

July 22, 2011

Ms. Julie Van Wagner
Environmental Services
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012
Julie.VanWagner@ladwp.com
(213) 367-4710 FAX

Re: Upper Stone Canyon Reservoir Water Quality Improvement Project Draft Environmental Impact Report

Dear Ms. Van Wagner:

I am submitting written comments in this letter that supplement my verbal comments at the July 12, 2011 LADWP public meeting regarding the Upper Stone Canyon Reservoir (USCR) Draft Environmental Impact Report (EIR) (<http://www.ladwp.com/ladwp/cms/ladwp014394.pdf>).

Section ES.3 of the Draft EIR Executive Summary states that the primary objective of this water improvement project is to “Comply with updated water quality standards enacted by the EPA and, by extension, the California Department of Public Health, including the Stage 2 Disinfectants and Disinfection Byproducts Rule (D-DBPR), which establishes new regulations related to the formation of potentially carcinogenic disinfection byproducts that may result from certain drinking water chemical disinfection processes, and the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), which establishes new regulations related to the presence of microbial pathogens in drinking water supplies.”

Based on my experience as a well-qualified UCLA public health scientist, who has been conducting epidemiologic research for the past 38 years on risk factors that impact human health and life expectancy, I believe that this proposed reservoir covering project is not justified from a public health standpoint. The water quality standards at USCR are already very high and there is no epidemiologic evidence that Los Angeles residents are experiencing any adverse health effects from drinking the water that currently exists in the USCR.

For perspective on the health benefits of covering reservoirs, US EPA estimates that compliance with D-DBPR will prevent about 280 bladder cancer cases and about 75 bladder cancer deaths per year nationwide (http://www.epa.gov/ogwdw/disinfection/stage2/pdfs/fs_st2_finalrule.pdf). When this national estimate is limited to the population served by the USCR, covering the reservoir will potentially prevent about 3 bladder cancer cases and 1 bladder cancer death per year. US EPA further estimates that the LT2ESWTR will reduce waterborne illness due to *Cryptosporidium* and other potential enteric pathogens (http://www.epa.gov/ogwdw/disinfection/lt2/pdfs/fs_lt2_lab_2-page_factsheet_final.pdf). This estimate is based primarily on reducing the adverse health effects, including death and illness, that occurred when a relatively high level of the *Cryptosporidium* parasite got into the Milwaukee water supply in 1993.

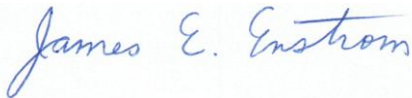
There is no direct evidence that the health benefits of covering reservoirs, as estimated by US EPA, actually apply to USCR and Los Angeles residents. Furthermore, US vital statistics data show that 1) Los Angeles County has the lowest total age-adjusted death rate of any large county in the US and 2) life expectancy has increased more rapidly in Los Angeles County than in most other US counties during the past 25 years.

Given the lack of evidence of any measurable public health benefit from covering USCR, I strongly recommend that LADWP seek a waiver for USCR from compliance with the US EPA water quality standards described in Section ES.3 of the Draft EIR. Given the current budget crisis in Los Angeles and the need to carefully prioritize spending, LADWP customers should not pay for a project that will not measurably improve the already high water quality standards in USCR and that will not improve the very high level of health of the Los Angeles residents who drink water from USCR. LADWP should seek the same kind of waiver for USCR that is currently being pursued for reservoirs in Portland, OR and New York City. In particular, please read the July 7, 2011 San Francisco Chronicle article “Some cities slow to cover up drinking water supply” and the Friends of the Reservoirs website (<http://friendsofreservoirs.org/>), particularly the March 8, 2011 letter by Dr. Thomas T. Ward and the March 18, 2011 letter from New York City to US EPA, as shown below.

In order to further explain and discuss the waiver option, I request the opportunity to meet with the appropriate LADWP staff members.

Thank you very much for your consideration regarding this important matter.

