

Washington Department of Ecology

Electronic Submission Cover Letter



WQWebSubmittal - Submittal Submission Id: 1815180 - 3/31/2023 7:30:50 AM

Company Name	Signer Name	System Name
City of Spokane	Raylene Gennett	WQWebPortal

Attachments:

Document Name Or Description	Document Name
Submitted Copy of Record for City of Spokane	Copy of Record CityofSpokane Friday March 31 2023
WAR046505_6_03302022180645	COS 2021 PE&O Summary_6_03302022180645
WAR046505_6_03312023043933	COS 2022 PE&O Summary_6_03312023043933
WAR046505_51_03312023045251	COS Effectiveness Study Summar_51_03312023045251
WAR046505_1_03312023043728	COS SWMP 2023_1_03312023043728
WAR046505_1_03312023045642	COS SWMP 2023_1_03312023045642
WAR046505_50_03312023045239	COS TMDL Summary 2022_50_03312023045239
WAR046505_24_03312023044451	COS_IDDE2022_in_DOE_Schema_24_03312023044451
WAR046505_24_03312023044716	IDDE2022_in_DOE_Schema_24_03312023044716
WAR046505_12_03312023044239	Outfalls_Type&Materials_YE2022_12_03312023044239
WAR046505_12_03312023045716	Outfalls_Type&Materials_YE2022_12_03312023045716

Attestation Agreed to at Signing:

I certify I personally signed and submitted to the Department of Ecology an Electronic Signature Agreement. I understand that use of my electronic signature account/password to submit this information is equal to my written signature. I have read and followed all the rules of use in my Electronic Signature Agreement. I believe no one but me has had access to my password and other account information.

I further certify: I had the opportunity to review the content or meaning of the submittal before signing it; and to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I intend to submit this information as part of the implementation, oversight, and enforcement of a federal environmental program. I am aware there are significant penalties for submitting false information, including possible fines and imprisonment.



Water Quality Program

Permit Submittal Electronic Certification

Permittee: SPOKANE CITY

Permit Number: WAR046505

Site Address: 909 E SPRAGUE AVE
SPOKANE, WA 99202-2127

Submittal Name: MS4 Annual Report Phase II Eastern

Version: 1

Due Date: 3/31/2023

Questionnaire

Number	Permit Section	Question	Answer
1	S5.A.4.	Attach updated annual Stormwater Management Program Plan (SWMP Plan) or website address in the Comment field where it can be found. (S5.A.4.)	COS SWMP 2023_1_033120230456 42
1.a	S5.A.4.	Cite website of SWMP if unable to attach	Not Applicable
2	S9.C.6.	Attach a map and 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.C.6.	Not Applicable
3	S5.A.5.a.ii.	Tracked the estimated costs of implementation of each component of the SWMP. (S5.A.5.a.ii.)	Yes
4	S5.A.6.b.	Coordinated among departments within the jurisdiction to eliminate barriers to permit compliance. (S5.A.6.b.)	Yes
5	S5.B.1	Were elements of a regional program implemented to complete any part of your education and outreach program? (S5.B.1)	Yes

5a	S5.B.1	If yes, list the elements, and the regional program	The Water Wise social media channel messages stormwater and has a regional reach within the Spokane region. The City of Spokane is a member of the Idaho Washington Aquifer Collaborative, Spokane Joint Aquifer Board, Spokane River Forum, and Spokane River Toxics Task Force organizations. The organizations are regional, and each of them provides outreach. The City of Spokane also partners with the Spokane Regional Health District, who performs regional voluntary pollution prevention business inspections.
6	S5.B.1.a.i.-iii.	Attach description of public education and outreach programs and stewardship activities conducted per S5.B.1.a.i.-iii.	COS 2022 PE&O Summary_6_03312023 043933
7	S5.B.1.a.ii.	Which types of businesses were targeted per S.5.B.1.a.ii.?	Restaurants, lodging/hospitality, property management, and automotive services business sectors
9	S5.B.2.a.	Describe in Comments field the opportunities created for the public to participate in the decision making processes involving the development, implementation, and updates of the Permittee's SWMP. (S5.B.2.a.)	The city provides many opportunities for public involvement and participation in its rule-making processes. Public involvement is a required component of the ordinance process, and involvement of any interested member of the public is encouraged through workshops, open houses, dedicated testimonial times, and a formal public comment period. Information on how to participate at City Council meetings and meeting agendas are provided on the city's City Council website prior to the occurrence of the meeting. Additionally, the public may attend City Council briefings, City Council hearings; Planning Commission workshops, Planning

Commission hearings, and any of the several Council Committee meetings (e.g. Finance and Administration Committee; Public Infrastructure, Environment, & Sustainability; and Public Safety & Community Health Committee). The city publishes the City Council Official Gazettes - City of Spokane, Washington (spokanecity.org), which contains the meeting minutes from the City Council hearings, and includes calls for bids for stormwater management, infrastructure, and funding projects that the public can participate with. Typical examples of opportunities for public involvement include rate structure discussions, stormwater mitigation grants and projects; stormwater infrastructure improvements; joint planning of the stormwater management plans; and, ordinance creation or revision, among others. Additionally, The city posts the SWMP Plan at Spokanestormwater.org annually. The public may provide comment on this plan at any time during the year by emailing the Wastewater Department Environmental Analyst at jgeorge@spokanecity.org. The city solicits online comments on the draft plan from the public for a 30-day period when the SWMP Plan is posted. After the 30-day period, the city will review the comments and update the plan as applicable and post the final version of the plan

			at Stormwater Management webpage at Spokanestormwater.org .
10	S5.B.2.b.	Posted the updated SWMP Plan and latest annual report on your website no later than May 31.	No
10a	S5.B.2.b.	List the website address in Comments field. (S5.B.2.b.)	https://my.spokanecity.org/publicworks/stormwater/management/
11	S5.B.3.a.	Maintained a map of the MS4 that includes the requirements listed in S5.B.3.a. (Updated maps required no later than August 1, 2023)	Yes
12	S5.B.3.a.i.	Attach a spreadsheet that lists the known outfalls and discharge points, including the outfalls' size and material(s). (Required to update no later than August 1, 2023, S5.B.3.a.i.)	Outfalls_Type&Materials_YE2022_12_03312023 045716
14	S5.B.3.b.	Implemented an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges as described in S5.B.3.b.	Yes
15	S.5.B.3.b.vii.	Updated ordinance or regulatory mechanism to meet the requirements of this permit, if necessary. (Required no later than February 2, 2023, S.5.B.3.b.vii.)	Not Applicable
16	S5.B.3.b.vi.	Implemented a compliance strategy, including informal compliance actions as well as enforcement provisions of the regulatory mechanism described in S5.B.3.b. (S5.B.3.b.vi.)	Yes
17	S5.B.3.c.	Implemented procedures for conducting illicit discharge investigations in accordance with S5.B.3.c.	Yes
18	S5.B.3.c.iv.	Percentage of MS4 coverage area screened in reporting year per S5.B.3.c.iv. (Required to screen 12% on average each year, S5.B.3.c.iv.)	89
18a	S5.B.3.c.iv.	Cite field screening techniques used to determine percent of MS4 screened.	Routine maintenance and inspections of catch basins, swales, outfalls, and drywells by fulltime stormwater crews and inspectors. Routine maintenance and inspections of stormwater pipes by TV van operators. Response to illicit discharge reports made to the City by the public and Ecology.
18b	S5.B.3.c.iv.	Percentage of total MS4 screened from permit effective date through end of the reporting year.	99

19	S5.B.3.c.v.	Describe how you publicized a hotline telephone number for public reporting of spills and other illicit discharges in the Comments field. (S5.B.3.c.v.)	The City of Spokane illicit discharge number is posted on the city's stormwater webpage (spokanestormwater.org), it is identified on brochures handed out to the public, and it is included in some social marketing posts on the city's Water Wise Spokane social channels.
20	S5.B.3.c.vi.	Implemented an ongoing illicit discharge training program for all municipal field staff per S5.B.3.c.vi.	Yes
21	S5.B.3.c.vii.	Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste. Describe actions in Comments field. (S5.B.3.c.vii.)	City of Spokane partners with the Spokane Regional Health District, and public education flyers with a focus on illicit discharges were provided to Spokane Regional Health to include with the information packet provided to businesses participating in the Pollution Prevention Program inspections. During response to illicit discharges the wastewater inspector provides educational flyers to the persons they engage. The City of Spokane provides support for the Spokane Kootenai Waste Directory whose mission is to provide guidance to the community on the proper disposal of wastes. Brochures focusing on illicit discharges and how to properly manage common stormwater impacting wastes were handed out at events. The hotline is published on the city's stormwater webpage.
22	S5.B.3.d.	Implemented an ongoing program designed to address illicit discharges, including spills and illicit connections into the MS4 per S.5.B.3.d.	Yes
23	S5.B.3.e.	Implemented an ongoing illicit discharge training program for all staff responsible for implementing the procedures and program, as described in S5.B.3.e.	Yes

24	S5.B.3.f.	Attach a report with data describing the actions taken to investigate, characterize, trace and eliminate each illicit discharge found by or reported to the permittee. The submittal must include all of the applicable information and must follow the format and timelines described in Appendix 7. (S5.B.3.f.)	IDDE2022_in_DOE_Schema_24_03312023044716
25	S5.B.4.a.	Implemented an ordinance or other regulatory mechanism and enforcement procedures for construction site stormwater runoff control as described in S5.B.4.	Yes
26	S5.B.4.a.i.-iv.	Adopted ordinance or other regulatory mechanism and enforcement procedures for construction site stormwater runoff control as described in S5.B.4.a.i.-iv. (Required no later than December 31, 2022)	Yes
26a	S5.B.4.a.i.-iv.	Cite code reference.	SMC Chapter 17D.090 Erosion and Sediment Control
27	S5.B.4.b.	Reviewed site plans for all new development and redevelopment projects as described in S5.B.4.b.	Yes
27a	S5.B.4.b.i.	Number of site plans reviewed during the reporting period. (S5.B.4.b.i.)	195
27b	S5.B.4.b.i.	The number of construction sites that provided their intent to apply for the "Erosivity Waiver" during the reporting period as described in S5.B.4.b.i.	0
27c	S5.B.4.b.i.	The number of complaints investigated about sites that have received an "Erosivity Waiver". (S5.B.4.b.i.)	0
28	S5.B.4.	Implemented procedures for site inspection and enforcement of construction stormwater pollution control measures. (S5.B.4.)	Yes
28a	S5.B.4.c.i.	Number of permitted construction sites inspected during the reporting period. (S5.B.4.c.i.)	70
28b	S5.B.4.f.	Number of enforcement actions taken during the reporting period based on construction phase inspections at new development and redevelopment projects. (S5.B.4.f.)	0
29	S5.B.4.d.	Trained the staff involved in permitting, plan review, field inspections, and enforcement for construction site runoff control. (S5.B.4.d.)	Yes
30	S5.B.4.e.	Provided information to construction site operators and design professionals about training available on how to comply with the requirements in Appendix 1 and the BMPs in the SWMMEW, or an equivalent document. Describe information provided in the Comments field. (S5.B.4.e.)	Yes

30a	S5.B.4.e.	Describe information provided in the Comments field. (S5.B.4.e.)	The Developer Services Center works with developers, their engineers, and the contractors through the entire process from design to construction to issuance of Certificate of Occupancy. Early in the process the Center engineers hold a predevelopment meeting to go over the project and what will be required. A summary of the meeting is provided to the project proponents afterward, and in the summary, it identifies opportunities to receive CESCL training.
31	S5.B.5.a.	Implemented ordinance or other regulatory mechanism and enforcement procedures to address post-construction stormwater controls runoff to the MS4 from new development and redevelopment as described in S5.B.5.a.	Yes
32	S5.B.5.a.	Revised ordinance or other regulatory mechanism and enforcement procedures to address post-construction stormwater controls runoff to the MS4 from new development and redevelopment as described in S5.B.5.a. (Adopted no later than December 31, 2022)	Yes
32a	S5.B.5.a.	Cite code reference	Spokane Municipal Code Chapter 17D.060 Stormwater Facilities
33	S5.B.5.b.ii.(a)	Allowed non-structural preventive actions and source reduction approaches such as Low Impact Development (LID) techniques to be used. (S5.B.5.b.ii.(a))	Yes
34	S5.B.5.b.ii.(b)(2)	Required projects approved under S5.B.5. to retain runoff generate on-site for, at a minimum, the 10-year, 24-hour rainfall event or a local equivalent, using either on-site or regional stormwater facilities. (S5.B.5.b.ii.(b)(2))	Yes
35	S5.B.5.d.	Inspected post-construction stormwater controls, including structural BMPs, at new development and redevelopment sites. (S5.B.5.d.)	Yes
35a	S5.B.5.d.i.	Number of new and redeveloped sites inspected during installation of structural BMPs during the reporting period. (S5.B.5.d.i)	70
35b	S5.B.5.d.i.	Number of new and redeveloped sites inspected upon final installation of BMPs or upon completion of the project during the reporting period. (S5.B.5.d.i.)	46
36	S5.B.5.d.ii.	Inspected structural BMPs at least once every five years after final installation. (S5.B.5.d.ii.)	No

37	S5.B.5.d.	Number of enforcement actions taken as a result of these inspections during the reporting period? (S5.B.5.d.)	0
38	S5.B.5.e.	Trained the staff involved in permitting, plan review, inspection, and enforcement for post-construction stormwater control. (S5.B.5.e.)	Yes
39	S5.B.5.f.	Provided information to design professionals about training available on how to comply with the requirements in Appendix 1 and apply the BMPs in the SWMMEW, or an equivalent document. (S5.B.5.f.)	Yes
39a	S5.B.5.f.	Describe information provided and cite the manual used	All design professionals are directed to use the Spokane Regional Stormwater Manual when submitting plans for the City of Spokane to review for permitting, and the following guidelines are provided in pre-construction meetings: City of Spokane Stormwater Compliance Guide https://spokaneriver.net/wpcontent/uploads/2016/04/spokanestormwaterguide.pdf Additionally, during the pre-development meeting and in the pre-development meeting notes that following statement is provided. "The following link provides information on ESC training and certification programs: https://ecology.wa.gov/Regulations-Permits/Permits/certifications/Certified-erosion-sediment-control "
40	S5.B.6.a.	Reviewed and, if needed, updated Operations and Maintenance Plan. (Required no later than December 31, 2022, S5.B.6.a.)	Yes
41	S5.B.6.a.	Implemented the schedule of Operation and Maintenance activities for municipal operations. (S5.B.6.a.)	Yes
42	S5.B.6.a.i.(f) and (g)	Have NPDES permit coverage for all applicable Permittee construction projects and industrial facilities. (S5.B.6.a.i.(f) and (g))	Yes
43	S5.B.6.a.i.(h)	Implemented a Stormwater Pollution Prevention Plan 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.B.6.a.i.(h))	Yes

44	S5.B.6.a.ii.(a)	Inspected stormwater treatment and flow control facilities (except catch basins) owned or operated by the Permittee at least once every two years. (S5.B.6.a.ii.(a))	Yes
44a	S5.B.6.a.ii.(a)	Number of facilities inspected during the reporting period.	1246
45	S5.B.6.a.ii.(b)	Inspected municipally owned or operated catch basins and inlets every two years or used an alternative approach? (Required at least once every two years, S5.B.6.a.ii.(b))	Yes
45a	S5.B.6.a.ii.(b)	Number of known catch basins.	21846
45b	S5.B.6.a.ii.(b)	Number of catch basins inspected during the reporting period.	19491
45c	S5.B.6.a.ii.(b)	Number of known catch basins cleaned during the reporting period.	1804
46	S5.B.6.a.ii.(b)	If used an alternative to standard schedule for catch basin inspections for all or a portion of the MS4, attach description of the method used. (S5.B.6.a.ii.(b))	Not Applicable
47	S5.B.6.a.ii.(c)	Conducted spot checks of stormwater facilities after major storms. (S5.B.6.a.ii.(c))	Yes
48	S5.B.6.b.	Trained the staff with primary construction, operations, or maintenance job functions that are likely to impact stormwater quality. (S5.B.6.b.)	Yes
49	S7.A.	Complied with the Total Maximum Daily Load (TMDL)-specific requirements identified in Appendix 2. (S7.A.)	Yes
50	S7.A.	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.)	COS TMDL Summary 2022_50_03312023045239
51	S8.A.	Attach a summary of your participation in effectiveness study development and implementation during the reporting year. (S8.A.1. and S8.A.2.a.)	COS Effectiveness Study Summar_51_03312023045251
53	S8.A.	Was a detailed study design proposal submitted? (Required to submit by September 30, 2022, S8.A.2.c.)	Yes
56	S8.A.	Was the SWMP updated to include effectiveness study activities? (S8.A.2.f.)	Yes
57	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
58	G3.A.	Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment per G3.A.	Yes

58a	G3.A.	Actions taken to correct or minimize the threat to human health, welfare, and/or the environment per G3.A.	No discharges occurred which could constitute a threat to human health, welfare, or the environment. The City did not take actions to correct or minimize the non-existent threat to human health, welfare, and/or environment due to discharges, per G3.A.
59	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
60	G20.	Number of non-compliance notifications provided in reporting year. (G20.)	4
60a	G20.	List permit conditions described in non-compliance notification(s)	<p>- S5.B.3.f - Illicit Discharge Detection and Elimination, G20 for submitting a pdf file in lieu of an xml file of the summary of illicit discharges</p> <p>- S5.B.2.b - Public involvement and Participation, G20 for posting the SWMP Plan and Annual Report online on June 3rd instead of May 31st.</p> <p>- G20 - Non-compliance Notification, G20 for not submitting a G20 for posting the annual report online June 3rd instead of May 31st</p> <p>- Section S5.B.1.b - Public Education and Outreach, G20 for not prematurely performing a follow up survey to a baseline survey by December 31st, 2021</p>
61	S4.F.1.	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.)	Not Applicable
62	S4.F.3.a.	If requested, submitted an Adaptive Management Response report in accordance with S4.F.3.a.	Not Applicable
63	S4.F.3.d.	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

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.

Raylene Gennett

3/31/2023 7:30:49 AM

Signature

Date



Annual Stormwater Report Reporting Year 2022

Description of Public Education & Outreach Activities and Audiences

Public Education & Outreach PE&O efforts were focused on the general public; restaurants, lodging/hospitality, property management, and automotive services business sectors; and development engineers and contractors as the target audiences.

General Public

In 2019, the city conducted a survey that established a baseline measurement of the stormwater knowledge base in the general public. The 2019 survey results indicated that there is room to improve the knowledge base on illicit discharges and the function, and maintenance responsibilities, of stormwater treatment facilities. The survey had nearly 1400 respondents, and the information received from the survey was used to tailor outreach for the years 2020-2022 using social messaging focused on illicit discharges and stormwater treatment facilities.

In order to increase the knowledge base of the general public, with the ultimate goal swale ownership and stormwater stewardship, stormwater messaging was delivered via social media channels by the Water Wise campaign. The campaign has a large presence on social media, and can also be found on the city's Water Wise webpage ([Waterwisespokane.org](https://www.waterwisespokane.org)). Additionally, videos focusing on awareness of stormwater facilities and their required maintenance were available on the city's stormwater webpage ([Spokanestormwater.org](https://www.spokanestormwater.org)). The videos also have a presence on Cable Channel 5 as filler between scheduled programs. A summary of the work product contracted to create videos and manage social media is included as Attachment A.

A follow-up to the 2019 survey was performed in fall of 2022. The follow-up survey was promoted through the City of Spokane website and social media channels (i.e. Water Wise Spokane) and was made available online. The 2022 survey received responses from 712 participants, and the results were evaluated against the 2019 survey results. The results from 2022 look very similar to the results from 2019, but indicate that the general knowledge on stormwater behavior and management has slightly improved, but that there is still an opportunity to increase knowledge of the general public around stormwater.

Business Sectors

The city continued to partner with Spokane Regional Health District (SRHD), who receives Ecology funding for the Pollution Prevention program, where the SRHD provides stormwater messaging regarding illicit discharges and source control during their voluntary site inspections. The SRHD focused on the restaurant, lodging/hospitality, property management, and automotive services

business sectors. The SRHD performed 13 business screenings, 49 initial site visits, and 32 follow-up site visits to businesses in the City of Spokane, where 22 spill kits were provided to businesses in need. The SRHD summary can be found as Attachment C.

Developers, Engineers, and Contractors

The City of Spokane Developer Services Center works with construction project proponents from the design phase through permitting and issuance of a Certificate of Occupancy. Throughout that process the center provides input on standard methods, and guidance materials for stormwater management. During the standard pre-development meetings, city engineers meet with developers and their engineers and contractors and discuss the scope of the project to include stormwater requirements and training opportunities. The pre-development meeting notes notify the project proponents of opportunities to receive stormwater training.

Additionally, project proponents are provided access to two guidance documents by Developer Services Center during the permitting process: The *City of Spokane Stormwater Compliance Guide*, and the informational guide document *Understanding Stormwater Permitting in the City of Spokane*. Each document contains helpful information on the local permitting process with respect to the stormwater requirements, as well as numerous links to additional educational stormwater materials.

Construction stormwater guidance materials have been cooperatively generate by the Developer Services Center and the Wastewater Management Department to assist development contractors and engineers navigate the requirements for obtaining a Construction Stormwater General Permit from Ecology, as well as to understand the expectations for the implementation of Best Management Practices on an active site. Also, training opportunities for development contractors and engineers have been memorialized on a flyer that is housed in the online resources folder of the commercial construction permitting city webpage.

Attachment A

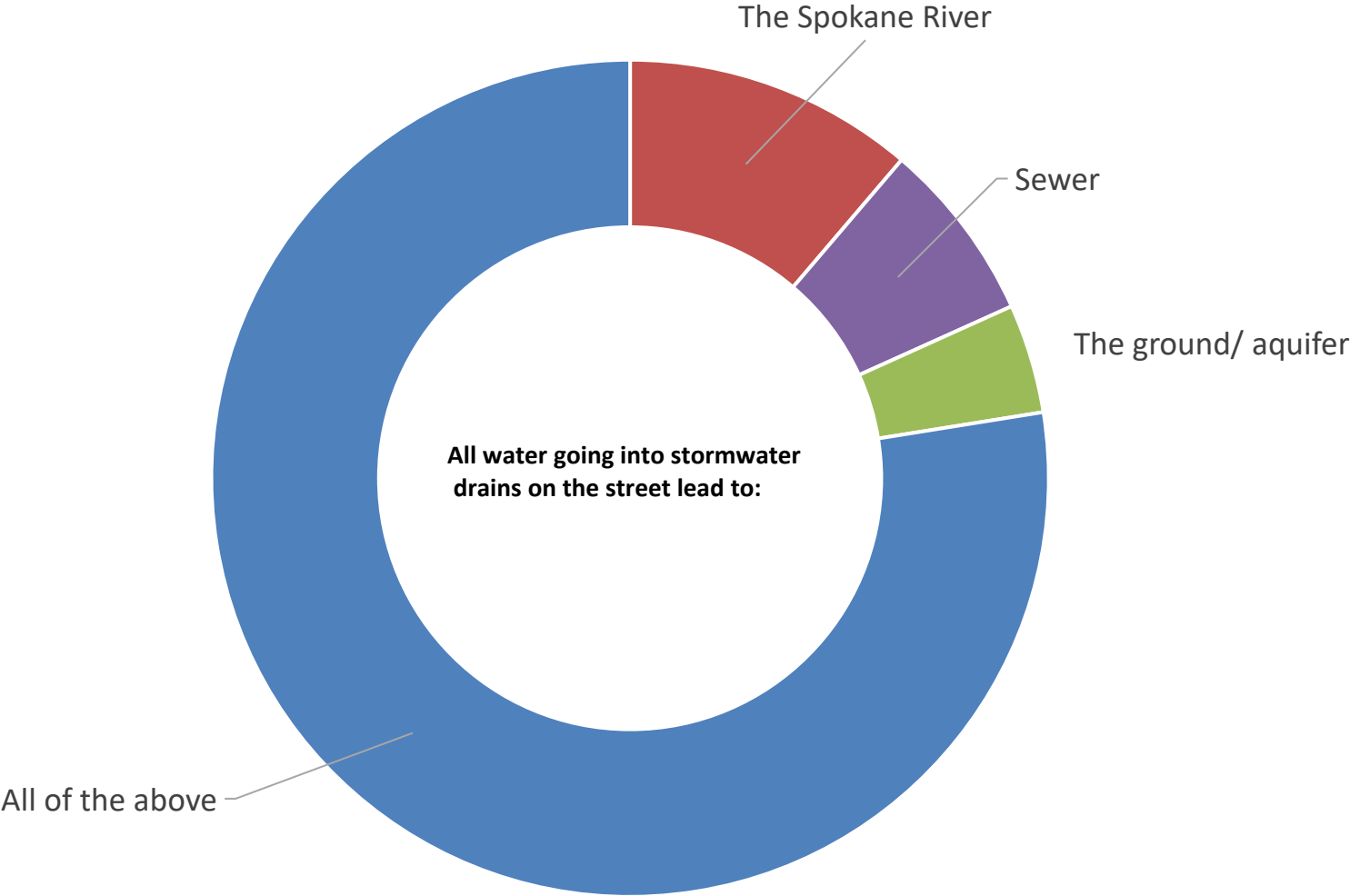
Stormwater Ads Jan-1-2022 to Dec-31-2022



Ad name	Reach	Impressions	Amount spent (USD)	Starts	Ends	CPM (cost per 1,000 impressions)	Link clicks	CPC (cost per link click)	CTR (link click-through rate)	Notes
New Brand awareness Ad	36865	135420	450.00	2022-04-26	2022-05-31	3.32	98.00	4.59	0.07	"Clean stormwater for a clean river" video
SRHD - Ad	1881	3595	39.46	2022-06-15	2022-07-01	10.98	9.00	4.38	0.25	
Stormwater Keep It Clean Video	26888	81976	268.94	2022-06-22	2022-07-31	3.28	62.00	4.34	0.08	
Stormwater SRHD Updated Copy	980	1278	5.68	2022-06-22	2022-07-31	4.44				
Stormwater Spokane Indians Baseball	42015	145213	450.00	2022-06-22	2022-07-31	3.10	162.00	2.78	0.11	SRHD
New Awareness Ad	3357	3453	7.78	2022-08-03	2022-08-17	2.25	3.00	2.59	0.09	
Stormwater Spokane Indians Baseball	24729	74102	250.00	2022-08-18	2022-09-11	3.37	95.00	2.63	0.13	
Stormwater Survey	48111	187190	1000.00	2022-10-26	2022-11-16	5.34	1154.00	0.87	0.62	
Post: "😄Cool story alert! 🌧️ The Cochr	15944	42818	500.00	2022-11-01	2022-11-30	11.68	145.00	3.45	0.34	

