

	State of Washington Department of Ecology WASTEWATER TREATMENT PLANT COMPLIANCE INSPECTION REPORT	Northwest Regional Office 15700 Dayton Ave N Shoreline, WA 98133 206-594-0000 ph 206-366-7810 fax (last update 7-6-2021)

Section A: General Information

Report Version <input type="checkbox"/> New <input checked="" type="checkbox"/> Changed <input type="checkbox"/> Delete	PERMIT # WA0020702 and WAG994537	mo/day/yr 04/26/22	Inspection Type C	Inspector Code S	Facility Type <input checked="" type="checkbox"/> 1 Municipal <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private
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Remarks

Revised the permit expiration date to correct permit expiration date.

Inspection work days 2.0	Facility Self-Monitoring 5	Photos Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Samples Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	BI N	QA N
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Lead Ecology Inspector(s)

Madison Diaz, Shawn McKone

Section B: Facility Data

Name, Location, and Phone of Facility Inspected City of Langley Wastewater Treatment Plant 4999 Coles Road Langley, WA 98260 Island County (Phone No. 360-221-4274)	Entry Time 9:03 AM	Permit Effective Date 05/01/22
	Exit Time 11:20 AM	Permit Expiration Date 04/30/27
Name(s)/Title(s) of On-Site Representative(s) Randi Perry, Director of Public Works, Group III Operator Robert Durr, Group II Operator Tim Grove, Group I Operator	Ecology Staff On-Site Madison Diaz, Shawn McKone	
Name, Address, Title, Phone, and Fax Number of Responsible Official Scott Chaplin, Mayor City of Langley 112 Second Street Langley, WA 98260 Phone Number 360-221-4246 Fax 360-221-4265 Contacted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Other Facility Data Previous Inspection: Class 1 Inspection on 1/23/2018	

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 checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Effluent <input type="checkbox"/> 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 staff conducted an inspection of City of Langley Wastewater Treatment Plant (WWTP) on April 26, 2022. Madison Diaz, NWRO Water Quality Program Municipal Permit Manager and Shawn McKone, P.E., NWRO Water Quality Program Municipal Unit Supervisor conducted the inspection with assistance from City of Langley Staff - Randi Perry, Robert Durr, and Tim Grove. The purpose of this inspection was to observe current conditions at the facility, orient Ecology's new permit manager with facility operations, and discuss the new Individual NPDES permit and Puget Sound Nutrient General Permit.

II. RESULTS AND DISCUSSION

The original wastewater treatment plant was constructed in 1963. The facility was located at the foot of Anthes Street near the shoreline of Puget Sound. The City built a chlorine contact chamber in 1973. The secondary wastewater treatment system, a sequencing batch reactor (SBR), was constructed in 1991-1992 at the current Langley WWTP site. The plant went online in October 1992. In 2012, an inline 3/8-inch bar screen was installed in the treatment plant headworks. Chlorine disinfected effluent is gravity fed to the outfall which is located in Saratoga Passage, Puget Sound.

Collection System:

Langley WWTP has over 6.87 miles of pipe for their collection system and have 4 pump stations. Most of the wastewater that Langley WWTP collects is from residential communities and a few commercial industries and restaurants. Grease traps are required at restaurants. Langley WWTP accepts septic haulers, however they have seen a reduction in the amount of hauled

septic waste.

Pump station No.1 is located at Seawall Park, Pump station No. 2 is located at the intersection of second street/Saratoga Road and Sunrise pump station is located on Wharf Street. Recently, a 4th pump station, Woodside pump station, was taken over by treatment plant staff, as it used to be a private pump station and is located at Sandy Point road between Cedar circle and Woodside. Two of the pump stations, pump station No.1 and No. 2, are able to be monitored at the treatment plant and the other two pump station are visited twice a week to monitor operations. Also, three of the pump stations have signs up with emergency contact information if there is any issues with the pump station. Treatment plant staff informed Ecology that they are still addressing I and I in the collection system. During the year, plant staff will scope and jet the collection system.

During the inspection, Langley staff informed Ecology employees that a collection system extension project is currently in the planning/design phase. The project will be extending the sewer mains on Edgecliff from Camano avenue to Furman and on Furman and Decker Avenue from Edgecliff to Sandy Point. This extension is part of the Langley Infrastructure project which is a combination of 14 individual projects. This includes 3 new sections of main and replacement of 4 existing.

