



Water Quality Program

Permit Submittal Electronic Certification

Permittee: KENMORE CITY

Permit Number: WAR045519

Site Address: 6700 NE 181ST ST
KENMORE, WA 98028-0607

Submittal Name: MS4 Annual Report Phase II Western

Version: 1

Due Date: 3/31/2024

Questionnaire

Number	Permit Section	Question	Answer
1	S5.A	Attach a copy of any annexations, incorporations or boundary changes resulting in an increase or decrease in the Permittee's geographic area of permit coverage during the reporting period per S9.D.6.	Not Applicable
2	S5.A	Attach updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)	2023_REPORTING_YEAR_KENMORE_SW_203292024152916
3	S5.A	Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of implementing the SWMP.	Yes
4	S5.A.5.b	Coordinated among departments within the jurisdiction to eliminate barriers to permit compliance. (S5.A.5.b)	Yes
5	S5.C.1.	Have you convened an interdisciplinary team to inform and assist in the development, progress, and influence of the comprehensive stormwater planning program? (S.5.c.1). August 1, 2020	Yes
14	S5.C.1.b	Did you submit a report as described in S5.C.1.b.i(b)? (Required to submit no later than January 1, 2023)	Yes
15	S5.C.1.c	Continue to design and implement local development-related codes, rules, standards, or other enforceable documents to minimize impervious surfaces, native vegetation loss, and stormwater runoff, where feasible? See S5.C.1.c.i. (Required annually)	Yes
16	S5.C.1.c	From the assessment described in S5.C.1.c.i (a), did you identify any administrative or regulatory barriers to implementation of LID Principles or LID BMPs? (Required annually)	No
20	S5.C.2	Did you choose to adopt one or more elements of a regional program? (S5.C.2)	Yes

20a	S5.C.2	If yes, list the elements, and the regional program.	Puget Sound Starts Here (PSSH)/STORM Digital Media Campaign, Eastside Stormwater Outreach Group (SOG) Bus Ad Campaign, Dumpster Outreach Group (DOG) Lid Campaign, Adopt-A-Drain
21	S5.C.2	Attach a description of general awareness efforts conducted, including your target audiences and subject areas, per S5.C.2.a.i.	Q21_S5.C.2.A_DOCUMENTATION_KE_21_03212024103103
24	S5.C.2	Began implementing strategy outlined in S.5.C.2.a.ii(c) (S5.C.2.a.ii(d) – Required by April 1, 2021)	Yes
25	S5.C.2	Attach the report developed in accordance with S5.C.2.a.ii(e), which evaluated the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy and any planned or recommended changes to the program in order to be more effective. (Required no later March 31, 2024)	Q25_S5.C.2.a.ii(e)_DOCUMENTATI_25_03292024153742
26	S5.C.2	Promoted stewardship opportunities (or partnered with others) to encourage resident participation in activities such as those described in S5.C.2.a.iii.	Yes
26a	S5.C.2	Attach a list of stewardship opportunities provided.	Q26a_S5.C.2.A.iii_DOCUMENTATIO_26a_03212024165849

27	S5.C.3.	Describe in Comments field the opportunities created for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation, and updates of the Permittee's SWMP and the SMAP. (S5.C.3.a)	The SWMP Plan and SMAP is posted online and the public is encouraged to provide feedback. The city is also continuing to develop online tools that supplement the website and provides more targeted and interactive outreach capability. The city has also adopted a diversity equity inclusion and accessibility plan (DEIA) that provides guidance on engagement with the community, including overburdened and historically marginalized communities, e.g., when we are hosting a public meeting or workshop related to the implementation of the SWMP, are we being intentional on reaching non-english speaking community members, providing language assistance, providing easy to understand materials, providing a variety of times to meet different schedules, etc...
28	S5.C.3.	Posted the updated SWMP Plan and latest annual report on your website no later than May 31. (S5.C.3.b)	Yes
28a	S5.C.3.	List the website address in Comments field.	https://www.kenmorewa.gov/government/departments/public-works/environmental-services/npdes
29	S5.C.4.	Maintained a map of the MS4 including the requirements listed in S5.C.4.a.i-vii?	Yes
30	S5.C.4.	Started mapping outfall size and material in accordance with S5.C.4.b.i? (Required no later than January 1, 2020)	Yes
30a	S5.C.4.	Attach a spreadsheet that lists the known outfalls' size and material(s).	Q30a_S5.C.4.B.i_DOCUMENTATION__30a_03142024090954
31	S5.C.4.	Completed mapping connections to private storm sewers in accordance with S5.C.4.b.ii? (Required no later than August 1, 2023)	Yes
33	S5.C.5	Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste? (S5.C.5.b)	Yes

33a	S5.C.5	Actions taken to inform public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste.	The City utilizes printed newsletters, email lists, social media, and in-person interaction to educate the general public about how to prevent illicit discharges and spills. Public employees are informed with flyers around City Hall. Field employees were given IDDE specific training. Construction sites and developers are given informational material on how to prevent TESC related illicit discharges.
34	S5.C.5	Implemented an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges as described in S5.C.5.c.	Yes
35	S5.C.5	Implemented procedures for conducting illicit discharge investigations in accordance with S5.C.5.d.i.	Yes
35a	S5.C.5	Cite field screening methodology in Comments field.	City staff conduct annual IDDE field screening activities during catch basin inspections. Inspection staff are trained to conduct visual inspections to identify potential illicit discharges or illicit connections. Once identified, tracing methodology includes drainage network investigation, drainage area investigations, and source characterization per the City's IDDE Program Manual and the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments.
36	S5.C.5	Percentage of MS4 coverage area screened in the reporting year per S5.C.5.d.i. (Required to screen 12% on average each year.)	89
36a	S5.C.5	Cite field screening techniques used to determine percent of MS4 screened.	The City calculates the percent of MS4 screened by dividing the number of catch basins inspected annually by the total number of catch basins in the City's MS4.

37	S5.C.5	Percentage of total MS4 screened from permit effective date through the end of the reporting year. (S5.C.5.d.i.)	99.4
38	S5.C.5	Describe how you publicized a hotline telephone number for public reporting of spills and other illicit discharges in the Comments field. (S5.C.5.d.ii)	The City's hotline number is listed on the Surface Water Home Page on the City's website, advertised in City newsletters, and posted on social media. The hotline is monitored by City staff during business hours and directed to a 24/7 monitoring company during non-business hours.
39	S5.C.5	Implemented an ongoing illicit discharge training program for all municipal field staff per S5.C.5.d.iii.	Yes
40	S5.C.5	Implemented an ongoing program to characterize, trace, and eliminate illicit discharges into the MS4 per S5.C.5.e.	Yes
41	S5.C.5	Municipal illicit discharge detection staff are trained to conduct illicit discharge detection and elimination activities as described in S5.C.5.f.	Yes
42	S5.C.5	Attach a report with data describing the actions taken to characterize, trace, and eliminate each illicit discharge reported to, or investigated by, the Permittee as described in S5.C.5.g. The submittal must include all of the applicable information and must follow the instructions, timelines, and format described in Appendix 12.	WAR045519-2023-ImportedIDDEs_03292024153850
43	S5.C.6.	Implemented an ordinance or other enforceable mechanism to effectively address runoff from new development, redevelopment, and construction sites per the requirements of S5.C.6.b.i-iii.	Yes
45	S5.C.6.	Number of adjustments granted to the minimum requirements in Appendix 1. (S5.C.6.b.i. and Section 5 of Appendix 1)	1
46	S5.C.6.	Number of exceptions/variances granted to the minimum requirements in Appendix 1. (S5.C.6.b.i., and Section 6 of Appendix 1)	0
47	S5.C.6.	Reviewed Stormwater Site Plans for all proposed development activities that meet the thresholds adopted pursuant to S5.C.6.b.i. (S5.C.6.c.i)	Yes
47a	S5.C.6.	Number of site plans reviewed during the reporting period.	98
48	S5.C.6.	Inspected, prior to clearing and construction, permitted development sites per S5.C.6.c.ii, that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 – Determining Construction Site Sediment Damage Potential?	No

