MEMORANDUM

From: Allan Felsot, Washington State University
To: Portland Water Bureau
Date: July 26, 2023

Re: Response to Select Testimony from Land Use Review Process for the Filtration Facility and Pipelines

This memorandum responds to a selection of Multnomah County land use review public comments received as of the date of this response that address chemical use as an accepted farm practice in the surrounding lands. I previously provided a report, "Use and Safety Characterization of Pesticides Used on Agricultural Properties Nearby the Proposed Site for the Portland Water Bureau's Bull Run Filtration Facility," dated September 2022, to the Water Bureau, which was included in the land use record as staff's Exhibit A.39 (referred to herein as the "September 2022 Report"). This memorandum builds on the September 2022 Report and uses defined terms and other concepts from that report.

The responses below are intended to address the themes and concepts in this selection of public comments. For that reason, these responses are likely to also be applicable to other public comments now in the record or that are placed in the record after the date of this response.

Ekstrom Oral Testimony, at 11:14:10 AM

> "Bring the total up to about 5 acres that would be taken out of productive farming. To add – just like somebody else said about the spray buffer – for safety, open vents and everything, that is going to take some more land, depending on how much."

Ekstrom Written Testimony – Exhibit H.5

> "At the NE property corner where the property connects to Lusted Rd., the Portland Water Bureau wants to locate a valving station (the intertie) that would require a large building and an additional acre of land. This would be roughly 5 acres of land in total that is at risk of being taken out of productive farming. Also, the additional land that would have to be sacrificed as a spray buffer would increase the acreage that would be lost forever."

In general, the pipelines and intertie, as described in the land use applications, will not force a change in, nor increase the cost of, accepted farm or forest practices related to chemical use because buffer zone requirements (also referred to in opponent comments as "spray buffer" or "no-spray zone" requirements) do not require that the use of pesticides or other agricultural chemicals be set back from these proposed types of development (such as roads, pipelines and associated appurtenances, or intertie facilities). As explained in the September 2022 Report, product labels for all of the identified active ingredients for pesticides used in the surrounding lands were reviewed for mandates creating buffer zone prohibitions on applying pesticides within a certain area of a sensitive site. *See* September 2022 Report, Appendix A4, Tables A4-3 through A4-3.

A no-spray zone or buffer zone is defined by EPA in PRN 2001-X Draft as "an area in which direct application of the pesticide is prohibited; this area is specified in distance between the closest point of direct pesticide application and the nearest boundary of a site to be protected, unless otherwise specified on a product label." No-spray or buffer zones are specific distances nearly always applied to protect bodies of water and are expressed as the numbers of feet between the perimeter row of a sprayed crop and a water body wherein no pesticide applications of that product formulation are permitted. Thus, no-spray zones are mandated specifically on product labels and do not apply to roads, pipelines, appurtenances, or facilities like the intertie. This is logical: If buffer zone requirements or practices did require setbacks from these types of development, huge areas of farmland across the country would be unusable, because roads (public and private), pipelines, appurtenances, and other utility infrastructure are common in farmland.

Additionally, the Water Bureau has confirmed that their internal Integrated Vegetation Management and Herbicide Use (IVMHU) Standard Operating Protocol (SOP) does not seek to restrict the use of agricultural chemicals or pesticides near Water Bureau infrastructure of the type proposed as part of the pipelines and intertie portions of the project.

Kleinman Oral Testimony, at 10:22 AM

> "That they are going to have to maintain a 100 foot buffer from the Water Bureau property under, uh, their, um, pesticide spray instructions, uh, that come with the pesticide. So that land will be lost once the sensitive use arises on the Water Bureau property."

Kleinman Oral Testimony, at 10:23:50 AM

> "The situation, for example, with the pesticide spraying does not allow, uh, the City or the Water Bureau as the affected adjacent owner to waive that buffer, the farmer is required to comply with the safety instructions on the pesticide."

Kleinman Written Testimony – Exhibit H.2

> "Among the relevant factors forming the basis for LUBA's remand in Van Dyke was the need for farmers to avoid spraying needed pesticides within a 100- foot buffer of the proposed recreational trail. 80 Or LUBA at 364-69 [LUBA No. 2019-047]. The evidence presented to you will show that the same problem is present here. Moreover, while the recreational trail in question in Van Dyke was sensitive conflicting use, it pales in comparison with a facility filtering drinking water for the entire city of Portland and other jurisdictions, as well."

