



PUBLIC UTILITY DISTRICT NO. 1 of CHELAN COUNTY

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November 11, 2023

Mr. David Matthews
Department of Ecology – CRO
1250 West Alder Street
Union Gap, WA 98903

Re: PESHASTIN POTW WASTELOAD ASSESSMENT

Dear Mr. Matthews:

Section S4F of the District's Peshastin POTW NPDES permit requires completion and submittal of a wasteload assessment by January 15, 2023. This letter is intended to satisfy the permit requirement. I apologize for having missed the submittal date.

To perform the wasteload assessment, discharge monitoring reports between January 2020 and September 2023 were analyzed. The Peshastin facility underwent a major upgrade that was completed December 2019.

Description of compliance or noncompliance with the permit effluent limits

The performance of the facility was substantially compliant with permit requirements except as follows:

1. Average monthly effluent phosphorus limit exceeded July 2020. The District did not fully understand process control changes needed to accommodate the combination of reduced summer flows and increased in-basin temperatures. This has since been resolved.
2. Average monthly effluent phosphorus limit exceeded in September 2020 and October 2020. One of the fresh fruit packers was utilizing solutions containing phosphorus. The resulting influent phosphorus load was more than the facility could treat. Upon notification, the packer immediately sourced substitute solutions.

Comparison between existing and design flows, BOD₅ loading and TSS loadings

The current facility design maximum month flow is 0.110 MGD. Monthly flows varied between 0.026 MGD and 0.092 MGD and averaged 0.053 MGD during the period analyzed. The low flows occur during the

summer when the fresh fruit packers are not operating. The highest monthly average flow of 0.092 MGD was recorded in January 2020. The second highest monthly average flow of 0.090 MGD was recorded December 2020. Average monthly flows of this magnitude are not typical. From January 2021 through September 2023 the highest recorded monthly average flow was 0.073 MGD on October 2021. Section S4.B of the NPDES Permit requires preparation of a plan to maintain adequate capacity (PMAC) if the monthly flow exceeds 85 percent of design criteria (0.0935 MGD) for three consecutive months. The highest three-month consecutive average flow was 0.081 MGD for November 2019 through January 2020, well below the 0.0935 MGD threshold.

The current facility design maximum month BOD₅ loading is 200 Lb./day. Monthly loading varied between 24 Lb./day and 140 Lb./day and averaged 72 Lb./day during the period analyzed. The low loadings occur during the summer when the fresh fruit packers are not operating. Section S4.B of the NPDES Permit requires preparation of a PMAC if the monthly loading exceeds 85 percent of design criteria (170 Lb./day) for three consecutive months. The highest three-month consecutive average BOD₅ loading was 126 Lb./day for January 2021 through March 2021, well below the 170 Lb./day threshold.

The current facility design maximum month TSS loading is 200 Lb./day. Monthly loading varied between 8 Lb./day and 103 Lb./day and averaged 33 Lb./day during the period analyzed. The low loadings occur during the summer when the fresh fruit packers are not operating. Section S4.B of the NPDES Permit requires preparation of a PMAC if the monthly loading exceeds 85 percent of design criteria (170 Lb./day) for three consecutive months. The highest three-month consecutive average TSS loading was 70 Lb./day for October 2021 through December 2021, well below the 170 Lb./day threshold.

Percent change in the above parameters since the previous report

This is the first wasteload assessment performed since the major upgrade to the Peshastin facility was completed in December 2019. Thus, a comparison to previous data was not performed.

The present and design population equivalent and growth rate

The District does not track the population equivalent of the Peshastin system due to the relatively high impact from the fresh fruit packers. Daily fruit packer flows are over double the domestic flow from the community during peak fruit packer activity. Growth in Peshastin has been low to non-existent over the years, adding zero to one household per year. This represents a residential growth rate less than 1 percent.

Estimated date design capacity will be reached

If community growth continues at the historic low rate (less than 1 percent) it is anticipated the Peshastin facility will have adequate capacity through its 20 year design life (year 2040). However, there has been increasing interest in residential development in the Peshastin service area. The District will continue to

track development through its mandatory new service application process, and prepare a PMAC prior to 2040 if needed.

Please contact me if you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink that reads "Ron Slabaugh". The signature is written in a cursive, slightly slanted style.

Ron Slabaugh, P.E.
Water/Wastewater Manager

