		State of Washington Department of Ecology WASTEWATER TREATMENT PLANT COMPLIANCE INSPECTION REPORT			Northwest Regional Office 15700 Dayton Ave North Shoreline, WA 98133 Phone: 206-594-0000 Fax: 206-366-7810 (last update 7-6-2021)	
Section A: General Information						
Report Version	PERMIT #	mm/dd/yy	Inspection Type	Inspector Code	Facility Type	
<input checked="" type="checkbox"/> New <input type="checkbox"/> Changed <input type="checkbox"/> Deleted	WA0021130	8/23/21	C	S	<input checked="" type="checkbox"/> 1 Municipal <input type="radio"/> Public <input type="radio"/> Private	
Remarks						
Inspection work days	Facility Self-Monitoring	Photos Taken	Samples Taken	BI	QA	
3.0	4	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N	N	
Lead Ecology Inspector(s) Kevin Leung, Madison Diaz						
Section B: Facility Data						
Name, Location, and Phone of Facility Inspected			Entry Time	Permit Effective Date		
Granite Falls Wastewater Treatment Plant			10:00 AM	8/1/20		
500 West Wallace Street			Exit Time	Permit Expiration Date		
Granite Falls, WA 98252, Snohomish County (Phone No. 360-691-7432)			12:50 PM	7/31/25		
Name(s)/Title(s) of On-Site Representative(s)			Ecology Staff On-Site			
Lyle Bjornson, WWTP Supervisor/Operator (Group II)			Kevin Leung, Madison Diaz			
Darin Jackson, Operator						
Nathan Stoneking, Operator (OIT)						
Jeff Balentine, Deputy City Manager						
Name, Address, Title, Phone, and Fax Number of Responsible Official			Other Facility Data			
Brent Kirk, City Manager/Public Works Director			Class II Facility			
City of Granite Falls						
Granite Falls, WA 98252						
Phone Number 360-691-6441 Fax			Contacted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Section C: Areas Evaluated During Inspection (Check only those areas evaluated)						
<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> CSO/SSO (Sewer Overflow)			
<input type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Effluent <input checked="" type="radio"/> Receiving Water	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Pollution Prevention			
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> Multimedia			
<input checked="" type="checkbox"/> Self-Monitoring Program	<input checked="" type="checkbox"/> Laboratory	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Other			

Section D: Summary of Findings/Comments

I. INTRODUCTION

Ecology conducted a Regional Class 1 Inspection at the Granite Falls Wastewater Treatment Plant (WWTP) on August 23, 2021. Kevin Leung, NWRO Water Quality Program Municipal Permit Manager and Madison Diaz, NWRO Water Quality Program Municipal Permit Manager conducted the inspection with assistance from Lyle Bjornson, Darin Jackson, Nathan Stoneking, and Jeff Balentine. This was an announced inspection. The facility is regulated by NPDES Permit No. WA0021130, issued on June 30, 2020 and modified on February 11, 2022. The permit expires on July 31, 2025.

The purpose of this inspection was to fulfill the Regional Class 1 Inspection requirements by conducting a site inspection and assessing the permittee's self-monitoring and maintenance procedures.

II. RESULTS AND DISCUSSION

City of Granite Falls owns and operates this facility which includes grit channels, influent screens, oxidation ditch system, secondary clarifiers, and ultraviolet (UV) light disinfection system. Treated and disinfected effluent discharges into Pilchuck River. This facility does not accept hauled septage.

Collection System:

The collection system has three lift stations: LS-1 (Burn Road LS) for Basin E, LS-2 (Suncrest LS) for Basin G, and LS-3 (Smoots LS) for Basin E. Primary sources of wastewater to the WWTP are domestic wastewater from residential and commercial activities.

Liquid Stream:

Influent flows through two non-aerated grit channels and then through a perforated mechanical screen (1/4-inch opening), and a manually raked bar rack (as backup). After that wastewater flows by gravity to a bioselector (equipped with a submersible mixer) to blend return activated sludge (RAS). The bioselector effluent flows to the oxidation ditch (equipped with two brush aerators and two submersible mixers). According to staff, aerators are operated as ON-OFF mode to provide aeration, mixing, and partially denitrification. Typical mixed liquor suspended solids (MLSS) is approximately 3,000~4,000 mg/L (summer) and 4,000-5,000 mg/L (winter).

Oxidation ditch effluent flows by gravity to a flow splitter box where it distributes flow to two secondary clarifiers (one unit online during visit). In summer months, only one secondary clarifier is online. In winter months, two units are in service. Clarifier effluent flows to an old chlorine contact chamber where it's equipped with three floating aerators. It provides additional aeration and cooling. Effluent from the old chlorine contact chamber flows to UV disinfection system.

