

## Portland Utility Board

July 11, 2017, 4:00– 6:30pm

Room C, Portland Building

Meeting # 26 Minutes

### Attendees:

*PUB Members:* Alice Brawley-Chesworth, ex officio (on phone)  
Allan Warman  
Ana Brophy, ex officio  
Colleen Johnson  
Dan Peterson  
Hilda Stevens  
Micah Meskel  
Mike Weedall  
Meredith Connolly (on phone)  
Robert Martineau  
Scott Robinson  
Ted Labbe  
Lee Moore  
Van Le, ex officio

### *Absent:*

\*Notice of absence provided prior to meeting

### *Staff:*

Mike Stuhr (Director, Portland Water Bureau)  
Gabe Solmer (Deputy Director, Portland Water Bureau)  
Nicole Adams (Communication Director, Portland Water Bureau)  
Jaymee Cuti (Public Information Officer, Portland Water Bureau)  
Ashley Tjaden (Community Outreach and Information Representative, Portland Water Bureau)  
Brian Balla Community Outreach and Information Representative, Portland Water Bureau)  
Cecelia Huynh (Director of Finance and Support Services, Portland Water Bureau)  
Liam Frost (Management Analyst, Portland Water Bureau)  
Megan Callahan (Public Affairs Manager, BES)  
Jeff Winner (Capital Improvement Program Planning Supervisor, Portland Water Bureau)  
Yone Akagi (Principal Engineer, Portland Water Bureau)  
David Peters (Principal Engineer, Portland Water Bureau)  
Glenn Pratt (Hydroelectric Power Project Manager, Portland Water Bureau)  
Todd Lofgren (Senior Policy Advisor, Commissioner Fish)

Jane Marie Ford (Financial Analyst, City Budget Office)  
Melissa Merrell (PUB Principal Analyst, City Budget Office)

*Public:* Janice Thompson (Citizen Utility Board)  
Carol Cushman (League of Women Voters)  
Mark Knudson (Tualatin Valley Water District)  
Julia DeGraw (Food and Water Watch)  
Joe Walsh  
Richard Loggerbach  
Dr. Thomas Ward  
Sharon Genassi (?).  
Dee White  
Regna Merrit  
Scott Fernandez  
Lighting  
Floy Jones

**I. Call to Order, Disclosures of Communications, and Approval of Prior Meeting Minutes  
Minutes Approval**

Allan called the meeting to order at 4:00pm. He reminded the audience this is a meeting of citizen volunteers tasked to advise City Council on items related to the Water Bureau and The Bureau of Environmental Services. He walked audience members through the agenda, stating that a large portion of today's agenda is related to the decision pending before council on how the bureau complies with federal regulations for drinking water, but there were also a few items of board business and a presentation about changes to the hydropower contracts before that discussion. Allan said that during the Water Treatment discussion, there would be representatives from the Water Bureau to address a list of questions the PUB submitted to them on July 5; then there would be comments from a number of invited guests limited to 5 minutes each; then the floor would be open to public comments limited to 3 minutes each.

Allan said that after the meeting, board members would consider the information provided over the last several months and meet next Tuesday to reach consensus on input to provide council. That meeting will be held July 18, 11am, in the Pettygrove Room and is a public meeting.

Allan then welcome any members of the press in attendance and reminded board members that the board was still in the information gathering phase for the treatment questions and therefore the board has no position yet.

Allan also welcomed four new board members: Dan Peterson, Hilda Stevens, Ana Brophy, and Van Le and confirmed that the board has a quorum of members present to conduct business.

Approval of Prior Meeting Minutes

Melissa Merrell noted two small adjustments to the draft minutes that had been submitted to members for review. Robert Martineau requested an amendment to pg. 7 to clarify intent of his comment.

Robert motioned to approve the minutes as amended; Scott seconded. On voice vote, the board approved the minutes with 2 members abstaining.

#### Disclosures

Allan participated on the Water Bureau interview team for the past few days hiring a supervisor. Allan and Rob also met briefly.

Robert met with Julia DeGraw from Food and Water Watch, as did Micah.

Colleen attended a Water Bureau administrative review meeting and she, Allan, Rob, and Micah went to Council review meeting on water quality.

Scott attended a BES administrative review meeting related to SDC charges and suggested the PUB follow the SDC development as it fits with city priorities related to housing development.

