked when they ran the model to get the deficiencies whether it was based on buildout. Mr. Oldham replied that they did not allocate the meter demands by address. They looked at the existing demand and distributed it throughout the system on an average day and a peak day with a peaking factor of 3.5. In addition to that, at each node where there is a fire hydrant in the vicinity, they designated that to say check what happens when 1,000 gpm is run through the hydrant on top of whatever else the system is demanding. The results show that three locations could not get a 1,000 gpm. He noted that this was a model, and the numbers are not perfect, but it indicates that there could be a problem. Based on those conditions, the three hydrant locations in the model would produce less than 1,000 gpm for fire flow. Brody pointed out that the three hydrants were very close to the required 1,000 gpm. Mr. Bean clarified that all the scenarios included an existing scenario and a buildout scenario. Mr. Oldham remarked that the final outcome is that everything looks great, and a few places need to be checked out. If the flows are drastically different than what the model showed, they probably have an elevation bust and should confirm the actual elevation.

Mr. Bean noted that the report identifies a few model issues and pressure issues the Water Company should consider. They did a water analysis to figure out the risk of chlorine residual dropping off due to less demand. The system is difficult because there is low demand; however, they still need large enough

pipes to convey fire flow. If the water is sitting in the pipes and not being used, there is a risk of chlorine residual burning off and/or bacteria growing. Mr. Oldham stated that this only happens if the chlorine system goes down. Brody samples for chlorine and none of these were a concern unless something happens to make them a concern. Mr. Bean stated that if they are not having bacteriological problems and Brody is not finding issues in his testing, the risk is probably not as great, but technically there is always something and he continually thinks about reducing risks.

Mr. Bean remarked that Mountain Regional asked Bowen Collins to put a cost to resolving some of the potential fire flow issues assuming there is a legitimate deficiency and some of the pipelines need to be upsized. Based on the conceptual costs, the length of pipe, and other things, the costs were outlined in the report by Mr. Oldham

Mr. Bean presented what Mountain Regional needs to do on their end to get sufficient flows to fully supply the Pine Meadow system at buildout from Mountain Regional's sources. He assumed that any costs would be passed on to the Pine Meadow customers through a special rate. Mr. Bean stated that capital costs were roughly estimated at \$950,000 as a ballpark budgeting number for all the upgrades. Mr. Oldham clarified that Mountain Regional would be required to do the updates in order to serve the necessary flow capacity to Pine Meadow at buildout.

Brody appreciated that Bowen Collins had done a very thorough job preparing the report. He commended their efforts and thanked them for doing great work for both Pine Meadow Water and for Mountain Regional.

Mr. Cylvick understood that if Mountain Regional supplied Pine Meadow they would be receiving 285 gallons per minute. He believed the reality was that Pine Meadow would not need more than 150 gallons per minute at buildout. Mr. Oldham agreed that 285 might be a high number, but Mountain Regional wanted to plan an amount that would make sure they could supply Pine Meadow at buildout without affecting their existing customers. Mr. Cylvick asked about paying for upgrades if they were annexed into Mountain Regional. Mr. Oldham replied that Pine Meadow would be its own rate zone and as improvements became necessary, Mountain Regional would need to adjust Pine Meadow's rates to pay for those upgrades. The upgrades would only be done as needed and not at one time.

Mr. Anderson noted that the model found three deficiencies within the Pine Meadow water system. If they were to update the model each year, he asked if Bowen Collins could help with the update and do a five-year projection. Mr. Bean replied that they could help prepare a master plan, and he suggested that they update the model every year. Mr. Oldham stated that in the big picture, this report was their master plan in terms of where they are and where they could be. In terms of occasional development and keeping the model updated, it would be worth doing if new relevant information came about that would change the results of the model.

Mr. Oldham stated that the main message from the report is that the Pine Meadow Water system looks good, their storage is adequate, and they have enough source for what they currently need. He explained that the planning numbers for usage were based off the actual meters. But if they needed to

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purchase water because there was a leak and 45% was going into the ground and that was also taken into consideration.

Brody reported that he also had Bowen Collins prepare a detailed sheet of the new meter installation and trench details. The Board should expect an invoice for that work. Mr. Cylvick stated that Pine Meadow Water would like to work with Bowen Collins in the future and to be the engineers for the water system.

The Regular meeting of the Pine Meadow Mutual Water Company Board of Trustees adjourned at 7:37 p.m.

Minutes Approved

Date