Disinfection: The existing disinfection system is a low-pressure high-intensity UV disinfection system. It consists of two channels, two banks per channel, and six lamps per bank, for a total of 24 lamps. According to staff, the system has been operated and working well. However, the system is not capable of online monitoring of UV transmittance and UV intensity. To improve operational efficiency and energy savings, staff will look into these for future disinfection system improvements.

They also have a magnesium hydroxide feed system for pH and alkalinity adjustment.

Solids Stream:

The treatment facilities remove solids during the treatment of the wastewater at the influent screens (screenings), at the grit removal, and at the secondary clarifiers, in addition to incidental solids (rags and other debris) removed as part of the routine maintenance of the equipment. Granite Falls WWTP drains grit, rags, and screenings which are then transported for ultimate disposal at an approved local landfill. Solids removed from secondary clarifiers is pumped to a sludge storage tank (~ 20, 000 gallons). After that partially thickened sludge is pumped to three SOMAT dewatering system. The dewatered sludge is transferred to 17 covered composted bins on site. The compost time per batch is approximately five weeks in summer and 11 weeks in winter. Composted material is classified as Class A biosolids which is provided free to local residents and farms.

Outfall:

The secondary treated and disinfected effluent discharges from the facility through Outfall 001 into Pilchuck River. Staff regularly conducts a visual check at the outfall areas. Per the current permit, there is not a required outfall inspection. Ecology encourages operators to document any excess sediment deposition in the vicinity of the diffuser area or any signs of river bank erosion so an appropriate plan or actions can be taken earlier to address any potential issues.

During visit, Lyle mentioned to Ecology staff that the effluent temperature monitoring equipment (data logger) at the effluent Manhole (MH) was recently out of service and they are doing manually temperature recordings now. They have ordered parts which will be shipped in October 2021. Effluent temperature monitoring at the effluent MH is required from May to September only per the current NPDES permit. Per Lyle, they received the parts and replaced it in Spring 2022. Effluent temperature monitoring at effluent MH is back to normal.

Recent Loadings:

Monitoring data submitted to Ecology were summarized below (August 2020 ~ July 2021). Influent flow loadings, influent BOD loadings, and influent TSS loadings are slowly increasing over time but still under the permitted capacity.

Influent flow loading (average) ~ 0.38 MGD

Influent BOD loading (average) ~ 863 lbs/day

Influent TSS loading (average) ~ 598 lbs/day

Flow Measurement:

The operators measure influent flow before the influent screening with one Parshall Flume flow meter. The influent flowmeter is calibrated once a year. The facility used to have an effluent flow meter but it flooded a few years ago and it's out of service now. City will consider having a new effluent flow meter in a facility improvement project which is under design now.

Sampling:

The staff currently sample effluent with a refrigerated composite sampler (setup: time-proportional) downstream of the UV disinfection channel and sample influent with a refrigerated, composite sampler (setup: time-proportional) at the Headworks

(after influent screening). The temperature of the influent sampler was 4 °C and the temperature of the effluent sampler was 4 °C during visit. The influent sample line was clear. The effluent sample line was clear.

Alarms/Backup Power

The emergency generator is a standby diesel generator and provides 5,000 KW. The generator is exercised weekly and it is capable of running the whole plant by providing emergency power to all equipment at the facility.

Staffing:

This facility is a Class II plant. Staff include certified operators (Group II, Group I, and OIT). This facility is attended Monday to Friday. On weekends, holidays, and off-hours there is always someone on call. Staff also has safety meetings regularly.

Records and Laboratory Review:

Laboratory procedures, facility records, DMRs, and maintenance records were not reviewed during this visit. The Granite Falls WWTP facility is covered under Ecology's Laboratory Accreditation Program. The lab accreditation number is W446-21. A copy of the NPDES Permit and the treatment plant's O&M manual is available in the office. Per the current permit, effluent E. coli. bacteria monitoring is required quarterly in 2024 and 2025. They plan to update the sampling, testing, and reporting protocols and have staff trained as well. For in-house testing, they need to obtain lab accreditation of E. coli testing. Please contact Ecology's Manchester Lab for coordination (<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Laboratory-Accreditation>).

Recent Compliance:

The facility has recently received the 2015, 2016 and 2018-2020 Wastewater Treatment Plant Outstanding Performance Awards issued by Washington State Department of Ecology. Staff has been providing excellent effort and dedication in operating the facility to achieve this high level of award.