These comments are concerned that the filtration facility is a "sensitive use" that will require "a 100 foot buffer from the Water Bureau property" because of those label instructions. The comments cite the Van Dyke case, where there was "testimony that some farmers use pesticides, Lorsban and Yuma 4E, that require up to a 100-foot setback from sensitive sites such as "pedestrian sidewalks" or "outdoor recreational areas.""

It is incorrect that pesticide labels would require a "buffer from the Water Bureau property" or any other property line. Instead, pesticide labels require no-spray buffers (as defined in EPA notification PRN 2001-X Draft) from certain sensitive uses that are almost always water bodies unless otherwise stated on the pesticide product labels. Indeed, product labels analyzed in the

September 2022 report only mandated no-spray zones relative to a protected natural water body. Furthermore, the Water Bureau incorporated a large, 130-foot buffer between the nearest open basins and the property line. This buffer is located on the filtration facility property itself in order to avoid any impact on accepted farm practices related to pesticides use in the surrounding lands. Because the label-required no-spray zone listed under "Directions for Use" relates to a fixed distance from the sensitive site, rather than a distance from a property line, the 130-foot buffer provided on the filtration facility property is more than adequate to prevent any impact on accepted farm practices related to spraying in compliance with label instructions on adjacent lands.

The Water Bureau is not proposing to "waive that buffer" on pesticide spray instructions. Instead, the buffer has been provided internal to the Water Bureau property so that the farming on surrounding lands is not affected.

1000 Friends Written Testimony -- Exhibit H.11:

> "For example, the applicant fails to establish that "equivalent safe distances," which the EPA developed to determine the safe distance for exposure to bystanders, applies equally to chemical exposure of water in a water treatment facility. There is also the possibility that EPA standards for chemical concentrations in water could change. Even accepted farming practices that are designed to protect humans and the environment, could still result conflicts with a water treatment facility. Those conflicts-to the extent that they change farming practices or impose liability on farmers-could result in adverse impacts."

This comment has incorrectly stated information about the "equivalent safe distances," or "ESDs." EPA does not "develop" ESDs. As explained in the September 2022 Report, EPA publishes exposure levels of concern (or LOCs). Dosages less than the Level of Concern can be thought of as a safe level of exposure because it would meet EPA's standard for determining a "reasonable certainty of no harm." To characterize whether potential exposures analyzed in the September 2022 Report exceeded EPA's Levels of Concern, drift-exposure output was examined for crossover with the Level of Concern. That point of crossover is the "ESD" developed in the September 2022 Report. Stated another way, the ESD is used in the September 2022 Report to indicate how far away a human would need to be from a spraying operation for the exposure to not be above EPA's Levels of Concern for risk.

This comment also has incorrectly stated the standard used in the September 2022 Report to evaluate the potential for exposure to water and drinking water. For exposure to water, the September 2022 Report did not rely on standards "designed to protect humans and the environment" instead of those for analyzing potential "conflicts with a water treatment facility." Instead, the September 2022 Report looks at comparable metrics to the Levels of Concern: the maximum contaminant level (MCL), promulgated under the aegis of the Safe Drinking Water Act, as well as EPA's "Health Advisories" ("HAs") and "Human Health Benchmarks for Pesticides" ("HHBPs). These metrics, the MCL, HAs, and HHBPs, provide the standards and guidelines for drinking water concentrations that would not exceed levels of concern under the relevant government regulations. The September 2022 Report calculates the potential deposition of pesticides into the Filtration Facility open water basins based on conservative assumptions about sprayer scenarios. Even without taking into consideration the actual dilution and dynamic water movement that would occur at the Filtration Facility – described in the Graham 2022 report included in the land use record as staff's Exhibit A.41 – the estimated concentrations of pesticides deposited into the open water basins were well below the levels for

any water quality standard or guidelines protective of human health (the MCLs, HAs, or HHBPs).

Finally, the development of the LOCs, MCLs, HAs, and HHBPs are worst case scenarios, *i.e.*, the most conservative analysis is rendered on the toxicological studies. The analysis is conservative in that EPA uses the toxicological study that yields the lowest no observable effect level (NOAEL) because that would be protective of any other measurable effect. Therefore, EPA is unlikely to lower standards. For example, atrazine has been a known contaminant in drinking water supplies since the early 1970's. Under the Safe Drinking Water Act, EPA promulgated an enforceable standard of 3 ppb (3 µg/L). After nearly 30 years of additional toxicological research on this herbicide since the MCL was developed, the MCL stands as originally designed. Thus, there is not a significant concern about standards changing in a way that would affect farming practices.