48a	S5.C.6.	If no, inspected, prior to clearing and construction, all construction sites meeting the minimum thresholds (S5.C.6.c.ii)?	Yes
49	S5.C.6.	Inspected permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls per S5.C.6.c.iii.	Yes
49a	S5.C.6.	Number of construction sites inspected per S5.C.6.c.iii.	68
49b	S5.C.6.	Inspected stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every 6 months per S5.C.6.c.iv?	Yes
50	S5.C.6.	Inspected all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. (S5.C.6.c.v)	Yes
51	S5.C.6.	Verified a maintenance plan is completed and responsibility for maintenance is assigned for projects prior to final approval and occupancy being granted. (S5.C.6.c.v)	Yes
52	S5.C.6.	Number of enforcement actions taken during the reporting period (based on construction phase inspections at new development and redevelopment projects). (S5.C.6.c.ii-iv) (S5.C.7.c.viii)	0
53	S5.C.6.	Achieved at least 80% of scheduled construction-related inspections. (S5.C.6.c.vi)	Yes
54	S5.C.6.	Made Ecology's Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity available to representatives of proposed new development and redevelopment? (S5.C.6.d)	Yes
55	S5.C.6.	All staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment, and construction sites including permitting, plan review, construction site inspections, and enforcement are trained to conduct these activities? (S5.C.6.e)	Yes
56	S5.C.7.	Implemented maintenance standards that are as protective, or more protective, of facility function than those specified in the Stormwater Management Manual for Western Washington or a Phase I program approved by Ecology per S5.C.7.a.?	Yes
58	S5.C.7.	Applied a maintenance standard for a facility or facilities which do not have maintenance standards specified in the Stormwater Management Manual for Western Washington? If so, note in the Comments field what kinds of facilities are covered by this alternative standard. (S5.C.7.a)	No
59	S5.C.7.	Verified that maintenance was performed per the schedule in S5.C.7.a.ii when an inspection identified an exceedance of the maintenance standard.	Yes

59a	S5.C.7.	Attach documentation of maintenance time frame exceedances that were beyond the Permittee's control.	Not Applicable
60	S5.C.7.	Implemented an ordinance or other enforceable mechanisms to verify long-term operation and maintenance of stormwater treatment and flow control BMPs/facilities regulated by the permittee per (S5.C.7.b.i (a))?	Yes
61	S5.C.7.	Annually inspected stormwater treatment and flow control BMPs/facilities regulated by the Permittee per S5.C.7.b.i(b)	Yes
61a	S5.C.7.	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.7.b.i (b)	Not Applicable
62	S5.C.7.	Achieved at least 80% of scheduled inspections to verify adequate long-term O&M. (S5.C.7.b.ii)	Yes
63	S5.C.7.	Annually inspected all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities. (S5.C.7.c.i)	Yes
63a	S5.C.7.	Number of known municipally owned or operated stormwater treatment and flow control BMPs/facilities. (S5.C.7.c.i)	242
63b	S5.C.7.	Number of facilities inspected during the reporting period.	242
63c	S5.C.7.	Number of facilities for which maintenance was performed during the reporting period.	102
64	S5.C.7.	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.7.c.i.	Not Applicable
65	S5.C.7.	Conducted spot checks and inspections (if necessary) of potentially damaged stormwater facilities after major storms as per S5.C.7.c.ii.	Yes
66	S5.C.7.	Inspected municipally owned or operated catch basins and inlets every two years or used an alternative approach? Cleaned as needed? (S.5.C.7.c.iii)	Yes
66a	S5.C.7.	Number of known catch basins?	4689
66b	S5.C.7.	Number of catch basins inspected during the reporting period?	4167
66c	S5.C.7.	Number of catch basins cleaned during the reporting period?	368
67	S5.C.7.	Attach documentation of alternative catch basin cleaning approach, if used. (S5.C.7.c.iii.(a)-(c))	Not Applicable
68	S5.C.7.	Implemented practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (S5.C.7.d)	Yes
70	S5.C.7.	Implemented an ongoing training program for Permittee employees whose primary construction, operations or maintenance job functions may impact stormwater quality. (S5.C.7.e)	Yes

71	S5.C.7.	Implemented a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under an NPDES permit that covers stormwater discharges associated with the activity. (S5.C.7.f)	Yes
74	S5.C.8	Established an inventory per S5.C.8.b.ii. (Required by August 1, 2022.)	Yes
74a	S5.C.8	Number of total sites identified for the inventory.	278
75	S5.C.8	Implemented an inspection program S5.C.8.b.iii (Required by January 1, 2023).	Yes
76	S5.C.8	Implemented a progressive enforcement policy per S5.C.8.b.iv (Required by January 1, 2023).	Yes
77	S5.C.8	Attach a summary of actions taken to implement the source control program per S5.C.8.b.iii and S5.C.8.b.iv.	Q77_S5.C.8.b.iii_S5.C.8.b.iv_D_77_03212024164658
78	S5.C.8	Attach a list of inspections, per S5.C.8.b.iii, organized by the business category, noting the amount of times each business was inspected, and if enforcement actions were taken.	Q78_S5.C.8.B.iii_DOCUMENTATION_78_03212024164659
79	S5.C.8	Implemented an ongoing source control training program per S5.C.8.b.v?	Yes
80	S7	Complied with the Total Maximum Daily Load (TMDL)-specific requirements identified in Appendix 2. (S7.A)	Yes
81	S7	For TMDLs listed in Appendix 2: Attach a summary of relevant SWMP and Appendix 2 activities to address the applicable TMDL parameter(s). (S7.A)	Q81_S7.A_DOCUMENTATION_KENMORE_81_03212024102031
82	S8	Submitted payment for cost-sharing for Stormwater Action Monitoring (SAM) status and trends monitoring no later than December 1, 2019 (S8.A.1); and no later than August 15 of each subsequent year? (S8.A.2.a.)	Yes
84	S8	Submitted payment for cost-sharing for SAM effectiveness and source identification studies no later than December 1, 2019 (S8.B.1); and no later than August 15 of each subsequent year (S8.B.2.a or S8.B.2.c)?	Yes
87	S8	If conducting stormwater discharge monitoring in accordance with S8.C.1, attach a data and analysis report per S8.C.1. and Appendix 9. (Due annually beginning March 31, 2021.)	Not Applicable
88	G3	Notified Ecology in accordance with G3 of any discharge into or from the Permittees MS4 which could constitute a threat to human health, welfare or the environment. (G3)	Yes
89	G3	Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment per G3.A.	Yes

90	Compliance with standards	Notified Ecology within 30 days of becoming aware that a discharge from the Permittee's MS4 caused or contributed to a known or likely violation of water quality standards in the receiving water. (S4.F.1)	Yes
91	Compliance with standards	If requested, submitted an Adaptive Management Response report in accordance with S4.F.3.a.	Not Applicable
92	Compliance with standards	Attach a summary of the status of implementation of any actions taken pursuant to S4.F.3 and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period. (S4.F.3.d)	Not Applicable
93	G20	Notified Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance. (G20)	Yes
94	G20	Number of non-compliance notifications (G20) provided in reporting year. List permit conditions described in non-compliance notification(s) in Comments field.	1
94a	G20	List permit conditions described in non-compliance notification(s).	Section S5.C.7.a.ii of the Permit requires the Permittee to maintain catch basins within 6 months. One catch basin scheduled for cleaning by November 27, 2022 was not cleaned within the required time period, which was discovered March 2023. The catch basin was subsequently cleaned.

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Richard Sawyer

3/29/2024 3:47:09 PM

Signature

Date

Reporting Year

2023

Annual Report Question Number

21

Question Language

Attach a description of general awareness efforts conducted, including your target audiences and subject areas, per S5.C.2.a.i.

Permit Section

S5.C.2.a.i

Permit Section Language

General Awareness. To build general awareness, Permittees shall annually select at a minimum one target audience and one subject area from either (a) or (b):

- A. *Target audiences:* General public (including overburdened communities, or school age children) or businesses (including home-based, or mobile businesses). Subject areas:
 - General impacts of stormwater on surface waters, including impacts from impervious surfaces.
 - Low impact development (LID) principles and LID BMPs.
- B. *Target audiences:* Engineers, contractors, developers, or land use planners. Subject areas:
 - Technical standards for stormwater site and erosion control plans.
 - LID principles and LID BMPs.
 - Stormwater treatment and flow control BMPs/facilities
- C. Permittees shall provide subject area information to the target audience on an ongoing or strategic schedule.

Response

The City collaborated regionally with Stormwater Outreach for Regional Municipalities (STORM), locally with Eastside Stormwater Outreach Group (SOG), and worked independently to meet the general awareness requirements:

2023 SOG Bus Ad Campaign

- Eastside SOG ran Bus Ads during Puget Sound Starts Here Month (September).
- Targeted the general public with messaging centered on impacts of pet waste on stormwater and surface waters.
- The ads were seen around Kenmore and other jurisdictions for months after the campaign ended.
- The campaign made 1,423,725 impressions across the region.

2023 Puget Sound Starts Here Outreach and STORM

- Puget Sound Starts Here Month was a digital media campaign that used targeted ads to inform the public and drive clicks to the PSSH website.
- Targeted the general public including communities that speak Spanish, Korean, and Vietnamese
- Campaign was developed in several languages in order to reach a more diverse audience.
- Campaign was developed to bring awareness to the importance of tire care.
- The campaign generated over 8.5 million total impressions and generated 64,000 clicks to the PSSH website. In Kenmore, the campaign generated 19,000 total impressions and 40 new users on the PSSH website.

2023 Social and Print Media

- Populated City social media with posts containing information and messaging on general awareness topics such as: pet waste, reporting spills, vehicle maintenance, water quality, BMP's, clearing drains, and more.
- Several articles published containing seasonal general awareness messaging in the City's monthly E-news as well as quarterly printed newsletter.