Micah asked if there will be follow-up. Melissa said she would work with Scott and Colleen to provide a brief writeup of their administrative review meetings.

## II. **Hydropower Contracts** (David Peters, Principal Engineer, and Glenn Pratt, Hydroelectric Power Project Manager, Portland Water Bureau)

Colleen introduced the item stating it was in the agenda this month because the contracts are being finalized this month. She said David would walk through four different contracts during his presentation. If the board members have questions, Colleen said they'd need to be developed over the next two weeks to have input in the council process and asked Melissa to compile questions to be submitted to the bureau and request responses from Water before the council session on July 26.

Micah asked a clarifying question if Council had already voted on one of the contracts. David responded no; the Council heard testimony on the operations and maintenance contract and would be voting on it on July 20, 2017.

David began his [presentation](#) stating that the reason the bureau is negotiating new contracts is because the current agreement with PGE expires in August and new agreements will go into effect September 1, 2017. He introduced Glenn Pratt who is the Project Manager for hydroelectric power.

David started by saying that the Hydroelectric Bureau is a separate bureau dedicated to managing sales and agreements to operate and generate power in the Bull Run Watershed. It has reported to the Water Bureau since 1989, but is separated financially, because construction was financed through City Revenue Bonds, and is currently debt free. All profits from power sales since have gone to the General Fund.

He showed photos of the facilities at Dam 1 (a 24-megawatt powerhouse) and Dam 2 (a 12-megawatt powerhouse) which generate enough power for 8,000 to 9,000 homes on an average annual basis. He said the City of Portland developed the hydro facilities in early 80s, an idea that

started in the early 70s during the energy crisis. The current sales agreement was signed with PGE in 1979 and they started generated power in 1982.

The 35-year agreement was a good deal for the city. PGE operated and maintained the facility, delivered the power into the distribution system, took care of bond payments and administrative costs. The General Fund received between \$13million and \$14 million in that time.

PGE wants to keep getting the power, but doesn't want to continue operating or maintaining the facilities because of the associated risks.

The bureau has several options: continue to generate and sell power, either on open market or by selling to PGE, or they could decommission the facilities. Decommissioning was dismissed due to costs and giving up license under Federal Energy Regulatory Commission. The bureau deems hydroelectric as still viable. Power markets are significantly different than 35 years ago, due to, among other things, developments in solar capacity, wind generation, and natural gas. David showed graphs of renewable energy production in California and a map of the interconnection of California to rest of the western states. This will have a big impact on power rates.

David then presented four agreements: power purchase agreement (revenue), operations and maintenance (expense), scheduling (expense), and transmission maintenance (expense).

- Power Purchase Agreement with PGE. This agreement would last 15 years. They wouldn't have to pay tariffs to use distribution system. This agreement would give certainty through next FERC relicensing. It would be a variable contract adjusted annually depending on generation. The first hearing at council will be July 26, 2017.
- Operations and Maintenance Contract with Energy Northwest. The agreement would provide people 24/7 to do daily maintenance, annual maintenance, and upgrades. They would coordinate with Water Bureau staff. Energy Northwest is a public agency of the state of Washington (nonprofit). The agreement would be for 5 years with the option for annual renewals. The cost is \$8.0 million for the first 5 years (\$2.0 million Y1, \$1.5 each remaining year). There was a Council hearing July 5, 2017 and a vote is expected on July 20, 2017.
- Scheduling Agreement. The bureau will need people available 24/7/365 to run production models and to issue dispatch orders to the O&M folks to create right amount of power at the right hours. The bureau is working with Eugene Water & Electric Board, which has real-time operations desk. The agreement would be for 5 years. The cost has not yet been negotiated and a council hearing date has not yet been set.
- Transmission Maintenance Agreement. This would be for general transmission maintenance such as removal of trees, inspection of poles and cables, and repair of damaged power lines, transmission lines, and power meters. The bureau is talking with the PGE Transmission Services Group about a 5-year contract which is in development. The cost has not yet been negotiated and a council hearing date has not yet been set but the bureau hopes it will go before Council on July 26 with the Power Purchase Agreement.

David showed the board a chart with the range of estimated annual revenue and estimated expenses.

He also talked about hydro generation and the risks associated with the project and how the bureau is mitigating those risks.

