

PORTLAND WATER BUREAU LT2 VARIANCEIF YOU WISH TO SPEAK TO CITY COUNCIL, **PRINT** YOUR NAME, ADDRESS, AND EMAIL.

NAME (print)	ADDRESS AND ZIP CODE (Optional)	Email (Optional)
✓ DR THEODORA TSONGAS	7324 SE MADISON ST PDX 97215	
✓ Damon Motz-Stoney	5501 SE FLAVEL DR PDX 97206	
✓ David Cushman	LWV Portland	
✓ Lightning	—	—
✓ BRAD YAZZOLINO	6451 SE MORRISON CT PDX 97215	—
✓ Kathryn Notson	P.O. Box 86731 Portland, OR 97286-0731	
✓ Micah Meskel	3956 NE 7th Portland OR 97212	—
Ted Labbe	304 NE Hoyt St. 97232	—
✓ Scott FERNANDEZ	21021 NE 65 97213	—
✓ Michael Morgan	333 NW 9th AVE Unit 1014 97209	
✓ Flou Jones	3 47215	

Agenda Item 866

TESTIMONY

2:00 PM TIME CERTAIN

PORTLAND WATER BUREAU LT2 VARIANCE

IF YOU WISH TO SPEAK TO CITY COUNCIL, PRINT YOUR NAME, ADDRESS, AND EMAIL.

NAME (print)	ADDRESS AND ZIP CODE (Optional)	Email (Optional)
✓ Herschel Soles		herschel@spiritone.com
✓ Patricia Bellamy	3214 NE Cesar E Chavez Blvd. PDX 97212	PA
✓ Sitara Mica	1501 NE 89th Ct, LANC WA 98664	
✓ Joe Mayer		
✓ Steve McCullough	9800 Denney Rd 97008	stevemccullough@gmail.com
✓ Cherie Lambert Holenstein	6141 SE Steele OG	

August 2, 2017

City of Portland – Bull Run Filtration Testimony

A. City Auditor has acknowledged many times PWB does not meet industry standards, such as taking 400 years to replace our water mains.

B. In January, PWB Crypto lab did not meet industry standards to be certified for sampling. Why did PWB not participate in January certification? PWB wanted to remain free of lab certification oversight, so they could provide their own Crypto sampling outcome needed for a filtration plant.

All of a sudden 19 alleged Cryptosporidium samples appeared just at the right time for PWB to lobby for a \$500 million filtration plant and a debt bonding bonanza for PWB at citizen's expense. (false positives? common and highly likely) After it was all over in March, PWB admitted it was not EPA certified.

PWB did not allow certification because it did would not want EPA, OHA looking over their shoulder reviewing sampling, methods and proficiency standards. PWB wanted no outside lab interference. **Labs that are not certified are scientifically meaningless.**

I taught microbiology at Colorado State University. The students learned quickly, reliable and proficient labs were always certified.

PWB lost their certification opportunity for Cryptosporidium proficiency during the 3 month sampling process. Because there was no outside professional certification (EPA), no professional sample oversight, no professional proficiency, no professional analytical methodology..... means only one thing, all PWB samples must be rejected at chain of custody.

There are the many years of NO Cryptosporidium found in our Bull Run water and no public health problems for over 125 years, ever.

We have NO public health issues regarding drinking water and Cryptosporidium..... period.

It is time to meet with OHA and negotiate a new direction with community members that have worked with this issue for years.

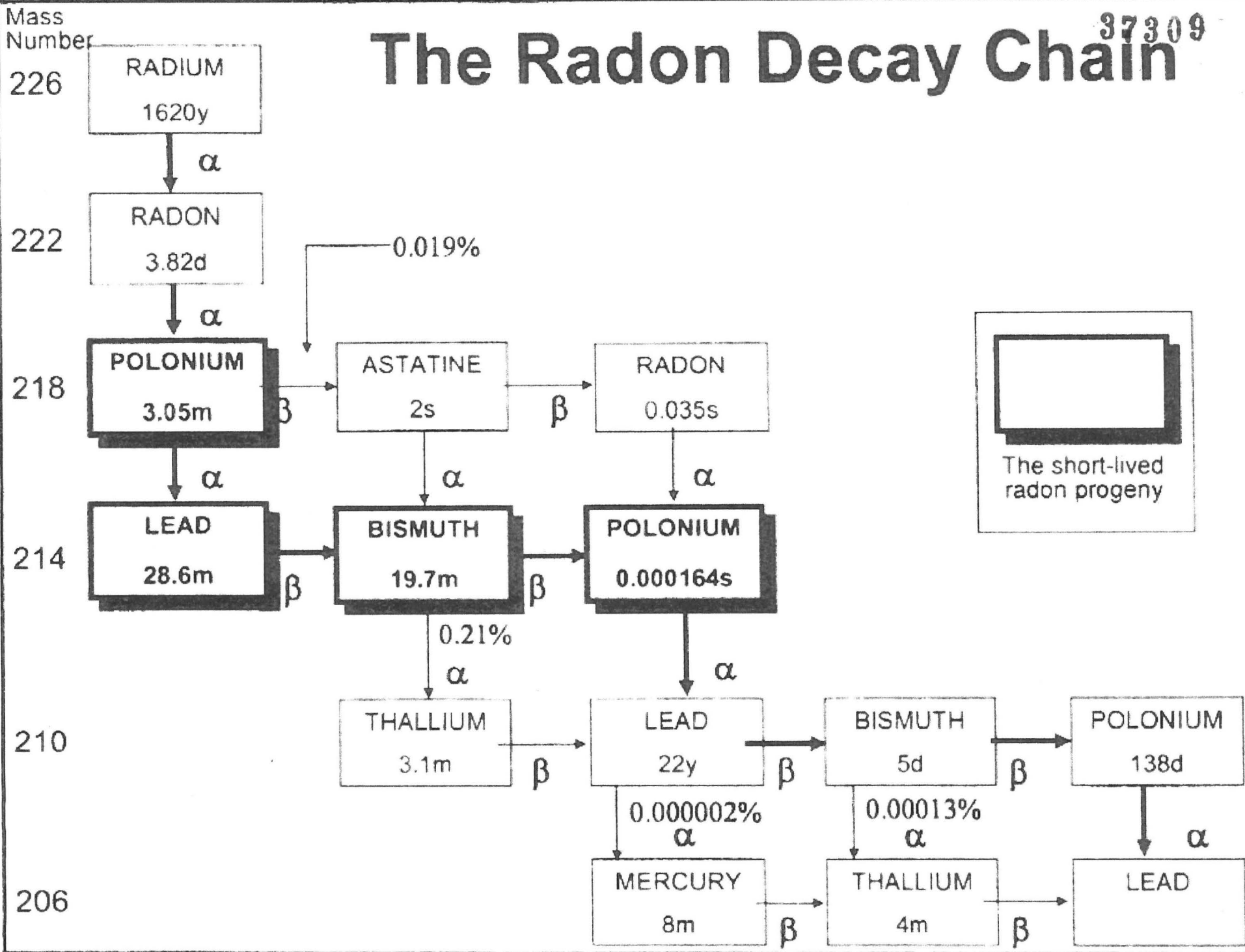
C. Exponential poisoning of our water-when is enough, enough?

