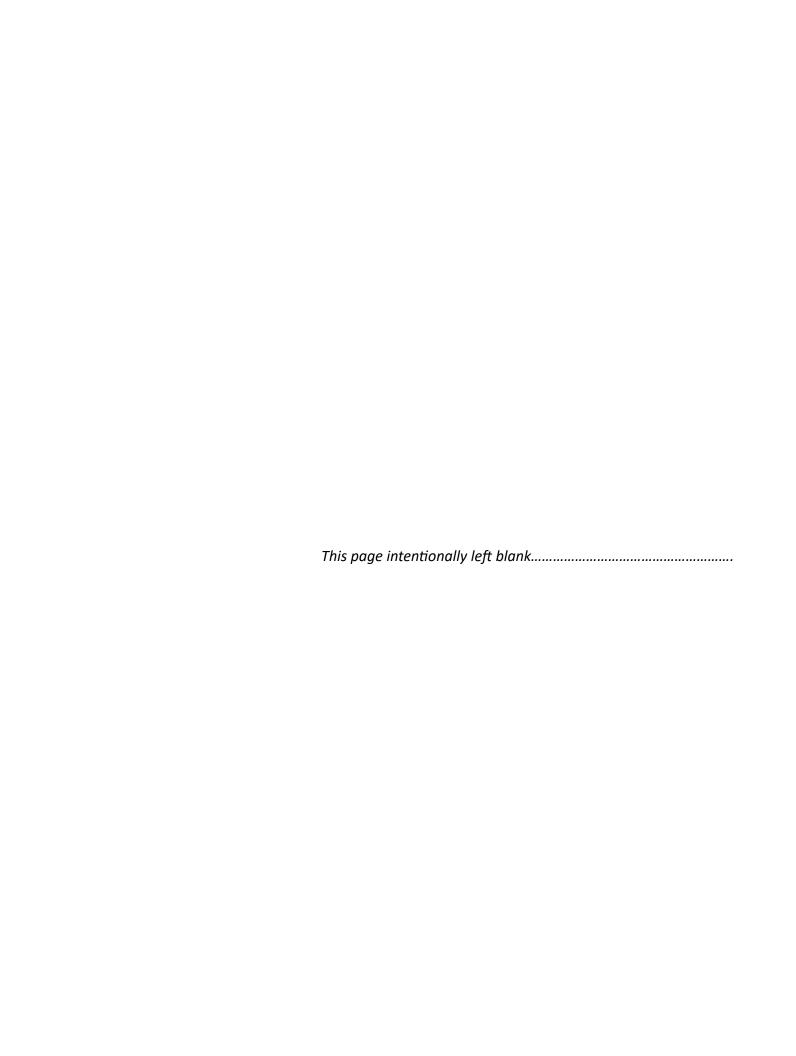
City of Spokane Stormwater Management Program Plan

March 2025

DRAFT

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





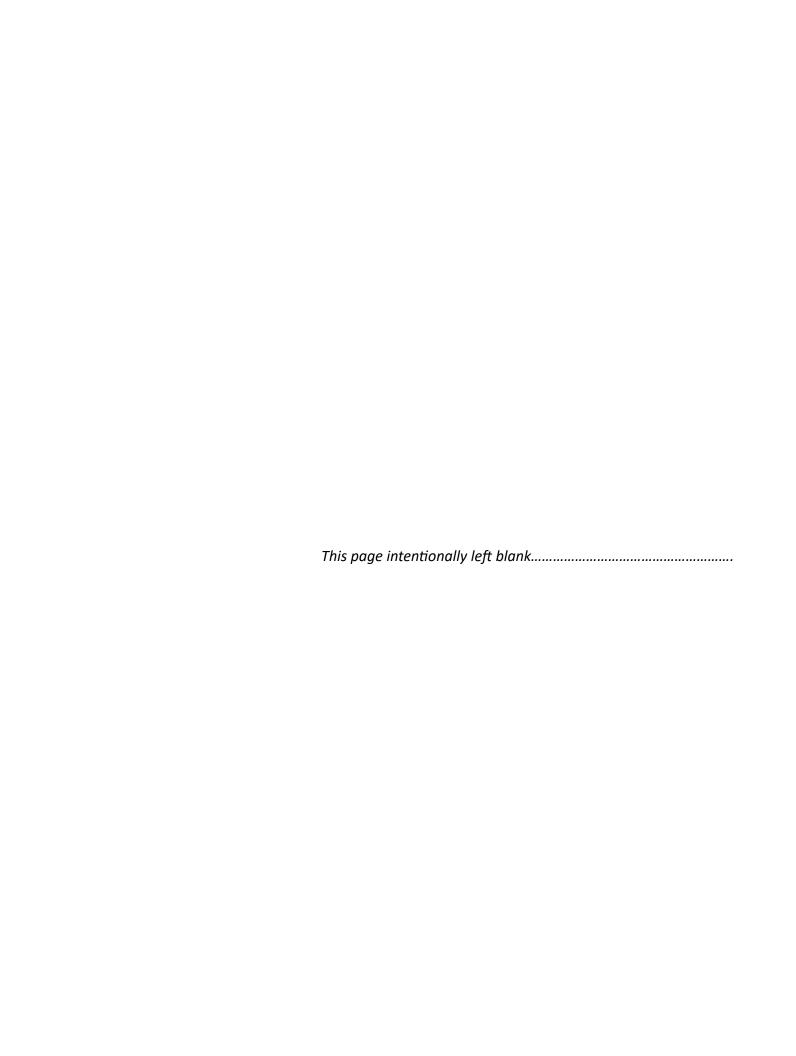
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1.0 INTRODUCTION

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 strategies 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 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 made available to the public annually via the city's stormwater webpage (<u>Spokanestormwater.org</u>) 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 comment period, the SWMP Plan will be finalized and posted on 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

The National Pollutant Discharge Elimination System (NPDES) framework was, in large part, established by the 1972 by the amendments to the 1948 Federal Water Pollution Control Act, which has come to be known as the Clean Water Act. The Clean Water Act (CWA) details federal regulation of stormwater and wastewater discharges to Waters of the United States (WOTUS). 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 east of the Cascade mountains with the Eastern Washington Phase II Municipal Stormwater general permit. The permit is

a NPDES permit and a Washington State waste discharge general permit, and it regulates discharges from small municipal separate storm sewers.

Ecology first issued the permit to municipalities in 2007, and has reissued it with revisions in 2014, 2019, and 2024. The current permit became effective on August 1, 2024 with an expiration date of July 31, 2029. Reissuance of the permit is scheduled for August 1, 2029 with an effective period through 2034. The permit authorizes the city to discharge stormwater to surface waters and groundwaters of the State from the city's Municipal Separated Stormwater Sewer System (MS4) in accordance with federal guidelines. The coverage area regulated by the Phase II permit includes the entire incorporated area within the city's municipal boundary where stormwater is discharged to a surface water or ground water, except for areas that manage stormwater in combined sanitary and stormwater system. 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 separate 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 best management practices (BMPs) that manage stormwater locally and discharge to ground.

1.3 Stormwater Management in Spokane

The city's MS4 system consists of stormwater conveyances, catch basins, structural treatment BMPs, underground injection controls (UICs), and outfalls. Within the permitted MS4 boundary, but outside of the CSO Basins, stormwater is collected by the separated stormwater sewer system and conveyed either to stormwater treatment facilities or to outfalls which discharge directly to the river. The separated stormwater sewer system is roughly located along the Spokane river, and in the northern portion of the city.

Stormwater treatment facilities throughout the city are used to manage stormwater as near as possible to where the runoff is generated. The treatment facilities are typically bioretention facilities such as swales, bioretention cells, infiltration ponds, etc., which are structural stormwater BMPs designed to remove pollutants from runoff before it is discharged to the ground. The facilities are typically designed and constructed in accordance with the Spokane Regional Stormwater Manual (SRSM), and/or the Stormwater Management Manual of Eastern Washington (SWMMEW), and consist of inlets, a vegetated retention area, subgrade bioretention soil media, and an outlet/overflow. They are generally 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 swale through an inlet, flows over vegetation to slow 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 by removing pollutants. Figure 1 shows a typical swale design.

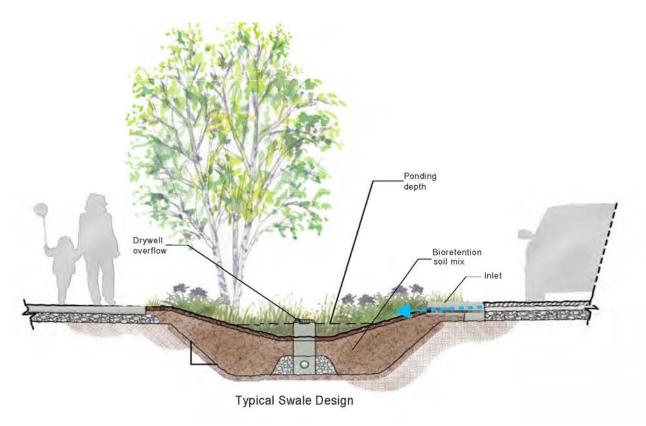


Figure 1. Typical Swale Design.

Special Drainage Districts (SDDs) 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 SDDs have been established due to shallow groundwater, intermittent standing water, and steep slopes in these areas, which make stormwater challenging to manage.

Figure 2 is a map of the City of Spokane showing the general locations of stormwater infrastructure, including MS4 boundaries, CSO basins, and SDDs. On the south side of the city, where rocky geology does not readily allow infiltration, stormwater in CSO basins is largely managed in a combined sewer that conveys both stormwater and sanitary wastewater using 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 combined sewer and stormwater and are regulated by RPWRF's waste discharge permit. CSO basins also contain stormwater treatment BMPs, where practical, to manage stormwater locally which minimizes the amount of stormwater conveyed to the wastewater treatment plant.

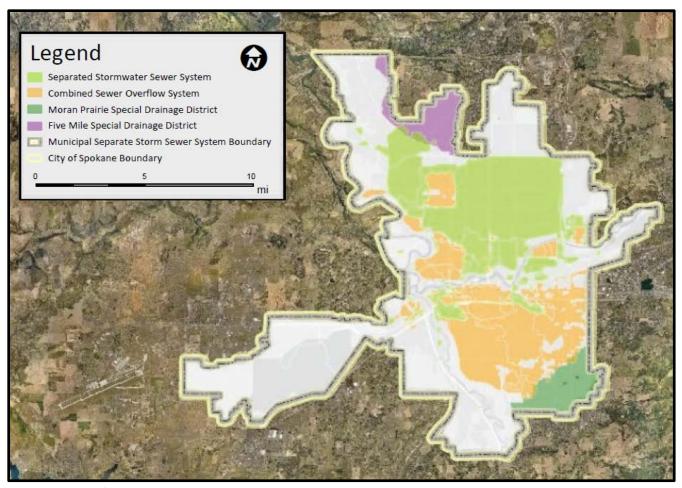
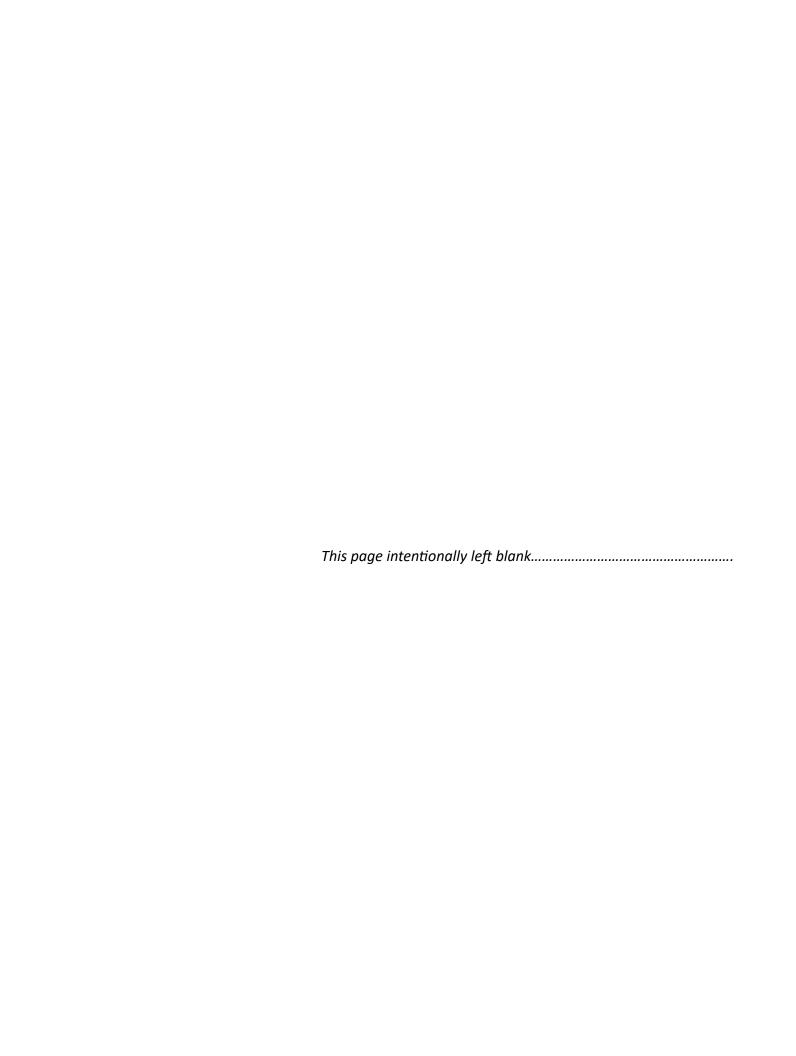


Figure 2. Map of Stormwater Management Areas.



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, this is met through a multifactor approach to promotion of the Pollution Prevention Program on the Water Wise social channels.

2.1.2 Outreach to General Public, Homeowners, and School-age Children

Community Events

In 2025, the City of Spokane plans to participate in 12 to 15 community events, providing education, interactive activities, and promotional materials focused on stormwater awareness. These events will include, but are not limited to, Earth Day, Arbor Day, School Science Nights, Touch-a-Truck events, library programs, Spokane Indians baseball games (including designated kids' days), Spokane Chiefs hockey games, and various school presentations. The city's involvement will be tailored to each event's needs, whether through presentations, hands-on activities such as pollution prevention games or permeable pavement demonstrations, or distributing educational materials. Brochures, including the Stormwater Treatment Areas Information and Stormwater Pollution Guide, along with additional materials developed in collaboration with internal and external partners, will be distributed as appropriate. To assess the impact of these outreach efforts, the city will track impressions based on event attendance and the number of materials distributed. The overarching goal is to enhance public understanding of stormwater management and encourage behavioral changes that contribute to cleaner, safer waterways.