- The volume of water and timing of runoff varies from year to year. The contract benefits both parties by allowing for purchasing flexibility based on market conditions
- The contract acknowledges FERC license and other limitations on operational flexibility
- The bureau is developing project operating parameters to address how the water supply function of the Water Bureau constrains reservoir elevation levels which may affect energy production.
- The bureau will ensure proper maintenance and repair to minimize risk due to generator operation.

The floor was then opened to questions from board members.

Mike W. asked if the bureau put out competitive solicitation for power sales agreement. David said the bureau talked with PGE first because of the lines. If they did a solicitation, any other buyer would have to pay tariffs on top of the power price. Glenn said that just to be able to meet that price due to tariffs, any buyer would have to get \$6 more per kWh than what PGE would offer which is just not feasible in this market. He noted that in energy markets, scheduling used to be on hourly basis, now on 15-minute basis, so value is going down.

Mike W. asked how much storage there is and who dictates how the power is going to be drawn upon. It sounds like PGE will be determining what price they're going to pay which would create a price differential. David said there are mechanisms in the contract to create incentives that balance each parties' desires to take advantage of what both parties would like to accomplish. There are elements that prevent PGE from not taking advantage of all the high-priced hours.

Mike W. said he'd like to see a copy of the agreements and noted that hydro is an incredibly powerful resource. He knows that the market is changing, but hydro is probably the best thing out there. He has concerns about the low revenue assumption on the chart showing that the bureau may not cover expenses. Allan asked when the documents would be available. David said draft agreements should be part of council materials and final documents would be available sometime after Council approval.

Scott asked if all the agreements were bilateral agreements or market-based agreements. David said they did not bid on any of them. They did talk to different parties on the market before making decisions, but learned enough about going with private companies through a low-bid process to determine that going with a non-profit would be more advantageous.

Scott noted that previously net revenues were transferred to the General Fund and asked if those transfers would continue. David said yes. Scott asked a follow up questions about what would happen if revenues come in lower than expenses. David said they intend to create reserves/mitigation fund. When they have the costs for all contracts, they will figure out how much they will need in a reserve. Scott asked if they have already determined what the policy

frame that will keep elected officials from dipping into reserve and David said they were still working out the details.

Micah asked if the Water Bureau pulls power from its hydro production to power its own facilities first, or is all power transferred to PGE. David said everything is transferred and they buy it back. What's produced is a different product that what's consumed. The bureau would need a transformer to convert the generated electricity into the right voltage to be used on site. Micah asked if they bureau has explored that option and David said no.

Colleen asked about the scheduler agreement what would happen if the bureau has agreed to produce a certain amount of power, but can't deliver. David said there are elements in the contract to address this and Hydroelectric Power would have to pay liquidated damages. It sounds bad, but they bureau feels it has done enough evaluation of the contract to feel confident that on the days we can generate power greater than specific amount over the course of the year is going to be double what we might expect in a liquidated debt scenario.

Colleen closed this portion of the meeting with a reminder to members to get any questions to Melissa by the end of next week.

III. **Treatment Water** Gabriel Solmer, Deputy Director, Yone Akagi, Principal Engineer, David Peters, Principal Engineer, and Cecelia Huynh, Director of Finance and Support Services, Portland Water Bureau

Allan recapped the decision before council for the audience and new members.

In 2012, the Water Bureau received a variance from the Oregon Health Authority (who enforces the federal rules) and could not treat the water for the parasite cryptosporidium but they did have to regularly test the water in Bull Run and take prescribed measures if cryptosporidium was found.

Earlier this year, multiple samples taken over a month tested positive for cryptosporidium and OHA has directed that it will revoke the variance in September and that the Water bureau must submit a course of action by August 11.

The city held a council work session on June 27 and are expected to vote on a resolution on August 2.

The PUB submitted [questions](#) that the bureau will now answer.

Gabe began by encouraging members to watch the [video](#) of the Work Session which gives a good overview of the topics. They will provide answers to each question submitted. Gabe also told the PUB that public comments are being accepted on Water Bureau website and they will be provided to PUB as well as individual commissioners.

Q1. What is the risk to the city of building a UV treatment and realizing that there are other risks to the city?

- A. Yone said that there are additional challenges in the watershed that include elevated turbidity, earthquakes, more frequent and intense storms due to climate change, changes to future regulations, emerging contaminants, unregulated microbes, cyanobacteria and toxins, personal care products, endocrine disrupting compounds, and warmer water. It is difficult to quantify the actual risk level posed by each of those risks.