Our drinking water is now poisoning children by;

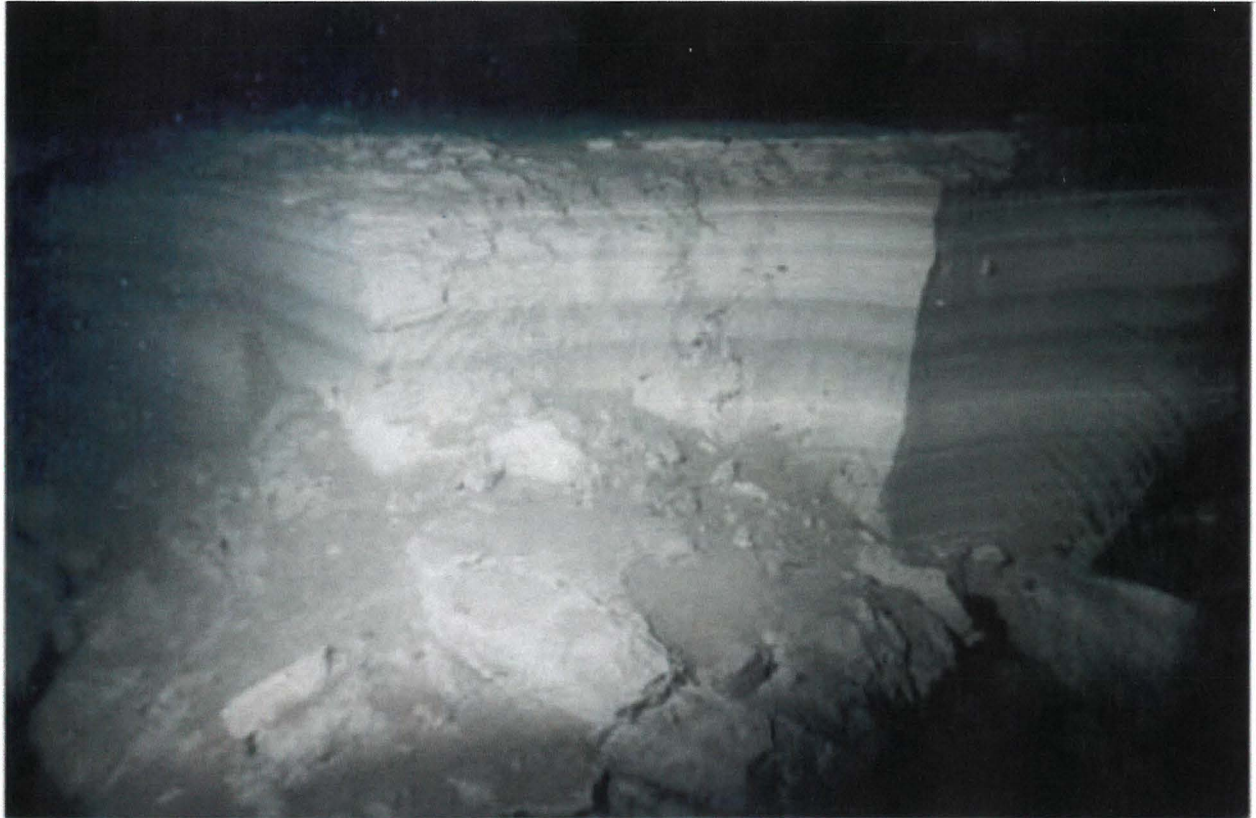
- Lead/copper corrosion, neglecting high velocity flushing
- Nitrification- nitrates, nitrites, nitrosamines
- 12+ Radioactive isotopes from CSSW
- Now- Filtration Coagulants
Alum, Acrylamide- both carcinogenic, toxic, and neurotoxins
- UV – mercury risk from broken bulb/sleeves

Public requests no cost for copies of Portland Water Bureau Chain of Custody documents going back to variance inception.

The Radon Decay Chain ³⁷³⁰⁹



Filtration- chemical coagulant accumulation in reservoir tank



Aug. 2, 2017.

City council statement.

Brad Yazzolino.

I'm a Portland native, and my family has been here since 1895.

I agree with the statements of Floy Jones in the August 2017 SE Examiner newspaper. The City of Portland is being harried and hurried into a foolish and irrational compliance with a deeply flawed LT2 regulation that is founded on a trumped-up incident that is unlike anything that will ever occur in Portland's well-protected Bull Run watershed. The Oregon health authority has what seems to be a "lets-just-be-sure-to-cover-our-asses" attitude in their demand that Portland comply with the needless and expensive LT2 regulation. There is no scientific evidence that a 100 Million dollar UV plant or a 500 Million dollar filtration plant will measurably improve Portland's drinking water quality. The Oregon health authority is to be commended however, for granting a 2-month delay. The City Council must now really face what building these needless plants means. It means they will lose the trust of many of the well-informed, thinking people of Portland. If Council votes to do either of these plants, it means the needless and ignorant tragic destruction of the simple, frugal and elegant rain-water collection feature of Portland's 1890s water system. Because of the brilliance of the 1890's water engineers, drinking water then cost only one dollar per month for all Portland property owners. That in a sense, — is the base cost of our gravity-fed-pure-rainwater-collection-water-system before the Portland water bureau became deeply involved. (Of course the costs have risen, for many good reasons, but still, the basic system is fundamentally relatively cheap, and should remain so). These water plants will not protect against the very unlikely major landslide in the Bull Run, the slopes are not that steep near the water, and even if there are landslides, it's just harmless turbidity that cleans itself up by gravity. And the same goes for volcanic ash, and as for earthquake, it's broken and leaking pipes that will then be the problem, and complicated water treatment plants won't solve that. So I urge the City Council to not fall for the deceptive LT2 law and waste taxpayers money on either these plants, for we will remember how you voted, when we vote.

