



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

September 29, 2017

The Honorable Holly Shamberger  
Chair, Board of Commissioners  
Loon Lake Sewer District No. 4  
PO Box 98  
Loon Lake, WA 99148-0098

RE: Loon Lake Sewer District No. 4 Wastewater Treatment Plant, Permit No. ST-8019  
Class I Inspection

Dear Commissioner Shamberger:

On September 27, 2017, Cynthia Wall and I met with Brooke Lyons and Denny Layton to conduct an inspection of the District's wastewater treatment facilities.

The facilities are well operated and maintained by the District. I would like to thank Brooke and Denny for their time in completing this inspection.

Enclosed is a copy of our inspection report for your records. If you have any questions, please contact me at (509) 329-3408 or at [lupe461@ecy.wa.gov](mailto:lupe461@ecy.wa.gov).

Sincerely,

Lucy JH Peterschmidt, P.E.  
Reclaimed Water Engineer  
Water Quality Program  
Eastern Regional Office

LJHP:jab

Enclosure: Inspection Report

cc: Brooke Lyons, District Manager  
Cynthia Wall, Ecology



# WASHINGTON STATE DEPARTMENT OF ECOLOGY WASTEWATER TREATMENT FACILITY SITE VISIT REPORT



Name of Entity	Loon Lake Sewer District No. 4 Wastewater Treatment Plant		
Permit No.:	ST0008019	Date of Visit:	September 27, 2017
		Entry Time:	11:00 am      Exit Time: 12:00 pm
City:	Loon Lake	DOE Rep. #1:	Lucy Peterschmidt, WQP/ERO
County:	Stevens County	DOE Rep. #2:	Cynthia Wall, WQP/ERO

Person Contacted:	Denny Layton & Brooke Lyons	Phone No.:	509-233-8132
Title:	Operator & District Manager		
Responsible Official:	Holly Shamberger		
Title:	Chair of the Board		
Facility Type:	Aerated lagoons with land treatment	Discharges to:	Spray irrigation
Type of Visit:	Compliance Inspection-Without Sampling		

Operation Status    S = Satisfactory    U = Unsatisfactory    M = Marginal    NA = Non Applicable    N = Not Evaluated					
Permit on Site:	S	Laboratory:	NA	Self Monitoring Schedule:	S
Records/Reports:	S	Effluent/Receiving Water:	S	Operations & Maintenance:	S
Facility Site Review:	S	Pretreatment	S	Sludge Disposal:	N
Flow Measurement:	S	Compliance Schedule:	NA	Other:	

Announced?    Yes ☒      No ☐

## Inspector Comments

On September 27, 2017, Cynthia and I conducted a routine inspection of this facility. Prior to the site visit, Cynthia downloaded compliance data from Ecology's PARIS database. Overall, the facility has a very good compliance record. The only violations were occasional exceedances of the TSS limits (discussed later in this report).

We met Brooke and Denny at the Loon Lake Sewer District #4 (District) office just south of the treatment facilities. Denny has a Group I wastewater operator certification and has been working for the District for about 15 years. The District also employs two additional Group I operators as backup. Currently the District uses AAA Laboratories for all sampling with the exception of pH, which the operators perform. However, the District is planning to switch to Anatek Labs in the immediate future.

We asked about the DMRs for April in which the District reported no flow but reported effluent sampling results. The reason is that they took a sample in anticipation that they might begin irrigating later in the month, but they did not actually irrigate until the conditions were suitable.

We talked about the upcoming permit and changes to expect based on the work done by Ecology's Land Treatment Engineer, Megan Rounds, who has been working on making land treatment permits more appropriate for the type of treatment and more consistent in general. The current permit has limits appropriate for a simple lagoon system, not a land treatment system. The new permit will remove BOD and TSS sampling in the effluent and focus compliance on the treatment site, so the TSS violations are not a concern. We also noted that our hydrogeologist, Llyn Doremus, will be reviewing the well data and monitoring schedule to assess if any changes to the monitoring schedule should be made in the new permit.

Denny reported that they do not have any problems with the collection system or pretreatment issues such as oil and grease. He has an effective maintenance schedule for the influent lift station that has eliminated odor complaints.

We toured the site with Denny and inspected the following facilities:

- Influent Vault - Meter Station/Sampling
- Aeration Lagoon
- Lagoons 1 – 3
- Land Treatment Sprayfield
- Irrigation Pump Station

The pipes that convey sewage from Loon Lake and Deer Lake to the District's treatment facilities converge in the influent vault. The vault contains the flow meters and is where the operators take influent samples. Lagoon #1 has three aerators and typically has two of them operating. Lagoon #2 can also aerate with one aerator and is used as a polishing pond. The treated wastewater at the end of Lagoon #3 is used to irrigate the adjacent sprayfield. The operators sample at the pivot when irrigating, and in Lagoon #3 when not irrigating. This year they had two cuttings of alfalfa.

The pump station and the irrigation system are equipped with alarms that call Denny first from a list of responders. This year, the District hired a licensed company to spray weeds in the lagoons.

Overall, the District's wastewater treatment facilities are well operated and maintained.

Inspector Signature: \_\_\_\_\_

  
Lucy JH Peterschmidt, P.E.

9/28/2017  
Date