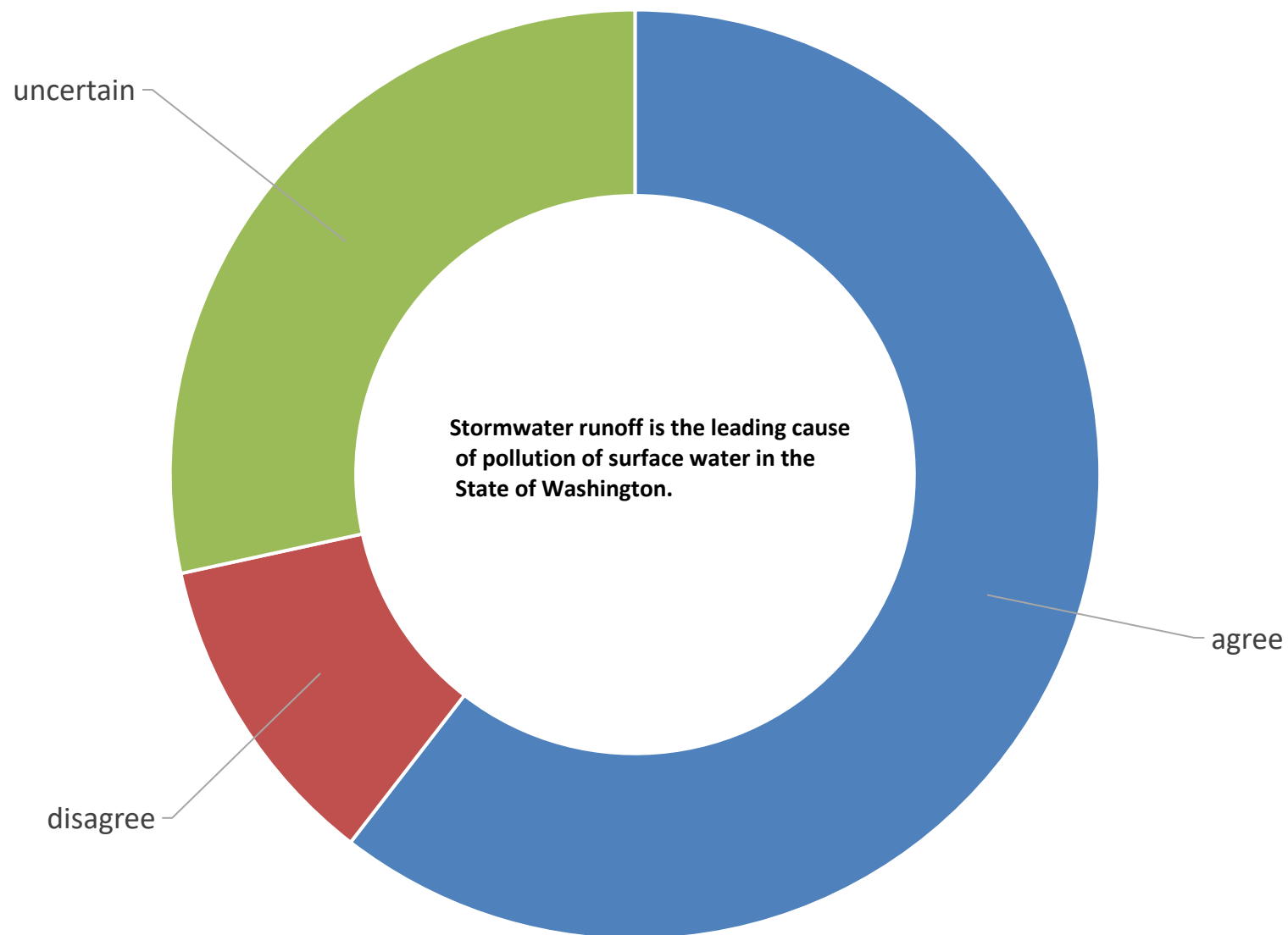
Attachment B

City of Spokane 2022 Stormwater Survery



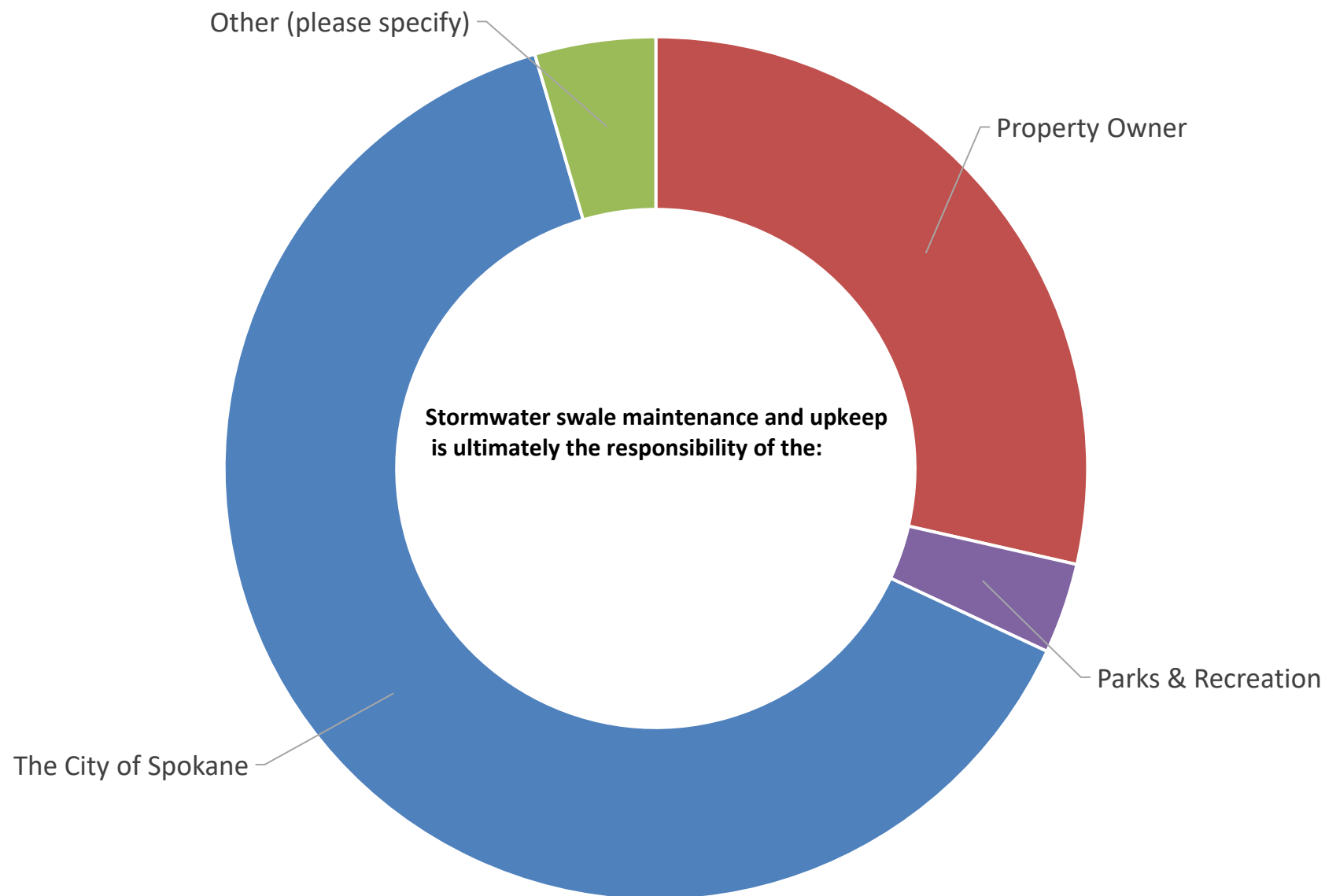
Source: 2022 online Survey

City of Spokane 2022 Stormwater Survey



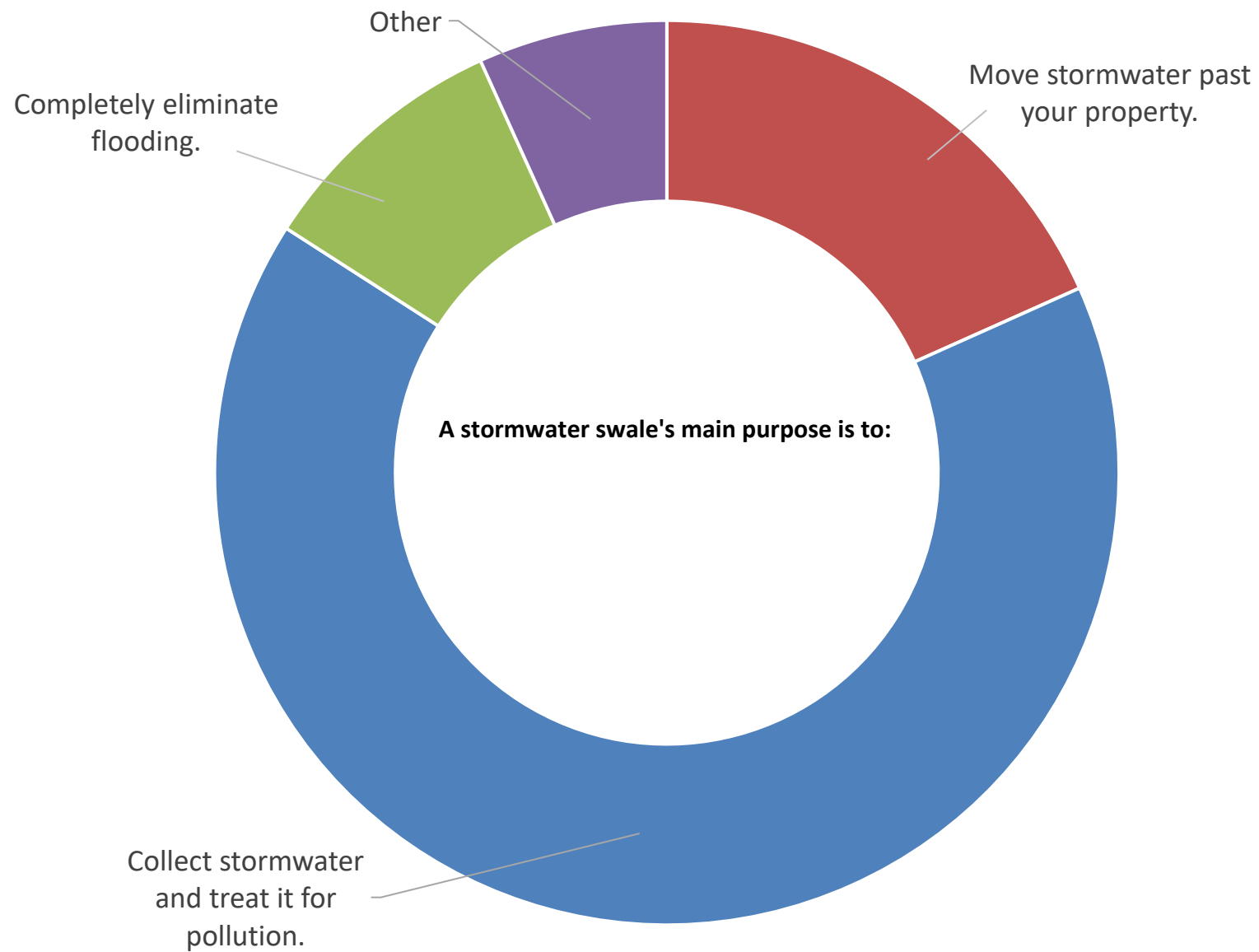
Source: 2022 online Survey

City of Spokane 2022 Stormwater Survey



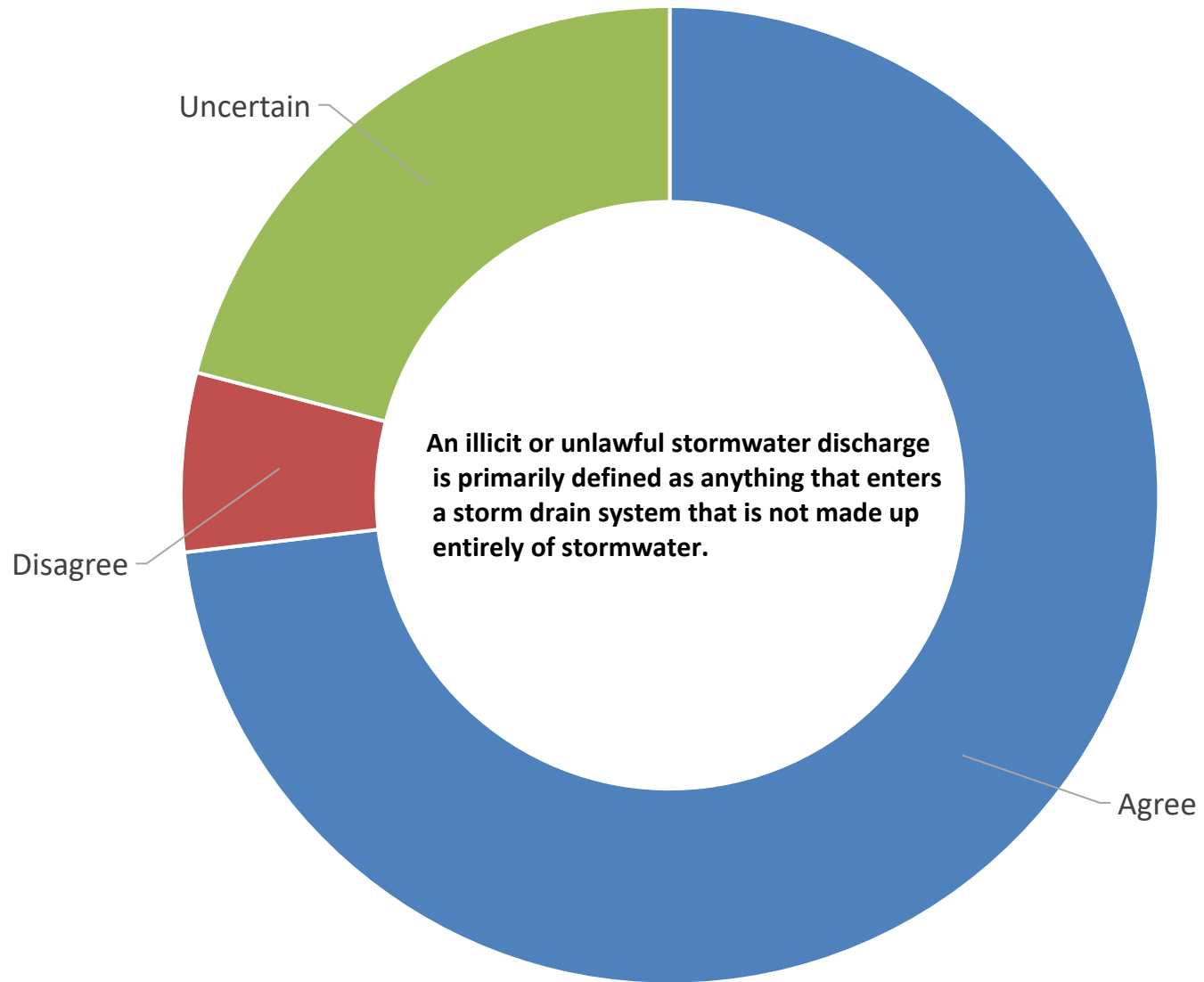
Source: 2022 online Survey

City of Spokane 2022 Stormwater Survey



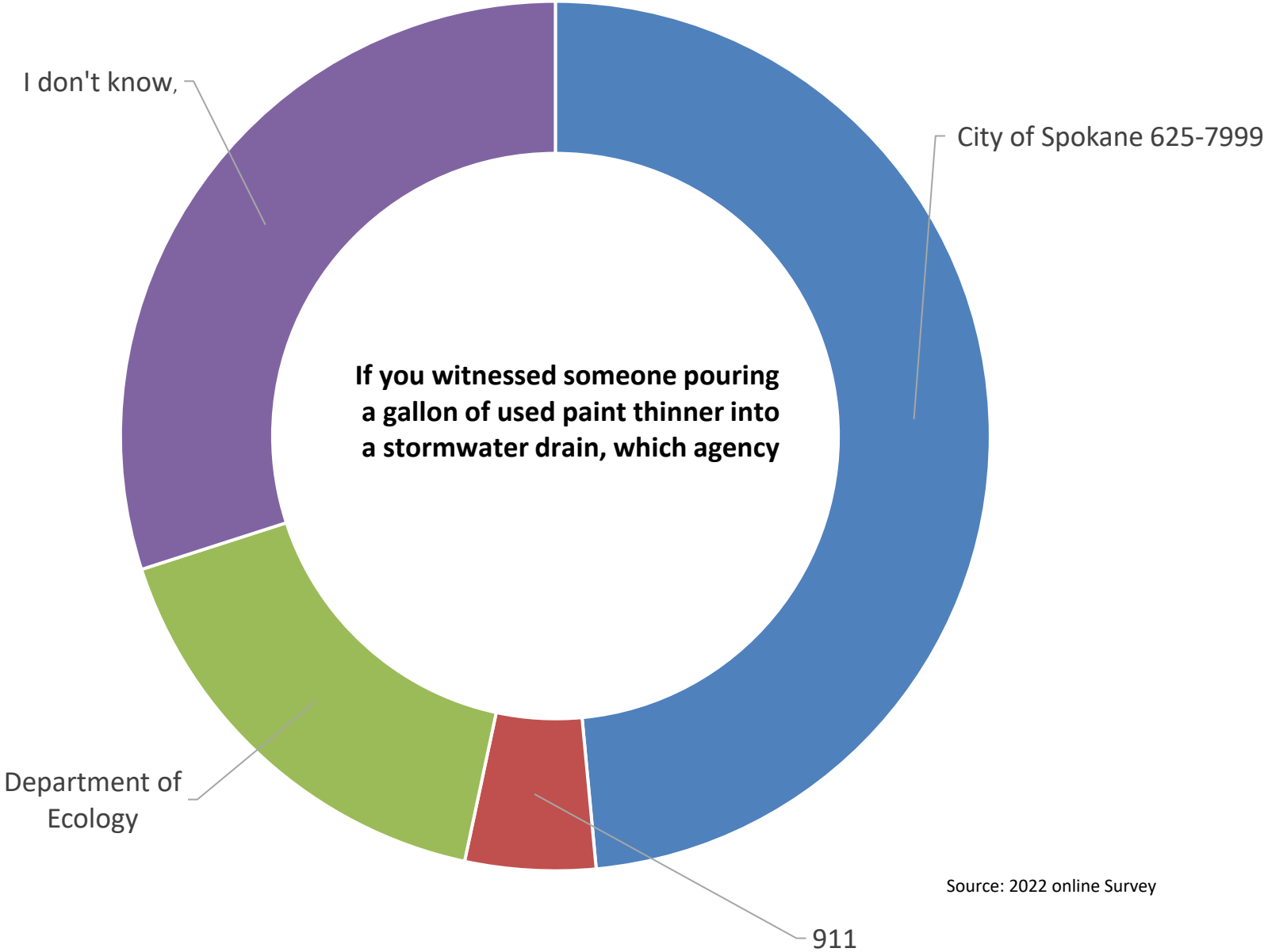
Source: 2022 online Survey

City of Spokane 2022 Stormwater Survery



Source: 2022 online Survey

City of Spokane 2022 Stormwater Survery



Attachment C

**Spokane Regional Health District
Pollution Prevention Visits located within
the City of Spokane**

January 1, 2022- December 31, 2022

Site Visit Information	
Number of Initial Site Visits During the Reporting Period:	49
Number of Screening Site Visits During the Reporting Period:	13
Number of Follow-up Site Visits During the Reporting Period:	32
Total Number of Site Visits During the Reporting Period:	94
Site Visit Definitions	
<ul style="list-style-type: none">• <i>Initial Site Visit</i>- occurs at the actual site and results in a completed 'checklist' (or enough data gathered to complete data entry into the Pollution prevention Database• <i>Screening Visit</i>- an attempted visit to the site, but the business declined or put off the visit and unable to gather complete data, or the business does not exist anymore.• <i>Follow-up Visit</i>- Should occur within 90 days of the initial visit. The follow-up visit must be conducted to resolve high priority environmental issues.	
Sector Focus Areas	
<p>We focused on the following sectors:</p> <ul style="list-style-type: none">• Restaurants/Grocery Stores- focus was talking to the restaurants and grocery stores about food rescue and getting them interested and certified in EnviroCertified Food Rescue• Automotive Facilities• Any other sectors that we have received complaints on that are Small Quantity Generators (SQG's).	

Means of Communication to the businesses

- Website- srhd.org- on our pollution prevention page, we have resources, industry specific handouts, and how we can help information. ([Services | SRHD](#))
- We do face to face pollution prevention technical assistance visits to small quantity generators. During these visits, handouts are provided to the business that are sector specific.
- When asked, we do joint inspections with Stormwater folks and follow up on any complaints that are referred to us.
- Handouts provided during the visit include, but are not limited to:
 - Pollution prevention program, Ecology handouts, Stormwater good housekeeping practices, paint care, EnviroCertified brochure, light recycle, understanding the Spokane River, and any other sector specific handouts, or handouts provided by the Stormwater jurisdiction to include.
- Social Media- we have done social media posts on the SRHD Facebook, Instagram, and Twitter accounts.
- SRHD did a Stormwater video with the City of Spokane, talking about what we do in the pollution prevention program and visited a business for a mock PPA visit.
<https://www.facebook.com/waterwisepokane/videos/739662444136337>



Annual Stormwater Report Reporting Year 2022

Summary of Applicable TMDL Requirements in Appendix 2 of the Permit

Stormwater from the Cochran Basin in the northwest portion of the City of Spokane was monitored from 2016 – 2019. Continuous flow rates were recorded, and analyses was performed on stormwater samples for temperature, pH, total suspended solids (TSS), carbonaceous biological oxygen demand (CBOD), phosphorus, ammonia, and polychlorinated biphenyls (PCBs). The City submitted the Cochran Basin Dissolved Oxygen (DO) TMDL Stormwater Monitoring Report to Ecology in June 2020, which presented the monitoring results for the basin for the years 2016 – 2019 in accordance with Appendix 2 of the permit.

The monitoring data indicated that the City exceeded the assumptive modeled Waste Load Allocations in 2016 and 2017 for CBOD, and in 2019 for ammonia. Given the WLA exceedances, the Stormwater TMDL Waste Load Reduction Action Plan was submitted to Ecology on August 6, 2020, which detailed the construction of stormwater infrastructure that will ultimately eliminate discharges from Cochran Basin into the river for storms up to the size of the 6-month design storm. In support of treatment for Cochran Basin stormwater runoff, the City evaluated treatment facility design options at properties near or within the basin. The evaluation determined that the preferred design option would be to construct three separate treatment facilities near the current Cochran Basin stormwater outfall. The three bioretention facility locations will be at TJ Meenach Drive and Northwest Boulevard, the Disc Golf Course at Downriver, and the Boat Launch facility near the TJ Meenach Bridge. Flows to each facility will be managed from a single common flow control vault in Cochran Street between Cleveland and Grace Avenues. The flow control vault will distribute prescribed flows to each of the facilities, and will bypass flows in excess of the 6-month design storm to the existing outfall which discharges to the Spokane River.

Monitoring continued to be conducted in 2020, 2021, and 2022 in accordance with the protocols established in the Cochran Basin DO TMDL Stormwater Sampling Quality Assurance Project Plan (QAPP). Six qualifying storm events were monitored and sampled for phosphorus, ammonia, CBOD, and flow rates, among other parameters, in 2020. Five qualifying storm events were monitored and sampled for phosphorus, ammonia, CBOD, and flow rates, among other parameters, in 2021. Five qualifying storm events were monitored and sampled for phosphorus, ammonia, CBOD, and flow rates, among other parameters, in 2022. Additionally, three baseflow sample events for non-stormwater flow that for phosphorus, ammonia, CBOD, and flow rates, among other parameters, occurred in 2022. Monitoring for phosphorus, ammonia, CBOD, and flow rates, among others, will continue to be conducted in accordance with the QAPP through the end of the permit cycle in July 2024. Monitoring results were tabulated and uploaded into Ecology's Environmental Information Management (EIM) database for the year 2022 data.

The data collected from the 2020, 2021, and 2022 monitoring has been evaluated, and the monitored constituents appear to be below the waste load allocations. Comments have not been received on the methodologies used to write the Cochran Basin Dissolved Oxygen TMDL Stormwater Monitoring Report that was submitted in June 2020, and the approaches used to calculate the waste loads has not been validated by Ecology. Upon receipt of comments back from Ecology on the report submitted in June 2020 confirming the approaches to calculating the waste loads are valid, the city will generate reports of the results of the annual monitoring performed in 2020 and 2021.

AssetID	UnitID	UnitType	OwnedBy	ServiceStatus	Location	Materials	Diameter
42300	2200100ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE FROM STORM MH AT INT OF CREST VIEW		21
42387	1500100ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH AT SOUTH RIVERTON	Corrugated Metal Pipe	21
42389	1600100ND	Outfall to Surface Water	CITY	ACTV	SE CORNER OF BRIDGE FROM STORM MH AT GREENE/MARSHALL	Reinforced Concrete Pipe	20
42407	1700100ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH AT UPRIVER DR	Corrugated Metal Pipe	18
42422	1300200ND	Outfall to Surface Water	CITY	ACTV	E OF SUPERIOR FROM STORM MH ON SPRINGFIELD	Corrugated Metal Pipe	12
42434	1300300ND	Outfall to Surface Water	CITY	ACTV	AT BRIDGE FROM MH ON TRENT	Ductile Iron Pipe	24
42793	0980300ND	Outfall to Surface Water	CITY	ACTV	STORM OUTFALL ON E SIDE OF BRIDGE	Ductile Iron Pipe	18
42885	0100200ND	Outfall to Facility	CITY	ACTV	W OF SKYLINE	Ductile Iron Pipe	8
43015	1600200ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH ON S SIDE OF UPRIVER DR	Corrugated Metal Pipe	15
43020	1500200ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH AT UPRIVER DR		
43055	1400100ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH E OF WWP N OF MISSION	Ductile Iron Pipe	21
43439	9000500ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH N OF 1ST AVE	Polyvinylchloride Pipe (PVC)	15
43440	9000600ND	Outfall to Ground	CITY	ACTV	FROM STORM MH S OF 43RD	Polyvinylchloride Pipe (PVC)	15
43445	1300800ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM POST OFFICE TERMINAL	Concrete Pipe	48
43454	9000700ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH ON AZALEA W OF SOUTHCLIFF	Concrete Pipe	12
43462	0400100ND	Outfall to Surface Water	CITY	ACTV	N OUTFALL AT CORA EXT.		18
43464	0400200ND	Outfall to Surface Water	CITY	ACTV	S OUTFALL AT CORA EXT.		18
43481	1301000ND	Outfall to Surface Water	CITY	ACTV	AT EXTENSION OF STREET FROM STORM MH E OF SUPERIOR	Steel Pipe	12
43483	1301100ND	Outfall to Surface Water	CITY	ACTV	E SIDE OF STREET FROM STORM MH S OF CATALDO	Reinforced Concrete Pipe	36
43485	1200200ND	Outfall to Surface Water	CITY	ACTV	N SIDE OF RIVER S OF CATALDO	Corrugated Metal Pipe	25
43488	1000100ND	Outfall to Surface Water	CITY	ACTV	HOWARD OUTFALL, E/O BRIDGE, N/O RIVER	Concrete Pipe	14
43491	1800100ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH AT DESMET/S RIVERTON	Reinforced Concrete Pipe	30
44850	1400200ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON NE CORNER	Steel Pipe	12
44853	1400300ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB, UPRIVER DR E/O GRANITE	Steel Pipe	10
44856	1400400ND	Outfall to Surface Water	CITY	ACTV	FROM 2ND CB ON N SIDE E OF GRANITE	Steel Pipe	6
44859	1500400SN	Outfall to Surface Water	CITY	ACTV	FROM CB ON N SIDE E OF CRESTLINE	Steel Pipe	6
44865	1500600ND	Outfall to Surface Water	CITY	ACTV	FROM 2ND CB ON E SIDE N OF MISSION	Steel Pipe	6
44890	1501100ND	Outfall to Surface Water	CITY	ACTV	FROM CB E OF STONE	Steel Pipe	8
44903	1501400ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON NW CORNER OF MARSHALL/GREENE		8
44917	1501600ND	Outfall to Surface Water	CITY	ACTV	FROM CB UNDER S END OF GREENE ST BRIDGE ON UPRIVER	Polyvinylchloride Pipe (PVC)	8
44922	1501700ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON NE CORNER	Concrete Pipe	8
44927	1600300ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON NW CORNER		8
44934	1600400ND	Outfall to Surface Water	CITY	ACTV	N SIDE OF RIVER FROM CB ON S SIDE W OF REBECCA	Steel Pipe	10
44937	1800200ND	Outfall to Surface Water	CITY	ACTV	FROM CB S OF CORNER	Steel Pipe	8
45031	2000300ND	Outfall to Ground	CITY	ACTV	FROM STORM MH ON W SIDE OF 7TH/DIVISION		15
45038	2000400ND	Outfall to Ground	CITY	ACTV	FROM STORM MH S OF 6TH/W OF DIVISION		12
45107	0900900ND	Outfall to Surface Water	CITY	ACTV	S OF BRIDGE AVE FROM CB AT INT	Ductile Iron Pipe	8
45112	0901000ND	Outfall to Surface Water	CITY	ACTV	S OF BROADWAY FROM CB AT INT	Vitrified Clay Pipe	8
45122	0901200SN	Outfall to Surface Water	CITY	ACTV	SE CORNER OF BRIDGE FROM CB	Concrete Pipe	10
45161	1101900ND	Outfall to Surface Water	CITY	ACTV	W/O DIVISION N/SIDE OF THE RIVER	Concrete Pipe	12
45201	9000800ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH IN NE CORNER OF PROPERTY	Vitrified Clay Pipe	8
45205	9001200ND	Outfall to Surface Water	CITY	ACTV	FROM MB S OF SE CORNER OF LATAH CREEK BRIDGE	Concrete Pipe	8
45208	9001000ND	Outfall to Surface Water	CITY	ACTV	FROM CB S OF SW CORNER OF BRIDGE @ LATAH CRK		8
45249	0100300ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO FIELD S OF WEDGEWOOD		8
45251	0100400ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO FIELD TO EAST S OF WEDGEWOOD		8
45253	0100500ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO FIELD TO WEST		8
45256	9001300ND	Outfall to Ground	CITY	ACTV	FROM CB W OF SW CORNER	Reinforced Concrete Pipe	21
45288	9001700ND	Outfall to Ground	CITY	ACTV	NEC OUTFALL A ST/HIGHBRIDGE	Ductile Iron Pipe	12
45561	1200100ND	Outfall to Surface Water	CITY	ACTV	N SIDE OF RIVER S OF DESMET	Concrete Pipe	8
45965	1400500ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON W SIDE BET MISSION AND WWP	Polyvinylchloride Pipe (PVC)	15
46193	2000500ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH ON S SIDE OF INT	Concrete Pipe	6
46195	2001100ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH AT INT OF SPRUCE	Vitrified Clay Pipe	10
46230	2001200ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH AT LINDEKE		20
46283	2000600ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON S SIDE W OF LINDEKE	Corrugated Metal Pipe	8
46286	2000700ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON SE CORNER OF INT AT COEUR D' ALENE		8
46623	9003000ND	Outfall to Ground	CITY	ACTV	FROM CB ON N SIDE N OF GRANDVIEW		6
46633	9003200ND	Outfall to Ground	CITY	ACTV	FROM CB ON S SIDE W OF D ST EXT		6
46636	9003300ND	Outfall to Ground	CITY	ACTV	FROM CB ON N SIDE W OF D ST EXT		6
46641	9003400ND	Outfall to Ground	CITY	ACTV	FROM CB ON N SIDE E OF D ST EXT		6
46646	9003500ND	Outfall to Ground	CITY	ACTV	FROM CB ON S SIDE W OF C ST		6
46651	9003600ND	Outfall to Ground	CITY	ACTV	FROM CB ON S SIDE E OF C ST		6
46824	9003700ND	Outfall to Surface Water	CITY	ACTV	OUTFALL S/OF WOODLAND/TRINITY CIR	Vitrified Clay Pipe	6
46831	9003936ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON W SIDE OF D	Polyvinylchloride Pipe (PVC)	8
46837	9004100SN	Outfall to Surface Water	CITY	ACTV	FROM CB ON NE CORNER	Vitrified Clay Pipe	6
46857	9004400ND	Outfall to Surface Water	CITY	ACTV	FROM CB ON E SIDE N OF 13TH TEES INTO CULVERT THAT STREAM PASSES THROUGH	Concrete Pipe	8
46904	9004500ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM W/SIDE CB TRICIA CT S/O MYRTLE	Polyvinylchloride Pipe (PVC)	8
47374	9004600ND	Outfall to Ground	CITY	ACTV	FROM CB ON SE CORNER TO FIELD		8
48037	9005000ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE/POND TO EAST	Corrugated Metal Pipe	36
48059	9005100ND	Outfall to Ground	CITY	ACTV	FROM CB ON N SIDE W OF PEPPER TREE		8
49094	1000200SN	Outfall to Facility	CITY	ACTV	OUTFALL TO SE FROM CB ON SE CORNER	Corrugated Metal Pipe	6
49099	1000300SN	Outfall to Facility	CITY	ACTV	OUTFALL TO SE FROM CB ON SE CORNER		8
49530	0101900ND	Outfall to Ground	CITY	ACTV	OUTFALL OVER BANK S OF LINCOLN RD	Polyvinylchloride Pipe (PVC)	8
52014	1300100ND	Outfall to Surface Water	CITY	ACTV	FROM STORM MH AT RIVERPOINT VILLAGE	Polyvinylchloride Pipe (PVC)	18
52019	9001100ND	Outfall to Facility	CITY	ACTV	FROM CB NE CORNER	Ductile Iron Pipe	8
54229	0109600ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND	Ductile Iron Pipe	24
56470	4300400ND	Outfall to Surface Water	CITY	ACTV	CSO #22 OUTFALL - 0.25 MILES DOWNSTREAM OF MAPLE ST BRIDGE. DISCHARGES TO SPOKANE RIVER (SOUTH BANK)	Ductile Iron Pipe	36
57993	0502500SN	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB TO NORTH ON E SIDE OF MEENACH BRIDGE	Corrugated Metal Pipe	24
61881	0802000ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SAND PIT ON NE CORNER	Reinforced Concrete Pipe	48
64455	1302900ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM CB ON N SIDE W OF DENVER	Polyvinylchloride Pipe (PVC)	8
67937	9011900ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM 36" CULVERT UNDER REGAL ST	Polyvinylchloride Pipe (PVC)	24
69685	1600800ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB UNDER N END OF GREENE ST BRIDGE	Ductile Iron Pipe	8
71568	1902800ND	Outfall to Surface Water	CITY	ACTV	OUTFALL W OF ELM	Corrugated Metal Pipe	12
71571	1902700ND	Outfall to Surface Water	CITY	ACTV	OUTFALL ON W SIDE ON N SIDE OF RIVER	Concrete Pipe	15
71388	1601100ND	Outfall to Surface Water	CITY	ACTV	OUTFALL N SIDE OF CAMPUS	Corrugated Metal Pipe	24
75420	1002600SN	Outfall to Ground	CITY	ACTV	OUTFALL OVER BANK FROM CB ON W SIDE W OF SUMMIT BLVD	Vitrified Clay Pipe	12
75433	2300300ND	Outfall to Surface Water	CITY	ACTV	OUTFALL AT RIVER	Polyvinylchloride Pipe (PVC)	8
80713	0116008ND	Outfall to Facility	CITY	ACTV	OUTFALL S OF SKYLINE OVER EDGE	Polyvinylchloride Pipe (PVC)	8
80794	2200400ND	Outfall to Facility	CITY	ACTV	OUTFALL FROM 2ND CB ON S SIDE		12
80797	2200500ND	Outfall to Facility	CITY	ACTV	OUTFALL FROM 2ND CB ON N SIDE		12
80803	2200600ND	Outfall to Facility	CITY	ACTV	OUTFALL FROM 3RD CB ON S SIDE	Corrugated Metal Pipe	12
80806	2200700ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM 5TH CB ON S SIDE		12
80809	2200800ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM 3RD CB ON N SIDE		12
80812	2200900ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM 4TH CB ON N SIDE		12
80815	2201000ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM 6TH CB ON S SIDE		12
80818	2201100ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM N SIDE OF INT		12
80821	2201200ND	Outfall to Facility	CITY	ACTV	OUTFALL FROM SWC (ON EAGLE)		12
80824	2201300ND	Outfall to Facility	CITY	ACTV	OUTFALL FROM SWC (ON MORAN)		12
80827	2201400ND	Outfall to Ground	CITY	ACTV	OUTFALL FROM SE CORNER OF INT		12
80848	2201500ND	Outfall to Facility	CITY	ACTV	OUTFALL FROM SE CORNER	Polyvinylchloride Pipe (PVC)	8
80865	2201600ND	Outfall to Facility	CITY	ACTV	OUTFALL FROM S OF SW CB		8
81575	0516900SN	Outfall to Ground	CITY	ACTV	OUTFALL FROM CB @ FORT GEORGE WRIGHT	Concrete Pipe	8
82532	1902900ND	Outfall to Surface Water	CITY	ACTV	OUTFALL AT LOWER CROSSING	Polyvinylchloride Pipe (PVC)	8
82938	9018700ND	Outfall to Facility	CITY	ACTV	OUTFALL AT BASE OF HILL, NORTH OF STANNEK'S NURSERY	Corrugated Metal Pipe	12
82949	1300900ND	Outfall to Surface Water	CITY	ACTV	NODE IS OUTFALL FROM POST OFFICE TERMINAL	Concrete Pipe	48
83186	9020000SN	Outfall to Ground	CITY	ACTV	OUTFALL NE OF INT	Corrugated Metal Pipe	21
83330	0115808ND	Outfall to Facility	CITY	ACTV	EAST OF QUAMISH, NODE IS OUTFALL FROM STMH INTO SWALE GPA	Polyvinylchloride Pipe (PVC)	12
83665	0116700ND	Outfall to Facility	CITY	ACTV	N OF INT, BEHIND CURB ON W SIDE. OUTFALL INTO LARGE POND		24
83716	9019100ND	Outfall to Facility	CITY	ACTV	RUTTER, W OF WATERWORKS. NODE IS 27" OUTFALL INTO SCOUR PAD BEFORE SWALE	Reinforced Concrete Pipe	27
84038	0401600ND	Outfall to Surface Water	CITY	ACTV	OUTFALL W OF A.L. WHITE PARKWAY		12
83907	0611900SN	Outfall to Facility	CITY	ACTV	NODE IS OUTFALL INTO SWALE	Polyvinylchloride Pipe (PVC)	12
84715	0711300ND	Outfall to Facility	CITY	ACTV	OUTLET FROM NE CORNER INTO SWALE	Corrugated Metal Pipe	12
85263	0902000ND	Outfall to Surface Water	CITY	ACTV	RIVER OUTFALL NEC POST ST BRIDGE	Concrete Pipe	15
86105	9019950ND	Outfall to Facility	CITY	ACTV	OUTFALL TO SWALE ON S SIDE OF SUMAC CT E/O FREYA	Ductile Iron Pipe	10
86112	9019970ND	Outfall to Facility	CITY	ACTV	OUTFALL TO SWALE @ END OF SUMAC DR	Polyvinylchloride Pipe (PVC)	12
86124	9019960ND	Outfall to Facility	CITY	ACTV	OUTFALL TO SWALE @ SE CORNER	Polyvinylchloride Pipe (PVC)	12
86424	0116800ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE FROM 1ST CB N OF LOWELL, W SIDE		8
86425	0116900ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE FROM 2ND CB N OF LOWELL, W SIDE		8
86431	0117000ND	Outfall to Facility	CITY	ACTV	W SIDE, OUTLET INTO SWALE N OF CURB RETURN BETWEEN BARNES AND LOWELL		8
86433	0117100ND	Outfall to Facility	CITY	ACTV	W SIDE, OUTLET INTO SWALE FROM 3RD CB S OF BARNES		8
86437	0117200ND	Outfall to Facility	CITY	ACTV	W SIDE, OUTLET INTO SWALE FROM 2ND CB S OF BARNES		8
86440	0117300ND	Outfall to Facility	CITY	ACTV	W SIDE, OUTLET INTO SWALE FROM 2ND CB S OF BARNES		8
86453	2202500ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO POND FROM MH OF INT	Polyvinylchloride Pipe (PVC)	18
86542	2203000ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND S OF BOLAN FROM CB IN STREET	Polyvinylchloride Pipe (PVC)	12
86549	2203200ND	Outfall to Ground	CITY	ACTV	END OF OUTFALL PIPE FROM POND NW OF ANTON CT		24
86554	2203300ND	Outfall to Facility	CITY	ACTV	END OF OUTFALL PIPE INTO POND NW OF ANTON CT	Polyvinylchloride Pipe (PVC)	12
86584	0117700ND	Outfall to Ground	CITY	ACTV	NODE IS OUTFALL IN EASEMENT E OF QUAMISH FROM STMH N OF INT	Polyvinylchloride Pipe (PVC)	15
86647	0117900ND	Outfall to Facility	CITY	ACTV	OUTFALL S OF STMH W OF INT	Polyvinylchloride Pipe (PVC)	15
86753	2204300ND	Outfall to Facility	CITY	ACTV	NODE IS OUTFALL FROM STIN E OF INT		12
86754	2204400ND	Outfall to Facility	CITY	ACTV	NODE IS OUTFALL FROM STIN ON SE CORNER OF INT		12