2023 City Events

- The Environmental Services Department had a booth at a total of six City sponsored events throughout 2023.
- These booths contained educational games and materials, targeted at school-age children, designed to educate on stormwater and water pollution related topics.

2023 Construction and TESC Outreach

- The City created outreach materials targeted towards developers, contractors, and homeowners to inform them on how to reduce their environmental impacts during construction.
- Materials consist of messaging for small and large sites and include technical standards, inspection and maintenance triggers for BMP's, and common issues found on sites.
- The Development Services Department distributes the materials to permit applicants and to contractors and developers during pre-construction meetings.

Please refer to the City's SWMP Plan for additional details.

Reporting Year

2023

Annual Report Question Number

25

Question Language

Attach the report developed in accordance with S5.C.2.a.ii(e), which evaluated the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy and any planned or recommended changes to the program in order to be more effective. (Required no later March 31, 2024)

Permit Section

S5.C.2.a.ii(e)

Permit Section Language

(e) No later than March 31, 2024, evaluate and report on:

1. The changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy; and
2. Any planned or recommended changes to the campaign in order to be more effective; describe the strategies and process to achieve the results

Response

In 2021, the City of Kenmore implemented the Dumpster Outreach Campaign in accordance with the community based social marketing behavior change requirements as specified in S5.C.2.a.ii(c). The goal of the program is to educate businesses and encourage them to close the lids on their dumpsters every time they take out trash or recycling. As a part of a regional effort, Kenmore collaborated with 30 other jurisdictions in developing and implementing the program and leveraged collective resources to create a successful region-wide campaign.

Development of the program began in 2019 when the City began considering how and where to implement a dumpster outreach program. In Kenmore, most businesses are located on NE Bothell Way (SR522) and NE 175th St (see Figure 1. below). These parallel corridors drain directly into the Sammamish River or lake Washington and most businesses are within one-quarter mile of their respective outfalls. When spills or other pollution generating activities occur at these businesses, it is very likely that the illicit materials make it to the receiving waterbody. This proximity to receiving waterbodies makes preventative outreach crucial for preventing dumpster related illicit discharges and increasing awareness of stormwater issues in general.

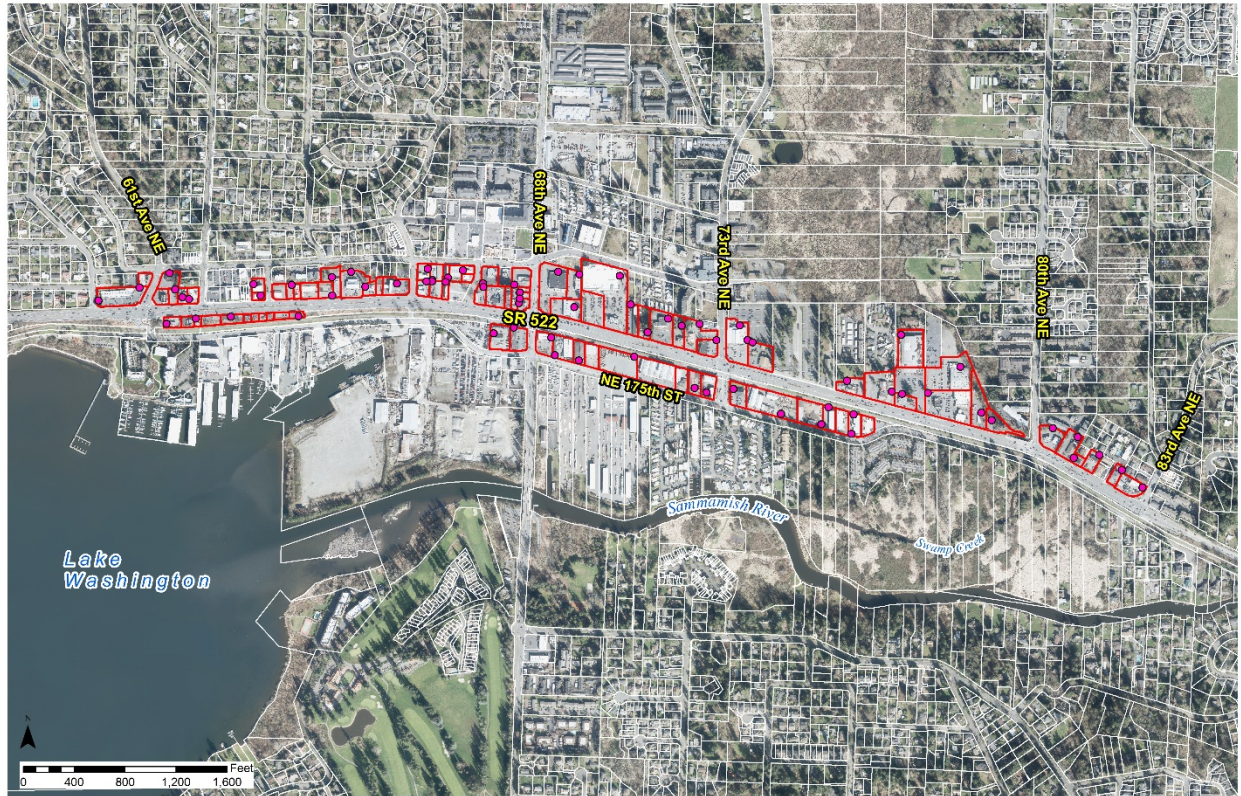


Figure 1. Map of Kenmore businesses along the SR522 corridor.

In 2019, city staff conducted a field survey of approximately 70 businesses along the SR522 corridor to determine where dumpsters were located and get a snapshot of how they were being managed. This was a data gathering exercise and no outreach was provided at the time of the field survey. Data collected included business type, number and type of dumpsters, dumpster lid status, and overall site conditions. At the time of this initial field survey, 69% of the 117 dumpsters observed had their lids closed. Regional dumpster audit results, using data combined from participating municipalities, were very similar to Kenmore's, with 66% of all surveyed dumpsters having an open lid.

After completion of the initial audit, in early 2021, five businesses were selected along the 522 corridor and a more in-depth, two-week field survey was conducted to get a better idea of how dumpster areas were being managed at these sites. Of those five sites, two businesses were ultimately selected to conduct a pilot program, which would include an outreach component. During the pilot program, the city met with each business and provided background information, materials, and toolkit items pertinent to that site. Toolkit items included stickers on each dumpster, posters for inside the business and the dumpster area, fact sheets, and reminder cards. The city did periodic windshield surveys of the dumpster areas to evaluate the success during implementation, intermittent checks, and as a final evaluation. For the two businesses included in the pilot program, there was an observed increase in dumpster lid closing from 37.5% prior to implementation of the pilot program, to 68.3% post-implementation. Other regional partners conducted similar pilot programs, and when concluded, results were combined to evaluate and improve the program.



Photo 1. Dumpsters at one of the pilot businesses pre-implementation



Photo 2. Dumpsters at one of the pilot businesses post-implementation.

In 2022, the City of Kenmore began its full implementation of the Dumpster Outreach Program using the lessons learned from the pilot program. For selected businesses, the first step consisted of a pre-implementation survey where City staff visited each site twice in a seven-day period, cataloguing general site conditions, the total number of dumpsters, and how many of those dumpsters had open lids. After completion of the pre-implementation survey, City staff then reached out to property managers and property owners for selected businesses, informing them of the program, its basis, and its goals. Staff then met on site with each businesses property owner or manager to distribute and install materials including stickers and signs as well as address and questions. Upon implementation of the program at each selected site, the final step is periodic, random site visits to keep track of the status of each business's dumpster lids.

In 2022, business selection for implementing the Dumpster Outreach Program was done on a geographic basis. An initial list of twelve businesses were selected starting at the Western end of the SR522 corridor through Kenmore. After the two windshield surveys for these 12 businesses were completed, there was a baseline dumpster closure rate of 100%. At one-week, three-month, 6-month, and 12-months post implementation, the closure rate for all twelve businesses continued to be 100 percent. In 2023, this implementation continued, and an additional eight businesses were selected to the East of the original 12. After the two windshield surveys for these 8 businesses were completed, there was a baseline dumpster closure rate of 100%. At the one-week, and three-month intervals post implementation, the lid closure rate continued to be 100 percent.

Based on the data from the 20 businesses included in the Dumpster Outreach Program up to this point, it is difficult to assess the changes in understanding and adoption of targeted behaviors resulting from the implementation of the strategy. For the 20 businesses selected during the permit period, the dumpster lid closure rate was observed to go from 100 percent prior to implementation to 100 percent post-implementation. This indicates no observable change in behavior due to the implementation of the program. The primary conclusion drawn from the implementation of the behavior change program at

these 20 businesses is that it was effective in reinforcing and encouraging the continuation of existing positive behaviors, but no conclusions were able to be drawn regarding the program's effectiveness in changing the understanding and adoption of new behavior.

