

**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 9/28/2017
 Lucy JH Peterschmidt, P.E. Date