86755	2204500ND	Outfall to Ground	CITY	ACTV	NODE IS OUTFALL FROM STIN ON SW CORNER OF INT	RDG=RIDGE	12
86756	2204600ND	Outfall to Ground	CITY	ACTV	NODE IS OUTFALL FROM STIN ON NE CORNER OF INT		12
86757	2204700ND	Outfall to Facility	CITY	ACTV	NODE IS OUTFALL FROM STIN ON N SIDE OF ROAD, W OF INT		12
86785	2205000ND	Outfall to Ground	CITY	ACTV	NODE IS E OUTFALL FROM STMH IN EASEMENT E OF END OF CUL DE SAC	Corrugated Metal Pipe	12
86852	0713100ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE NE OF INT		8
87134	2205100ND	Outfall to Ground	CITY	ACTV	DAYLIGHTED STORM MAIN APPROX 640' N OF EAGLE RIDGE BLVD	Polyvinylchloride Pipe (PVC)	12
87174	0118500SN	Outfall to Ground	CITY	ACTV	NE CORNER, OUTFALL TO GROUND		8
87234	0118600ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE, W SIDE, SW OF INT	Ductile Iron Pipe	8
87235	0118700ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE, E SIDE, SW OF INT		8
87236	0118800ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE, NE CORNER OF INT	Ductile Iron Pipe	8
87263	0118900ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE ON S SIDE OF CT	Polyvinylchloride Pipe (PVC)	8
88348	2206000ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM 826 ON N SIDE OF STREET, W OF INT	Polyvinylchloride Pipe (PVC)	8
88349	2206100ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB ON S SIDE OF STREET, W OF INT	Concrete Pipe	10
88427	0119100ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND E OF SE CORNER	Ductile Iron Pipe	12
88525	2206200ND	Outfall to Facility	CITY	ACTV	OUTFALL TO POND ON E SIDE OF CRESTVIEW ST		18
88526	2206300ND	Outfall to Facility	CITY	ACTV	OUTFALL TO POND BEHIND NE CORNER		12
88527	2206400ND	Outfall to Facility	CITY	ACTV	OUTFALL TO POND BEHIND SE CORNER		21
88528	2206500ND	Outfall to Facility	CITY	ACTV	OUTFALL TO POND E OF CUL DE SAC		12
88581	2206600ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SE CORNER FROM MH S OF INT	Polyvinylchloride Pipe (PVC)	12
88975	9020800ND	Outfall to Surface Water	CITY	ACTV	OUTFALL AT N END OF BRIDGE ON E SIDE	Vitrified Clay Pipe	8
89440	0119600ND	Outfall to Ground	CITY	ACTV	OUTFALL ON E SIDE OF STREET		15
89496	0121000ND	Outfall to Ground	CITY	ACTV	OUTFALL EAST OF INT FROM STMH EAST OF INT	Polyvinylchloride Pipe (PVC)	12
89509	0121100ND	Outfall to Ground	CITY	ACTV	OUTFALL ON N SIDE BETWEEN S MILE AND NATHAN CT	Polyvinylchloride Pipe (PVC)	12
89671	2300400ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE FROM STMH IN RIVER RIDGE BLVD	Polyvinylchloride Pipe (PVC)	8
89675	2300700ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE EAST OF SAND RIDGE FROM STMH IN RIVER RIDGE BLVD	Polyvinylchloride Pipe (PVC)	12
89687	2300500ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE FROM CB ON N CORNER OF INT	Ductile Iron Pipe	10
89688	2300600ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE FROM CB ON S SIDE, SW OF INT	Ductile Iron Pipe	10
89714	2300900ND	Outfall to Facility	CITY	ACTV	OUTFALL SE OF POND E OF GOVT WAY	Corrugated Metal Pipe	24
89715	2301000ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND E OF GOVT WAY	Ductile Iron Pipe	10
89771	0121800ND	Outfall to Facility	CITY	ACTV	OUTFALL TO FACILITY-DRAIN ROCK INFILTRATION GALLERY W OF POND	Polyvinylchloride Pipe (PVC)	12
89772	0121900ND	Outfall to Facility	CITY	ACTV	OUTFALL TO FACILITY-DRAIN ROCK INFILTRATION GALLERY W OF POND	Polyvinylchloride Pipe (PVC)	12
90055	0123400ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO PARK, W OF PARKING LOT	Polyvinylchloride Pipe (PVC)	12
90612	0123600ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO FIRST SWALE ON W SIDE, N OF INT		8
90774	0124100ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO POND E OF UPPER WIEBER DRIVE	Ductile Iron Pipe	12
90775	0124200ND	Outfall to Ground	CITY	ACTV	OUTFALL DOWN HILLSIDE FOR OVERFLOW FROM POND AT E SIDE OF UPPER WIEBER DRIVE	Ductile Iron Pipe	12
90859	9021200ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND ON N SIDE OF 23RD CT	Corrugated Metal Pipe	12
90890	1109100ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE SW OF INT		10
90920	0124600ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE ON S SIDE OF WALNUT CT	Ductile Iron Pipe	8
90921	0124700ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE ON S SIDE OF CUL DE SAC	Ductile Iron Pipe	8
90922	0124800ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE ON SW CORNER OF INT	Ductile Iron Pipe	8
90923	0124900ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE ON S SIDE AT BEND IN CUL DE SAC	Ductile Iron Pipe	8
90944	0125000ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO NE CORNER SWALE FROM STMH EAST OF NE CORNER	Ductile Iron Pipe	8
90993	0125100ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE AT E END OF HOWESDALE DR	Polyvinylchloride Pipe (PVC)	12
91039	0125500ND	Outfall to Ground	CITY	ACTV	OUTFALL ON CEDAR RD	Polyvinylchloride Pipe (PVC)	8
91501	1109200ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB ON NE CORNER		30
91868	1109330ND	Outfall to Surface Water	CITY	ACTV	OUTFALL INTO RIVER FROM 2ND STMH W OF WASHINGTON ST BRIDGE.	PREVIOUSLY SND 0400300ND	8
92148	1903900SN	Outfall to Ground	CITY	ACTV	OUTFALL ON NW SIDE OF CLARKE, NE OF INT	Concrete Pipe	8
92190	9022300ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB ON BRIDGE N OF INT	Corrugated Metal Pipe	12
92193	9022600ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB ON SE CORNER OF BRIDGE	Concrete Pipe	4
92789	0126100ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO TEMPORARY DRAINAGE AREA SW OF INT	Polyvinylchloride Pipe (PVC)	18
92798	2206800ND	Outfall to Ground	CITY	ACTV	OUTFALL ON E CORNER FROM N CORNER CB		8
92831	2207900ND	Outfall to Ground	CITY	ACTV	OUTLET PIPE ON S SIDE E OF INT		8
92837	2208000ND	Outfall to Ground	CITY	ACTV	OUTLET PIPE ON E SIDE OF CUL DE SAC		8
92847	0126200ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND FROM CB IN STREET N OF JUNIPER	Ductile Iron Pipe	24
92859	0126300ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND FROM CB ON E SIDE, S OF INT	Ductile Iron Pipe	10
92875	0126400ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND FROM CB ON W SIDE, N OF INT	Ductile Iron Pipe	10
93014	0128000ND	Outfall to Ground	CITY	ACTV	DISCHARGE INTO PARK FROM CB IN CUL DE SAC	Polyvinylchloride Pipe (PVC)	6
93162	2208700ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 1ST CB W OF INT ON N SIDE		8
93163	2208800ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 1ST CB W OF INT ON S SIDE		8
93164	2208900ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 2ND CB W OF INT ON N SIDE		12
93165	2209000ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 2ND CB W OF INT ON S SIDE		12
93166	2209100ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 3RD CB W OF INT ON N SIDE		8
93168	2209300ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 3RD CB E OF INT ON S SIDE	Polyvinylchloride Pipe (PVC)	12
93170	2209400ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 2ND CB E OF INT ON N SIDE		12
93171	2209500ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 2ND CB E OF INT ON S SIDE		8
93172	2209600ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM 1ST CB E OF INT ON N SIDE		12
93307	2211400ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO POND FROM CB ON S SIDE W OF INT	High Density Polyethylene Pipe	12
93308	2211500ND	Outfall to Ground	CITY	ACTV	DISCHARGE TO DITCH FROM CB ON W SIDE OF INT	High Density Polyethylene Pipe	12
94040	0208600ND	Outfall to Surface Water	CITY	ACTV	OUTFALL OF STORM LINE INTO RIVER, W OF AWWTP	Vitrified Clay Pipe	24
94057	2005600ND	Outfall to Surface Water	CITY	ACTV	OUTFALL INTO LATAH CREEK	Corrugated Metal Pipe	24
94069	1003000ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM MB ON S SIDE OF INT	Corrugated Metal Pipe	15
94072	9023100ND	Outfall to Surface Water	CITY	ACTV	OUTFALL ON NE SIDE OF BRIDGE		4
94086	0129600ND	Outfall to Ground	CITY	ACTV	OUTFALL SW OF POND BEHIND SW CORNER		16
94116	2211600ND	Outfall to Ground	CITY	ACTV	OUTLET INTO POND SE OF INT	Polyvinylchloride Pipe (PVC)	24
94128	2211700ND	Outfall to Ground	CITY	ACTV	10" OUTLET INTO POND SE OF INT	Polyvinylchloride Pipe (PVC)	10
94131	2211800ND	Outfall to Ground	CITY	ACTV	10" OUTLET INTO POND S OF SE CORNER OF INT	Ductile Iron Pipe	10
94177	2211900ND	Outfall to Ground	CITY	ACTV	18" OUTLET INTO POND FROM STORM LINES ON SPRINGVIEW	Polyvinylchloride Pipe (PVC)	18
94256	2212200ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND NW OF INT FROM CB N OF INT	Polyvinylchloride Pipe (PVC)	12
94257	2212300ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND NW OF INT FROM STMH N OF INT	Polyvinylchloride Pipe (PVC)	12
94315	2212400ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND NEAR BEND IN WINDSTAR N OF SAGEWOOD	Polyvinylchloride Pipe (PVC)	12
94340	2212500ND	Outfall to Facility	CITY	ACTV	OUTLET E OF CUL DE SAC	Polyvinylchloride Pipe (PVC)	18
94349	2212700ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND NEAR BEND IN WINDSTAR N OF SAGEWOOD FROM CBS S OF POND	Polyvinylchloride Pipe (PVC)	12
94351	2212800ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND NEAR BEND IN WINDSTAR N OF SAGEWOOD FROM CBS E OF POND	Polyvinylchloride Pipe (PVC)	10
94352	2212900ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND NEAR BEND IN WINDSTAR N OF SAGEWOOD FROM STMH TO NORTH	Polyvinylchloride Pipe (PVC)	12
94390	9023200ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF STANNKES NURSERY		30
94518	2301400ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND S OF INT	Ductile Iron Pipe	16
94582	0129900ND	Outfall to Ground	CITY	ACTV	OVERFLOW FROM NE CORNER POND	Polyvinylchloride Pipe (PVC)	12
94583	0130000ND	Outfall to Facility	CITY	ACTV	OUTLET INTO NE CORNER POND	Ductile Iron Pipe	16
94589	0130100ND	Outfall to Ground	CITY	ACTV	OUTLET FROM POND E OF INT	Polyvinylchloride Pipe (PVC)	12
94590	0130200ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM NE CORNER CB	Ductile Iron Pipe	14
94604	0130400ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND FROM NE CORNER CB	Ductile Iron Pipe	16
94614	9023300ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND W OF INT	Corrugated Metal Pipe	16
94667	1503000ND	Outfall to Surface Water	CITY	ACTV	OUTFALL INTO RIVER FROM STMH IN GREENE ST	Corrugated Metal Pipe	24
94993	1306500ND	Outfall to Surface Water	CITY	ACTV	OUTFALL ON SW CORNER OF WEST TRENT BRIDGE	Ductile Iron Pipe	18
94995	2006100ND	Outfall to Surface Water	CITY	ACTV	NW CORNER OF 11TH AVE BRIDGE	Steel Pipe	8
94996	2006200ND	Outfall to Surface Water	CITY	ACTV	SW CORNER OF 11TH AVE BRIDGE	Steel Pipe	8
95005	0519100SN	Outfall to Facility	CITY	ACTV	END OF PIPE FROM MB ON N SIDE OF SWALE AREA, E OF TJ MEENACH BRIDGE	Concrete Pipe	10
95006	0519200ND	Outfall to Ground	CITY	ACTV	OUTLET INTO POND SW OF HIGHPEAK, FROM STREET DRAINAGE WEST OF POND	Concrete Pipe	8
95007	0519300ND	Outfall to Facility	CITY	ACTV	END OF PIPE FROM CB AT N SIDE OF SWALE AREA ON W SIDE OF TJ MEENACH BRIDGE	Concrete Pipe	10
95008	0519400ND	Outfall to Ground	CITY	ACTV	END OF PIPE FROM CB ON E SIDE, NEAR N END OF BRIDGE	Concrete Pipe	12
95019	0519500SN	Outfall to Facility	CITY	ACTV	END OF CULVERT UNDER E SIDE BRIDGE ON RAMP	Corrugated Metal Pipe	18
95029	0519600ND	Outfall to Ground	CITY	ACTV	OUTLET FROM 2ND MB NE OF BRIDGE ON S SIDE	Concrete Pipe	12
95030	0519700SN	Outfall to Ground	CITY	ACTV	OUTLET FROM 3RD MB NE OF BRIDGE ON S SIDE	Concrete Pipe	12
95046	1306700ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO DRAINAGE DITCH, SW OF INT		12
95047	1306600ND	Outfall to Ground	CITY	ACTV	OUTFALL INTO DRAINAGE DITCH, SW OF INT		18
95095	9023500ND	Outfall to Surface Water	CITY	ACTV	OUTFALL FROM CB ON E SIDE OF INLAND EMPIRE WAY, N OF INT	Polyvinylchloride Pipe (PVC)	8
95584	2006400ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE ON S SIDE	Ductile Iron Pipe	8
96170	9024000ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND FROM CB ON NE CORNER	Corrugated Metal Pipe	10
96494	0131000ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND S/O MILTON CT, N/O FIVE MILE RD	Polyvinylchloride Pipe (PVC)	12
96562	2213000ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF HIGHPEAK, FROM STREET DRAINAGE WEST OF POND	Ductile Iron Pipe	16
96683	2213400ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF HIGHPEAK, FROM STREET DRAINAGE FROM AMBERSTONE	Polyvinylchloride Pipe (PVC)	12
96684	2213500ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF HIGHPEAK, FROM STREET DRAINAGE W OF INT	Polyvinylchloride Pipe (PVC)	12
96686	2213700ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND AT N END OF LAURELCREST CT	Polyvinylchloride Pipe (PVC)	12
96810	2301700ND	Outfall to Facility	CITY	ACTV	NORTHERNMOST OUTLET INTO SWALE W OF INT	Ductile Iron Pipe	18
96811	2301800ND	Outfall to Facility	CITY	ACTV	SOUTHERNMOST OUTLET INTO SWALE W OF INT	Ductile Iron Pipe	12
96867	2301900ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE S OF INT	Ductile Iron Pipe	16
96868	2302000ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE S OF INT	Ductile Iron Pipe	18
96909	2302400ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE W OF INT	Ductile Iron Pipe	16
96944	2302500ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE S OF INT	Ductile Iron Pipe	12
96945	2302600ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE S OF INT	Ductile Iron Pipe	16
97763	0716800ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND E OF INT	Polyvinylchloride Pipe (PVC)	18
97764	0716900SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND NW OF INT	Polyvinylchloride Pipe (PVC)	12
97766	0717000ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF INT	Polyvinylchloride Pipe (PVC)	12
97772	0717100ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF INT	Polyvinylchloride Pipe (PVC)	12
97895	0717200ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF INT	Polyvinylchloride Pipe (PVC)	8
98054	0133200SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND W OF INT	Polyvinylchloride Pipe (PVC)	12
98215	0133500ND	Outfall to Ground	CITY	ACTV	STORM OUTLET INTO DITCH ON N SIDE	Ductile Iron Pipe	12
98529	2303800ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND NW OF INT	Ductile Iron Pipe	18
98530	2303900ND	Outfall to Facility	CITY	ACTV	OUTLET INTO POND NW OF INT	Ductile Iron Pipe	14
99074	2240100SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM OSPREY CT	Polyvinylchloride Pipe (PVC)	12

99077	2240400SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM OSPREY DR	Polyvinylchloride Pipe (PVC)	18
99124	2242300SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM RAVENCREST DR	Ductile Iron Pipe	12
99129	2242600SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM RAVENCREST DR	Polyvinylchloride Pipe (PVC)	18
99150	2243600SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM RAVENCREST DR	Polyvinylchloride Pipe (PVC)	12
99163	2244300SN	Outfall to Facility	CITY	ACTV	SOUTHERNMOST OUTLET INTO POND FROM RAVENCREST DR	Polyvinylchloride Pipe (PVC)	18
99213	2246900SN	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND ON W SIDE OF LINCOLN DR	Ductile Iron Pipe	8
99218	2247200SN	Outfall to Facility	CITY	ACTV	OUTFALL INTO POND ON W SIDE OF LINCOLN RD	Polyvinylchloride Pipe (PVC)	18
99312	2251900SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM LINE FROM W	Polyvinylchloride Pipe (PVC)	18
99375	2254100SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM CBS AT INTERSECTION	Ductile Iron Pipe	12
99380	2254400SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND FROM MAINLINE FROM SOUTH	Polyvinylchloride Pipe (PVC)	18
99597	01220500SN	Outfall to Ground	CITY	ACTV	OUTLET INTO AUSTIN DITCH FROM STORM LINE FROM EAST	Polyvinylchloride Pipe (PVC)	15
99656	90498600SN	Outfall to Ground	CITY	ACTV	FROM CB ON S SIDE E OF D ST EXT		6
100021	2252300SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND AT SE CORNER	High Density Polyethylene Pipe	18
100033	2258900SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND SW OF INT	Polyvinylchloride Pipe (PVC)	10
100056	2260200SN	Outfall to Facility	CITY	ACTV	END OF PIPE INTO POND SE OF INT	Polyvinylchloride Pipe (PVC)	10
100059	2260500SN	Outfall to Ground	CITY	ACTV	END OF PIPE INTO DITCH SE OF INT	Polyvinylchloride Pipe (PVC)	10
100095	01221100SN	Outfall to Ground	CITY	ACTV	OUTFALL ON E SIDE OF QUAMISH	Polyvinylchloride Pipe (PVC)	12
100238	01223200SN	Outfall to Ground	CITY	ACTV	OUTLET FROM POND SW OF WALNUT CT	Polyvinylchloride Pipe (PVC)	4
100241	01223400SN	Outfall to Ground	CITY	ACTV	OUTLET FROM POND W OF BLUFF CT	Polyvinylchloride Pipe (PVC)	8
100243	01223600SN	Outfall to Ground	CITY	ACTV	OUTLET FROM POND S OF PANORAMA CT	Polyvinylchloride Pipe (PVC)	8
100718	01225500ND	Outfall to Facility	CITY	ACTV	INLET INTO SWALE ON E SIDE N OF INT	Ductile Iron Pipe	8
100720	01225700ND	Outfall to Facility	CITY	ACTV	S END OF PIPE BETWEEN SWALES ON NE SIDE AND SE SIDE	Polyvinylchloride Pipe (PVC)	8
100732	01259000SN	Outfall to Ground	CITY	ACTV	OUTLET FROM POND	Polyvinylchloride Pipe (PVC)	24
100911	90511100SN	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE S OF FREYA, NW OF INT	Polyvinylchloride Pipe (PVC)	10
101072	06261400SN	Outfall to Facility	CITY	ACTV	OUTLET FROM CB INTO SWALE ON E SIDE, N OF INT	Polyvinylchloride Pipe (PVC)	8
101508	2316300SN	Outfall to Ground	CITY	ACTV	OUTLET FROM 1ST MB W OF TJ MEENACH BRIDGE ON S SIDE	Corrugated Metal Pipe	12
101523	01231300SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND AT NE CORNER	Ductile Iron Pipe	12
101526	01231700SN	Outfall to Ground	CITY	ACTV	OUTLET INTO DITCH FROM POND NE OF INT	Ductile Iron Pipe	12
101528	01231900SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND NE OF INT	Ductile Iron Pipe	12
101533	01232400SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND N OF STRONG BETWEEN ELM AND CANNON, FROM ELM ST DRAINAGE	Polyvinylchloride Pipe (PVC)	24
101559	01234200SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND N OF STRONG BETWEEN ELM AND CANNON, FROM CANNON ST DRAINAGE	Polyvinylchloride Pipe (PVC)	18
102105	900708SN	Outfall to Ground	CITY	ACTV	OUTFALL FROM B-26 N SIDE OF 9TH, W. OF D	Ductile Iron Pipe	8
102106	900908SN	Outfall to Ground	CITY	ACTV	OUTFALL FROM B-26 S SIDE OF 9TH, W. OF D	Ductile Iron Pipe	8
102260	01238608SN	Outfall to Facility	CITY	ACTV	E. MOST OUTLET INTO SWALE N. OF BISMARK	Ductile Iron Pipe	8
102261	01238608SN	Outfall to Facility	CITY	ACTV	W. MOST OUTLET INTO SWALE N. OF BISMARK	Ductile Iron Pipe	8
102449	0502400ND	Outfall to Ground	CITY	ACTV	OUTLET FROM CB ON E SIDE OF ASH S/O COUTLAND - GOES TO NEW MAPLE/ASH SWALE	Polyvinylchloride Pipe (PVC)	8
102679	0122000ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE FROM 1ST CB ON S SIDE OF KINGSFORD E OF INT	Polyvinylchloride Pipe (PVC)	8
102680	0122100ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE FROM 1ST CB ON S SIDE OF KINGSFORD E OF INT	Polyvinylchloride Pipe (PVC)	18
102694	0122200ND	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE FROM 1ST CB ON S SIDE OF STRATTON E OF INT	Polyvinylchloride Pipe (PVC)	8
102695	0122300SN	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE FROM 1ST CB ON S SIDE OF STRATTON E OF INT	Polyvinylchloride Pipe (PVC)	18
102696	0122400SN	Outfall to Facility	CITY	ACTV	OUTLET INTO SWALE FROM CB S OF STRATTON E SIDE OF FIVE MILE	Polyvinylchloride Pipe (PVC)	8
102884	0505200ND	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE FROM CB ON SW CORNER OF INT	Ductile Iron Pipe	8
103352	90527112SN	Outfall to Ground	CITY	ACTV	BEHIND 6502 WESTCHESTER	Corrugated Metal Pipe	12
103624	90876714SN	Outfall to Ground	CITY	ACTV	OUTLET FROM STMN INTO SWALE AT SEC	Ductile Iron Pipe	14
103643	90527908SN	Outfall to Ground	CITY	ACTV	FROM SEC CB	Ductile Iron Pipe	8
103654	90529000SN	Outfall to Ground	CITY	ACTV	SEC, IN SWALE	Polyvinylchloride Pipe (PVC)	8
103669	90529108SN	Outfall to Ground	CITY	ACTV	SEC OF SWALE	Ductile Iron Pipe	8
103676	90529612SN	Outfall to Ground	CITY	ACTV	INLET AT E SIDE OF SWALE, E OF FREYA	Ductile Iron Pipe	12
103693	90530000SN	Outfall to Ground	CITY	ACTV	OUTFALL FROM 1ST CB S OF BROADWAY, W SIDE	Ductile Iron Pipe	8
103983	90540612SN	Outfall to Facility	CITY	ACTV	S END OF SWALE, E OF BRIDGE	Polyvinylchloride Pipe (PVC)	12
103984	90541808SN	Outfall to Facility	CITY	ACTV	IN SWALE E OF INTERSECTION	Ductile Iron Pipe	8
104001	90541312SN	Outfall to Facility	CITY	ACTV	E/SWALE OUTFALL FROM STMH FREYA/DESMET	Polyvinylchloride Pipe (PVC)	12
104484	1951012SN	Outfall to Ground	CITY	ACTV	END OF 12" PIPE IN SWALE W OF CLARKE/BENNET	Ductile Iron Pipe	12
104565	2316200ND	Outfall to Surface Water	CITY	ACTV	OUTFALL W OF ROAD	Corrugated Metal Pipe	12
104812	90545318SN	Outfall to Facility	CITY	ACTV	SW INLET TO SWALE, N OF NEC	Polyvinylchloride Pipe (PVC)	18
104813	90545208SN	Outfall to Facility	CITY	ACTV	N SIDE INLET TO SWALE, N OF NEC	Polyvinylchloride Pipe (PVC)	8
104838	90546108SN	Outfall to Facility	CITY	ACTV	SWC INLET TO SWALE AT NEC OF INTER	Polyvinylchloride Pipe (PVC)	8
104839	90546418SN	Outfall to Facility	CITY	ACTV	NWC INLET TO SWALE AT NEC OF INTER	Polyvinylchloride Pipe (PVC)	18
104857	90548010SN	Outfall to Facility	CITY	ACTV	SEC SWALE INLET	Polyvinylchloride Pipe (PVC)	10
104858	9054808SN	Outfall to Facility	CITY	ACTV	S SIDE SWALE INLET	Polyvinylchloride Pipe (PVC)	8
105097	1999018SN	Outfall to Facility	CITY	ACTV	NEC SWALE INLET	Ductile Iron Pipe	18
105098	1998912SN	Outfall to Facility	CITY	ACTV	NEC SWALE INLET	Corrugated Metal Pipe	12
105113	1998412SN	Outfall to Facility	CITY	ACTV	SWALE INLET FROM CB S SIDE OF SUMMIT, W OF CEDAR	Polyvinylchloride Pipe (PVC)	12
105118	1998112SN	Outfall to Facility	CITY	ACTV	SWALE INLET BY PATH, S/SIDE SUMMIT, W/O MAPLE	Ductile Iron Pipe	12
105198	9099508SN	Outfall to Facility	CITY	ACTV	SWALE OUTFALL N/SIDE 16TH E/O CHESTNUT	Ductile Iron Pipe	8
105646	13116512SN	Outfall to Facility	CITY	ACTV	PIPE OUTFALL IN CHANNEL AT E/O	Polyvinylchloride Pipe (PVC)	12
105769	90997812SN	Outfall to Facility	CITY	ACTV	INLET PIPE TO SWALE	Ductile Iron Pipe	12
105854	90997108SN	Outfall to Facility	CITY	ACTV	OUTFALL INTO SETTLING POND	Ductile Iron Pipe	8
106021	90513308SN	Outfall to Ground	CITY	ACTV	FROM WEST MOST DW N OF 42ND, E OF APOLLO	Polyvinylchloride Pipe (PVC)	8
106283	13997500SN	Outfall to Facility	CITY	ACTV	OUTLET IN NWC SWALE	Ductile Iron Pipe	8
106285	13997300SN	Outfall to Facility	CITY	ACTV	OUTLET IN NWC SWALE FROM EAST MOST H UNIT	Ductile Iron Pipe	8
106287	13997100SN	Outfall to Facility	CITY	ACTV	OUTLET IN NWC SWALE FROM WEST MOST H UNIT	Ductile Iron Pipe	6
106336	90995308SN	Outfall to Ground	CITY	ACTV	OUTLET FROM STMH N OF N CURB AT INTER	Ductile Iron Pipe	8
106338	90995208SN	Outfall to Ground	CITY	ACTV	OUTLET FROM NWC CB AT E MILTON	Ductile Iron Pipe	8
106347	11159008SN	Outfall to Facility	CITY	ACTV	SWALE NORTH OF NWC NORMANDIE/SINTO	Ductile Iron Pipe	8
106350	1159008SN	Outfall to Facility	CITY	ACTV	PIPE INLET FROM NEC SWALE	Ductile Iron Pipe	8
106352	11158908SN	Outfall to Facility	CITY	ACTV	PIPE INLET FOR S SIDE CB	Ductile Iron Pipe	8
106354	1158708SN	Outfall to Facility	CITY	ACTV	PIPE INLET FROM E SIDE CB NORTH OF SINTO	Ductile Iron Pipe	6
106376	2325418SN	Outfall to Ground	CITY	ACTV	END OF CULVERT IN DITCH W OF GOVERNMENT WAY/FT. GEORGE WRIGHT INTER	Corrugated Metal Pipe	18
106377	2325312SN	Outfall to Ground	CITY	ACTV	END OF CULVERT IN DITCH W OF GOVERNMENT WAY/FT. GEORGE WRIGHT INTER	Corrugated Metal Pipe	12
106938	19999212SN	Outfall to Facility	CITY	ACTV	NEC OF SWALE SE OF INTER	Ductile Iron Pipe	12
107108	1575100SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
107127	90994408SN	Outfall to Ground	CITY	ACTV	OUTFALL TO GROUND FROM SEC WA DOT TYPE 1	Ductile Iron Pipe	8
107455	21999924SN	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE AT SWC OF EAGLE RIDGE/PARKRIDGE	Polyvinylchloride Pipe (PVC)	24
107501	2210324SN	Outfall to Facility	CITY	ACTV	INLET TO SWALE AT NWC OF PARKRIDGE AND PHEASANT RIDGE	Polyvinylchloride Pipe (PVC)	24
107511	22102624SN	Outfall to Facility	CITY	ACTV	INLET TO SWALE AT NEC BASALTBRIDGE AND PARKRIDGE	Polyvinylchloride Pipe (PVC)	24
107539	79102700SN	Outfall to Ground	CITY	ACTV	UNKNOWN LOCATION OF OUTFALL	Polyvinylchloride Pipe (PVC)	8
107553	20199406SN	Outfall to Facility	CITY	ACTV	END OF PIPE IN STORM TROUGH, FROM NEC CB	Ductile Iron Pipe	6
107627	22103415SN	Outfall to Facility	CITY	ACTV	INLET TO STORM POND AT SEC OF EAGLE RIDGE/PARKRIDGE	Polyvinylchloride Pipe (PVC)	15
107638	19999100SN	Outfall to Ground	CITY	ACTV	OUTFALL TO GROUND FROM 1980110ST.	Steel Pipe	6
107640	19100018SN	Outfall to Facility	CITY	ACTV	INLET TO SWALE FROM STMH N SIDE OF SUMMIT	Polyvinylchloride Pipe (PVC)	18
107710	22998308SN	Outfall to Facility	CITY	ACTV	OUTLET FROM 1ST E SIDE CB N OF PARKRIDGE	Polyvinylchloride Pipe (PVC)	8
107729	20998315SN	Outfall to Facility	CITY	ACTV	PIPE INTO SWALE S OF INTERSECTION	Polyvinylchloride Pipe (PVC)	15
107804	19996418SN	Outfall to Ground	CITY	ACTV	INLET TO SWALE S OF CENTENNIAL LN. W OF ELM	Ductile Iron Pipe	18
107913	79102916SN	Outfall to Surface Water	CITY	ACTV	OUTFALL INTO POND NWC WINDSOR/LEWIS	Corrugated Metal Pipe	16
107928	90881808SN	Outfall to Facility	CITY	ACTV	INLET TO SWALE FROM 1ST GROUP OF CBS S OF HAVANA BRIDGE DECK	Ductile Iron Pipe	8
107931	90881508SN	Outfall to Facility	CITY	ACTV	INLET TO SWALE FROM 2ND GROUP OF CBS S OF HAVANA BRIDGE DECK	Ductile Iron Pipe	8
108236	07169400SN	Outfall to Ground	CITY	ACTV	STORM OUTLET TO SWALE	Ductile Iron Pipe	8
108330	90992408SN	Outfall to Ground	CITY	ACTV	OUTLET FROM NWC CB	Ductile Iron Pipe	8
108382	0133400ND	Outfall to Ground	CITY	ACTV		High Density Polyethylene Pipe	30
108665	22105412SN	Outfall to Facility	CITY	ACTV	INLET TO POND AT SEC OF PARKRIDGE BV AND PHEASANT DR	Polyvinylchloride Pipe (PVC)	12
108711	22108318SN	Storm Inlet	CITY	ACTV	INLET TO POND S OF BASALT RIDGE	Ductile Iron Pipe	18
108751	22110208SN	Outfall to Facility	CITY	ACTV	INLET TO POND WEST OF INTERSECTION WITH BIRCHBEND, FROM CBS NW	Polyvinylchloride Pipe (PVC)	8
108758	22110515SN	Outfall to Facility	CITY	ACTV	INLET TO POND WEST OF INTERSECTION WITH BIRCHBEND, FROM STMH W	Polyvinylchloride Pipe (PVC)	15
108871	22199512SN	Outfall to Ground	CITY	ACTV	PIPE END FROM E SIDE CB S OF CUL DE SAC	Polyvinylchloride Pipe (PVC)	12
108972	07171400SN	Outfall to Facility	CITY	ACTV	OUTLET INTO POND NW OF INT	Ductile Iron Pipe	8
109220	19995836SN	Outfall to Facility	CITY	ACTV	END OF STORM MAIN UNDER OLSMSTEAD GREEN BRIDGE	Corrugated Metal Pipe	36
109226	07171900SN	Outfall to Facility	CITY	ACTV	OUTFALL TO POND	Ductile Iron Pipe	8
109228	07172100SN	Outfall to Facility	CITY	ACTV	OUTFALL TO POND	Ductile Iron Pipe	8
109230	07172300SN	Outfall to Facility	CITY	ACTV	OUTFALL TO POND	Ductile Iron Pipe	8
109255	1581000SN	Outfall to Facility	CITY	ACTV	OUTFALL TO POND NORTH BRIDGE ON FRANCIS	Ductile Iron Pipe	8
109271	1578800SN	Outfall to Facility	CITY	ACTV	OUTFALL TO POND ON NW OF INT	Ductile Iron Pipe	8
109342	06280800SN	Outfall to Ground	CITY	ACTV	OUTFALL TO SWALE	Ductile Iron Pipe	6
109577	79104100SN	Outfall to Ground	CITY	ACTV	POND END OF CULVERT FROM DOT STRUCTURE	Polyvinylchloride Pipe (PVC)	12
109578	79103600SN	Outfall to Ground	CITY	ACTV	POND END OF CULVERT	Polyvinylchloride Pipe (PVC)	12
109579	79104700SN	Outfall to Ground	CITY	ACTV	END OF CULVERT N/O HWY	Ductile Iron Pipe	12
109609	1579500SN	Outfall to Facility	CITY	ACTV	OUTFALL TO SWALE	Ductile Iron Pipe	10
109629	20141000SN	Outfall to Ground	CITY	ACTV	NE CORNER OUTLET TO SWALE	Ductile Iron Pipe	8
109669	20145200SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
200059	90881436SN	Outfall to Ground	CITY	ACTV	OUTFALL IN FIELD SW OF INT	Corrugated Metal Pipe	36
200845	0251700SN	Outfall to Facility	CITY	ACTV	DRISCOLL S/O ROWAN OUTFALL TO SWALE	Ductile Iron Pipe	18
200858	0252200SN	Outfall to Facility	CITY	ACTV	CROWN AND DRISCOLL OUTFALL TO SE CORNER OF SWALE	Ductile Iron Pipe	18
200960	90568000SN	Outfall to Ground	CITY	ACTV	HAVANA WEST SIDE S/O PRAIRIE LANE CT	Ductile Iron Pipe	8
200966	90569000SN	Outfall to Ground	CITY	ACTV	HAVANA W SIDE S/O 44TH OUTFALL TO SWALE	Ductile Iron Pipe	8
200957	90568200SN	Outfall to Ground	CITY	ACTV	HAVANA W SIDE S/O 44TH OUTFALL TO SWALE	Ductile Iron Pipe	8
201172	13900400SN	Outfall to Ground	CITY	ACTV	Broadway & Napa West Side	Ductile Iron Pipe	8
201176	13900800SN	Outfall to Ground	CITY	ACTV	Napa S/O Broadway w/Side	Ductile Iron Pipe	8
201187	13901400ND	Outfall to Ground	CITY	ACTV	623 N Hogan CB Outfall to swale	Ductile Iron Pipe	8
201188	13901600ND	Outfall to Ground	CITY	ACTV	HOGAN, W SIDE S/O SPRINGFIELD	Ductile Iron Pipe	8
201200	13902700SN	Outfall to Ground	CITY	ACTV	NEC Springfield & Pittsburg	Ductile Iron Pipe	8

