



*Commissioners*

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September 26, 2020

Craig Rankine  
WA Department of Ecology  
Vancouver Field Office  
12121 NE 99<sup>th</sup> St. Suite 2100  
Vancouver, WA 98682

Subject: Draft Agreed Order 18152 for the Port of Vancouver, NuStar, Cadet Swan Site Facility Site Identification 1026

Dear Craig:

Clark Public Utilities appreciates the opportunity to provide written comments regarding the Draft Agreed Order 18152. The aquifers that underlie the Vancouver Lake lowlands are critical supply sources for meeting the drinking water needs of Clark County for the next 50+ years. The utility currently operates a public water supply well field at 5806 Fruit Valley Road drawing from the deep Sand and Gravel aquifer. The shallow Pleistocene Alluvial Aquifer, present from approximately 55 feet to 180 feet below ground surface, is the aquifer needed for meeting the long term public water needs. Efforts to protect, prevent, arrest, and address contaminated soil and ground water in the Vancouver Lake lowland area are essential in protecting this critical supply aquifer.

Attached are comments from our consultant Pacific Groundwater Group on the Draft Agreed Order 18152 for the Port of Vancouver, NuStar, Cadet Swan Site Facility Site Identification 1026. The utility is hopeful these comments will assist you continue to protect our groundwater supply. We thank you for our shared interest in providing long term protection of the aquifers present beneath the Vancouver Lake lowlands.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "John Roth", with a small circular stamp or mark below the name.

John Roth, Water Quality & Production Manager  
Clark Public Utilities – Water Services  
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September 25, 2020

Craig Rankine  
WA Department of Ecology, Vancouver Field Office  
12121 NE 99th St, Suite 2100  
Vancouver, WA 98682

Re: Draft Agreed Order 18152 for the Port of Vancouver, NuStar, Cadet Swan Site  
Facility Site Identification 1026

Dear Mr. Rankine,

This letter provides comments on draft Agreed Order (AO) DE18152 for the Port of Vancouver, NuStar, Cadet Swan Site (“Site”). These comments are submitted on behalf of Clark Public Utilities (CPU), which operates municipal water-supply wells in the Site vicinity at their Carol Curtis Wellfield and (to a lesser extent) at their River Road Facility. As part of their wellhead protection responsibilities, CPU takes an active role in tracking contaminant sources within wellhead protection areas. CPU seeks to work cooperatively with Site managers and other purveyors in the Vancouver Lake Lowland that are performing overlapping wellhead protection and fate and transport evaluations. In that context, our comments relate to ensuring that analyses of contaminant fate and transport, and cleanup action developed based on the understanding of fate and transport conducted under the AO include consideration of CPU pumping from the Carol Curtis Wellfield.

Solvent releases at the Site have resulted in groundwater contamination in the Pleistocene Alluvial Aquifer (PAA). CPU secured a 20,000 acre-feet/year (af/yr) water right in the PAA at the Carol Curtis Wellfield in 2012<sup>1</sup>, but delayed initiation of pumping to provide the Port of Vancouver time to clean up the contamination by operating a pump and treat system designed to provide hydraulic control and plume containment. The pump and treat system began operation in 2009. To date, CPU’s pumping at the Carol Curtis Wellfield has been limited to production from three wells completed in the deep Sand and Gravel Aquifer (SGA). However, about ten years ago, CPU indicated that they intended to commence PAA pumping from the Carol Curtis Wellfield in 2020 (PGG, 2011). The upcoming groundwater withdrawal from the PAA differs from conditions described previously in the *Groundwater Pump and Treat Interim Action* and *Remedial Investigation* reports (Parametrix 2007; 2009; 2010). While those prior reports described no PAA pumpage from Carol Curtis, CPU intends to begin PAA withdrawals in 5,000 gallon per minute (up to 720 af/yr) increments as early as 2021, increasing to a maximum withdrawal of 25,000 gpm (Qi) and 20,000 af/yr (Qa) at full buildout.

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<sup>1</sup> Priority date April 16, 2001.

CPU seeks these assurances:

1. That hydraulic controls currently in place will remain effective as PAA pumping begins at the Carol Curtis Wellfield.
2. The feasibility study and draft and final Cleanup Action Plans (CAP) developed for the Site include consideration of the changes in groundwater flow under the predicted pumping conditions.
3. Include contingency actions that (if needed) can be implemented within a timeframe consistent with model simulations of travel times from the north side of the Site to the Carol Curtis Wellfield. should escape of HVOCs be indicated. The Port's consultant should perform model simulations to estimate this travel time.

Elements to meet these assurances are, at least in part, in place. For example, the Cadet RI (Parametrix, 2009) and its Groundwater Pump and Treat Work Plan (Parametrix 2007, 2010) include provisions to adapt hydraulic control in response to changes in the wellfield operations. Specifically, the work plan states:

**7.2.2 Flexibility to Modify Alternative to Offset Changes in Current and Proposed Wellfields in Project Area**

The proposed interim remedial action is capable of achieving the objectives outlined in Section 5. However, this interim action can be easily modified after installation in the event that the objectives are not being met. Changes that can be made to enhance the pump rate, if necessary, include:

- Increase pump rate with no change to the well. The well will have a maximum capacity of 3,900 gpm.
- Add a second well to the extraction system.

In addition, the present action can be modified, if necessary, as part of a final action. The most likely change required to achieve containment in the final action would be to increase the pump rate in response to groundwater development in the Columbia River Lowlands. This would likely require installation of a second extraction well.

CPU appreciates the continued efforts on the part of the PLPs to address the contamination in the Vancouver Lowlands. CPU looks forward to working cooperatively with Ecology, the Port and other purveyors to ensure adequate wellhead protection for the Carol Curtis Wellfield and neighboring points of withdrawal. We appreciate the opportunity to comment on the referenced Agreed Order, and will likely provide further comment as the FS and CAP process unfolds.

Sincerely,

**Pacific Groundwater Group**



Peter Schwartzman  
Principal Hydrogeologist



Glen Wallace  
Associate Hydrogeologist

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## REFERENCES

- Pacific Groundwater Group (PGG), 2011. *Comments on SMC/Cadet Interim Action Performance Evaluation Report*. Technical memorandum from Dan Matlock (PGG) to Steve Prather (CPU) dated August 29, 2011.
- Parametrix, 2007. *Groundwater Pump and Treat Interim Action SMC/Cadet Commingled Plume DRAFT Work Plan*. Prepared for the Port of Vancouver. November 19, 2007.
- Parametrix, S.S. Papadopulos & Associates, Pacific Groundwater Group and Keta Waters. 2008. *Vancouver Lake Lowlands Groundwater Model Summary Report*. Consultant's report prepared for Port of Vancouver and Clark Public Utilities dated February 2008.
- Parametrix, 2009. *Final Remedial Investigation Report Former Building 2220 Site*. Prepared for the Port of Vancouver. May 7, 2009.
- Parametrix, 2010. *Final Remedial Investigation Report Cadet Manufacturing Company Site*. Prepared for the Port of Vancouver. May 25, 2010.