



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital
FROM: Brad Taylor, Water Operations Manager; Jeannine Parisi, Community and Local Government Outreach Coordinator
DATE: April 10, 2013
SUBJECT: College Hill Reservoir Security

Issue

This is an update on interim measures taken to safeguard drinking water at the College Hill Reservoir (CHR), as well as the status of communications with area neighbors.

Background

The email correspondence dated March 1, 2013 described how during a routine facility inspection, it was determined that the reservoir roof was leaking despite waterproofing attempts completed in 2012. Management then embarked on a course of action that included:

- Notifying Oregon Health Authority Drinking Water Services Division (OHA/DWS) of the problem and submitting an action plan that includes bi-weekly water sampling
- Developing protocols to be taken if a "positive" sample is collected, including re-testing procedures, media announcements and instructions to the public should a "boil-water" notice be necessary
- Working with neighbors to implement other interim measures to mitigate contamination risks while a long-term solution is being developed. This included a plan to fence the reservoir top, primarily to keep dogs off the surface, by the end of June 2013.

Based on new information, staff is proposing a modified strategy with triggers that would accelerate additional measures restricting access to the reservoir surface.

Discussion

EWEB received the OHA/DWS response to its action plan on March 15, 2013. In the memo, the agency explains that a finished water storage reservoir without a watertight roof is considered a "significant deficiency" requiring corrective action to repair the roof so that it is watertight. OHA/DWS further states that even if EWEB were to restrict public access to the reservoir, animals can still present hazards until the roof is repaired. Specifically, the agency expressed concern that birds and other wild animal waste can carry cryptosporidium and giardia, which chlorine alone does not treat. EWEB plans a comprehensive review of engineering alternatives that meet the OHA/DWS requirements, including decommissioning the facility and building new storage capacity elsewhere, by the end of 2014. This solution will then need to be added to future capital improvement plans for budgeting purposes.

Management takes these concerns seriously and has a multi-level strategy in place to mitigate risks of contamination while the longer-term fix is evaluated and implemented. We have attached ‘no dogs’ placards to existing signage, and actively engaged neighbors about keeping dogs off the top of the reservoir. Staff has talked to over two dozen neighbors individually, as well as attended the March 11 Friendly Area Neighbors Board meeting to share concerns and potential solutions. In these conversations, neighbors suggested that EWEB would be more effective in changing behavior regarding dog walking on the reservoir if:

- Gates were erected at each entrance that visitors had to pass through to get onto the roof
- More prominent signage prohibiting dogs, with relevant city codes and graphics, was posted on the gates to enhance visibility and awareness
- The public had a better understanding of the contamination risks posed from animal waste and potential consequences

EWEB is pleased that neighbors understood the concerns and wanted to take proactive action to reducing known threats to drinking water quality. Their suggestion represented a practical approach that could be implemented now and incorporated into the future fencing plan. The gates and signage have since been installed (see attachment for pictures). The signage includes a link to the webpage containing a fact sheet that discusses the importance of this reservoir to our drinking water system, as well as potential risks and solutions (eweb.org/waterquality). Some neighbors have already reported that voluntary compliance has improved since these changes were made. Since staff are now sampling twice per week at this location, there is more frequent monitoring of the reservoir surface to independently validate this observation.

Other mitigation measures already in place include operational changes that “turn” the water over more frequently, which helps maintain adequate chlorine residuals throughout the entire tank. Therefore, if contaminants enter the water through the roof or other means, the likelihood of bacterial detection is minimal. In a follow-up conversation with OHA/DWS, agency staff indicated that these interim measures, coupled with on-going monitoring for neighborhood compliance with the dog ban, are likely sufficient as interim measures until a permanent solution is identified and funded. Also, it’s worth noting that the new gates can be locked to restrict access over the Fourth of July weekend, or at any other time if that becomes necessary.

A neighborhood meeting to explain facility use expectations and new security measures is scheduled for Tuesday, April 9. At that meeting, staff will test community willingness to partner with EWEB to maintain a clean surface through routine inspections, clean-up of any observed debris/waste, and engaging with users who are not being good stewards of the facility. Staff will synthesize the results of this meeting and provide a recommendation to the Board if a trial “reservoir watch” approach seems viable if accompanied with clear triggers for additional restrictions. At a minimum, these would include: a) documentation of continued problems that elevate risks to drinking water quality, and/or b) a collection of a confirmed positive sample.

TBL Assessment

In draft form; final documentation to be presented at a future meeting.

Recommendation

Fencing will reduce the likelihood of dog waste being left behind, as well as deter (not eliminate) vandalism and graffiti, but does not address the significant deficiency as required by OHA/DWS. This means that any solution short of repairing the roof or decommissioning the reservoir would be considered an interim strategy. There are also some design considerations associated with fencing that could lessen the effectiveness of this solution as a security feature, or increase original cost estimates. A stepped solution that postpones investment in a fencing system, coupled with triggers that would accelerate additional security measures, may be more cost-effective. On-going community education that continues to engage neighbors in this interim solution would be necessary if it is agreed to maintain this approach beyond a 4 – 6 month trial basis.

Requested Board Action

This is an update only. Staff will continue to review alternatives and provide a recommendation to the Board in advance of the July meeting.



Help protect our drinking water supply

**NO DOGS ALLOWED
ON RESERVOIR**

Enforced under ORS 164.245 and Eugene Code 4.817



Call 541-685-7595 to report graffiti, vandalism or other threats to drinking water.



Eugene Water & Electric Board
eweb.org/waterquality