Data collected by Kenmore and other participating jurisdictions during the pilot program showed the behavior change strategy to be very effective for businesses observed to not be consistently closing dumpster lids. Therefore, to increase the program's effectiveness in the future, if this behavior change program is selected to continue in the next Permit cycle, Kenmore plans to modify its implementation strategy to specifically target businesses observed to not be consistently closing their dumpster lids. This be done through several steps. First, a new business audit like the one performed in 2019 would be conducted. This will help identify new businesses, identify new trends, and set a new baseline for the campaign. Second, implement a new pilot program to assess the continuing effectiveness of the current behavior change toolkit and implementation strategy. Finally, transition from a geographic based implementation schedule to a system based on identifying and targeting businesses not participating in the targeted behavior of closing dumpster lids. This should be done by incorporating the program into the city's existing private drainage facility and/or source control inspection programs. By keeping track of dumpster status at businesses during inspections, we will be able to identify businesses of interest for the behavior change program, perform subsequent windshield surveys to determine a baseline pattern for lid closure, and then implement the behavior change program.

Reporting Year

2023

Annual Report Question Number

26a

Question Language

Promoted stewardship opportunities(or partnered with others) to encourage resident participation in activities such as those described in S5.C.2.a.iii,

Attach a list of stewardship opportunities provided.

Permit Section

S5.C.2.a.iii

Permit Section Language

Stewardship: Each Permittee shall provide and advertise stewardship opportunities and/or partner with existing organizations (including non-permittees) to encourage residents to participate in activities or events planned and organized within the community, such as: stream teams, storm drain marking, volunteer monitoring, riparian plantings, and education activities.

Response

The city is fortunate to have many active residents and stewardship opportunities provided in the reporting period including:

- People for Environmentally Responsible Kenmore (PERK): Resident group active in storm drain marking, and public outreach activities.
- Sno-King Watershed Council: The City of Kenmore collaborates with the Sno-King Watershed Council on efforts including the Swamp Creek Restoration Project and outreach at City events. The organization is active in Kenmore performing activities such as riparian noxious weed removal and native plantings, trash pickups, and educational events.

Additionally, in 2023 the City of Kenmore began participating in the Adopt-A-Drain program offered by Hamline University. This national and regional program encourages residents to become stewards of storm drains in their communities, while also providing educational materials to increase awareness of stormwater pollution prevention. For the 2023 calendar year, Kenmore initiated the program, began participating in the Puget Sound Adopt-a-Drain organization meetings, and saw a total of 74 drain adoptions by community members.

Reporting Year

2023

Annual Report Question Number

30a

Question Language

Started mapping outfall size and material in accordance with S5.C.4.b.i? (Required no later than January 1, 2020)

Attach a spreadsheet that lists the known outfalls' size and material(s).

Permit Section

S5.A.4.b.i

Permit Section Language

No later than January 1, 2020, begin to collect size and material for all known MS4 outfalls during normal course of business (e.g. during field screening, inspection, or maintenance) and update records.

Response

The following spreadsheet provides a list of known outfalls' size and material(s):

Asset ID	Material	Diameter	Owner	Maintained By	Basin	MS4
C0006	CPEP	24 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C0011	DUCTILE IRON	8 INCH	PRIVATE	KENMORE (EASEMENT)	SWAMP CREEK	YES
C0088	DUCTILE IRON	12 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C0090	CONCRETE	12 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C0148	DUCTILE IRON	18 INCH	KENMORE	KENMORE	LSWAMP TRIB 01	YES
C0310	CPEP	12 INCH	PRIVATE	KENMORE (EASEMENT)	MUCK CREEK	YES
C0376	CONCRETE	18 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C0426	CONCRETE	18 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C0829	CPEP	12 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C0836	CPEP	18 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C0849	CONCRETE	12 INCH	KENMORE	KENMORE	MUCK CREEK	YES
C0850	CMP	12 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C0853	CMP	24 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C0854	DUCTILE IRON	24 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C0855	CMP	24 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C0856	PVC	18 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C0857	CONCRETE	18 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C0858	CONCRETE	30 INCH	PRIVATE	PRIVATE	SAMM TRIB 02	NO
C0860	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C0861	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C0863	CONCRETE	30 INCH	KENMORE	KENMORE	LAKE WASHINGTON	YES
C0865	PVC	18 INCH	KENMORE	KENMORE	LSWAMP TRIB 01	YES
C0866	PVC	12 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C0867	CPEP	12 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C0869	CMP	24 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C0870	CONCRETE	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C0871	CMP	18 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C0876	CMP	18 INCH	PRIVATE	PRIVATE	LAKE WASHINGTON	NO
C0877	PVC	6 INCH	PRIVATE	PRIVATE	LAKE WASHINGTON	NO
C0878	CMP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C0879	CONCRETE	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C0880	CMP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C0883	CMP	12 INCH	KENMORE	KENMORE	MUCK CREEK	YES
C0884	CPEP	12 INCH	KENMORE	KENMORE	MUCK CREEK	YES
C0886	CMP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C0887	PVC	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C0888	CPEP	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C0889	CPEP	6 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C0891	CMP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0892	CMP	8 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES

C0893	CMP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0894	CMP	8 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0895	CMP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0896	CMP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0897	CMP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0898	CMP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0900	CONCRETE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C0901	CPEP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C0902	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C1287	CMP	12 INCH	KENMORE	KENMORE	LSWAMP TRIB 01	YES
C1421	CPEP	12 INCH	PRIVATE	KENMORE (EASEMENT)	LITTLE SWAMP CREEK	YES
C1422	CPEP	18 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C1434	CMP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C1582	PVC	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1583	CPEP	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1584	CMP	12 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1585	CPEP	6 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1586	CPEP	6 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1587	CMP	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1588	CONCRETE	12 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1591	CMP	36 INCH	KENMORE	KENMORE	MUCK CREEK	YES
C1592	PVC	8 INCH	KENMORE	KENMORE	MUCK CREEK	YES
C1594	CONCRETE	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C1595	CPEP	12 INCH	PRIVATE	KENMORE (EASEMENT)	LSWAMP TRIB 01	YES
C1597	CONCRETE	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C1601	CONCRETE	6 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1602	CONCRETE	6 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C1603	CPEP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C1604	CPEP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C1605	CMP	18 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C1609	CMP	8 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C1611	CMP	30 INCH	PRIVATE	KENMORE (EASEMENT)	LSWAMP TRIB 01	YES
C1615	CPEP	24 INCH	PRIVATE	PRIVATE	LSWAMP TRIB 01	NO
C1616	CONCRETE	24 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C1912	CPEP	4 INCH	KENMORE	KENMORE	SAMM TRIB 01	YES
C2025	CONCRETE	18 INCH	PRIVATE	PRIVATE	SAMM TRIB 01	NO
C2026	CONCRETE	12 INCH	KENMORE	KENMORE	SAMM TRIB 01	YES
C2057	HDPE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C2137	CPEP	12 INCH	KENMORE	KENMORE	SAMMAMISH RIVER	YES
C2201	CPEP	4 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C2262	CPEP	12 INCH	PRIVATE	PRIVATE	JUANITA CREEK	NO

C2269	CPEP	12 INCH	PRIVATE	PRIVATE	JUANITA CREEK	NO
C2304	CONCRETE	12 INCH	KENMORE	KENMORE	JUANITA CREEK	YES
C2534	CPEP	8 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C2538	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C2563	CONCRETE	18 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C2565	CONCRETE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C2572	CONCRETE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C2644	CMP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0222	YES
C2671	CONCRETE	12 INCH	PRIVATE	KENMORE (EASEMENT)	TRIBUTARY 0057	YES
C2693	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C2888	CONCRETE	18 INCH	KENMORE	KENMORE	TRIBUTARY 0222	YES
C2921	CMP	18 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C2922	CMP	24 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C2923	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C2925	CMP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0222	YES
C2926	CONCRETE	18 INCH	KENMORE	KENMORE	TRIBUTARY 0222	YES
C2927	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C2929	CMP	24 INCH	KENMORE	KENMORE	LAKE WASHINGTON	YES
C2930	CMP	18 INCH	PRIVATE	PRIVATE	LAKE WASHINGTON	NO
C2931	CMP	24 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C2936	CONCRETE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C2997	CONCRETE	12 INCH	KENMORE	KENMORE	ARROWHEAD CREEK	YES
C3004	CMP	18 INCH	PRIVATE	PRIVATE	LAKE WASHINGTON	NO
C3005	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C3006	CPEP	12 INCH	KENMORE	KENMORE	ARROWHEAD CREEK	YES
C3007	CMP	24 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C3206	CPEP	18 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C3207	CPEP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0222	YES
C3209	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3211	CONCRETE	18 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3212	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3213	CMP	NA	KENMORE	KENMORE	TRIBUTARY 0056	YES
C3215	CMP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C3216	CONCRETE	12 INCH	PRIVATE	PRIVATE	LAKE WASHINGTON	NO
C3218	PVC	12 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C3219	PVC	42 INCH	PRIVATE	KENMORE (EASEMENT)	SAMMAMISH RIVER	YES
C3221	PVC	12 INCH	PRIVATE	KENMORE (EASEMENT)	LITTLE SWAMP CREEK	YES
C3222	PVC	12 INCH	PRIVATE	KENMORE (EASEMENT)	LITTLE SWAMP CREEK	YES
C3224	CMP	12 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C3229	CMP	24 INCH	KENMORE	KENMORE	MUCK CREEK	YES
C3232	CPEP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO

C3235	HDPE	12 INCH	KENMORE	KENMORE	JUANITA CREEK	YES
C3236	CPEP	12 INCH	KENMORE	KENMORE	JUANITA CREEK	YES
C3237	CMP	18 INCH	PRIVATE	PRIVATE	JUANITA CREEK	NO
C3238	PVC	18 INCH	PRIVATE	KENMORE (EASEMENT)	SAMM TRIB 01	YES
C3243	PVC	12 INCH	PRIVATE	PRIVATE	SAMM TRIB 02	NO
C3244	PVC	12 INCH	PRIVATE	PRIVATE	JUANITA CREEK	NO
C3245	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C3246	CONCRETE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C3247	CPEP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C3250	CONCRETE	18 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C3251	CPEP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C3258	CPEP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C3288	CMP	15 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3291	CPEP	24 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C3301	CPEP	12 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C3315	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3324	DUCTILE IRON	12 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C3325	CMP	30 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C3327	CMP	8 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C3329	CMP	8 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C3690	CMP	24 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C3692	CPEP	12 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C3699	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3825	CONCRETE	18 INCH	PRIVATE	KENMORE (EASEMENT)	TRIBUTARY 0056	YES
C3833	CMP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C3837	CPEP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C3844	CONCRETE	18 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C3873	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3884	CMP	8 INCH	PRIVATE (KING COUNTY)	PRIVATE (KING COUNTY)	TRIBUTARY 0056	NO
C3917	CMP	18 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C3918	PVC	6 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C3984	CPEP	6 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3986	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C3988	PVC	6 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C4009	CPEP	12 INCH	KENMORE	KENMORE	SAMMAMISH RIVER	YES
C4053	CMP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C4132	CMP	18 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C4185	CMP	8 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C4231	CMP	12 INCH	KENMORE	KENMORE	LSWAMP TRIB 01	YES
C4233	CMP	12 INCH	KENMORE	KENMORE	LSWAMP TRIB 01	YES

C4366	DUCTILE IRON	8 INCH	KENMORE	KENMORE	LAKE WASHINGTON	YES
C4373	CONCRETE	18 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4398	CMP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4481	CPEP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C4493	CONCRETE	18 INCH	KENMORE	KENMORE	ARROWHEAD CREEK	YES
C4495	CMP	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C4499	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C4503	PVC	18 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C4550	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0228	NO
C4572	PVC	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4586	CPEP	18 INCH	PRIVATE	PRIVATE	LSWAMP TRIB 01	NO
C4593	CPEP	8 INCH	PRIVATE	KENMORE (EASEMENT)	TRIBUTARY 0228	YES
C4603	METAL	18 INCH	PRIVATE	PRIVATE	LITTLE SWAMP CREEK	NO
C4622	CPEP	6 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C4624	CMP	12 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C4633	CONCRETE	18 INCH	PRIVATE (KING COUNTY)	PRIVATE (KING COUNTY)	SWAMP CREEK	NO
C4646	PVC	<4 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C4679	CMP	18 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4686	CMP	10 INCH	KENMORE	KENMORE	LAKE WASHINGTON	YES
C4687	PVC	6 INCH	PRIVATE	PRIVATE	LAKE WASHINGTON	NO
C4688	DUCTILE IRON	6 INCH	PRIVATE	PRIVATE	LAKE WASHINGTON	NO
C4689	CPEP	18 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4690	CPEP	6 INCH	KENMORE	KENMORE	SAMMAMISH RIVER	YES
C4691	CPEP	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4692	CONCRETE	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4693	PVC	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4694	PVC	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4695	CMP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4696	CONCRETE	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4697	CONCRETE	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4698	CPEP	8 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4699	CPEP	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4700	CPEP	8 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4701	PVC	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4702	CMP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4703	CPEP	18 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4704	CMP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4705	PVC	8 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4706	PVC	8 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4707	CMP	NA	KENMORE	KENMORE	SAMMAMISH RIVER	YES

C4736	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C4775	CPEP	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C4778	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C4795	CPEP	12 INCH	PRIVATE (NSD)	PRIVATE (NSD)	SAMM TRIB 04	NO
C4796	CPEP	8 INCH	PRIVATE (NSD)	PRIVATE (NSD)	SAMM TRIB 04	NO
C4803	CMP	12 INCH	PRIVATE (NSD)	PRIVATE (NSD)	SAMM TRIB 04	NO
C4807	CPEP	8 INCH	PRIVATE	KENMORE (EASEMENT)	MUCK CREEK	NO
C4818	NA	6 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C4819	CMP	8 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C4822	CONCRETE	24 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C4824	CONCRETE	24 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C4851	CPEP	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C4858	NA	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4859	CONCRETE	4 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4864	CONCRETE	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C4865	CMP	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C4879	PVC	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C4890	CMP	15 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C4905	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C4912	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C5300	CPEP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C5367	CPEP	18 INCH	KENMORE	KENMORE	SWAMP CREEK	NO
C5390	PVC	4 INCH	KENMORE	KENMORE	TRIBUTARY 0222	YES
C5391	CPEP	6 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C5425	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C5442	CONCRETE	12 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C5475	CPEP	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C5789	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0222	NO
C5826	CONCRETE	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C5920	CONCRETE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C5921	PVC	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C5923	CPEP	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C5925	PVC	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C5939	NA	12 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C5952	CMP	24 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C5954	CPEP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C5958	CMP	15 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C5975	CONCRETE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C6021	PVC	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO

C6027	CMP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C6028	CMP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C6158	CMP	8 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C6175	CONCRETE	8 INCH	KENMORE	KENMORE	SAMM TRIB 03	YES
C6234	CMP	12 INCH	PRIVATE	PRIVATE	JUANITA CREEK	NO
C6315	NA	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C6316	NA	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C6434	CMP	12 INCH	PRIVATE	PRIVATE	LSWAMP TRIB 01	NO
C6458	CPEP	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C6459	CPEP	18 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C6461	CPEP	12 INCH	KENMORE	KENMORE (EASEMENT)	TRIBUTARY 0056	YES
C6505	CMP	NA	KENMORE	KENMORE	TRIBUTARY 0056	YES
C6565	CPEP	12 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C6653	CONCRETE	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C6673	PVC	18 INCH	KENMORE	KENMORE	TRIBUTARY 0057	YES
C6674	CPEP	12 INCH	PRIVATE	KENMORE (EASEMENT)	TRIBUTARY 0057	YES
C6843	HDPE	6 INCH	PRIVATE	PRIVATE	SAMM TRIB 02	NO
C6906	CPEP	18 INCH	PRIVATE	KENMORE (EASEMENT)	LITTLE SWAMP CREEK	YES
C7131	PVC	6 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C7162	CPEP	8 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C7174	CMP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C7196	CPEP	18 INCH	PRIVATE	KENMORE	ARROWHEAD CREEK	YES
C7242	CPEP	12 INCH	PRIVATE	KENMORE (EASEMENT)	SAMM TRIB 02	YES
C7721	CMP	30 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C7726	CONCRETE	18 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C7819	CPEP	12 INCH	PRIVATE (NSD)	PRIVATE (NSD)	SWAMP CREEK	NO
C7914	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0226	NO
C7931	PVC	6 INCH	PRIVATE	PRIVATE	SAMMAMISH RIVER	NO
C7932	HDPE	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C7967	HDPE	8 INCH	PRIVATE	PRIVATE	SAMM TRIB 02	NO
C7968	HDPE	8 INCH	PRIVATE	PRIVATE	SAMM TRIB 02	NO
C7983	DUCTILE IRON	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C7987	CONCRETE	12 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C8034	DUCTILE IRON	12 INCH	KENMORE	KENMORE	LITTLE SWAMP CREEK	YES
C8047	CPEP	12 INCH	KENMORE	MD BOND	SAMMAMISH RIVER	YES
C8061	CPEP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C8062	PVC	8 INCH	KENMORE	KENMORE	SWAMP CREEK	YES
C8101	CPEP	18 INCH	KENMORE	MD BOND	LITTLE SWAMP CREEK	YES
C8165	CPEP	12 INCH	PRIVATE	KENMORE (EASEMENT)	LITTLE SWAMP CREEK	YES
C8196	DUCTILE IRON	12 INCH	KENMORE	KENMORE	SAMMAMISH RIVER	YES
C8245	PVC	6 INCH	PRIVATE	PRIVATE	SAMM TRIB 02	NO