201229	13905100ND	Outfall to Ground	CITY	ACTV	Trent E/O Regal from STMH	Ductile Iron Pipe	10
201230	13904900ND	Outfall to Ground	CITY	ACTV	Trent E/O Regal N/side Swale	Ductile Iron Pipe	8
201231	13904700ND	Outfall to Ground	CITY	ACTV	SEC Outfall to Swale	Ductile Iron Pipe	8
201245	13905400SN	Outfall to Facility	CITY	ACTV	NEC Trent & Crestline swale	Ductile Iron Pipe	8
201246	13905700SN	Outfall to Facility	CITY	ACTV	Trent & Crestline South swale	Ductile Iron Pipe	8
201271	22100600ND	Outfall to Ground	CITY	ACTV	Outfall W/O Eagle/Shelby N/Side	Polyvinylchloride Pipe (PVC)	12
201799	05172300SN	Outfall to Ground	CITY	ACTV	PETTET DR - OUTFALL TO SWALE	Ductile Iron Pipe	18
201806	05172900IN	Outfall to Ground	CITY	ACTV	PETTET DR - OUTFALL TO SWALE	Ductile Iron Pipe	8
201812	05173200SN	Outfall to Ground	CITY	ACTV	PETTET DR - OUTFALL TO SWALE	Ductile Iron Pipe	8
201825	05173900SN	Outfall to Ground	CITY	ACTV	PETTET DR - OUTFALL TO SWALE	Ductile Iron Pipe	8
202195	90568380SN	Outfall to Ground	CITY	ACTV	37TH & REBECCA - OUTFALL TO HAZEL'S CREEK OVERFLOW POND	Polyvinylchloride Pipe (PVC)	18
202214	90578300SN	Outfall to Ground	CITY	ACTV	37TH & MYRTLE - OUTFALL TO HAZEL'S CREEK OVERFLOW POND	Ductile Iron Pipe	18
202364	90589400SN	Outfall to Ground	CITY	ACTV	37TH & REBECCA - OUTFALL TO HAZEL'S CREEK OVERFLOW POND		
202475	10100100SN	Outfall to Ground	CITY	ACTV	Swale north of Knox and Adams-east side	Ductile Iron Pipe	8
202476	10100200SN	Outfall to Ground	CITY	ACTV	Swale north of Knox and Adams-west side	Ductile Iron Pipe	8
202605	22541300SN	Outfall to Facility	CITY	ACTV	STORM WATER POND TRACT B	Polyvinylchloride Pipe (PVC)	8
202607	22541700SN	Outfall to Facility	CITY	ACTV	STORM POND TRACT B	Polyvinylchloride Pipe (PVC)	12
202738	22112700SN	Outfall to Facility	CITY	ACTV	POND SEC BASALT RIDGE AT SIENA PEAK	Polyvinylchloride Pipe (PVC)	12
202739	22116800SN	Outfall to Facility	CITY	ACTV	POND SEC BASALT RIDGE AT SIENA PEAK	Polyvinylchloride Pipe (PVC)	15
202754	22118200SN	Outfall to Facility	CITY	ACTV	NWC POND 4A TRACT E	Polyvinylchloride Pipe (PVC)	12
202757	22118800SN	Outfall to Facility	CITY	ACTV	NEC POND 4A TRACT E	Polyvinylchloride Pipe (PVC)	12
202760	22119100SN	Outfall to Facility	CITY	ACTV	Pond 4A Tract E	Polyvinylchloride Pipe (PVC)	24
202772	22113000SN	Outfall to Facility	CITY	ACTV	SWC POND 4B TRACT D	Polyvinylchloride Pipe (PVC)	18
202791	22115400SN	Outfall to Facility	CITY	ACTV	NWC POND 3A	Polyvinylchloride Pipe (PVC)	12
202792	22115700SN	Outfall to Facility	CITY	ACTV	NEC POND 3A	Polyvinylchloride Pipe (PVC)	15
202806	22118500SN	Outfall to Facility	CITY	ACTV	SWC POND 4A TRACT E	Polyvinylchloride Pipe (PVC)	12
203001	13123100SN	Outfall to Ground	CITY	ACTV	OUTFALL TO POND S OF PACIFIC	Polyvinylchloride Pipe (PVC)	12
203200	90590800SN	Outfall to Facility	CITY	ACTV	NWC SWALE 2ND/FLORIDA	Ductile Iron Pipe	8
203201	90591000SN	Outfall to Facility	CITY	ACTV		Ductile Iron Pipe	8
203338	90591300SN	Outfall to Facility	CITY	ACTV	46TH & COOK - S SIDE OF INT	Ductile Iron Pipe	4
203340	90591400SN	Outfall to Facility	CITY	ACTV	ALTAMONT & 46TH - SE OF INT	Ductile Iron Pipe	4
203490	13130800SN	Outfall to Facility	CITY	ACTV	MARTIN LUTHER KING WAY BETWEEN SHERMAN AND ERIE	Ductile Iron Pipe	8
203530	13130900SN	Outfall to Facility	CITY	ACTV	MARTIN LUTHER KING WAY BETWEEN SHERMAN AND ERIE	Ductile Iron Pipe	8
203620	13131800SN	Outfall to Facility	CITY	ACTV	SPRAGUE WAY & ERIE - OUTFALL TO SWALE ON NW CORNER	Ductile Iron Pipe	8
203621	13131900SN	Outfall to Facility	CITY	ACTV	SPRAGUE WAY & ERIE - OUTFALL TO SWALE ON NW CORNER	Ductile Iron Pipe	8
203622	13132200SN	Outfall to Facility	CITY	ACTV	SPRAGUE WAY & ERIE - OUTFALL TO SWALE ON NW CORNER	Ductile Iron Pipe	8
203623	13132400SN	Outfall to Facility	CITY	ACTV	SPRAGUE WAY & ERIE - OUTFALL TO SWALE ON NW CORNER	Ductile Iron Pipe	8
203682	15200000SN	Outfall to Facility	CITY	ACTV	NWC FREYA/WELLESLEY SWALE	Ductile Iron Pipe	12
203683	15201000SN	Outfall to Facility	CITY	ACTV	NWC SWALE FREYA/WELLESLEY	Ductile Iron Pipe	12
203736	13906100ND	Outfall to Facility	CITY	ACTV	NEC OUTFALL TO SWALE, SPRINGFIELD/ALTAMONT	Ductile Iron Pipe	8
203852	01252400SN	Outfall to Facility	CITY	ACTV		Polyvinylchloride Pipe (PVC)	36
203854	01250800SN	Outfall to Facility	CITY	ACTV		Polyvinylchloride Pipe (PVC)	15
203895	90591700SN	Outfall to Ground	CITY	ACTV	OVERFLOW ESMT INTO 6115 S HIGHLAND PARK	Corrugated Metal Pipe	15
203904	1067500SN	Outfall to Facility	CITY	ACTV	BELT & SPOFFORD - NE OF INT	Ductile Iron Pipe	12
203947	19995400SN	Outfall to Facility	CITY	ACTV	SWALE OUTFALL OHIO AVE W/O NETTLETON	Ductile Iron Pipe	12
204043	01896412SN	Outfall to Facility	CITY	ACTV	POND OUTFALL S/O OSAGE WAY CUL DE SAC	Ductile Iron Pipe	12
204044	01896712SN	Outfall to Facility	CITY	ACTV	POND OUTFALL OSAGE WAY SE/CUL DE SAC	Polyvinylchloride Pipe (PVC)	12
205279	05179600SN	Outfall to Facility	CITY	ACTV	(INSTALLED BUT NOT USED, FUTURE STORM) DOWNRIVER PARK, SE CORNER OF I-03 TANK	Polyvinylchloride Pipe (PVC)	18
206280	05178900SN	Outfall to Facility	CITY	ACTV	SWALE SEC GRACE AND ALBERTA	Ductile Iron Pipe	8
209479	21120700SN	Outfall to Facility	CITY	ACTV	SW CORNER TRACT B POND 5 SE OF INT	Polyvinylchloride Pipe (PVC)	12
209480	22121000SN	Outfall to Facility	CITY	ACTV	N SIDE TRACT B POND 5 SE OF INT	Polyvinylchloride Pipe (PVC)	12
209481	22121300SN	Outfall to Facility	CITY	ACTV	NW CORNER TRACT B POND 5 SE OF INT	Polyvinylchloride Pipe (PVC)	15
209595	01258600SN	Outfall to Facility	CITY	ACTV	N SIDE OF DRAINAGE POND SOUTH OF BARNES RD	Ductile Iron Pipe	8
209596	01259100SN	Outfall to Facility	CITY	ACTV	NORTH SIDE OF DRAINAGE POND SOUTH OF BARNES RD	Ductile Iron Pipe	8
209597	01259300SN	Outfall to Facility	CITY	ACTV	NORTH SIDE OF DRAINAGE POND SOUTH OF BARNES RD	Polyvinylchloride Pipe (PVC)	12
209794	13906200SN	Outfall to Facility	CITY	ACTV	NEC SWALE ALTAMONT/MAIN	Ductile Iron Pipe	8
209892	13140500SN	Outfall to Facility	CITY	ACTV	2ND AVE STMH W OF PERRY OUTFALL IN POND	Polyvinylchloride Pipe (PVC)	30
210287	01259000SN	Outfall to Facility	CITY	ACTV	MCCARROLLS EAST 5TH ADDITION - OUTFALL TO SWALE	Polyvinylchloride Pipe (PVC)	12
210735	13907708SN	Outfall to Facility	CITY	ACTV	OUTFALL INTO PLAYFAIR POND	Polyvinylchloride Pipe (PVC)	8
210736	13907406SN	Outfall to Facility	CITY	ACTV	OUTFALL INTO PLAYFAIR POND	Polyvinylchloride Pipe (PVC)	8
210798	9086616SN	Outfall to Facility	CITY	ACTV	S SIDE SETTLING POND	Ductile Iron Pipe	18
211184	05183500SN	Outfall to Facility	CITY	ACTV	MONROE HILL - SOUTH OF GLASS	Ductile Iron Pipe	12
211188	05182908SN	Outfall to Facility	CITY	ACTV	MONROE - OUTFALL TO SWALE W SIDE N/O CORA	Polyvinylchloride Pipe (PVC)	8
211189	05182000SN	Outfall to Facility	CITY	ACTV	MONROE - OUTFALL TO SWALE W SIDE N/O CORA	Polyvinylchloride Pipe (PVC)	8
211190	05182200SN	Outfall to Facility	CITY	ACTV	MONROE - OUTFALL TO SWALE W SIDE N/O CORA	Polyvinylchloride Pipe (PVC)	8
211197	05181800SN	Outfall to Facility	CITY	ACTV	MONROE - OUTFALL TO SWALE E SIDE N/O CORA	Polyvinylchloride Pipe (PVC)	8
211198	05182600SN	Outfall to Facility	CITY	ACTV	MONROE - OUTFALL TO SWALE W SIDE N/O CORA	Polyvinylchloride Pipe (PVC)	8
211556	01270700SN	Outfall to Ground	CITY	ACTV	CHELtenham CT OUTFALL TO POND SOUTH	Polyvinylchloride Pipe (PVC)	12
211840	13144400SN	Outfall to Facility	CITY	ACTV	MLK PHASE 2B	Ductile Iron Pipe	8
211842	13144900SN	Outfall to Facility	CITY	ACTV	MLK PHASE 2B	Ductile Iron Pipe	8
211857	13145600SN	Outfall to Facility	CITY	ACTV	MLK PHASE 2B	Ductile Iron Pipe	8
211858	13145400SN	Outfall to Facility	CITY	ACTV	MLK PHASE 2B	Ductile Iron Pipe	8
212091	01272600SN	Outfall to Ground	CITY	ACTV	FIVE MILE ESTATES - OVERFLOW TO POND	Ductile Iron Pipe	24
212479	1977824SN	Outfall to Facility	CITY	ACTV	WATER AVE PARK W/O MAPLE BRIDGE	Ductile Iron Pipe	24
212480	1977812SN	Outfall to Facility	CITY	ACTV	WATER AVE COMMUNITY GARDENS	Ductile Iron Pipe	12
212587	90596816SN	Outfall to Facility	CITY	ACTV	SWALE OUTFALL HIGH DR @ 26TH	Ductile Iron Pipe	16
212594	90596318SN	Outfall to Facility	CITY	ACTV	HIGH DRIVE SWALE S/O 21ST	Polyvinylchloride Pipe (PVC)	18
212625	1955300SN	Outfall to Facility	CITY	ACTV	FALLS AVE OUTFALL TO GROUND SOUTH OF FALLS	Polyvinylchloride Pipe (PVC)	8
212662	90599300SN	Outfall to Ground	CITY	ACTV	DRAINAGE DITCH NEC ASSEMBLY AND SUNSET	Corrugated Metal Pipe	18
212703	90599000SN	Outfall to Ground	CITY	ACTV	DITCH N OF SUNSET	Ductile Iron Pipe	8
212740	13149300SN	Outfall to Ground	CITY	ACTV	LIBERTY PARK OUTFALL TO SWALE SE OF LIBERTY & 3RD	Polyvinylchloride Pipe (PVC)	12
212751	13150000SN	Outfall to Ground	CITY	ACTV	HARTSON & NAPA - OUTFALL TO SWALE SW CORNER	Ductile Iron Pipe	8
212755	90598800SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
212756	90598600SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
212757	90598400SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
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212791	90598000SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
213222	13153900SN	Outfall to Facility	CITY	ACTV		Polyvinylchloride Pipe (PVC)	8
213225	13154200SN	Outfall to Facility	CITY	ACTV		Polyvinylchloride Pipe (PVC)	8
213391	90602500SN	Outfall to Facility	CITY	ACTV	OUTFALL INTO SWALE N/O LANGLEY NEAR RIVER	Ductile Iron Pipe	8
213804	90603000SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
213805	90602800SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
213806	90602600SN	Outfall to Ground	CITY	ACTV		Ductile Iron Pipe	8
213934	01289000SN	Outfall to Ground	CITY	ACTV	INDIAN TRAIL OUTFALL S OF LOWELL	Polyvinylchloride Pipe (PVC)	8
214103	2324100SN	Outfall to Facility	CITY	ACTV	OUTFALL TO SWALE NORTH OF HOOD RIVER W/O MCKENZIE RIVER	Ductile Iron Pipe	8
214104	2323800SN	Outfall to Facility	CITY	ACTV	OUTFALL TO SWALE NORTH OF HOOD RIVER W/O MCKENZIE RIVER	Ductile Iron Pipe	8
214199	01289600SN	Outfall to Ground	CITY	ACTV	WOODRIDGE SOUTH - CAMRYN DR OUTFALL TO SWALE SOUTH	Polyvinylchloride Pipe (PVC)	12
214200	01289900SN	Outfall to Ground	CITY	ACTV	WOODRIDGE SOUTH - CAMRYN DR OUTFALL TO SWALE	Polyvinylchloride Pipe (PVC)	12
214214	01290200SN	Outfall to Ground	CITY	ACTV	WOODRIDGE SOUTH - CAYLE DR OUTFALL TO SWALE SOUTH	Polyvinylchloride Pipe (PVC)	12
214572	19333600SN	Outfall to Facility	CITY	ACTV	CLARKE OUTFALL INTO SWALE E/OF PS GATE	Ductile Iron Pipe	8
214573	1982000SN	Outfall to Facility	CITY	ACTV	CLARKE OUTFALL TO SWALE W/BENNETT	Ductile Iron Pipe	8
214619	19334000SN	Outfall to Facility	CITY	ACTV	CLARKE AVE, OUTFALL E/PUMP STA	Ductile Iron Pipe	8
214620	19333800SN	Outfall to Facility	CITY	ACTV		Ductile Iron Pipe	8
214621	19334200SN	Outfall to Facility	CITY	ACTV		Ductile Iron Pipe	8
215152	01296300SN	Outfall to Ground	CITY	ACTV	SCONIER'S 1ST ADD - WINDFLOWER CT STORM	Polyvinylchloride Pipe (PVC)	18
215163	01297400SN	Outfall to Ground	CITY	ACTV	SCONIER'S 1ST ADD - OAK STREET STORM	Ductile Iron Pipe	12
216573	90609208SN	Outfall to Ground	CITY	ACTV	N OF SHOSHONE IN PARK	Polyvinylchloride Pipe (PVC)	18
216582	90609400SN	Outfall to Ground	CITY	ACTV	16TH	Ductile Iron Pipe	8
216602	11100100SN	Outfall to Facility	CITY	ACTV	SWALE N OF NORTH RIVER	Polyvinylchloride Pipe (PVC)	8
216603	11100400SN	Outfall to Facility	CITY	ACTV	SWALE N OF NORTH RIVER	Polyvinylchloride Pipe (PVC)	10
216734	90606700SN	Outfall to Facility	CITY	ACTV	OUTFALL TO SWALE, MYTLE SWINDSONG	Concrete Pipe	24
216736	04101000SN	Outfall to Facility	CITY	ACTV	W OF DOWNRIVER IN DISC GOLF COURSE	Ductile Iron Pipe	30
216842	19995200SN	Outfall to Facility	CITY	ACTV	OLMSTEAD GREEN OF FROM COSKY FM	Ductile Iron Pipe	6
216843	19995300SN	Outfall to Facility	CITY	ACTV	OLMSTEAD GREEN OF FROM COSKY FM	Ductile Iron Pipe	6
217365	2319400SN	Outfall to Ground	CITY	ACTV	WHISTALKS WAY EAST SIDE S/O TJ MEENACH BRIDGE	Ductile Iron Pipe	8
217725	90887108SN	Outfall to Ground	CITY	ACTV	3RD OUTFALL N OF BROADWAY	Ductile Iron Pipe	8

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THEY SAW ANYTHING TO CALL, AND THE FINE FOR THE INFRACTION WAS SUBSTANTIAL</Explain>
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NORTHWEST CORNER, THERE WAS MOTOR OIL ON THE STREET AND IN THE BASIN, IT MADE IT FROM
THE BASIN TO THE SUMP. WE CLEANED THE OIL OFF OF THE STREET AND THE SNUFF BOX LID, AND PUT
OIL ABSORBENT PADS IN THE SUMP AND WILL FORWARD A WORK ORDER TO HAVE THE SNUFF AND
SUMP PUMPED. I TALKED WITH THE HOMEOWNER NEXT TO THE SNUFF BOX AND REQUESTED SHE CALL
MY NUMBER AND REPORT ANYONE DUMPING IN THE STORM. I EXPLAINED TO HER THE FINE AND COST
OF CLEAN UP WAS SUBSTANTIAL, AND SHE ASSURED ME THAT IF SHE OBSERVED ANY DUMPING IN THE
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</MS4Discharge>
<Location>
  <Address>
    <Address>4411 W WELLESLEY AVE</Address>
    <City>SPOKANE</City>
    <PostalCode>99037</PostalCode>
  </Address>
</Location>
<Pollutants>
  <Pollutant type="2"/>
</Pollutants>
<Sources>
  <Source type="2"/>
</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="1"/>
</Corrections>
<Notes>RESTURANT HAD OIL FROM OIL BIN AND SMOKER LEAKING INTO ALLEY, APPEARS TO
BE FROM CARELESSNESS OF EMPLOYEES, WE TALKED WITH THE MANAGER MICHAEL AND HE ASSURED
US THE OIL WOULD BE CLEANED UP AND THE PROBLEM RECTIFIED BY TOMORROW. WE WILL BE
DRIVING BY TOMORROW TO CHECK ON THE PROGRESS AND TO SEE IF ANY OTHER ASSISTANCE IS
NEEDED.</Notes>
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>60</IncidentId>
  <DateReported>2022-06-27</DateReported>
  <DateResponseBegin>2022-06-28</DateResponseBegin>
  <DateResponseEnd>2022-06-28</DateResponseEnd>
  <Discovered>
    <Discovered type="1"/>
  </Discovered>
  <MS4Discharge>
    <YesNoNotice/>
  </MS4Discharge>
  <Location>
    <Address>
      <Address>2105 E Everett Ave</Address>
      <City>Spokane</City>
      <PostalCode>99207</PostalCode>
    </Address>
  </Location>
  <Pollutants>
    <Pollutant type="1"/>
  </Pollutants>

```

```
<Sources>
  <Source type="7"/>
</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="0"/>
</Corrections>
```

<Notes>I Drove up to the intersection of Crestline St and Everett Ave, where an automobile was in an accident on the North East corner of the intersection. I inspected the grass, the right of way and the Catch Basin at the intersection. I noted that there did not appear to be any automotive fluid on the lawn, or the sidewalk, but did note a heavy sheen in the catch basin, I applied Absorbent pads, and scheduled a pump truck to remove the pad and pump the catch basin. Catch Basin pumped on June 29th, 2022 at 1:00 pm in the afternoon.</Notes>

```
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>59</IncidentId>
  <DateReported>2022-06-23</DateReported>
  <DateResponseBegin>2022-06-23</DateResponseBegin>
  <DateResponseEnd>2022-06-27</DateResponseEnd>
  <Discovered>
    <Discovered type="1"/>
  </Discovered>
  <MS4Discharge>
    <NoCleanedUp/>
  </MS4Discharge>
  <Location>
    <Address>
      <Address>Providence & Crestline</Address>
      <City>Spokane</City>
      <PostalCode>99207</PostalCode>
    </Address>
  </Location>
  <Pollutants>
    <Pollutant type="5"/>
  </Pollutants>
  <Sources>
    <Source type="8"/>
  </Sources>
  <Traces>
    <Trace type="1"/>
  </Traces>
  <Corrections>
    <Correction type="0"/>
    <Correction type="1"/>
  </Corrections>
  <Notes>MOTORHOME AT HAYS PARK, PROVIDENCE AVE, W/O CRESTLINE LEAKING SEPTIC FROM HOLDING TANK.
```

I DROVE UP TO PROVIDENCE AVE W/O CRESLINE ST AND MADE CONTACT WITH OCCUPANT OF A MOTORHOME NEXT TO HAYS PARK THAT HAD A LEAKING VALVE ON THE HOLDING TANK. I TALKED WITH SHAWN TITUS PH NUMBER 509-855-9601, AND INSTUCTED HIM THAT HE WAS IN VIOLATION OF CITY CODE AND REQUESTED THAT HE MITIGATE THE LEAK IN HIS VEHICLE AND CLEAN UP THE MESS ON THE STREET USING DRYSWEEP THAT I PROVIDED AND BAG THE DEBRIS IN A TRASH BAG. SHAWN STATED THAT HE WOULD CLEAN UP THE MESS. I WILL BE DRIVING BACK TO THE AREA AND CHECK ON HIS

PROGRESS ON MONDAY JUNE 27TH.

I returned to Providence Ave W/O Crestline on June 27th, the motorhome was gone, I cleaned up the mess made from the holding tank.</Notes>

</IDDEEvent>

<IDDEEvent>

<Jurisdiction>WAR045605</Jurisdiction>

<IncidentId>58</IncidentId>

<DateReported>2022-05-24</DateReported>

<DateResponseBegin>2022-05-24</DateResponseBegin>

<DateResponseEnd>2022-05-24</DateResponseEnd>

<Discovered>

<Discovered type="4"/>

</Discovered>

<MS4Discharge>

<YesNotifiedECY/>

</MS4Discharge>

<Location>

<Address>

<Address>Rich & Lacey</Address>

<City>Spokane</City>

<PostalCode>99207</PostalCode>

</Address>

</Location>

<Pollutants>

<Pollutant type="4"/>

<Pollutant type="10">

<Explain>Street debris</Explain>

</Pollutant>

</Pollutants>

<Sources>

<Source type="9"/>

</Sources>

<Traces>

<Trace type="1"/>

</Traces>

<Corrections>

<Correction type="1"/>

</Corrections>

<Notes>Spokane City Streets Dept. flush truck was flushing Rich Street in the Bemis area and did not have a street sweeper following in adequate time allowing water and debris into the storm drains. I discussed this ERTS Incident with my supervisor and he Dan Duffy called the streets dept. and talked with them about their Operations and Maintenance plans regarding street sweeping and informed them that they needed to have the sweeper trucks in a closer tandem with the flush truck.</Notes>

</IDDEEvent>

<IDDEEvent>

<Jurisdiction>WAR045605</Jurisdiction>

<IncidentId>55</IncidentId>

<DateReported>2022-11-15</DateReported>

<DateResponseBegin>2022-11-15</DateResponseBegin>

<DateResponseEnd>2022-11-17</DateResponseEnd>

<Discovered>

<Discovered type="0"/>

</Discovered>

<MS4Discharge>

<NoCleanedUp/>

</MS4Discharge>

