City of Walla Walla

Stormwater Management Program Plan

2024

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Section 1 – Introduction

Regulatory Requirements

Overview

The City of Walla Walla (City) is subject to the following federal and state water quality regulations related to stormwater discharges to surface waters and groundwater:

- National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit, as required by the federal Clean Water Act (CWA) and the Washington State Water Pollution Control Act; and
- Underground Injection Control (UIC) Rule, as required by the federal Safe Drinking Water Act (SDWA), the Washington State Underground Injection Control Program, and WAC 173-218.

An overview of these regulations is provided below. Subsequent sections of this plan describe each of the City's Stormwater Management Program components. Each section provides a brief overview of the regulatory requirements, a summary of the activities completed by the City during the 2022 and 2023 calendar years, and a description of activities planned to be implemented in 2024.

In addition to the regulatory requirements designed to preserve and protect water quality in our surface waters and groundwater, the City is responsible for managing a stormwater utility as well as planning, designing, and constructing capital improvements to our stormwater infrastructure to ensure it continues to function as designed.

NPDES Phase II Municipal Stormwater Permit

The *Eastern Washington Phase II Municipal Stormwater Permit* (Permit) was originally issued by the Washington State Department of Ecology (Ecology) on January 17, 2007, and became effective on February 16, 2007. The current version of the Permit was reissued by Ecology on August 1, 2019 to cover the next five-year period ending July 31, 2024. Ecology is currently working on reissuance of the Permit for the next five-year Permit cycle, which is anticipated to have an effective date starting on August 1, 2024 and ending on July 31, 2029. The City will review the new Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new SWMP component requirements.

The current Permit outlines stormwater program activities and implementation milestones that permittees must follow to comply with the federal CWA. All Phase II jurisdictions are expected to develop and implement a stormwater management program that is summarized each year in a document known as the Stormwater Management Program (SWMP) Plan.

This SWMP Plan describes how the jurisdiction intends to implement their stormwater management program and includes components such as the required activities (minimum control measures), the implementation schedule of those activities within the required timeframes during the Permit term, and the submission of Annual Reports to Ecology each year to document progress.

The Permit is applicable to owners and operators of regulated small Municipal Separate Storm Sewer Systems (MS4) located in Eastern Washington which discharge stormwater to surface waters of the State. For the purposes of this Permit, a small MS4 is considered to be city or county with population of less than 100,000 located in a federally designated Urbanized Area. The City and Walla Walla County (County) have both been designated as permittees since the first permitting cycle in 2007.

Since 2020, the City and County, along with the City of College Place, began participating in the Walla Walla County Regional Stormwater Group (WWCORSG), which is led by County staff. These meetings are held roughly once a quarter and are used as a means for the permittees to discuss Permit compliance required by all parties and coordinate actions such as Public Education and Outreach (PE&O) and Total Maximum Daily Loadings (TMDL) monitoring. Participation in these meetings has proven to be an effective way for the City to communicate with the County and City of College Place to improve Permit compliance.

SWMP Components

The Permit is broken down into six components, and the implementation and enforcement of the six components is collectively referred to as a municipality's SWMP. The six components include:

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 Development and Redevelopment
6. Municipal Operations and Maintenance

In addition to these six minimum control measures, the Permit also requires the following:

- Compliance with Total Maximum Daily Load (TMDL) Requirements
- Monitoring and Assessment
- Reporting Requirements

The SWMP is designed to reduce the discharge of pollutants from municipalities to the "Maximum Extent Practicable" (MEP), to satisfy the state's requirement to apply "All Known, Available, and Reasonable methods of prevention, control and Treatment" (AKART) prior to

discharge, and to protect water quality. The Permit requires that specified activities from each category above be completed in order to achieve full compliance by the end of the Permit term or as otherwise specified in the Permit.

Underground Injection Control (UIC) Program

In addition to the Permit, the City must also address the requirements of the state's UIC program. This program, as required by the federal Safe Drinking Water Act (SDWA), is intended to protect underground sources of drinking water from contamination by waste fluids, including the infiltration of polluted stormwater.

A UIC well is defined as a man-made subsurface fluid distribution system designed to discharge fluids into the ground and consists of an assemblage of perforated pipes, drain tiles, or other similar mechanisms; or a dug hole that is deeper than the largest surface dimensions. The Washington State UIC Rule (Chapter 173-218 WAC) went into effect on February 3, 2006. In 2019, Ecology revised its technical guidance document for UIC wells entitled *2019 Updates to UIC Well Requirements* (February 2019, Publication #19-10-014) and updated the UIC well guidance and Best Management Practice (BMP) requirements in the newly revised Stormwater Management Manual for Eastern Washington (SWMMEW) dated August 2019 (Publication #18-10-044).

The purpose of the UIC program is to protect groundwater quality by: (1) preventing groundwater contamination by regulating the discharge of fluids into UIC wells and (2) satisfying the intent and requirements of Part C of the SDWA and the Washington State Water Pollution Control Act (Chapter 90.48 RCW). There are two main requirements of the UIC program:

1. A non-endangerment performance standard must be met, prohibiting injection that allows the movement of fluids containing any contaminant into groundwater. In Washington, all groundwater is considered a potential source of drinking water.
2. All UIC well owners must provide inventory information by registering their wells with Ecology.

Non-Regulatory Requirements

Administration of the Stormwater Utility

In addition to the regulatory requirements of the Permit, regulations, and laws described above, the City's overall stormwater management program also includes administration of the stormwater utility. The stormwater management program is funded almost exclusively by the revenue collected through stormwater utility fees charged to every developed property in the City. These fees not only fund the regulatory program requirements, but also cover normal

operation and maintenance of the stormwater system and stormwater capital improvement projects. The funds are supplemented from time to time with state grants that are primarily used for the planning, design, and construction of capital projects.

Administration of the stormwater utility includes establishing a utility rate structure and customer fees. It also involves establishing the methodology for calculating stormwater fees for all properties and updating these fees when conditions on the property change. The City enacted the stormwater management utility in 1999 and a rate structure based on Equivalent Residential Units (ERUs) calculated from the impervious surface area (ISA) on the property. The Stormwater Management Utility – Regulations and Rates is codified in the Walla Walla Municipal Code (WWMC) Chapter 13.06. The rate for 2021 was set at $13.40 per ERU. 2021 was the last year in the City's latest six-year Financial Plan that lays out what rates will be charged for services provided, including water, wastewater, solid waste, and stormwater. At the end of 2021, a rate study was conducted to help the City determine what rates would be charged for the upcoming six-year period starting in 2022 and ending in 2027. After reviewing projected fund balances and proposed projects, the City decided not to impose any increases for the stormwater utility fee for the upcoming period. The stormwater utility rate will remain at $13.40 per ERU for 2024.

Capital Improvement Projects (CIPs)

As part of the development of the City of Walla Walla Comprehensive Management Plan (July 28, 2015), a Stormwater Capital Improvement Plan was prepared in July 2014. This plan was prepared to address drainage problems in the City. Besides identifying these problem areas, the plan includes proposed solutions, hydrologic calculations, estimated project costs, and proposed schedule.

In addition to the capital improvement projects in problem drainage areas, the stormwater utility also provides funding to repair, replace, and retrofit stormwater facilities as part of the City's other capital programs, including the Infrastructure Repair and Replacement Program (IRRP) and the Transportation Benefit District (TBD). The IRRP also provides some funding for capital stormwater improvements on IRRP projects. More information on the City's Stormwater CIP can be found here at the GoWallaWalla.us website.

Section 2 – Public Education and Outreach

Permit Requirements

The Permit requires the City to develop and implement a formal Public Education and Outreach (PE&O) Program designed to educate target audiences about the impacts of stormwater discharges to water bodies and the steps to take to reduce pollutants in stormwater. The City's

outreach and educational efforts must be targeted and presented to specific audiences within the community. These include:

- The general public, including homeowners, teachers, and school age children, about the importance of improving and protecting water quality, impacts of stormwater discharges and how to avoid, reduce and eliminate them, and actions they can take to improve water quality. Additionally, the Permittee must consider delivering these messages in languages other than English, based on the target audience's demographic.
- Businesses and the general public about illicit discharges and how to prevent them.
- Engineers, design professionals, construction contractors, developers, and development review staff and land-use planners regarding technical standards, the development of stormwater site plans and erosion control plans, low impact development (LID) practices and BMPs for reducing impacts from stormwater runoff at development sites.
- In addition, each Permittee must: (1) measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area; (2) use the resulting measurements to direct ongoing education and outreach resources; and (3) evaluate changes in adoption of the targeted behaviors by December 31, 2021.

2022-23 Accomplishments

Utility bill inserts were sent out to customers on two separate occasions in 2022 with information on 'Healthy Household Habits' and 'Not Polluting Storm Drains'. A utility bill insert was also sent out to customers in 2023 with information on 'Dos and Don'ts of Pool Cleaning'. A follow-up letter was sent out to pool and spa owners with information on proper disposal of pool/spa wastewater. The City hosted several community events during 2022 including the National Public Works Week, National Night Out celebration in Pioneer Park, and a neighborhood block party at Washington Park. Presentations were provided and booths set up to distribute educational materials and to answer questions from local residents. In 2023, the City hosted the Return to the River Salmon Festival, Public Works Week, a neighborhood block party, and National Night Out parade through portions of Walla Walla County and the cities of Walla Walla and College Place. For more detailed information on the PE&O activities conducted in 2022 and 2023, please refer to Appendix A at the end of this document.

The Stormwater Coordinator met with students from Whitman College Environmental Studies classes in March and November 2022 to discuss a range of topics including bioswales, stormwater management concepts, and BMPs to prevent stormwater pollution. The classroom meetings were well attended with outreach provided to approximately 40 students.

In addition to these specific items mentioned, stormwater educational material is maintained on the City's stormwater website for targeted audiences such as restaurant owners, lawn care

businesses, gas stations, car care businesses, and construction contractors, on how they can prevent stormwater pollution. Information on the City's stormwater system, the impacts of stormwater and illicit discharges to our receiving waters, and the importance of protecting water quality in our receiving waters is provided to the general public, businesses and contractors when responding to and investigating reports of illicit discharge reports. Also, information on the stormwater system, stormwater design requirements and information on requirements to prevent erosion and sedimentation on construction sites is provided to design engineers and construction contractors during pre-application meetings, site plan review, and construction inspections.

The City elected to target smaller construction sites (less than one acre) which tend to have a higher incidence of sediment track-out during construction. An electronic survey was developed and distributed to a list of smaller local construction contractors not usually covered under Ecology's Construction Stormwater General Permit. The City subsequently prepared a 2021 Targeted Behavior Survey Report that described the basis of the survey, implementation approach, summary of initial survey responses, and key follow-up actions to be completed by the City. The report was submitted with the City's 2021 Annual Report and included as Appendix I in the 2022 SWMP Plan.

Follow-up actions identified by the City included: (a) distributing a new Erosion and Sediment Control Brochure for Commercial and Residential Construction (ESC Brochure) with building permit packet information; (b) distributing the ESC Brochure to the initial survey respondents; (c) updating the stormwater website to include more information on construction track-out and construction stormwater runoff; (d) completing a follow-up survey to gauge changes in understanding/behavior; (e) conducting more onsite inspections of smaller construction sites; and (f) targeting subcontractors (landscapers, electricians, plumbers, etc.) working at smaller construction sites.

