



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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April 20, 2022

Ed Hawthorne
Public Works Director
1339 Griffin Avenue
Enumclaw, WA 98022

Re: City of Enumclaw's S4.F Notifications (WAR045514): Infiltration and Inflow (I&I) Sanitary Sewer Overflows (SSOs) reported on 11/12/2021, 1/6/2022 and 2/28/2022

Dear Ed Hawthorne:

I am responding to three S4.F letters dated 11/22/2021, 1/21/2022, and 3/16/2022 that the City of Enumclaw submitted to the Department of Ecology (Ecology) under the National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit (MS4 Permit). The City also sent Ecology G3 notices for these SSOs in accordance with the MS4 Permit.

Ecology appreciates the City's continued communication with us following each I&I SSO event, including our joint Ecology-City storm and sewer staff meeting on 3/7/2022.

Background

Each G3 and S4.F notification describes I&I SSOs from the City's sewer system at one or both of these locations:

- McHugh at and west of Florence Street
- Kibler Ave. and Loraine Street

The City's recent I&I SSOs coincided with significant precipitation and saturated conditions, or snowmelt coupled with significant precipitation and saturated conditions. The City reported that area flooding and the 2/28/2022 I&I SSO happened following 3.95 inches of rainfall in 24 hours. An increase in I&I due to these conditions ultimately overwhelmed part of the city sewer system beyond capacity.

Of the three I&I SSO events reported between November and February, the 2/28/2022 event was the largest. The City estimated "that approximately 200,000 gal of highly diluted sewage overflowed during the event." During each I&I SSO event, diluted sewage entered the City MS4 before discharging to the Newaukum Creek. The City tested using Coliscan Easygel for the presence of *E. coli* at several locations in their MS4. The City reported that *E. coli* measured at the outfall to Newaukum Creek near the 248th Avenue SE bridge was approximately 400

CFU/100 ml (during the 11/12/2021 SSO), 560 CFU/100 ml (during the 1/6/2022 SSO), and 360 CFU/100 ml (during the 2/28/2022 SSO). The City reports taking a water quality sample of flow in the Newaukum Creek at approximately 50 feet downstream of the outfall during the January 6 overflow; the City reports this sample measured 40 CFU/100 ml (*E. coli*). The City reports taking water samples of flow in the Newaukum Creek at approximately 265 feet downstream from the outfall and 120 feet upstream from the outfall during the 2/28/2022 overflow (at 1.5 hours after the overflow started, and at 6 hours after it stopped); the City reports having measured 60 CFU/100 ml and 80 CFU/100 ml (*E. coli*), respectively (at 1.5 hours), and 0 CFU/100 ml (at 6 hours).

Ecology's Determination

Reoccurring I&I sewer overflows to your MS4 will only be eliminated through the removal of I&I into your sanitary sewer. The City summarized I&I elimination actions recently completed, ongoing, and planned in your 3/16/2022 S4.F report. We understand the City has budgeted in 2022 for:

- More CCTV¹ work on your sewer at night to help identify discharges from sump pumps and other related I&I sources, and CCTV during small rain events to better identify I&I sources.
- \$45,000 for smoke testing to help identify new I&I sources.
- \$250,000 "to correct I&I problems on private property identified from the 2019 smoke testing survey."
- \$300,000 "to correct defects found on the public sewer system (some of which are I&I related) identified from the recent CCTV work completed throughout the city."
- \$620,000 "for site acquisition and design of a new sewer lift station which will replace the existing lift station for this basin and provide additional capacity necessary to properly manage I&I during large storm events."

In addition to the above, the City reports:

- They hired two new maintenance workers in 2022 with 50% of their time dedicated to I&I reduction efforts.

¹ The City reports having contracted a vendor to CCTV 70% of their collection system in 2020-2021 for approximately \$287,500. The City reports that they addressed a 300-foot section of 30-inch sewer main obstructed by root intrusion at a cost of \$22,500.

- They are evaluating the replacement of their “current force main from the associated sewer lift station with a larger size pipe which will allow for the current lift station to operate more efficiently and provide more capacity, ultimately reducing the quantity of sewer overflows from this portion of the system until it is replaced with a new lift station.”
- They have contracted their wastewater treatment plant (WWTP) design engineer “to evaluate ability to replace or modify the headworks screens and make other associated modifications which would allow the system to pass more flow through the plant during these I&I events and operate the upstream wet well at a lower level.”

Ecology has determined the MS4 contribution to the intermittent water quality violation (i.e., wet weather SSO discharge to Newaukum Creek) will be reduced, and later eliminated through the implementation of other permit requirements (see S4.F.2.b, MS4 Permit). In this case, “other permit requirements” means actions implemented under your NPDES wastewater (WA0020575) and MS4 permits. The City’s wastewater permit and Chapter 173-240 WAC, require the City to remove I&I into its sanitary sewer system and to upgrade sewer infrastructure to maintain adequate capacity. The City must implement the current and future planned actions summarized in your 3/16/2022 S4.F letter. The City must annually submit I&I reports required by your wastewater permit, and continue reporting G3 and/or S4.F notices for future SSOs per your MS4 Permit.

We understand the City took the following illicit discharge detection and elimination (IDDE) measures during or shortly after the three I&I SSOs in November, January, and February:

- Immediately reported the illicit discharge to Ecology per G3 of the MS4 Permit.
- Took water quality samples within the MS4 and at the MS4 outfall to test for the presence of *E. coli* during the overflow.
- Inspected affected MS4 infrastructure for the presence of paper, solids, or other sewage indicators.
- Cleaned up SSO impacted areas by raking and removing small amounts of paper pieces present where the overflow occurred and by applying lime to disinfect surfaces.

Following the January 6 and February 28 events, the City says they collected water samples to test for *E. coli* from the downstream MS4 to check for residual bacteria after the overflow had stopped, and from within the Newaukum Creek.

Before the February 28 SSO event, the City implemented sandbag dams around two sewer manholes in anticipation of heavy rain. We understand your sandbag dam attempt at containment was unsuccessful because of the high overflow rate (volume) from these sewer manholes. Ecology understands the City vector truck was initially deployed to mitigate some of the diluted sewage from entering the MS4 by filling the truck’s tank and offloading it at the WWTP before returning to the overflowing manhole. However, the City later called off the

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vactor truck due to an ongoing bypass at the WWTP into the White River. We recognize that transferring sewer overflow from the Newaukum Creek to the White River is contradictory to the White River bacteria Total Maximum Daily Load (TMDL).

Removing sources of I&I into your sewer system and completing sewer infrastructure capacity upgrades are the solution to the City's wet weather SSO problem. The City must implement the actions summarized in your 3/16/2022 S4.F letter to eliminate your wet weather SSOs as soon as possible.

This determination does not affect any obligation you may have under other federal, state or local statutes, ordinances, or regulations.

If you or your staff have questions about this letter, contact me at avin461@ecy.wa.gov or (360) 628-4734, or Steve Ogle at sogl461@ecy.wa.gov or (564) 999-3591.

Sincerely,



Angela Vincent
Municipal Stormwater Permit Planner
Southwest Regional Office
Water Quality Program

cc: Eric Palmer, City of Enumclaw
Scott Woodbury, City of Enumclaw
Steve Ogle, Unit Supervisor, Ecology-SWRO
Sheila Marcoe, Unit Supervisor, Ecology-SWRO
Andrew Kolosseus, Section Manager, Ecology-SWRO
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