```

<Location>
  <Address>
    <Address>4718 N MADISON</Address>
    <City>SPOKANE</City>
    <PostalCode>99205</PostalCode>
  </Address>
</Location>
<Pollutants>
  <Pollutant type="1"/>
</Pollutants>
<Sources>
  <Source type="0"/>
</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="0"/>
  <Correction type="1"/>
</Corrections>
<Notes>UPON INVESTIGATION WE MADE CONTACT WITH THE HOMEOWNER AND EXPLAINED
THAT ALL PRECAUTIONS NEED TO BE MADE TO KEEP ALL OIL AND CONTAMINANTS OFF OF STREET AND
ON PROPERTY. SHE STATED WILL HAVE CLEANED UP AS SOON AS POSSIBLE.</Notes>
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>54</IncidentId>
  <DateReported>2022-10-31</DateReported>
  <DateResponseBegin>2022-10-31</DateResponseBegin>
  <DateResponseEnd>2022-10-31</DateResponseEnd>
  <Discoveredes>
    <Discovered type="3"/>
    <Discovered type="8">
      <Explain>Dept of Ecology (Afer hours spill Team dispatched)</Explain>
    </Discovered>
  </Discoveredes>
  <MS4Discharge>
    <YesNoNotice/>
  </MS4Discharge>
  <Location>
    <Address>
      <Address>Monroe & Boone Ave</Address>
      <City>Spokane</City>
      <PostalCode>99201</PostalCode>
    </Address>
  </Location>
  <Pollutants>
    <Pollutant type="10">
      <Explain>Transformer cooling oil</Explain>
    </Pollutant>
  </Pollutants>
  <Sources>
    <Source type="7"/>
  </Sources>
  <Traces>
    <Trace type="1"/>
    <Trace type="6">

```

<Explain>Drysweep residue, waddle in nec catchbasin on Monroe &

Boone</Explain>

</Trace>

</Traces>

<Corrections>

<Correction type="7">

<Explain>Oil cleaned up by a private company working for Avista Utilities</Explain>

</Correction>

</Corrections>

<Notes>Rob and I drove up to the alley n\o Boone Ave, e\o Monroe St. to investigate a vehicle vs. power pole incident sent by email from Dept. of Ecology, when we arrived the oil was cleaned up in the alley and a waddle was installed in the catch basin downstream from the incident. All clean up and mitigation was performed by a private company (Able Cleanup) that was dispatched by Avista Utilities, no further investigation or clean up was required.</Notes>

</IDDEEvent>

<IDDEEvent>

<Jurisdiction>WAR045605</Jurisdiction>

<IncidentId>27</IncidentId>

<DateReported>2022-01-12</DateReported>

<DateResponseBegin>2022-01-12</DateResponseBegin>

<DateResponseEnd>2022-01-12</DateResponseEnd>

<Discovered>

<Discovered type="1"/>

</Discovered>

<MS4Discharge>

<NoCleanedUp/>

</MS4Discharge>

<Location>

<Address>

<Address>204 E Nora Ave</Address>

<City>Spokane</City>

<PostalCode>99207</PostalCode>

</Address>

</Location>

<Pollutants>

<Pollutant type="1"/>

</Pollutants>

<Sources>

<Source type="11">

<Explain>A disabled vehicle spilled fuel onto the street, but it was no longer present.

</Explain>

</Source>

</Sources>

<Traces>

<Trace type="1"/>

</Traces>

<Corrections>

<Correction type="0"/>

</Corrections>

<Notes>I drove up to 204 E. Nora in response to a call from Hvac Northwest, stating that a disabled vehicle has spilled fuel onto the street and was no longer present, but the rain was washing the fuel down the street in front of their building. I located an early 1980's Ford Van (Lic plate number BUJ8683) to the east of the school that appeared to have been being worked on in the parking strip of the street. I could smell gasoline around the van and observed the rain water that was flowing from under the van was carrying petroleum products down the street. I could not at the time tell if the van was still leaking fuel or other products due to the rain and wet street. I put down a few absorbent pads underneath the van and in the flow of water along the curb line to absorb the petroleum from the area of the van. I will be going back

by this area to collect the pads in a while and see if the petroleum spill has been taken care of. I drove by 204 E Nora on Jan 17 th and removed the absorbant pads from the catch basin on the south side of the street and re applied new absorbant pads due to the presence of petroleum products in the water, will drive by tomorrow and remove the pads and re inspect the catch basin for further issues. I drove up to 204 E Nora and removed the remaining absorbent pads from the south side catch basin, it does not appear there is any fuel running down the curbline and into the catch basin at this time.</Notes>

</IDDEEvent>

<IDDEEvent>

<Jurisdiction>WAR045605</Jurisdiction>

<IncidentId>52</IncidentId>

<DateReported>2022-10-18</DateReported>

<DateResponseBegin>2022-10-18</DateResponseBegin>

<DateResponseEnd>2022-10-18</DateResponseEnd>

<Discovered>

<Discovered type="1"/>

</Discovered>

<MS4Discharge>

<NoCleanedUp/>

</MS4Discharge>

<Location>

<Address>

<Address>Ralph St & Main Ave</Address>

<City>Spokane</City>

<PostalCode>99202</PostalCode>

</Address>

</Location>

<Pollutants>

<Pollutant type="6"/>

</Pollutants>

<Sources>

<Source type="11">

<Explain>Leaking Grey water valve</Explain>

</Source>

</Sources>

<Traces>

<Trace type="1"/>

</Traces>

<Corrections>

<Correction type="1"/>

</Corrections>

<Notes>Went to location and noted that the leak was Grey water and NOT Sewage. Spoke with owner and informed her that the Leak needs to be fixed and that the spill needs to be cleaned up as soon as possible. Estimated total was 1 to 1.5 gallons spilled.</Notes>

</IDDEEvent>

<IDDEEvent>

<Jurisdiction>WAR045605</Jurisdiction>

<IncidentId>50</IncidentId>

<DateReported>2022-10-07</DateReported>

<DateResponseBegin>2022-10-07</DateResponseBegin>

<DateResponseEnd>2022-10-07</DateResponseEnd>

<Discovered>

<Discovered type="0"/>

<Discovered type="8">

<Explain>CITIZEN (DAUGHTER OF HOMEOWNER) DROVE BY RV ON STREET AND

NOTICED A LARGE WET AREA</Explain>

</Discovered>

</Discovered>

```

<MS4Discharge>
  <YesNotifiedECY/>
</MS4Discharge>
<Location>
  <Address>
    <Address>3411 E 18TH AVE</Address>
    <City>SPOKANE</City>
    <PostalCode>99223</PostalCode>
  </Address>
</Location>
<Pollutants>
  <Pollutant type="5"/>
</Pollutants>
<Sources>
  <Source type="11">
    <Explain>RECREATIONAL VEHICLE USED AS PRIMARY RESIDENCE</Explain>
  </Source>
</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="0"/>
  <Correction type="1"/>
</Corrections>

```

<Notes>I RECEIVED A CALL ABOUT A MOTORHOME PARKED IN FRONT OF 3411 E 18TH AVE STATING THAT A LARGE WET SPOT WAS NOTICED UNDER A MOTORHOME, I DROVE TO THE ADDRESS AND CONFIRMED THAT THE SEPTIC TANK WAS DISCHARGED ONTO THE STREET, I TOOK PICTURES AND CONTACTED THE OCCUPANT OF THE MOTORHOME. THE OCCUPANT AMY KAISI 509-370-4956 ASSURED ME THAT SHE DID NOT OPEN THE HOLDING TANK ON THE MOTORHOME AND WOULD CLEAN UP THE DISCHARGE. I LEFT A LARGE BAG OF DRYSWEEP A GALLON OF BLEACH AND A LARGE GARBAGE BAG TO DISPOSE OF THE DRYSWEEP ONCE IT WAS SWEEPED UP. THIS WAS THE SECOND TIME THAT I HAVE BEEN DISPATCHED TO THIS MOTORHOME, THE FIRST TIME THERE WAS NO DISCHARGE, THIS TIME THE SAFETY CAP WAS OFF OF THE DISCHARGE PORT AND THE VALVE WAS COMPLETELY OPEN. I HAVE RESERVATIONS THAT THE OCCUPANTS OF THE MOTORHOME DISCHARGED THE SEPTIC ON THE MOBILE HOME INTENTIONALLY. I DROVE BY 3411 E 18TH AVE ON OCTOBER 10, 2022 AND PERFORMED A FOLLOW UP INSPECTION, THE SEWAGE SPILL WAS CLEANED UP OFF OF THE STREET.</Notes>

</IDDEEvent>

<IDDEEvent>

```

  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>49</IncidentId>
  <DateReported>2022-10-06</DateReported>
  <DateResponseBegin>2022-10-06</DateResponseBegin>
  <DateResponseEnd>2022-10-06</DateResponseEnd>
  <Discovered>
    <Discovered type="4"/>
    <Discovered type="8">
      <Explain>Email from Amanda Mars at Ecology</Explain>
    </Discovered>
  </Discovered>
</MS4Discharge>
  <Other>
    <Explain>covered catch basin and contacted contractor</Explain>
  </Other>
</MS4Discharge>
<Location>
  <Address>

```

```

        <Address>6103 N Stevens</Address>
        <City>Spokane</City>
        <PostalCode>99205</PostalCode>
    </Address>
</Location>
<Pollutants>
    <Pollutant type="3"/>
</Pollutants>
<Sources>
    <Source type="5"/>
</Sources>
<Traces>
    <Trace type="1"/>
</Traces>
<Corrections>
    <Correction type="1"/>
    <Correction type="2"/>
</Corrections>
<Notes>Went to above address and spoke with homeowner. She informed us that the
contractor will be removing today or tomorrow. We placed inlet protection on catch basin, I then called the
contractor and informed him of the situation. I then instructed the contractor that when the job is complete
and after clean up to remove the inlet protection. I drove by 6103 n Stevens St. and performed an illicit
discharge follow up inspection, the dirt was removed from the right of way and the catch basin protection
was removed.</Notes>
</IDDEEvent>
<IDDEEvent>
    <Jurisdiction>WAR045605</Jurisdiction>
    <IncidentId>48</IncidentId>
    <DateReported>2022-09-30</DateReported>
    <DateResponseBegin>2022-10-03</DateResponseBegin>
    <DateResponseEnd>2022-10-04</DateResponseEnd>
    <Discovered>
        <Discovered type="3"/>
        <Discovered type="4"/>
        <Discovered type="8">
            <Explain>A former Ecology Permit Manager was visiting Spokane recently, and
observed the City Fire Department at Station #4 conducting washdown of the pavement at their facility
using a fire hose, noting that it is an illicit discharge.</Explain>
        </Discovered>
    </Discovered>
</MS4Discharge>
    <YesNoNotice/>
</MS4Discharge>
<Location>
    <Address>
        <Address>1515 W 1ST AVE</Address>
        <City>SPOKANE</City>
        <PostalCode>99204</PostalCode>
    </Address>
</Location>
<Pollutants>
    <Pollutant type="10">
        <Explain>DRIVEWAY WASHDOWN POSSIBLE SEDIMENT</Explain>
    </Pollutant>
</Pollutants>
<Sources>
    <Source type="11">

```



```

        <Explain>FIREHOSE</Explain>
    </Source>
</Sources>
<Traces>
    <Trace type="1"/>
</Traces>
<Corrections>
    <Correction type="1"/>
</Corrections>
<Notes>ENVIRONMENTAL ANALYST WILL FOLLOW UP WITH FIRE DEPARTMENT AND D.O.E.
</Notes>
</IDDEEvent>
<IDDEEvent>
    <Jurisdiction>WAR045605</Jurisdiction>
    <IncidentId>47</IncidentId>
    <DateReported>2022-09-28</DateReported>
    <DateResponseBegin>2022-09-28</DateResponseBegin>
    <DateResponseEnd>2022-09-28</DateResponseEnd>
    <Discovered>
        <Discovered type="0"/>
        <Discovered type="8">
            <Explain>CITIZEN REPORT</Explain>
        </Discovered>
    </Discovered>
    <MS4Discharge>
        <Other>
            <Explain>ISOLATED CATCH BASIN FROM DRYWELL AND COVERED CATCH BASIN
FROM WEATHER EVENTS</Explain>
        </Other>
    </MS4Discharge>
    <Location>
        <Address>
            <Address>4128 E LONGFELLOW</Address>
            <City>SPOKANE</City>
            <PostalCode>99217</PostalCode>
        </Address>
    </Location>
    <Pollutants>
        <Pollutant type="0"/>
        <Pollutant type="5"/>
        <Pollutant type="10">
            <Explain>Testing from Treatment Facility came back positive for Unspecified Fecal
Matter.</Explain>
        </Pollutant>
    </Pollutants>
    <Sources>
        <Source type="9"/>
    </Sources>
    <Traces>
        <Trace type="1"/>
    </Traces>
    <Corrections>
        <Correction type="0"/>
        <Correction type="6"/>
        <Correction type="7">
            <Explain>REFERRED TO PRETREATMENT AT WASTE WATER TREATMENT FACILITY
FOR TESTING, Attached Nothing but rain down the drain marker to the curb next to the catch basin.

```

```

</Explain>
    </Correction>
  </Corrections>
  <Notes>We responded to an address that is currently a nuisance home for an occupant hosing
the driveway and sidewalk down the street into the catch basin to the south. We could not determine the
substance that was in the catch basin at the time. We notified the waste water treatment facility and met
with them to take some samples of the water in the catch basin and isolated the catch basin on both of the
intake and discharge point and are waiting for the results of the chemical tests to return. Testing from
Treatment Facility returned with unspecified fecal matter. We will be inspecting this particular catch basin on
a regular basis.</Notes>
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>46</IncidentId>
  <DateReported>2022-09-20</DateReported>
  <DateResponseBegin>2022-09-21</DateResponseBegin>
  <DateResponseEnd>2022-09-21</DateResponseEnd>
  <Discovered>
    <Discovered type="0"/>
    <Discovered type="8">
      <Explain>CITIZEN CALL</Explain>
    </Discovered>
  </Discovered>
  <MS4Discharge>
    <YesNoNotice/>
  </MS4Discharge>
  <Location>
    <Address>
      <Address>1420 S HELENA ST</Address>
      <City>SPOKANE</City>
      <PostalCode>99206</PostalCode>
    </Address>
  </Location>
  <Pollutants>
    <Pollutant type="5"/>
  </Pollutants>
  <Sources>
    <Source type="11">
      <Explain>side sewer leak</Explain>
    </Source>
  </Sources>
  <Traces>
    <Trace type="1"/>
  </Traces>
  <Corrections>
    <Correction type="0"/>
  </Corrections>
  <Notes>The sewer main was cleaned, and the homeowner hired a drain cleaning company to
clean the side sewer, we checked on the address on Wednesday the 21st and there was no apparent sewage
leak on the street following the maintenance.</Notes>
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>45</IncidentId>
  <DateReported>2022-08-22</DateReported>
  <DateResponseBegin>2022-08-22</DateResponseBegin>
  <DateResponseEnd>2022-08-22</DateResponseEnd>

```

```

<Discovered>
  <Discovered type="0"/>
  <Discovered type="8">
    <Explain>Private company reviewing security video</Explain>
  </Discovered>
</Discovered>
<MS4Discharge>
  <YesNotifiedECY/>
</MS4Discharge>
<Location>
  <Address>
    <Address>1st Ave & Ralph Street</Address>
    <City>Spokane</City>
    <PostalCode>99202</PostalCode>
  </Address>
</Location>
<Pollutants>
  <Pollutant type="5"/>
</Pollutants>
<Sources>
  <Source type="8"/>
</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="0"/>
</Corrections>

```

<Notes>I went down to 1st Ave and Ralph St. sprayed the solids that were dried on the street with a bleach mixture and Truck 309 assisted in washing the street and vactoring the feces and waste water off of the street. Streets dept has been notified to sweep the streets again tomorrow.</Notes>

```

</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>53</IncidentId>
  <DateReported>2022-10-24</DateReported>
  <DateResponseBegin>2022-10-24</DateResponseBegin>
  <DateResponseEnd>2022-10-24</DateResponseEnd>
  <Discovered>
    <Discovered type="0"/>
    <Discovered type="1"/>
  </Discovered>
  <MS4Discharge>
    <NoCleanedUp/>
  </MS4Discharge>
  <Location>
    <Address>
      <Address>Alley west of wall & Rockwell</Address>
      <City>Spokane</City>
      <PostalCode>99217</PostalCode>
    </Address>
  </Location>
  <Pollutants>
    <Pollutant type="5"/>
  </Pollutants>
  <Sources>
    <Source type="9"/>
  </Sources>

```

```

</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="0"/>
  <Correction type="1"/>
</Corrections>
<Notes>Jim Montague dispatched crew to investiagte report. Crews cleaned up discharge with
Vaccum trucks and treated are with diluted bleach water. Crew spoke with Property owner about dumping
anything in alley. He stated that the tenant at 4217 (Ryan & Michaela Evarts) was the one doing the
dumping and that they are in the process of having tenant evicted.</Notes>
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>33</IncidentId>
  <DateReported>2022-03-02</DateReported>
  <DateResponseBegin>2022-03-02</DateResponseBegin>
  <DateResponseEnd>2022-03-02</DateResponseEnd>
  <Discovered>
    <Discovered type="1"/>
  </Discovered>
  <MS4Discharge>
    <NoCleanedUp/>
  </MS4Discharge>
  <Location>
    <Address>
      <Address>394 N Post St</Address>
      <City>Spokane</City>
      <PostalCode>99201</PostalCode>
    </Address>
  </Location>
  <Pollutants>
    <Pollutant type="10">
      <Explain>White dye/chalk</Explain>
    </Pollutant>
  </Pollutants>
  <Sources>
    <Source type="10"/>
    <Source type="11">
      <Explain>Ice rink is discharging melted rink ice into storm system</Explain>
    </Source>
  </Sources>
  <Traces>
    <Trace type="1"/>
  </Traces>
  <Corrections>
    <Correction type="0"/>
  </Corrections>
  <Notes>6:02 PM Crew 6,Crew 7 and Crew 12 Investigated Illicit Discharge. Found that the Ice
Rink is discharging melted rink ice with chalk dye into Storm System leading to inlet on Post St. Inlet outfall
on Street was pancaked so water backed up onto street and flowed into construction site. Crew 7 pumped
basin down to not allow anymore Illicit discharge to continue. MH entry was done to plug lines in Storm
Swale in park and inlet on street to prevent further discharge. Turned over to supervisor for follow up.

```

Response from Dan Duffey on 3-3-2022 at 10:22 AM

The amount of dyed water that left the basin and pooled on the construction entrance was about 20 gallons.

Water was pumped into truck when they were pumping the catch basin.</Notes>

</IDDEEvent>

<IDDEEvent>

<Jurisdiction>WAR045605</Jurisdiction>

<IncidentId>42</IncidentId>

<DateReported>2022-07-06</DateReported>

<DateResponseBegin>2022-07-07</DateResponseBegin>

<DateResponseEnd>2022-07-07</DateResponseEnd>

<Discovered>

<Discovered type="0"/>

<Discovered type="8">

<Explain>Caller observed neighbor dumping oil into city catch basin</Explain>

</Discovered>

</Discovered>

<MS4Discharge>

<YesNotifiedECY/>

</MS4Discharge>

<Location>

<Address>

<Address>6612 S Baymont St.</Address>

<City>Spokane</City>

<PostalCode>99224</PostalCode>

</Address>

</Location>

<Pollutants>

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</Pollutants>

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</Sources>

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<Trace type="1"/>

</Traces>

<Corrections>

<Correction type="0"/>

<Correction type="6"/>

<Correction type="7">

<Explain>Put absorbent pads into catch basin to separate the oil from the water, sent email to code enforcement for possible fine</Explain>

</Correction>

</Corrections>

<Notes>We attempted to make contact with the occupant of 6612 S Baymont St. to discuss the mitigation of oil in the catch basin and the clean up on the street and sidewalk, we did not get a response at the residence, I left a copy of the Spokane Municipal Code, my business card and a door hanger requesting a call about the leaking vehicle and the intentional dumping of oil into the City storm system. I sent an email to Code Enforcement requesting information on the registered owner of the vehicle and requesting a fine to occupant for an illicit discharge under, Spokane Municipal Code 17D.060.190. I will be stopping back by the residence to attempt contact with vehicle owner.</Notes>

</IDDEEvent>

<IDDEEvent>

<Jurisdiction>WAR045605</Jurisdiction>

<IncidentId>40</IncidentId>

<DateReported>2022-05-26</DateReported>

<DateResponseBegin>2022-05-26</DateResponseBegin>

<DateResponseEnd>2022-05-26</DateResponseEnd>

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    <Address>245 W Spokane Falls Blvd</Address>
    <City>Spokane</City>
    <PostalCode>99201</PostalCode>
  </Address>
</Location>
<Pollutants>
  <Pollutant type="10">
    <Explain>drywall, drywall mud</Explain>
  </Pollutant>
</Pollutants>
<Sources>
  <Source type="5"/>
</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="0"/>
  <Correction type="1"/>
</Corrections>
<Notes>Contractor remodeling restaurant was careless with debris, broken drywall and paint. I
instructed the crew to sweep up the alley and clean the debris out of the catch basin lid and to clean up on a
daily basis when working next to the catch basin, I was reassured that this would be a point of emphasis.
Contact is Helio Vieira 1-408-396-0351</Notes>

```

```

</IDDEEvent>
<IDDEEvent>
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  <IncidentId>39</IncidentId>
  <DateReported>2022-04-28</DateReported>
  <DateResponseBegin>2022-04-29</DateResponseBegin>
  <DateResponseEnd>2022-04-29</DateResponseEnd>
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      <Address>608 E Broad Ave</Address>
      <City>Spokane</City>
      <PostalCode>99207</PostalCode>
    </Address>
  </Location>
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    <Pollutant type="9"/>
  </Pollutants>
  <Sources>
    <Source type="11">
      <Explain>Washing vehicle in street</Explain>
    </Source>

```

```

</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="1"/>
</Corrections>
<Notes>SPOKE WITH HOMEOWNER NICHOL GRINGON (509-279-1819) ABOUT WASHING
VEHICLES ON THE STREET, AND THE REASONS THAT THAT IS NOT ALLOWED. GAVE HER LITERATURE
ABOUT STORMWATER. SHE SAID SHE WILL NOT CONTINUE TO WASH VEHICLES IN STREET.</Notes>
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>38</IncidentId>
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  <DateResponseEnd>2022-04-19</DateResponseEnd>
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  <Location>
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      <City>Spokane</City>
      <PostalCode>99205</PostalCode>
    </Address>
  </Location>
  <Pollutants>
    <Pollutant type="10">
      <Explain>Removed brush and stumps</Explain>
    </Pollutant>
  </Pollutants>
  <Sources>
    <Source/>
  </Sources>
  <Traces>
    <Trace/>
  </Traces>
  <Corrections>
    <Correction/>
  </Corrections>
  <Notes>Me and Rob Bacon drove up to 3018 N Belt Street in response to a complaint by a
neighbor, the neighbor stated that there was a construction project at the above address and the owner of
the property had failed to use proper ESC procedures during a grading operation. Me and Rob inspected the
property and took a couple of pictures where some brush and stumps had been removed, this was a minor
operation and had no impact to right of way or other private property. At this time We do not feel that any
rules or regulations were violated.</Notes>
</IDDEEvent>
<IDDEEvent>
  <Jurisdiction>WAR045605</Jurisdiction>
  <IncidentId>37</IncidentId>
  <DateReported>2022-04-15</DateReported>
  <DateResponseBegin>2022-04-15</DateResponseBegin>
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</Discovered>
<MS4Discharge>
  <NoCleanedUp/>
</MS4Discharge>
<Location>
  <Address>
    <Address>E 2nd Ave & S Ralph St</Address>
    <City>Spokane</City>
    <PostalCode>99202</PostalCode>
  </Address>
</Location>
<Pollutants>
  <Pollutant type="6"/>
</Pollutants>
<Sources>
  <Source type="9"/>
</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="1"/>
  <Correction type="6"/>
</Corrections>

```

<Notes>2nd Ave & Ralph St on the northwest corner of the intersection there is a motor home that has the discharge hose laid out to the curb. Liquid has been discharged from this hose. I talked to James Stokes 509-866-1421 about the hose. He told us that this was just gray water and not sewage. We explained to James that he can't do this and needs to collect the water and dispose it in a proper manner IE: toilet. James said he would get it cleaned up, collect the gray water and dispose as per our instructions. I told James that we would be back next week to verify that the spill has been cleaned up. If further resolution has not been completed a Notice of Violation and Citation will follow.

Might be advisable that someone from the City of Spokane contact the Department of Transportation about the potential of waste being dump on the site from the RV's on site.

4-15-2022 2:35 PM

Raylene Gennett WWM Director called Jason Huotari 509-218-5667 with the DOT as a courtesy that waste could be discharging on property

4-18-2022

Rod drove by at 1:00 PM to check on complaint to see if it was corrected. It was completed as asked.

4-19-2022

Rob W drove by at 2:25 PM to check status. Still OK.</Notes>

```

</IDDEEvent>

```

```

<IDDEEvent>

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  <Jurisdiction>WAR045605</Jurisdiction>
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  <DateResponseBegin>2022-04-11</DateResponseBegin>
  <DateResponseEnd>2022-04-11</DateResponseEnd>
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</IDDEEvent>
<MS4Discharge>

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        <NoNoneFound/>
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            <City>Spokane</City>
            <PostalCode>99205</PostalCode>
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    </Location>
    <Pollutants>
        <Pollutant type="7"/>
    </Pollutants>
    <Sources>
        <Source type="0"/>
    </Sources>
    <Traces>
        <Trace type="1"/>
    </Traces>
    <Corrections>
        <Correction type="7">
            <Explain>No action taken. No pollutants found.</Explain>
        </Correction>
    </Corrections>
    <Notes>Neighbor was painting cars and cleaning tools in catch basin in alley. I checked the
catch basin in the alley behind 2318 W Broad Ave. and did not see any paint in the catch basin, on the
cover, or in the alley at the time, I received the email from Dept. of Ecology 3 days after the initial report
and we have had a number of minor snow and rain events.</Notes>
</IDDEEvent>
<IDDEEvent>
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    <DateResponseBegin>2022-06-28</DateResponseBegin>
    <DateResponseEnd>2022-06-28</DateResponseEnd>
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    </Discovered>
    <MS4Discharge>
        <YesNotifiedECY/>
    </MS4Discharge>
    <Location>
        <Address>
            <Address>Division & Wellsley</Address>
            <City>Spokane</City>
            <PostalCode>99207</PostalCode>
        </Address>
    </Location>
    <Pollutants>
        <Pollutant type="3"/>
    </Pollutants>
    <Sources>
        <Source type="11">
            <Explain>City of Spokane street sweepers not working properly, depositing dirt and
fluids back onto the street and impacting catch basins.</Explain>
        </Source>
    </Sources>
    <Traces>

```

```

        <Trace type="1"/>
    </Traces>
    <Corrections>
        <Correction/>
        <Correction type="1"/>
    </Corrections>
    <Notes>City of Spokane street sweepers not working properly, depositing dirt and fluids back
onto the street and impacting catch basins.</Notes>
</IDDEEvent>
<IDDEEvent>
    <Jurisdiction>WAR045605</Jurisdiction>
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    <MS4Discharge>
        <NoCleanedUp/>
    </MS4Discharge>
    <Location>
        <Address>
            <Address>Wabash Ave & Napa St</Address>
            <City>Spokane</City>
            <PostalCode>99207</PostalCode>
        </Address>
    </Location>
    <Pollutants>
        <Pollutant type="1"/>
        <Pollutant type="10">
            <Explain>Car hulk</Explain>
        </Pollutant>
    </Pollutants>
    <Sources>
        <Source type="11">
            <Explain>There is a Honda Prelude that has been dismantled on rounds of wood. The
engine and transmission are gone and parts laying all over.</Explain>
        </Source>
    </Sources>
    <Traces>
        <Trace type="1"/>
    </Traces>
    <Corrections>
        <Correction type="0"/>
        <Correction type="6"/>
    </Corrections>
    <Notes>I stopped by Wabash Ave & Napa St. There is a small amount of oil around the car
that will need to be cleaned up once the car is removed. On the NWC corner there is a Honda Prelude that
has been dismantled on rounds of wood. The engine and transmission are gone and parts laying all over.
There was a person that I recognized from a previous call at that same location that I talked to. Shawn
Healy was the name he gave me with a phone # 509-953-1415 and an address of 6123 N Regal St. Shawn
told me that he owns the tires and parts under the tarp on the ROW but not the car. He said it just showed
up one night. Shawn said it is an abandoned car. I have included Luis Garcia in this E-mail so Code
Enforcement can get the abandoned car removed and once it is gone I can clean up small oil spill.