<u>Adopt-a-Drain</u>

The storm drain adoption concept is a growing movement with active programs in approximately 170 communities across the ADOPT country. At the core of this movement is community engagement ASTORM 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

DOPT STORM RAIN

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, reduce localized flooding, and ultimately improve water quality.

EnviroKids Club

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 participates in planning, content, and participation at local events EnviroKids puts on throughout the year, which is roughly 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.

<u>Drain Rangers</u>

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-

Welcome to
Online DIY
Jr. Drain Rangers!

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 for both primary and secondary students are 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 2025

Spokane Stormwater Website

The City of Spokane stormwater website is located at 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 (SRSM) for reference materials. Additionally, the city's

stormwater webpage houses videos that provide information on <u>Spokane Stormwater</u>, <u>Hazels Creek</u> and <u>Green Area Maintenance</u>. A webpage dedicated to the <u>Private Stormwater Facility Annual Certification Program</u> was recently created as a resource to private stormwater property owners. The Spokane stormwater website continued to grow in 2023 to include a Pollution Prevention practices, stormwater educational materials, and detailed information on stormwater structural BMPs, stormwater management, private facilities certification, among other quick links to information about CSO's, the One Water approach, Integrated Clean Water Plan, and more. A visual slideshow was added to the website to enhance visibility and direct users to focused topics. During 2024 additional resources were added and links to blog posts and external partners were added.

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 2024 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 city hosted a pre-game table at the stadium to promote stormwater and give out educational information twice during the season. Attendees from all over the region attend these games and the partnership will continue in 2025. Expansion into 'kids days' included a

stormwater educational activity page in the booklet provided to all 4th grade students who attend a special day game at the stadium.

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, radio, and information on the city's website in 2023. Specifically, stormwater messaging continued to evolve and



grow 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, maintenance, and pollution prevention tips 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 over 2.1 million Facebook impressions (paid & organic) from stormwater ads January-December 2023, up from 675,045 the prior year.
- Traffic generated to website (<u>www.spokanestormwater.org</u>) included 8,590 unique users with an average time spent on the site of 2:32.

Detailed metrics on video and social channels outreach are included as Attachment B. but video content continues to be focused on stormwater pollution prevention (picking up pet waste, only rain down the drain, using pesticides sparingly, etc.)

Looking forward, social channel messaging will continue through 2024, and the outreach will provide source control and treatment facility educational information to the public. During 2024 educational stormwater signs will be created in conjunction with the Cochran Basin project and QR codes with videos will accompany the signs for both visual and auditory ability. An additional sign will be created with established partnerships with the city and other agencies that will be displayed at the TJ Meenach Boat Launch area.

Spokane River Forum

The City of Spokane supports the Spokane River Forum's efforts, and as such has historically partnered with the Forum with respect to stormwater outreach to ensure that messaging aligns and is consistent for the public to be able to clearly gain a better understanding of stormwater best practices. The city will continue to explore partnering opportunities with the Spokane River Forum in 2024.

Golden Stencil Stormwater Contest

The "Hunt for the Golden Stencil" contest, organized by the City of Spokane Stormwater, featured the



iconic Redband trout logo spray-painted at 10 different storm drain locations across the city. In collaboration with KXLY, this contest was successfully promoted and encouraged participation through their website. Participants that found a stencil could enter to win a gift card to a local business. After entering, a stormwater educational tidbit would be displayed as a takeaway message. These messages included "Did you know

anything other than stormwater is an illicit discharge?", "Help keep our waterways healthy and remember, drains are for rains!", and "Help keep our Spokane River clean and healthy, don't pollute and remember only rain down the drain!" The promotional education videos resonated with the community, inviting them to "Join the hunt to find them all!" Collaborating with KXLY and Water Wise Spokane made exciting announcements about the contest and its winners which fostered a sense of community engagement including creating and sharing.

This initiative has not only significantly enhanced our community engagement but has also established a robust baseline for subsequent contests like age group for example. Majority of participants were in the 45-54 age group, giving us insight on target audience for the future. The comprehensive evaluation of the number of entries submitted, popular sites where the stencil was found, and age of entrants provides us with a quantitative as well as quantitative metric to assess the success of our promotional endeavors. The collaborative marketing efforts, particularly through our partnership with KXLY, allowed us to precisely measure the reach and effectiveness of our advertisements. Through meticulous tracking, we obtained valuable insights into the diverse channels through which participants were exposed to contest details, providing essential data for optimizing future promotional strategies. Moreover, the "Hunt for the Golden Stencil" contest has afforded us a unique opportunity to conduct a detailed analysis of the frequency and visibility of storm drains across various geographical areas. This analytical approach enables us to pinpoint key locations for targeted community outreach and strategic stormwater education initiatives. In essence, this multifaceted undertaking not only succeeded in fostering participation but also laid a solid foundation for informed decision-making in our continual efforts to promote environmental awareness and community engagement in 2024. (See attachment C)

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 2024, 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. Discussions continued with Spokane County about the possibility of partnership for future endeavors.

<u>Hazel's Creek Regional Stormwater Facility and LID Demonstration Site</u>

In the autumn of 2012, construction concluded, marking the commencement of stormwater reception from properties within a defined up-gradient boundary. The site, inclusive of publicly accessible walking trails, also served as a platform for Low Impact Development (LID) education. Numerous LID demonstrations were conducted along the trail system, offering visitors an educational opportunity. A brochure downloadable from the Public Works & Utilities website facilitated self-guided tours

In 2021, the city extended its support to science education at Ferris High School by providing tools and plantings for students to establish additional vegetation at the site. Approximately 600 starts of native shrubs and bushes were planted by the students, with their progress slated for evaluation in 2022. A subsequent assessment in 2024 will gauge the survival rate of the plantings, informing decisions regarding future pursuits of similar activities.

An informational video highlighting Hazels Creek was produced in 2020 to reignite public interest, available for viewing on the Hazels Creek section of Spokanestormwater.org. In tandem, the Wastewater Department plans to evaluate the Hazels Creek area in 2024, focusing on information kiosks and site vegetation, with the aim of identifying opportunities for enhancing visitation to the site. During



the 2023 year, three guided tours were provided to the public. These tours are expected to continue in the following years as messaging and outreach to neighborhood council meetings are planned.

Swale Education

Swale education and restoration are both planned for 2024. During 2023 educational updates to the City of Spokane website, Water Wise Spokane social media platforms, print materials, yard signs, and



distribution of promotional items were leveraged to promote awareness and education. The goal is to increase in knowledgebase and understanding of benefits of swales. Social marketing was tailored to swale education through posts containing content surrounding importance, care/maintenance, planting suggestions, soil layers, etc. The city kicked off the Swale Yeah! Campaign, which increased awareness on the presence and function of swales, and benefits to the community. It was implemented through both an online and physical promotion within the city as well as other local partners. The Swale Yeah! campaign effort began in 2023 and is

likely to run through 2025, with the goal of bringing awareness of swales to foster swale stewardship in the community. Over 100 yard signs were displayed in swales across Spokane and qualitative results indicate the signs are being recognized and leading to further education.

City of Spokane Cable 5

City of Spokane Cable Channel 5 rotates stormwater pollution prevention tips on the reader board. A different seasonally relevant 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 and pollution prevention tip videos as filler between scheduled programming. These broadcasts will continue to occur in 2024.

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 2024.

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. The City of Spokane is still developing the best approach to educate children in the classrooms. The city participated in two education events in Spokane County at an outdoor educational facility, Bear Lake, in 2023.

2.1.3 Outreach to Businesses

Spokane Regional Health District's (SRHD) Pollution Prevention Program

Collaborating with the Spokane Regional Health District's (SRHD) Pollution Prevention Program allowed the city to extended stormwater messaging to businesses through voluntary site inspections. These inspections were mainly focused on restaurants/grocery stores, food rescue (becoming EnviroCertified), automotive facilities, schools, nail salons, as well as any sectors that have received complaints within the 2023 year. An initial site visit occurs at the actual site and results in a completed 'checklist' while a screening visit is 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. A follow-up visit occurs within 90 days of the initial visit. The follow-up visit must be conducted to resolve high priority environmental issues. Last year, SRHD conducted 22 screenings, 63 initial site visits, and 30 follow-up visits.

The Pollution Prevention Program, funded by Ecology, equipped businesses with spill kits as needed. Fats, Oils, and Grease (FOG) brochures that were created in 2022 by the City of Spokane continued to be distributed at all initial site visits and as needed in the field. This brochure is available in English, Russian, and Spanish. Continuation of this partnership is planned for 2024. Additional details of SRHD's efforts and FOG brochure examples can be found at www.spokanestormwater.org. The SRHD summary can be found as Attachment A.

2.1.4 Outreach to Developers, Engineers, and Contractors

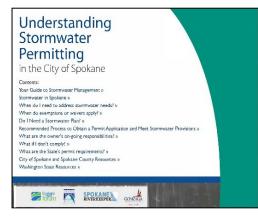
Stormwater Permitting Guidance Materials

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 addresses stormwater-related building permit requirements; erosion and sediment control, and also references 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 2024

Developer Services Center

The City of Spokane Developer Services Center is instrumental in facilitating the progression of construction projects through the stormwater management process. Through active engagement with developers, engineers, and contractors in pre-development meetings, the center plays a pivotal role in providing crucial insights into stormwater requirements.

The 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 two stormwater permitting guidance documents <u>The City of Spokane Stormwater Compliance Guide</u>, and the informational guide document <u>Understanding Stormwater Permitting in the City of Spokane</u> guide. Each document contains helpful information on the local permitting process with respect to stormwater, as well as numerous links to additional educational stormwater materials.

Pre-development meetings are a standard practice, where during the meetings, city engineers meet with developers, and 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 Developer Services Center will continue to review stormwater plans, hold pre-construction meetings, and provided guidance on stormwater for development projects in 2024 and onward.

In a collaborative effort with the Wastewater Management Department, the Developer Services Center ensures the continued distribution of construction stormwater guidance materials. These materials are thoughtfully organized in an online resources folder accessible on the commercial construction permitting page of the city's website as well as at Spokanestormwater.org This strategic approach underscores the commitment to transparency and accessibility in providing developers and stakeholders with the necessary tools to effectively navigate stormwater management requirements. By fostering collaborative partnerships and streamlining access to key information, the Developer Services Center plays a crucial role in promoting compliance and best practices in stormwater management within the construction sector in Spokane. Continuation and strengthening of the partnership with Developer Services is anticipated to continue in 2024 with a specific focus on gaps in education amongst subsectors. Specifically, guidance materials similar to the construction stormwater information vehicles will be developed in 2024 for industrial stormwater and made available as the construction stormwater materials are currently.

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

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.

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.

Eastern Washington Stormwater Education & Outreach Group

In 2023, a vital collaborative initiative took form, addressing specific stormwater pollution prevention challenges unique to Eastern Washington. Recognizing the distinct issues faced in this region, often overshadowed by content created for the west side, a dedicated group convened and initiated projects aimed at tailoring educational efforts to the local context. Eastern Washington permittees working as part of the Eastern Washington (EWA) Stormwater Education & Outreach (SW E&O) Working Group identified a need for documents with information on construction BMPs for developers, engineers, planners, review staff, contractors, and construction crews. The Washington Stormwater Center providing support to the EWA SW E&O contracted Evergreen StormH2O to assist in the development of leverageable documents to fill these underserved audiences. Two brochures and a flip book focused on construction stormwater were developed and made available for jurisdictions statewide. To aid in their adoption, the documents were produced in Publisher and are easily editable. For example, the materials are easily tailors to reflect local ordinance codes, as well as include local pictures and contact information. QR codes are provided to allow access to further information in the Department of Ecology's Stormwater Manuals. These codes are available for both EWA and WWA and can be found here:https://www.wastormwatercenter.org/permitassistance/municipal/educationoutreach/eastern - wa-eo-documents/.

A comprehensive survey identified Developers, Engineers, & Contractors as a target audience requiring specialized assistance to meet MS4 permit requirements. Through concerted efforts involving multiple regional jurisdictions, a suite of educational materials was meticulously crafted. This included a developer brochure, Planners, Engineers, and Review Staff Brochure and a construction flipbook, with careful consideration given to layout, color, language, content, and imagery. Importantly, these materials were designed to be adaptable, allowing each jurisdiction the flexibility to modify and edit them based on the unique needs of their community. This adaptability ensures that the educational resources remain relevant and effective in diverse contexts, emphasizing a commitment to flexibility and tailored outreach. The work products of this group are being leveraged into the City of Spokane, Spokane Valley, Spokane County, Yakima, Douglas, Pasco, Richland, Pullman, Union Gap, Franklin, Walla Walla, as well as other cities and counties in eastern Washington. This collaboration regionally and beyond allows for enhanced water quality protection, meeting the permit requirement.

Planners, Engineers, and Review Staff Brochure

Going forth, the 2024 and beyond work plan consists of a focus in transcreation, researching grant opportunities, building an Eastern Washington Stormwater Education & Outreach Document Library, and producing additional adaptable outreach documents. Refer to links below, for examples illustrating

the adaptability of the created materials. These materials will be leveraged into city programs as different needs arise and we be available in both print/online versions.

The goal is to ensure efforts to prevent and correct some of the most commonly observed surface water concerns on construction sites are made early on in the permitting process. It provides information to assist in meeting municipal stormwater permit requirements with topics essential to stormwater design: site control plans, low-impact development, underground injection controls, infiltration, and best management practices (BMPs). A QR code is provided to access additional information contained in the Department of Ecology stormwater management manuals.

Construction Flip Book

This was created for the contractors and construction crews. The goal was something small enough to fit in the glove box and that could be printed on a more durable paper to withstand construction site use. It contains information about temporary erosion and sediment control (TESC), low-impact development (LID), underground injection control (UIC), and best management practices (BMPs). It also provides a QR code that allows easy access to information in the Dept. of Ecology's stormwater manuals with a cell phone.