The City was unable to complete the follow-up actions identified above, with the exception of action item (a), by the December 31, 2021 deadline. The City submitted a G20 notification in August 2022 for inability to fully satisfy condition S5.B.1.b. To address and correct, the City has since posted the ESC Brochure and other construction stormwater materials on their website (June 2023) and plans to distribute the ESC Brochure to the initial list of small construction contractors surveyed and conduct a follow-up survey of the initial survey respondents.

<u>Activities Planned in 2024</u>

- Public Works Week activities including a short informational discussion for seven elementary school classes on pet waste management and Clean Street=Clean Streams.

- Return to the River Festival with informational booth and stormwater educational materials.
- Neighborhood Block parties June through September with informational booth and stormwater educational materials.
- EWA Stormwater Plan Review Training for EWA Permittees.
- National Night Out Celebration with an informational booth and stormwater educational materials.
- Installation of Pet Waste Stations on trails and in parks in support of the Pet Waste Education Program.
- Maintain stormwater information on City website.
- Continue emails to design professionals with information on training opportunities and other stormwater design and construction subjects.
- Continue distributing 'drain smart' informational materials to all drainage system owners during the Post Construction Private BMP Inspections completed in 2014 and 2019.
- Inform the public, businesses, contractors, and design engineers during investigation of illicit discharges, pre-application meetings, site plan reviews and construction inspections.
- Distribute the ESC Brochure to the initial list of small construction contractor surveyed in 2021, conduct a follow-up survey, and update the 2021 Targeted Behavior Survey Report to include work completed since issuance of the G20 notification to demonstrate compliance with this Permit condition.
- Review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new Public Education and Outreach Program activities.

Section 3 – Public Involvement and Participation

Regulatory Requirements

The Permit requires the City to adopt a program or policy directive to provide ongoing opportunities for public involvement and participation in the decision-making process on implementation of the stormwater program through advisory panels, public hearings watershed committees, participation in developing utility rate structures or other similar activities. The public involvement and participation program implemented by the City must comply with applicable state and local public notice requirements and must also include provisions for consideration of public comments. The City is also to create opportunities for the

public to provide input during the decision-making processes involving the development, implementation, and update of the City's SWMP Plan and adoption of all stormwater ordinances. The City is required to make the latest version of the Annual Report and SWMP Plan available to the public and post both on the City's website by May 31 of each year.

2022-23 Accomplishments

In 2011, the City officially adopted a public involvement policy to create opportunities for the public to provide input during the decision-making process involving the management of the stormwater program including the development and/or updates of all required ordinances. The Water and Wastewater Advisory Committee is a citizen's advisory committee that was created to provide input to City staff and the City Council on the administration and management of the water and wastewater programs. In 2014, the stormwater program was added to this committee's oversight responsibilities. The committee meets monthly and the City Stormwater Coordinator attends and provides information on stormwater issues and the status of stormwater programs. This committee was heavily involved in 2015, during the development of the Comprehensive Stormwater Management Plan and the Utility Rate Study, which served as the basis for the establishment of stormwater utility rates for 2016-2021. In 2021, this committee provided input for the next Utility Rate Study for establishing stormwater utility rates for 2021-2027.

The Stormwater Coordinator attended meetings held in 2022 and 2023 and provided updates to the members on a number of topics including input/guidance on Ecology grant projects, snowpack and drought forecasts, stormwater CIP project updates, monitoring and effectiveness study participation, annual reporting, and updates to the City's SWMP Plan.

The Stormwater Coordinator participated in regional meetings (WWCORSG) during 2022 and 2023 with stormwater program representatives from the City of College Place and Walla Walla County to discuss stormwater permit compliance issues, including strategies and collaborative opportunities for Total Maximum Daily Load (TMDL) sampling, regional PE&O activities, grant funding and participation, GIS mapping updates, hazardous spill response, and attendance at 2023 Municon conference. These meetings are expected to continue on a regular basis through 2024. For more information on the public involvement activities in 2022 and 2023, please see Appendix B at the end of this document.

In addition, the City maintains a website which includes a link to provide feedback on any issue, including stormwater management. The City also maintains a system which provides the public the opportunity to sign up for notifications by email of any issues related to a variety of subjects, including an option to select to be notified of, and provide comments on, any stormwater issue.

Activities Planned in 2024

- Continue participation with the Water and Wastewater Advisory Committee.
- Solicit input from Water and Wastewater Advisory Committee and the public on any proposed changes to stormwater utility rate structure and fee calculation methodology.
- Maintain link on City website for public feedback on any stormwater management issue.
- Notify the public signed up for email notifications of any stormwater issues to solicit input and comments.
- Post 2022 and 2023 Annual Reports and 2024 SWMP Plan on City stormwater website by May 31, 2024.
- Review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new Public Involvement and Participation activities.

Section 4 – Illicit Discharge Detection and Elimination (IDDE)

Regulatory Requirements

The Permit requires the City to implement and enforce a program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into its MS4. Minimum performance measurements are:

- Maintain and periodically update a map of the MS4 showing (1) the location of all known outfalls (noting pipe size and pipe material) and discharge points; (2) receiving waters other than ground;(3) areas served by the MS4 that discharge to the ground; (4) permanent stormwater facilities that are owned and operated by the Permittee; (5) all connections to the MS4 authorized or approved by the Permittee after August 1, 2019; (6) all known connections from the MS4 to a privately owned stormwater system; (7) connections between the MS4 owned and operated by the Permittee and other municipalities or public entities; (8) provide maps and mapping information to Ecology and any other entity that requests it , and (9) maintain this map in an electronic format with fully described mapping standards.
- Effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges to the MS4.
- Implement an ongoing program designed to detect and identify illicit discharges, illicit connections and spills into the MS4 which includes field assessing at least 12%, on average, of the MS4 within the Permittee's coverage area to verify outfall and discharge point locations for detection purposes.
- Maintain and publicize a telephone hotline for spills and illicit discharge reporting.
- Train staff who are responsible for the identification, investigation cleanup and reporting of illicit discharges and spills to conduct these activities.

- Track and maintain records of the activities conducted to meet the requirements of this section of the Permit.

The City developed and adopted Ordinance 2010-01 on January 13, 2010, to prohibit illicit discharges and illicit connections and authorize enforcement actions. This ordinance is codified in the WWMC Chapter 13.15 and minor revisions were made in 2017 (Ord. 2017-45) as part of our municipal code review project. In 2011, the City completed an IDDE Program Manual which included procedures to detect, investigate, and address illicit discharges. The City has a map of its MS4 in GIS format and annually updates it as part of an on-going process. In 2014, the Streets Division collected field data on all inlets, catch basins, and bubble-up catch basins which was uploaded into GIS. Since 2018, the City's Streets Division has employed the use of cell phones and tablets while in the field to more accurately capture and maintain cleaning, inspection, and illicit discharge detection information.

A hotline number is maintained by the City for reporting spills and other illicit discharges. The phone number is listed in the phone book under the title "Stormwater Problems", and it is also posted on the City's website on the stormwater page. Reports from the hotline as well as other City staff and the general public are directed to the Stormwater Coordinator. Reports are investigated and appropriate action is taken to eliminate confirmed illicit discharges including informal compliance actions such as public education and technical assistance. Records of all IDDE reports and follow-up actions taken are maintained by the Stormwater Coordinator and on Ecology's WQWebIDDE website.

<u>2022-23 Accomplishments</u>

A total of 15 illicit discharges were reported to and investigated by the Stormwater Coordinator during 2022 and 2023. The majority of the calls were related to fuel and/or vehicle related fluids, sediment and soil (track out), food-related oil/grease, and sewage/septage. For more information on the IDDE activities in 2022 and 2023, please see Appendix C at the end of this document.

The City conducted Outfall Reconnaissance Inventory (ORI) and Receiving Water Assessment on Stone, College, Titus, and Barber Creeks in 2022 and Mill Creek in 2023. A total of 77 outfalls (City and privately owned) were inspected in these basins. No illicit discharges were noted during any of these inspections. For more information on the ORI activities in 2022 and 2023, please see Appendix D at the end of this document.

IDDE refresher training was provided to Streets, Sanitary Sewer O&M, and Engineering staff in 2022 as part of their stormwater training. Parks Department and Sanitation staff were also trained in sessions that highlighted protecting receiving water body quality, pet waste management program, construction stormwater BMPs, illicit discharge reporting, and

identifying more opportunities for cooperation between the two groups. No IDDE refresher training was provided to staff in 2023 due largely to turnover in the City's Stormwater Coordinator position.

No corrections to the City GIS stormwater mapping assets were identified in the course of inspection and maintenance activities during 2022 and 2023.

Activities Planned in 2024

- Continue to maintain and update stormwater map assets of the MS4 in GIS.
- Investigate reports of observed illicit discharges and take appropriate and timely compliance actions to eliminate them as necessary.
- Conduct field assessments on Yellowhawk, Russell, Caldwell Creeks; Peter Spring; and the remaining half of Mill Creek to verify outfall locations and detect illicit discharges.
- Maintain hotline for public reporting of spills and other illicit discharges.
- Provide targeted refresher IDDE training to Streets, Engineering and Development Services staff.
- Review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new IDDE activities.

Section 5 – Construction Site Stormwater Runoff Control

Regulatory Requirements

The Permit requires the City to implement and enforce a program to reduce pollutants in stormwater runoff to its MS4 from public and private construction projects that disturb one acre or more or projects that are part of a common plan of development or sale that disturb one acre or more. This component of the SWMP requires that the City: (1) implement an ordinance that requires erosion and sediment controls during construction-phase work, including enforcement actions to ensure compliance; (2) review new development and redevelopment site plans for compliance with the SWMMEW, the City's Design Standards and the Stormwater Design Standards Handbook, including review of Stormwater Pollution Prevention Plans (SWPPPs) prior to construction; (3) conduct site inspections on new development and redevelopment sites and enforcement of construction stormwater pollution control measures; (4) provide adequate training for all City permitting, planning, review, inspection, and enforcement staff; (5) provide information to construction site operators about training available on how to install and maintain erosion controls and stormwater requirements; (6) maintain records of activities related to site plan review, inspection, enforcement and application of the Erosivity Waiver. The Permit requires the City to review SWPPPs and inspect all construction sites on projects that meet the one-acre or more threshold

at least once during construction, once prior to ground clearing activities, at least one time during the installation of stormwater BMPs, and a final inspection to insure the completion of all stormwater BMPs.

The City adopted a construction and post-construction stormwater ordinance (Ord. 2010-25) on May 26, 2010, that pertains to construction site erosion and sediment control and includes provisions for the enforcement of non-compliance. This ordinance is codified in the WWMC Chapter 13.16 and revisions were made in 2017 (Ord. 2017-45) as part of our municipal code review project. The City requires a Stormwater Report and SWPPP (if applicable) on all new development and redevelopment projects that meet the above-described one-acre threshold. In addition, a Stormwater Report and Erosion and Sediment Control Plan are also required for new development and redevelopment projects that will add or replace 5,000 square feet or more of impervious surface and disturb less than one acre. These Stormwater Reports must address requirements of the latest version of the SWMMEW.

The City Development Engineer or the Stormwater Coordinator reviews all Stormwater Reports and SWPPPs submitted with respect to erosion and sediment control and construction stormwater management. The City Development Engineer and/or the assigned Engineering Inspector also inspect all private construction sites that meet the one-acre or more threshold for proper installation and maintenance of erosion and sediment control BMPs. Informal compliance actions are taken by the City Development Engineer. However, if such informal actions are not successful in achieving compliance, these cases are documented and referred to the City Stormwater Coordinator and Code Enforcement for resolution.

