

**Submitted via Water Quality Permitting Portal – Permit Submittals application**

January 9, 2025

Keith Primm - Water Quality Permit Coordinator  
Department of Ecology - Central Regional Office  
1250 West Alder Street  
Union Gap, WA 98903

**RE: 2024 Oil and Grease Report for Wanapum and Priest Rapids dams:  
National Pollutant Discharge Elimination System Permit Nos. WA0991028 and  
WA0991029 (S10.C):**

Dear Mr. Primm,

Please find enclosed Grant County Public Utility District's (Grant PUD's) Annual Oil and Grease Report for 2024 for both Wanapum and Priest Rapids dams, consistent with Section S10.C of both the Wanapum and Priest Rapids dams National Pollutant Discharge Elimination System (NPDES) permits.

If you have any questions, please contact me at 509-793-1468 or [rhendr1@gcpud.org](mailto:rhendr1@gcpud.org).

Respectfully,

*Ross Hendrick*

Ross Hendrick  
Senior Manager – Environmental Affairs

**CC:** Mr. Damon Roberts – Ecology CRO  
Ms. Andrea Jedel – Ecology CRO

# **Annual Oil and Grease Report**

**Wanapum Dam – Permit No. WA0991028**  
**Priest Rapids Dam – Permit No. WA0991029**

By  
Public Utility District No. 2 of Grant County  
P.O. Box 878  
Ephrata, WA 98823

**January 2025**

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## 1.0 Introduction

Pursuant to Section 10.C of the National Pollutant Discharge Elimination System (NPDES) Waste Discharge Permits No. WA0991028 for Wanapum Dam and WA0991029 for Priest Rapids Dam, the following is Public Utility District No.2 of Grant County, Washington's (Grant PUD's) 2024 Annual Oil and Grease Report (report). This report addresses oils and greases used at Grant PUD's Wanapum and Priest Rapids dams in 2024 to lubricate components that may contact the Columbia River and/or discharge to the permitted outfalls. Grant PUD also uses oils and greases in other areas of the dams where there is no potential for discharge to the Columbia River. Based on guidance from the Washington Department of Ecology, oils and greases used in those other areas are not addressed in this report.

## 2.0 Summary of Wanapum Dam and Priest Rapids Dam Facility Work Orders

The following information provided is consistent with Section S10.C.1 of the respective NPDES Permits.

### 2.1 Equipment with high or low levels or alarms

There were two work orders associated with high or low alarms for components that may contact the Columbia River and/or discharge to the permitted outfalls. There was no evidence of any grease or oil being lost or discharged to the river because of these issues.

**Table 1 High/Low Level Alarms Work Orders Summary**

Work Order Number	Equipment	Issue	Discussion
369635	Priest Rapids Dam Generating Unit P08 Oil Water Separator	Water not draining from oil water separator tank adequately.	Drain was cleaned out and flow was restored.
370496	Priest Rapids Dam Generating Unit P08 Oil Water Separator	Water not draining from oil water separator tank adequately.	Repeat of last issue. Suspect obstruction in drain line. Drain line will be disassembled to find and remove obstruction.

### 2.2 Malfunctioning Automated Grease Systems

There was one work order for Wanapum Dam and two work orders for Priest Rapids Dam for a malfunctioning automated greasing system for components that may contact the Columbia River and/or discharge to the permitted outfalls. These malfunctions resulted in loss of performance of the system. There was no evidence of any grease or oil being lost or discharged to the river because of these issues.

**Table 2 Grease Systems Work Orders Summary**

<b>Work Order Number</b>	<b>Equipment</b>	<b>Issue</b>	<b>Discussion</b>
371618	Wanapum Dam Fish Pump #2 Farval Automatic Greaser	Farval not completing grease cycle.	Repairs were made and the equipment was restored to service.
360720	Priest Rapids Dam Generating Unit P08 Farval Automatic Greaser	Time-out alarm coming in. Farval was not pumping.	Repairs were made and the equipment was restored to service.
366376	Priest Rapids Dam Generating Unit P06 Farval Automatic Greaser	Pressure gauges not working correctly.	New gauges were installed, and the equipment was restored to service.