```

3-8-2022 Car has been removed. Cleaned up small parts and laid absorbal down on the oil and swept up.

```

</Notes>
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  <IDDEEvent>
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    <DateResponseEnd>2022-08-02</DateResponseEnd>
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      <Discovered type="8">
        <Explain>COUNTY STORM INSPECTOR</Explain>
      </Discovered>
    </Discovered>
    <MS4Discharge>
      <Other>
        <Explain>WHITE PAINT DUMPED INTO CATCH BASIN ONLY FLOWED TO 1 ST MH
DOWN STREAM</Explain>
      </Other>
    </MS4Discharge>
    <Location>
      <Address>
        <Address>4210 S PINECLIFF CT</Address>
        <City>SPOKANE</City>
        <PostalCode>99208</PostalCode>
      </Address>
    </Location>
    <Pollutants>
      <Pollutant type="7"/>
    </Pollutants>
    <Sources>
      <Source type="5"/>
    </Sources>
    <Traces>
      <Trace type="1"/>
    </Traces>
    <Corrections>
      <Correction type="0"/>
      <Correction type="1"/>
    </Corrections>
    <Notes>PAINT DUMPED IN CITY CATCH BASIN AT 4210 S PINECLIFF CT.</Notes>
  </IDDEEvent>
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        <Longitude>-117.478794</Longitude>
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</Pollutants>
<Sources>
    <Source type="5"/>
</Sources>
<Traces>
    <Trace type="1"/>
</Traces>
<Corrections>
    <Correction type="1"/>
</Corrections>
<Notes>Me and Rod Glasser talked with the General contractor about the track off, instructed
him to get ahold of the sub contractor and the builders that are currently working on properties owned by
the General contractor and instruct them to clean up the areas of street adjacent to the properties, get the
EIC fixed and in compliance with city standards, and to sweep up track off when it happens. Me and Rod will
be contacting some of the other builders that have purchased lots and do not work for the General
contractor and relay the same information to them. Rod contacted the field engineer from the city of
Spokane that is in charge of the project, and informed him to talk to the Sub contractor also. Me and Rod
will be checking on this project on a daily basis and recommending cleaning of the right of way when it is
needed. 2-23-2022 I called and talked with Toll Brothers construction and relayed the information to protect
all catch basins in the immediate area of their work zones.</Notes>
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```

        <Trace type="1"/>
    </Traces>
    <Corrections>
        <Correction/>
        <Correction type="1"/>
    </Corrections>
    <Notes>Rob Wright and I went to site and met with Walker Construction site supervisor and
Employee from Piersol Construction and show them the issue. They agreed that they will clean the street
and clean or replace the felt on the catch basin Northeast corner of 53rd & Regal. We will drive by on
7-8-2022 the check progress of clean up.</Notes>
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    <MS4Discharge>
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    </MS4Discharge>
    <Location>
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            <Address>N Madison St & W Walton Ave</Address>
            <City>Spokane</City>
            <PostalCode>99205</PostalCode>
        </Address>
    </Location>
    <Pollutants>
        <Pollutant type="1"/>
    </Pollutants>
    <Sources>
        <Source type="11">
            <Explain>Motor home parked on the east side of Madison just north of Walton is
leaking hydraulic fluid.</Explain>
        </Source>
    </Sources>
    <Traces>
        <Trace type="1"/>
    </Traces>
    <Corrections>
        <Correction type="5"/>
    </Corrections>
    <Notes>Found motor home parked on the east side of Madison just north of Walton. No one was
in the motor home at the time I was by. The oil and diesel were dried but there was a small leak from the
hydraulic jack on the passenger side. The neighbors across the street said the motor home has been there
for approx. 2 months. They said that a person periodically works on it. They believe he is a friend of the
person living in the back duplex at 4006 N Madison. Code Enforcement has been notified because the motor
home is too close to the fire hydrant and parked too far away from the curb and has expired tabs.</Notes>
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<IDDEEvent>
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</Location>
<Pollutants>
 <Pollutant type="10">
 <Explain>UN-3214 Permanganates (organic aqueous solution)</Explain>
 </Pollutant>
</Pollutants>
<Sources>
 <Source type="8"/>
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<Traces>
 <Trace type="1"/>
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<Corrections>
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<Notes>Went to address and seen a purple trail approximately 400' long on Boone Ave from 3810 E Boone to the east. Talked to the cleanup crew and they didn't think that it would be an issue Have a call into our Environmental Analyst for direction as to have the company clean up the street. We have CB's and Drywell on Boone Ave where the trail starts and ends. Contacted John Busheed 509-220-6081 Superintendent and stated that they need to clean up street of any residue from the spill. John said he would get it done.
Received a call from Elizabeth Amaya 509-316-6255 the Greenall Manager from Clean Harbors. She said that they will be cleaning it up. They will have a Hydro Vac truck sucking up the residue after they spray TSP on the spill and vac up the fluid right away to keep it contained on 1-26-2022.
1-27-2022 I drove by 3810 W Boone Ave and took pictures of the clean up. Looks real good on the cleanup. The street is stained brown due to the chemical.</Notes>

</IDDEEvent>

<IDDEEvent>

 <Jurisdiction>WAR045605</Jurisdiction>
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 <City>Spokane</City>
 <PostalCode>99204</PostalCode>

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        </Address>
    </Location>
    <Pollutants>
        <Pollutant type="1"/>
        <Pollutant type="10">
            <Explain>Hydraulic Fluid</Explain>
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    </Pollutants>
    <Sources>
        <Source type="5"/>
    </Sources>
    <Traces>
        <Trace type="1"/>
    </Traces>
    <Corrections>
        <Correction type="0"/>
        <Correction type="1"/>
    </Corrections>
    <Notes>Arrived at location and found a big hydraulic fluid spill at the end of road. Talked to the
contractor about what happened. The contractor said that Matheus Lumber Co had a problem with a forklift
blowing a hydraulic hose. I called Matheus Lumber Co 8692 Hauser Lake Rd Hauser ID 83854 208-457-9829
and talked to Justin Usher about what happened. Justin said that they normality pick up machinery and
clean up area if there are any liquid. I told Justin that the picked up the machinery but not the spill. I
mentioned that we have spill kits on our trucks for this reason and I recommended that they should have the
kits also for this reason. Justin asked me what they should do about cleaning up the mess. I told him we are
on site with supplies and we would clean it up this one time. I asked Justin that if they have a spill again to
clean it up and give us a call so we know where it's at so we can double check that it is cleaned up.
Received an e-mails from Justin that have purchased 5 spill kits for their delivery truck and the drivers
informed to notify us if there is another spill in the future.</Notes>
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                <Address>4827 N Martin St</Address>
                <City>Spokane</City>
                <PostalCode>99207</PostalCode>
            </Address>
        </Location>
        <Pollutants>
            <Pollutant type="1"/>
        </Pollutants>
        <Sources>
            <Source type="11">
                <Explain>I drove up to the intersection of Napa and Wabash and noted a Jeep that
was being worked on in the parking strip behind 4827 N Napa.</Explain>
            </Source>

```

```

</Sources>
<Traces>
  <Trace type="1"/>
</Traces>
<Corrections>
  <Correction type="0"/>
  <Correction type="1"/>
</Corrections>
<Notes>I drove up to the intersection of Napa and Wabash and noted a Jeep that was being
worked on in the parking strip behind 4827 N Napa, I contacted the resident and left my business card and a
request for the owner of the vehicle to make contact with me about the jeep. I dropped some absorbent
pads under the jeep to attempt some mitigation of the fluid leaks from the vehicle and returned to the shop.
Rod Glasser received a call from the owner of the jeep the following day and they discussed working on the
jeep in the street and Rod put down some absorbal to pick up the oil on the street, the owner, Garrett
Bailey, 509- 216-5672, stated that he was going to have the jeep repaired and the oil cleaned up in three
days. I drove back by the residence today and the jeep was removed from the street, but the oil and
absorbal remained on the street, I cleaned up the used absorbal and applied another bag to the affected
area to assist with fluid clean up, due to the amount of water being absorbed by ice and snow melt.
</Notes>
</IDDEEvent>
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  </Location>
  <Pollutants>
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  </Pollutants>
  <Sources>
    <Source type="11">
      <Explain>Abandoned motorcycle and trailer.</Explain>
    </Source>
  </Sources>
  <Traces>
    <Trace type="1"/>
  </Traces>
  <Corrections>
    <Correction type="6"/>
  </Corrections>
  <Notes>Rod Glasser received a call about a motorcycle and trailer that were abandoned in front
of their home, and the motorcycle was leaking oil. I cleaned up the oil on the street and took pictures and
forwarded them to code enforcement along with a request to have the vehicle and trailer removed. Code
enforcement responded and have forwarded the request and information to parking enforcement.</Notes>

```


</IDDEEvent>
</IDDEEvents>

City of Spokane Stormwater Management Program Plan

March 2023

City of Spokane
Wastewater Management
909 East Sprague Avenue
Spokane, Washington 99202



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1.0 INTRODUCTION

1.1 Purpose

Stormwater in the City of Spokane is regulated by the Eastern Washington Phase II Municipal Stormwater Permit (the permit) issued by the Washington State Department of Ecology (Ecology). The permit requires the development and implementation of a Stormwater Management Program (SWMP) that addresses permit Sections S5, S7, and S8. This Stormwater Management Program Plan (the plan) has been prepared to provide information to the public on the activities and means that the City of Spokane (the city) expects to implement in order to protect local water quality and satisfy the conditions of the permit.

The permit requires that a municipal Stormwater Management Program consist of six elements that, when implemented, will ensure that local water quality is protected. Section S5 of the permit, *Stormwater Management Program for Cities, Towns, and Counties*, details the six elements as:

- (1) Public Education and Outreach,
- (2) Public Involvement and Participation,
- (3) Illicit Discharge Detection and Elimination,
- (4) Construction Site Stormwater Runoff Control,
- (5) Post-Construction Stormwater Management for New and Redevelopment, and
- (6) Municipal Operations and Maintenance.

Section S7 of the permit, *Compliance with TMDL Requirements*, requires implementation of the Total Maximum Daily Load (TMDL) monitoring detailed in Appendix 2 of the permit, and Section S8 of the permit, *Monitoring and Assessment*, details the requirements to implement stormwater management effectiveness studies.

The draft SWMP Plan is posted made available to the public annually via the city's stormwater website (Spokanestormwater.org) on or before April 1st of each year. The draft plan is posted for 30 days, at which time the public may submit comments on the draft plan. After the 30 day draft period, the SWMP Plan will be finalized and posted to the website on or before May 1st of each year. Comments on the final SWMP Plan will be accepted anytime throughout the year and considered for inclusion during the next plan revision.

1.2 Regulatory Background

Created in 1972 by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) is a federal requirement that regulates stormwater and wastewater discharges to "Waters of the United States". The Environmental Protection Agency (EPA) authorizes States to implement the NPDES program and perform many of its' permitting, administrative, and enforcement aspects. The regulatory authority in Washington State is the Washington State Department of Ecology (Ecology), who regulates stormwater west of the Cascade mountains with the Eastern Washington Phase II Municipal Stormwater permit. The permit is a quasi-combination NPDES and State Waste Discharge General Permit for discharges from small municipal separate storm sewers in Eastern Washington.

Ecology first issued the permit to municipalities in 2007, and has reissued it three times since 2007 with revisions in 2014 and 2019. The current permit became effective on August 1, 2019 and is set to expire July 31, 2024. The city is authorized to discharge stormwater to surface waters and to groundwaters of the State from the city's Municipal Separated Stormwater Sewer System (MS4) in accordance with the permit. The entire incorporated area within the city's geographic boundary is considered the MS4 and stormwater is managed in accordance with the stormwater permit. There are several combined sewer overflow (CSO) basins within the regulated MS4 that collect and convey stormwater to the Riverside Park Water Reclamation Facility (RPWRF) for treatment. Surface waters that flow on hard surfaces and are collected and conveyed within infrastructure in the CSO basins are regulated under a NPDES waste discharge permit, and managed accordingly. Stormwater within CSO basins is, in large part managed in a combined sewer system, with exception of occasional structural treatment BMPs that manage stormwater locally and discharge to ground.

1.3 Stormwater Management in Spokane

The city's MS4 system consists of catch basins, piping, structural BMPs, outfalls, and underground injection controls (UICs). Within the permitted MS4 boundary, but outside of the CSO Basins, stormwater is collected by the separated stormwater sewer system and conveyed to stormwater treatment facilities, and/or directly to outfalls that discharge to the river. The separated stormwater sewer system and stormwater treatment facilities manage stormwater separate from sanitary wastewater, and is generally located in the North/Northwest portion of the city.

Stormwater treatment facilities can be found throughout the city's MS4, and are used to manage stormwater as near as possible to where the runoff is generated. The treatment facilities are generally swales, bioretention cells, infiltration ponds, etc., which are structural stormwater BMPs designed to remove pollutants from runoff. The facilities are typically designed and constructed in accordance with the Spokane Regional Stormwater Manual (SRSW), and consist of inlets, a vegetated retention area, subgrade bioretention soil media, and an outlet/overflow. They are designed to retain water to approximately six inches depth, and have drywells to serve as overflows. Treatment facilities range in size from a small roadside swale that receives drainage from a parking lot, to of a large dry pond that treats stormwater for an entire neighborhood, but the treatment processes are the same. Stormwater enters the treatment facility through an inlet, flows over vegetation slowing it down, and infiltrates into the ground through bioretention soil media. The vegetation, bioretention soil media, and microbes in the soil are providing treatment to the stormwater and removing any pollutants. Figure 1 shows a typical swale design.

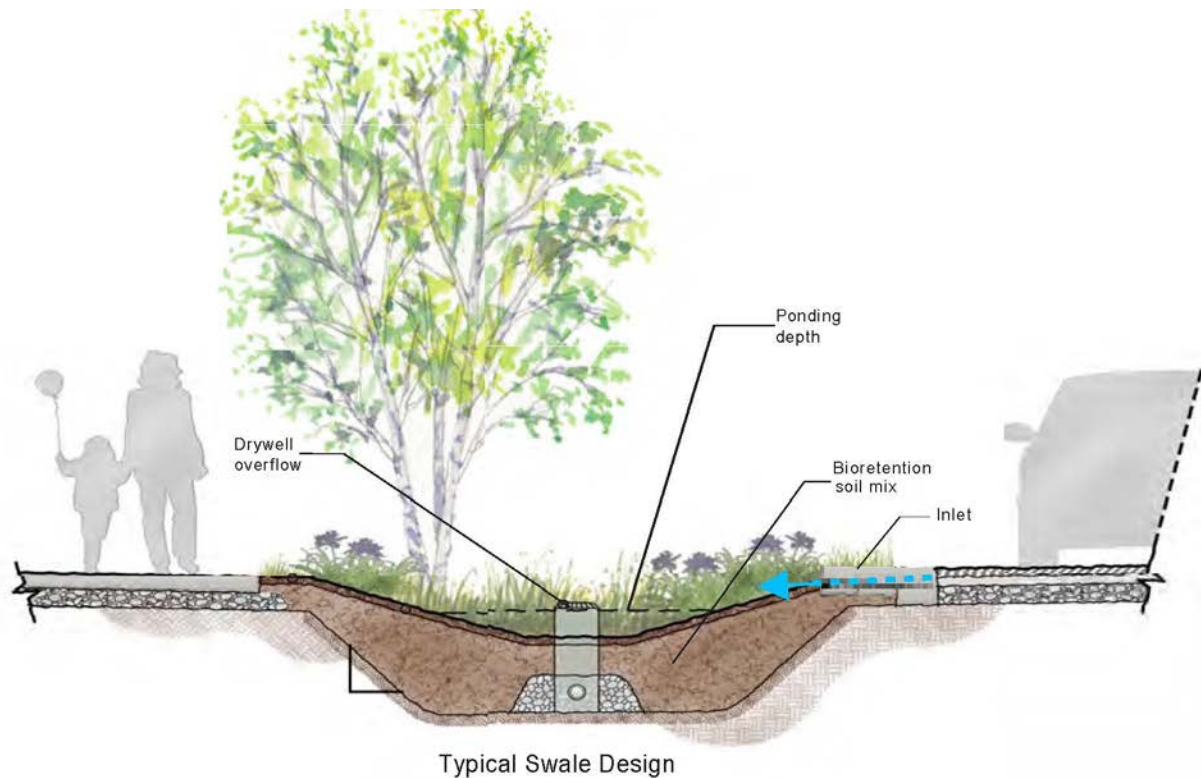


Figure 1. Typical Swale Design.

Special Drainage Districts (SDD's) have been established where typical stormwater treatment BMPs may not be effective because treatment via standard infiltration approaches is not practical. The Moran Prairie and Five Mile SDD's have been exist because of the challenges that managing stormwater in those areas presents due to shallow groundwater, intermittent standing water, or steep slopes.

Figure 2 is a map of the City of Spokane that shows the generalized locations of the stormwater infrastructure. On the south side of the city, where geology does not readily allow infiltration, stormwater in CSO basins is largely managed in a combined sewer that conveys stormwater and sanitary wastewater in the same infrastructure. The CSO systems consist of catch basins, piping, and storage tanks that are used to collect and convey the stormwater to RPWRF. The CSO facilities are used to minimize or eliminate discharges of the combined sewer and stormwater, and are regulated by the waste discharge permit that the RPWRF operates under. CSO basins also contain stormwater treatment BMPs, where practical, to manage stormwater that has not been combined with sanitary sewer locally and to minimize the amounts of stormwater that are conveyed to the wastewater treatment plant.

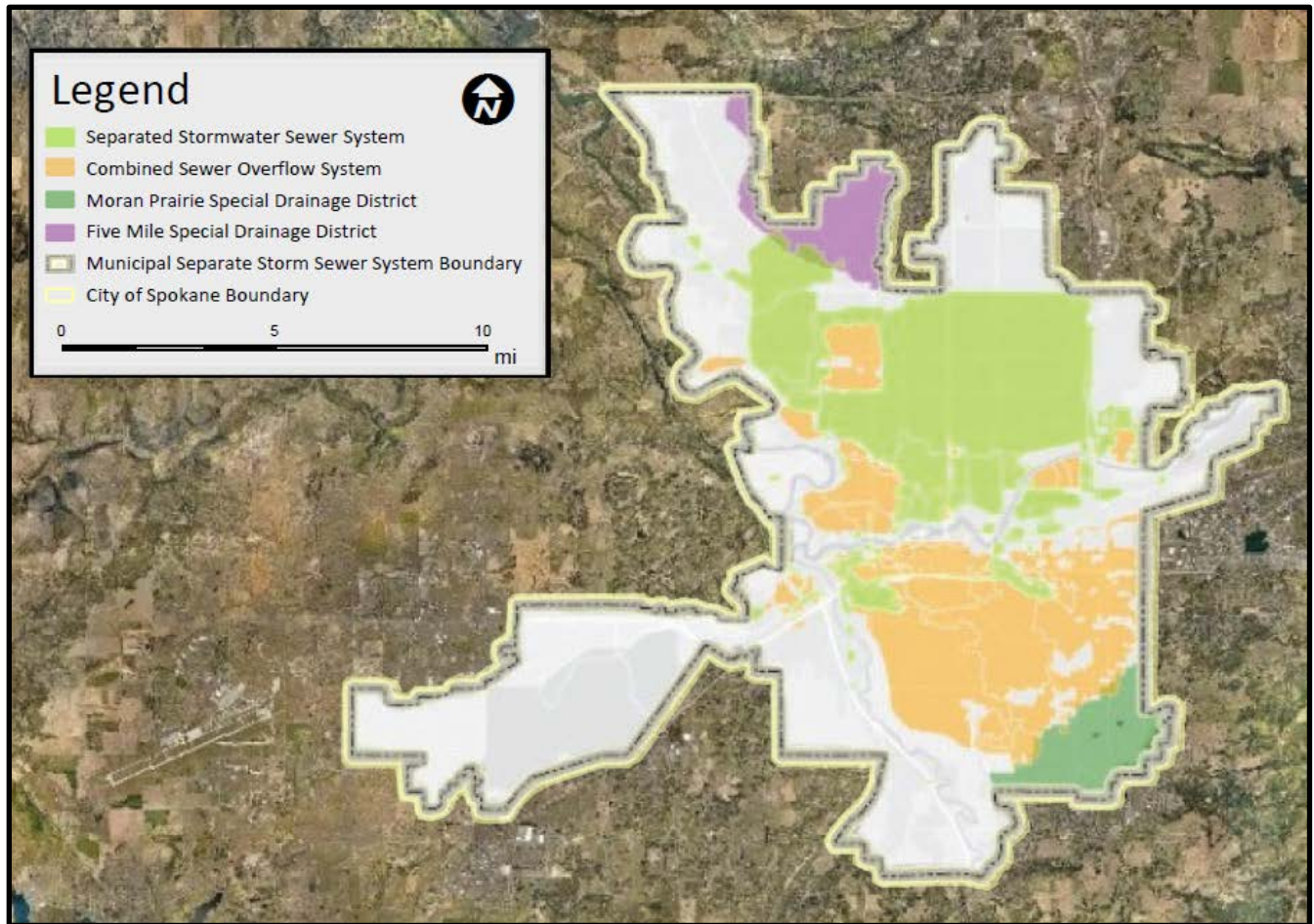


Figure 2. Map of stormwater management areas.

2.0 STORMWATER MANAGEMENT PROGRAM COMPONENTS

2.1 Public Education & Outreach

2.1.1 Public Education and Outreach Permit Requirements (S5.B.1)

Section S5.B.1.a of the permit requires the city to implement a public education and outreach program designed to reach the general public, businesses, and engineers/developers to achieve improvements in the target audiences' understanding of stormwater and how they can contribute to water quality protection. Outreach to the general public should focus on water quality impacts and tangible actions that the general public can take to protect water quality. The focus of the outreach to businesses should focus on education on preventing illicit discharges appropriate materials management. engineers/developers should receive outreach focused on technical standards, the use of BMPs and developing erosion control plans.

Section S5.B.1.b of the permit requires the city to measure the understanding and adoption of targeted behaviors for at least one target audience in at least one subject area, a promotion of the Pollution Prevention Program on the Water Wise social channels.

SRHD generally focuses on the restaurant, lodging/hospitality, automotive, and property management business sectors. The SRHD Pollution Prevention Program inspector will follow up with the city if there are areas of concern pertaining to illicit discharges identified during inspections. Likewise, during illicit discharge investigations, city stormwater inspectors will recommend visits from SRHD to businesses who would benefit. In 2022, SRHD visited businesses in the City of Spokane, and performed 15 screenings, 49 initial site visits, and 33 follow-up visits with 22 spill kits provided to businesses in need. The city will continue to partner with SRHD to affect behavior change in local businesses with respect to stormwater.

Developers, Engineers, and Contractors

The City of Spokane Developer Services Center works with developers from the design phase through permitting and issuance of Certificates of Occupancy. Throughout that process the Center provides verbal guidance and support materials for appropriate stormwater management that is necessary to receive city permits to construct. For example, Project proponents are provided access to the two guidance documents by Developer Services Center during the permitting process: *The City of Spokane Stormwater Compliance Guide*, and the informational guide document *Understanding Stormwater Permitting in the City of Spokane* guide. Each contain helpful information on the local permitting process with respect to stormwater, as well as numerous links to additional educational stormwater materials.

Construction stormwater guidance materials have been cooperatively developed by the Developer Services Center and the Wastewater Department to assist development contractors and engineers navigate the requirements of the Construction Stormwater General Permit issued by Ecology, and to understand the expectations for the implementation of Best Management Practices on an active site. Also, training opportunities for development contractors and engineers have been identified on a flyer that is housed in the online toolbox for permit requestors.

Additionally, pre-development meetings with project proponents' area standard practice, where during the meetings, city engineers meet with developers, their engineers, and contractors to discuss the scope of the project, to establish stormwater requirements, and identify improvement opportunities. Pre-development meeting notes are provided to the project proponents, and detail the guidance provided during the discussions. The Center will continue to review stormwater plans, hold pre-construction meetings, and provided guidance on stormwater for development projects in 2023 and onward.

The city will continue to provide outreach to the development community through the Developer Services Center, and develop guidance materials as needed in order to affect behavior change with respect to stormwater.

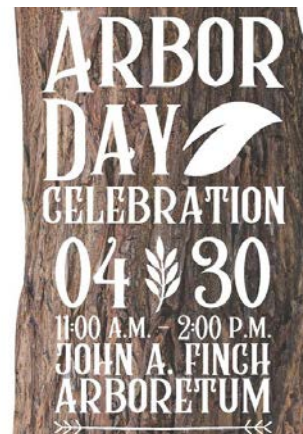
Classrooms

The City of Spokane is still developing the best approach to educate children in the classrooms. In 2022, no stormwater outreach was performed to children in the classroom within the city, however the city did participate in two education events in Spokane County at an outdoor educational facility. The Wastewater Department has increased personnel to re-establish a stormwater education presence in the classrooms, and is currently determining the methods and frequencies of outreach that will provide the most benefit.

2.1.2 Public Education and Outreach Program Introduction

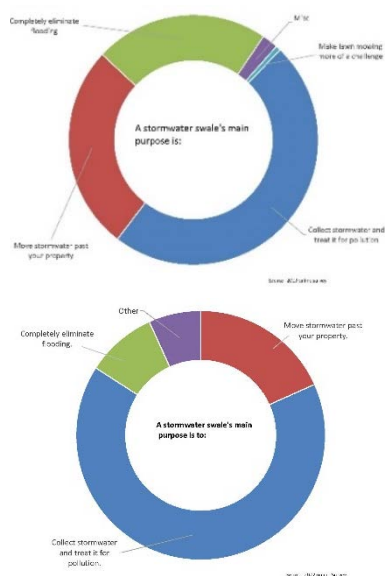
Outreach Events

The City of Spokane plans to attend or present at 12-15 community events during the 2023 year and will provide education, interactive activities, and promotional items surrounding stormwater education. Events include but aren't limited to: Earth Day, Arbor Day, School Science Nights, Touch-a Truck events, Library events, Spokane Indians baseball games, Spokane Chiefs hockey games, school presentations, and others. The city will participate by what is requested at each event, either presenting, providing interactive activities such as pollution prevention games or permeable pavement demonstrations, or being present to pass out educational materials. Brochures will be handed out where appropriate and include the [Stormwater Treatment Areas Information](#) and [Stormwater Pollution Guide](#) brochures, among others that are planned to be developed. The city hopes to measure impressions based on number of attendees at events as well as materials given out to track impact of outreach at events. The desired goal is for attendees of all ages to understand stormwater and create behavior change to keep our waterways cleaner and safer.



Stormwater Survey

The portion of the general public that reside in households that receive a utility bill and have the ability to engage online were targeted for the measurement of the understanding of stormwater management.



In 2019, the city sent out a mailer with utility bills that offered a rebate on a water bill to complete an online stormwater survey. The survey established a baseline measurement of the stormwater knowledge base, and the results indicated that there is room to improve the knowledge base on illicit discharges and the function, and maintenance responsibilities, of stormwater treatment facilities. The survey had nearly 1400 respondents, and the information received from the survey was used to tailor outreach for the years 2020 and 2021. In 2022, social messaging focused on illicit discharges and stormwater treatment facilities.

A follow-up to the 2019 survey was performed in fall of 2022. The follow-up survey was promoted through the City of Spokane website and social media, Water Wise Spokane social media, and other partners sharing content, and was made available online. The 2022 survey received responses from 712 participants, and the results were evaluated against

the 2019 survey results. The results from 2022 look very similar to the results from 2019, but indicate that the general knowledge on stormwater behavior and management has slightly improved, but that there is still an opportunity to increase knowledge of the general public around stormwater.

Adopt-a-Drain

The storm drain adoption concept is a growing movement with active programs in approximately 170 communities across the country. At the core of this movement is community engagement and action towards preserving local waterways. This project has now grown into the largest and most successfully implemented program in the nation with 86 programs and counting. Benefits include detailed sub-



watershed reports that meet MS4 reporting needs and documentation that quantifies the cumulative amount and type of priority pollutants removed from the waterway. The City of Spokane plans on adopting this model across the City of Spokane as well and will coincide with a social marketing campaign to promote and spread

awareness. The target population is any resident in Spokane of any age able to assist in the maintenance of storm drains. The City of Spokane will receive MS4 compliant reporting, data tracking, marketing/outreach tools, and implementation and program support. Participation with residents will lead to deeper community engagement and cleaner water. This will be accomplished through keeping debris clear on a schedule that works for them. The desired outcome is to engage residents to adopt storm drains to keep neighborhoods clean and protect waterways. Aligned with best practices in social science, this MS4-compliant program partners with cities to inspire stewardship and behavior change to prevent run-off pollution and reduce localized flooding.

EnviroKids

Spokane EnviroKids' Club is a way for kids to team up with other kids in Spokane County to explore all parts of the environment: air, water, weather, garbage and recycling, plants and animals, and the environment. Members receive quarterly newsletters with fun facts and activities, invitations to local events, and the opportunity to earn points and win prizes. Children in grades K-6 in Spokane County are eligible. The City of Spokane participate in planning, content, and participation at local events EnviroKids put on throughout the year (~6 events). This aligns with stormwater education because it gives a chance to educate kids and their parents/guardians around pollution prevention, permeable pavement, swales, and more in a fun engaging environment. It also allows the City of Spokane to have a presence in the community.



Drain Rangers



The city is providing access to Drain Rangers learning materials specific to stormwater for school age children for teachers and schools to implement fully developed curriculums in their classrooms. The purpose of the Drain Rangers Elementary Stormwater Curriculum is to develop an understanding of the serious issues facing our community from stormwater

runoff and to share specific actions we can take to improve the quality of our water. In this curriculum, students will be introduced to a problem-solving model where they think like an engineer and explore ways to solve the problem of polluted stormwater runoff. The lessons are specifically designed to meet classroom requirements of the Common Core and Next Generation Science Standards. Content about polluted stormwater runoff, engineering design, and literacy skills are integrated. The city has the Drain Ranger curriculum posted on the stormwater website available to Spokane area teachers to implement in their classrooms. The city hopes to increase the presence of the Drain Rangers program in Spokane Area schools in 2023.

Spokane Stormwater Website



The City of Spokane stormwater website is located at [Spokanestormwater.org](https://spokanestormwater.org). An overhaul of the website began in 2022 to make it more interactive and link to the social media channels performing stormwater messaging. Currently, Spokanestormwater.com webpages contain a green infrastructure page that discusses structural BMPs, Low Impact Development (LID) and Green Stormwater Infrastructure (GSI).

The page provides links to the Eastern Washington LID manual and Spokane Regional Stormwater Manual (SRSW) for reference materials. Additionally, the city's stormwater webpage houses videos that provide information on [Spokane Stormwater](#), [Hazels Creek](#) and [Green Area Maintenance](#). A webpage dedicated to the [Private Stormwater Facility Annual Certification Program](#) was recently created as a resource to private stormwater property owners. The

Spokanestormwater.org website will continue to grow throughout 2023 to include a Pollution Prevention practices, stormwater educational materials, and detailed information on stormwater structural BMPs, among others.

Spokane Indians Baseball Outreach

The city partners with the Spokane Indians Baseball Club to champion campaigns designed to connect citizens to the Spokane River, educate about stormwater and work begin done to clean up the River, and support local organizations devoted to River protection. Advertisements include prints, radio, television, billboards, social media, and promotion during live baseball games. The effort has been dubbed the [Redband Rally Campaign](#), the promotion gets its name from the native Redband Trout.



The Spokane Indians Baseball partnership continued through 2022 with promotion of Ribby the redband trout as a local mascot. Headbands with educational information on the inside that were offered to every attendee as well as an educational video that played before every game highlighting the importance of pollution prevention. The Spokane Indians Baseball team hosted 66 home games last year, creating a reach of up to 448,998 ticket holders. The city hosted a pre-game table at the stadium to promote stormwater and give out educational information. Attendees from all over the region attend these games and the partnership will continue in 2023.

Social Marketing

In order to increase the knowledge base of the general public, where the ultimate goal is stormwater stewardship, stormwater messaging was delivered online via social media channels, videos, and information on the city's website in 2022. Specifically, stormwater messaging was cascaded outward through messaging by the Water Wise Spokane campaign, which has a large presence on social media and a dedicated webpage on the city's website ([Waterwisespokane.org](#)). Stormwater videos focusing on



stormwater facilities and maintenance are available for viewing on the city's stormwater webpage ([Spokanestormwater.org](#)). An overview video can be found on the stormwater webpage, and additional videos can be accessed by following the links for Green Infrastructure and Hazels Creek. These videos also have a presence on Cable Channel 5 as filler between scheduled programs. Videos and posts can be found on Waterwise Spokane Facebook and Instagram pages.

- There were 675,045 Facebook impressions from stormwater ads January-December 2022.
- Video views increased from 25,378 in 2020 to 110,958 in 2022, an increase of 85,580.

Looking ahead, social channel messaging will continue through 2023, where the outreach will showcase established partnerships between the city and other agencies, as well as provide source control and treatment facility information, and The city is partnering with the Spokane River Toxics Task Force and Spokane River Forum with respect to stormwater outreach to ensure that messages will align and be consistent for the public to be able to clearly gain a better understanding of stormwater best practices.

Hazel's Creek Regional Stormwater Facility and LID Demonstration Site

In Fall of 2012, construction was completed, and the facility began receiving stormwater from properties within a specified up-gradient boundary. The site also contains publicly used walking trails. This system was utilized as an LID educational opportunity, hosting various LID demonstrations throughout the trail system. Visitors can download a brochure from the Public Works & Utilities website and take a self-guided tour. In 2021 the city supported science education at Ferris High School by supplying tools and plantings for the students to establish additional vegetation at the site. The students planted approximately 600 starts of native species of shrubs and bushes, and will measure the success of the starts in 2022. The survival rate of the plantings will be evaluated in 2023 to determine if this activity is something that should be pursued again in the future.



An informational video showcasing Hazels Creek was created in 2020 to reinvigorate curiosity and interest from the public and is provided on the [Hazels Creek](#) link at Spokanestormwater.org. To complement the video, Wastewater Department is assessing the Hazels Creek area in 2023, specifically the information kiosks and site vegetation, to determine how improvements can be administered to increase the visitation of the public to the site.

Fix Car Leaks Don't Drip and Drive Promotion

The city is discussing with neighboring municipalities the potential to coordinate a Don't Drip and Drive workshop in 2023, dependent on support from Ecology. The city has reached out to Ecology and Spokane County to determine if there is administrative and partnering opportunities to re-implement the Don't Drip and Drive Promotion. A workshop may become available in the near future as part of the Fixcarleaks.com campaign, to be provided to the community in support source control practices with respect to car fluids. The program is being evaluated to confirm that the rebates are valid and local automotive shop participants continue to be supportive.



Swale Education

Swale education and restoration are both planned for 2023. Education includes updates to the City of Spokane website, Water Wise Spokane social media platforms, print materials, yard signs, and distribution of promotional items. The goal is to increase in knowledgebase and understanding of benefits of swales. Social marketing will be tailored to swale education through posts containing content surrounding importance, care/maintenance, planting suggestions, soil layers, etc. The city is kicking off the Swale Yeah! Campaign, which will increasing awareness on the presence and function of swales, and benefits to the community. It will be implemented through both an online and physical promotion within the city as well as other local partners. The Swale Yeah! campaign effort is kicking off in 2023 and is likely to run through 2025, with the goal of bringing awareness of swales to foster swale stewardship in the community.