She also clarified that they bureau can't serve water if it gets about 5 NTU (measure of cloudiness). The bureau has switched to groundwater between 8 to 10 times because of turbidity issues since 1985.

Q2. If money were no issue, what approach would you take, and what is that cost relative to the \$105 million currently?

- A. Yone said the best investment would be filtration with the ability to add on additional treatment. It would cost between \$350 million and \$500 million.

Q3. What is the screening ability for *cryptosporidium*? Is there a challenge for sand type screening?

- A. David said the bureau must meet the federal rule which is to inactivate or remove 99% of *cryptosporidium* from the water. Any treatment that the bureau would use – filter, UV, ozone – would have to meet that requirement. 1% is potentially going through or potentially has not been inactivated. EPA has said that this is adequate to protect public health.

Q4. Other than UV, what technologies has the bureau considered?

- A. David said the bureau this time was considering UV or filtration. Ozone and chlorine dioxide were evaluated early in the process and both were identified as not able to provide the full treatment needed for Portland's system.

Q5. How likely is it for OHA to extend the August and September deadlines?

- A. Yone said it was very unlikely that the deadlines are going to be moved. Mike W. stated that he finds it very difficult that OHA is imposing such short deadlines to make such large decisions and thinks it's worth reaching out to OHA to see if they would allow more time for due diligence. He said he watched the Council work session and heard that the current health concern is small, which may help the bureau make a case for more time. Yone said they've reached out informally, but could reach out more formally.

Q6. The UV design 5-years-old, what reviews are being done?

- A. David said the engineering group has been going through the old design and validating major pieces of equipment. They have confirmed parts are still available and in some cases even more efficient. He feels confident they could make the minor updates in a short time frame. The bureau has reached out to the team that helped with design and gotten feedback on cost and effort. That's all been factored into current \$105 million price estimate for a UV facility. He thinks it would take 9 to 12 months to go through that package and do an update in advance of being able to start construction.

Q7. 2012 UV plant design and hypothetical filtration plant – numbers?

A. David said for UV, the \$105 million estimate and is comfortable to be able to get that work done. He would describe it as a moderate level of confidence based on guidelines used at City Council. For filtration, all that's been done is an escalation of costs based on 2002 work using indexes utilized in Engineering industry and he would characterize that as a low confidence estimate. The \$350 million to \$500 million covers the range of options that would be considered. The range is so large due to potential variability in size of facility; demands have changed over the last 15 years. The bureau may not need as large a facility as considered in the past. There are technologies available that might enhance treatment. There is also a question of timing. Costs get larger over time.

Q8. Either plan would take 5 to 10+ years before operational. What will the bureau do in the meantime?

A. Yone said that are still negotiating interim measures with OHA, but expect it to be close to what the bureau was doing before – sampling 2x/ per week sampling and increased monitoring if *cryptosporidium* was found. It might include sampling upstream. During storm events the bureau would sample and monitor for *cryptosporidium*.

Q9. The bureau just set up capacity to do testing for cryptosporidium in-house rather than contracting with outside labs. What will the testing requirements be before and after a treatment facility goes online?

A. The bureau doesn't anticipate regulatory requirements to test once treatment is in place based on other case studies, but would probably still do that. They'll still need to ensure any treatment option is working.

Q10. What would happen if the bureau does nothing?

A. Yone said based on her research of the statutes it would be a Class A Misdemeanor. OHA can issue fines up to \$1,000/day and EPA has authority to come in and issue emergency administrative orders. They could take over operation of water supply. If someone got sick from the water, state and City employees and elected officials could face felony charges. This is being seen in Flint, Michigan and Ohio which is an example of a system that failed to provide public notice. The administrator is facing criminal charges.

Q11. What will these options and related development affect the watershed?

A. David said the 2012 UV design anticipated placement in Bull Run Watershed. Filtration is not anticipated to be built within the watershed. David also addressed the question of would operation of the watershed itself change due to either treatment option. He said no. Watershed protection is the first barrier for protecting water quality and the bureau would continue to maintain that protection so that high quality water was coming in to any filtration system. They would design around that quality of water and not open the watershed for public access.



Q12. How would you repurpose the facilities built for UV for a later move to filtration?