Non-Compliance Procedures:

The operators at Granite Falls WWTP know the procedures to follow in the event of wastewater spills. Procedures are posted and readily available. Ecology provided the latest Environmental Incident Initial Report Form (including contact phone numbers) for Sanitary Sewer Overflows (SSOs) to operators. In addition, Ecology emailed the electronic files to staff on 8/24/21 for their reference.

Recent Projects/Upcoming Submittals:

Antidegradation Tier II Analysis Submittal due 12/31/21. It's submitted and approved by Ecology. The permittee is also planning a facility improvement project to meet the TMDL requirements. City plans to add additional lab space attached to north area of the existing operational building.

Misc.:

Staff has utilized the Ecology's Water Quality Permitting Portal (WQWebPortal) for submitting monthly discharge monitoring reports (WQWebDMRs) and permit submittals. For WQWebPortal, please see the link below for more information. <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance>

Please contact Chris Smith, PARIS Coordinator at Ecology NWRO (phone no. 206-594-0169) for assistance.

During visit, Ecology staff also encouraged City staff to attend the SFY2023 Water Quality Combined Funding Program Applicant Workshop on 8/26/21 to know more about funding opportunities and application requirements for their wastewater project planning.


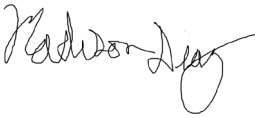

III. CONCLUSION

The effluent was clear and no odors were detected at the plant during visit. Staff did a good job in operating this facility. Lyle, Nathan, and Darin are doing a great job keeping the facility in compliance. The facility has demonstrated the ability to produce consistent well-treated effluent. Staff must also ensure that they incorporate all substantive changes to equipment at the plant into the operations and maintenance manual.

Copies to:

Kevin Leung, Permit Manager, NWRO, e-copy
Lyle Bjornson, Granite Falls, e-copy
Brent Kirk, Granite Falls, e-copy
Jeff Balentine, Granite Falls, e-copy

Shane Cooper, Operator Outreach, SWRO/NWRO, e-copy
Amber Corfman, Biosolids Coordinator, NWRO, e-copy
Madison Diaz, Permit Manager, NWRO, e-copy
PARIS, Granite Falls WWTP, Permit No. WA0021130

Name(s) and Signatures of Inspector(s)	Agency/Office/Telephone	Date
Kevin Leung 	WA Dept. of Ecology, NWRO, (206) 594-0168	6/21/22
Madison Diaz 	WA Dept. of Ecology, NWRO, (206) 594-0161	6/22/22
Name and Signature of Management QA Reviewer	Agency/Office/Telephone	Date
Shawn McKone 	WA Dept. of Ecology, NWRO, (206) 594-0158	6/22/22

ANNOUNCED Inspection

INSTRUCTIONS**Section A: General Information**

Report Version: N for 1st version, C for Changed or amended, or D for Delete

NPDES Permit No.: Enter the facility's NPDES or State permit number.

Inspection Date: Insert the date entry was made into the facility. Use the month/day/year format (e.g., 06/30/04 = June 30, 2004).

Inspection Type: Use one of the codes listed below to describe the type of inspection:

A Performance Audit	L Enforcement Case Support	2 IU Sampling Inspection
B Compliance Biomonitoring	M Multimedia	3 IU Non-Sampling Inspection
C Compliance Evaluation (non-sampling)	P Pretreatment Compliance Inspection	4 IU Toxics Inspection
D Diagnostic	R Reconnaissance	5 IU Sampling Inspection with Pretreatment
E Corps of Engineers Inspection	S Compliance Sampling	6 IU Non-Sampling Inspection with pretreatment
F Pretreatment Follow-up	U IU Inspection with Pretreatment Audit	7 IU Toxics with Pretreatment
G Pretreatment Audit	X Toxics Inspection	
I Industrial User (IU) Inspection	Z Sludge	

Inspector Code: Use one of the codes listed below to describe the *lead agency* in the inspection:

C - Contractor or Other Inspectors (Specify in Remarks Columns)	N - NEIC Inspectors
E - Corps of Engineers	R - EPA Regional Inspector
J - Joint EPA/State Inspectors - EPA Lead	S - State Inspector
	T - Joint State/EPA Inspectors - State Lead

Facility Type: Use one of the choices below to describe the facility.

1 - Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.

2 - Industrial. Other than municipal, agricultural, and Federal facilities.

3 - Agricultural. Facilities classified with 1987 SIC 0111 to 0971.

4 - Federal. Facilities identified as Federal by the EPA Regional Office

Remarks: These columns are reserved for remarks.

Inspection Work Days.: Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, travel time and preparation time. This estimate does not require detailed documentation.