The City Stormwater Coordinator provides training for City permitting, planning, review, inspection, and enforcement staff as needed. The City Stormwater Coordinator keeps a training record for Engineering Division staff and ensures that appropriate staff members maintain Certified Erosion and Sedimentation Control Lead (CESCL) training. Information on construction site stormwater requirements, resources, and CESCL certification and recertification classes are posted on the City's website. An email distribution list of local design professionals is maintained and information on training opportunities for the SWMMEW and the Construction Stormwater General Permit (CSWGP) are distributed to them. Records of all stormwater site plan review, inspection, and informal enforcement actions are maintained by the City Development Engineer. Records pertaining to any formal enforcement actions are maintained by the City Stormwater Coordinator. Records of application for the Erosivity Waiver are maintained by the City Development Engineer. Refresher training for Engineering staff on erosion and sedimentation control on construction sites and the CSWGP will be provided in 2024, as needed.

2022-23 Accomplishments

There was a total of three sites that initiated new development or redevelopment activity in 2022 and 2023 and submitted stormwater design reports and construction plans for City review. A total of 46 permitted construction sites, with BMPs required as part of their approved design, were inspected during 2022 and 2023. Some sites were visited more than once, depending on the size and complexity of the development, and some sites had construction activity that began prior to 2022 with activity continuing into 2022 and/or 2023. SWPPPs submitted for City projects and private development projects were reviewed by City staff during 2022 and 2023.

In 2022 and 2023, most training providers switched over to an online training platform. City staff that needed CESCL training were able to complete their initial certification or recertification training remotely during this period.

Activities Planned in 2024

- Review stormwater reports, construction plans, and SWPPPs for all new development and redevelopment projects.
- Inspect all private construction sites for proper installation and maintenance of erosion and sediment control BMPs.
- Take enforcement actions as needed for failure to properly install and maintain erosion and sediment control BMPs.
- Maintain CESCL certification and recertification training for Engineering staff.
- Maintain information on construction site stormwater requirements and resources and CESCL certification and recertification classes on City website.
- Email information on training opportunities and the CSWGP and SWMMEW to local engineers and design professionals.
- Keep records of all stormwater site plan reviews, inspections, enforcement actions, training, and applications of the Erosivity Waiver.
- Provide targeted refresher training to City staff including Permitting and Code Enforcement personnel on erosion and sediment control requirements.
- Provide refresher training to City engineering staff on erosion and sediment control requirements for City projects.
- Review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new construction site runoff control activities.

Section 6 – Post-Construction Stormwater Management for New Development and Redevelopment

Regulatory Requirements

The Permit requires the City to implement and enforce a program to address post-construction stormwater runoff to its MS4 from both private and public new development and redevelopment projects that disturb one acre or more or projects that are part of a common plan of development or sale that disturbs one acre or more. This element of the SWMP requires that the City: (1) implement an ordinance that requires post-construction stormwater controls, including requirements for runoff treatment, flow control, source control, and on-going long-term operation and maintenance of approved BMPs; (2) review new development and redevelopment site plans for compliance with the SWMMEW, the City's Design Standards and the Stormwater Design Standards Handbook, and ensure that plans include stormwater pollution prevention measures; (3) conduct site inspections on new development and redevelopment sites for enforcement of post-construction stormwater control measures; (4) provide adequate training for staff; (5) provide information to design professionals about training available on how to comply with permit requirements and the SWMMEW; and (6) maintain records. The Permit specifically requires the City to inspect privately-owned structural BMPs on projects that meet the one-acre or more threshold at least once during installation, once for a final inspection when construction is complete, and again at least once every five years after final installation to ensure adequate maintenance is being performed. The Permit also requires that the City Municipal Code allow non-structural preventive actions and source reduction approaches such as LID. In addition, the City must require all new development and redevelopment projects that meet the one-acre or more threshold to retain runoff from the 10-year, 24-hour storm event on-site. The Permit also requires the City to develop and implement criteria to determine when it is infeasible to meet this on-site retention requirement.

The City adopted a construction and post-construction stormwater ordinance (Ord. 2010-25) on May 26, 2010, that pertains to post-construction stormwater controls and includes provisions for the enforcement of non-compliance. This ordinance is codified in the WWMC Chapter 13.16 and revisions were made in 2017 (Ord. 2017-45) as part of our municipal code review project. The ordinance requires Stormwater Reports that meet requirements of the SWMMEW on all new development and redevelopment projects that add or replace 5,000 square feet or more of impervious surface. The City also requires that all such projects provide storm drainage system sufficient to retain runoff from the 25-year, 24-hour storm event on-site. In 2018, the City developed a Stormwater Design Standards Handbook which includes criteria to determine when it is infeasible to meet this on-site retention requirement. In addition, revisions were made in Titles 12, 19, 20 and 21 of the WWMC to allow non-structural preventive actions and source reduction approaches such as LID techniques.

The City Development Engineer and the Stormwater Coordinator review all Stormwater Reports submitted for projects that meet the 5,000 square foot threshold to ensure they comply with requirements of the SWMMEW with respect to post-construction stormwater controls and

retention of runoff from the 25-year, 24-hour storm event on-site. The City Development Engineer and/or Engineering Inspector also inspect all private construction sites that meet the one-acre or more threshold for proper installation of structural BMPs, typically incidental to other site inspections. Informal compliance actions are taken by the City Development Engineer. However, if such informal actions are not successful in achieving compliance, these cases are documented and referred to the City Stormwater Coordinator for resolution.

The City Stormwater Coordinator provides training for City permitting, planning, review, inspection and enforcement staff as needed. The City Development Engineer provides assistance and information to design professionals on how to comply with Permit requirements and the SWMMEW during review of stormwater site plans and during pre-application meetings. An email distribution list of local design professionals is maintained by the City Stormwater Coordinator and information on post-construction stormwater requirements and training opportunities are distributed to them. Information on LID training offered by Ecology is posted on the City's website. Records of all private stormwater site plan review, inspection and informal enforcement are maintained by the City Development Engineer. Records pertaining to any formal enforcement actions are maintained by the City Stormwater Coordinator.

Stormwater design for all City capital projects is completed in accordance with requirements of the SWMMEW either by City Engineering staff or by private consultants under contract with the City. Information and training on stormwater design are provided to City Engineering staff as needed by both the City Development Engineer and City Stormwater Coordinator. All structural BMPs are inspected during installation by either City Engineering staff or by private consultants under contract with the City.

2022-23 Accomplishments

Private stormwater BMPs inspections were not completed in 2022 and 2023 due largely to turnover in the City's Stormwater Coordinator position. Additional BMPs inspections will be scheduled for completion in 2024 to make up for the inspection shortfall in 2022 and 2023.

Activities Planned in 2024

- Review all Stormwater Reports to ensure design of post-construction stormwater controls comply with requirements of the SWMMEW.
- Inspect all private and public construction sites for proper installation of structural BMPs.
- Take enforcement actions as needed for failure to properly install and maintain structural BMPs.
- Inspect privately-owned stormwater BMPs installed in 2012, 2013, 2014, 2017, 2018, and 2019 to make-up for inspections missed in 2022 and 2023 due to staff turnover.

- Provide training for City permitting, design review, inspection, and enforcement staff as needed.
- Provide assistance and information to design professionals on how to comply with Permit requirements and the SWMMEW during review of Stormwater Reports.
- Maintain information for design professionals on City website.
- Email information on post-construction stormwater requirements and training opportunities to local design professionals.
- Keep records of all stormwater site plan review, inspections, enforcement actions and training.
- Review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new post-construction stormwater management activities.

Section 7 – Municipal Operations and Maintenance

Regulatory Requirements

The Permit requires the City to implement an Operation and Maintenance Plan (O&M Plan) aimed at preventing or reducing pollutant runoff from municipal facilities and activities. The O&M Plan shall include appropriate maintenance criteria and pollution prevention/good housekeeping (PP&GH) practices for various municipal operations (e.g., storm system maintenance, municipal building maintenance, parks and open space maintenance, etc.), and shall include a schedule of inspections and record keeping requirements. The Permit also requires the City to implement a SWPPP for City material storage areas, heavy equipment storage areas and maintenance areas not covered by an NPDES Industrial Stormwater General Permit. Specifically, the Permit requires 95% of all City stormwater treatment and flow control facilities, except catch basins, be inspected at least once every two years with problem facilities inspected more frequently. In addition, spot checks of City stormwater treatment and flow control facilities are to be conducted after major storm events defined as storm events with a 10-year, 24-hour or greater recurrence interval. All City catch basins and inlets must be inspected and maintained if necessary, at least once by December 31, 2018, and every two years thereafter. In addition, the City must develop and implement a formal training program for all staff whose job functions may impact stormwater quality.

The City prepared an O&M Plan for municipal operation and maintenance activities and a SWPPP for the City Service Center in 2011 that specified pollution prevention and good housekeeping practices aimed at preventing and reducing water quality impacts. The O&M Plan specifies a schedule for inspection of the entire stormwater system with high priority facilities scheduled on an annual basis and low priority facilities on a two-year cycle. In 2014, the City cleaned all catch basins and inlets and collected data on each one for entry into the

City's GIS asset database. Data collection included the size of the grate; depth of the structure; and invert elevation and pipe diameter and material of the outlet pipe. Then in 2015, Operations staff returned and inspected all of the catch basins and inlets again to see how much sediment/debris had accumulated. Structures that had accumulated sediment to within six inches of the invert pipe were then designated high priority with all others designated as low priority. In 2016, the City re-initiated its normal maintenance program.

Catch basin and street sweeping debris is disposed of at the City's decant facility. The downtown core area, City-owned parking lots, and major arterial streets are swept weekly. The remaining minor arterials and residential streets are divided into six zones which are normally completed over the course of several days or a few weeks at a frequency of six to eight times per year.

Vehicle washing is performed at the City's Service Center in a covered facility and an uncovered basin with contained drainage to the sanitary sewer system. The vehicle wash basins and oil/water separators are inspected and cleaned quarterly by the Operations staff. Visual inspections of stormwater treatment and flow control facilities are made yearly. Spot checks are made during and after substantial storm events.

2022-23 Accomplishments

- Inspected and cleaned 1,291 and 2,017 catch basins and inlets during 2022 and 2023, respectively, out of a total known of 2,582.
- Annually inspected 84 City-owned stormwater treatment and flow control facilities.
- Conducted spot checks at City-owned stormwater facilities at least once annually.
- Followed the existing SWPPP for the City's Service Center facility by conducting quarterly inspections and cleanings of the critical features required by the plan.
- Implemented and followed the current O&M Plan for the City's MS4 by executing street sweeping; culvert inspections and cleanings; manhole and UIC drywell inspection and cleaning; and inspection and cleaning of storm laterals, mains, and infiltration galleries.
- Completed Refresher Training for all O&M maintenance crews in 2022 on the MS4 Permit, IDDE, the City-wide O&M Plan, and the Service Center SWPPP.

Activities Planned in 2024

Routine Maintenance

Stormwater facilities will be inspected and cleaned/maintained by O&M staff as described in Table 1 below except for maintenance activities associated with the bio-swales and infiltration basins which will be done by Parks Department staff as noted in table below. All high priority facilities in Categories 1-9 will be maintained first starting at the northeast corner of the City at the beginning of the year (weather permitting) and working by quarter section south and west

from there. After that, low priority facilities will be done starting again in the northeast corner of the city and working south and west until the prescribed percentage of facilities is reached. In following years, staff will pick up where they left off the previous year on low priority facilities until the scheduled maintenance cycle is completed. The current permit requires that all catch basins and inlets be inspected and cleaned, if required, to meet maintenance standards every two years.