A. David said the bureau would consider that as part of future planning studies. They would try to reuse buildings if they're not still being used for originally-intended purpose. Mike asked for clarification that there's no financial leveraging. David said the bureau would not continue to use UV as a pre-treatment for filter because it wouldn't buy any additional treatment capacity. You wouldn't inactivate *cryptosporidium* through a UV plant to then remove it with a filter. Mike commented that if the bureau did a UV system, and got a bigger problem once you put filtration in, you have a sunk cost that is no longer useful unless something else comes up.

Q14. (taken out of order) Is there an off-ramp if the bureau moves forward with a treatment facility and there are no more detections of *cryptosporidium*?

A. Yone said OHA will revoke the variance on September 22, 2017 and the bureau needs to comply with LT2 regulations. Colleen summarized what she heard was "once revoked, always revoked"? And if so, how did the city get a variance in the first place? Yone said when they got the variance they had been doing intensive testing and monitoring and had a long track record of almost no *cryptosporidium*. The state took all that information to determine risk. Seems unlikely another would be granted given the levels *cryptosporidium* found this spring.

Q13. (taken out of order) Are there more detailed costs analysis and rate impacts for the options?

A. Gabe said the bureau is working on probabilistic model and are doing their best, but are working with low-probability, high-consequence events that make it challenging.

Cecelia [presented](#) rate and cost information. She said the bureau has worked on a model out to 2034. She cautioned that the uncertainty of the estimates and rate impact increase with time. She noted that in the out years, the board could see the dropoff impacts of paying of debt service. She cautioned that the forecast was built on very conservative assumptions. The bond rate is assumed to be 6% (December 2016 actual bond rate was only 3.5%). Interest earnings are assumed at 1%. The forecast is updated on annual basis based on CBO, Treasury, actual bond sales. Adopted water rates have historically been much lower than forecasted.

She stated with the UV scenario and said that the 2025 rate drop is due to wholesale customer contributions to facilities. Per wholesaler contracts, they begin paying capital costs once construction is complete and the asset is in service. For filtration, they used the \$500 million high-end cost estimate for the scenario. The rate of increase drops due to same reason (wholesale customer contributions after facility is built) around 2030. She also talked about a "UV Plus" of first building UV while saving for a filtration plant to be put into service at the end of the useful life of UV. For this, they assumed increased rates in the early years to do UV and adding .2% more to water rates for 6 years, moving to .5% in 2025 and every year after for the filtration savings. Gabe said this should be thought of as a "proof of concept" option, the actual amounts to be set aside could be changed. There was no hard reason for the amounts.

Mike W. asked for clarification of why rates go down in 2025 for UV and Cecelia said that was because of the wholesale contributions.

Micah asked if the estimates include O&M costs when facilities come online and Cecelia said yes.

Scott asked if they ran scenarios to figure out what it would cost to create a \$500 million reserve. Cecilia said they started with 1% per year which would result in \$400 million but brings up intergenerational equity issues of people paying for things they may or may not actually use so they reduced it to .2%.

Cecilia then talked about the actual impact on bill. The average single family household would see an increase of \$0.42 per month for UV, \$0.48 per month for UV Plus, and \$0.82 per month for filtration in the first year. The largest monthly increases in the 17-year forecast for UV would be about \$3 in 2024; for UV Plus it would be about \$7.50 in 2034; and for filtration it would be more than \$18 in 2030.

Ted said this was exactly the information he was hoping the bureau would present. He emphasized for the benefit of the public, this is the bureau's best guess of what the rates would do. There is a lot of uncertainty. Colleen responded that the rate information is helpful, even though it's not certain. She asked about the probabilistic study and if the board is likely to see it. Gabe said yes, though it will probably more qualitative than quantitative; the model is only as good as the assumptions you make. Colleen asked if it would be ready by this by the weekend and Gabe said they know the tight timeline and are trying their best.

Allan commented that his understanding is that UV would be built at headworks, which is on a landslide. Having the expensive experience of stabilizing land at Washington park, He also Director Stuhr said that anyplace you build in the mountains, there are always landslides. The bureau must do Part 12 (FERC requirement) every 5 years which is an arduous analysis of probably failure models. The area continues to be very stable and he isn't worried about site for UV plant. It's as good of a site as you can find in the mountain. Allan said there were no mitigation cost then and the Director said the bureau designs for proper seismic event for the site. The location is far enough away from the subduction zone quake that the concern would be a local fault.