Sincerely yours,



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http://articles.sfgate.com/2011-07-07/news/29746347_1_california-reservoir-water-supply-water-systems

San Francisco Chronicle July 7, 2011

Some cities slow to cover up drinking water supply

July 07, 2011 | By TIM FOUGHT, Associated Press



This photo taken June 29, 2011 shows Portland's reservoir No. 6 in Mount Tabor Park in Portland, Ore. If 21-year-old Josh Seater had been holding something more ominous than a full bladder when he stepped up to the wrought iron fence around Reservoir No. 1 in Portland's Mount Tabor Park, he might have done some serious harm. Even before the terror attacks of Sept. 11 2001, some experts on urban waterworks had identified contamination by terrorists as a threat. Credit: Rick Bowmer

(07-07) 01:25 PDT Portland, Ore. (AP) --

Josh Seater could have done some serious harm when he stepped up to the wrought-iron fence around a Portland reservoir last month if he were holding something more ominous than a full bladder.

The open-air reservoir contains treated water that goes directly to people's spigots, and Seater's decision to urinate there after a night of drinking led Portland officials to drain the entire basin to keep from rattling the public's nerves about the purity of the drinking supply.

The saga delighted headline and joke writers, but it reveals a threat to urban water supplies in about a dozen cities.

Portland has five of up to 30 uncovered reservoirs around the country that contain treated water, some accessible to the public. The fear is that a terrorist could drop or somehow get a toxic chemical agent into a reservoir and sicken people.

"You can use your imagination. If somebody wanted to do something malicious, they could," said Richard Luthy, a Stanford University professor of civil and environmental engineering on a trip to a California reservoir.

Luthy and others told congressional panels after Sept. 11 about the vulnerability of infrastructure including water systems. Federal authorities ordered security evaluations, and water systems around the country have added fences, surveillance cameras, officer patrols or other measures.

Opinions about the extent of the risk that remains are divided.

In a 2004 paper for a NATO-Russia workshop on protecting urban infrastructure, University of Maryland Professor Gregory Baecher cited "a catalog of several dozen potential toxins, bacteria, viruses, protozoa and toxic industrial chemicals that have been identified as possible water contaminants that could be used by terrorists."

But Baecher said in a recent interview that dilution is one protection against harm from that sort of attack, and the nation's many open buildings are softer targets than water supply reservoirs. "If I were a terrorist, this is just not one of the easiest things to do," he said.

The dilution factor is what prompted some people to say that Portland overreacted in draining the reservoir. A pint of urine is a tiny drop in the bucket in a reservoir of 7.5 million gallons where ducks defecate as well.

It turns out that the federal government has been cracking down on reservoirs such as Portland's for reasons that have less to do with speculative threats from al-Qaida than with the known risk of serious health threats — the biggest one being cryptosporidium, a parasite from the feces of infected animals or humans. In 1993 it got into Milwaukee's water, led to the deaths of as many as 100 people and sickened hundreds of thousands more.

Rules the U.S. Environmental Protection Agency rolled out in 2006 are putting an end to the sort of reservoir Seater used — an open-air basin that holds treated or "finished" water to be distributed directly to consumers. The cryptosporidium parasite was a big motivating factor for the changes.

Many of these reservoirs date to horse-and-buggy days and were once celebrated in American cities.

They often exploited gravity to get water cheaply to growing populations. They provided a ready supply for firefighting. They were installed with architectural flourishes and lights and given central places in parks with surrounding pathways. That sentiment is strong in Portland, where neighbors who enjoy the scenery of the reservoirs call them a gem of the city and have been fighting for years to keep them open.

An estimate cited in a paper for the American Water Works Association says there were about 750 open, treated reservoirs in the 1970s. Recently, the Portland water bureau compiled a list of about 30 that remain, including some in New York and Los Angeles.

Plans are well along in most cities to comply with the EPA's rules, although it will take years to finish. In Los Angeles, for example, the estimate is 2022. In New York, city officials have asked the [Obama](#) administration for a waiver to allow the billion-gallon Hillview Reservoir to remain uncovered — or at least to delay the compliance deadline for the \$1.6 billion project.