TABLE 1

Facility Category	Maintenance Action Plan	Notes / Instructions
1. Inlets (w/< or = 6" sump) and downstream Laterals	Clean all High Priority	Change to Low if <1" sediment
	Clean 1/2 of Low Priority	Change to High if outlet pipe is blocked
2. Catch Basins (w/>6" sump) and downstream Laterals	Clean all High Priority	Change to Low if >6" to invert
	Clean 1/2 of Low Priority	Change to High if < or = 6" to invert
3. Bubbleups (outlet side w/< or = 6" sump)	Clean all High Priority	Change to Low if <1" sediment
	Clean 1/2 of Low Priority	Change to High if outlet pipe is blocked
4. Bubbleup Catch Basins (outlet side w/> 6" sump) and Barrel Bubbleups	Clean all High Priority	Change to Low if >6" to invert
	Clean 1/2 of Low Priority	Change to High if < or = 6" to invert
5. Drywells	Clean all High Priority	Change to Low if < or = 8" sediment
	Clean 1/2 of Low Priority	Change to High if > or = 24" sediment
6a. Drywell Manholes	Clean all High Priority	Change to Low if >6" to invert
	Clean 1/2 of Low Priority	Change to High if < or = 6" to invert
6b. Underground Infiltration Trenches assoc. w/Drywell Manholes with T or elbow	Clean at same time as Drywell Manhole if sediment w/in 6" of T or elbow or if it has an upstream cleanout catch basin	Change to High if w/in 6" of T or elbow. Change to Low if >6" to invert.
6c. Underground Infiltration Trenches assoc. w/Drywell Manholes without T or elbow	Clean at same time as Drywell Manhole	Change to High if < or = 6" to invert. Change to Low if >6" to invert.

Facility Category	Maintenance Action Plan	Notes / Instructions
7. Sedimentation Manholes	Clean all High Priority	Change to Low if >12" to invert
	Clean 1/2 of Low Priority	Change to High if < or = 12" to invert
8. CDS Units	Clean all annually	Schedule with SW Coordinator
9. Storm Laterals (Drain Collectors)	Cleaned at same time as upstream Inlet or Catch Basin	Priority changed if upstream Inlet or Catch Basin priority is changed
10. Storm Mains (Collectors)	Clean 1/5 of all	
11. Manholes, Outfall Manholes & Outflow Manholes	Clean at same time as upstream Storm Main Collectors	
12. Street Sweeping	Downtown Core Area, Major Arterials and Parking Lots 1X/wk	Weather Permitting
	Residential Streets (6 zones) 6-8X/yr	Weather Permitting
13. Roadside Ditches	Inspect all 2X/yr and remove Sediment and debris	
14. Culverts	Inspect all High Priority culverts 2X/wk during leaf season and after significant storm events. Clean inlet grates as needed and jet/rod if water impounded upstream. Low Priority culverts will be cleaned in reaction to flooding complaints.	
15a. Infiltration Basins:	Maintained by Parks Department	Includes mowing, trash removal, fertilizer/herbicide applications
15b. Boulders Pond Infiltration Basin (Cottonwood Rd.)	O&M staff removes accumulated sediment annually	
16. Bio-swales	Maintained by Parks Department	Includes mowing, trash removal, fertilizer/herbicide applications

Facility Category	Maintenance Action Plan	Notes / Instructions
17. Decant Facility	Operate in accordance with Decant Facility Operations Plan & WW County Health Department permit	
	Transfer decanted loads to landfill	
	Inspect and clean catch basins 4X/yr	
18. Weed Control	65 days/yr	
19. Oil/Water Separators - Wash Rack - Decant Facility - Fleet Services	 - Inspect and clean 4X/yr - Inspect and clean 4X/yr - Inspect and clean 4X/yr	

Recordkeeping

Streets Division maintenance staff will record all routine maintenance activities listed in the Stormwater O&M Work Plan for each facility they maintain when it is completed (except for street sweeping, culverts, and weed control which are discussed below). Maintenance staff record when the stormwater facility is cleaned/maintained using iPads with the Collector for Arc GIS application that maintains a historical record of all maintenance activities. If additional maintenance is required, it will be reported to the Streets Division Lead. Maintenance staff will also change the inspection priority on any specific facility from high to low, or vice versa, based on the criteria and standard specified under the Notes/Instructions column in the table above.

All waste from street sweeping and the Vactor trucks is deposited in the Decant Facility at the City's Service Center. Periodically, waste material is loaded into trucks and hauled to the City's Solid Waste Landfill where it is disposed of. All material deposited and removed is recorded by Streets maintenance staff on the Streets Waste Decant Facility Daily Operating Log sheets.

Records of culvert inspection and maintenance will be kept using a list of high priority culverts. Streets Division staff will record on the list when each culvert is inspected. The culvert inlet grate will be cleaned at the time of each inspection. When the entire list of high priority culverts has been inspected, the list will be provided to the Streets Division Secretary who will then enter the inspection dates into GIS as is done for other facilities. If the culvert needs to be jetted or rodded, it will be reported to the Streets Division Lead for follow-up action. When the culvert is jetted or rodded, it will be recorded in GIS on the laptop or tablet by the maintenance staff as is done for other facilities. The number of hours spent conducting weed control activities will be recorded on the daily activity log.

There is one additional requirement in the current Permit that the City will work on in 2024. That is a required update of the SWPPP for the City's Service Center and site specific SWPPPs to be implemented for all material storage locations, heavy equipment storage areas and any other locations where maintenance or vehicle washing occurs by December 31, 2022. Site-specific SWPPPs will be developed for the Sudbury Landfill, the Municipal Golf Course, and two fire stations. The creation and revision of these SWPPPs are also expected to be completed before the end of 2024.
The City will also review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new municipal operation and maintenance activities.

Section 8 – Compliance with Total Maximum Daily Load (TMDL) Requirements

Regulatory Requirements
Section S7. of the Permit specifies that affected Permittees shall comply with the specific requirements identified in Appendix 2 of the Permit for stormwater discharges from a Permittee's stormwater system. For the City, Mill Creek, Garrison Creek, Russel Creek and Yellowhawk Creek have all been listed as impaired for fecal coliform bacteria. The TMDL requirements prescribed in Appendix 2 of the Permit apply to all area served by the MS4 within the Cities of Walla Walla and College Place and of Walla Walla County.

TMDLs for the Walla Walla Watershed have been established and approved by EPA for chlorinated pesticides and polychlorinated biphenyls (PCBs), fecal coliform bacteria (FCB), temperature, pH, and dissolved oxygen. Ecology conducted a review of these TMDLs in 2014 to determine whether stormwater, including municipal stormwater sources, were identified in any of the TMDLs. Ecology did not identify any TMDLs with established load or waste load allocations for municipal stormwater discharges covered under the Permit at that time. Since then, Ecology has identified specific requirements for fecal coliform bacteria that Permittees must take action on during the current Permit cycle. They include:

- Provide an explanation of activities or work conducted to meet the new Permit requirements.
- Develop and implement a pet waste education program for residents of the City per the schedule in Section S5.B.1. of the Permit.
- Consider during SEPA review, the potential for projects to increase runoff and sources of fecal coliform, and the need for mitigation measures to reduce these adverse impacts to the MS4 and surface waters.
- Beginning August 1, 2020, annually select a minimum of two outfall locations suitable for sampling for bacteria and turbidity in the receiving water body at each outfall during

two separate storm events (in spring and fall). The data collected should be used to trace and remedy fecal coliform sources as part of the City's IDDE program.

- Beginning January 1, 2020, for each outfall drainage area investigated, submit a report to Ecology summarizing the testing results and outlining any efforts taken to reduce bacteria loadings to receiving surface water bodies.
- For any monitored outfall that has not shown improvement by June 2022, the City must also report to Ecology the actions it intends to take to further reduce or eliminate bacterial loadings through a basin wide approach of monitoring, detection and actions taken.

2022-23 Accomplishments

In 2022, the City continued efforts to satisfy the requirements of Permit Section S7.A and Appendix 2 by continuing outfall and creek sampling for fecal coliform bacteria and turbidity. The City initially selected two outfall and creek locations on Garrison Creek for sampling during the Spring and Fall 2022. However, sampling during the Spring 2022 was not completed. In an attempt to fulfill the sampling requirements, the City elected to sample the two Garrison Creek locations as well as two additional outfall and creek sampling locations on Yellowhawk Creek during the Fall 2022.

In 2023, the City continued outfall sampling for fecal coliform bacteria and turbidity. The City selected two outfall and creek locations on Garrison Creek. Samples were collected for fecal coliform bacterial and turbidity during storm events in May and December 2023.

The Engineering Division will continue to work with the Parks and Recreation Department to increase the number of pet waste stations in City Parks that are close to surface water bodies. The City continues to partner with Walla Walla County by participating in WWCORSG meetings to discuss monitoring strategies and follow up actions to bring more attention to the FCB TMDL and pet waste management in general in both jurisdictions. The City and County will continue to meet and consider how the City can both participate in a combined effort to educate the public and affect positive changes that can be measured in the future.

Finally, the City produced a report that summarizes the testing results, discusses sampling protocols, and describes the actions it intends to take to reduce bacterial loadings. The 2022 and 2023 TMDL Monitoring Report is provided as Appendix E to this document.

Activities Planned in 2024

The City and County will continue to meet on a regular basis to discuss results and plans to further reduce the FCB loading in drainage basins that the jurisdiction's share. The City has plans to purchase pet waste stations in 2024 and install them in locations within the Garrison

Creek basin where there is a high density of public trails in close vicinity to the creek. The City intends to work with the Walla Walla School District, City Parks Department, and local Homeowners Association (HOA) groups to get locations identified and stations installed. The City has decided to sample in Yellowhawk Creek in 2024 to get a better understanding of the higher than expected FCB sampling results experienced in 2022. The City intends to incorporate more sampling locations in the creek and further upstream in the drainage basin to help determine the if there is a specific location or area in the drainage basin that can be identified as a FCB source for cleanup. The City anticipate that the TMDL Sampling Plan will be updated in 2025 to reflect any changes during the year and that this exercise will become an annual event that gets submitted to Ecology as a part of the SWMP.

The City will also review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new TMDL requirements.

Section 9 - Monitoring and Assessment (SWMP Effectiveness Studies)

Regulatory Requirements

The Permit requires the City to include in each annual report, a description of any stormwater monitoring or stormwater-related studies conducted. The City is also required to collaborate with other Eastern Washington Permittees (EWPs) to select, propose, develop, and conduct at least one additional study during the 2019-2024 Permit cycle, approved by Ecology, to assess the effectiveness of stormwater management program activities and BMPs required by the Permit. The requirement of selecting and submitting a description to Ecology for approval is June 30, 2021. Following this, lead entities will develop and submit detailed study design proposals for study ideas to Ecology by September 30, 2022, for approval. A completed Quality Assurance Project Plan (QAPP) must be submitted before July 31, 2023. EWPs must begin to conduct their approved study on or before December 1, 2023, or within three months of receiving Ecology's approval of the QAPP. The studies must be completed following approval of the QAPP. The final results of each study are to be reported to Ecology with recommendations for future actions based on the findings within six months after completion of the study.