Brad Yazzolino.

6451 SE Morrison Ct.

Moore-Love, Karla

From: Darvel Lloyd <darvlloyd@gmail.com>
Sent: Wednesday, August 02, 2017 12:00 PM
To: Council Clerk – Testimony
Subject: Bull Run Treatment Plant

August 2, 2017, 11:10 a.m.

Dear Portland City Council:

I had planned on attending your meeting this afternoon to speak for 2 minutes about your proposed Bull Run Treatment Plant. But the heat wave has kept me at home. Please accept these few words as part of the record.

As long as the Bull Run Watershed remains off-limits to the public, domesticated animal-grazing, and any commercial logging/mineral extraction, **I am NOT in favor of ANY treatment plant up there—filtration and/or UV radiation!** We went through this analysis process less than a decade ago. The water flowing out of the Bull Run Reservoirs is perfectly fine for human and pet consumption, and it has been for 125 years!

You already know that the few Cryptosporidium spores discovered this spring during abnormally high rainfall were NOT the infectious kind and were harmless to us water users—undoubtedly originating from a wild animal or two. This incident (and probably more like it in coming years) does not justify spending \$500 million to \$605 million of taxpayer money for a water filtration and/or UV radiation facility in our watershed. **Where is your risk probability/cost analysis study?** It will undoubtedly show that building this expensive plant will produce no measurable public health benefit.

I'm not going to repeat the many other key arguments against a Bull Run treatment plant and/or UV radiation facility, as you can read and digest the excellent letters from the Friends of the Reservoirs and Physicians for Social Responsibility (or go to their websites for more information).

Just do the right thing and POSTPONE A “YEA OR NAY” DECISION ON THIS EXTREMELY IMPORTANT ISSUE UNTIL THOROUGH ENVIRONMENTAL AND COST/BENEFIT ANALYSES CAN BE COMPLETED! Please make a strong case to the Oregon Health Authority and take them to court, if necessary.

Thank you,

Darvel Lloyd
54 SE 74th Ave.
Portland, OR 97215-1443
503-807-2310
darvlloyd@gmail.com

Moore-Love, Karla

From: steve reinemer <stevereinemer@hotmail.com>
Sent: Wednesday, August 02, 2017 7:42 AM
To: Council Clerk – Testimony
Subject: Wed. 8/2 hearing re water treatment

First and foremost, City Council should slow this decision process way down. There is no critical deadline on this matter, let alone on the matter of negotiating a long term deferral with the EPA.

Portland leadership likes to suggest they are progressive thinkers, the type who believe in science based decisions. Yet this issue defies common sense.

As recent opinion pieces in local media noted, I believe the public has been continuously misled on their understanding of several aspects of this issue, not the least of which is that most Cryptosporidium is NOT HARMFUL and has rarely, if ever, been found in Bull Run water, including the results this past spring.

When you couple this fact with the fact that harmful varieties primarily come from cows and humans, which are not allowed in our watershed, it becomes ludicrous to claim any kind of additional treatment will improve public health one bit, if not threaten it more than before. And at still further cost to ratepayers. If this was a City budget proposal, it would have been dropped long ago as a viable option.

The secondary arguments re forest fires or slides are insignificant and remote considerations, with dubious merit given our other backup systems and likelihood of treatment plants shutting down when presented with too much turbidity.

Please recognize the supreme value of our water, which you will not be able to tout as exceptional once it is filtered - it may as well be sewage water.

Have some spine, show that you are not being guided by special interests or a vision of lucrative future water markets.

Steve Reinemer
2917 SE 59th

Moore-Love, Karla

From: bwdcap@juno.com
Sent: Tuesday, August 01, 2017 10:53 PM
To: Council Clerk – Testimony
Cc: Bauer, Linda; trdickinson@earthlink.net; loronly@gmail.com; carolyn.smithee@gmail.com; dvdcspec@comcast.net
Subject: treatment plant

Attn: Portland City Council Vote, 2 pm, August 2, 2017 Seventeen years ago, Powell Butte Nature Park was being considered as a site for a Water Treatment Plant. It never happened. The July 25, 2017 Tribune reported that a UV plant option would be located at the Headwaters while a treatment plant option would be located at Lusted Hill. We hope this is accurate information. Powell Butte was dedicated as a nature park in 1990. A treatment plant would affect the view and "nature experience" creating noise, lighting, vehicle exhaust and general hubbub. This would severely impact visitors and wildlife (including butterflies) within the park. There has been enough habitat destruction due to the recent construction of the reservoir and new buildings. We definitely do not want a treatment plant located at Powell Butte Nature Park. Thank you, Friends of Powell Butte Nature Park Tamra Dickinson Carol Pernar Linda Bauer Dave & Carol Specht Lora Martin Carolyn Smithee

Moore-Love, Karla

From: Benjamin Kerensa <bkerensa@gmail.com>
Sent: Tuesday, August 01, 2017 1:00 PM
To: Moore-Love, Karla
Cc: Council Clerk – Testimony
Subject: Written Testimony for Aug 2 and Aug 3 City Council Meeting Agendas
Attachments: Letter for Aug 2 Agenda Items.pdf; Letter Aug 3 Agenda Items.pdf

Hello Karla,

Please find attached written testimony for Aug 2 and Aug 3 City Council Meeting Agendas.

--
Benjamin Kerensa

BENJAMIN
KERENSA

August 1, 2017

RE: Agenda Items 867 for August 2, 2017

Dear Portland City Council,

I am writing to oppose Agenda Item 867. Specifically, I believe this new filtration process for cryptosporidium is unnecessary at this time. I think the city should ramp up testing and demonstrate that cryptosporidium is no longer an issue versus spending millions more on water bureau infrastructure which will drive up water costs.

Driving up water costs translates to higher costs for renters and homeowners, many who are surviving check to check. If you really want to address housing costs, then you will do everything you can to keep water and sewer rates low as they already increase annually and this would just make them increase much faster to the tune of about \$10 a month, which is higher than even the annual increases for most households.

If the City Council is set on this project, then I would encourage amendments to increase rates on development fees and wholesale customers in order to offset the cost to renters and homeowners in Portland.

