## Attachment K.1b Agricultural Review of Cathodic Protection Rectifiers

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To: Multnomah County

From: Bruce Prenguber, Globalwise Inc.

**Date**: January 12, 2023

Subject: K.1.b – Agricultural Review of Cathodic Protection Rectifiers (Review of

Completeness Attachment K.1.a to Water Bureau Land Use Application for

Agricultural Compatibility)

I have reviewed Completeness Attachment K.1.a which provides information about the cathodic protection rectifiers (CPRs) for unfiltered and filtered water pipelines for the Water Bureau project. The proposed CPRs are similar in design and function to the existing water utility facilities and appurtenances in the Surrounding Lands.

Defined terms in this narrative are provided in my report for the main land use application, "Compatibility of Proposed Portland Water Bureau Filtration Facility & Pipeline Operations with Surrounding Agriculture" dated September 2022. This report is located in "Application Appendix D.1."

With regard to agricultural compatibility and the proposed CPRs, the following are key findings:

- 1) Each of the CPRs will be installed within the pipeline areas previously reviewed.

  Therefore, there are no changes in the defined Surrounding Lands for my agricultural compatibility analysis. Furthermore, none of these CPR appurtenances will be located on Exclusive Farm Use (EFU) zoned property.
- 2) Energizing the pipelines with a small electrical change from CPRs has no effect on the Surrounding Lands farm soil including its agricultural productivity. This has been clearly demonstrated by the presence of CPR appurtenances for decades on existing Water Bureau pipelines in the Project area that are within or near farm fields.

- 3) Since the CPRs only involve a small electrical charge applied to underground pipelines, they do not result in light, noise, odor, or any other externality that could change or impact accepted farm practices in the Surrounding Lands.
- 4) The CPRs are necessary for pipeline protection, which extends the life of the pipelines and reduces the potential for pipeline maintenance. This reduces the need for future Water Bureau access to farm use properties.

For all of the above reasons, the proposed CPR appurtenances do not increase the potential for the pipelines to force a significant change in, or significantly increase the cost of, accepted farm practices in the Surroundings Lands. As a result, information in Completeness Attachment K.1.a does not change any of the conclusions in my report included in the main application.