C8255	HDPE	12 INCH	PRIVATE	PRIVATE	SAMM TRIB 02	NO
C8377	CMP	8 INCH	KENMORE	KENMORE	TRIBUTARY 0056	YES
C8418	CPEP	6 INCH	KENMORE	PRIVATE	TRIBUTARY 0056	NO
C8420	CMP	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C8421	CMP	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C8422	PVC	8 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C8427	CPEP	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C8428	CPEP	6 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C8432	PVC	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C8571	CONCRETE	12 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C8575	PVC	4 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C8643	PVC	4 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C8675	CMP	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C8794	NA	8 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C8815	CMP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0056	NO
C8817	CPEP	12 INCH	PRIVATE	MD BOND	SAMM TRIB 01	YES
C8823	PVC	6 INCH	PRIVATE	PRIVATE	SAMM TRIB 01	NO
C8825	PVC	6 INCH	PRIVATE	PRIVATE	SAMM TRIB 01	NO
C8835	PVC	6 INCH	PRIVATE	PRIVATE	SAMM TRIB 01	NO
C8958	PVC	6 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C9086	PVC	6 INCH	KENMORE	PERFORMANCE BOND	SAMMAMISH RIVER	NO
C9155	CPEP	12 INCH	PRIVATE	PRIVATE	TRIBUTARY 0057	NO
C9164	CPEP	12 INCH	PRIVATE	MD BOND	LSWAMP TRIB 01	NO
C9165	PVC	6 INCH	PRIVATE	MD BOND	LSWAMP TRIB 01	NO
C9196	PVC	12 INCH	PRIVATE	PERFORMANCE BOND	LSWAMP TRIB 01	NO
C9198	PVC	6 INCH	PRIVATE	PERFORMANCE BOND	LSWAMP TRIB 01	NO
C9201	PVC	12 INCH	PRIVATE	PERFORMANCE BOND	LSWAMP TRIB 01	NO
C9203	PVC	6 INCH	PRIVATE	PERFORMANCE BOND	LSWAMP TRIB 01	NO
C9332	PVC	12 INCH	PRIVATE	PRIVATE	ARROWHEAD CREEK	NO
C9515	PVC	6 INCH	PRIVATE	PRIVATE	SWAMP CREEK	NO
C9551	CPEP	12 INCH	KENMORE	KENMORE	MUCK CREEK	YES
C9552	CPEP	12 INCH	PRIVATE	PRIVATE	MUCK CREEK	NO
C9572	CPEP	12 INCH	KENMORE	KENMORE	SWAMP CREEK	YES

Reporting Year

2023

Annual Report Question Number

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Question Language

Attach a summary of actions taken to implement the source control program

Permit Section

S5.C.8.b.iii & S5.C.8.b.iv

Permit Section Language

(iii) No later than January 1, 2023, Permittees shall implement an inspection program for sites identified pursuant to S5.C.8.b.ii, above.

- a) All identified sites with a business address shall be provided information about activities that may generate pollutants and the source control requirements applicable to those activities. This information shall be provided by mail, telephone, electronic communications, or in person. This information may be provided all at one time or spread out over the permit term to allow for tailoring and distribution of the information during site inspections.
- b) The Permittee shall annually complete the number of inspections equal to 20% of the businesses and/or sites listed in their source control inventory to assess BMP effectiveness and compliance with source control requirements. The Permittee may count follow-up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.
- c) Each Permittee shall inspect 100% of sites identified through credible complaints.
- d) Permittees may count inspections conducted based on complaints, or when the property owner denies entry, to the 20% inspection rate.

(iv) No later than January 1, 2023, each Permittee shall implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period as specified below:

- a) If the Permittee determines, through inspections or otherwise, that a site has failed to adequately implement required BMPs, the Permittee shall take appropriate follow-up action(s), which may include phone calls, reminder letters, emails, or follow-up inspections.

- b) When a Permittee determines that a site has failed to adequately implement BMPs after a follow-up inspection(s), the Permittee shall take enforcement action as established through authority in its municipal codes or ordinances, or through the judicial system.
- c) Each Permittee shall maintain records, including documentation of each site visit, inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating an effort to bring sites into compliance. Each Permittee shall also maintain records of sites that are not inspected because the property owner denies entry.
- d) A Permittee may refer non-emergency violations of local ordinances to Ecology, provided, the Permittee also makes a documented effort of progressive enforcement. At a minimum, a Permittee's enforcement effort shall include documentation of inspections and warning letters or notices of violation.

Response

Using the developed business inventory, the City assembled a list of businesses to inspect to meet the target 20% inspection rate. Prior to site inspections, these businesses were mailed a letter introducing them to the source control program which included information about activities that may generate pollutants and applicable BMPs which may be required.

Business source control inspections were conducted throughout the course of the year. Inspections were documented using time stamped photos and notes. When an inspection did not find any needed implementation of source control BMPs, a follow-up letter was mailed and/or emailed to the property owner/manager letting them know the property passed inspection. When inspections identified the need for source control BMPs, attempts were typically made to discuss on-site with the property manager. The property owner/manager was subsequently mailed and/or emailed a correction letter identifying the required source control BMPs to bring the property into compliance with city code.

When completed correction letters were returned, follow-up inspections were scheduled to confirm BMPs were adequately implemented. When correction letters were not returned in a timely manner, attempts were typically made to contact property owners requesting progress updates and remind them of their obligations to complete their BMPs. No enforcement action was required in the 2023 reporting period.

The City also inspected 100% of sites identified through credible complaints.

Reporting Year

2023

Annual Report Question Number

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Question Language

Attach a list of inspections, per S5.C.8.b.iii, organized by the business category, noting the amount of times each business was inspected, and if enforcement actions were taken.

Permit Section

S5.C.8.b.iii

Permit Section Language

The Permittee shall annually complete the number of inspections equal to 20% of the businesses and/or sites listed in their source control inventory to assess BMP effectiveness and compliance with source control requirements. The Permittee may count follow-up compliance inspections at the same site toward the 20% inspection rate. The Permittee may select which sites to inspect each year and is not required to inspect 100% of sites over a 5-year period. Sites may be prioritized for inspection based on their land use category, potential for pollution generation, proximity to receiving waters, or to address an identified pollution problem within a specific geographic area or sub-basin.

Response

The following table shows a list of source control inspections completed in 2023.

Business Name	NAICS/Business Category	Number of Inspections	Enforcement Action Taken
Northshore Utility District Headquarters	221310 Water Supply & Irrigation	3	No
Northshore Utility District Inglemoor	221310 Water Supply & Irrigation	1	No
Solarium/Skylight, Inc.	236220 Commercial and Institutional Building Construction	1	No
GB Systems	238220 Plumbing, Heating, and Air-Conditioning Contractor	1	No
Jet City Printing	323111 Commercial Printing	1	No
O'Reilly Auto Parts	441330 Automotive Parts and Accessories Retailer	2	No
Sherwin-Williams Paints	444120 Paint and Wallpaper Retailer	1	No
Safeway Store #3500	445110 Supermarket	2	No
Manhattan Express Grocery	445110 Supermarket and Other Grocery Retailer	1	No
Rocky's Corner Food Store	445131 Convenience Retailers	1	No
Cairn Brewing	445320 Beer, Wine, and Liquor Retailer	1	No
Kenmore Smoke Shop	453993 Tobacco Store	1	No
Ostroms Drug and Gift	456110 Pharmacies and Drug Retailer	1	No
Safeway Fuel Center #3500	457120 Gas Station	1	No
Bothell Ski & Bike	459110 Sporting Goods Retailer	1	No
Psychic Awakenings	459999 Miscellaneous Retailer	1	No
Bank of America	522110 Commercial Banking	2	No
Cash America Pawn	522299 Secondary Market	1	No
Griffith Rush Drake Insurance Group	524210 Insurance Agencies and Brokerages	1	No
Kenmore Inn	531110 Multi-Family	1	No
Emerald Villa Apartments	531110 Multi-Family	2	No
Winsome Trading Company	531120 Office Building	2	No
Kenmore Self Storage	531130 Self-Storage Unit	1	No
Peoples Storage	531130 Self-Storage Unit	1	No
Arrowhead Elementary School	611110 Elementary and Secondary School	1	No
Moorlands Elementary School	611110 Elementary and Secondary School	1	No
Inglemoor High School	611110 Elementary and Secondary School	1	No