Sincerely,

Benjamin Kerensa

P. O. Box 86731
Portland, OR 97286-0731
August 2, 2017

Mayor Ted Wheeler
1221 SW 4th Ave., Rm. 340
Portland, OR 97204-1900

AUDITOR 07/31/17 PM 5:04
emailed to
Council 7/31/17 pm

RE: OHA LT2ESWTR Variance Revocation & Resolution for Ultraviolet Light Treatment Plant and Filtration Treatment Plant

Dear Mayor Wheeler:

I support the City Council resolution to either build a Bull Run surface source water ultraviolet light treatment plant now and a filtration treatment plant later, or build a filtration treatment plant only now.

I submitted *Cryptosporidium*, ultraviolet light, and Giardia Lamblia reports on the Bull Run surface source water to the PUB on July 11, 2017. They are all on the City Budget Office's web site at the link below:

<https://www.portlandoregon.gov/cbo/73988>

I'm submitting a bibliography of the reports and other sources to inform you that there has been infectious *Cryptosporidium parvum* detected in the Bull Run surface source water, how ultraviolet light treatment affected that *Cryptosporidium parvum*, & also that there was a giardiasis outbreak in Portland in October 1954-March 1955 which sickened about 50,000 people around the University of Oregon Medical School, now called OH & SU, and that the likely source of that outbreak was Bull Run surface source water.

There was evidence of cattle, sheep, and horses in the Bull Run watershed, in the landslide area west of Reservoirs 3 and 4 in City Park (now Washington Park), and on Mt. Tabor before it was a city park. I will refer to photographs and newspaper articles in my testimony today.

Sincerely,
Kathryn M. Notson

Attachment

cc: City Commissioner Nick Fish
City Commissioner Amanda Fritz
City Commissioner Dan Saltzman
City Commissioner Chloe Eudaly
City Attorney
City Council Clerk

Bibliography
Bull Run Watershed
August 2, 2017

Applied and Environmental Microbiology, "Comparison of Method 1623 and Cell Culture-PCR for Detection of *Cryptosporidium* spp. in Source Waters," by Mark W. LeChevallier, et. al., February 2003, Vol. 69, No. 2, pgs. 971-979.

Pg. 977: "Isolate SW15 was obtained from a sample collected at the Oregon site, which is fully protected from human impact. This isolate was different from *C. parvum* bovine genotype at three nucleotide positions but clustered with the bovine and murine genotypes (Fig. 4). It is possible that this isolate represents a new genotype of *C. parvum* from a wild animal host. Another isolate (isolate SW22) was obtained from the Oregon site and was identified as the *C. parvum* bovine genotype."

(bovine = cattle, murine = rodent)

IUVA News, "*Cryptosporidium* Risk Analysis and UV Disinfection System Reliability," Mark W. LeChevallier and Richard E. Hubel, Vol. 6, No. 2, June 2004, pgs. 9-14.

Pg. 13: "LeChevallier et al. (2003) reported infectious *Cryptosporidium* data for an unfiltered watershed in Oregon (Table 5). These data show that the design of a UV disinfection system should not allow more than 3-7 h of down time per month to meet the 1/10,000 annual risk of *Cryptosporidium* infection."

New England Journal of Medicine, "Epidemic Giardiasis," by Lyle Veazie, letter to the editor, October 9, 1969, Vol. 281, No. 15, pg. 853.

USEPA, Research and Development, Waterborne Transmission of Giardiasis, "An Outbreak of Gastroenteritis Associated with *Giardia Lamblia*," Lyle Veazie, Inez Brownlee, and H. J. Sears, pgs. 174-191. (Portland's giardiasis outbreak occurred between October 1954-March 1955. There were more than 50,000 cases of gastroenteritis which occurred during this period.)

Journal of the American Water Works Association, "Giardiasis Risk From an Unfiltered, Protected Surface Water Source," by Joseph L. Glicker and Roger A. Edwards, Vol. 83, No. 11, November 1991, pgs. 46-51.

Other Sources

Water: Portland's Precious Heritage by Casey Short, 2nd ed., City of Portland, 2011, pg. 15: "Bull Run" "The name itself is derived from a folk tale of the Oregon country. In the 1850s, cattle being driven over the Cascades broke free in the area, escaping through the dense forest in all directions. They disappeared quickly and were seen only occasionally in the years to come, drinking from the river whose name they had inspired."

Pg. 27: Portland Water Bureau photo – Flock of sheep in the vicinity of Bull Run around the turn of the century

OHS file 1902—Neg. No. 35386—Horses hauling Conduit 1 pipes in the Bull Run watershed (B. C. Towne)

OHS file 1902—Neg. No. 35382—Men in the Bull Run watershed pipeline camp

Oregonian, Friday, November 17, 1899, pg. 8, c. 4, (c. 3-5), "Now It's the City's Turn," dairy cows in City Park (now Washington Park)

T. J. & John J. Higgings—"...one of the reasons how they remembered the large cracks and fissures in the ground, that one of their cows had fallen in one and had to be pulled out. It appeared that as the dairy herd was being driven through the horseshoe the hind legs of one of the cows slipped into a large crack approximately 100 feet long and quite deep, from which she could not extricate herself without assistance." (Landslide in Washington Park)

City of Portland (OR) Archives: Archival photo A2012-005, AP-39—bull at livestock trough at SE 60th Ave. & SE Division St., circa 1910

OHS Neg. No. 008741 (Portland Utilities/Water Reservoir) horse pulling wagon at livestock trough at SE 60th Ave. & SE Division St.

Oregonian, Monday, May 2, 1904, pg. 8, c. 5, "Cows in Suburb.: East-Side Precincts Will Vote on Letting Them Roam."

Oregonian, Sunday, May 29, 1904, "Official Ballot for Elections June 6, In Multnomah County...In Mount Tabor, South Mount Tabor, Woodstock and Lents precincts will vote on the question whether livestock shall run at large."

Oregonian, Friday, June 17, 1904, pg. 7, c. 1, "Stock Cannot Run at Large" (Mount Tabor and South Mount Tabor)

Oregonian, Sunday, August 28, 1904, Part 2, pg. 11, c. 2-3, "Cows Liberty is Infringed"

Moore-Love, Karla

From: Joe Meyer <joe.sportsdatabase@gmail.com>
Sent: Friday, July 28, 2017 1:45 PM
To: Council Clerk – Testimony
Subject: protect Bull Run: no infrastructure required.

Please accept my testimony below regard the vote Aug 2 at 2PM regarding our drinking water.