Developers Brochure

The final brochure is focused on Developers, with a slightly higher perspective. The goal is to encourage thoughtful planning for stormwater issues early on in the process.

These collaborative educational initiatives underscore the city's dedication to elevating public awareness, promoting compliance, and instilling responsible stormwater management practices within the specific challenges faced by Eastern Washington.

Landscaping & Lawn Maintenance Best Practices Brochure

In municipal and county facilities and public spaces, we manage landscapes to maintain beauty. Yet, practices like pesticide use can harm water quality. Spokane's Best Management Practices (BMPs) strive to limit chemical runoff into stormwater and surrounding waters, protecting ecosystems and community well-being. The brochure includes landscaping and lawn maintenance essential tips along with application of pesticides and fertilizers. This is currently available on the City of Spokane website but will be more widely available in 2025 to businesses and at community events.



2.2 Public Involvement and Participation

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

The MS4 stormwater permit requires that the city provide ongoing opportunities for public involvement and participation, such as public hearings, advisory panels, and/or committee discussions during rule-making activities. Specifically, permit section S5.B.2.a states the city must create opportunities for the

public to provide input during decision-making processes, including during the development and adoption of ordinances and regulatory mechanisms required by the permit. In addition, the city must have 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 city ordinance process, and participation by interested community members is encouraged through workshops, open houses, dedicated testimonial times, and formal public comment periods. Information on how to participate in City Council meetings are provided on the city's City Council website, where agendas are posted before each 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 Infrastructure, Environment, & Sustainability; and Public Infrastructure, and include calls for bids for stormwater management, infrastructure, and funding projects that the public can respond to. Typical examples of public involvement opportunities 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 to the <u>Stormwater Management wepbage</u> annually. The public may provide comment on this plan at any time during the year by emailing the Wastewater Department Environmental Manager at <u>igeorge@spokanecity.org</u>. The city solicits public comments on the draft plan for 30 days after it's posted. After the 30-day period, the city reviews the comments and updates the plan as applicable, before posting the final version of the plan on the <u>Stormwater Management webpage</u>.

2.2.4 Spokane Municipal Code Revisions

In 2023, the City of Spokane Wastewater and Planning Departments began a thorough assessment of the Spokane Municipal Code, specifically Chapter 17D.060 – *Stormwater Facilities* and Chapter 17D.090 – *Erosion and Sediment Control*. This assessment identified sections which would benefit from reorganization to streamline the code and make it more user friendly. A preliminary draft of proposed code revisions is anticipated by 3rd quarter 2025. The final draft of the proposed changes will be released to the public in order to solicit comments before the final draft presented to the Spokane City Council for consent and adoption. Draft stormwater ordinances will be proposed to the City Council by Fall 2025.

2.3 Illicit Discharge Detection & Elimination

2.3.1 Permit Requirements for Illicit Discharge Detection and Elimination (Section S5.B.3)

Illicit discharges are defined as any discharge to the city's MS4 that is not composed entirely of stormwater, allowable non-stormwater discharges, or conditionally allowable non-stormwater discharges. The permit requires the city to implement and enforce an Illicit Discharge Detection and

Elimination (IDDE) program designed to prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4.

Section S5.B.3.a of the permit requires the city to maintain an accurate map of the MS4 to include:

- Known outfalls and known discharge points with size and material attributes,
- 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.

Section S5.B.3.b of the permit identifies the allowable and conditionally allowable non-stormwater discharges. Any discharge or connection into the city's MS4 which is not allowed or conditionally allowed by the below bullet sections will be considered an illicit discharge.

Allowable non-stormwater discharges include:

- Diverted stream flows,
- Rising groundwater,
- Uncontaminated groundwater infiltration (defined at 40 CFR 35.2005(b)(20)),
- Uncontaminated pumped groundwater,
- Foundation drains,
- Air conditioning condensation,
- Irrigation water from agricultural sources that is commingled with urban stormwater,
- Springs,
- Uncontaminated water from crawl space pumps,
- Foundation drains,
- Flows from riparian habitats and wetlands,
- Non-stormwater discharges authorized by another NPDES permit or State Waste Discharge permit, and
- Non-stormwater discharges from emergency firefighting activities in accordance with S2 Authorized Discharges.

Conditionally allowable non-stormwater discharges include:

 Discharges from potable water sources (e.g. water line flushing, fire hydrant system flushing, pipeline hydrostatic test water, etc.) that have been dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH adjusted (if needed), and flow-controlled to prevent suspension of sediment in the MS4;

- Limited discharges from lawn watering and other irrigation runoff that have been minimized through public education activities and/or water conservation efforts;
- Discharges from swimming pools, spas, and hot tubs that have been dechlorinated/debrominated
 to a total residual concentration of 0.1 ppm or less, free from sodium chloride, pH adjusted (if
 needed), reoxygenated (if needed), flow-controlled, and temperature controlled to ambient
 temperatures. Note: Swimming pool cleaning wastewater and filter backwash are not allowed by
 this section;
- Street and sidewalk wash water and water used to control dust where the amount has been minimized by water conservation efforts or through public education activities;
- Routine external building wash water from buildings constructed or renovated before 1950 and after 1980 that has been minimized and does not contain detergents; and,
- External building wash water from commercial, industrial, and multi-story residential structures constructed or renovated between 1950 and 1980 that do not contain PCB-containing building materials as demonstrated by testing.

In addition, Section S5.B.3.b requires the city to prohibit illicit discharges into the MS4 by ordinance, and to implement a compliance strategy that includes ordinance enforcement and informal compliance actions (e.g. public education and technical assistance).

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 city's MS4. The illicit discharge detection program components include:

- Procedures for conducting investigations of the Permittee's MS4,
- Procedures for locating priority areas likely to have illicit discharges,
- Field assessments of outfalls, discharge points, and facilities serving priority areas to verify outfall and discharge point locations,
- A publicly listed hotline for reporting spills and illicit discharges,
- Training of all municipal staff who may observe illicit discharges at work on identification, reporting, and response to illicit discharges, and
- Education of public employees, business, and citizens of hazards associated with illicit discharges and improper waste disposal.

Section S5.B.3.d of the permit requires the city to implement an ongoing program designed to address spills, illicit discharges, and illicit connections into the city's MS4, which includes:

- Procedures to investigate complaints, reports, or monitoring information that may indicate an illicit discharge,
- Procedures to characterize and evaluate containment of reported illicit discharges,

- Procedures to respond immediately to illicit discharges that may constitute a threat to human health, welfare, or the environment,
- Procedures to determine the source, nature, volume, and responsible party of an illicit discharge, and
- Procedures to notify appropriate authorities and property owners, provide technical assistance, perform follow-up inspections, and escalate enforcement actions in order to eliminate an illicit discharge.

Section S5.B.3.e of the permit requires the city to train all staff responsible for reporting, identifying, investigating, terminating, and cleaning up of illicit discharges.

Section S5.B.3.f of the permit requires the city to maintain records of activities conducted to detect and eliminate illicit discharges to the city's MS4.

2.3.2 Map of the MS4

In order to comply with the mapping requirements of permit Section S5.B.3.a, as well as enable efficient and timely response to illicit discharge notifications, the Wastewater Management Department maintains an up-to-date Global Information System (GIS) map of the MS4 stormwater conveyance system using the mapping software program ArcGIS. GIS layers are updated frequently to reflect changes to the system.

2.3.3 Adoption of Illicit Discharge Ordinances

In accordance with permit Section S5.B.3.b, Spokane Municipal Code (SMC) <u>Section 17D.060.190</u> defines prohibits illicit discharges, defines the allowable and conditionally allowable discharges to the MS4, and includes applicable enforcement tracks. The illicit discharge ordinances are included in the scope to evaluate and improve the stormwater sections of the Spokane Municipal Code in 2025 as described below in Section 2.2.4 - Spokane Municipal Code Revisions.

2.3.4 Ongoing Illicit Discharge Detection and Elimination Program

Per Sections S5.B.3.c and S5.B.3.d of the permit, the Wastewater Management Department manages an ongoing Illicit Discharge Detection and Elimination (IDDE) program to identify and address illicit discharges and connections. The IDDE program utilizes the storm sewer field crews to identify potential illicit discharges by incorporating field inspections into the operation and maintenance routines performed on stormwater infrastructure. Additionally, the Wastewater Management Department receives illicit discharge notifications from the public via the Illicit Discharge Hotline (509-625-7900), MySpokane 311, Environmental Reports Tracking System (ERTS) reports forwarded by Ecology, and referrals from the Spokane Regional Health District Pollution Prevention Program. Stormwater Inspectors from the Wastewater Management Department investigate illicit discharges reported by the storm sewer field crews and the public, mitigate and clean up the illicit discharges when necessary, and educate those responsible when appropriate. The inspectors log their observations and response

activities into a database for tracking over time. See Section 2.3.6 of this document for further discussion of field inspections, characterization, and tracing of illicit discharges.

2.3.5 Illicit Discharge Priority Areas

Industrial zoning areas adjacent to the river are assumed to have higher potential for significant illicit discharges, where the Union Basin has the highest potential for illicit discharges associated with industrial activities. In order to identify priority illicit discharge areas, illicit discharge reports from 2023 were mapped to see if there were geographic illicit discharge trends. Figure 3 illustrates the locations of 2023 illicit discharges, and it demonstrates that illicit discharge notifications occur throughout the city somewhat equally, with mild grouping near the downtown area.

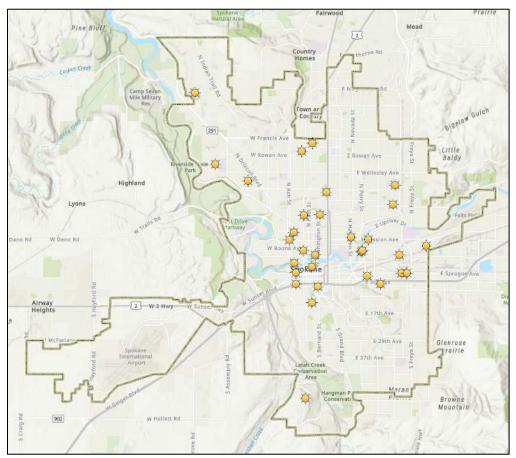


Figure 3. Location of 2023 Illicit Discharge Responses

2.3.6 Field Inspections, Characterization and Tracing of Illicit Discharge

Illicit discharge investigations are generally initiated from notifications received by the Illicit Discharge Hotline (509-625-7900),MySpokane 311 hotline, or from ERTS reports provided by Ecology. 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 city Stormwater Inspectors, who investigate, mitigate, and report on these discharges. In addition to the stormwater hotline, Wastewater Management Department storm sewer staff continually check 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 and practices conducive to illicit discharges in the field. Figure 4 is a decision tree used by the department to determine if a spilled material is an illicit discharge. Records of inspections and enforcement actions by the Stormwater Inspectors are maintained in a dedicated database that is used to retain inspection reports and notices of violations. The illicit discharge program is ongoing and will continue in 2025.

2.3.7 Elimination of Illicit Discharges

Several approaches are continually underway to minimize or eliminate illicit discharges to the MS4 including curb markers, participation with the Spokane River Toxics Advisory Committee (SRTAC) [formerly known as the Spokane River Toxic Task Force], and partnering with the Spokane River Forum to promote the EnviroCertified Program.

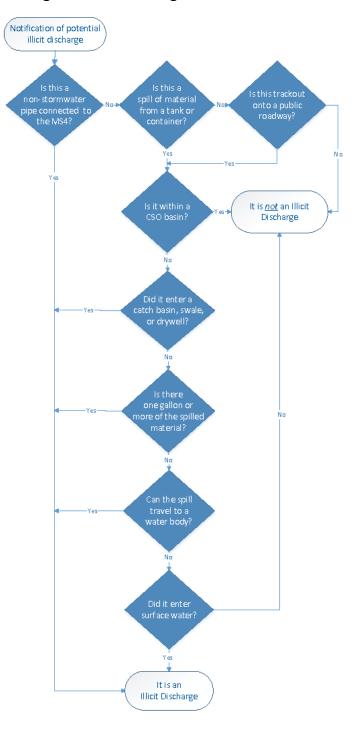


Figure 4. Illicit Discharge Decision Tre

2.4 Construction Site Stormwater Runoff Control

2.4.1 Permit Requirements for Construction Site Stormwater Runoff Control (Section S5.B.4)

Construction site stormwater runoff is required to be managed during construction activities, and the city's stormwater permit requires the implementation of several ordinances and procedures regarding construction stormwater management. Specifically, Section S5.B.4 of the permit requires the city to implement and enforce a program to reduce construction related pollutants in stormwater runoff to the MS4.

Section S5.B.4.a requires the city to implement an ordinance that applies to construction sites disturbing one acre of land or more, and to construction projects of less than one acre that are part of a larger common plan of development or sale which is greater than one acre, in total.

The ordinance must 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 that discharge to the MS4, and
- Sanctions to ensure compliance with escalating enforcement procedures and actions.

The ordinance must 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 elements of the 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.g 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 permit requires that the city to mandate the use the BMPs from the Washington State Department of Ecology's <u>Stormwater Management Manual for Eastern Washington (SWMMEW)</u>, or another technically equivalent manual approved by Ecology. The <u>Spokane Regional Stormwater Manual (SRSM)</u> has historically been considered equivalent to the SWMMEW, and it is currently the stormwater manual mandated for use within the city for development and redevelopment projects. However, the SWMMEW was revised in 2024 and the content and scope have consequently grown beyond that of the SRSM. In lieu of updating the SRSM to reflect the revisions to the SWMMEW, the City of Spokane plans to adopt the SWMMEW as the city's stormwater guidance manual for development and redevelopment projects. An addendum to the SWMMEW is being developed that will incorporate some of the elements of the SRSM that are preferred for use within the city. Development of the addendum and adoption of the SWMMEW for mandated use is expected to be complete by 4th quarter 2025 and until that time the SRSM will continue to be mandated for use.

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 city's construction permit process and is analogous to the general elements of a 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 selection and implementation of BMPs that are appropriate both to the site and to the season during which construction occurs.

Per the SRSM, the four objectives of the ESC Plan are to:

- 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.