Stormwater Permitting Educational Materials

The city partnered with the Spokane River Forum and Spokane Riverkeeper to develop the guides [Understanding Stormwater Permitting in the City of Spokane](#) and [City of Spokane Stormwater Compliance Guide](#). These guides address stormwater-related building permit requirements, erosion and sediment control, and reference Ecology's stormwater permit requirements. The guides are provided to development contractors during pre-construction meetings, and are also available on the [Spokane River Forum stormwater website](#). These materials have been available for a number of years, and will continue to be available in 2023.

Presentations at Conferences

The City of Spokane generally presents at a couple conferences aimed at stormwater professionals each year. In 2022, the city gave two presentations at the PNWCA conference held in Spokane, and presented to the Eastern Washington Stormwater Group twice. Presenting to professional conferences and regional stormwater advocacy groups is anticipated to continue in the current and upcoming years. The Cochran Basin project is the focus of presentations in the year 2023, and will be provided at the 2023 Municon and the Spokane River Forum conferences. Additionally, the Lincoln Storm Projects and the Trent Erie Swale project will also be presented at the 2023 Municon conference.



Publications

Integrated Capital Management and Wastewater Management Department personnel co-authored an article in the January 2021 edition of Stormwater Magazine titled [Infiltration Avenue](#). The article showcases The Sharp Avenue permeable pavement study by discussing the integrated approach to design, collaborative efforts with the Gonzaga University, and goes into the data and information collected as part of the study. The Infiltration Avenue article can be found on the [Stormwater Magazine webpage](#). The Sharp Avenue project is still ongoing, and the article is still relevant and currently available.



City of Spokane Cable 5

City of Spokane Cable Channel 5 rotates stormwater pollution prevention tips on the reader board. A different seasonally relevant tip is used each week. An EPA video entitled "After the Storm" is shown throughout the year, highlighting the importance of stormwater management and individual citizen responsibility to help prevent stormwater pollution. Cable 5 also broadcasts stormwater outreach videos as filler between scheduled programming. These broadcasts will continue to occur in 2023.

Idaho Washington Aquifer Collaborative

Is a non-profit organization that is made up of Idaho and Washington water purveyors, and the city is a member of the organization. IWAC developed an educational video for the public that is an overview of

the Spokane Valley Rathdrum Prairie aquifer, its importance to our region, the impact stormwater has on river and aquifer water quality, sources of pollution, and things that residents can do to protect and preserve our water for the public to understand the importance of stormwater pollution and water. The video is currently aired on Cable 5 in continuous rotation on its air and will continue to be aired in 2023.

2.2 Public Involvement and Participation

2.2.1 Public Involvement and Participation Permit Requirements (S5.B.2)

The permit requires the city to provide ongoing opportunities for public involvement and participation such as at public hearings or on advisory panels or committees during rule-making, or other similar activities. Section S5.B.2.a requires the city to implement a program or policy to create opportunities for the public, to provide input during the decision-making processes, including development and adoption of all required ordinances and regulatory mechanisms. Also, to provide ongoing opportunities for public involvement through various councils, committees, programs, and activities. In addition, develop and implement a process for consideration of public comments on the SWMP, including required ordinances and regulatory mechanisms.

2.2.2 Public Hearings and Rulemaking

The city provides many opportunities for public involvement and participation in its rule-making processes. Public involvement is a required component of the ordinance process, and involvement of any interested member of the public is encouraged through workshops, open houses, dedicated testimonial times, and a formal public comment period. Information on how to participate at City Council meetings and meeting agendas are provided on the city's [City Council website](#) prior to the occurrence of the meeting. Additionally, the public may attend City Council briefings, City Council hearings; Planning Commission workshops, Planning Commission hearings, and any of the several Council Committee meetings (e.g. [Finance and Administration Committee](#); [Public Infrastructure, Environment, & Sustainability](#); and [Public Safety & Community Health Committee](#)). The city publishes the [City Council Official Gazettes - City of Spokane, Washington \(spokanecity.org\)](#), which contains the meeting minutes from the City Council hearings, and includes calls for bids for stormwater management, infrastructure, and funding projects that the public can participate with. Typical examples of opportunities for public involvement include rate structure discussions, stormwater mitigation grants and projects; stormwater infrastructure improvements; joint planning of the stormwater management plans; and, ordinance creation or revision, among others

2.2.3 Stormwater Management Program Plan Public Participation

The city posts the SWMP Plan at [Spokanestormwater.org](#) annually. The public may provide comment on this plan at any time during the year by emailing the Wastewater Department Environmental Analyst at jgeorge@spokanecity.org. The city solicits online comments on the draft plan from the public for a 30-day period when the SWMP Plan is posted. After the 30-day period, the city will review the comments and update the plan as applicable, and post the final version of the plan at [Stormwater Management webpage](#) at [Spokanestormwater.org](#).

2.2.4 Spokane Municipal Code Revisions

The City of Spokane Wastewater and Planning Departments are preparing to cooperatively perform a thorough assessment of Chapter 17D of the Spokane Municipal Code, which is where the stormwater related code is located, to determine the best approach to streamline the code and make it more user friendly. A preliminary draft is anticipated by the winter 2023 to have proposed changes to the code developed in draft form. The final draft of the proposed changes will be announced to the public in order to solicit comments in preparation of a final draft that will undergo City Council process for approval. Ordinances may be proposed to City Council in late 2023 to early 2024 specific to Spokane Municipal Code.

2.3 Illicit Discharge Detection & Elimination (IDDE)

2.3.1 IDDE Permit Requirements (S5.B.3)

The permit requires the city to implement and enforce a program designed to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4. Specifically, Section S5.B.3.a of the permit requires the city to maintain and periodically update a map of the MS4 to include:

- Known outfalls and known discharge points,
- Size and material of construction for known outfalls,
- Receiving waters other than ground,
- Areas served by the MS4 that discharge to ground,
- Permanent stormwater facilities owned or operated by the city,
- All connections to the MS4 authorized or approved by the city after August 1, 2019,
- All known connections from the MS4 to a privately owned stormwater system, and
- Connections between the MS4 owned and operated by the city and other municipalities or public entities.

Additionally, Section S5.B.3.b of the permit requires the city to effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the MS4 to include:

- An ordinance or other regulatory mechanism that prohibits illicit discharges and authorizes enforcement actions, including on private property, and
- A compliance strategy that includes informal compliance actions such as public education and technical assistance, as well as the enforcement provisions of the ordinance or other regulatory mechanism.

Section S5.B.3.c of the permit requires the city to implement an ongoing program designed to detect and identify illicit discharges and illicit connections into the Permittee's MS4 to include:

- Procedures for conducting investigations of the Permittee's MS4, including field screening to identify potential sources, and
- Procedures for locating priority areas likely to have illicit discharges.

2.3.2 Map of the MS4

The city maintains an accurate and up-to-date map of the stormwater drainage system, which enables response to illicit discharge notifications to be efficient and timely. The permit outlines the information that should be included in the city's MS4 map to include:

- Location of all known municipal storm sewer outfalls, receiving waters, and structural BMPs owned, operated, or maintained by the city,
- Location of all known outfalls and known discharge points,
- Receiving waters,
- Areas served by the MS4 that discharge to ground,
- Permanent stormwater facilities owned or operated by the city,
- All connections to the MS4 authorized or approved by the city,
- All known connections from the MS4 to a privately owned stormwater system, and
- Connections between the MS4 owned and operated by the city and other municipalities or public entities.

In order to comply with Section S5.B.3.a, the Wastewater Management Department maintains an up-to-date Global Information System (GIS) map of the MS4 utilizing a Esri computer software program. GIS layers are updated frequently to reflect changes to the system.

2.3.3 Adoption of IDDE Ordinance

Section 17D.060.190 of the Spokane Municipal Code defines discharges to the MS4 that are allowable, and discharges that are unlawful, as well as identifying the enforcement track. The IDDE ordinances are included in the scope to evaluate and improve the stormwater sections of the Spokane Municipal Code in 2023/2024 as described in Section 2.2.4 - Spokane Municipal Code Revisions

2.3.4 Ongoing IDDE Program

The Wastewater Management department manages an ongoing program to detect and eliminate illicit discharges and connections. The IDDE program utilizes the Wastewater Management storm sewer field crews to identify potential illicit discharges by incorporating illicit discharge field inspections into the operation and maintenance routines performed on the stormwater infrastructure. Additionally, responses to notifications from the public of a potential illicit discharge via the Illicit Discharge Hotline (625-7999), MySpokane 311, Ecology's ERTS reporting system, and/or the Spokane Regional Health District Pollution Prevention Program are a component of the IDDE program. The city's stormwater inspectors are notified of field observations of illicit discharges to the MS4 observed by the field crews, and notifications from the public, where the inspectors investigate potential illicit discharges, and mitigate where necessary. The inspectors log their findings and observations into a database that tracks and retains response activities. See Section 2.3.6 for further discussion of field inspections, characterization and tracing of illicit discharges.

2.3.5 IDDE Priority Areas

In order to identify priority areas, illicit discharges from the years 2021 and 2022 were mapped to identify and any geographic illicit discharge trends. Figure 3 illustrates the locations of illicit discharges for 2021 and 2022, and demonstrates that illicit discharge notifications occur throughout the city somewhat equally. Industrial zoning areas adjacent to the river are assumed to have higher potential significant illicit discharges, where the Union Basin has the highest potential for illicit discharges associated with industrial activities.

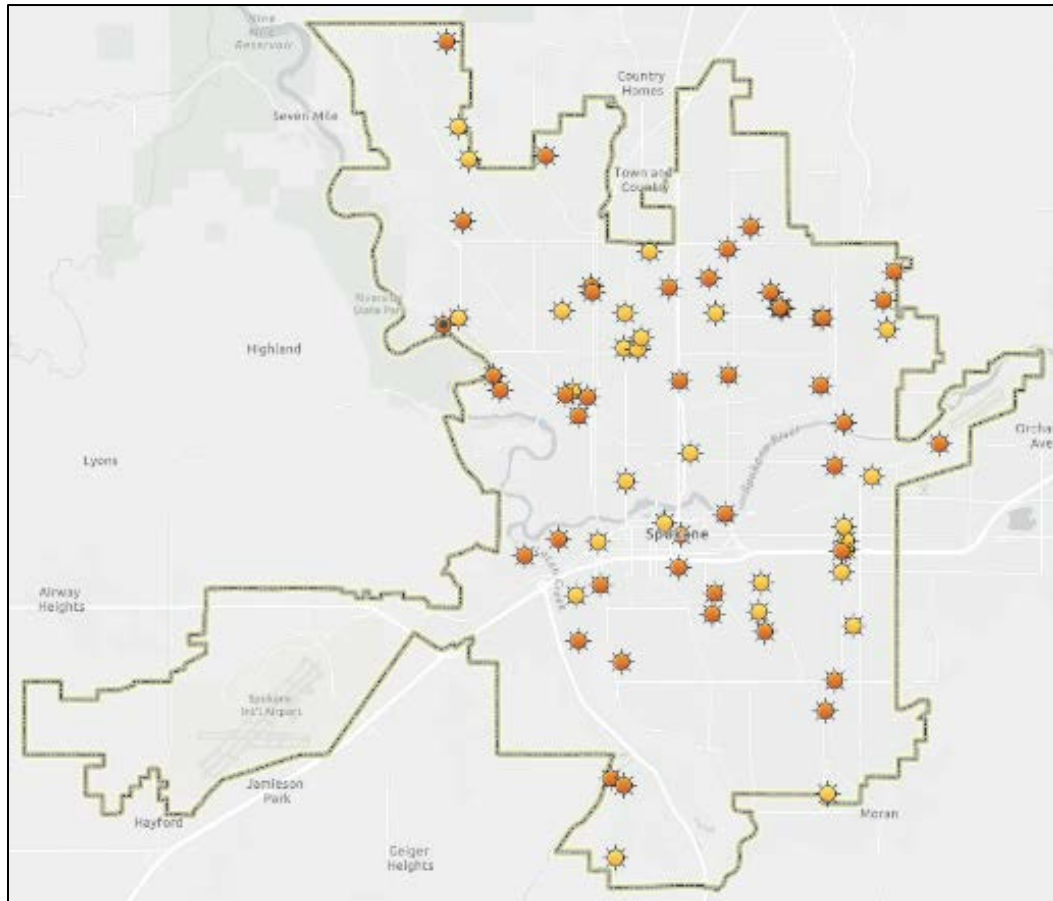


Figure 3. Location of Illicit Discharge Responses 2021/2022.

2.3.6 Field Inspections, Characterization and Tracing of Illicit Discharge

Illicit discharge investigations are generally initiated from notifications received on the Illicit Discharge Hotline (625-7999), the MySpokane 311 hotline, or from Ecology relaying an ERTS report. The Illicit Discharge Hotline is publicized on storm drain markers throughout the city, in brochures handed out to the public, and at Spokanestormwater.org. Notifications are conveyed to the city Stormwater Inspectors, who investigate, mitigate where necessary, and generate a report. In addition to the stormwater hotline, Wastewater Management storm sewer staff continually checks for illicit discharges as a part of normal day-to-day operations and maintenance of stormwater assets, and often inform the public about illicit discharges as they observe behaviors conducive to illicit discharges in the field. Figure 4 is a decision tree procedural aid for determining if a released material is a reportable illicit discharge. Records of inspections and enforcement actions by the stormwater inspectors are maintained with the Illicit Discharge program, which retains records of inspection reports and notices of violations. The illicit discharge program is ongoing and will continue in 2023.

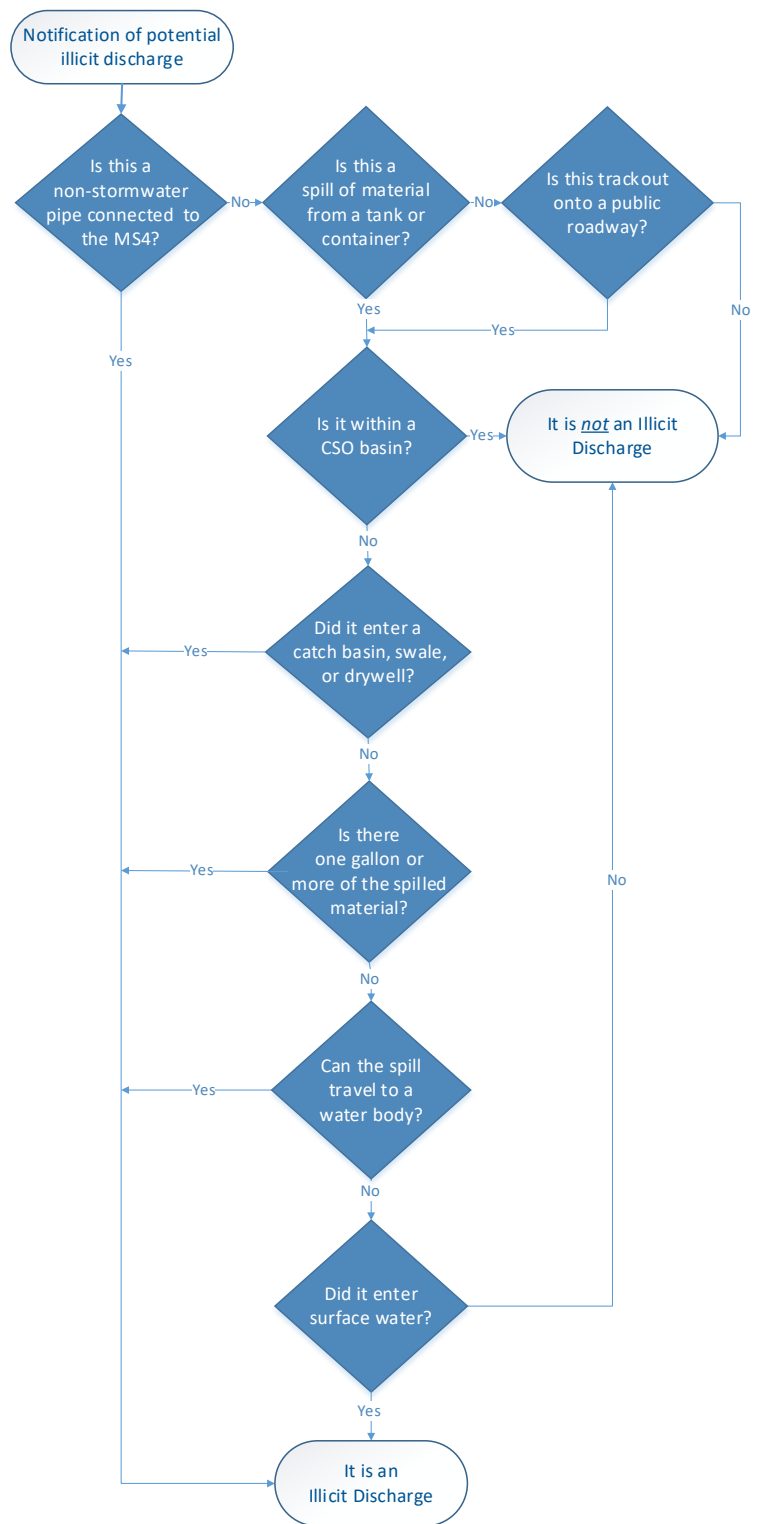


Figure 4. IDDE Decision Tree.

Figure 4. IDDE Decision Tree.

2.3.7 Elimination of Illicit Discharges

Several approaches have been implemented and are continually underway to minimize or eliminate illicit discharges to the MS4 including, but not limited to, curb markers, participation with the Spokane River Toxic Task Force, and partnering with the Spokane River Forum to promote the EnviroCertified Program.

Spokane River Regional Toxics Task Force

The city is currently a contributing member of the Spokane River Toxics Task Force (SRTTF), which has a large focus on PCBs in our region. The city will continue to be a contributing member of the SRTTF. Additionally, the city is partnering with the SRTTF to develop stormwater messaging to the general public. The city is providing support to the task force and Ecology by providing access and coordinating sampling in the Union Basin and Mission Reach areas.

EnviroCertified Program

The Spokane River Forum administers the EnviroCertified program in Spokane, a small business certification program to provide assistance and incentives for reducing hazardous materials and waste. Businesses and households can use this resource to understand their waste and learn how to properly dispose of it. The city is a member of the forum, and is currently partnering with the forum to develop stormwater messaging for 2023 that aligns with the city's outreach for illicit discharge elimination.



2.4 Construction Site Stormwater Runoff Control

2.4.1 Construction Site Stormwater Runoff Control Permit Requirements

Permit Section S5.B.4 requires several conditions to implement ordinances and procedures regarding construction stormwater:

- Section S5.B.4 of the permit requires the city to implement and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities.
- Section S5.B.4.a requires the city to implement an ordinance that applies to construction sites disturbing one acre or more, and to construction projects of less than one acre that are part of a larger common plan of development or sale.

The ordinance shall include:

- Provisions to review site plans,
- Provisions to inspect sites with high potential for sediment transport prior to clearing or grading,

- Provision for access by qualified personnel to inspect construction-phase stormwater BMPs on private properties that discharge to the MS4, and
- Sanctions to ensure compliance with escalating enforcement procedures and actions.

The ordinance shall require:

- Erosion and Sediment Controls, among others, at new development and redevelopment projects,
- Construction operators to:
 - Adhere to the Core Elements, which include preparation of Construction Stormwater Pollution Prevention Plans,
 - Implement appropriate erosion and sediment control BMPs, and
 - Control waste materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site.
- Section S5.B.4.b of the permit requires the city to implement procedures for site plan review which incorporates consideration of potential water quality impacts.
- Section S5.B.4.c requires the city to implement procedures for site inspection and enforcement of construction stormwater pollution control measures prior to clearing and grading for high potential sites, and during construction to verify proper installation and maintenance of required erosion and sediment controls.
- Section S5.B.4.d requires the city to ensure that all staff who are implementing construction stormwater program are trained accordingly.
- Section S5.B.4.e requires the city to provide information to construction site operators about available training opportunities.
- Section S5.B.4.f requires the city to keep records of all projects disturbing one acre or more, and all projects of any size that are part of a common plan of development or sale that is one acre or more.

2.4.2 Guidance Manuals for Development and Re-development

The *Spokane Regional Stormwater Manual (SRSW)* was developed in joint cooperation by the Cities of Spokane and Spokane Valley and Spokane County. The manual establishes standards for stormwater design and management to protect water quality, natural drainage systems and down-gradient properties as urban development (and redevelopment) occurs. The permit requires that the city use the BMPs from the Washington State Department of Ecology's *Stormwater Management Manual for Eastern Washington (SWMMMEW)*, or another technically equivalent manual approved by Ecology. The SRSW was updated to reflect the 2019 revisions of the SWMMMEW and provided to Ecology for approval in 2021. The SRSW is currently under review by Ecology and will continue to be required for development until Ecology's review is finalized.

The SRSM outlines the development and re-development requirements of the stormwater program. Chapter 2, Basic Requirements, defines the eight basic requirements for stormwater management for new development and redevelopment projects. Within the City, the threshold for requiring compliance with the Basic Requirements is the “addition or replacement of any impervious surfaces.”

Basic Requirements include:

- No. 1 – Drainage Submittal,
- No. 2 – Geotechnical Site Characterization,
- No. 3 – Water Quality Treatment,
- No. 4 – Flow Control,
- No. 5 – Natural and Constructed Conveyance Systems,
- No. 6 – Erosion and Sediment Control,
- No. 7 – Source Control; and
- No. 8 – Operation and Maintenance.

The Stormwater Site Plan referenced in the municipal stormwater permit (S5.B.5.b) is analogous to the drainage submittal in the SRSM (2.2.1 Basic Requirement No. 1). A concept drainage report, a requirement of a drainage submittal, is generally required for large projects or those located in environmentally sensitive areas to preliminarily assess drainage requirements and potential impacts. A drainage report, another requirement of a drainage submittal, is required for most projects and is used to identify drainage impacts from the project as well as determine necessary stormwater runoff treatment and controls. The drainage report also assesses operation and maintenance requirements, inspection requirements, and erosion and sediment control.

2.4.3 Erosion and Sediment Control Plan

The SRSM outlines erosion and sediment control requirements, which are equivalent to Core Element #2, Construction Stormwater Pollution Prevention, in Appendix 1 of the Permit. An Erosion and Sediment Control (ESC) plan is a requirement of the construction permit process and is equivalent to the Permit’s Construction Stormwater Pollution Prevention Plan (Construction SWPPP). Controlling erosion and preventing sediment and other pollutants from leaving the project site during the construction phase is achievable through implementation and selection of BMPs that are appropriate both to the site and to the season during which construction occurs.

The SRSM highlights four objectives of the ESC Plan:

- Protect existing or proposed stormwater management infrastructure,
- Minimize the impacts of erosion, sedimentation and increased runoff caused by land-disturbing activities on private property, public roads and rights-of-way, and water bodies,
- Protect the health, safety and welfare of the general public, and
- Protect water quality.

[Section 17D.090.070](#) of the Spokane Municipal Code, requires the generation of an ESC for projects that disturb 5000 square feet, or are a special site. Special sites are defined in [SMC 17D.090.080](#) and

may include sites with greater than 10 percent slope, highly erosive soils, slope lengths greater than 300 feet, or disturbance of natural vegetative buffer within 50 feet of a wetland or water body. If an ESC Plan is not required, the proponent would still be responsible to control erosion and sediment during construction. Section 17D.090.070 was updated in 2021 to include the requirement of a Stormwater Pollution Prevention Plan, where applicable per the Construction Stormwater General Permit issued by Ecology.

In accordance with city permitting processes and review procedures, Erosion and Sediment Control (ESC) plans are reviewed by the Development Services Center to ensure the proposed project will control erosion and keep pollutants from leaving the project site during construction. An ESC Plan is prescribed as one of the minimum application elements for the commercial development application. Application submittal requirements are provided on the city's [Business & Development Commercial Services](#) website.

2.4.4 Construction Site Inspection and Enforcement

The City of Spokane Field Engineering Department provides construction oversight for public capital improvement projects on City-owned land. The Engineering Services inspectors verify proper installation and maintenance of required erosion and sediment controls for NPDES Construction Stormwater General permitted development sites and capital improvement projects prior to clearing and grading for construction if a high potential for sediment transport is determined, and during construction. Inspectors and field engineers from the City of Spokane Developer Services Center, and the Field Engineering, and Wastewater Management Departments inspect privately constructed infrastructure prior to the Planning Department issuing a Certificate of Occupancy. Records of inspections and enforcement actions completed by Engineering Services and the Development Services Center are maintained in daily inspection logs as well as digitally in the Accela computer software program.

2.4.5 Construction Stormwater Training and Informational Materials

Informational materials regarding erosion and sediment control are available to construction site operators, design professionals, and other members of the public in the Development Services Center lobby at City Hall and online at the [Business and Development Resources web page](#). In addition to highlighting erosion and sediment control requirements, brochures direct the target audience to the SRSM, and the SRSM details erosion and sediment control requirements equivalent to Appendix 1 of the Permit and BMPs in Department of Ecology's SWMMEW.

2.5 Post-Construction Stormwater Management

2.5.1 Post-Construction Site Stormwater Runoff Control Permit Requirements

Permit Section S5.B.5 requires several conditions to implement ordinances and procedures regarding construction stormwater:

- Section S5.B.5 of the permit requires the city to implement a program to address post-construction stormwater runoff for development and redevelopment projects to ensure that controls are in place to prevent or minimize water quality impacts.
- Section S5.B.5.a requires the city to implement an ordinance that requires post-construction stormwater controls for development and redevelopment projects that disturb one acre or more or, are less than one acre and are part of a larger common plan of development or sale. The ordinance must include mechanisms to ensure compliance, and require projects to adhere to the Core Elements. The ordinance must also include requirements to ensure adequate ongoing long-term operation and maintenance of the constructed BMPs.
- Section S5.B.5.b.ii of the permit details that the ordinance should require development and redevelopment projects to adhere to the Core Elements and encourage Low Impact Development of green stormwater infrastructure.
- Section S5.B.5.b.ii(c) of the permit requires the ordinance to include requirements to ensure adequate long-term operation and maintenance of the BMPs occurs.
- Section S5.B.5.b.iii of the permit requires that the ordinance include provisions for both construction-phase and post-construction access for the city to inspect stormwater BMPs on private properties that discharge to the MS4. In lieu of requiring post-construction access to private properties for city inspectors in perpetuity, Section S5.B.5.b.iii allows for the city to require annual certifications of stormwater facilities by a qualified third party to meet the conditions of S5.B.5.b.ii(c) of the permit.
- Section S5.B.5.b.iv of the permit requires that the ordinance include enforcement procedures with the ability to escalate.
- Section S5.B.5.b.v of the permit requires the ordinance to include enforcement provisions, and for the city to implement an enforcement strategy for the conditions of Section S5.B.5 of the permit.

2.5.2 Post-Construction Stormwater Ordinances

Post-construction stormwater management is addressed in [Chapter 17D.060](#) of the Spokane Municipal Code. Chapter 17D.060 identifies the post-construction stormwater requirements such as duties of property owners, prohibition of illicit discharges, inspection requirements, and enforcement measures, among others. Chapter 17D.060 of the code became effective in March of 2010, and the ordinance references relevant standards that are protective of stormwater, such as the SRSM, SWMMEW, City of Spokane design standards and specifications, among others.

2.5.3 Encouragement of Low Impact Development

Low Impact Development (LID) is encourage, but optional in Eastern Washington. The City of Spokane encourages the Eastern Washington LID Guidance Manual through adoption of [Chapter 17D.060.300](#) of the Spokane Municipal Code. The LID Manual was adopted as supplemental guidance for the design, construction, and maintenance of LID stormwater best management practices, and it provides background on LID practices applicable in Eastern Washington. The regional LID manual focuses on the

practices of stormwater pollution prevention, flow control, and treatment by promoting the use of natural features and managing stormwater as close to where it falls as possible. The LID guidance manual is available from the Spokane Stormwater [Green Infrastructure](#) website.

2.5.4 Procedures for Development Site Plan Review

The city requires developers to submit a maintenance plan for all facilities during the plan review. A draft copy of the Conditions, Covenants and Restrictions (CC&Rs) for the homeowners' association in charge of operating and maintaining the drainage facilities is required.

Drainage submittals are reviewed by the Planning department for code requirements such as critical areas of management, buffers, impervious area creation, building and landscape design and building setbacks. Then, Development Services Center reviews Drainage Submittals for civil plan requirements as described in City Engineering Design Standards and the SRSM.

Engineering Services reviews plans for city Capital Improvement Projects and stormwater plans for the public right-of-way to ensure consistency with Design Standards.

The Development Services Center reviews and approves drainage submittals for private commercial and residential developments. A Stormwater Intake Checklist was added to the city's Engineering Services website to ease the review process. The drainage submittal requires a Drainage Report, Drainage Plan, Grading Plan, Swale Details, and Erosion and Sediment Control Plans and Details.

The developer must address any comments resulting from city staff review and submit revised plans to the city. After confirming that staff comments have been adequately addressed, the Development Services Center will send the developer a letter accepting the design and permitting construction.

2.5.5 Construction Site Inspection and Enforcement

There are three inspectors and a field engineer from the Development Services Center who inspect privately constructed infrastructure. Two stormwater inspectors from the Wastewater Management Department inspect privately constructed stormwater controls. Engineering Services provides construction oversight for public capital improvement projects on city-owned land.

Private development sites are inspected during installation and upon completion of construction. If there are deficiencies, a punch list is created by the Engineering Services inspectors to be completed by the developer. Final acceptance does not occur until all deficiencies have been remedied.

2.5.6 Training for Staff and Stormwater Professionals

The Development Services Center is responsible for providing information to construction site operators and design professionals about training available regarding how to (1) install and maintain effective erosion and sediment controls, (2) comply with the requirements of Appendix 1 of the Permit and (3) apply the BMPs described in the SRSM. Copies of information provided to construction site operators are kept. If information is distributed to a large number of design professionals at once, the dates of the mailings and lists of recipients should also be kept.

Staff and professional training is provided for employees and design professionals to aid in reaching water quality goals, ensure permit compliance, and reduce pollution to stormwater runoff. Five training

modules were developed, including NPDES Overview, Operations and Maintenance, Facility Inspections, Site Plan Review, and Illicit Discharge. Training was provided for LID and records should be kept including training materials, the date of training, and attendees.

2.6 Pollution Prevention & Good Housekeeping for Municipal Operations

2.6.1 Pollution Prevention for Municipal Operations permit Requirements

The permit requires several pollution prevention and good housekeeping conditions for municipal operations and maintenance activities:

- Section S5.B6 of the permit requires the city to implement an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations.
- Section S5.B.6.a of the permit requires the city to develop an Operation and Maintenance (O&M) Plan that details a schedule of the city's Operation and Maintenance activities by December 31, 2022. The O&M Plan must include BMPs that will reduce the discharge of pollutants and protect water quality.
- Section S5.B6.a.i of the permit details that the O&M Plan must include appropriate pollution prevention procedures for the following types of facilities and/or activities that must be implemented by the city:
 - Inspections and cleaning of stormwater collection and conveyance system assets to include[♣]:
 - Catch basins
 - Stormwater sewer pipes
 - Open channels
 - Culverts
 - Structural stormwater treatment
 - Structural stormwater treatment flow control facilities
 - ♣ Waste materials generated must be properly managed, and adequate records kept of all cleaning inspection, and disposal activities.
- Maintenance of roads, highways, and parking lots owned or operated by the city that are pollutant generating impervious surface $\geq 5,000$ square feet to include:
 - Street cleaning
 - Deicing
 - Snow removal
 - Managing runoff from snow storage areas
 - Managing material storage areas (e.g. salt, sand, or other chemical storage)
 - All-season BMPs to reduce road and parking lot debris and other pollutants

- Management of fleet vehicles fleets to include[‡]:
 - Storage
 - Washing
 - Maintenance
 - Repair
 - Fueling

[‡]All vehicle and equipment washing and maintenance must be performed in a self-contained covered building, or in designated wash and/or maintenance area that separates wash water from stormwater.