Liquid Stream:

Influent wastewater enters into the plant through the influent channel which is directed through the influent flow meter and then to the 3/8 inch bar screen. The 3/8 inch bar screen is able to remove rags and grit, which is then deposited into a trash can, which is emptied daily and sent to a landfill. Chlorine can be added at the headworks for odor control. The wastewater is then directed to one of two sequencing batch reactors (SBR) basins for treatment. The influent will alternate between the two SBRs, as one can be in the middle of the treatment cycle while the other fills with influent. The number of cycles completed each day varies. Each cycle includes a fill, react, settle, decant and idle stage and the entire process takes about 7.2 hours. Before decant flow is sent to the chlorine channel for disinfection, it passes through the effluent flow meter. Langley WWTP utilizes chlorine gas and injector water to form hypochlorous acid for the disinfection process. The hydrochloric acid is introduced at the beginning of the chlorine contact chamber for a contact time of at least one hour.

After the chlorine contact chamber, the effluent travels along the 6,200 ft outfall line from the plant to the outfall which is located in Saratoga Passage, Puget Sound. The active permit (Effective Date May 1, 2022) requires an outfall evaluation done on the outfall by October 30th, 2026.

Solids Stream:

During the treatment process, solids are collected and removed from the headworks, the SBRs, and during routine maintenance. Any large solids, rags, rocks are hauled to a landfill and are typically found in the headworks and septic hauler areas. The solid stream begins after the SBR when solids and scum travel to two aerobic digesters. From the digesters, the solids then travel to a belt press. Polymers are added to the solids to increase solids concentration. Solids are then stored at the facility to be used as compost for the community.

Langley WWTP also accept septic haulers and the septic hauler system utilizes a 3/8 inch screen making it easier to process the septic waste. About a handful of septic haulers dispose of septic waste at the plant each month, there has been a decrease in septic haulers from previous years.

Langley WWTP is able to create Class A biosolids and have a compost program for the community. After the belt press, solids are mixed with yard waste and bark and are then placed in the covered compost storage area for further treatment. The solids are occasionally rotated and air is introduced to the pile, during the processing temperature and samples are taken to monitor the compost to make sure it meets biosolid quality standards. After the compost meets the biosolid standards, then the compost is held for 30 days and then it is moved to a compost pickup spot near the front of the treatment plant so members of the community can access the compost. Currently there is enough space to hold all of the solids and compost.

Flow Measurement:

The plant influent flow is measured using an ultrasonic flowmeter over a parshall flume before the bar screen. The effluent flow is measured with a magnetic meter after the SBRs and before chlorine disinfection. There is a third flow meter that is located between SBR and aerobic digester that measure the WAS flow.

Sampling:

The plant influent automatic sampler takes samples before influent screening and at the time of the inspection the refrigerator where influent samples are stored was 5°C. The effluent automatic sampler takes a sample just after the chlorine contact channel and at the time of the inspection the refrigerator where effluent samples are stored was 4°C.

Alarms/Back-up Power:

The WWTP has a diesel generator that is able to supply power to part of the treatment plant. The generator is able to supply power to the SBRs, Chlorine system, solids handling, laboratory and some lighting. If there is a power outage at the plant, treatment staff have to manually run any other processes that the generator is not able to cover. The generator is load tested annually and monitored weekly. The facility has high flow, pump failure, blower failure, chlorine vacuum, and power failure alarms. The system also has alarms for two of the pump stations and the other two pump station are checked twice a week and a portable generator can be used to supply power to these pump station if there is a power outage. The plant also has an auto dialer alarm system that calls out to the standby operator if any alarms trigger.

Staffing:

The WWTP is a Class II facility. The facility is staffed with three operators. Randi Perry has a Group III operator certification, Robert Durr has a Group II operator certification, and Tim Grove has a Group I operator certification. The plant is staffed by the operators Monday through Saturday. The operators rotate who is on call during off-hours, including evenings, weekends, and holidays.