Business Name	NAICS/Business Category	Number of Inspections	Enforcement Action Taken
City on a Hill School	611110 Elementary and Secondary School	1	No
Kenmore Middle School	611110 Elementary and Secondary School	1	No
Kenmore Medical/Dental	621210 Offices of Dentists	1	No
Kenmore Family Medical Center	621399 Health Practitioner	1	No
Kenmore Senior Living	623312 Assisted Living Facilities for the Elderly	1	No
Acti-Kare	624120 Health Care	1	No
Simply Strong Gym LLC	713940 Fitness	2	No
Kataliya Thai House	722511 Full-Service Restaurant	2	No
11th Frame Restaurant & Lounge	722511 Full-Service Restaurant	1	No
The Guest House	722511 Full-Service Restaurant	1	No
Subway	722513 Limited Service Restaurant	1	No
Pagliacci	722513 Limited Service Restaurant	2	No
McDonald's	722513 Limited Service Restaurant	1	No
Taco Time	722513 Limited Service Restaurant	1	No
Aroma Espresso LLC	722515 Snack and Nonalcoholic Beverage Bars	1	No
Suds City Car Wash	811192 Car Wash	1	No
Cutting Edge Upholstery	811420 Reupholstery and Furniture Repair	1	No
By Design Gentlemen's Salon	812111 Barber Shop	1	No
Noble Hair and Nails	812112 Beauty Salon	1	No
Reign Fitness	812990 Other Personal Services	1	No
Romanian Pentecostal Church	813110 Religious Organization	2	No
Kenmore Community Church	813110 Religious Organization	2	No
Cedar Park Northshore Church	813110 Religious Organization	1	No

Reporting Year

2023

Annual Report Question Number

81

Question Language

For TMDL's listed in Appendix 2: Attach a summary of Relevant SWMP and Appendix 2 activities to address the applicable TMDL parameter(s).

Permit Section

S7.A

Permit Section Language

For applicable TMDLs listed in Appendix 2, affected Permittees shall comply with the specific requirements identified in Appendix 2. Each Permittee shall keep records of all actions required by this Permit that are relevant to applicable TMDLs within their jurisdiction. The status of the TMDL implementation shall be included as part of the annual report submitted to Ecology. Each annual report shall include a summary of relevant SWMP and Appendix 2 activities conducted in the TMDL area to address the applicable TMDL parameters(s).

Response

Business Inspections: There are no commercial animal handling areas or commercial composting facilities within Kenmore's segment of Swamp Creek.

Public Outreach and Education: The City distributes stormwater and bacterial pollution education and outreach materials via city social media, online and printed newsletter articles, and in person at city sponsored events. The Environmental Services Department had a booth at a total of six city sponsored events. These booths contained educational materials, games, and interactive models targeted towards pet waste management and bacterial pollution.

Operations and Maintenance: The City of Kenmore currently has multiple animal waste collection stations at all eight municipal parks. In addition, certain other city owned or maintained property and facilities such as stormwater ponds, bioswales, recreation tracts, etc. also have either animal waste collection stations or pet waste signage. The stations/signage are posted as needed, based on facility specific considerations and factors such as requests from the public or observations by city staff. Waste collection stations are maintained regularly by city Public Works staff.

IDDE: The City screened for bacteria sources in all MS4 sub-basins which discharge to surface waters in the Swamp Creek TMDL area. On July 19th, 2023, a total of four samples were collected from catch basins in the main Swamp Creek basin, the Muck Creek sub-basin, the Little Swamp Creek sub-basin, and the Little Swamp Creek Tributary 01 sub-basin. Please see Figure 1. for a map of the TMDL area with the

relevant sub-basins, IDDE sample locations, and sample results. In each Swamp Creek sub-basin, MS4 sample results showed bacteria levels in conformance with Swamp Creek TMDL water quality standards (less than 50 CFU/100 mL). Additionally, these MS4 sample results were lower than surface water monitoring bacterial samples collected on the same day.

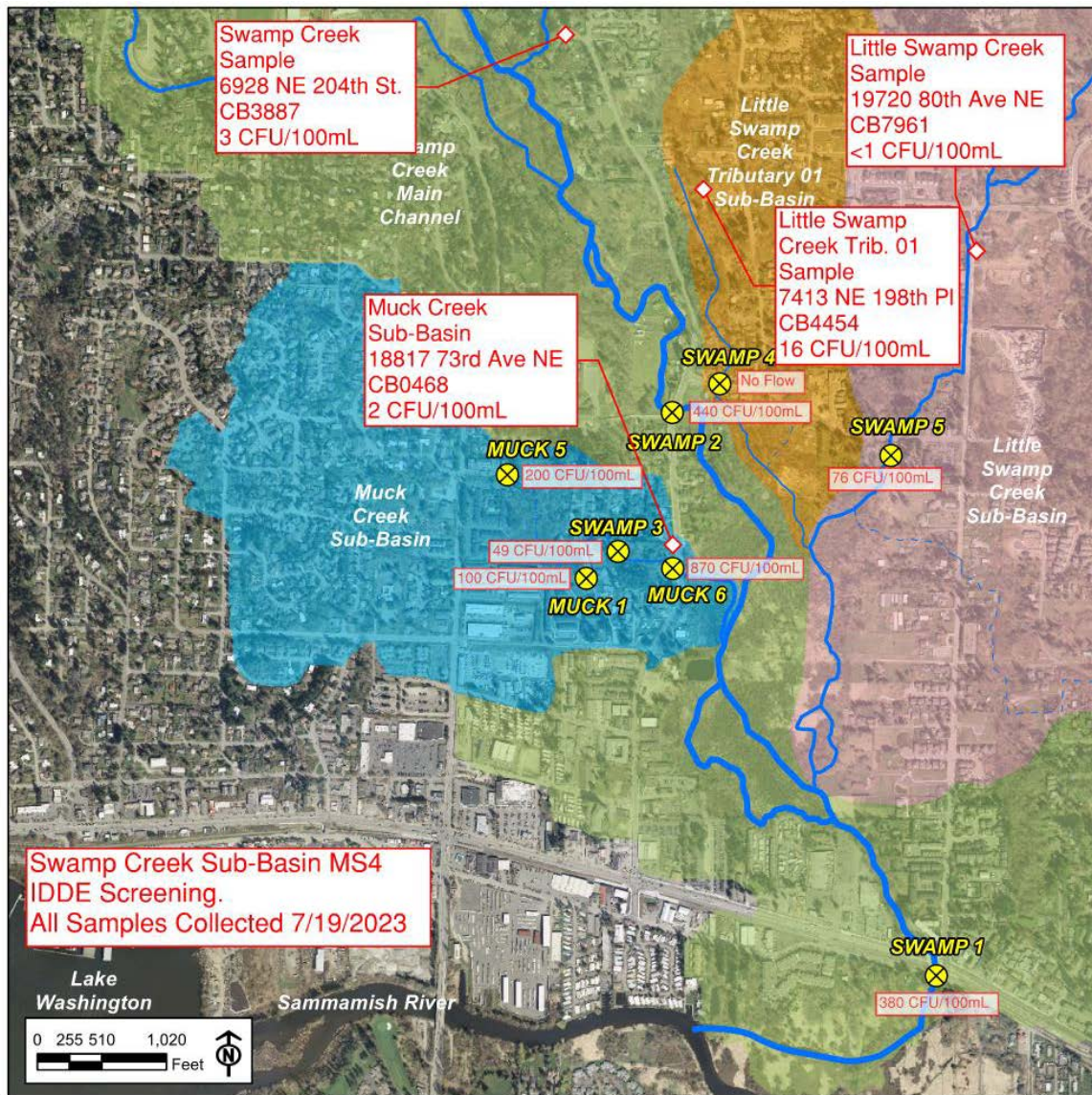


Figure 1. 2023 MS4 IDDE Screening locations and results.

Targeted Source Identification and Elimination: By January 1st, 2021, the City of Kenmore reviewed fecal coliform and other relevant bacterial data to identify a new high priority area to be the focus of source identification and elimination efforts from 2021 to 2023. After reviewing bacteriological data collected from 2016-2020, it was determined that the previous high priority area, Swamp Creek sub-basin Muck Creek, would remain the highest priority area in terms of bacterial load. Beginning in 2021, sample locations in the Muck Creek sub-basin were redistributed downstream to focus targeted detection efforts.

Currently there are four locations within the high priority area: Muck 5, Muck 1, Swamp 3, and Muck 6 (upstream to downstream). Upstream of Muck 5, Muck Creek flows entirely through residential neighborhoods and is predominantly confined to the MS4. Muck 5 is located behind an apartment

complex with an outdoor fenced dog park near the stream and a walking path that goes to the sampling location, just downstream of the outfall where Muck Creek daylight back to its natural channel. Between Muck 5 and Muck 1, Muck Creek flows predominantly through forested and heavily vegetated critical areas with a history of beaver activity. The segment of Muck Creek between Muck 1 and Swamp 3 is primarily residential with a portion confined to the MS4 and a portion channelized through private property. Muck Creek between Swamp 3 and Muck 6 flows through heavily vegetated private property. Muck 6 is located just upstream of the Swamp Creek main channel and provides data regarding direct fecal bacteria output of the Muck Creek sub-basin contributing to the Swamp Creek basin. Please see Figure 2. for a map of current Swamp Creek TMDL sampling locations including the Muck Creek sub-basin.