Thank You,

Joe Meyer
1915 SE Alder

My name is Dr Joe Meyer and I love Portland. I love to play ping pong and then bike to the river for a swim. I testify for myself as a rate payer and a Portland citizen. I am also a citizen reporter and I covered the Portland Water Bureau for KBOO news 5 years ago when they took our open reservoirs off line.

Similarities between the events 5 years ago and today's efforts show that the Portland Water Bureau is dangerously prejudiced towards building infrastructure and dangerously practiced in manipulating public opinion. The CH2M Hill CEO profiting off of Portland's infrastructure projects published a paper on manipulating public opinion while chief engineer at the Portland Water Bureau. You have to be more than skeptical, you have to be doubtful.

Five years ago every one involved, from the Portland Water Bureau, the Portland City Council, Friends of Reservoirs, and the County Health Doctor, Gary Oxman agreed that there was no public health benefit in the EPA motivated projects. Likewise, the proposals at issue today have no public health benefit. In fact, considering the proposed addition of known harmful materials into our drinking water system, the overall public health benefit must be considered a gross negative.

The simple truth is that 125 years ago the citizens of Portland constructed a simple and elegant drinking water system. In 125 years of use, no one has ever gotten sick from Crypto in our drinking water – the far greater dangers of Crypto are at swimming pools and daycare centers. For 125 years our drinking water has been inexpensive, safe, and delicious – the envy of other cities. Back 125 years ago, the citizens of Portland had the ingenuity and political will to control their own water supply – no multinational corporations required.

A hurried time-line is another consistent theme for Portland Water Bureau projects.

Five years ago citizen activist advocated for an extended delay in the LT2 compliance timeline. Citizens argued that rate payers were already burdened by rate increases and that alone was sufficient grounds for a delay in compliance. David Schaff, then director of the Portland Water Bureau stated on KBOO News that a delay on financial grounds was not even worth pursuing – and in fact Portland did not pursue this simple option. When, a few months later, Rochester New York received a delay until 2034 based on economic hardship, it was clear that the activists were correct and that the Portland Water Bureau had misdirected and misadvised City Council. Portland lost our open reservoirs and suffered another round of rate increases, all for no good reason. To this day, New York citizens enjoy healthful water from their open reservoirs and reasonable water rates. Why this difference? Why is Portland second class here?

This time around the hurried time frame seemed to start with the Portland Water Bureau requesting that the Oregon Health Authority find them out of compliance seven months before the reporting deadline. Why would

they do that? A citizen activist suggested to me that the Portland Water Bureau loves to move things through quickly in the summer to minimize public engagement and due consideration. At this point, that is hard to doubt.

The third similarity is a lack of honest effort at seeking regulatory relief. Rochester, New York worked with their senator, Chuck Schumer, to push back on LT2. Five years ago, when I asked Senator Merkely why Portland was spending a half a billion dollars to bury our reservoirs while Rochester was not, he replied that local leadership was required and that he had not heard from Portland City Hall. This time around, I again see no evidence of honest effort at seeking regulatory relief.

My first request is that City Council takes due time to understand all available options.

My second request is that you please undertake a Rochester-style solution. A delay past 2034 will give rate payers a break and allow the science of LT2 to mature. If everyone agrees that there is no public health benefit then what is the hurry?

My third request is that Portland City Council actively reach out to Oregon Senators Merkley and Wyden and New York Senator Schumer (who helped save Rochester's open reservoirs), as well as Governor Brown who oversees the Oregon Health Authority, and even theRealDonaldTrump in updating LT2 based on the best available science.

As the saying goes, fool me once shame on you, fool me twice shame on me. Portland deserves better.

Please enter into the record this 10 minute radio piece documenting David Schaff, then director of Portland Water Bureau incorrectly asserting that a Rochester style reprieve was impossible:

<http://kboo.fm/media/14970-open-reservoirs-rochester-receives-reprieve-while-portland-plows-ahead>

Moore-Love, Karla

From: Mark Wheeler <mark@rootsrealty.com>
Sent: Friday, July 28, 2017 9:45 AM
To: Council Clerk – Testimony
Subject: Fwd: Friends of Reservoirs Urgent request-Protect Bull Run- No chemical adding filtration plant, no mercury

Hello,

I am not able to attend the Council meetings on this subject but want to submit this testimony. Once again, please heed the advice of Friends of Reservoirs.

Friends of the Reservoirs position is that even if “money were no object” we would not support the introduction of mercury to our watershed with bulbs that tend to break and projects that include logging and sewer facility construction in the watershed (CH2MHill design,\$105 million, \$16 million spent to date) , or worse yet risky chemicals added to our water via a filtration plant (\$500 million) for no measurable public health benefit. The Portland Water Bureau wants both!!! \$605 million plus debt service adding to the massive debt created over the last decade. There has NOT been a reliable risk probability/cost analysis completed. Even the wholesale customers say a rushed analysis says it will be of little value.

Sound science, including new scientific research, 125 years of disease-free history, community support for avoiding further changes that will negatively impact the taste and composition of our pure Bull Run water, plus avoiding further rate increases piled on top of a decade of skyrocketing water bills requires requesting a strongly supported delay immediately.

Infectious species of Cryptosporidium have never been detected in Bull Run water. The PWB wants to endlessly raise your rates and create an endless cycle of projects for their cozy consultant and their association global corporations. It’s been in the CH2Mhill/MWH global written PWB Infrastructure Master Plan of projects (all going to them) since 2000

- The city must also make a strong case to the Oregon Health Authority for a lengthy deferral along the lines of NYC’s 20 year deferral(until 2034) which they secured after detecting Cryptosporidium in the water they serve to customers. Boston, another large unfiltered system went to court and won when the EPA wanted to force them to build a filtration plant.

Why are even discussing making more monumental and degrading changes to our world class federally protected Bull Run watershed and water? Because of the flawed EPA regulation (LT2) that was responsive to the failure of a costly state-of-the-art filtration plant to protect against infectious species of Cryptosporidium and other contaminants in the highly polluted watershed in Milwaukee, WI 25 years ago. Baker City has cows in their watershed, thus they had an outbreak (outbreak refers to disease, not detects) The vast majority of Crypto species are harmless as were the isolated detects by the PWB this spring.

Key arguments against any Bull Run treatment plant:

- The goal of the LT2 is to reduce the level of disease in the community. Bull Run water already meets the goal of the rule. In 125 years there has never been any disease in the community from Bull Run water. New independent scientific studies vitiate EPA’s surface water Cryptosporidium rule, including a Water Research Foundation # 3021 study in which the Portland Water Bureau participated with zero Cryptosporidium detected. Improved sampling method that distinguish between the majority harmless and the few harmful species was used in this study.