<u>Section 17D.090.070</u> of the Spokane Municipal Code, requires the generation of an ESC for projects that disturb 5000 square feet, and projects on special sites. Special sites are defined in <u>SMC 17D.090.080</u>, and may include sites with greater than 10 percent slope, highly erosive soils, slope lengths greater than 300 feet, or disturbance of a 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. <u>Section 17D.090.070</u> 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 review procedures and permitting processes, Erosion and Sediment Control (ESC) plans are reviewed by the Development Services Center to ensure the proposed projects will control erosion and keep pollutants from leaving the project site during construction. An ESC Plan is prescribed as one of the minimum required elements for the commercial development application. Application submittal requirements are provided on the city's <u>Development Services Center Commercial Building Review website</u>.

2.4.4 Construction Site Inspection and Enforcement

Construction oversight on City of Spokane development projects is provided by the Field Engineering Department. The Field Engineering inspectors verify proper installation and maintenance of required erosion and sediment controls for city construction projects prior to clearing and grading for construction if a high potential for sediment transport is determined. Inspectors and field engineers from the City of Spokane Developer Services Center, Field Engineering, and Wastewater Management Department inspect privately constructed infrastructure during construction. Inspection records are retained in the city's permit tracking tool.

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 <u>Business and Development Resources web page</u>. In addition to highlighting erosion and sediment control requirements, brochures direct the target audience to the SRSM for erosion and sediment control requirements.

2.5 Post-Construction Stormwater Management

2.5.1 Permit Requirements for Post-Construction Stormwater Runoff (Section S5.B.5)

Post-construction stormwater runoff from development and redevelopment project sites must be managed to prevent water quality impacts. Permit Section S5.B.5 requires the implementation of an enforceable program to manage post-construction stormwater runoff to the MS4 for public and private projects that disturb one acre or more or, are less than one acre but are part of a larger common plan of development or sale.

Permit Sections S5.B.5.a and S5.B.5.b.i-ii require the city to implement an ordinance that mandates development and redevelopment projects that disturb one acre or more or, are less than one acre but are part of a larger common plan of development or sale, to incorporate the BMP selection, design, installation, operation, and maintenance standards provided contained in Stormwater Management Manual for Eastern Washington, or a functionally equivalent manual approved by Ecology, and Appendix 1 of the permit.

Section S5.B.5.b.iii of the permit requires the ordinance to either include provisions for construction-phase and post-construction access for city staff to inspect stormwater BMPs on private properties that discharge to the MS4, or require annual certifications of private stormwater BMPs by a qualified third party that BMP maintenance has been performed and the BMPS are operating as designed.

Permit Sections S5.B.5.b.iv-v of the permit requires the ordinance to include escalating enforcement procedures and the implementation of an enforcement strategy for the permit conditions in Section S5.B.5.

Section S5.B.5.d of the permit requires the city to implement procedures for qualified staff to review stormwater site plans for applicable new development and redevelopment projects, and Construction Stormwater Pollution Prevention Plans when required, to ensure that the plans include stormwater pollution prevention measures from Appendix 1 of the permit and the design standards provided from the SWMMEW, or a functionally equivalent manual approved by Ecology.

Section S5.B.5.e of the permit requires the city to implement procedures for qualified personnel to perform site inspections of post-construction stormwater control measures to ensure that the structural BMP standards in the SWMMEW or an equivalent manual are met. Post-construction structural BMPs must be inspected at least once during installation, once upon final installation or completion of the project, and at least once every five years after final installation. If the BMP inspections identify any deficiencies, then maintenance or repair is required to be performed as soon as practicable and verified complete by city personnel.

Section S5.B.5.f of the permit requires the city to train all city staff involved in permitting, planning, review, inspection, and enforcement to carry out the provisions of the post-construction stormwater program.

Section S5.B.5.g of the permit requires the city to inform design professionals of available trainings and guidance on how to comply with the requirements of Appendix 1 of the permit, and how to apply the BMPs described by the SWMMEW or an equivalent manual.

Section S5.B.5.h of the permit requires the city to retain project records for 5 years for all projects applicable to the requirements of the post-construction stormwater program, with the exception of operation and maintenance plans, which must be kept for the life of the BMP. In addition, the city must maintain copies of the information provided to design professionals, and retain staff training records that includes dates, course descriptions, and staff names/positions.

2.5.2 Post-Construction Stormwater Ordinances

Post-construction stormwater management is addressed in <u>Chapter 17D.060</u> of the Spokane Municipal Code, which details the duties of property owners, prohibition of illicit discharges, site inspection requirements, and enforcement measures, among others. Chapter 17D.060 of the code references the

SRSM and SWMMEW guidance manuals and the City of Spokane design standards and specifications as relevant standards that are protective of stormwater, such as the, among others.

2.5.3 Encouragement of Low Impact Development

The city encourages the use of Low Impact Development (LID) principles that strive to mimic predisturbance hydrological processes by emphasizing site conservation, use of on-site natural features, site planning, and distributed stormwater management practices on development and redevelopment projects. Chapter 17D.060.300 of the Spokane Municipal Code references the Eastern Washington LID Guidance Manual for use as supplemental guidance for the design, construction, and maintenance of LID stormwater BMPs suited to 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 Development Services Center requires developers to submit an operation and maintenance plan for a project's stormwater treatment facilities, and a draft copy of the Conditions, Covenants and Restrictions (CC&Rs) for homeowners' associations that will be in charge of operating and maintaining stormwater treatment facilities, per the city's plan review process. .

Drainage submittals are reviewed the Developers Services Center for compliance with the Spokane Municipal Code by when creation of impervious areas is proposed and for projects in critical areas of management and buffer zones. Development Services Center reviews drainage submittals to ensure they meet the for civil engineering requirements provided by the city's Engineering Design Standards and stormwater guidance manuals.

Engineering Services Department develops and/or reviews project designs and stormwater plans for city projects in the public right-of-way to ensure consistency with the city's Engineering 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 <u>Business and Development</u> 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

Field Technicians from the Engineering Services Department provide construction oversight and site inspections for public projects. Construction Inspectors from the Development Services Center perform construction oversight and site inspections for private projects. Stormwater Inspectors from the Wastewater Management Department inspect stormwater controls and infrastructure once during construction and a final inspection when construction is complete for public and private projects.

Deficiencies identified during site inspections of either private or public projects are added to a punch list to be completed by either the developer or the contractor, respectively. Final approval, acceptance of the project, or issuance of a Certificate of Occupancy, dependent on the type of project, does not occur until all deficiencies have been corrected.

2.5.6 Post-Construction Site Inspection and Enforcement

Post-construction stormwater BMPs generally include collection, conveyance, treatment, and discharge infrastructure. Stormwater BMPs that are used to manage stormwater from public properties and roadways are public stormwater assets inspected and maintained by the city. Public stormwater assets are inspected at a minimum of every 2 years, but typically more frequently, by Wastewater Management Department staff. Maintenance is performed on the stormwater assets as needed, based on the inspection results of the structures. Inspection and maintenance activities are documented and tracked with asset management programs by Wastewater Management Department Supervisors.

Stormwater BMPs on private property used to manage stormwater runoff from private property are required to be inspected and maintained by the property owner. Private stormwater BMPs that meet the applicability criteria defined in Section 17D.060.140.E of the Spokane Municipal Code are required to be registered in the City of Spokane Private Stormwater Facility Annual Certification Program. The program requires applicable private stormwater facilities to be certified annually by a third-party qualified stormwater professional that they are being maintained and functioning as designed. Any deficiencies noted during the inspection are required to be corrected prior to submission of the certification. Certification forms must be submitted to the Wastewater Management Department via Spokane Accela Citizens Access portal, or in hard copy by mail, for confirmation of completion and record retention.

2.5.7 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 detailed in the stormwater guidance manual. The Center retains copies of the training information provided to construction site operators.

Staff and professional training was provided for employees and design professionals to aid in reaching water quality goals, ensure permit compliance, and reduce pollution to stormwater runoff. Six training modules were developed, including NPDES Overview, Operations and Maintenance, Facility Inspections, Site Plan Review, Illicit Discharge, and LID. Training records are kept in Wastewater Management Department files that include training materials, the dates of trainings, and attendees.

2.6 Pollution Prevention & Good Housekeeping for Municipal Operations

2.6.1 Permit Requirements Pollution Prevention by Municipal Operations

Pollution prevention includes good housekeeping and controlling the source of potential pollutants to that they are isolated from coming into contact with stormwater. 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. The O&M Plan must include BMPs that will reduce the discharge of pollutants and protect water quality, and include O&M standards at least as protective as those listed in the SWMMEW or another functionally equivalent stormwater manual approved by Ecology.

Section S5.B.6.a.i of the permit requires the O&M Plan to include appropriate pollution prevention procedures for the following types of facilities and/or activities:

Stormwater collection and conveyance system

Inspection and cleaning of the following stormwater collection and conveyance system components:

- Catch basins
- Stormwater sewer pipes
- Open channels
- Culverts
- Structural stormwater treatment, and
- Structural stormwater treatment flow control facilities.

Waste generated from the O&M collection and conveyance components shall be disposed of in accordance with Appendix 6 of the permit.

Roads, highways, and parking lots

Maintenance of roads, highways, and parking lots owned or operated by the city, and which constitute pollutant generating impervious surfaces of \geq 5,000 square feet, to include:

- Street cleaning
- Deicing
- Snow removal
- Management of snow storage areas
- Management of material storage areas (e.g. salt, sand, etc.), and
- Implementation of BMPs to reduce road and parking lot debris/pollutants.

Vehicle fleets and equipment

Maintenance of city equipment and fleet vehicles must occur in covered self-contained areas, or designated areas operated to keep stormwater separate from materials and wastewaters, to include:

- Storage,
- Washing,
- · Maintenance,
- Repair, and
- Fueling.

Municipal buildings

Pollution prevention, good housekeeping, and PCB mitigation practices are required for municipal buildings owned or operated by the city to include:

- · Cleaning,
- Washing,
- Painting,
- Maintenance,
- · Renovations, and
- Demolitions.

Parks and open space

Pollution prevention, good housekeeping, and best management practices are required for activities in parks and open spaces to include:

- Applying fertilizer,
- Applying pesticides, and herbicides,
- Managing pet waste,
- · Controlling sediment migration and erosion,
- Maintaining landscapes and disposing of vegetation
- Handling trash and dumpsters, and
- · Cleaning and maintain building exteriors.

Construction projects

Public construction projects must comply with the requirements applied to private projects, to include:

- Obtaining a Construction Stormwater General Permit, if applicable, and
- Implementing construction and post-construction controls in accordance with the Core Elements in Appendix 1 of the permit.

Industrial Activities

Industrial facilities owned or operated by the city must:

• Obtain an Industrial Stormwater General Permit, if applicable, or another NPDES permit that authorizes stormwater discharges associated with the activity.

Material storage areas, heavy equipment storage areas, and maintenance areas

Stormwater Pollution Prevention Plans (SWPPPs) are required for material storage areas, heavy equipment storage areas, and maintenance areas owned or operated by the city, except those which have obtained coverage under another NPDES permit, and must include:

- Site map showing the facility's stormwater drainage, discharge points, and potential pollution-generating areas,
- Inventory of the site materials and equipment that may be exposed to precipitation or runoff,

- · List of site activities that may expose materials to precipitation or runoff,
- · Spill prevention and response plan,
- Description and implementation schedule of site BMPs (operational and structural),
- Annual facility inspections, to include visual observations of discharges, to evaluate BMP effectiveness, identify maintenance needs, and determine if BMPs need to be modified, and
- Documentation of inspection report or checklist.

Flood management projects

The city is required to assess water quality impacts, and consider controls that minimize impacts to site hydrology, in the design of all new flood management projects.

Other facilities that would reasonably be expected to discharge contaminated runoff

City facilities that may discharge contaminated runoff must implement BMPs to protect water quality.

Section S5.B6.a.ii of the permit requires the O&M Plan to include a schedule of inspections and requirements for recordkeeping in accordance with permit Section S9 – *Reporting and Record Keeping* that includes:

- Inspection of 95% of the city's stormwater treatment and flow control facilities (except catch basins) at least once every two years;
- Inspection all the city's catch basins and inlets at least every two years, to include cleaning per maintenance standards, if applicable; and,
- Spot inspections of city stormwater facilities following major storm events to check for damage, where maintenance and repairs are performed as soon as practicable.

Section S5.B.6.a.iii of the permit requires the O&M Plan to identify the departments or roles responsible for performing the activities identified in the Plan.

Section S5.B.6.c of the permit requires water quality protection training for construction, operations, and maintenance job functions that may impact stormwater quality on applicable O&M requirements, site SWPPPs, inspection procedures, street sweeper operation, and jobsite pollution prevention. Training records must be retained and include dates, course descriptions, and names and job roles of the attendees.

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 Wastewater Management Department developed the City of Spokane Municipal Stormwater O&M Plan to replace several obsolete department-specific O&M Plans. The Municipal Stormwater O&M Plan is a comprehensive document that contains a schedule of municipal O&M activities and BMP guidance documents specific to typical job functions and tasks that have the potential to impact water quality. The schedule of municipal O&M activities in the Plan are organized into sections per type of municipal asset and/or activity as follows:

- Stormwater Collection and Conveyance System,
- Roads, Highways and Parking Lots,
- Vehicle Fleets,
- · Municipal Buildings,
- Parks and Open Space,
- Construction Projects,
- · Industrial Activities, and
- Stormwater Pollution Prevention Plans (SWPPPs).

Appendix A of the Plan contains BMP guidance documents that were adopted from the SWMMEW and tailored to align with City of Spokane practices. The BMP documents in the Appendix are grouped into these categories:

- General Housekeeping,
- General Maintenance and Construction,
- Active Construction Site,
- Landscaping and Vegetation Management,
- Fertilizers and Pesticides,
- · Materials Management and Spill Control,
- · Vehicles and Equipment,
- Street and Roadway,
- Stormwater Collection and Conveyance System, and
- · General Administrative.

2.6.3 Schedule of Municipal O&M Activities

<u>Stormwater Collection and Conveyance System</u>

The Sewer Maintenance Division of the Wastewater Management Department manages the city's storm sewer infrastructure (i.e. catch basins, storm sewer pipes, open channels, culverts, stormwater treatment facilities, flow control facilities, and drywells), which requires regular inspections and routine maintenance of the sewer components. The Municipal Stormwater O&M Plan documents the inspection and maintenance frequencies of the storm sewer system components. BMP-specific procedures for inspecting and maintaining the storm sewer system are provided in the O&M Plan.