Lee said there has been a lot of local development of filtration plants. He hasn't seen any discussion about the City piggybacking on that in the analysis. Clackamas and Wilsonville have constructed facilities. Has the bureau tried to borrow from those experiences? Director Stuhr said that the only work the bureau has done is a planning-level study in 2002. The technologies are really settled; there are five types of filtration. The city goes that way, they would borrow from other places. Lee said it seems like a big range when there's already so much local work that has been done. Director responded that he can only say that the estimate is between \$350 million and \$500 million. It would depend on which type of filtration plant was built. David reiterated they haven't done any planning since 2002. The first step would be to do the planning, which would include working with these other local groups in the early stages.

Micah asked if a UV facility at headworks would increase the footprint. David said no. The design fits at headworks and they wouldn't be expanding the footprint. Micah asked how the commitment to keep protection at watershed be memorialized for the public. Director Stuhr said the watershed is already protected by federal and state law and the bureau's own desire. What the bureau needs to do is protect Portland's water quality. Their principle role in public health is the prevention of bad outcomes. Often black swan events – high cost, low probability. Smart people have determined that no one wants a crypto outbreak to happen. In 2012, the city pushed back on the variance because they knew they had the treatment plant design in our back pocket. Expectation of regulators is that Portland will chose either a UV or filtration plant. The city asserted that the water was as clean as treated water, and this spring that was proved wrong.

Scott said he was very interested in understanding what a compliance schedule entails with respect to UV versus filtration and Yone said while it's still under negotiation, she would put something together for him to see.

Ted said seeking the variance in 2009 was a calculated risk. He now sees it as either UV or filtration; no other option. He said UV is also a calculated risk – potentially pennywise and pound foolish if there is a low-frequency, high impact event. Regardless of which the choice, it would be prudent to plan, moving forward, for an eventual filtration plant so the city is ready for those black swans. In hindsight, he said it would have been smart to do that in 2009 to queue up the discussion now.

Robert asked if there a cost-benefit to the UV staggering and then adding the filtration. This requires a longer answer than time allows and would be addressed later.

The board then heard from invited testimony; water users and customers were asked to provide information on how the treatment options before council may affect their operations.

Mark Knudson, Tualatin Valley Water District (TVWD)

Mark started by saying he was not speaking on behalf of all wholesalers, but most agree with his statements. TVWD supports filtration versus a UV only option. Not only does filtration address the crypto issue, but it significantly improves reliability, addresses turbidity, provides resilience against natural disaster, improves water quality, perhaps more than anything, future-proofs Bull Run supply against regulatory impacts and climate change. He recommends against construction of UV-only at Headworks which he feels is essentially a long-term commitment to UV only. Public entities aren't in the business of 'drive it 'til it drops' systems. The Water Bureau will maintain these assets for ongoing reliability and he suggests that 20 to 25 years from now when it's time to build a filtration plant, Council will look at performance and note that the UV plant is working just fine. He believes the city needs to decide one path or the other now.

Mark recognizes that filtration costs more, which TVWD supports increased support. He thinks the assumptions merit closer work to look at more cost-effective scenarios and that the costs of filtration may be less that estimates. He feels there is a missed opportunity to charge wholesalers. He proposed that it would be ultimately less costly to build filtration and skip UV.

He encourages the city to take additional time to do analysis and economic assessment of the range of options. He said that the good news is crypto doesn't pose an immediate threat, which seems to justify taking the time to do it right. He suggests the city write to OHA and commit to improvements in 6 years to comply with LT2 as systems were given back in 2009, but he wouldn't commit to single strategy now. He said doing nothing is not a viable solution and urged the city to take advantage of the opportunity to invest in filtration.

[BES](#) submitted written testimony as did the [Craft Brew Alliance](#).

Julia DeGraw, Food and Water Watch

Julia said she agrees with the comments about pushing back on timeline. This is too big of an issue to rush. She then laid out three areas of concern. First was the potential for the privatization of water. She wanted to make sure that City makes a commitment to always maintain water in a public way. Privatization often leads to reduced quality, laying off employees, and tends to be more expensive. While this hasn't been on the table, it's something to be concerned about moving forward as one of the more expensive projects and impact on ratepayers. She also said that her organization is supporting the Water Act in Congress. Water affordability is a growing problem across the country. 1/3 people won't be able to afford their bill. As systems age and climate changes, issues are only going to get more intense and this is an equity issue. A disproportionate level of income is spent on utility bills. Finally, she said that water is a human right. The City needs to make sure it's affordable for all Portlanders. She closed by urging the city push back on timeline so it can take a smart look at the issue.