- Maintenance and pollution prevention activities for municipal buildings owned and/or operated by the city to include:
 - Cleaning
 - Washing
 - Painting
 - Other maintenance activities
- Maintenance and pollution prevention activities for parks and open spaces to include:
 - Application of fertilizer
 - Application of pesticides, and herbicides
 - Pet waste BMPs
 - Sediment and erosion control BMPs
 - BMPs for landscape maintenance and vegetation disposal
 - Trash and dumpster management
 - Building exterior cleaning and maintenance BMPs
- Implementing construction projects owned or operated by the city to include:
 - Adhering to the Construction Stormwater General Permit
 - Adhering to the construction and post-construction controls detailed in the Core Elements
- Implementing industrial activities owned or operated by the city to include:
 - Adhering to the conditions of the Industrial Stormwater General Permit
- Implementing and updating Stormwater Pollution Prevention Plans (SWPPPs) for material storage areas, heavy equipment storage areas, and maintenance owned or operated by the city to include[♥]:
 - Site map showing the facility's stormwater drainage, discharge points, and potential pollutant areas
 - Inventory of the materials and equipment stored on-site, and the activities conducted at the facility which may be exposed to precipitation or runoff
 - Spill prevention and mitigation plan for illicit discharges

- Description and schedule of facility BMPs (operational and structural)♦
 - Annual inspections of the facility to evaluate the effectiveness of the BMPs, identify maintenance needs, and determine if additional or different BMPs are needed.
 - Record keeping of inspection results (report or checklist)
- ♥ Unless required to have coverage under the Industrial Stormwater General Permit.
- ♦ BMPs shall be consistent with the Stormwater Management Manual for Eastern Washington, or other Ecology-approved technical manual.
- Implementation of flood management projects to include:
 - Controls that minimize impacts to site hydrology
 - Implementation of BMPs at other facilities to include:
 - Protection of water quality
- Section S5.B6.a.ii of the permit requires the O&M Plan to include schedule of inspections and requirements for recordkeeping pursuant to permit Section S9 – Reporting and Record Keeping. The schedule of inspections must include:
 - Requirement to inspect a minimum of 95% of all known stormwater treatment and flow control facilities (except catch basins) owned, operated, or maintained by the city shall be inspected at least once every two years. Problem facilities identified during inspections should be inspected more frequently.
 - Requirement to inspect all catch basins and inlets owned or operated by the city every two years. Catch basins should be cleaned as needed in accordance with permit section S5.B.6.a.
 - Requirement to conduct spot of stormwater treatment and flow control facilities after major storm events for damage. Maintenance and repairs should be performed as soon as practicable.
 - Section S5.B6.a.iii of the permit requires the city to identify the responsible departments or roles for performing each activity in the O&M Plan.
 - Section S5.B6.a.iii of the permit requires that all city employees with primary construction, operations, or maintenance job functions that are likely to impact stormwater quality to have training that addresses trained: protection of water quality, operation and maintenance requirements, relevant SWPPPs, inspection procedures, and pollution prevention methods to use during job activities.

2.6.1 Municipal Operations and Maintenance Program

An operation and maintenance (O&M) program has been developed and implemented that includes a citywide Operation and Maintenance Plan for typical municipal activities, Site Specific SWPPPs for

applicable municipal properties, and a recurring training component, where the ultimate goal is reducing or preventing pollutant runoff from municipal operations in order to protect water quality.

2.6.2 Municipal Stormwater Operations and Maintenance Plan

The permit requires the implementation of an Operations and Maintenance (O&M) Plan for municipal activities with the potential to impact stormwater. The O&M Plan must include appropriate pollution prevention and good housekeeping procedures for the following facilities and/or activities:

- Stormwater collection and conveyance system,
- Roads, highways and parking lots,
- Vehicle fleets,
- Municipal buildings,
- Parks and open space,
- Construction projects,
- Industrial activities, and
- A schedule of O&M activities that includes the identification of the responsible department for the performance of the activity.

The Wastewater Management Department generated a citywide Municipal Stormwater O&M Plan in 2022. The citywide O&M Plan replaces several O&M Plans that were written in 2010 that were specific to a department, which also included a SWPPP as a component of the respective plan. The 2022 citywide O&M Plan is a comprehensive document applicable to all departments that contains pertinent Best Management Practices (BMPs) for typical municipal activities that have the potential to impact stormwater. Stormwater Pollution Prevention Plans were developed as separate documents for the applicable municipal properties that overlap, but are independent of the O&M Plan. The citywide O&M Plan contains guidance on pollution prevention and good housekeeping measures, in addition to activity specific BMPs adopted directly from the SWMMEW.

Stormwater Collection and Conveyance System

The City of Spokane storm sewer system consists of catch basins, storm sewer pipes, open channels, culverts, stormwater treatment and flow control facilities, which collectively capture runoff to minimize flooding and convey to a treatment and/or infiltration feature or to an outfall that discharges to the river. The Sewer Maintenance Division of the City's Wastewater Management Department is responsible for managing the storm sewer infrastructure which includes regular inspections and cleaning of components of the system, and maintenance and/or replacement of components, as necessary. BMP documents for inspecting and maintaining the storm sewer system are provided in the citywide Municipal Stormwater O&M Plan.

The Water Department is responsible for maintaining the vegetation in city owned stormwater facilities on city properties, which includes keeping vegetation healthy and cut back, and removing the cuttings from the facility to dispose of appropriately. The green area maintenance crew shall maintain healthy

vegetation with regular mowing or trimming during the late spring and summer seasons. BMP documents for landscaping and vegetation management are provided in the citywide Municipal Stormwater O&M Plan.

The citywide Municipal Stormwater O&M Plan documents the frequencies that the storm sewer components shall be inspected, cleaned, and maintenance performed, if necessary, and the department responsible for performing the inspections and maintenance activities. BMPs for managing the physical components and associated vegetation of the storm sewer system, are provided in the O&M Plan.

The city operates a vector waste decant facility located at 2400 E. Ferry, in Spokane, Washington. Waste generated from cleaning catch basins and other stormwater management and treatment facilities are transferred to the decant facility. The liquids are separated from solids, and conveyed to an evaporation pond, and solids are dried with subsequent transport to a permitted solid waste landfill. Procedures for using the decant facility are incorporated into the citywide Municipal Stormwater O&M Plan and a site Stormwater Pollution Prevention Plan (SWPPP).

Roads, Highways and Parking Lots

The City of Spokane roadway system consists of residential streets, major and minor arterials, highways, and parking lots, all of which accumulate petroleum hydrocarbons, toxic chemicals, heavy metals, salts, and sediment and debris, among others pollutants, which become stormwater pollution during a rain event. Stormwater runoff from roadway and parking lot pavements must be managed appropriately in order to minimize the amount of pollutants that enter local waterways by collecting sediment, debris, and other pollutants before they can enter the stormwater collection and conveyance system.

All City Departments are responsible for maintaining the parking lots and parking areas owned the respective department, which includes good housekeeping, clearing the pavements, removing snow, and protecting stormwater.

The Streets Department is responsible for maintaining the city's streets, roads, and highways in order to ensure they are able to be traveled and safe to use, which includes performing maintenance activities, completing maintenance projects, clearing obstructions, managing snow removal, adding sand and/or deicer, and performing street sweeping to recover accumulated pollutants before they are transported downstream by runoff.

BMP documents on good housekeeping practices, management of bulk materials, application of pesticides, and maintenance of roadways, among others, that are applicable to all city departments are, provided in the citywide Municipal Stormwater O&M Plan.

Vehicle Fleets

Motor vehicles are located at most city department office buildings and work sites. Spills and/or leaks of motor fluids, fuels, and oil from motor vehicles, and the soap and debris inherently contained in vehicle washwaters, have the potential to enter into the stormwater collection and conveyance system during rain and/or snow melt events. The city departments that own city vehicles are responsible for operating, fueling, storing, and washing their city vehicles, as well as maintaining the vehicle parking

areas go be protective of stormwater. Maintenance and repair of city vehicles is the responsibility of Fleet Services, and is performed upon request of the vehicle owning departments, as necessary.

All vehicle and equipment washing and maintenance should be performed in self-contained, covered buildings, or in designated wash and/or maintenance areas that are operated to keep washwater and stormwater separated, where washwaters are discharged to the sanitary sewer. Stormwater BMPs applicable to storing, washing, fueling, and maintaining city vehicles are provided in citywide Municipal Stormwater O&M Plan and are applicable to all city departments who own vehicles and/or parking lots or vehicle storage areas.

Maintenance and repair of city owned vehicles and equipment should be performed by Fleet Services at the Central Services Center. The Central Services Center manages stormwater under a site specific SWPPP. Stormwater BMPs pertinent to the maintenance and repair vehicle and equipment are provided in the citywide Municipal Stormwater O&M Plan.

Municipal Buildings

Municipal building maintenance includes cleaning, washing, painting, and landscape maintenance. Potential pollutants from these activities include organic compounds, oil and grease, soap, heavy metals, and particulate matter. Each department is responsible for the maintenance of its municipal buildings in a manner protective of stormwater, which includes implementing stormwater BMPs when performing cleaning and maintenance activities in order to reduce the potential for pollutants to enter the storm sewer, and ultimately the Spokane River. Stormwater BMP documents provided in the citywide Municipal Stormwater O&M Plan, which contains pollution mitigation measures for activities typically performed at municipal buildings that are applicable to all City departments.

Parks and Open Space

The maintenance of parks and open space areas inherently includes fertilization, mowing, pesticide application, and supplemental irrigation, and has significant potential to impact stormwater and ultimately the Spokane River. Potential pollutants from these activities include nutrients (ammonia and phosphorous), chemicals (pesticides), organic debris, and sediment, among others, which must be mitigated with appropriate stormwater BMPs. Stormwater treatment facilities and green stormwater infrastructure are often incorporated into parks and open spaces to provide multi-use facilities for the public. Green areas used to manage stormwater have additional maintenance requirements beyond those for parks and open spaces alone.

The Parks Department is responsible for maintaining city owned parks and many open spaces, and the Water Department is responsible for maintaining the remaining open spaces and stormwater treatment facilities. Stormwater BMPs applicable to the maintenance activities that are performed at parks and open spaces, as well as BMPs for stormwater bioinfiltration facilities, are provided in the citywide Municipal Stormwater O&M Plan as guidance resources for the department responsible for maintenance.

Construction Projects

Public and private construction projects are required to comply with Appendix 1 of the stormwater permit, which details the requirements of seven core elements for the protection of stormwater. In addition, larger construction projects are also required to obtain a project specific Construction General Stormwater Permit from the Department of Ecology.

Construction projects have significant potential to impact stormwater from soil particles derived from exposed soils, and from the materials and chemicals used for the construction project. Stormwater pollution prevention BMPs are required to be implemented for construction projects performed by the city. BMPs for both large and small construction sites are provided in the citywide Municipal Stormwater O&M Plan

Industrial Activities

Industrial activities inherently have a significant potential to impact stormwater with pollutants that are specific to industrial sector. The City of Spokane municipal operations activities that may typically qualify for an industrial stormwater permit are the Northside Landfill and the Waste to Energy Facility.

The Northside Landfill is closed to the public and no longer accepts municipal solid waste for disposal. The Waste to Energy Facility is active, and conducts all waste transfer and processing of materials indoors under a building roof. In lieu of an industrial stormwater permit, the Northside Landfill and the Waste to Energy Facility sites manage stormwater onsite in accordance with a site-specific Stormwater Pollution Prevention Plan (SWPPP), as required for municipal operations by the municipal stormwater permit.

The Northside Landfill and Waste to Energy Facility are each responsible to keep the site-specific SWPPPs for the respective facility current for the activities of its' operations, and continue to perform the responsibilities identified in the SWPPP for the site. In addition to performing the responsibilities of the SWPPP, the Northside Landfill and Waste to Energy Facility should implement the applicable stormwater BMPs that are not provided in the site specific SWPPP, specifically BMPs for good housekeeping and the BMPs for non-routine maintenance activities that are occasionally performed, provided in the citywide Municipal Stormwater O&M Plan.

The Riverside State Park Water Reclamation Facility (RPWRF) is a publicly owned wastewater treatment plant that operates under a National Pollutant Discharge Elimination System (NPDES) permit that is specific to the facility. RPWRF is responsible to operate in accordance with the conditions of its' NPDES permit, and the requirements of the municipal stormwater facility do not regulate the activities at RPWRF.

Staff Training

The city provides training for employees with primary construction, operation, or maintenance job functions likely to impact stormwater quality. Training is typically performed by each department for the applicable personnel, which addresses the importance of protecting water quality, the requirements of the Permit, operation and maintenance requirements, inspection procedures, ways to perform job activities to prevent or minimize impacts to water quality, and procedures for reporting such water quality concerns as potential illicit discharges. The city is currently implementing a training program that is part of the long-term strategy of the implementation of the citywide Municipal Stormwater O&M Plan. Every employee will receive annual training on the O&M Plan by department stormwater focal points, who will have been trained as trainers on the O&M Plan.

3.0 TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

Section S7 of the permit requires the city to apply the conditions of the Total Maximum Daily Limit (TMDL) applied to the Spokane River and Lake Spokane (Long Lake), which are detailed in Appendix 2 of the permit. Appendix 2 states that the city must:

- Continue to monitor Cochran Basin for phosphorus, ammonia, CBOD, and flow rates in accordance with the Cochran Basin DO TMDL Stormwater Sampling Quality Assurance Project Plan (April 2016),
- Continue to implement the monitoring program throughout the duration of the Eastern Washington Phase II Permit issued on August 1, 2019, and expires on July 31, 2024,
- Enter the results of monitoring for each calendar year into Ecology's EIM database by January 31st of the following year, and
- Evaluate and report the results of the monitoring program on an annual basis with respect the city's share of the stormwater Waste Load Allocations in the TMDL.

3.1 TMDL Permit Requirements (S7)

Section S7 applies for jurisdictions with applicable Total Maximum Daily Load (TMDL) approved for stormwater discharges from MS4s as listed in Appendix 2 of the permit. Appendix 2 of the permit states the City of Spokane, within the area under its jurisdiction, shall:

- Continue to implement the Appendix 2 TMDL monitoring program that was developed during the August 1, 2014, to July 31, 2019, Eastern Washington Phase II Municipal Stormwater Permit cycle for the Cochrane Basin. Stormwater shall be monitored for phosphorus, ammonia, CBOD, and flow rates. Monitoring shall be conducted according to the Cochran Basin DO TMDL Stormwater Sampling Quality Assurance Project Plan (April 2016).
- The City of Spokane shall continue to implement the monitoring program throughout the duration of the Eastern Washington Phase II Permit issued on August 1, 2019, and expires on July 31, 2024.
- The results of the monitoring for each calendar year shall be entered into Ecology's EIM database by January 31st of the following year.
- The City of Spokane shall evaluate and report the results of the monitoring program on an annual basis with respect the City of Spokane's share of the stormwater Waste Load Allocations in the TMDL

3.2 TMDL Activities

Stormwater from the Cochran Basin in the northwest portion of the City of Spokane was monitored from 2016 – 2019. Continuous flow rates were recorded, and analyses was performed on stormwater samples for temperature, pH, total suspended solids (TSS), carbonaceous biological oxygen demand (CBOD), phosphorus, ammonia, and polychlorinated biphenyls (PCBs). The city submitted the Cochran Basin

Dissolved Oxygen (DO) TMDL Stormwater Monitoring Report to Ecology in June 2020, which presented the monitoring results for the basin for the years 2016 – 2019 in accordance with Appendix 2 of the permit.

The monitoring data indicated that the city exceeded the assumptive modeled Waste Load Allocations in 2016 and 2017 for CBOD, and 2019 for ammonia. Given the WLA exceedances, the Stormwater TMDL Waste Load Reduction Action Plan was submitted to Ecology on August 6, 2020, which detailed the construction of stormwater infrastructure that will ultimately eliminate discharges from Cochran Basin into the river for storms up to the size of the 6-month design storm. In support of treatment for Cochran Basin stormwater runoff, the city evaluated treatment facility design options at properties near or within the basin. The evaluation determined that the preferred design option would be to construct three separate treatment facilities near the current Cochran Basin stormwater outfall. The three bioretention facility locations will be at TJ Meenach Drive and Northwest Boulevard, the Disc Golf Course at Downriver, and the Boat Launch facility near the TJ Meenach Bridge. Flows to each facility will be managed from a single common flow control vault in Cochran Street between Cleveland and Grace Avenues. The flow control vault will distribute prescribed flows to each of the facilities, and will bypass flows in excess of the 6-month design storm to the existing outfall which discharges to the Spokane River.

Monitoring continued to be conducted in 2020 in accordance with the protocols established in the Cochran Basin DO TMDL Stormwater Sampling Quality Assurance Project Plan (QAPP). Six qualifying storm events were monitored and sampled for phosphorus, ammonia, CBOD, and flow rates, among other parameters, in 2020. Monitoring for phosphorus, ammonia, CBOD, and flow rates, among others, will continue to be conducted in accordance with the QAPP through the end of the permit cycle in July 2024. Monitoring results were tabulated and uploaded into Ecology's Environmental Information Management (EIM) database for the data from 2020, 2021, and 2022.

Upon receipt of comments back from Ecology on the Cochran Basin Dissolved Oxygen TMDL Stormwater Monitoring Report, the city will evaluate and create a report of the results of the annual monitoring performed in 2022.

4.0 MONITORING AND ASSESSMENT

Section S8 of the permit requires the city perform and/or participate in effectiveness studies. Section S8.A.1 requires the city to continue to implement the effectiveness studies that are ongoing from 2014-2019 permit cycle in accordance with the applicable Quality Assurance Project Plan (QAPP).

- Section S8.A.2 of the permit requires the city to plan and begin an additional effectiveness study, and encourages collaboration with other municipalities.
- Section S8.A.2.a requires the city to:
 - Participate in an effectiveness study by serving as the Lead Entity, contributing staff time or other in-kind services, and/or providing funding,
 - Submit to Ecology a brief description of the study, with a list of project participants and each participant's associated role(s) in the study, on or before June 30, 2021,
 - Submit a detailed study design proposal to Ecology on or before September 30, 2022 following the instructions in Eastern Washington Stormwater Effectiveness Studies, Detailed Study Design Proposal & QAPP template (July, 1, 2019, v.1),
 - Submit a completed QAPP on or before July 31, 2023,
 - Begin to conduct the study on or before December 1, 2023, or within three months of receiving Ecology's approval of the QAPP (whichever is later), and
 - Include effectiveness study activities (e.g. assigned duties; participation in meetings, proposal development, project reviews; and study implementation) in the Permittee's updated SWMP.
- Section S8.B.2.1 of the permit requires the city to follow the reporting requirements and timelines in the approved QAPP for the study, including:
 - Entering all applicable data collected for the study into Ecology's Environmental Information Management (EIM) database.
 - Publishing a final report within 60 days with the results of the study and recommended future actions based on the findings.
 - Producing a fact sheet summarizing the findings and recommendations with 90 days of completing the study and sharing it with other Permittees. The target audience for the fact sheet is stormwater managers and local government elected officials.
- Section S8.B.2.2 of the permit requires the city to track assigned duties and record participation in effectiveness study meetings, proposal development, project reviews, and study implementation, and include a summary in the Permittee's Annual Report.

4.1 Monitoring and Assessment Permit Requirements (S8)

- Continue to participate in implementation of the Ecology-approved studies pursuant to Eastern Washington Phase II Municipal Stormwater Permit (2014-2019).

- Coordinate with other Permittees in your Urban Area to plan and begin an additional Stormwater Management Program effectiveness study. Submit to Ecology a detailed study design proposal.
- Submit a completed QAPP to Ecology.
- Enter all applicable data collected as part of conducting the study into Ecology's Environmental Information Management (EIM) database.
- Within 60 days of completing the study, publish a final report with the results of the study and recommended future actions based on the findings.

4.2 Eastern Washington Effectiveness Studies

Each city and County in Eastern Washington was required to participate in preparation of studies to test the effectiveness of stormwater management program components. A total of twelve to fifteen study ideas were submitted to Ecology. Eight to twelve of these studies should be implemented.

Two effectiveness studies have been initiated by the City of Spokane: 1) Sharp Avenue Sharp Avenue Permeable Pavement Pollutant Removal Efficacy Study, and 2) Garland Avenue Biochar Amended Storm Garden Pollutant Removal Efficacy Study.

Sharp Avenue Sharp Avenue Permeable Pavement Pollutant Removal Efficacy Study

Permeable pavement in the forms of pervious concrete and porous hot mix asphalt was constructed on Sharp Avenue in order to satisfy the effectiveness studies requirements of Section 8 of the permit. The project was funded in part by Ecology grant WQC-2016-Spokane-000016, and construction was completed in 2018. The intent of permeable pavement is to allow for precipitation and stormwater runoff to infiltrate into the subsurface. Therefore, the location of this study is its own catchment area or drainage basin. This drainage basin includes a portion of a minor arterial with Average Daily Traffic (ADT) count of 7,500 that is surrounded by residential and campus land use. The approach of this study is to collect stormwater infiltrated into the permeable pavements and associated sub-base via underdrains and piping conveyance systems to separate monitoring locations.

Two different types of permeable pavements have been constructed on Sharp Avenue: porous hot mix asphalt (HMA) and pervious concrete. Pervious concrete with associated sub-base materials was constructed on Sharp Avenue between the side streets of Lidgerwood Street and Astor Street, where a liner and underdrain were installed on the south side of Sharp Avenue to collect infiltrated stormwater for sampling. Porous HMA with associated sub-base materials was constructed on Sharp Avenue between the side streets of Addison Street and Dakota Street, where a liner and underdrain were installed on the south side of Sharp Avenue between Addison Street and Standard Street to collect infiltrated stormwater for sampling. In order to collect a background stormwater sample to determine the efficacy of pollutant removal by the permeable pavements, catch basins and conveyance piping were installed to the west of the permeable pavement areas in order to collect un-infiltrated stormwater runoff.

A Quality Assurance Program Plan detailing the monitoring to be conducted was submitted to Ecology and approved in 2019. Monitoring began in 2019 and will be ongoing for 5 consecutive years to include observations of the pavements through the changes in season and in response to maintenance activities

such as street sweeping and snow removal. Stormwater sampling at 3 distinct locations began in 2019 and the data continues to be evaluated. Infiltration tests at various locations is being performed before and after certain street sweeping events to monitor changes in the permeability of the pavements after sweeping and over time.

The Sharp Ave effectiveness study was ongoing in 2021. Sampling equipment has been installed in manholes on Sharp Ave. between Pearl St. and Dakota St., and sampling and analysis is performed in accordance with the Ecology approved QAPP, as storm events allow, and sampling will be ongoing through 2024. However, 2021 was a very dry year and there was also equipment malfunctions. Only two qualifying events were sampled in 2021. The equipment has been troubleshot and returned to service and is currently functioning. Data will be summarized at the end of the study in the year 2024 and published in accordance with the QAPP. The Sharp Avenue project was summarized in an article in Stormwater Magazine in January 2021 and can be found online at [Infiltration Avenue | Storm Water \(stormh2o.com\)](https://stormh2o.com). Monitoring continued through 2022, and continues in 2023. A final report will be completed for Sharp Avenue Effectiveness study in 2024.

Garland Avenue Biochar Amended Storm Garden Pollutant Removal Efficacy Study

Storm gardens were installed on Garland Avenue in order to satisfy the effectiveness studies requirements of Section 8 of the permit. The City of Spokane and University of Idaho funded a laboratory research study to develop a soil/biochar design mix for application in the storm gardens. The study used bench-scale laboratory testing of two different types of biochar available in the Spokane Region: 1) wood, and 2) Kentucky bluegrass stubble. The laboratory study conducted at Gonzaga University included bench scale laboratory testing to identify a soil mixture for field application. Results from the study determined that the wood biochar with loamy sand (and no other additives) removed the most pollutants. As a result, it was selected for use in the storm garden field application phase.

The goal of this study is to measure the percent reduction of monitored pollutant concentrations between the influent and effluent at the storm garden. To achieve this, the city will sample the influent (pre-infiltration) and effluent (post-infiltration) stormwater concentrations. Influent sample concentrations will be measured prior to infiltration, and effluent sample concentrations will be measured after infiltration through the storm garden comprised of the amended soil. A Quality Assurance Program Plan detailing the monitoring to be conducted was submitted to Ecology and approved in 2019. Monitoring began in 2019 and will be ongoing for 5 consecutive years to include observations of water quality over time.

The Garland Ave effectiveness study was ongoing in 2021. Monitoring continued through 2022, and continues in 2023. Monitoring equipment has been installed at the corner of Garland Ave and Belt St., and sampling and analysis is performed in accordance with the Ecology approved QAPP, as storm events allow, and sampling will be ongoing through 2024. Data will be summarized at the end of the study in the year 2024 and published in accordance with the QAPP.

Additional Effectiveness Study (2019–2024 Permit Cycle)

The City of Spokane, the City of Spokane Valley, and Spokane County have partnered to perform a study that will evaluate the treatment performance of two non-vegetated bioretention soil media (BSM) Best Management Practices in Eastern Washington through the TAPE process. The media tested will include the high performance BSM and the 60 sand: 40 compost (60:40) BSM. A rock mulch will be used to protect the surface from erosion.

Pollutant removal efficacies will be determined from data collected on stormwater pre- and post- swale for each swale co-located in a university parking lot. Dependent on the results, local stormwater management guidelines may be revised and municipal management strategies modified. The study will be implemented by a consultant on behalf of all municipal partners, and the City of Spokane will be the lead entity. The details for this non-vegetated swale study were provided to Ecology in June 2021. The non-vegetated bioretention soil media effectiveness study was being designed in 2022, and a detailed design study proposal was submitted to Ecology in September 2022. The effectiveness study will be kicked off in 2023.

5.0 ANNUAL REPORT

Section S9 of the permit requires the city to submit an annual report electronically using Ecology's WQWebPortal program no later than March 31st each year.

Section S9.A requires the city to keep all records related to the permit for at least five years.

Section S9.B requires the city to make all records related to the permit and this SWMP available to the public at reasonable times during business hours, and provide a copy of the most recent Annual Report to any individual or entity, upon request.

Section S9.C of the permit requires the city to include in the following:

- Stormwater Management Program Plan (SWMP Plan),
- Annual Report form describing the status of implementation of the requirements of the permit for the reporting period,
- Attachments to the Annual Report form including summaries, descriptions, reports, and other information, as required or as applicable, to meet the conditions of this Permit during the reporting period.
- Certification and signature of the report by principal executive officer or ranking elected official, and
- Notification of any annexations, incorporations or jurisdictional boundary changes resulting in an increase or decrease in permit coverage during the reporting period.

The city completes the Annual Report and submits by the March 31st deadline on an annual basis. Copies of the annual report can be found on the city's website at www.Spokanestormwater.org.

6.0 ACRONYMS

BMP: Best Management Practice
CFR: Code of Federal Regulation
CSO: Combined Sewer Overflow
CWA: Clean Water Act
ESC: Erosion and Sedimentation Control
GIS: Geographic Information System
LID: Low Impact Development
MS4: Municipal Separate Storm Sewer System
NPDES: National Pollutant Discharge Elimination System
O&M: Operation and Maintenance
RCW: Revised Code of Washington
SRSM: Spokane Regional Stormwater Manual
SMC: Spokane Municipal Code
SMP: Stormwater Management Plan
SWMP: Stormwater Management Program
SWPPP: Stormwater Pollution Prevention Plan
TMDL: Total Maximum Daily Load
UIC: Underground Injection Control
WAC: Washington Administrative Code

7.0 DEFINITIONS

Best Management Practice: The utilization of methods, techniques and/or products that have been demonstrated to be the most effective and reliable in minimizing environmental impacts.

CWA: The federal Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended in Pub. L. 95-217, Pub. L. 95-576, pub. L. 96-483, and Pub. L. 97-117, 33 U.S.C 1251 *et seq.*

Development: Any proposed land use, zoning, or rezoning, comprehensive plan amendment, annexation, subdivision, short subdivision, planned unit development, planned area development, conditional use permit, special use permit, shoreline development permit, or any other property development action permitted or regulated by the Spokane Municipal Code (SMC).

Discharge (v): Disposal, injections, dumping, spilling, pumping, emitting, emptying, leaching or placing of any material so that material enters and exits from the MS4 or from any other publicly owned or operated drainage system that convey storm water. The term includes other verb forms where applicable.

Discharge (n): Runoff, excluding offsite flows, leaving the proposed development through overland flow, built conveyance systems or infiltration facilities.

Discharger: When used in the context of stormwater management and the SMC of 17D.060 and 17D.090, means any person who discharges to the City's MS4 or any other publicly owned or operated drainage system that conveys, manages or disposes of stormwater flows.

Drainage: (1) The process of removing surplus ground or surface water by artificial means, (2) the manner in which the waters of an area are removed, or (3) the area from which waters are drained; a drainage basin.

Erosion and Sedimentation Control: Any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave a site.

Groundwater: Water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

Heavy Equipment Maintenance or Storage Yard: An uncovered area where heavy equipment (e.g. mowers, excavators, dump trucks, backhoes, or bulldozers) is washed or maintained, or where at least five pieces of heavy equipment are stored regularly or on a long term basis.

Illicit Connection(s): Any man-made conveyance connected to the municipal separate storm sewer system (MS4 system) in violation of the National Pollutant Discharge Elimination System (NPDES) permit requirements.

Illicit Discharge: The introduction or discharge of anything into the municipal separate storm sewer system (MS4 system) in violation of the National Pollutant Discharge Elimination System (NPDES) permit requirements.

Impervious Surface: A hard surface area that either prevents or retards the entry of water into the soil mantle. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios,

driveways, parking lots, storage areas, concrete, or surfaces that impede the natural infiltration of stormwater.

Industrial Activity: Manufacturing, processing or raw materials storage areas at an industrial plant. These activities may be required to have Department of Ecology's NPDES permit coverage in accordance with 40 CFR 122.26.

Low Impact Development: A stormwater management and land development strategy applied at the parcel and/or subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrologic conditions.

Material Storage Facilities: An uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains, (1) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, stormwater, or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States, (2) designed or used for collecting or conveying stormwater, (3) which is not a combined sewer, and (4) which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES): The national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology (Ecology).

NPDES Eastern Washington Phase II Municipal Stormwater Permit (WAR04-6505): A permit issued to the City of Spokane from the Washington State Department of Ecology, granting authority to discharge stormwater into state surface waters. Permit also addresses water quality issues.

Outfall: A point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

Permittee: Any Primary Permittee, Co-Permittee, or Secondary Permittee unless specifically stated otherwise for a particular section of permit WAR04-6505.

Pollutant: (1) Any substance prohibited or limited by federal, state or local regulations, released or discharged in conjunction with development. (2) Any substance, released or discharged, that causes or contributes to violation of water quality standards.

Runoff: Water that travels across the land surface, or laterally through the ground near the land surface, and discharges to water bodies either directly or through a collection and conveyance system, includes stormwater and water that travels across the land surface from other sources.

Spokane Regional Stormwater Manual: A technical document establishing standards for stormwater design and management to protect water quality, natural drainage systems, and down-gradient properties as urban development occurs.

Stormwater: Any runoff flow occurring during or after any form of natural precipitation, and resulting from such precipitation, including snowmelt. Stormwater further includes any locally accumulating ground or surface waters, even if not directly associated with natural precipitation events, where such waters contribute or have potential to contribute to runoff onto the public right-of-way, public storm or sanitary sewers, or flooding or erosion on public or private property.

Stormwater Management Program (SWMP): A set of actions and activities designed to reduce the discharge of pollutants from the regulated small MS4 to the MEP, and to protect water quality; it comprises the components listed in S5 or S6 of permit WAR04-6505 and any additional actions necessary to meet the requirements of applicable TMDLs.

Total Maximum Daily Load (TMDL): A water cleanup plan. A TMDL is both a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. The calculation includes a margin of safety to ensure that the water body can be used for its state-designated purposes. The calculation also accounts for seasonable variation in water quality. Water quality standards are set by states, territories, and tribes. They identify the uses for each water body—such as drinking water supply, contact recreation (swimming), and aquatic life support (fishing)—and the scientific criteria to support that use. The Clean Water Act, Section 303, establishes the water quality standards and TMDL programs.

8.0 REFERENCES

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