Records Review:

A review of Discharge Monitoring Report (DMR) records, Individual National Pollutant Discharge Elimination System (NPDES) Permit and Fact Sheet, Operations and Maintenance (O&M) manual and program, and maintenance and calibration records was conducted during the inspection. All of these items either matched what was submitted to Ecology or was reviewed to determine accuracy. All of these documents are easily accessible to all staff. All DMR records were accounted for during the last five years and are organized in files by year. A comparison of the January 2022 DMR verified reported data matches the WWTP records. The City and staff are currently looking into an asset management program. It was noted that the Laboratory Accreditation certification from the previous year was hanging on the wall above the desk in the laboratory. Langley Staff were able to correct this and the current Laboratory Accreditation certification is now displayed.

Misc.:

Ecology staff spoke with plant staff about the new individual NPDES permit and fact sheet and the changes from the previous permit. Ecology staff and plant staff also discussed the Puget Sound Nutrient General Permit. Plant staff informed Ecology staff that currently, the plant is not optimized for nutrient removal and the current equipment would not be capable for changing any process controls to remove nutrients. The blowers in the SBRs are specially set to turn on and off at certain times in the treatment process and the plant staff are unable to change these timings. Plant staff do have a few ideas in mind and Ecology staff will be available for any guidance and consultation in this matter.

III. CONCLUSION

The facility at the time of this inspection was very clean, well maintained, records appeared to be well-organized and the facility does not have any outstanding compliance issues. There have been no major changes at the facility since the last inspection conducted on 01/23/2018. The facility has spare parts for almost everything in the facility in case something breaks or needs replacing. Overall, the facility is maintaining compliance and following permit guidelines.

Name(s) and Signatures of Inspector(s)	Agency/Office/Telephone	Date
Madison Diaz <i>Madison Diaz</i>	WA Dept. of Ecology, NWRO, (425)495-1777	7/5/2022
Name and Signature of Management QA Reviewer	Agency/Office/Telephone	Date
Shawn McKone <i>Shawn M. McKone</i>	WA Dept. of Ecology, NWRO, (206) 594-0158	7/5/2022

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:

<http://www.ecy.wa.gov/pubs/0410020.pdf>

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 Wastewater and Reuse website:

<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>

Ecology's Operator Certification website:

http://www.ecy.wa.gov/programs/wq/wastewater/op_cert/index.html

Ecology's Laboratory Accreditation website:

http://www.ecy.wa.gov/programs/eap/labs/labs_main.html

Ecology's Biosolids website:

<http://www.ecy.wa.gov/programs/swfa/biosolids/>

Ecology's Operator Outreach: Shane Cooper (360) 870-6297; shco461@ecy.wa.gov

Ecology's Municipal Compliance Specialist (Northwest Regional Office): Greg Lipnickey (425) 449-6560;

glip461@ecy.wa.gov

Ecology's Wastewater Operator Certification Coordinator: Poppy Carre (360) 407-6449; 1-800-633-6193 (within the state)

poca461@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 24-hour number: (360) 236-3330

Inspection Photos

PHOTO NO. 1

Date: 4/26/2022

Taken by: Madison Diaz

Witness: Shawn McKone

Description:

Langley Laboratory and Files



PHOTO NO. 2

Date: 4/26/2022

Taken by: Madison Diaz

Witness: Shawn McKone

Description:

Langley Laboratory



PHOTO NO. 3

Date: 4/26/2022

Taken by: Madison Diaz

Witness: Shawn McKone

Description:

Langley Laboratory



PHOTO NO. 4

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Headworks and SBRs



PHOTO NO. 5

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Influent flow meter and parshal flume



PHOTO NO. 6

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Influent 3/8 inch. Bar screen



PHOTO NO. 7

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
One of the two SBRs



PHOTO NO. 8

Date:
Taken by:
Witness:

Description:
Chlorine contact tank



PHOTO NO. 9

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Effluent sampler



PHOTO NO. 10

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
One of two digesters



PHOTO NO. 11

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Septic hauling station



PHOTO NO. 12

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Compost storage area



PHOTO NO. 13

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Belt press



PHOTO NO. 14

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Chlorine gas storage



PHOTO NO. 15

Date: 4/26/2022
Taken by: Shawn McKone
Witness: Madison Diaz

Description:
Generator