2022-23 Accomplishments

In June 2021, the City submitted a proposal to Ecology to conduct a new Effectiveness Study for Construction Site Access BMP Performance and completed an Ecology GROSS Grant application in July 2021 requesting funding to conduct the proposed Effectiveness Study. Neither the new Effectiveness Study Proposal nor the grant application were approved. As a backup, the City decided to partner with the Quad Cities (Richland, West Richland, Kennewick, and West Richland) and participate with them on their Non-Vegetated Filtration Swale Effectiveness Study that they proposed to Ecology. This proposal, along with a GROSS Grant for the funding

of the assessment, was approved by Ecology in September 2021. The City's Stormwater Coordinator participated as a member of the Technical Advisory Committee (TAC), Auditor, and Data Verifier for the study. Project meetings began in 2021 and continued through September 2022. Development of the QAPP was initiated in April 2022, submitted to Ecology for review and approval, and the QAPP finalized in June 2022. The effectiveness study was initiated in August 2022 and completed in January 2023. A final Technical Evaluation Report was prepared and submitted to Ecology in April 2023.

Activities Planned in 2024

- Planning and execution of the required stormwater management program effectiveness study was completed by the project partners during the current Permit term; no additional work is anticipated.
- The City will review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new monitoring requirements.

Section 10 - Reporting and Recordkeeping

Regulatory Requirements

The Permit requires the City to prepare and submit Annual Reports to Ecology by March 31 of each year. The reports must include the most current version of the City's SWMP Plan and status of compliance with the various conditions outlined in the permit for the previous calendar year. The Annual Reports must include: (1) a copy of the updated SWMP Plan for the current year; (2) the status of implementation of each SWMP component; (3) an assessment of the City's progress in meeting the minimum performance standards; (4) a description of activities implemented, including the number and type of inspections, enforcement actions, PE&O activities, and illicit discharges detected and eliminated; and (4) other reporting requirements. The Permit also requires the City to keep all records related to the Permit for at least five years, make those records available to the public and provide a copy of the most recent Annual Report to any individual or entity upon request.

2022-23 Accomplishments

The City has developed and continues to implement a formal on-going process for gathering, recording, maintaining, and using information to track the development and implementation of its SWMP. Recordkeeping procedures and processes are described for each SWMP component in the sections presented above.

The City was delayed in preparation and submittal of a 2023 SWMP Plan due largely to turnover in the Stormwater Coordinator position. The City has since submitted its 2022 and 2023 Annual

Reports and has prepared this updated SWMP Plan which describes Permit required activities completed during the 2022 and 2023 calendar years as well as planned activities for 2024.

Activities Planned in 2024

- Review the requirements of the new NPDES Permit and update the SWMP Plan to incorporate any new requirements.
- Prepare the 2025 SWMP Plan by March 31, 2025. The updated SWMP Plan will include all existing activities as well as any additional or new requirements based on the 2024 – 2029 Permit.
- Prepare and submit the 2024 Annual Report to Ecology by March 31, 2025.
- Post the 2024 Annual Report and 2025 SWMP Plan on City website by May 31, 2025.
- Make permit-related records and copies of the Annual Report available upon request.

Section 11 – UIC Program

Regulatory Requirements

As described in Section 1 of this plan, the UIC program requirements do not originate from the current NPDES Permit. This program is required by the federal SDWA and is intended to protect underground sources of drinking water from contamination by waste fluids, including the infiltration of polluted stormwater.

Ecology adopted revisions to the Washington State UIC Rule (Chapter 173-218 WAC) on January 3, 2006, which went into effect on February 3, 2006. In 2019, Ecology revised its technical guidance document for UIC wells entitled *2019 Updates to UIC Well Requirements* (February 2019, Publication #19-10-014) and updated the UIC well guidance and BMP requirements in the newly revised Stormwater Management Manual for Eastern Washington (SWMMEW) dated August 2019 (Publication #18-10-044).

UIC wells constructed on or after February 3, 2006, are considered new wells and must be registered prior to use. UIC wells used to manage stormwater that were constructed prior to February 3, 2006, are considered existing wells under the UIC regulation and have different requirements than new wells. Specifically, existing wells need to be registered (if not already registered) and a well assessment is required to determine if they pose a high threat to groundwater. The owner of a UIC well needs to submit documentation to Ecology, that shows the stormwater flowing to the UIC well does not pose a high threat to groundwater. Wells determined to be a high threat to groundwater (e.g., completed in groundwater) must be retrofitted or decommissioned to protect groundwater quality.

The City completed the registration of all new and existing City-owned UIC wells in December 2011. The registration process involved providing information on the location of each well (latitude and longitude), EPA well type, status of the well (active, closed, etc.), UIC construction type, depth of UIC well, proximity to surface water and drinking water wells, zoning, and proximity to a groundwater protection area. The bottom of each UIC well is required to be at least five feet above the seasonal high groundwater level.

In November 2012, the City hired a consulting firm (URS Corporation) to develop a risk-based UIC assessment methodology which was applied to all UIC wells within the City. This methodology utilized information such as local soil conditions (soil type, treatment capacity, etc.), groundwater depths, land use, critical/sensitive areas, and existing/proposed source control activities. This work was documented in the Assessment of Underground Injection Control Facilities and completed in December 2013. The report identified: (a) six existing UIC wells determined to have a high risk to groundwater that require retrofitting or decommissioning; (b) four existing UIC wells that pose a moderate risk and recommended for longer term retrofits; and (c) an additional 89 new and existing UIC wells identified as potentially having less than one foot of separation between the bottom of the structure and the estimated seasonal high groundwater elevation that require further investigation and monitoring to confirm or update their preliminary risk level.

Since 2014, the City has been registering all newly constructed or discovered UIC wells according to the WAC 173-218 and Ecology's UIC Program. Additionally, the City has been annually inspecting and monitoring the initial list of 99 UIC wells to determine what steps need to be taken in order to be protective of groundwater quality. By 2019, the original list of 99 UIC wells had been narrowed down to 35, with remaining UIC wells in the moderate and low risk category. These remaining UIC wells were inspected and monitored by the City during 2020.

By 2021, the City had reduced the total number of UIC wells under observation from 35 to 21. The 14 UIC wells eliminated had been under observation since 2013 with no appreciable standing water noted during inspections. Due to severe drought conditions experienced in 2021, staff were not able to perform the regular inspections of these structures during the spring; however, they were inspected during the fall and winter of 2021.

The City also inspects UIC wells as part of its annual outfall inspection program for illicit discharge detection as well as inspections related to the Operation & Maintenance (O&M) Plan scheduled cleaning routine. For more information on the 2022 UIC Inspections summary, please see Appendix F at the end of this document.

2022-23 Accomplishments

Annual inspections of the remaining 21 UIC wells under observation was completed during 2022. However, these same UIC wells were not visually inspected during 2023 due largely to turnover in the City's Stormwater Coordinator position.

In 2022, a total of 23 additional UIC drywells were inspected as part of the annual outfall inspection program for illicit discharge detection and O&M Plan scheduled cleaning routine; however, the actual number of structures inspected and cleaned are unknown due to a loss in data due to software issues.

In 2023, no UIC drywells were inspected as part of the annual outfall inspection program for illicit discharge detection. However, a total of 252 UIC drywells were inspected as part of the O&M Plan scheduled cleaning routine.

For more information on the 2022 UIC well inspections, please see Appendix F at the end of this document.

Activities Planned in 2024

- Review available geotechnical information on seasonal high groundwater levels on projects in vicinity of the existing UIC wells identified on the monitoring list to help determine the seasonal high groundwater level.
- Visually inspect UIC wells on the monitoring list, including those that should have been inspected in 2023, between March and May.
- Update the risk level for the UIC wells on the monitoring list.
- Update inventory of UIC wells with registration status and risk assessment.
- Revise the City's Capital Facility Plan to include any UIC wells that are determined to pose a high risk to groundwater.

Section 12 – Administration of the Stormwater Utility

Regulatory Requirements

There are new Permit requirements for this component of the program. This component includes establishment of stormwater utility rates, the rate structure and policy, the methodology for determining stormwater utility fees for properties as well as the calculation of stormwater utility fees for properties. In addition, Section S5.A.6.b. of the Permit requires that the SWMP Plan include a description of the coordination mechanisms that the jurisdiction uses to eliminate barriers to compliance with the Permit. For more information on a Summary of

Internal and Intergovernmental Coordination, please see Appendix G at the end of this document.

The City adopted a stormwater utility ordinance (Ord. 1999-32) on November 17, 1999, that set forth policies and the rate structure for the stormwater utility. This ordinance is codified in the WWMC Chapter 13.06. Based on this, the stormwater utility fee assessed against each parcel is based on the amount of impervious surface on the parcel. The utility rate is based on Equivalent Residential Units (ERUs), which equals 3,000 square feet of impervious surface area (ISA). All parcels developed as single-family residences are charged a flat rate of one ERU. The rates for multi-family residential parcels with four or fewer units are charged at a rate of one-half ERU per unit. For all other properties, the amount of ISA on the parcel is measured and divided by 3,000 to determine the total number of ERUs or billing units for that parcel.

When the utility was established, an inventory of all properties with more than four residential units was completed and ISA measurements were performed using aerial photography. No credits were applied initially for on-site stormwater facilities and it appears that some types of of ISA (e.g., compact gravel) were not included in the calculations. As new development or redevelopment occurred, ERUs were to be recalculated but it appears this was not completed in all cases. Standard Operating Procedures (SOPs) were developed in 2016 to formalize this process. The methodology used to give credit for on-site stormwater facilities was time-consuming and only applied to non-residential properties. The City Council adopted an ordinance in November 2019 which abolished the process of providing stormwater rate credits to non-residential customers and directed staff to implement a 5-year phase-in process for re-assessing all existing non-commercial customers. Direction was also given to base the assessments on parcel ownership instead of water meter accounts.

Aerial photography of the City was updated in 2022 and the recalculation of all ISA on non-residential properties was started in 2023 and is expected to be completed in 2024. The City also migrated its accounting and utility billing software platform from EDEN to MUNIS allowing the City to assess stormwater utility fees on a parcel ownership basis.

In addition, the City hired a consultant in 2021 to facilitate the rate analysis and development of recommendations for changes in the utility rate structure and policy for the 2022-2027 cycle. Based on the study outcome, the City decided not to increase stormwater utility fees during the upcoming 2022-2027 cycle. Instead, the City continued efforts to update ISA measurements for non-residential properties and complete the software migration process, as described above, resulting in a more equitably structured stormwater utility fee system.

2022-23 Accomplishments

In 2023, the City began the process of recalculating all ISA on non-residential properties. This process is estimated to be completed in 2024.

Activities Planned in 2024

- Continue the process of recalculating all ISA on non-residential properties.
- The City will review the new NPDES Permit upon becoming final and effective, and update the SWMP Plan to incorporate any new administrative requirements.

Section 13 – Capital Improvement Projects

Regulatory Requirements

There are no regulatory requirements for this component of the program.

The City completed its Comprehensive Stormwater Management Plan in 2015. The Plan identified capital improvement projects to address problem drainage areas, replacement of substandard catch basins, and UIC retrofit projects that need to be completed. These were included and prioritized in a six-year Capital Facilities Plan. In addition, a few areas were identified during this process where the stormwater system was discharging to the sanitary sewer.

The City has also been working to reduce direct discharges to surface waters by constructing new stormwater infiltration facilities as part of the Infrastructure Repair and Replacement Program (IRRP) as well as projects associated with the Transportation Benefit District (TBD).