- Improved sampling methods are utilized in Canada as communicated to the PWB by OHSU infectious disease specialist Dr. Tom Ward.

- There is no evidence of any infectious species of Cryptosporidium being detected in Bull Run water.
- As stated in our letter and at the June 27 Council work session by Multnomah Co. Public Health officer Dr. Paul Lewis, the "detects" by the PWB did not translate to any disease in the community from Bull Run water, in fact there was less disease in the community during that time frame. It is shameful that this has not from the outset been made abundantly clear to the public. Surely Paul Lewis will correct the Oregonian editorial board and OPB?
 - Disease in the community is from public swimming pools (Sellwood, Clackamas) and daycare centers
 - Spending any of the public's precious resources on a Bull Run treatment plant will provide no measurable public health benefit.
 - The building of any treatment plant increases Portland's carbon footprint, creates new watershed and public health risks, introduces mercury contamination risks and/or adds unnecessary chemicals to the highly valued pure Bull Run water, and makes already unaffordable water bills (after a decade of annual massive water and base rate increases) even more unaffordable for all but the upper middle class and the wealthy.
 - Filtration risks opening up the watershed to human activity, contamination and fire
 - Filtration plants mean sludge removal and disposal
 - UV radiation means creating a market for mercury
 - Wholesale customers pay NOTHING while projects are designed and under construction, the burden falls entirely on Portland ratepayers. TVWD wants chemical-adding filtration though they have been co-owners of the Wilsonville Willamette River filtration plant since 2002 but have yet to hook up to drinking from that river. The Willamette river is presently having a toxic algae problem. The reason 90% of large water systems add chemicals via a costly filtration plant is because their watersheds are contaminated with pollutants, human activity- cities, industries, cow pastures, feed lots, like Milwaukee, WI . Unfiltered systems provide the best tasting, safe drinking water to tens of millions across the nation.

Just as there is no reason to build any Bull Run treatment plant there is certainly no reason to construct a \$400-\$500 million filtration plant. Portland's Bull Run water continues to meet federal filtration avoidance criteria because of our highly protected watershed.

How many emergency back up systems must Portland ratepayers finance? Water Bureau arguments don't hold water and aren't supported by their own documents.

TURBIDITY: Despite storm after storm this last winter, annual turbidity including during rain events was very low, below 1 NTU. The action level is 5 NTU. In 2015 turbidity was at or below 3 NTU including during 3 winter rain events. Turbidity related to human activity is less of a problem with the decommissioning of the logging roads. **Emergency Backup:** Multiple backup supplies exist to address emergencies: Columbia South Shore Well field. Huge costs were incurred in building and cleaning up the CSS Well field so that it could serve as a back up when needed. Powell Valley wells were acquired in 2006. Other wells were acquired in the 1990's. Additional back up supplies include regional interties, linkage of several municipal distribution systems were developed in last decade (without any public involvement, considered top secret). Costly construction of a Bull Run dam variable intake structure to divert cold water for fish. How much more money do we need to spend on back up systems?

WATER DEMAND: Contrary to the Water Bureau's 15 year old climate change modeling of water demand, while population has increased water demand had declined as documented in the Water Bureau's water bond document, and as shown on the PWB water usage graph showing usage decline between 1988 and 2006 the year Powell Valley customers came on board. PWB water consumption data through 2016 shows water demand remaining low. PWB modeling of water demand has proven erroneous for decades just as EPA's modeling of Cryptosporidiosis cases has consistently proven erroneous. Tigard recently left our system. Tualatin Valley, a large wholesale customer has long indicated that they will be leaving Bull Run in a few years. Drinking water supply augmentation is needed relatively few times. More than \$425 million was spent to reduce in town storage by 50 million gallons via the elimination of open reservoirs (which held 50MG more water than the replacement underground tanks at Kelly Butte, Powell Butte and Washington Park) Portland is capable of conserving more than we do, if ever necessary.

FIRE: Big fires in watersheds are most often caused by humans and human activity (construction). The largest and most devastating fires in the Bull Run watershed subsequent to human settlement were fires ignited by humans. The risk from a devastating fire has been considered so remote by the PWB that many of the community-suggested additional fire prevention measures were deemed unnecessary. Conversely, most catastrophic fires lead to shutdowns of filtration plants. Keeping humans out of the watershed is the best protection against major fires.

Massive fires cause filtration plants to close down as do massive storm caused turbidity.

Bull Run tours should be drastically cut if the PWB has any watershed fire or contaminant concerns.

FUTURE REGULATIONS: There are no regulations on the horizon of 15-20years that would affect Bull Run as long as humans and cows are kept out of the federally protected watershed. Evidence does not support the argument that construction of a filtration plant anticipates any future regulations. In fact, filtration plants do not remove pharmaceuticals such as those found at the Columbia South Shore Well field (estrogen, psychotropics, pain killers etc.), the most likely target of future regulations. Watershed protections keep these contaminants out of Bull Run.

Those who planned our Bull Run system knew the risks of human entry in a drinking watershed of this importance.

In that the PWB was the only utility seated at the EPA Federal Advisory Committee table crafting the LT2 rule, and that their water bonds indicate that they stay abreast of regulations they would know of any regulations on the horizon in the next 15-20 years. EPA has yet to promulgate regulations they had on the books for future promulgation 25 years or more ago.

EARTHQUAKE: A filtration plant located in Gresham is likely to be damaged in an earthquake as are pipes around the region rendering the filtration plant useless.