Waste generated from cleaning and maintaining the stormwater collection and conveyance system are taken to the city's decant facility, where the liquids are separated from solids and conveyed to an evaporation pond, and the solids are dried and transported to a permitted solid waste landfill. A site-specific SWPPP was written for the decant facility and is kept on-site.

Roads, Highways and Parking Lots

City Departments that own parking lots are responsible for maintaining their parking lots and parking areas, 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 to ensure they are safe for travel, which includes performing maintenance activities, clearing obstructions, managing snow removal, adding sand and/or deicer. The department performs street sweeping to recover accumulated pollutants before they are transported downstream by stormwater runoff. Street debris waste is transported to the city's decant facility and unloaded to dry. Dry street debris is landfilled in a permitted solid waste landfill. BMP-specific documents on good housekeeping practices, management of bulk materials, application of pesticides, and maintenance of roadways, among others, are provided in the Municipal Stormwater O&M Plan.

Vehicle Fleets

City departments that own vehicles are responsible for operating, fueling, storing, washing, and maintaining their vehicles, as well as maintaining the vehicle parking areas, to protect stormwater. City vehicles and equipment are washed at a dedicated car wash, and the washwaters are discharged to the sanitary sewer. Maintenance and repair of city owned vehicles and equipment is typically performed by Fleet Services at the Central Services Center, where stormwater is managed per a site-specific SWPPP. Vehicle and equipment maintenance may be performed by the owning department inside a building or in areas operated to minimize the impacts to stormwater. Stormwater BMPs applicable to storing, washing, fueling, and maintaining city vehicles are provided in Municipal Stormwater O&M Plan.

Municipal Buildings

Maintenance of municipal buildings (e.g. cleaning, washing, painting, and landscape maintenance) is the responsibility of the owning department, who is expected to implement stormwater BMPs when performing cleaning and maintenance activities in order to reduce the potential for pollutants to enter the storm sewer. Stormwater BMP documents for building maintenance are provided in the Municipal Stormwater O&M Plan.

Parks and Open Space

The Parks Department is responsible for maintaining city owned parks, as well as open spaces and stormwater treatment facilities within the city. The maintenance of parks and open space areas includes applying fertilizer, mowing, pesticide application 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 BMPs applicable to the maintenance activities 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.

Construction Projects

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

Construction projects have significant potential to impact stormwater from exposed soils, and via the building materials and chemicals/ coatings/ fluids used for the construction project. Stormwater pollution prevention BMPs are required to be implemented for both private and public projects. 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 sectors. 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 city's permit.

The Northside Landfill and Waste to Energy Facility are responsible to update the site-specific SWPPPs for each respective facility to reflect current activities and operations, and to continue to perform the required tasks identified in the SWPPP for each site. In addition to performing the responsibilities of the SWPPP, the Northside Landfill and Waste to Energy Facility both implement applicable stormwater BMPs that are not provided in the site specific SWPPP, for example, BMPs for good housekeeping and non-routine maintenance activities, which are 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 specific to the facility. RPWRF operates in accordance with the conditions of its' NPDES permit; the requirements of the municipal stormwater permit do not regulate activities at RPWRF.

Stormwater Pollution Prevention Plans (SWPPPs)

Site specific SWPPPs have been developed for municipal properties that have material storage areas, heavy equipment storage areas, and outdoor maintenance areas. The site specific SWPPPs contain site maps, inventories of equipment and on-site materials, descriptions of the operations activities, spill mitigation procedures, inspection criteria to identify site conditions, and water quality protection practices specific to each site. The following properties have site-specific SWPPPs:

Sewer Maintenance Operations 909 E. Sprague Avenue December 2022

Water Department Operations 914 E. Foothills Drive December 2022

Vactor Waste Facility 2401 E. Ferry Road August 2019

Northside Landfill 7202 N. Nine Mile Road March 2021

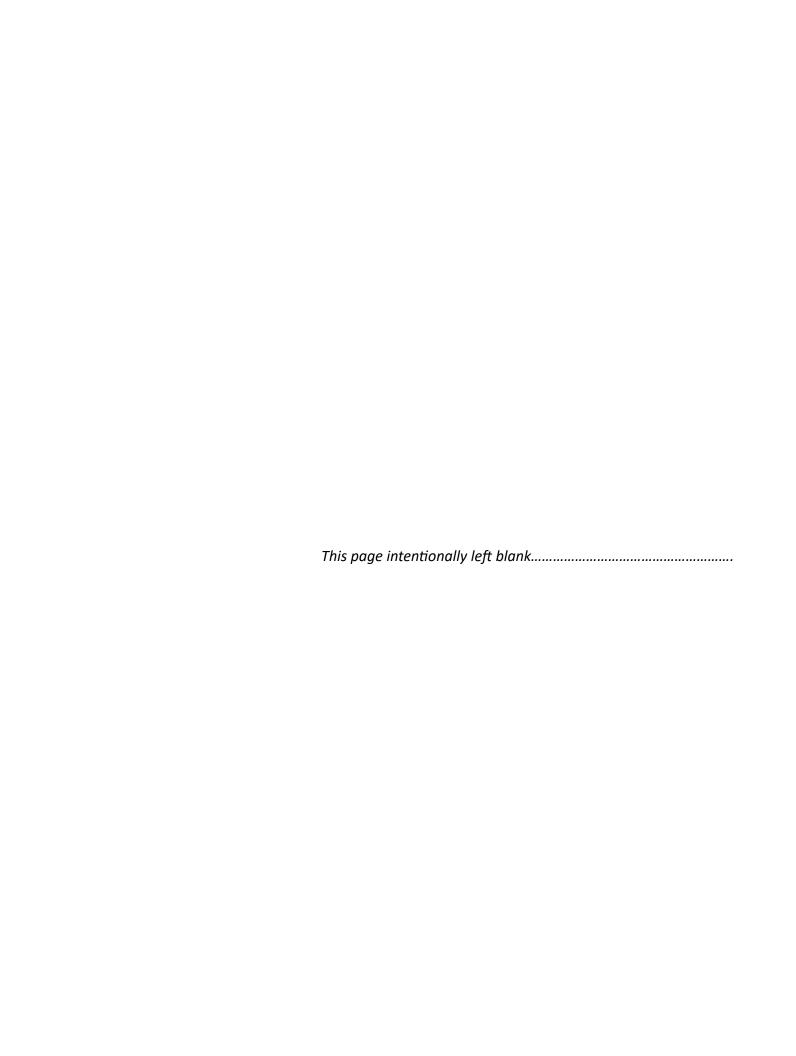
Waste to Energy Facility 8125 W. Pilot Drive December 2022 Central Services Center 915 N. Nelson Street October 2019 Parks Operations Complex 2304 E. Mallon Street December 2022

Riverfront Park 610 W. Spokane Falls Boulevard December 2022

Manito Park 2406 S. Tekoa Street December 2022

2.6.4 Staff Training

The city provides stormwater training for employees with primary construction, operation, or maintenance job functions likely to impact stormwater quality. Training is provided to applicable city personnel by the Wastewater Management Department for the, 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 illicit discharges). The city's stormwater training program is part of the implementation of the citywide Municipal Stormwater O&M Plan.



3.0 COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD

3.1 Total Maximum Daily Load (TMDL)

3.1.1 TMDL Permit Requirements

Section S7 of the permit requires the city to apply the conditions of the Total Maximum Daily Load (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, 2024, and expires on July 31, 2029,
- 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

3.1.2 Monitoring Cochran Basin Discharges

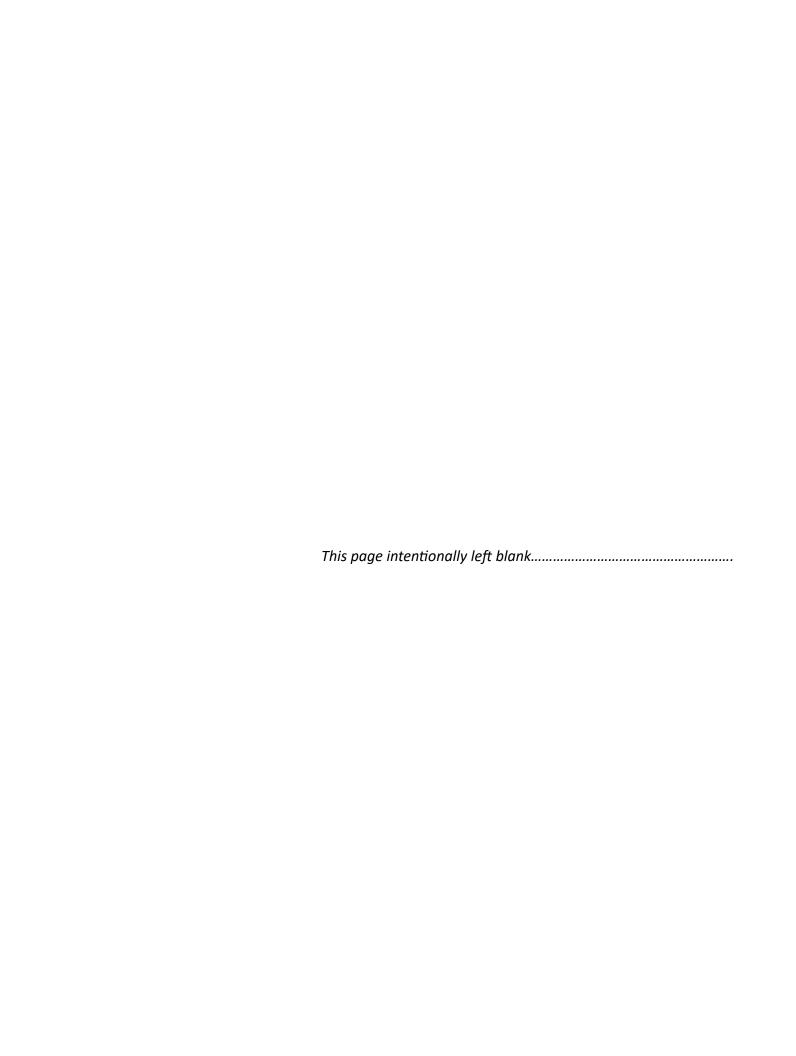
Stormwater from the Cochran Basin in the northwest portion of the City of Spokane has been monitored since 2016. Continuous flow rates were recorded, and analyses were performed on stormwater samples for temperature, pH, total suspended solids (TSS), carbonaceous biological oxygen demand (CBOD), total 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.

Monitoring continued in 2024 in accordance with the protocols established by the Cochran Basin DO TMDL Stormwater Sampling Quality Assurance Project Plan (QAPP). Several qualifying storm events were monitored and sampled for phosphorus, ammonia, CBOD, and flow rates, among other parameters. Monitoring results for 2024 were tabulated and uploaded into Ecology's Environmental Information Management (EIM) database. Monitoring will continue in accordance with the QAPP through the end of the current permit cycle in July 2029.

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 (Cochran Basin Stormwater Improvements Project) that will ultimately eliminate discharges from Cochran Basin into the river for storms up to the size of the 6-month design storm.

3.1.3 Cochran Basin Stormwater Improvements Project

The Cochran Basin Stormwater Improvements project commenced in 2022 and was completed in 2024. The project consisted of the construction of a vault that serves to split the flows up to roughly 57 cubic feet per second (cfs) and route them to several bioretention swales constructed in three areas: 1) TJ Meenach Drive and Northwest Boulevard, t2) Disc Golf Course at Downriver, and 3) Boat Launch facility near the TJ Meenach Bridge. Details on the project are provided online at Spokanestormwater.org under the Cochran Basin Projects tab. Bioretention swales at each of the three areas were sized in accordance with the volume of stormwater that will be routed to each, where approximately 1 cfs is routed to swales along TJ Meenach Drive, approximately 14 cfs is routed to the Boat Launch facility, and approximately 42 cfs is routed to the bioretention swales at the Disc Golf Course. Stormwater flows greater than 57 cfs will be discharged to the existing Cochran Basin outfall. The Cochran Basin Stormwater facilities will be brought online in 2025, and the TMDL monitoring program will continue to sample discharges to the Spokane River, as needed.



4.0 MONITORING AND ASSESSMENT

4.1 Stormwater Management Program Effectiveness Studies

4.1.1 Effectiveness Study Permit Requirements

Section S8 of the permit requires the city perform and/or participate in effectiveness studies. Section S8.B.1 requires the city to continue to implement the effectiveness studies that are ongoing from 2014-2019 and 2019-2024 permit cycles in accordance with the applicable Quality Assurance Project Plans (QAPPs).

Section S8.B.1 of the permit requires the city to continue to participate in implementation of the eight Ecology-approved studies that were selected pursuant to Section S8 of the 2014 and 2019 Eastern Washington Phase II Municipal Stormwater Permits in accordance with the QAPPs.

Section S8.B.2 of the permit requires the city to notify Ecology, in writing, which of the options presented in permit Section S8.B.3 the city chooses to carry out during the 2024-2029 permit term.

Section S8.B.3 of the permit requires the city to coordinate with other local permittees to 1) plan and initiate an additional effectiveness study, 2) submit annual payments into the Stormwater Action Monitoring collective fund to implement effectiveness studies, or 3) conduct stormwater discharge monitoring.

Section S8.C of the permit applies to permittees who choose to coordinate with other permittees in their urban area to plan and begin an additional effectiveness study, and requires applicable permittees to:

- Participate in the effectiveness study by serving as the lead entity, contributing staff time, and/or provide funding,
- Submit to Ecology a brief description of the study, a detailed study design proposal, and a completed QAPP,
- Initiate the study, and update the SWMP to include effectiveness study activities,
- Summarize documented study activities, and include project data, in the Annual Report,
- Enter all applicable data collected into Ecology's EIM database, and
- Produce a final report and a fact sheet to share with other permittees submit to Ecology.

Section S8.D of the permit applies to permittees who chose to make annual payments into the SAM collective fund, who will be invoiced for the dollar amounts provided in Appendix 8 of the permit.

Section S8.E of the permit applies to permittees who choose to conduct stormwater discharge monitoring, and requires applicable permittees to:

Conduct monitoring at three discharge locations per permit Appendix 9,

- Submit a stormwater discharge monitoring QAPP to Ecology, and implement a stormwater discharge monitoring program,
- Enter all water and solids concentration data into EIM annually, and
- Submit a final report to Ecology with the results of stormwater discharge monitoring and recommended future actions.