Activities Completed in 2022-23

- Project completed in 2022 include:
    - Pine Street from 2nd Avenue to 9th Avenue. Included design for stormwater infiltration, including construction of a pond at the 5th Avenue intersection and roadway replacement.
    - Plaza Way from Village Way to Taumarson Road. Included design for stormwater infiltration from road reconstruction.
    - Constructed 2,988 lineal feet of storm sewer as part of new infrastructure in City.
    - Replaced 5,115 lineal feet of storm sewer throughout City.
- Projects completed in 2023 include:
    - Alder/Poplar Street. Included construction of roundabouts and improved stormwater collection and conveyance systems.

- Poplar Street from Colville Street to 5th Avenue. Included construction of stormwater improvements to provide additional treatment and infiltration capacity.
- Chestnut Street from 2nd Avenue to Howard Street. Included construction of stormwater infrastructure improvements as part of IRRP project.
- N. Clinton stormwater improvements. Included installation of catch basins and infiltration system to address ponding between E. Sumach Street and Highway 12.
- Added 2,484 lineal feet of storm sewer as part of new infrastructure in City.
- Replaced 3,225 lineal feet of storm sewer throughout City.

Activities Planned in 2024

- 2nd Avenue Pavement Restoration. Project to construct stormwater improvements at Baumeister Drive intersection.
- 5th Avenue Bridge over Mill Creek. Project to add two stormwater infiltration swales after removal of bridge and converting area into a small park.
- Clinton-Juniper Street IRRP project. Project to construct various stormwater improvements.

APPENDIX A

Public Education and Outreach / Training Activities Calendar 2022-23

Appendix A - Public Education & Outreach / Training Activities Calendar - 2022

Date(s)	Event	Presenters	Target Audience	Description
30-Mar	Bioswales & Storm Water Management Discussion with Whitman College Environmental Studies Class	Stormwater Coordinator	Approximately 20 Whitman College students	Met with students at Isaacs Ave classroom to discuss bioswales and storm water management. Discussed Pet Waste Management, Car Washing and Other Sources of Pollution that Influence Pond Design and Maintenance.
May 16-18	National Public Works Week	Stormwater Coordinator	Elementary students from 3 local schools	Stormwater presentation on preventing pollution: not dumping down drains, recycle, do not litter, dispose of pet waste, wash cars on grass, sweep up spills on sidewalks or driveways. Water Cycle illustration.
Aug 3	National Night Out - Booth in Pioneer Park	Stormwater Coordinator and Walla Walla County Stormwater Group	Approximately 1,500 residents	National Night Out Celebration in Pioneer Park - provided pet waste baggies, 811 notebooks, displayed posters about simple steps to clean water, talked with residents.
Jul 23	Utility Bill Insert for Healthy Household Habits	Stormwater Coordinator	Resident property owners & tenants	Utility Bill insert highlighting 'Healthy Household Habits for Clean Water' including Don't Drip and Drive, proper yard waste management, pet waste management, and using a commercial car wash instead of washing your car at home.
Sept 15	Neighborhood Block Party Washington Park	Stormwater Coordinator	Approximately 200 residents	Set up booth in Washington Park to discuss local street project on Pine Street and recycling tips.
Sept 25	Utility Bill Insert for Not Polluting Storm Drains	Stormwater Coordinator	Resident property owners & tenants	Utility bill insert regarding draining pools to lawns or sanitary sewer and not to the street that storm drains outfall directly to creeks without any treatment.
Nov 3	Bioswales & Storm Water Management Discussion with Whitman College Environmental Studies Class	Stormwater Coordinator	Approximately 20 Whitman College students	Met with students at Isaacs Ave classroom to discuss bioswales and storm water management. Discussed Pet Waste Management, Car Washing and Other Sources of Pollution that Influence Pond Design and Maintenance.

Appendix A - Public Education & Outreach / Training Activities Calendar - 2023

Date(s)	Event	Presenters	Target Audience	Description
May	Utility flyer with Dos and Don'ts of Pool Cleaning	Stormwater Coordinator	Resident property owners & tenants	Monthly utility bill insert which provided residents with information on how to properly drain their swimming pools or spa.
May 13	Return to the River Salmon Festival	Stormwater Coordinator	Resident property owners & tenants	Had a stormwater booth with a watershed/nonpoint source model which showed attendees how storm water runoff carries pollutants through the watershed to a pond, lake, river, bay, or ocean and the best management practices to prevent this type of pollution from occurring.
May 22 & 23	Public Works Week	Stormwater Coordinator	Elementary Students, Grade 3	Provided a presentation to 3rd graders from four elementary schools in Walla Walla regarding "only rain down the drain".
June 5	Letter for Pool Owners Regarding Dos and Don'ts of Pool Cleaning	Stormwater Coordinator	Resident property owners & tenants	This letter reminded pool and spa owners/sevice providers that water from swimming pools and spas may not be discharged into City streets. Provided information on how to properly drain pools and what is and isn't allowed.
August 1	National Night Out Parade for Law Enforcement & Public Works Vehicles	Stormwater Coordinator	Approximately 1,500 residents along 50 miles of Parade Route	National Night Out Parade through City of Walla Walla, Walla Walla County, and College Place displaying "Only Rain Down the Drain" messaging on the City Street Sweeper to 44 Neighborhoods in Walla Walla. Manned a booth with stormwater coordinators from City of College Place and Walla Walla County. Discussed stormwater pollution prevention, handed out 2,000 dog waste bags (100 rolls of 20 bags), 100 coloring books, 28 boxes of crayons, hundreds of pet waste and general pollution prevention, and Stormwater FAQ brochures.
August 24	City of Walla Block Party	Stormwater Coordinator	Resident property owners & tenants	Had a stormwater booth with a watershed/nonpoint source model which showed attendees how storm water runoff carries pollutants through the watershed to a pond, lake, river, bay, or ocean and the best management practices to prevent this type of pollution from occurring.

APPENDIX B

Public Involvement Activities
Calendar 2022-23

Appendix B - Public Involvement Activities Calendar - 2022

Date(s)	Event	Presenters	Target Audience	Description
1.19.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared slides regarding the purpose for his attendance & meeting contributions: MS4 permit requires public invovlement, path for communication for all SW issues & questions, provide MS4 permit & SW Manual refreshers.
2.16.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack report, WWTP discussion.
3.16.22	EWA Stormwater Management Manual and General Construction Stormwater Permit Training	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Updates on SWMP for 2022,WW Regional Airport monthly rainfall graph, snowpack at 83%.
4.20.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared 2022 SWMP and 2021 Annual Report.
5.18.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	UIC drywells & WASWD Appeal follow-up, snowpack report/drought.
6.15.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack Report/Flood.
7.20.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared rainfall graph.
8.17.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared rainfall amounts, funded two additional Ecology FY23 SW Grants.
9.21.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	SW CIP project soonon Clinton St.

Appendix B - Public Involvement Activities Calendar - 2023

Date(s)	Event	Presenters	Target Audience	Description
1.18.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Grants update, Staffing updates, WWTP Regionalization update
2.15.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, new SW coordinator, USFS Tiger-Mill Project
3.15.23	EWA Stormwater Management Manual and General Construction Stormwater Permit Training	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, precipitation update
5.17.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, USFS Tiger-Mill Project, Spring Study Agrnda for Mill Creek watershed discussed
6.21.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, stream levels, water usage discussed
10.18.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	UGA water & sewer expansion, WWTP projects update, 2nd Ave gas leak update
11.15.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Watershed Open House at Whitman, WWTP projects, 2nd Ave gas leak update
12.20.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	UGA water & sewer expansion, WWTP projects update, 2nd Ave gas leak update, District water metering, 2050 conservation meeting discussed for 2024

APPENDIX C

Illicit Discharge Log 2022-23

Appendix C - Illicit Discharge Log - 2022

Discharge Site	Property Owner	Responsible Party/Parties	Previous Discharger and When	Date Reported	Reported by	Date Investigated	Illicit Discharge Confirmed	Discharge Composition	Discharge to Storm or Surface Waters?	Action Taken	Resolved	Date Resolved
320 Coyote Ridge Drive	Chris Nulph	Landscape company	Unknown	11/17/2022	Leah Rohan City Eng.	11/17/2022	Yes	Wash water/sediment	Yes, to storm drain	homeowner to have company clean up	Yes	11/17/2022
21 E. Main Street	John T Saul	Andrea Bopp (AK's Mercado Restaraunt)	No	2/7/2022	Annonymous Person	2/7/2022	Yes	Grease or fat that discharged from industrial meat smoker located in parking lot behind the building	Yes	Spoke with restaurant owner. Cleanup was done but soap and water was used and this process water was washed directly in to private CB that drains into Mill Creek.	Yes	2/9/2022
421 S. 3rd Ave	WWPS District	Lincoln High School Redevelopment Chervenell Construction	No	2/7/2022	Stormwater Coordiantor, discovered while responding to another ID call	2/7/2022	Yes	Track out of concrete slurry/sediment into MS4on S 3rd Ave. Sediment laden wash water flowing out of parking lot and into MS4 on S 4th Ave.	Yes	Sent email to CSWGP permittee to stop these practices and clean up street ASAP.	Yes	2/9/2022
1603 S Wilbur Ave	City of Walla Walla	Unknown Construction Contractor	No	2/8/2022	Convenience Store Employees	2/8/2022	Yes	Approximately 5 gallons of hydraulic fluid	No	City Crews responded with absorbnet material and Street Sweeper to sweep up the dried absorbent material.	Yes	2/8/2022
1627 Evergreen Street	Walla Walla Housing Authority	M.C. Lundgren, Inc. and various subcontractors	No	2/9/2022	Brian Morgenroth	2/9/2022	Yes	Sediment Trackout from construction site	No	Notified Ecology SW Inspector about violation. Sent email to CSWGP permittee to stop these practices and clean up street ASAP.	Yes	2/11/2022
244 Malcolm Street	Gary Witherspoon	Owner & Tenant	No	5/3/2022	Travis Rakestraw	5/3/2022	Yes	Sewage	No	City crews responded with Vactor to clean sewer main and plug storm pipe out of CB in street.	Yes	5/3/2022
46 Ransom Road	Kip Kelly	Jackson Contracting Group	No	9/16/2022	Brian Morgenroth	9/16/2022	Yes	Either hydraulic fluid or deisel oil from construction equipment parked on the asphalt road	No	Sent email to property owner to have contractor cleanup the spill.	Yes	0919/2022