In 2007, New York City joined Portland in taking the EPA rules over cryptosporidium to federal court, but a federal appeals court slapped down their arguments as "either meritless, irrelevant, or both." As recently as June, Oregon state authorities told the city of Portland there's no such thing as a waiver to the rules.

The city is building two underground reservoirs expected in a few years to replace the Mount Tabor reservoirs.

As for Seater, prosecutors say they have not made a decision about charging him. And the city has finished draining the reservoir and scrubbing the walls.

Flushing the urine was a smart decision in the view of Stanford professor Luthy, who regards confidence in public water supply as an important social good. Mistrust could lead to social divisions along lines of those who can afford bottled water and those who can't, he said.

"We should expect that the water supplied to us is safe and wholesome and reliable."

<http://friendsofreservoirs.org/>

FRIENDS *of the* **RESERVOIRS**
Citizens joining to protect Portland's historic reservoirs and water system

To subscribe to the Friends' email distribution list and receive occasional updates on related news, send your request to friendsofreservoirs1to6@msn.com.

June 3, 2011

Please click on **News** in the menu to the left for:

[Questions and Answers about Portland's Open Reservoirs](#)

May, 2011

New legal opinion!

[Click here](#) to read legal expert's opinion on opportunity to secure a open reservoir variance and change schedule of compliance for costly and unnecessary LT2 rule reservoir "treat or cover" requirement. Mayor Adams convened a meeting on Thursday May 19, 2011 to discuss the new legal opinion with the Portland Water User Coalition attorney's. On May 25, City attorney Terry Thatcher misrepresented the position of the Coalition's attorney's when presenting to City Council.

May, 2011

The City of New York as part of their effort in support of permanent protections for their Hillview open reservoir, is taking advantage of President Obama's February 2011 invitation to comment on streamlining or elimination of unduly burdensome federal regulations. "The EPA recently began a new retrospective review of our existing regulations to determine whether any such regulations should be modified, streamlined, expanded, or repealed, as called for by President Obama in [Executive Order 13563](#). The purpose of this review is to make the Agency's regulatory program more effective or less burdensome in achieving its objectives." [EPA website](#)

On March 18, 2011 NYC submitted substantive, [detailed comments](#) (see pp. 1-10) and very specific objections to LT2 Open Reservoir requirements (pp. 8-10), unlike the City of Portland.

[Dr. Thomas Ward's March 8, 2011 letter to Portland Commissioner Randy Leonard](#)

March 8, 2011

Commissioner Randy Leonard
1221 SW 4th Avenue Room 210
Portland, Oregon 97204

RE: LT2 Water Mandates

Dear Commissioner Leonard:

I am writing in regards to the Portland Water Bureau's ongoing efforts to pursue a regulatory variance from the LT2 guidelines. Specifically, it is my hope that the Portland Water Bureau, in cooperation with the Oregon State Public Health Division, requests an extended compliance time-frame from the EPA, along with a consideration for eventual long-term variance. It is my professional belief that there is both sufficient water quality data and preliminary epidemiologic data on the lack of major or minor concern for waterborne illness due to *Cryptosporidium* and other potential enteric pathogens to justify an extension of compliance from the EPA.

I am the Co-Director of Oregon Health Science University Medical School Microbiology Course, Director of the OHSU Infectious Disease Fellowship Training Program, and Professor of Medicine at OHSU. I am Board Director for the Research and Education Group, Portland's HIV community clinical research consortium. I have practiced and taught clinical infectious disease for over three decades. I am past President of the Oregon Infectious Diseases Society. I have published on clinical aspects of disease due to *Cryptosporidium*, and am highly knowledgeable regarding other microbial pathogens that have the potential to cause waterborne illness. I am highly aware of the health consequences of enteric disease for patients with advanced HIV infection and for others who have impaired immunity. I have frequent and close contact with local, state and federal public health officials, and closely follow regional and national epidemiologic trends for communicable diseases. I am writing as a concerned Portland resident.

