

ASHLAND WATER ADVISORY COMMITTEE

April 25th, 2017

CALL TO ORDER

John Williams called the meeting to order at 4:05 PM

Committee Members Present: Don Morris, John Williams (chair), Joe Graf, Michael Morris (council liaison), Rich Miller, Donna Rhee, Pat Acklin, and Alex Amarotico

Committee Members Absent: Darrell Boldt, Kate Jackson

Staff present: Emily Matlock, Scott Fleury, Julie Smitherman, Steve Walker, Michael Morrison, Greg Hunter, Kevin Caldwell

Staff absent: Mike Faught

Consultants: Jeff Ballard (RH2)

ANNOUNCEMENTS

None

Public forum

None

WATER CONSERVATION MODELING (DSS UPDATE), WATER YEAR UPDATE AND WATER MASTER PLAN UPDATE

Williams announces that Patton will be resigning and if anyone has any suggestions for a new member to please pass them on to Fleury, himself or the Mayor.

Smitherman presents our historical consumption data and the amount of total accounts over the years. The graph shows an increase in accounts but a slight decrease in consumption over the years. Smitherman says they're reviewing all of the measures that were presented at a previous meeting to determine which is best suited for our community. Currently Smitherman is going through the state plumbing codes and how that's going to impact conservation potential in the future. For example toilets, currently they're 1.6gpm and in the future that could change to a standard of 1.28gpm. We're going to do an in depth review of market saturation and how many of these toilets and washing machines have we already rebated in our community and what's left. A lot of this has been gathering data from historic conservation efforts. We still have about an estimated 35%-45% of our community who still have high flow toilets of 3.5gpm or greater.

Morris states that sometimes with the low flow toilets they don't flush properly. His question, is there some device or way to control the flush handle so that when they go down, they actually flush properly instead of having to flush twice. Smitherman said that she's heard that before and it happens with certain brands of toilets. She mentions that they not only offer rebates for high flow toilets, but also for the lower flow toilets to replace them with an even more conservative option. The reason for this is because when the first low flow toilets came out there were issues with having to double flush which in turn wasn't conserving water like it should. This is why we still offer rebates for those types of toilets as well as the high flow toilets.

Fleury asks if there is a way to replace the current flush arm with a water efficient one. Smitherman says there is but it's not recommended because that specific toilet is equipped with certain components to make it flush properly. If you don't replace it with the same parts you can have a problem.

Williams says one of the interesting things about the graph she's presented, is that back in 1995 the usage was even lower than it is today. Smitherman says she believes that we had a drought back in that time frame which would correlate with that usage. William asks why usage is lower back then when people were in theory conserving less, than it is today. Smitherman states that the population was less, and Graf states that there was a lot of rain in the summer of 1995.

What Smitherman is doing next with all of the data she's gathered is entering all of the plumbing codes into the system, look at saturation rates, the rate at which commercial buildings use water indoors because that will always be different than residential. After this, they will take the measures that they started with and go into more details and come up with whether or not the particular programs will be cost effective for the customers and the city.

Williams asks what are some of the problems Smitherman is running into and what are some of the highlights. Smitherman states that it's a slow tedious process with the codes and standards portion of this. It really takes a lot of time, so time would be the most challenging thing. Utility billing will be putting together a spreadsheet with the sectors that we need to update the model. They will be updating the spreadsheet twice a year, and then Smitherman can enter it into the model and see how things have changed. We are also working on getting stream flows. We have a weir on the East and West Fork and also have USGS data for those forks as well. We're also using USGS data because our weir can only go up to 11.99 mgpd, after that point we rely on the USGS data which is all in cubic feet per second that has to be converted. Graf asks which year did we base the 15% historical consumption on. The year was 2008 and since 2008 we've conserved a good amount. William says it's interesting to see the winter usage low point relatively the same all the way across the graph despite the population increases. As those accounts have increased, we have gradually been able to save more water over time. We're still recovering from the last two years of drought, so it's not safe to say we're conserving that much without gathering more data. It would be common to see the rebound from the drought.

Smitherman says our current snow pack is 141% of normal snow water equivalent. Rogue is 141%, Klamath is 148%, and our watershed is 163% of normal. The NRCS website is where this information is gathered from. Readings are taken from the Big Red weather station and end of the month annual readings done through May for the Caliban, Switchback and Ski Bowl road area. The treatment plant sends us a report every day of how full it is as well as what the East and West fork flows are. Once the snow starts melting the flows will increase to 25 mgpd- 40 mgpd. The USGS data will have this recorded and we can do the conversion from cubic feet to million gallons per day. Reeder is only 53% full as of right now which is done on purpose so we can fill it as

the snow melts. We plan to start refilling at the first of May to about 70% and then in mid-May it'll go up to about 100%. We'll open up the spillway, allow water to flow over and kind of flush out the system and then continue to refill and keep it as full as we can going through summer.

Fleury said it's in the 50% range due to the management philosophy for storms to protect the dam itself and the abutment from potentially overtopping. That is something that we've discussed and used as a management tool up until the time when we need to refill it and use it for drinking water.

Amarotico asks what the total capacity of our reservoir is and the answer is 283 million gallons. He also asks if that size gets smaller every year due to silt etc. Fleury said that we program for every other year to remove silts from the East and West Forks. Over the last couple budget cycles we've removed over 10,000 yards of sediment from the forks. We recently did a bathymetry study of the reservoir and it was overlaid with the one that was done in 2007 and it showed minor increase in sediment. The majority of the sediment loading was close to the forks rather than the dam face. In the next cycle we're going to look into the entrance of Reeder Reservoir as well and cleaning up those legs into the reservoir for sediment.