Julia will email updated comments to Melissa tomorrow.

Janice Thompson, Citizens Utility Board of Oregon

Janice started by saying they are still collecting information and looking at options. Nothing she says should be implied as recommendations. She then walked the board through her written [submission](#). First, groundwater backup is inadequate to meet summer water demand if a forest fire causes a turbidity event that shuts down or significantly reduces use of Bull Run Water. She said she has questions that will be directed to the Water Bureau about what economic analysis has been done about restricted water supply, if that were needed. She didn't think Council asked enough questions about fire in 2009; with climate change, fire is a bigger risk and significant factor.

CUB didn't think that five-year difference between UV and filtration timelines should be a governing factor in decision and she had asked Dr. Lewis (Multnomah County Health Department) about the 10-year time frame. She said there may be other reasons to use UV, but time should not be a deciding factor.

CUB may send a letter to OHA about their internal process being inadequate. She's not sure that CUB or PUB comments will have much impact due to timeline.

She cautioned that there needs to be more evaluation of the pros and cons of siting UV at Headworks versus Lusted Hill and may also suggest looking at other options.

The board then opened the floor to public comment.

Joe Walsh, representing Individuals for Justice. He said small decisions could have big impacts on pristine resources. He thinks is unclear how the big price tag breaks down into the monthly bill impact. He encouraged PUB to play their role in holding the Water Bureau accountable and ensure that the next generation enjoys the same quality of water. Suggests that PUB should lobby for more time given large cost of project.

Richard Loggerbach, lifelong Portland resident. Richard noted that water quality has been an ongoing issue since the 1980s. For him the real issue is not which plan to choose, but who will pay for it. He noted instances of ratepayer dollars going toward other projects and would like to see how rates would change over a longer period of time.

Dr. Thomas Ward, Professor of Medicine at OHSU. He took part in Water Bureau's discussion of requesting a variance in 2009. He was head of infectious diseases division at OHSU for 20 years. He noted that we've never had a crypto *outbreak*, no known cases of human disease associated with Portland Water. He also noted that legal actions taken in cases mentioned earlier were related to delay in public notification, not about the actual treatment. Milwaukee had a gold-standard filtration system in place that failed. 90% crypto in water is nonpathogenic. He offered to provide names to Water Bureau connected to research in the UK. In San Francisco, which has a susceptible population due to high HIV rate, they added UV treatment in the past few years.

Sharon Genassi (?) testified that the decision was being rushed. The crypto is not going to affect humans. She urged the city to not be rushed into making a decision that could be a disaster for our water.

Carol Cushman, League of Women Voters in Portland. Carol said that Cecilia's graphs were sobering to look at; but realize this decision is not just about economic impacts, but also stewardship of long-term resources. She also noted concern about rushing the decision. She urged looking to the future and said counter to what the board will hear, consumers expect to pay for the cost of environmental protection.

Regna Meritt, Oregon Physicians for Social Responsibility. Regna thanked the PUB for their services to the City. She has been coming to meetings for 28 years to protect Bull Run Water, and has served on a variety of committees. She disagrees with application of one-size-fits-all rule to our specific situation. There is no immediate public health risk. Crypto is not one parasite, but 60 discrete species and strains. Only a small number can cause disease in humans. The main sources of contamination – human and cow waste – are not allowed in Bull Run. She reiterated that there should be no rush. The Water Bureau has wanted to filter for many years; seems eager to take advantage of the ruling to push this through. She encouraged the PUB to slow this down.

Dee White was part of the Internal Review Panel in 2004 in response to lack of participation about covered reservoirs. She brought copies of a [manual](#) about LT2. She has concerns that risks are over estimated and costs are underestimated. Portland was the only unfiltered water group that didn't sign a letter prior to the rule being adopted.

Scott Fernandez. Presented a paper reviewing letter to OHA and provided guidance on how to deal with the situation in two areas. First, he said that high velocity flushing needs to be done to remove biofilm, sediments, scaling, microorganisms that are already in the system. There needs to be an entire system cleansing to deal with the corrosion mitigating lead. Second, crypto is not a big issue in our drinking water because we don't have sewage exposure from agriculture or municipalities. The chemicals used in filtration will take a perfect source and add toxins.