4.1.2 Ongoing City of Spokane Effectiveness Studies

In accordance with the city's 2014 stormwater permit, two effectiveness studies were initiated the by the City of Spokane: 1) Sharp Avenue Permeable Pavement Pollutant Removal Efficacy Study, and 2) Garland Avenue Biochar Amended Storm Garden Pollutant Removal Efficacy Study. In accordance with the city's 2019 stormwater permit, the two effectiveness studies from the 2014 permit cycle continued to be performed, and an additional effectiveness study concept was cooperatively developed with Spokane County and the City of Spokane Valley to study non-vegetated swales constructed with Ecology's 60:40 bioretention soil media (BSM) and the High Performance BSM (HPBSM).

Sharp Avenue Sharp Avenue Permeable Pavement Study (2014 Permit)

The Sharp Avenue Effectiveness Study was performed between 2019 and 2024 and monitored stormwater infiltrated by permeable pavements installed on a minor arterial (Sharp Avenue) with an Average Daily Traffic (ADT) count of 7,500. Pervious concrete and porous hot mix asphalt (HMA) pavements were discontinuously constructed on Sharp Avenue from Lidgerwood St. to Dakota St. in the east- and westbound lanes. Specifically, pervious concrete pavement was installed between the streets of Lidgerwood and Astor, and porous HMA pavement was installed between the streets of Addison and Dakota. Two separate underdrains were installed under each of the pavement areas in the eastbound lane of Sharp Avenue in order to capture the infiltrated stormwater and convey it to respective manholes dedicated to sampling equipment. Typical catch basins, conveyance piping, and a manhole dedicated to sampling equipment were installed one block to the west of the study area in order to collect background samples of un-infiltrated stormwater runoff.

A Quality Assurance Program Plan (QAPP) detailing the study was submitted to Ecology and approved in 2019. In accordance with the QAPP, as storm events allowed, infiltrated and background stormwater samples were collected and analyzed for typical stormwater pollutants. Stormwater data collected after infiltration through the pavements was compared to the background data in order to identify trends and determine the pollutant removal efficiencies of the monitored pollutants. Pavement Condition Index surveys were conducted annually to track the condition of the pavements over time. Infiltration tests at dedicated locations were performed several times to monitor changes in the permeability of the pavements over time. The Sharp Ave effectiveness study was completed in the 4th quarter 2024.

An article on the study was published in the January 2021 Stormwater Magazine (<u>Infiltration Avenue | Storm Water (stormh2o.com)</u> that detailed the study design, discussed the construction for the project, and presented early data. A final report summarizing the results of the study will be completed in early

2025 in accordance with the QAPP and submitted to Ecology. The final report will be available on the EWA Effectiveness Studies – Washington Stormwater Center webpage.¹

Garland Avenue Biochar Amended Storm Garden Study (2014 Permit)

The Garland Avenue Biochar Amended Storm Garden Effectiveness Study monitored stormwater runoff between 2019 and 2024 to determine the ability of a biochar amended soil to treat stormwater. Prior to the Effectiveness Study, the City of Spokane and University of Idaho partnered to fund bench scale laboratory research in order to develop a soil/biochar design mix capable of treating stormwater when used in storm gardens. The bench scale research compared the treatment potential of soils amended with biochar derived from wood versus soils amended with biochar derived from Kentucky bluegrass stubble. Results from the bench scale research demonstrated that the wood biochar mixed with loamy sand (and no other additives) removed pollutants effectively, and it was selected for use in the Garland Avenue Effectiveness Study.

A Quality Assurance Program Plan detailing the study was submitted to Ecology and approved in 2019. The goal of the study was to measure the percent reduction of stormwater pollutant concentrations after flowing through storm gardens constructed with biochar amended soil that were installed in parking strips near the corner of Garland Avenue and Belt Street. Stormwater samples were collected from sampling equipment that captured influent (pre-infiltration) and effluent (post-infiltration) stormwater for laboratory analysis of typical stormwater pollutants. Pollutant removal efficiencies were determined for each pollutant by comparison of the influent and effluent sample data.

The Garland Avenue Effectiveness Study was completed in 4th quarter 2024. A final report summarizing the results of the study will be completed in early 2025 in accordance with the QAPP and submitted to Ecology. The final report will be available on the <u>EWA Effectiveness Studies – Washington Stormwater</u> Center webpage.²

Additional Effectiveness Study (2019 Permit)

The City of Spokane, City of Spokane Valley, and Spokane County partnered to perform an Effectiveness Study in concert with a grant funded Technology Assessment Protocol – Ecology (TAPE) project on two swales that receive stormwater runoff from a Gonzaga University parking lot. The post treatment water quality data produced for the TAPE project will be leveraged into the Effectiveness Study and evaluated for seasonal affects and/or trends over time. The goal of the Effectiveness Study is to evaluate the effects of seasonality on the pollutant removal performance of two swales that have similar sizes and features, but contain different BSMs.

The QAPPs required for both the Effectiveness Study and TAPE project are being developed in alignment with each other and have overlap. Treatment performance data developed in accordance with the TAPE project QAPP will be leveraged into the Effectiveness Study for evaluation of any seasonal effects on pollutant removals and/or trends over time, if applicable. The draft Effectiveness Study QAPP was submitted to Ecology for review in late 2023, and Ecology returned comments in mid-2024. The TAPE project QAPP leveraged information from the draft Effectiveness Study QAPP, and submitted it to

¹ https://www.wastormwatercenter.org/permit-assistance/ewa-effectiveness-studies/

² https://www.wastormwatercenter.org/permit-assistance/ewa-effectiveness-studies/

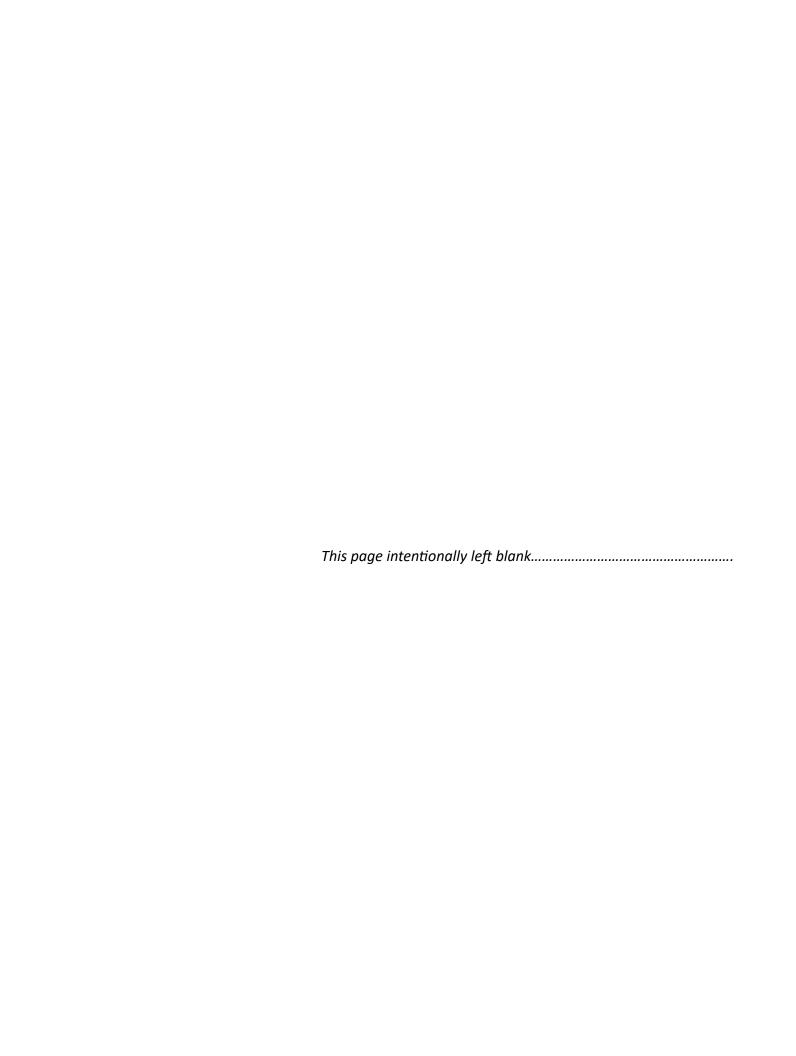
Ecology for approval. Ecology approved the TAPE project QAPP in the 3rd quarter of 2024. The final draft of the Effectiveness Study QAPP aligns with the approved TAPE project QAPP, and it will be submitted to Ecology for approval in the 2rd quarter 2025.

The non-vegetated swales were constructed in the 4th quarter 2024 following the approval of the TAPE project QAPP, which details that one swale contain the 60:40 bioretention soil media (BSM), the other contain the High Performance BSM (HPBSM), and both to be surface dressed with the same rock mulch. Per the design, each swale was constructed with a lined underdrain below the BSM, which will independently capture each swales stormwater effluent to allow sample collection.

Sample collection and constituent analysis began in early 2025 following the procedures, and in accordance with requirements, contained in the TAPE project QAPP. The collected samples were sent to an accredited lab for analysis of the pollutant constituents required by TAPE protocols. Sampling and analysis will continue similarly each year through the year 2028, and the data will be leveraged into the Effectiveness Study as it becomes available. Dependent on the results of the study, municipal management strategies may be amended to incorporate the non-vegetated swale design into local stormwater management guidelines.

4.1.3 Stormwater Action Monitoring (SAM) Program

City of Spokane elected to participate in the Stormwater Action Monitoring (SAM) Program during the 2024 permit cycle in lieu of independently performing another Effectiveness Study. The SAM Program is a collective of permitted entities that includes municipalities, port authorities, and industrial sites, among others. SAM Program participants each have a stormwater permit that requires the performance of an Effectiveness Study intended to be informative on the effectiveness of the permit with respect to protecting water quality. Each Program participant contributes funding to the collective that is based on their jurisdiction's population, and the pooled funds are used to collectively contract a consultant to implement and agreed upon study. In general, this allows permittees to satisfy conditions of the permit more cost effectively, and require less staff time than is required to perform an independent Effectiveness Study.



5.0 REPORTING REQUIREMENTS

5.1 Annual Stormwater Report

5.1.1 Permit Requirements for Reporting

Section S9.A of the permit requires the city to submit an annual report no later than March 31st each year for the reporting period of January 1st through December 31st of the previous year. Annual reports must be submitted electronically using Ecology's WQWebPortal program.

Section S9.B requires the city to keep all records related to the permit for at least five years beyond the expiration date of the applicable permit.

Section S9.C 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.D of the permit requires the city to include the following in each Annual Report:

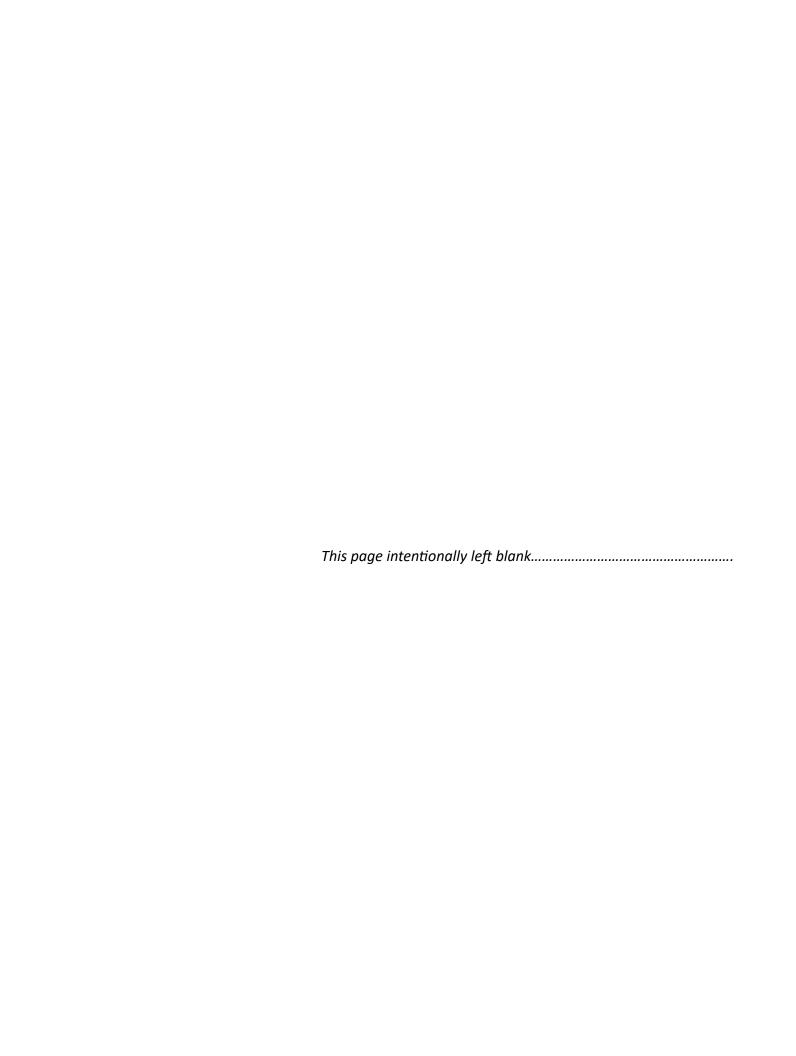
- Stormwater Management Program Plan (SWMP Plan),
- Annual Report form describing the status of implementation of the requirements of the permit for the reporting period,
- Attachments to the Annual Report form, including summaries, descriptions, reports, and other
 information, as required or as applicable, to meet the conditions of the permit during the
 reporting period,
- Notice that the city is relying on another entity to satisfy any obligations under the permit, if applicable,
- 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 the city's permit coverage area during the reporting period.

5.1.2 City of Spokane Annual Stormwater Report

The city completes and submits the Annual Report by March 31st on an annual basis. The annual report is signed and certified by the Director of the Wastewater Department, and then submitted using Ecology's WQWebPortal in SecureAccess Washington. Copies of the annual report can be found online at <u>Spokanestormwater.org</u> by clicking the <u>Stormwater Management tab</u>³.