Facility Evaluation Rating: Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Quality Assurance Data Inspection. Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Photos Taken: Yes or No

Samples Taken: Yes or No

Lead Ecology Inspector: Enter lead inspector's name

Section B: Facility Data

This section is self-explanatory except for: "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record), e-mail addresses...; and "Ecology Staff On-Site", which may include staff names, titles, phone numbers, or e-mail addresses.

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary.

Section D: Summary of Findings/Comments

Support the findings, as necessary, in a narrative report. Use the headings given on the report form (staffing, back-up power) as appropriate. Reference a list of attachments, such as completed checklists, photos, lab reports, etc. Use extra sheets as necessary.

LINKS AND INFORMATION:

“Informational Manual for Treatment Plant Operators”; February 2004; by the Department of Ecology
Publication Number 04-10-020: <https://apps.ecology.wa.gov/publications/SummaryPages/0410020.html>
The manual was prepared to help wastewater treatment plant operators complete and submit their Discharge Monitoring Reports (DMRs) and other annual reports to the Department of Ecology. The manual is available in hard copy. To request a copy, contact the Department of Ecology, Publications Distribution Center at P.O. Box 47600, Olympia, WA 98504-7600 or by Telephone: (360) 407-7472. Updates to the manual are included on the website version.

Ecology's Water Quality website:

<https://ecology.wa.gov/Water-Shorelines/Water-quality>

Ecology's Operator Certification website:

<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Wastewater-operator-certification>

Ecology's Laboratory Accreditation website:

<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Laboratory-Accreditation>

Ecology's Biosolids website:

<https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-materials/Biosolids>

Ecology's Operator Outreach:

Shane Cooper (360) 407-6431; shane.cooper@ecy.wa.gov

Ecology's Municipal Compliance Specialist (Northwest Regional Office):

Greg Lipnickey (206) 594-0172; greg.lipnickey@ecy.wa.gov

Ecology's Wastewater Operator Certification Coordinator:

Poppy Carre (360) 407-6449; 1-800-633-6193 (within the state); poppy.carre@ecy.wa.gov

Ecology's Biosolids Coordinator (Northwest Regional Office):

Amber Corfman (360) 918-4786; amber.corfman@ecy.wa.gov

Reporting Spills/Overflows/Upsets/Bypasses/Loss of Disinfection IMMEDIATELY:

Ecology's 24-hour number: (206) 594-0000 to report a spill

Department of Health – Shellfish Program: (360) 236-3330 (business hours) or (360) 789-8962 (after hours)

ULTRAVIOLET DISINFECTION CHANNEL (2 UV BANKS)

EFFLUENT REAERATION/COOLING TANK

SPLITTER BOX

SECONDARY CLARIFIER NO. 1

SECONDARY CLARIFIER NO. 2

OXIDATION DITCH

BIOSELECTOR

HEADWORKS

ALKALINITY ADDITION SYSTEM

PROCESS SCHEMATIC

LEGEND

- LIQUID PROCESS STREAM
- DRAINAGE, ETC.
- SOLIDS PROCESS STREAM
- AIR
- Mg(OH)₂ SLURRY

Inspection Photos

Photo No.1

Date: 8/23/21 taken by Madison Diaz

Description: Influent Grit Channels and Influent Flow Meter



Photo No.2

Date: 8/23/21 taken by Madison Diaz

Description: Influent Screenings



Photo No.3

Date: 8/23/21 taken by Madison Diaz

Description: Influent Sampler



Photo No.4

Date: 8/23/21 taken by Madison Diaz

Description: Bioselector



Photo No.5

Date: 8/23/21 taken by Madison Diaz

Description: Oxidation Ditch



Photo No.6

Date: 8/23/21 taken by Madison Diaz

Description: Flow Splitter Box



Photo No.7

Date: 8/23/21 taken by Madison Diaz

Description: Secondary Clarifier



Photo No.8

Date: 8/23/21 taken by Madison Diaz

Description: Old Chlorine Contact Chambers



Photo No.9
Date: 8/23/21 taken by Madison Diaz
Description: UV Disinfection System



Photo No.10
Date: 8/23/21 taken by Madison Diaz
Description: Effluent Sampler



Photo No.11
Date: 8/23/21 taken by Madison Diaz
Description: Sludge Storage Tank



Photo No.12
Date: 8/23/21 taken by Madison Diaz
Description: Sludge Dewatering System



Photo No.13
Date: 8/23/21 taken by Madison Diaz
Description: Composting Area



Photo No.14
Date: 8/23/21 taken by Madison Diaz
Description: Laboratory



Photo No.15
Date: 8/23/21 taken by Madison Diaz
Description: Backup Power Generator



Photo No.16
Date: 8/23/21 taken by Madison Diaz
Description: Outfall Discharge Area

