

Assistant General Manager – 1) Production - Lon Dalley explained that last month he estimated our numbers for production to be 80 million gallons. He was off about 2 million so he was pretty impressed with himself. Our actual production last month was 82 million so we're right where we should be. **2) Arrow Canyon #1** – We were adjusting the gpm down to 900 to maintain a consistent base to go off of. Unfortunately the well was having a vibration issue and we didn't want to jeopardize the well because Arrow Canyon #2 was still being rehabilitated. We didn't want to snap the shaft or have the well go down for some other reason so we didn't adjust it at that time. It was at 1200 gpm so that's why it was low and that's why Lon didn't have anything else to go off of. Joe will talk about this in his report.

Ryan Wheeler asked if there was anything new in the lost and unaccounted for water.

Joe has a quote from Gutermomn to buy the leak detection equipment. If we buy the equipment we can use it as much as we want. It will cost around \$20,000 to get 10 correlators. We can disperse them throughout the system and collect them back up to get the information off of them. Mason is finishing up our maps system. Right now we can't send out all of our information to people so he's created a small file with all of the pertinent information on it. For the other individuals that actually come out and do the work for us (finding the leak), that information will get shipped off to them next week. Hopefully we'll get quotes from them also. We'll look at all the quotes we get and decide what is best for us. There's still an anomaly somewhere because we don't have any rice paddies anywhere. We still think it could be in a gravel pack. For October the lost and unaccounted for water was at 19%. Last month Joe couldn't give the Directors a number because we hadn't finished closing out billing. We had a lot of bad meters at first but now the meters we're checking are reading correctly so we can't say it's all in the meters. We also can't say there's a leak out there either. It has to be a combination of things but we're still going thru the meters. We've also calibrated our insertion meters and we're tight between the Moapa Tanks and the production facilities. That rules out things going back into NV Power's lines and that area up there. We've been working on the PRV at the Perkin's Elementary School. Once we get a new meter put inside there, we will continue to calibrate as we're moving these meters around. Kyle at Pelourus has created a report that shows all of our usage inside our pressure zones. Instead of just having Overton and Logandale as a zone we now have Moapa as a zone. It will help us know what's being used in the different areas. It's the only idea we have right now.

General Manager – 1) Arrow Canyon #1 & 2 -The pump and the motor have been put back in Arrow Canyon #2. It's running great. Arrow Canyon #1 was pulled. The one thing that they did find on the tear down report was that all of the vibration is coming out of the bowls. Two things that we found when we researched the problem are that Arrow Canyon was built the correct way but there is column that doesn't have any grout on the outside. It's not too far out that we're going to have to look at trying to get some grout in there. The problem is that it's less than 1½" so being able to get grout in there is going to be difficult. Also, Arrow Canyon is not gravel packed. Since it's not gravel packed and they drilled a 24" hole and put a 20" casing in there, there's a space on the outside that went into limestone so they didn't gravel pack it because they didn't have to. When we start pumping grout in there, we will pump it clear down to the bottom and plug it up. It might be best to just leave it the way it is but we are still doing some research on that. During this conversation they came up with two different companies that if we use them it will have a Polymer Acid Mix that we can clean Arrow Canyon with. The question is, how far will it travel and will it get into Arrow Canyon #2. It's been used on carbon steel a lot and it doesn't tear the steel apart. The dye test is scheduled for next Tuesday. If the dye goes into Arrow Canyon #2, we will have to shut down both wells if we're going to treat them. We hope it doesn't go over to Arrow Canyon #2. Jay doesn't think they're interconnected. The dye people don't think they're connected either. The report will be sent over to Jay for him to review and then we'll decide what we want to do. Next year for the budgeting cycle, Joe is going to have someone come in and do an acid test. Joe's been working for over a year trying to renew Arrow Canyon's r-o-w. If it's taken over a year so far, what's going to happen when we try to get a new one for Arrow Canyon #3? We have some options that are available to us. When Arrow Canyon #2 went down in the winter time and we couldn't run Baldwin, we ran Arrow Canyon Well #1 so low that it caused the bearings to go bad. They can fix it so we can run it that low and not cause any damage by adding 5' shafts so that's another cost we'll have on Arrow Canyon #1. Layne actually has some extra 5' shafts from another project, so they will sell us some at a discounted price. Either way it's going to be expensive. **2) Baldwin Spring Project** - There were a lot of pump companies that had a lot of questions on NSF61 certification requirements on the impellers. They kept saying that the pumps can't meet spec. That's exactly what Kevin at VVH2O has been saying. We extended the time on the request for bids. We were going to have the approval of the bid on this agenda but we extended the bid opening to December 13th. Hopefully that will give the pump companies time to come up with some solutions. Warren said that he could address some of these questions with NDEP and get us approved on something other than coated steel but Joe doesn't want to cross that bridge yet. He wants to wait and see what the costs come

in at. There's going to be some major costs involved in this. National Rural Water Association is getting involved in this issue now.

5. Public Comment

None

**6. Director's Preference
- Litigation (Closed-Door Session)**

On motion of Chairman Staton and seconded by Lindsey Dalley the Board voted 5-0 to call a closed-door session at 4:23 pm.

On motion of Chairman Staton and seconded by Jon Blackwell the Board voted 5-0 to reconvene the open-door session at 4:55 pm.

**7. Personnel
-Employee Christmas Bonus**

On motion of Chairman Staton and seconded by Lindsey Dalley, the Board voted 5-0 in favor to give every employee a \$400 Christmas bonus.

8. Approval of the January 11, 2018 Board Meeting

The general consensus was to hold the next Board meeting on January 11, 2018.

9. Public Comment (May be limited to five minutes)

None

10. Adjournment

The meeting adjourned at 4:56 pm.