Visit the Friends of the Reservoirs website for 20 years of background information, including a chart of all of the cozy consultant contracts related to forcing treatment plants and buried tanks (note there are many more since the chart was last updated in 2011) CH2Mhill was just awarded another contract to outline all of projects they want to build after the UV radiation and chemical-adding filtration plant projects are built (or while they are built). <http://www.friendsofreservoirs.org/>

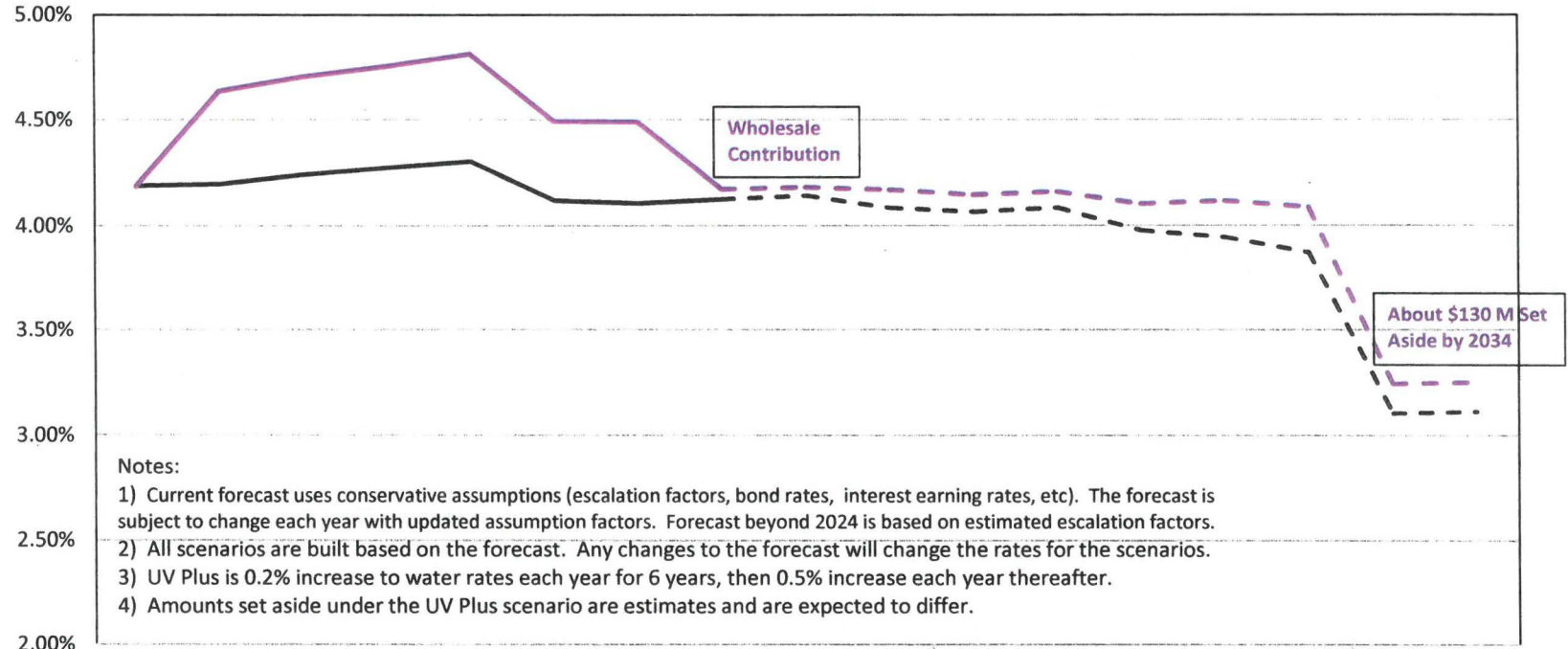
Thank you.

Mark Wheeler
628 SE 58th Avenue
Portland, OR 97215

37309

Submitted by
PWB-Solmer
8/2/17

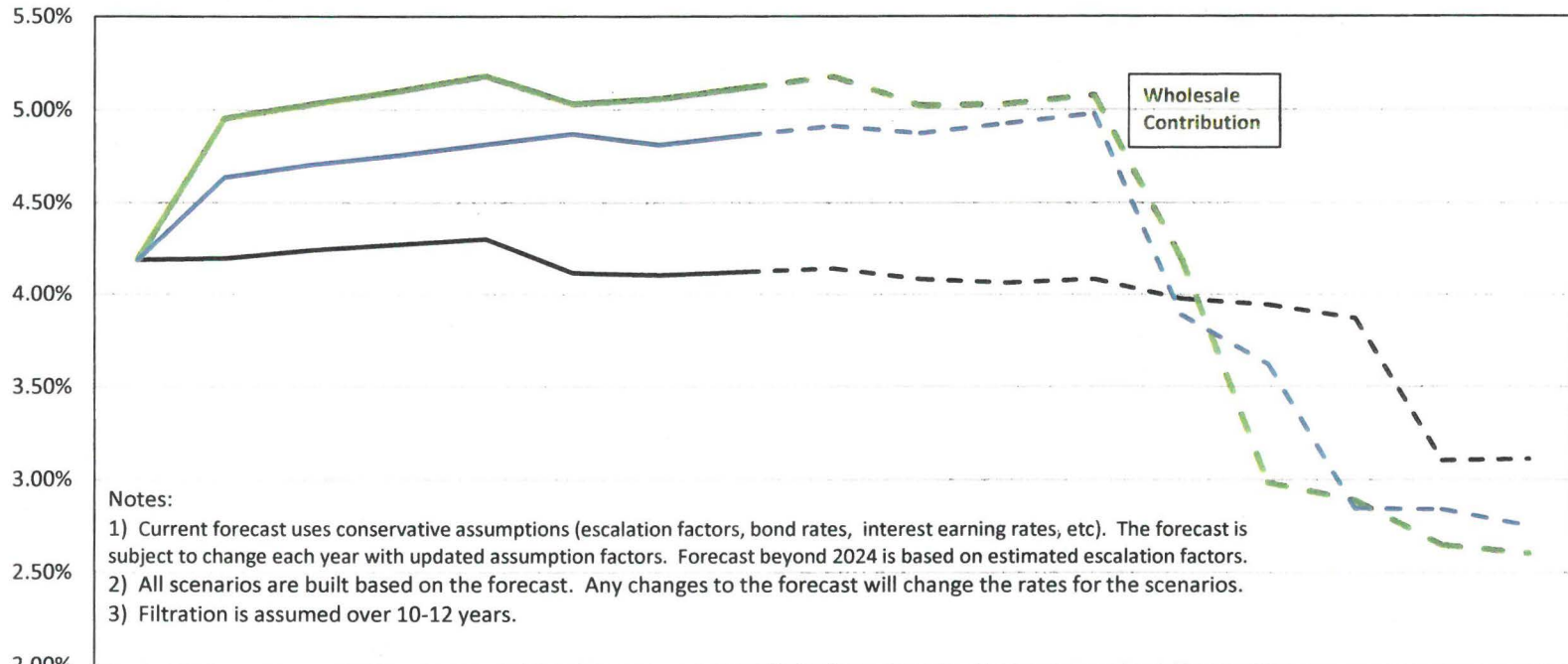
Annual Water/Sewer Combined Rate Increases