Appendix C - Illicit Discharge Log - 2023

Discharge Site	Property Owner	Responsible Party/Parties	Previous Discharger and When	Date Reported	Reported by	Date Investigated	Illicit Discharge Confirmed	Discharge Composition	Discharge to Storm or Surface Waters?	Action Taken	Resolved	Date Resolved
502 N. 13th Ave	Koncrete Industries	Owner	Yes, 2017	1/12/2023	Travis Rake, Streets Div		No	Reported as sediment-laden surface runoff from property to street	No	Made record of report for follow-up by Stormwater Coordinator when hired	Yes	unknown, presume 1/12/23
509 Main St.	Barbara Whatley	Property Owner	Yes, 2022	3/13/2023	Steve Kelley, Stormwater Coordinator	3/13/2023	Yes	Food mobile waste/grease & food	Yes. Discharge drained into a drywell located on the owner's private property	Notified property owner of discharge. Owner hired a third party to clean and remove waste from the drywell.	Yes	3/28/2023
Newell St./2nd Ave.	Koncrete Industries	Owner	Yes, 2023	4/28/2023	Steve Kelley, Stormwater Coordinator	4/28/2023	No	Concrete mix spill	No	Roads swept	Yes	5/2/2023
Poplar Alder Project	Koncrete Industries	Owner	Yes, 2023	3/21/2023	Steve Kelley, Stormwater Coordinator	3/21/2023	No	Concrete - red ready mix	No	Roads swept	Yes	3/21/2023
Second Ave/Park St.	Culbert Construction	Owner	Unknown	3/21/2023	Steve Kelley, Stormwater Coordinator	3/21/2023		Red concrete dye powder, dry	No	Roads swept	Yes	unknown, presume 3/21/23
620 Chase Ave	Unknown	Owner	Unknown	1/24/2023	Leah Rohan, City Eng.	1/24/2023	Yes	sewage	No	City staff cleaned are & jetted line	Yes	1/24/2023
708 Edith	Janette Garcia	Owner	Unknown	2/2/2023	Leah Rohan, City Eng.	2/2/2023	Yes	sewage, toilet paper	No	Called home owner, no response to many attempts to contact	unknown	unknown, presume 2/2/23
109 S Palouse St	251 E. Poplar	Owner	Unknown	9/22/2023	Leah Rohan, City Eng.	9/22/2023	Yes	sewage	Yes, to catch basin	jetted line, found gravel blockage in line	Yes	9/22/2023

APPENDIX D

Outfall Reconnaissance Inventory (ORI) Summary 2022-23

Appendix D 2022 Outfall Inspection Program Summary

Creek	# of Outfalls Inspected	# of City-Owned Outfalls Inspected	# of Illicit Discharges Detected	
Stone	11	10	0	
College	7	7	0	
Titus	2	2	0	
Barber	2	2	0	
Other Creek(s)	0	0	0	
Total # of Outfalls Inspected	22	21	0	

Permit Section S5.B.3.c.iv requires 12% on average of the City's outfalls to be screened each year.

Through a combination of GIS analysis and inventory spreadsheets, outfalls are identified by the creek drainage basin where they are located. The basins are then parsed out over the 5-year duration of the Permit so that approximately 12% of the outfalls are inspected annually. The exception is Mill Creek which contains approximately 40% of the City's outfalls. The schedule for outfall inspections over the current 2019-2024 Permit cycle is as follows:

Year to be Completed	Creek Basin	Percentage of MS4
2019	Butcher, Barber, Owen Spring	12%
2020	Bryant, Lincoln	12%
2021	Garrison, Kathy	12%
2022	Stone, College, Titus	12%
2023	Yellowhawk, Russell, Caldwell, Peter Spring**	12%
2024	Mill	40%

**Mill Creek outfalls may be started in 2023.

Appendix D 2023 Outfall Inspection Program Summary				
Creek	**# of Outfalls Inspected**	**# of City-Owned Outfalls Inspected**	**# of Illicit Discharges Detected**	
Mill	55	12	0	
Other Creek(s)	0	0	0	
Total # of Outfalls Inspected	55	12	0	

Permit Section S5.B.3.c.iv requires 12% on average of the City's outfalls to be screened each year.

Through a combination of GIS analysis and inventory spreadsheets, outfalls are identified by the creek drainage basin where they are located. The basins are then parsed out over the 5-year duration of the Permit so that approximately 12% of the outfalls are inspected annually. The exception is Mill Creek which contains approximately 40% of the City's outfalls. The schedule for outfall inspections over the current 2019-2024 Permit cycle is as follows:

Year to be Completed	Creek Basin	Percentage of MS4
2019	Butcher, Barber, Owen Spring	12%
2020	Bryant, Lincoln	12%
2021	Garrison, Kathy	12%
2022	Stone, College, Titus	12%
2023	Yellowhawk, Russell, Caldwell, Peter Spring**	12%
2024	Mill	40%

**Mill Creek outfalls may be started in 2023.

APPENDIX E

Total Maximum Daily Loading (TMDL) Monitoring Report 2022-23

APPENDIX E

City of Walla Walla
2022-23 TMDL Monitoring Report

for

National Pollution Discharge Elimination System (NPDES)
Eastern Washington Phase II Municipal
Stormwater Permit WAR046508

Prepared by: City of Walla Walla Engineering Department
Dara Osborne, Stormwater Coordinator

March 2024

1.0 Overview

This Total Maximum Daily Loading (TMDL) Monitoring Report (Report) has been developed by the City of Walla Walla (City) to meet the requirements specified in the Eastern Washington Phase II Municipal Stormwater Permit (Permit) issued by the Department of Ecology (Ecology) for the period effective August 1, 2019 and expiring July 31, 2024. This Report describes actions taken to sample surface water and stormwater runoff within the City of Walla Walla's (City's) Permit coverage area and to satisfy Special Condition S7.A and Appendix 2 – *Total Maximum Daily Load Requirements (TMDLs)* of the Permit. Specifically, the Permit identifies fecal coliform bacteria (FCB) as a pollutant having an approved TMDL that the City needs to characterize and evaluate. This report provides a description of the monitoring conducted during 2022 and 2023, how the sampling and monitoring data was assessed, and what follow-up actions will be taken by the City to fulfill the conditions of the Permit.

The sampling and monitoring data collected by the City during 2022 and 2023 was reviewed and analyzed and then submitted to Ecology as part of the annual reporting process. This data was also shared with other regional stormwater permittees, including Walla Walla County and the City of College Place, since these permittees have similar Permit requirements and have adjoining jurisdictional boundaries that are crossed by the receiving water bodies (RWBs) monitored. The sampling and monitoring data will also assist the City in ongoing assessment of the RWBs within its jurisdiction to identify sources of FCB and to adaptively manage the Stormwater Management Plan (SWMP) to reduce or limit FCB levels to meet TMDL target reductions. The long-term goal of this document is to provide guidance on how the City will continue to collect pollutant data for this Permit cycle and provide a template for collecting data for other pollutants of concern should it become necessary.

2.0 Permit Requirements

Section S7. of the Permit specifies that affected permittees shall comply with the specific requirements identified in Appendix 2 of the Permit for stormwater discharges from the permittee's municipal separate storm sewer system (MS4). For the City, Mill Creek, Garrison Creek, Russell Creek, and Yellowhawk Creek have all been listed as impaired for fecal coliform bacteria. The TMDL requirements prescribed in Appendix 2 of the Permit apply to all areas served by the MS4 within Walla Walla County and the cities of Walla Walla and College Place.

TMDLs for the Walla Walla Watershed have been established and approved by EPA for chlorinated pesticides and PCBs, fecal coliform bacteria, temperature, and pH and dissolved oxygen. Ecology conducted a review of these TMDLs in 2014 to determine whether stormwater, including municipal stormwater sources, were identified in any of the TMDLs. Ecology did not identify any TMDLs with established load or waste load allocations for municipal stormwater discharges covered under the Permit at that time. Since then, Ecology has identified specific requirements for fecal coliform bacteria that permittees must take action on during the current 2019-24 Permit cycle. They include:

- Provide an explanation of activities or work conducted to meet the new Permit requirements.

- Develop and implement a pet waste education program for residents of the City per the schedule in Section S5.B.1. of the Permit.
- Consider during SEPA review, the potential for projects to increase runoff and sources of fecal coliform bacteria, and the need for mitigation measures to reduce these adverse impacts to the MS4 and surface waters.
- Beginning on August 1, 2020, annually select a minimum of two outfall locations suitable for sampling for fecal coliform bacteria and turbidity in the receiving water body at each outfall during two separate storm events (in spring and fall). The data collected should be used to trace and remedy fecal coliform bacteria sources as part of the City's IDDE program.
- Beginning January 1, 2020, for each outfall drainage area investigated, submit a report to Ecology summarizing the testing results and outlining any efforts taken to reduce bacteria loadings to receiving surface water bodies.
- For any monitored outfall that has not shown improvement by June 2022, the City must also report to Ecology the actions it intends to take to further reduce or eliminate bacterial loadings through a basin wide approach of monitoring, detection, and actions taken.

3.0 Monitoring Requirements

Appendix 2 of the Permit does not stipulate the method of sampling to be used for Permit compliance. After discussing these details with Ecology, it was decided that grab sampling methods would be used to collect samples for fecal coliform bacteria and turbidity. Appendix 2 required sampling for fecal coliform bacteria and turbidity in the RWB at each outfall during two separate storm events. The City also decided to collect an additional sample from the flow coming out of the pipe outfall in order to better characterize the loadings to the RWB and aide in tracing any sources that may be contributing to the outfall. Grab samples for fecal coliform bacteria and turbidity followed Ecology's *Collecting Grab Samples from Stormwater Discharges, Standard Operating Procedure Version 1.1, July 2018*.

4.0 Testing Methods

Since the testing of FCB in water samples requires the use of an incubator for 24 hours before the testing is complete, the City requested assistance from the Laboratory at the City's Wastewater Treatment Facility. The Laboratory staff agreed to accept our samples for testing and provide the sample bottles needed to collect and transport the samples back to the Laboratory. The testing method used was the Fecal Coliform Membrane Method or Standard Method 9222 D (m-FC)-2006. Proper sample handling methods per the Laboratory's Standard Operating Procedures (SOPs) were discussed with Laboratory staff and implemented during sample collection. Staff worked together to create a Chain of Custody (CoC) for the samples to ensure proper handling in the field and at the Laboratory. These procedures included keeping the samples cold while being transported to the Laboratory and not exceeding the 8-hour maximum holding time between sample collection and delivery to the Laboratory.

In 2022, turbidity measurements were performed in the field using a Secchi Tube and accomplished by taking a separate sample of stream flow or pipe flow water after samples for FCB were taken. The method of measurement followed the methods outlined in Ecology's *Illicit Connection & Illicit Discharge Field Screening and Source Tracing Guidance Manual, May 2020 Revision.* In 2023, turbidity measurements were performed at Wastewater Treatment Plant Laboratory using a Hach TU5200 Turbidimeter following SM 2130 B (2011).

Laboratory Logistical Challenges

Limited working hours at the Wastewater Treatment Laboratory and the 8-hour maximum holding time for FCB samples presented several of the challenges that limited the storm event that could be sampled. Other challenges included:

- No sampling on Fridays, Saturdays, Sundays, or holidays.
- Pre-sampling check-in with Laboratory staff to ensure that FCB samples could be accepted.

Physical Logistical Challenges

There are several challenges to consider before choosing a location to conduct sampling including: (a) physical access to the stream and outfall; (b) outfall contributing basins size and amount of rainfall required to produce a measurable amount of runoff at the outfalls selected for sampling; and (c) general safety considerations, including time of day, lighting, and visibility requirements in order to collect stream and outfall samples.

5.0 Sampling Results

2022 Sampling Results

Outfalls selected for sampling in 2022 included: (1) Garrison Creek at Fern Avenue (STC818-013), the downstream site and (2) Garrison Creek at Whitman Street (STO818-030), the upstream site. In addition, two outfalls on Yellowhawk Creek were sampled in 2022 including: (1) Yellowhawk Creek at Plaza Way (STO515-066-01), the downstream site and (2) Yellowhawk Creek at Fern Ave (SFC617-002-01), the upstream site.

The City continued to use the rainfall information collected and published by the National Weather Service (NWS) at the Walla Walla County Regional Airport (USW00024160) as the gage of record for all rainfall data collection and decision making on sampling. Both Garrison Creek and Yellowhawk Creek are diversion-source creeks that are controlled by a diversion gate owned and operated by the US Army Corps of Engineers (ACOE) located on Mill Creek just upstream of City limits. Daily stage and flow readings for each creek sampled were provided by ACOE staff.