Floy Jones, Friends of the Reservoirs. Floy said the only reason we're here is because of this flawed EPA regulation. Filtration doesn't address all contaminants, like pharmaceuticals. She has already has submitted lots of [materials](#). She said New York got a 20-year deferral. She fears a filtration plant will create an opening for the Forest Service to log. She questioned why the city would build a \$500 million filtration plant for a problem that doesn't exist. She said fire is not an issue because of tons of rain in Bull Run Watershed.

Lightening, Lightening Watchdog PDX. Lightening said the city had better be in compliance when regulators want them to be. He doesn't think it's wise to challenge it. He thinks filtration is the way to go. He thinks the city needs to understand that 76 water surface suppliers in the US supplying over 100 million gallons per day are using filtration; this should be an example for us. He thinks the city should utilize their cost analysis, time frames, and maybe use this to shorten the overall time frame and decrease cost with this data. He said that if the city doesn't comply, someone will go to jail. EPA will step on the City of Portland if they don't remain in compliance.

Colleen charged PUB members to get questions and comments to Melissa in preparation for the meeting next Tuesday. Ted asked about the goal for next Tuesday's meeting - is it to get to a recommendation? Colleen said we know that Council is meeting on August 2<sup>nd</sup>. We don't know what that decision looks like, but if we want to have any impact on what they decide to do, we must come to some conclusion.

Lee asked if the board could have a process discussion for the new people on the board. Colleen said she's not sure there's anything we can do about the fact that there will always be new people joining the PUB. She said the idea for Tuesday is that we will try to assess and come up with a statement as to what PUB would like Council to hear from them.

Robert wants the entire PUB to be clear on what the public comments are on this topic. Nicole Adams from the Water Bureau said the bureau has received 10 [comments](#) to date. Two were against any treatment, 1 was anti-chlorine, 1 was pro-treatment but did not specify which option, 5 were pro-filtration, and 1 was pro-UV. Comments are being compiled every Monday and sent to Council. Nicole will send the comments to PUB and asked PUB to use their connections to get people to provide input.

Van asked that any comments sent to the Commissioner's Office be provided to PUB.

Lee said he hasn't heard any discussion on the information provided.

Colleen summarized by saying what she heard him say is that he's unhappy with the process and she agrees and agrees with what everyone else has said is that this has been a rushed process. She thinks that's a legitimate statement the PUB can make. Lee said he's been a water plant manager for 14 years, and doesn't feel like he's in a position to make a recommendation to Council.

Ted agreed; part of the recommendation can be that the decision is being made too quickly. He hopes the board can be open to all options, and be of service to Council with regards to this issue, and also specifically about the issue of raising the public's awareness and degree of sophistication in weighing the options. He said the City's communication has been inadequate due to the short timeline. There needs to be more effort in communicating this. He thinks its partly about being rushed, but also thinks that the Water Bureau can be more strategic.

Colleen said she thinks the act of board members writing comments and sending them to Melissa will make the work easier next week.

Ana said she feels they need more than one hour.

Mike agreed with Lee. He doesn't want to rush and turn out something half-baked.

Colleen charged Melissa with finding additional time to meet.

Allan also suggested a longer Tuesday meeting with follow-up.

Robert asked for a straw poll on who plans to be there and said this isn't the PUBs timeline. The board isn't obligated to provide advice to Council. If the board is overwhelmed by the scope of the project, they should decline.

Lee proposed the meeting on Tuesday be a two-hour work session.

Colleen tasked Melissa with making sure that the board would have quorum for the entire two hours and work to locate a follow-up meeting early the next week to provide sufficient time to write up recommendations for Council.

Micah said he felt the board has an obligation to convey the public's concerns to City Council and make sure to convey what they heard today.

Gabe said the bureau will make sure staff is available next Tuesday and they will provide responses to comments heard today.

#### **IV. Items for next agenda**

August 1, 2017, The Portland Building 4PM.

Water Quality and Corrosion Control Treatment Update – 30 minutes  
Work Plan – 20 minutes  
BES Updates – 40 minutes  
Earthquake – 30 minutes

Colleen also wanted time for more hydro discussion.

Mike motioned for adjournment and Ted seconded. All members voted in favor.

The meeting adjourned at 7:07 PM.