	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
— Current Forecast	4.19%	4.20%	4.24%	4.27%	4.30%	4.12%	4.10%	4.12%	4.14%	4.08%	4.06%	4.08%	3.98%	3.94%	3.87%	3.10%	3.11%
— UV Plus	4.19%	4.64%	4.71%	4.76%	4.82%	4.50%	4.49%	4.17%	4.18%	4.17%	4.15%	4.16%	4.10%	4.12%	4.09%	3.25%	3.25%

37309

Annual Water/Sewer Combined Rate Increases



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— Filtration - \$500M	4.19%	4.96%	5.03%	5.10%	5.18%	5.03%	5.06%	5.12%	5.18%	5.02%	5.03%	5.08%	4.20%	2.98%	2.89%	2.65%	2.60%
— Filtration - \$350M	4.19%	4.64%	4.71%	4.76%	4.82%	4.87%	4.82%	4.87%	4.92%	4.88%	4.93%	4.98%	3.89%	3.62%	2.85%	2.84%	2.75%

OREGON



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Dear Mayor Wheeler, Commissioners Fish, Salzman, Fritz and Eudaly,

The Oregonian's recent editorial

(http://www.oregonlive.com/opinion/index.ssf/2017/07/protect_our_water_editorial.html) reflects the public's general confusion regarding basic facts and impacts of drinking water treatment decisions. It illustrates precisely why we need an informed public discussion before huge decisions are made - and why the City Council must not lock down on a specific treatment option on August 2. In the absence of that community conversation, Portland residents will return from summer vacations shocked to learn that huge and costly decisions about their world-class drinking water were made in a rush to judgment based on ignorance and fear.

The Oregonian got some things absolutely right. Yes, we have a unique elegant, green system. Many residents and businesses, including great breweries and restaurants, chose to locate and remain in Portland precisely because our water is of such amazing quality and requires minimal treatment with chemicals.

Citizen activists, the Portland City Council and our congressional delegation took action over the course of more than a century to ensure the purity of our water. Our beautiful old-growth Bull Run forest, though somewhat marred by old clearcuts, is now protected from logging. Together, we prohibited the sources of disease that can kill: humans and livestock. They are all banned from our watershed.

The Oregonian got it wrong when repeating the myth that "early this year daily testing found evidence of cryptosporidium, a toxic bug." In fact, no cryptosporidium toxic to humans has ever been found in Bull Run water. Other species of crypto were found, none of which are known to cause disease in humans. In over 100 years, there has never been any disease connected with Bull Run drinking water. That's because we keep sources of toxic crypto - people and livestock - out of our protected watershed.

Oregon's robust crypto surveillance program has not shown any recent uptick in human crypto disease. There is no evidence of an "outbreak" as referenced in the Oregonian editorial. It is more than likely that one animal (a deer or possum, for example) was the cause for recent detections of cryptosporidium. Crypto species from these animals do not cause human disease. Does this seem like a good reason to spend \$500 million on a filtration plant?

It is also incorrect to assume that filtration will "save" us from muddy water during heavy winter storms. Muddy water can and does overwhelm filtration systems, as evidenced by the disaster in Milwaukee, WI. There, human sewage and cow waste replete with toxic crypto entered the filtration system during a heavy storm and people died. Filtration systems are routinely shut down during heavy rain storms to protect these systems from harm. Climate change-related increases in storm water is less of a threat for UV treatment. We're very fortunate to have a back-up water supply: our east county well-field serves up groundwater when storms cloud our Bull Run water.

The Oregonian should know better than to assume a filtration plant would provide certainty about water delivery in an earthquake disaster. A massive earthquake could destroy such a plant or rip apart massive pipes anywhere, rendering a half-billion dollar investment in filtration useless. Preparing our distribution system for an earthquake would probably be a better use of scarce public funds.

Nowhere is it disclosed that the filtration system recommended by the Water Bureau will force the addition of many new chemicals. The taste, the feel and smell of our water will change, a concern for many breweries and residents. This would not be the case with UV treatment, which simply inactivates organisms without changing water chemistry.

Big questions remain about the construction and operating costs. Who pays? Will there be a public-private partnership? Will a filtration plant be our asset -paid for and controlled by Portland ratepayers? How will sky-high water rates impact low-income residents, communities of color, and the elderly? How will rates impact home-grown businesses, small and large? What is the carbon-climate impact of fulltime filtration?



An additional huge potential long-term effect of filtration must not be ignored or dismissed. Once filtered, there will be new and increasing pressure to open the Bull Run to human activity and development. Hard won protections will be lost. Humans will bring in the type of crypto that is indeed toxic to humans. And, sadly, human entry will exponentially increase the risk of fire.

New sources of disease and fire, even logging in the Bull Run...could these unintended consequences be the stunning legacy of this City Council? These are a few of the issues that our community must thoroughly consider.

There is no public health emergency. Both UV treatment (for which our Water Bureau has already made large planning expenditures) and filtration will take 5 to 10 years, respectively, to build. In this regard, it makes no sense to rush to a decision over whether to invest \$100 million (UV treatment) versus \$500 million (filtration). Ratepayers, large customers, the Public Utility Board, the Mayor and Commissioners deserve more information and sufficient time to digest it. We must not allow ourselves to be forced into a hasty decision that we may all regret - and never forget.

WE, the UNDERSIGNED INDIVIDUALS, ORGANIZATIONS AND BUSINESSES, REQUEST THAT YOU VOTE TO:
SEND A REQUEST TO THE OREGON HEALTH AUTHORITY FOR AN EXTENDED TIMELINE TO ALLOW FOR AN INFORMED COMMUNITY DISCUSSION AND DECISIONS REGARDING BULL RUN TREATMENT

Thank you,

Kelly Campbell, Executive Director

Oregon Physicians for Social Responsibility

Regna Merritt, Healthy Climate Program Director

Oregon Physicians for Social Responsibility

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2EZ Computers Kelly McConnell

Heart of Gold Allison Draizin, Owner

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Yazzolino Color Brad Yazzolino, Owner

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DBMonkey and Bracketmaker.com Kenric Ashe,
Owner

Friends of the Reservoirs Floy Jones, Founder

Portlanders for Water Reform Kent Craford, President

Alliance for Democracy David Delk, President

Clean Water Oregon Kellie Barnes, President

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Helen St. James

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Barb Swartz - Teacher

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Stephanie Speros

Joe Miller, PhD