To those who have closely followed communicable diseases for several decades, the 1993 massive waterborne outbreak due to *Cryptosporidium* in Milwaukee was the milestone event that established the need for upgrading regulations regarding the nation's drinking water. Since this event, the subsequent series of EPA regulations dealing with treatment of surface and ground water, developed in conjunction with the CDC Parasitic Division and other federal public health officials, has provided important guidance towards making our drinking water safer. The ongoing scientific inquiry and understanding that has guided regulatory improvements in our water supply should be the basis for regional decisions on how best to make certain that Portland's municipal water supply remains safe. The EPA and the CDC* ([*http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5108a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5108a1.htm)) have stated that the science used to develop regulations for protecting our water supply should be based on surveillance information on 1) water quality data, and 2) epidemiologic data on waterborne disease outbreaks. We are fortunate to have excellent and current surveillance information addressing these two areas.

Water sampling data from Bull Run and from our water reservoirs has demonstrated compliance with the EPA standard of a maximum contamination goal of zero oocysts for *Cryptosporidium*. This result is consistent with the view that there is a very low or no risk for *Cryptosporidium* contamination of our highly protected and geographically isolated Bull Run water source, and theoretical low risk for surface water or other contamination of our open reservoirs.

Epidemiologic data from the Oregon Public Health Division, available since 1988, has failed to demonstrate waterborne disease from *Cryptosporidium* attributable to Portland's drinking water. That local and state public health officials have the ability to detect waterborne *Cryptosporidium* outbreaks has been demonstrated in a number of different regions throughout the State where waterborne outbreaks have been well characterized, all in areas served by municipal and noncommunity water supplies outside the Bull Run water supply.

Epidemiologic data from Oregon is useful for predicting what the major likely sources for *Cryptosporidium* are throughout our state. The pattern of maximum seasonal occurrence of reported cases in August and September points towards a likely major role for recreational water exposure as a source of infection (pools, interactive fountains, etc.); importantly, the seasonal pattern of disease occurrence has no correlation to seasonal rain fall patterns, and is therefore, not consistent with possible rain-induced surface water, and resultant parasitic contamination, of

Bull Run water or of our open water reservoirs. Oregon's epidemiologic data also shows that Cryptosporidium disease occurs in mostly young children and the parents of young children, supporting a major mode of direct person-to-person Cryptosporidium transmission in daycare and other congregated child settings, and of secondary person-to-person transmission in homesettings.

Available epidemiologic data in Oregon does not suggest that Cryptosporidium acquisition is caused by common-source waterborne transmission from Bull Run water or from our local reservoirs. Ongoing regulatory improvement in our water quality should be guided by carefully obtained and analyzed scientifically-based, surveillance information, and not by less rational reactions to a one-time striking waterborne outbreak. Locally, we are fortunate in having high quality information to assist in decision-making on how best to improve the safety of our water supply. The best way forward in my opinion would be to ask the EPA for an extended compliance time-frame, so as to gather longer term surveillance data on both water sampling quality, and for ongoing epidemiologic data collection that can continue to evaluate for the occurrence of common-source waterborne illnesses attributable to the Bull Run water supply. Consideration should be given to partnering with the State Public Health Division and CDC in gathering even more robust epidemiologic data that better characterizes the sources for microbiologically confirmed Cryptosporidium cases that occur in persons who live within the geographic area served by the Bull Run watershed. Science, guided by carefully collected surveillance information, should determine whether the Bull Run water source and in-town reservoirs in the future require additional treatment measures.

My strong opinion, based on available water quality and epidemiologic information, is that our current Bull Run water source, storage and handling systems provide us with a safe water supply.

Sincerely,

Thomas T. Ward, M.D.
wardt@ohsu.edu

cc:

Mayor Adams
Commissioner Nick Fish
Commissioner Amanda Fritz
Commissioner Dan Saltzman