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³ https://my.spokanecity.org/publicworks/stormwater/management/



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

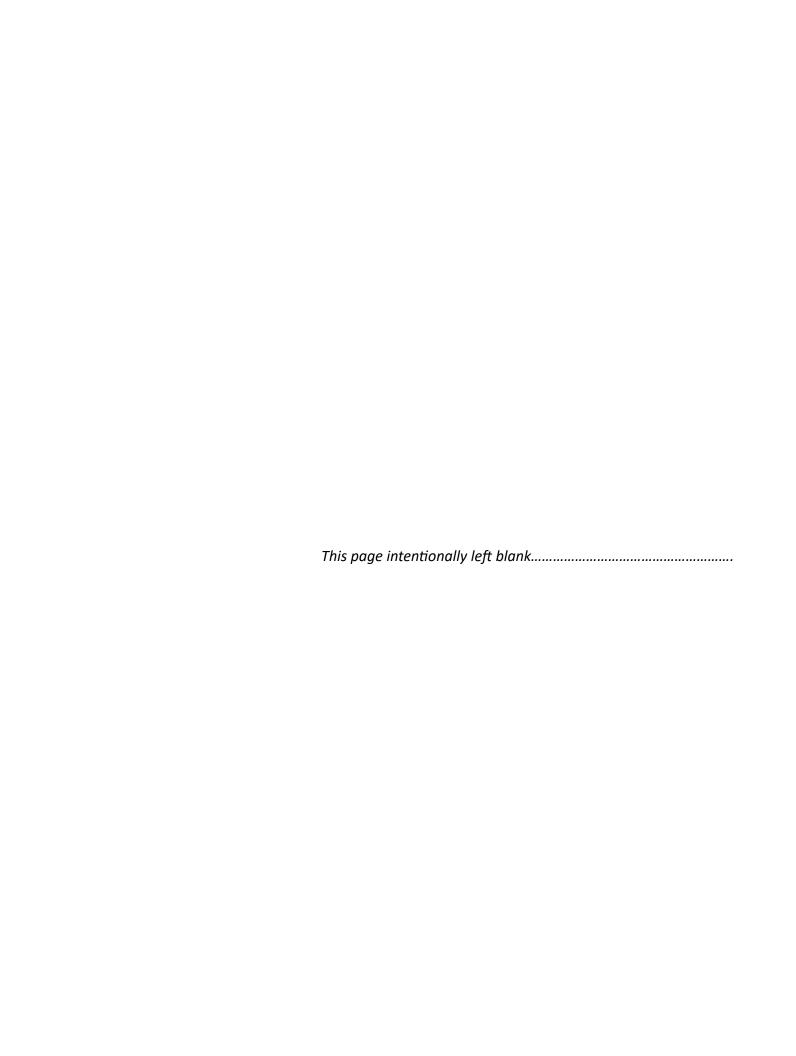
SMP: Stormwater Management PlanSWMP: Stormwater Management Program

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 ad 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 WAR40-6505.

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.

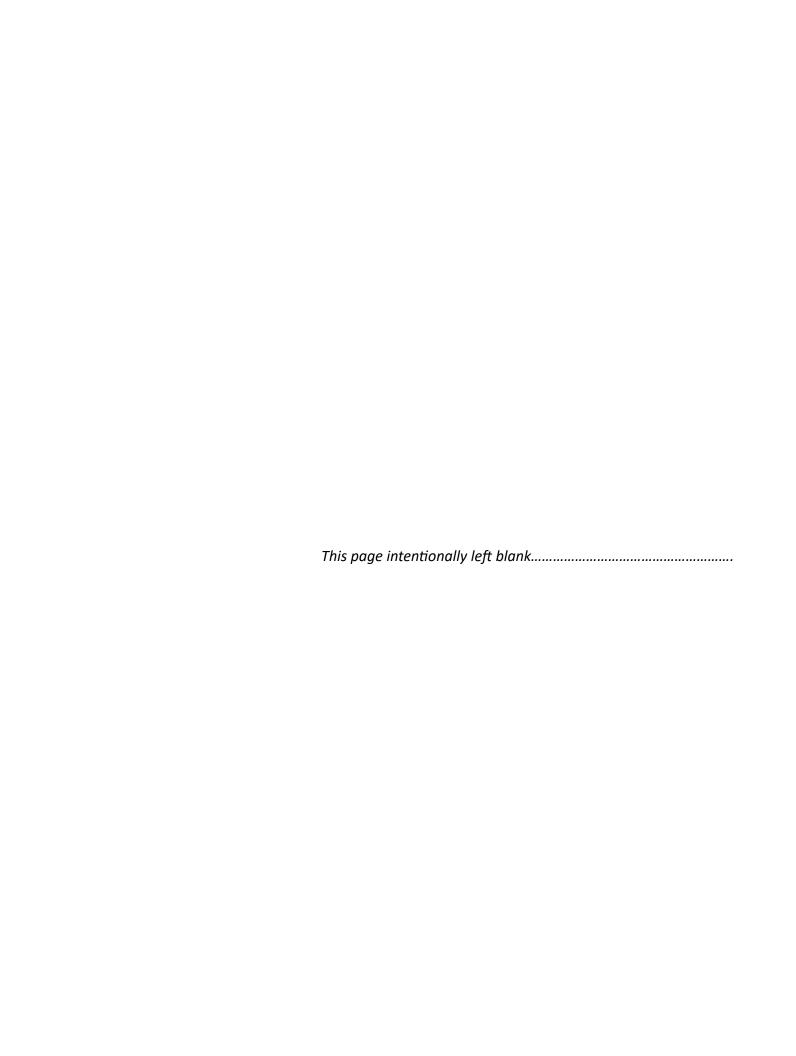
Runoff: Water that travels across the land surface, or laterally through the ground near the land surface, and discharges to water bodies either directly or through a collection and conveyance system, includes stormwater and water that travels across the land surface from other sources.

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

Brown, E., D. Caraco, and R. Pitt. 2004. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*. Center for Watershed Protection, Ellicott City, MD. [http://cfpub.epa.gov/npdes/stormwater/menuofbmps/illicit.cfm]

Casco Bay Estuary Partnership (CBEP). *Guidelines and Standard Operating Procedures: For Stormwater Phase II Communities in Maine*. [http://www.cascobay.usm.maine.edu/publications.html].

City of Spokane, City of Spokane Valley, and Spokane County. (2008). *Spokane Regional Stormwater Manual.*

http://www.spokanewastewater.org/Docs/Stormwater/Spokane Regional Stormwater Manual.pdf.

Mays, L.W. (Ed.). 2001. Stormwater collection systems design handbook. New York: McGraw-Hill.

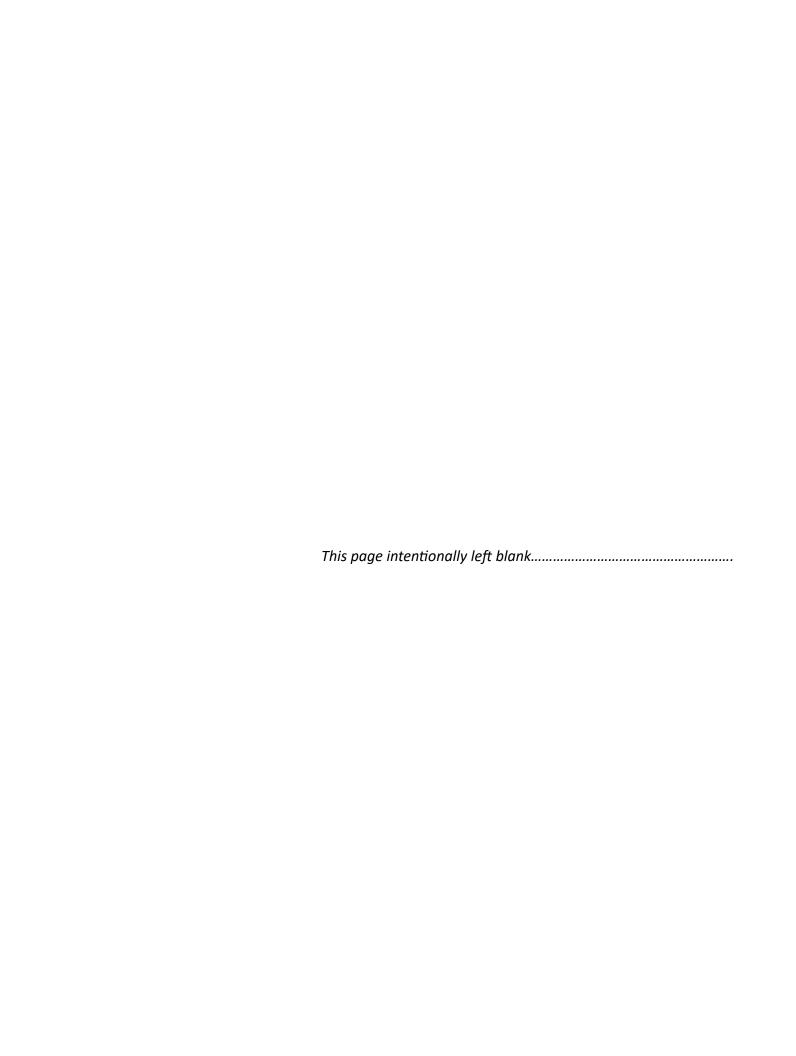
Washington State Department of Ecology, AHBL, and HDR. (2013). *Eastern Washington Low Impact Development Guidance Manual*.

Washington State Department of Ecology. (2007). Eastern Washington Phase II Municipal Stormwater Permit.

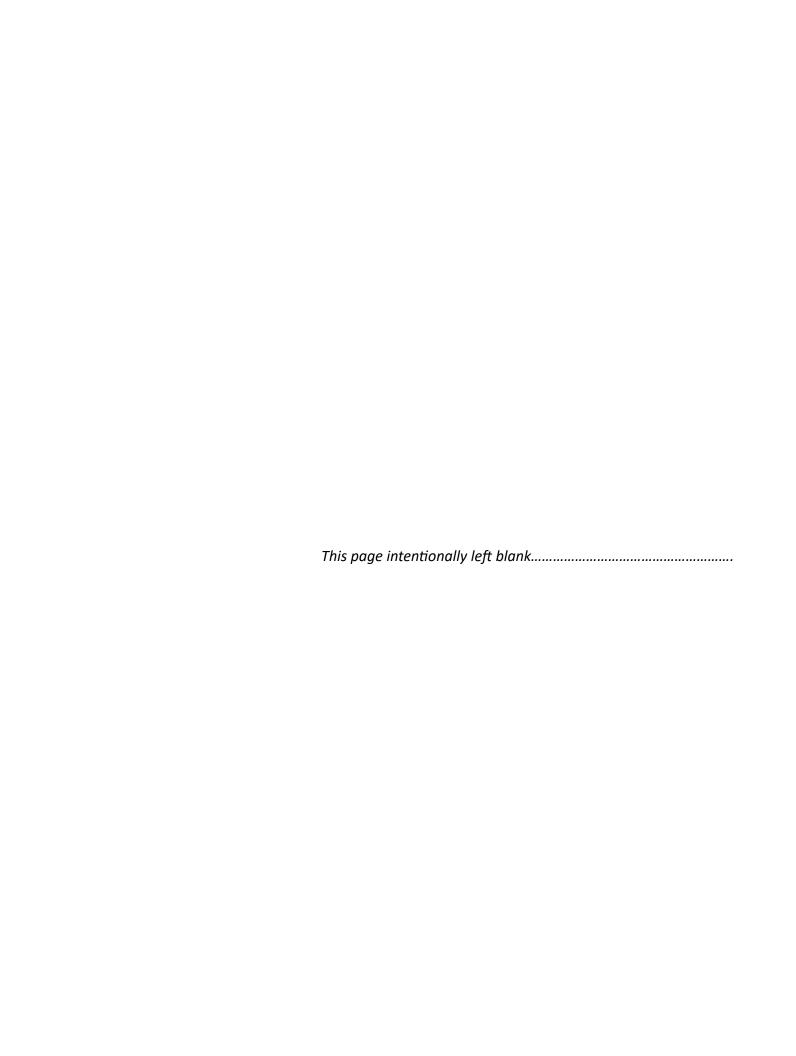
Washington State Department of Ecology. (2006). *Guidance for UIC Wells that Manage Stormwater*. Publication No. 05-10-067.

Washington State Department of Ecology. (2008). Municipal stormwater general permit: Guidance for cities and counties.

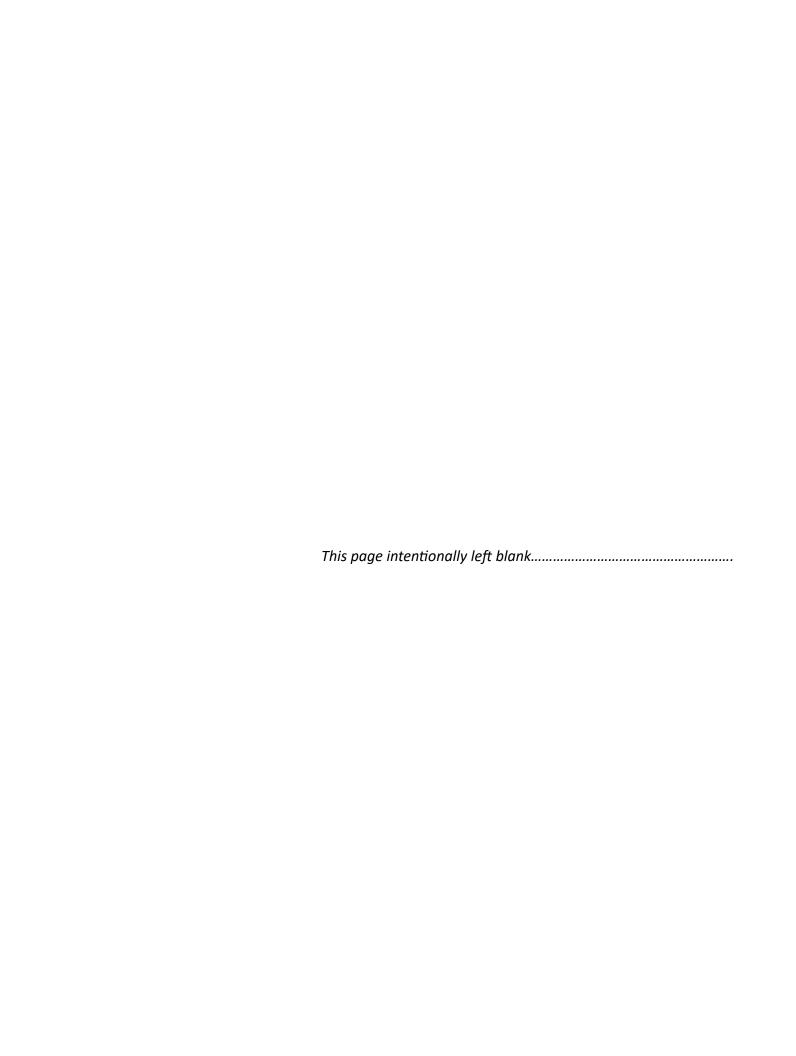
Washington State Department of Ecology. (2004). *Stormwater Management Manual for Eastern Washington*. http://www.ecy.wa.gov/programs/wq/stormwater/tech.html.