Smitherman said we keep our reservoir drawdown curve on our website under "water" in the Public Works section. It shows us the water level in the reservoir. Currently it's low but we're going to fill up. It will peak up in June and after that point if we're using more water than we're bringing in, that's our first sign that we need to supplement. This can happen by either TID or TAP. Williams asks if we want to have the reservoir 100% full by June 1st, 2017 and that is correct.

Ballard asks if the community gives a good response when the reservoir levels drop. Smitherman says we receive a great response from them and we try to get as many tools out there as possible to show how much we're using. We have the red/green/yellow gauge that shows how many gallons per day we're using.

Acklin says that it seems there would be a point where the city could issue a press release when the drawdown curve hits a low. Smitherman says we're working on that currently for when that's triggered.

Graf says now that we have the TAP people's incentive to conserve might be less. We need to be sure we craft our messages appropriately because someone can say we can get the additional water from TAP so why should we worry if we fall under the line. Ballard asks if there is a way to capitalize the volunteer consumption in the conservation plan moving forward. Or a way to figure out what the common conservation measures are that the community is more willing to do when the request is put out. Smitherman says the most common and widespread conservation measure is irrigation when the request has been made. Smitherman says when speaking with a customer she never tells them to stop using water. She talks to them about prioritizing their water use and what's the most important piece of their landscape. As well as what steps can they

logically and practically take to reduce water usage, and more often than not it's the irrigation.

Ballard says we did our hydrant testing at the end of March, and they went very well. A substantial amount of data was collected. They placed pressure gauges throughout town to measure the water pressure. Every two seconds a pressure was recorded. Also when we were flushing the hydrants we were watching to see how those instantaneous demands were affecting the system as a whole. By the end of April they should basically be done with the data collection at that point. With that the hydraulic model update and calibration will be started. After that's done, they'll go into the water system analysis which will go June through August. Then the capital improvement plan will be started around the beginning of August, and that will tie it with the expected pre-design work that's being done with the new water treatment plant and pump stations. After that's completed, they'll reevaluate the financial plan and move onto the summary of the appendix and the final draft of the water master plan which should be completed in October. While all of this is being worked on, the O & M plan, the shared vision plan and the climate change which is more Smithermans realm, and the conservation plan. Right now it's planned to have the model wrapped up by the end of August.

Ballard says something else they've been working on outside the data collection is the "one-water" conceptual evaluation. We've made some decisions moving forward trying to look at taking advantage of what we think are the best opportunities for Ashland. The idea behind this was kind of an overarching thought process to kind of get the community thinking about the possibilities of moving forward on the use of one-water. Currently storm water harvesting, both private and municipal, grey water from a private side, recycled water from municipal wastewater, and looking into further conservation measures are all being looked into for potential one-water use. Williams asks if we ever completed a look at all of the ground water availability within the city. There was a report done in 2012 by GSI, however it didn't come back favorably as far as available ground water sources.

Williams asks Smitherman if the city currently gives rebates for residential storm water collection. The answer is no, not under Smithermans program. However, the city is looking at large catchment systems for conservation for residential use. They are looking to see if there are any financial incentives to the residents.

There will be a tour Saturday June 3rd for rain water catchment and grey water system. We'll meet up at 10:00 am at North Mountain Park. We'll be looking at a completely legal grey water, laundry to land system. There is also a 9,000 gallon rain catchment system and the gentleman who designed it will discuss the design, and function of it.

Tier 1 is the most commonly used grey water system, tier 2 you can hold the water for longer but you have to water quality testing on it and send those results to DEQ. Tier 1 you can hold up to 300 gallons in 24 hours but no more than that, tier 2 you can go over that but that's when it triggers water quality reports. It's meant to protect your neighbors.

Ballard asks if there's been talk about incentivizing that, and Smitherman says they are discussing it. They are going to go through the model and really look at the cost benefit analysis. As far as incentivizing a grey water system, it's not a cost effective system, unless you are building new development. Conservation is looking into working with the building department so that it would trigger a new system to be inspected and it would ensure proper installation.

Fleury states they've been taking coupon samples from the TID line as one of the thoughts to repurpose the TID line to bring raw water from Reeder down to the new plant. They have taken the samples to test its structural integrity, and also have been investigating the line to find thrust blocks, as well as other exploratory digging. This is to verify that the line can be used for a certain amount of time. We might potentially have someone come out with ground penetrating radar to do a little bit more investigating for thrust blocks. The next thing we're going to do on that line is pressure test it, or try and pressure test it.

Our next meeting we expect to have Keller & Associates here at the meeting so everyone can meet them. We'll be discussing improvement to the Park Estates Pump Station.

Morris asks what the definition of dead water is and what its nature is. Fleury states how the pump station sits currently for the Crowson reservoir, doesn't allow it to suck water out of the reservoir up past 11 feet. So at 11 feet the pump station can't pull the water out of it at that point. We're looking at changing the orientation of the pump station and moving it across the street and installing new vertical turbine pumps so it can actually access all the water in the tank. That's approximately one million gallons of water in that tank that is currently inaccessible.

Fleury also states once we finalize and close the loan documents for the Wastewater improvements, we will be moving forward with the project to pipe the TID canal. That will improve water quality and quantity. We also are looking at doing pre-treatment at Terrace St. which was one of the recommendations that came out of the last capital plan. This would be to pre-treat the water before it gets sent up to the plant to help the treatment process in its current status.

Williams asks if there is a timeline for the construction on the new plant, and the best guess it to be late 2018/ early 2019. Piping the TID construction won't begin probably until 2018/2019.

Meeting adjourned at 5:20pm
Respectfully submitted,
Emily Matlock
Public Works Administrative Assistant