### 2.3 Emergency Maintenance

There were no Work Orders written for emergency maintenance on components that may contact the Columbia River and/or discharge to the permitted outfalls.

### 3.0 Total Procurement of Turbine oil, Transformer oil, other oil, and grease

Table 3 provides a summary of the oils and greases obtained from the Wanapum Dam Warehouse for use at Wanapum Dam for components that may contact the Columbia River and/or discharge to the permitted outfalls.

Table 4 provides the same summary for the Priest Rapids Dam.

This information is provided in accordance with Section S10.C.2 of the NPDES Permits. All oils and greases going to the facility are logged by the Wanapum Dam Warehouse.

**Table 3 Wanapum Dam Oil and Grease Summary**

<b>Location</b>	<b>Amount</b>	<b>Type</b>	<b>Uses</b>
Wanapum	335 lbs	Pyroshield 5180 Open Gear Grease	Spillway Gate Chain Lubrication
Wanapum	70 lbs	Lubrication Engineers Almaplex 1275 Grease	Emergency Bulkhead Gate Wheels
Wanapum	132 lbs	Shell Panolin S5 Grease EAL V320 2	Fish Pump Wicket Gates

**Table 4 Priest Rapids Dam Oil and Grease Summary**

Location	Amount	Type	Uses
Priest Rapids	17.5 lbs.	Maxtron EP Lithium Complex Grease	Traveling screen for Priest Rapids Hatchery Siphon Intake
Priest Rapids	1,155 lbs.	76 Multiplex Red Lithium Grease	Generating unit wicket gates.
Priest Rapids	71 lbs.	Lubrication Engineers Almaplex 1275 Grease	Fish ladder gravity intake gate wheels and emergency bulkhead gate wheels
Priest Rapids	199.5 lbs.	Pryoshield 5180 Open Gear Grease	Spillway gate chain lubrication
Priest Rapids	10 gallons	Renewable Lubricants Bio-Drip 10W-30	Pumphouse (Left Bank) and Right Bank Sump Pump Oilers

#### 4.0 Lost, Unaccounted, Non-recoverable, Spill Cleanup

There was one instance of lost, unaccounted, non-recoverable, or spill clean ups associated with components that may contact the Columbia River and/or discharge to the permitted outfalls. This information is provided consistent with Section S10.C.3 of the NPDES Permits. See table 5 below for more details.

**Table 5 Lost, Unaccounted, Non-recoverable, or Spill Cleanup Summary**

Facility	Work Order Number	Equipment	Issue	Discussion <sup>1</sup>
Priest Rapids Dam	372611	Right Bank Sump Pumps	Oil sheen was noted on the surface of the sump water.	Bio-Drip EAL oil will be used in the drip oilers at all sump pumps moving forward to help prevent recurrence.

<sup>1</sup>On December 4, 2024, a small amount (less than a gallon) of oil was lost to the Columbia River. The lost oil was attributed to the sump pumps operating below their normal operation level from a power cycle. The lost oil was managed and reported to the National Response Center (Incident Report #1417990), the Washington Emergency Management Division, and the Washington Department of Ecology in accordance with the Priest Rapids Dam spill prevention, control, and countermeasure (SPCC) plan and Section S3.G of the NPDES permit.

## **5.0 Estimated Kaplan Generator Oil Loss**

There was no Kaplan generator oil loss at Wanapum Dam or Priest Rapids Dam measured in 2024. This information is provided in accordance with Section S10.C.4 of the NPDES Permits.

## **6.0 EAL substitutions**

EAL grease is used in the Wanapum Dam Turbine-Driven Fish Pumps' wicket gate automatic greasing systems. In the past, non-EAL grease was used in these systems.

EAL oil is used in the Wanapum Dam Right Bank and Priest Rapids Dam Right Bank and Pumphouse (Left Bank) sump drip oilers starting in December 2024.

This information is provided consistent with Section S10.C.5 of the NPDES Permits.