APPENDICES



Appendix A SRHD Business Outreach Summary



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

January 1, 2024- December 31, 2024

Site Visit Information	
Number of Initial Site Visits During the Reporting Period:	81
Number of Screening Site Visits During the Reporting Period:	33
Number of Follow-up Site Visits During the Reporting Period:	38
Total Number of Site Visits During the Reporting Period:	152

Site Visit Definitions

- Initial Site Visit- occurs at the actual site and results in a completed 'checklist' (or enough data gathered to complete data entry into the Pollution prevention Database
- Screening Visit- 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.
- Follow-up Visit- 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

We focused on the following sectors:

- 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
- Schools
- Nail Salons
- Any other sectors that we have received complaints for Small Quantity Generators (SQG's).

Site Visit Highlights

Ecology reached out to SRHD to conduct a pollution prevention visit for a non-profit organization concerning the improper disposal of chemicals. The facility was an apartment complex for individuals over 50 years of age. The Regional Maintenance Manager, the Director of Property Management, and the in-house Maintenance Manager were present during the site visit.

Management explained that an employee had disposed of mop water into a catch basin in the back parking lot. Different types of drains and their functions were discussed. It was determined that the drains in the parking lot are storm drains. Education on the function of storm drains was provided and it was emphasized that these lead to water bodies without being treated.

Management explained that no chemicals are allowed to go into drains. If they have leftover chemicals, they will take them out to the transfer station.

After the visit, the Regional Maintenance Manager requested a presentation at their next safety meeting for all maintenance staff in the organization. The PowerPoint presentation at the safety meeting was completed and the following links to resources were provided:

Pollution Prevention Video: <u>Pollution prevention assistance for small Washington businesses</u> (English) (youtube.com)

Spokane Kootenai Waste Directory: <u>Spokane Recycling & Waste/Kootenai Recycling & Waste - Find ServicesSpokane Kootenai Waste & Recycle Directory (spokaneriver.net)</u>
Only Rain down the drain video: <u>Only Rain Down the Drain - Spokane River Forum</u>

Light Recycle: Recycle lights for free | LightRecycle Washington

Ecycle WA: <u>Electronics</u>: <u>E-Cycle Washington - Washington State Department of Ecology</u>
Med Take back: <u>Home - Safe Drug Disposal - Washington (medtakebackwashington.org)</u>
Helpful Resources: <u>For Businesses and Organizations | SRHD</u>

The training provided reached maintenance staff at the 68 facilities under the organization's umbrella.

5- Environmental Report Tracking (ERTS) complaints (from Department of Ecology) were conducted and followed up.

In August we sent a letter out to 25 Automotive facilities letting them know we would be conducting PPA visits in the area. We gave them an option to call in to schedule a visit. Out of the 25- 2 businesses called to schedule visits.

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.
- 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.
- Joint inspections with Stormwater partners are conducted when necessary and follow up on any complaints that are referred to us.

Sites PPA visits were conducted to in 2024:

28 spill kits were delivered.

A Concept In Nails (Out of Business)	5719 N Division
The Nailry	5588 N Wall St
Famous Nails	3018 S Grand
Firestone Complete Auto Care Aimee Lead	115 W 3rd Ave

A Nu-Yu Salon & Spa	1321 W Northwest Blvd
Famous Nails -Michale lead	3007 E <i>57</i> th
B	
D Lux- Michale Lead	2718 E 57th
Spa Nails- Michale lead	4911 S Regal
City Nails- Michale lead	2920 S Regal
Famous Nails- Michale lead	2925 E 29th
5	0000 5 07.1
Ferris High School	3020 E 37th
Shadle Park High School	4327 N Ash
Spokane Fork Lift Services- ERTS with Michale	3627 E Olympia
Maverick - Michale lead	28 E Montgomery
Houston Tx Hot Chicken with Michale	1839 N Ruby
Lewis and Clark HS	521 W 4th
Spokane Arena	720 W Mallon
The Community School	1025 W Spoffard
Map School	2118 W Garland
Chase Middle School	4747 E 37th
Winescape (w/ Grant County)	6011 E 32nd
Banner Furnace and Fuel (w/ Grant County)- product replacement	122 N Helena St
Winco Foods (w/ Grant County)	9257 N Nevada
Azteca (w/ Grant County)	9738 N Newport

Banner Furnace and Fuel product	
replacement	122 N Helena St
Spokane County Engineers (ERTS)-	1.40.4 \A/ \$h
screening because MQG at time of visit	1404 W Sharp
Northwest Christian Thrift Store	6607 N Maple
Northwest Christian Thrift Store	6607 N Maple
My Fresh Basket	1030 W Summit Pkwy
Yokes Fresh Market	210 E Francis Dr
Maverik, INC	949 E Francis
Mission Auto repair	1809 E Mission
7. III. J. C. L. C.	1007 27 (100)
Mission Auto repair	1809 E Mission
Waynes Gold Seal Auto	1118 W Northwest Blvd
KRS Auto	1118 W Northwest Blvd
INO AUIO	1110 W Normwest blvd
Pete's Garage	2406 E Trent
KRS Auto	11118 W Northwest Blvd
Lockett Auto	4915 S Ben Franklib Ln
LOCKETT AUTO	4713 3 Dell Franklib Lil
Firestone Complete Auto Care	115 W 3rd Ave
A Nu-Yu Salon & Spa	1321 W Northwest Blvd
Spokane Arena	720 W Mallon Ave
Wilde Automotive (Pide slees w Ethern)	103 E Lincoln Rd
Wilde Automotive (Ride along w Ethan)	103 E LINCOIN KU

Standag (Dida glang y Ethan)	2624 N Division Rd
Staples (Ride along w Ethan)	2024 IN DIVISION RO
Meineke	3100 N Division St
Memore	010011211301101
Oil Changers	15068 W Northwest Blvd
Curt's City Center	210 E Sprague
Valvoline	411 S Thor St
Curt's City Center	210 S Sprague
Jiffy Lube	1430 N Division St
	2122 11 21 11 21
Meineke	3100 N Division St
Count's City Country	210 S Sprague
Curt's City Center	210 3 Sprague
Arrow Auto Repair	4409 E Sprague Ave
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Spokane Arena	720 W Mallon Ave
Arrow Auto Repair	4409 E Sprague Ave
Oil Changers	2736 N Division
Finance Complete A to Comp	115 M 2ml Ave
Firestone Complete Auto Care	115 W 3rd Ave
A-1 Automotive Repair	20 N Napa Street
	20.111000
A-1 Automotive Repair	21 N Napa Street
Goodwill	9837 W Flight Drive
Goodworks (Goodwill Admin)	130 E 3rd Ave

Cofee Building Control	5707 N.F.
Safeway Distribution Center	5707 N Freya
	0
Rosauers	2610 E 29th
A-1 Automotive Repair	20 N Napa Street
Safeway	933 E Mission Ave
Rosauers	2610 E 29th Ave
Great Harvest Bread Co.	2530 E 29th Ave
Oreal Harvest bread Co.	2550 L 27III AVE
Martin I.	2100 N D: ::- C:
Meineke	3100 N Division St
Global Neighborhood Thrift	919 E Trent Ave
Value Village	1704 W Wellesley Ave
Safeway	2507 W Wellesley Ave
Safeway Fuel	2501 W Wellesley Ave
Global Neighborhood Thrift	919 E Trent Ave
Clobal Neighborhood Till III	717 L Helli Ave
	1000 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Louie's Automotive & Transmission	1323 N Monroe Street
Louie's Automotive & Transmission	1323 N Monroe Street
Louie's Automotive & Transmission	1323 N Monroe Street
Safeway	1616 W Northwest Blvd
Safeway Fuel	1617 W Northwest Blvd
23.2.07.00.	

Superior Automotive	107 E Baldwin Ave.
copensi /teremenve	107 E Balawiii 7 (Vei
Louie's Automotive & Transmission	1323 N Monroe Street
Superior Automotive	107 E Baldwin Ave.
Superior Automotive	107 E Balawiii Ave.
The 509 Garage	3620 N. Nevada St.
All Motors Center	3310 E Trent Ave.
Calabash Kustom Performance	903 W Sharp Ave.
Culabasii Rosioiii i erroriiiance	703 W Sharp Ave.
All Motors Center	3310 E Trent Ave.
All Motors Center	3310 E Trent Ave.
The 509 Garage	3620 N Nevada Street
me 307 Carage	COZOTATACYCCC CITECT
Frasier's Automotive	2704 N Hogan St.
Hill's Automotive	2918 N Division St.
Art Salvage	610 E North Foothills Drive
The 509 Garage	3620 N Nevada Street
Hill's Automotive	2918 N Division St.
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Art Salvage	610 E North Foothills Drive
Nef's Auto Repair	114 E Ermina Ave
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Nef's Auto Repair	114 E Ermina Ave

Sacajawea MS	401 E 33rd
Cathedral Plaza (Catholic Charities) ERTS	1120 W Sprague
Salk MS	6411 N Alberta
Glover Middle School	2404 W Longfellow
Denny Yasuhara Middle School	2701 N Perry Street
Cathedral Plaza (Catholic Charities) ERTS (w/ Grant County)	1120 W Sprague
Spokane Forklift	3627 E Olympic
One Stadium Spokane	509 W Garner
The Podium	511 W Dean
Spokane Convention Center	334 W Spokane Falls Blvd
First Interstate Center for the Arts	334 W Spokane Falls Blvd
Safeway	2509 E 29th
Rosauers	2610 E 29th
My Fresh Basket	1030 W Summit Pkwy
Holiday Inn Express	801 N Division
Hillyard Grocery	5803 N Market
Houston Tx Hot Chicken	1839 N Ruby
Main Market Co-op	44 W Main
Safeway	2509 E 29th

Northwood Apartments	720 W Cora
Tormwood Apariments	7 20 11 Cold
Made with Love	2023 W Dean
ZoZo Sandwiches	2501 N Monroe
	0.00
Karma	2606 N Monroe
Holiday Inn	801 N Division
Honday IIII	OUT IN DIVISION
Ebels Auto Repair w/ Eric	206 W Indiana
Savemore Automotive w/ Eric	2605 N Hamilton
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D&J Automotive w/ Eric	2616 N Hamilton
Illinois Automotive w/ Eric	1 428 E Illinois
minois Adiomonve w/ Linc	1420 L IIIIIOIS
Ron's Automotive w/ Eric	6713 N Lynnwood
,	,
Poor Boys Tire and Automotive w/ Eric	2501 N Division
Hillyard Automotive w/ Eric	2020 E Wellesley
Uniquest Auto w/ Evic	2417 N Monroe
Unicraft Auto w/ Eric	Z417 N Monroe
Abra Foothills w/ Eric	202 E North Foothills
Dan's Pit Stop w/ Eric	3105 N Nevada
D. I.A /5:	2010 5 6
Ron's Automotive w/ Eric	3010 E Courtland
Wicked Wrench Automotive w/ Eric	3724 E Everett
Riverside Automotive w/ Eric (not in	
business)	7008 N Market
Rollin-on Repair w/ Eric	2721 N Pittsburg
Harris Antonotics / Fits	400 4 N M and an
Howe's Automotive w/ Eric	4904 N Market
Miso Fresh Asian w/ Eric	4750 N Division

Taco Time	4750 N Division
A&W Restaurant	4750 N Division
D&J Automotive	2616 N Hamilton
Able Label w/ Tony Ecology	310 N Haven
ZoZo Sandwich House	2501 N Monroe
Abra Foothills of Spokane	202 E North Foothills
Savemore Automotive	2605 N Hamilton
Poor Boys Tire and Automotive	2501 N Division
C	1004 5 5 3 15 4
Gonzaga prep	1224 E Euclid
All Saints Elem School	3510 E 18th
All Saints Middle School	1517 E 33rd
Westwood Middle School	6120 S Abbot Rd
Illinois Automotive	1428 E Illinois Ave
Hillyard Automotive	2020 E Wellesley
Ron's Automotive	3010 E Courtland
Wicked Wrench Automotive Repair	3724 E Everett Ave
All Saints Elementary School	3510 E 18th Ave
All Saints Middle School	1517 E 33rd
Able Label	310 N Haven St
A Concept In Nails	5719 N Division
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The Nailry	5588 N Wall St
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Famous Nails	3018 S Grand
Spa Nail	4911 S Regal
Famous Nails	2929 E 29th
D'LUX	2718 57th
Famous Nails	3007 E 57th Ave
- · · · ·	
City Nails	2920 S Regal
Spokano Eorklift w/ \/P	2627 F.Ohympia
Spokane Forklift w/ VB	3627 E Olympic
Maverik	28 E Montgomery
Houston TX Hot Chicken	1839 N Ruby
Mechanics Pride	2925 S Mt. Vernon St
Bill Johnson's Auto Services	2515 Wallaclay
DIII JOHNSON'S AUTO Services	2515 Wellesley
Tire Rama	1918 Northwest Blvd
Divines Corportation 21	3920 E <i>57</i> th Ave
De Leon Foods	102 E Francis
Waynes Gold Seal Auto	11118 W Northwest Blvd
Waynes Gold Sedi Allo	11110 W NOTHWEST DIVU
Spokane Convention Center	334 W Spokane Falls Blvd
First Interstate Center for the Arts	334 W Spokane Falls Blvd
The Podium	511 W Dean

One Stadium Spokane	509 W Garner
Safeway	2509 E 29th