Results from samples collected monthly at these four sampling locations show a trend of increasing fecal coliform numbers in the segments of Muck Creek from Muck 5 to Muck 1 and from Swamp 3 to Muck 6. This trend is consistent with samples collected through both the 2021, 2022, and 2023 calendar years. For the 2023 reporting period, fecal coliform levels at Muck 1, Swamp 3, and Muck 6 exceeded the geometric mean criterion of 50 colonies/100 mL, and 43 percent of all samples collected in the sub-basin exceeded 100 colonies/100mL, exceeding the 90th percentile criterion. See Table 1. below for complete results and statistics for the Muck Creek sub-basin for the 2023 reporting year.

Table 1. 2023 Muck Creek TMDL Results				
	Muck 5	Muck 1	Swamp 3	Muck 6
Sample Date	CFU/100mL	CFU/100mL	CFU/100mL	CFU/100mL
1/12/2023	420	180	340	75
2/23/2023	30	65	390	54
3/28/2023	6	8	11	53
4/26/2023	3	97	86	52
5/19/2023	17	71	140	1100
6/26/2023	70	180	300	1000
7/19/2023	200	100	49	870
8/16/2023	32	NF	520	3100
9/25/2023	1200	3800	990	5900
10/24/2023	7	33	110	130
11/20/2023	3	56	30	70
12/19/2023	36	14	49	9
2023 Geometric Mean	33	82	129	224
2023 90th Percentile	398	180	507	2900
<i>2022 Geometric Mean</i>	<i>16</i>	<i>77</i>	<i>39</i>	<i>139</i>
<i>2022 90th Percentile</i>	<i>146</i>	<i>395</i>	<i>198</i>	<i>493</i>
<i>2021 Geometric Mean</i>	<i>25</i>	<i>177</i>	<i>160</i>	<i>356</i>
<i>2021 90th Percentile</i>	<i>59</i>	<i>7900</i>	<i>4128</i>	<i>5540</i>

On 9/25/2023, additional water samples were collected at Muck 5 and Muck 6 and transported to the King County Environmental Lab for microbial source tracking analysis. These samples underwent testing for E. coli bacteria and human DNA biomarker analysis (Hu-2 Bacteroidales). E. coli results for the sample collected at Muck 5 were 1200 CFU/100ml, with a Hu-2 Bacteroidales presence less than the minimum detectable limit of 0.55 copies/ml. E. coli results for the sample collected at Muck 6 were 4900 CFU/100ml, with a Hu-2 Bacteroidales presence of 2.5 copies/ml. This indicates a low abundance of

human DNA detected by the test, as a single Bacteroides organism can have between 2 and 15 copies of the target gene detected by PCR.

Surface Water Monitoring: The City began collecting water samples from five locations in August 2015 per the City’s Swamp Creek Fecal Coliform Bacteria TDL Quality Assurance Project Plan (QAPP), which was approved by Ecology on March 26, 2015. See Figure 2. for a map of Swamp Creek TMDL sampling locations. Monthly grab samples are collected from all five locations.

For the 2023 reporting period, fecal coliform levels at each sampling location exceeded the geometric mean criterion of 50 colonies/100 mL, and 47 percent of all samples collected exceeded 100 colonies/100mL, exceeding the 90th percentile criterion. Compared to the 2022 reporting year, there was an overall increase in fecal coliform levels at all locations. See Table 2. below for complete results and statistics for the Swamp Creek basin for the 2023 reporting year.

Table 2. 2023 Swamp Creek TMDL Results					
	Swamp 1	Swamp 2	Swamp 3	Swamp 4	Swamp 5
	Main channel at NE 175 th St. bridge	Main channel at 73 rd Ave NE bridge	Swamp Creek at 18810 71 st Ave NE	Little Swamp Creek Trib. 01 at NE 192 nd St.	Little Swamp Creek at NE 192 nd St.
Sample Date	CFU/100mL	CFU/100mL	CFU/100mL	CFU/100mL	CFU/100mL
1/12/2023	59	82	340	110	83
2/23/2023	28	32	390	37	110
3/28/2023	37	15	11	27	52
4/26/2023	61	39	86	130	10
5/19/2023	130	96	140	630	49
6/26/2023	290	210	300	1300	260
7/19/2023	380	440	49	NF	76
8/16/2023	870	210	520	NF	45
9/25/2023	1500	1600	990	4600	1200
10/24/2023	160	42	110	140	64
11/20/2023	44	91	30	110	20
12/19/2023	55	48	49	25	50
2023 Geometric Mean	132	99	129	170	71
2023 90th Percentile	821	417	507	1630	180
2022 Geometric Mean	66	57	39	136	54
2022 90 th Percentile	264	255	198	1020	270
2021 Geometric Mean	102	121	160	112	177
2021 90 th Percentile	375	416	4128	1068	7900
2020 Geometric Mean	92	96	65	158	105
2020 90 th Percentile	300	278	320	607	1036
2019 Geometric Mean	97	82	108	217	364
2019 90 th Percentile	498	414	1490	2220	3000

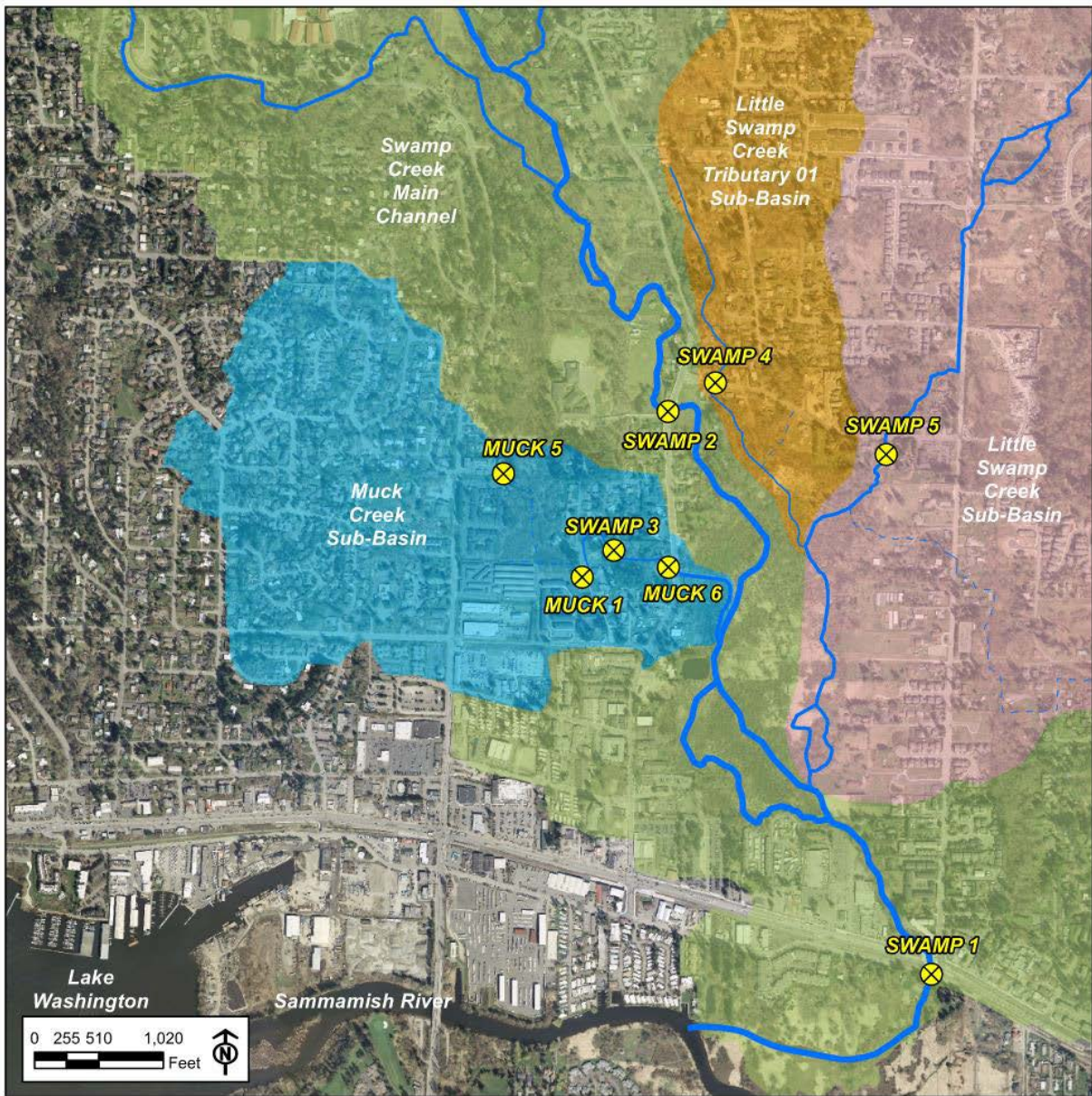


Figure 2. 2023 Swamp Creek TMDL surface water monitoring locations.