Washington State Dept. of Health, Office of Drinking Water (Deborah Johnson)

Thank you for your information session this afternoon. Our scoping input about BESS facilities relate to water resources, specifically focused on BESS siting in relation to drinking water sources:
• Location within the sanitary control area (100' radius) associated with any drinking water well, public or private (WAC 173-160-101 & -171; 246-290-135(2)); & 246-291-125(5)); and
• Location within the larger wellhead protection areas associated with public drinking water systems (WAC 246-290-135(3)(c)(ii) & 246-291-125(3)(d)(ii)).

In 2024, we commented on SEPA review associated with a city development permit for a BESS facility. We are providing this excerpt adapted from those comments we feel would illuminate broader PEIS scoping, including the reference documents we offered to the city at that time (note: live links did not work here so we've substituted URLs below):

The chief drinking water concern associated with BESS facilities isn't so much in their everyday operation, but in case of emergency. A battery system poses certain inherent fire hazards associated with the possibility of thermal runaway. Our focused concern is the possibility of chemical contamination in case of emergency, where chemical releases can commingle with firefighting water to contaminate soil and/or ground water, either directly or as runoff. If a public drinking water source is compromised in such a manner by a BESS facility, the water purveyor could potentially lose its investment in the well and need to shut it down, either temporarily or permanently as dictated by the situation. Further, if the source water (aquifer) itself is impacted, it could affect a greater number of drinking water systems and private wells than a single proximate source.

We're sharing a number of related resources below. We encourage you to take a critical look at these materials, and any others to this point that you may locate, to identify measures beyond everyday best practices to deal with emergency situations that may occur in relation to BESS facilities.

Of particular note, the Travelers article states that in case of fire, improper firefighting techniques can make things worse and potentially result in additional harm. It goes on to say that emergency response must be tailored to that specific BESS operation. Further, the Water Research Foundation report offers a number of recommendations around fire hazard control in situ and says that besides fire potential, consideration should be given to hazardous materials transportation and handling both on- and off-site: "Preventative mitigation measures required to prevent any substantial hazards to the public or environment through the routine transport, use, or disposal of hazardous materials should be considered for BESS projects."

https://www.waterrf.org/research/projects/battery-storage-system-guidance-water-and-wastewater-util
https://www.travelers.com/resources/business-industries/energy/lithium-ion-battery-energy-storage-en
https://www.sciencedirect.com/science/article/abs/pii/S1364032119300334
https://www.bakerrisk.com/news/myths-battery-energy-storage-systems/
https://www.exponent.com/case-studies/firefighting-water-battery-fires-hazardous
https://www.labellapc.com/insights/bess-thermal-events-what-to-know-and-what-to-expect/

-end of excerpt-

Specific to the 2024 permit, we encouraged the city involved to, at minimum, require a hydrogeo report demonstrating the site's relationship with groundwater providing drinking water to the specific drinking water source of concern. We recommended they (a) involve their drinking water utility staff in this aspect of permit review; and (b) apply mitigation measures up to and including replacement of the water source if it appeared that an emergency situation at the site would pose contamination potential to the public drinking water or any other drinking water source. These type of recommended responses may be generally replicable in a PEIS.

Thank you for your consideration.