Four grab samples were collected on November 1, 2022 in an attempt to satisfy the sampling requirements; however, only one sampling event took place for the year instead of the required two events. FCB sampling results and the associated storm event data are summarized in Table 1 and Table 2 below.

2022 Fecal Coliform Bacteria & Turbidity Sampling Results

Table 1

Date	Parameter (units)	Yellowhawk Creek @ Fern Ave		Garrison Creek @ Fern Ave	
		Outfall	Creek	Outfall	Creek
11/1/2022	FC (CFU/100mL)	440	275	430	320
11/1/2022	Turbidity (NTUs)	NDA	NDA	17	<12
		Yellowhawk Creek @ Plaza Way		Garrison Creek @ Whitman Ave	
11/1/2022	FC (CFU/100mL)	960	370	>2000	440
11/1/2022	Turbidity (NTUs)	NDA	NDA	27	<12

*NDA = No data available

Table 2

Event Date	Flow (cfs) at Diversion	Rainfall (in) previous 24 hrs	Rainfall (in) previous 48 hrs
11/1/2022 - GC	20.2	0.23	0.23
11/1/2022 - YC	20.2	0.23	0.23

Creek flow measurements were obtained from the ACOE for Garrison and Yellowhawk Creek at the diversion location from the Mill Creek channel. Rainfall totals were obtained from the National Weather Service (NWS) at the Walla Walla Regional Airport.

2023 Sampling Results

Outfalls selected for sampling in 2023 included: (1) Garrison Creek at Fern Avenue (STC818-013), the downstream site and (2) Garrison Creek at Whitman Street (STO818-030), the upstream site. The City continued to use the rainfall information collected and published by the National Weather Service (NWS) at the Walla Walla County Regional Airport (USW00024160) as the gage of record for all rainfall data collection and decision making on sampling. Daily stage and flow readings for Garrison Creek was provided by ACOE staff.

Two grab samples were collected on May 3 and December 7, 2023 to satisfy the sampling requirements. FCB sampling results and the associated storm event data are summarized in Table 3 and Table 4 below.

2023 Fecal Coliform Bacteria & Turbidity Sampling Results

Table 3

Date	Parameter (units)	Garrison Creek @ Fern Ave		Garrison Creek @ Whitman Ave	
		Outfall	Creek	Outfall	Creek
5/3/2023	FC (CFU/100mL)	< 1	NDA	< 1	NDA
5/3/2023	Turbidity (NTUs)	31.6	NDA	62.2	NDA
12/7/2023	FC (CFU/100mL)	< 1	1684	< 1	25
12/7/2023	Turbidity (NTUs)	0.41	3	1.8	2.4

*NDA = No data available

Table 4

Event Date	GC Flow (cfs) at Diversion	Rainfall (in) previous 24 hrs	Rainfall (in) previous 48 hrs
5/3/2023	288	0	Trace
12/7/2023	255	0.18	0.18

6.0 Conclusions and Follow Up Actions

FCB had a fresh water/surface water quality standard in Washington that was phased out by Ecology in 2020. The Permit and Appendix 2 references and requires that the City sample for FCB. Discussions with Ecology staff in 2020 clarified that FCB should be sampled per the Permit requirements; therefore, the City will be using the latest state water quality standards on FCB before the phase out. Based on the information provided in Ecology's *Illicit Connection & Illicit Discharge Field Screening and Source Tracing Guidance Manual, May 2020 Revision,* State Water Quality Standards (SWQS) for a single value measurement is 200 CFUs/100ml and the recommended range for further investigation and indicator sampling is 500 to 1,200 CFUs/100ml. In addition, the SWQS for turbidity is 5 to 10 NTUs above background when background is ≤50 NTUs or 10 to 20% above background if background readings are >50 NTUs. Likewise, the recommended threshold for further investigation and indicator sampling is >50 NTUs (19 centimeters on the Secchi Tube).

After reviewing the results of the tests and the information summarized in Ecology Publication No. 08-10-094, *Walla Walla Watershed PCBs, Chlorinated Pesticides, Fecal Coliform, Temperature, pH, Dissolved Oxygen Total Maximum Daily Load; Water Quality Implementation Plan,* the following conclusions were made for 2022:

2022 Season

1. Standard operating procedures for sampling and good laboratory procedures for sample handling and testing were followed based on the sampler's and laboratory's backup documentation; therefore, the results of the tests appear to be accurate based on protocol and procedure.
2. Test results appear to be reasonable and logical by nature.

3. All FCB test results from Garrison Creek and Yellowhawk Creek and all outfall samples were above 200 cfu/100ml which is the State Water Quality Standards for a single value sample. These results suggest further investigation is needed into sources of fecal coliform in Garrison Creek and Yellowhawk Creek.
4. The *Water Quality Implementation Plan* listed target reductions in Garrison Creek (at the mouth) to be 81% and Yellowhawk Creek (at the mouth) to be 42%. When comparing the results of the sampling done in 2002-03 with the results from 2022, no conclusions can be made on whether any reductions in FCB levels have been achieved. This can mainly be attributed to the lack of data.
5. The outfalls tested on Garrison Creek and Yellowhawk Creek appear to be significant contributors of FC based on the results from the one sampling event. Subsequent sampling at these outfalls is recommended in order to establish this conclusion more firmly with data.
6. Turbidity measurements in Garrison Creek were relatively low and do not indicate the presence of any sources of bank erosion or construction related erosion in the reaches above the sampling locations.

2023 Season

After reviewing the results of the tests and the information summarized in Ecology Publication No. 08-10-094, *Walla Walla Watershed PCBs, Chlorinated Pesticides, Fecal Coliform, Temperature, pH, Dissolved Oxygen Total Maximum Daily Load; Water Quality Implementation Plan,* the following conclusions were made for 2023:

1. Standard operating procedures for sampling and good laboratory procedures for sample handling and testing were followed based on the sampler's and laboratory's backup documentation; therefore, the results of the tests appear to be accurate based on protocol and procedure.
2. Test results appear to be reasonable and logical by nature.
3. FCB test results from both sets of outfall samples were below 200 cfu/100ml which is the State Water Quality Standards for a single value sample. Garrison Creek at Fern Avenue results in December were extremely high compared to the Whitman Avenue results on the same day.
4. The *Water Quality Implementation Plan* listed target reductions in Garrison Creek (at the mouth) to be 81%. When comparing the results of the sampling done in 2002-03 with the results from 2023, reductions in FCB levels may have been achieved.
5. The outfalls tested on Garrison Creek do not appear to be significant contributors of FCB based on the results from the two samples taken. It's notable that the creek test results were higher in December than they were in May at Fern Avenue.
6. Turbidity measurements in Garrison Creek were relatively low and do not indicate the presence of any sources of bank erosion or construction related erosion in the reaches above the sampling locations.

Follow-up Actions

To help further reduce fecal coliform pollution in Garrison Creek and Yellowhawk Creek, the City is taking the following steps in 2024:

A. Continue participation in the WWCORSG to compare testing results and discuss what next steps can be taken to identify possible FC sources to eliminate.
B. Purchase and distribute pet waste stations for installation on walking paths in each creek basin.
C. Continue to target existing property owners and schools in each basin with direct mailings and in-person discussions on the problems that pet waste, improper landscaping or hobby farming can create when CB sources are left unchecked. Offer on-site visits to residents and property owners who are interested in getting advice from the City on how to correctly manage their property to reduce FCB pollution.

APPENDIX F

Underground Injection Control (UIC)
Inspections Summary 2022

Appendix F 2022 UIC Drywell Assessment Summary

Creek Basin	# of Drywells Inspected	# of Drywells w/ ID Detected	# of Drywells Requiring Cleaning	# of Drywells w/ Standing Water Observed
Stone	0	0	0	0
Lincoln	0	0	0	0
Garrison	3	0	0	0
Mill	0	0	0	0
Caldwell	2	0	0	0
Russell	4	0	0	0
Titus	0	0	0	0
Assessment Totals	**44**	**6**	**13**	**2**

The Underground Injection Control (UIC) Program is regulated in Washington under Chapter 173-218 of the Washington Administrative Code (WAC). This program overlaps with the Municipal Stormwater Permit (Permit) to provide guidance for stormwater management. The 2019-24 Permit includes components for design, construction, O&M, and BMPs for UICs owned and operated by the City.

Since 2015, the City has participated in an UIC Risk Assessment Process as part of its UIC Program. The program includes an inspection and monitoning component for the UIC drywells that are catagorized with a risk level that is "greater than minimal." In 2021, there were 21 remaining UIC drywells on the list and under observation.

The presence of standing water in the bottom of a UIC drywell can be an indication that maintenance is needed or it could be an indication that the bottom of the structure is completed in groundwater. All UIC drywells that were found to have standing water in them were cleaned and determined not to be in groundwater. Two UIC drywells that were not previously on the monitoring list were identified during O&M inspections as being in standing water. These structures will be added to the monitoring list and inspected again in 2023.

Inspections completed in 2022 are summarized above. Drywells located in the creek basins where outfall inspections were conducted (Garrison, Caldwell and Russell) were also inspected to augment the City's IDDE and O&M programs.

APPENDIX G

Internal and Intergovernmental Coordination

Appendix G

City of Walla Walla Municipal Stormwater Permit 2019-2024
Summary of Internal and Intergovernmental Coordination

Internal Coordination

The City of Walla Walla (City) Public Works Department in the central location where most of the Service Line of Businesses (LoBs) at the City are located. These LoBs are identified as Divisions and include Engineering, Landfill, Sanitation, Stormwater, Streets, Wastewater, and Water. The position of Stormwater Coordinator has been designated as a position within the Engineering Division that coordinates all stormwater regulatory compliance activities, tracks implementation of the NPDES II Permit, provides required training to staff, and leads stormwater management policy development for the City. With the help of the City Engineer and the Development Review Engineer, the Stormwater Coordinator provides stormwater-related technical support to the other engineers, development review staff, and to outside design professionals, engineers, or contractors on an as needed basis. Staff from the Stormwater and Streets Divisions are largely responsible for executing the Stormwater Operations & Maintenance (O&M) Plan, which guides the cleaning and maintenance of the City's physical stormwater assets. The Stormwater Coordinator meets weekly and monthly with the Maintenance Supervisor and Lead Workers to ensure that the O&M Plan is being followed, provide refresher training classes, and make sure records are being maintained.

There are three other Departments that the Stormwater Coordinator relies upon and works closely with to ensure compliance with the Permit. First is the Parks Department and the Parks Maintenance Supervisor. The Stormwater Division has entered into and agreement with the Parks Department for the maintenance and upkeep of all City-owned stormwater treatment and flow control facilities. The Stormwater Coordinator meets with the Parks Maintenance Supervisor quarterly to insure that the facilities are being maintained according to the O&M Plan, provide refresher training classes, and keep track of maintenance costs.

The second Department the Stormwater Coordinator relies upon and works closely with to ensure compliance with the Permit is the Technology Services Department. Technology Services provides mapping and GIS support needed to maintain the stormwater assets in GIS and collect and report the maintenance activities performed on those assets throughout the year. The Stormwater Coordinator meets monthly with the GIS Supervisor to ensure that corrections to the GIS map are being completed and that the attribute fields for stormwater assets are complete and up to date.

The third Department the Stormwater Coordinator relies upon and works closely with to ensure compliance with the Permit is the Finance Department. The Finance Department is the home of Utility Billing and responsible for ensuring that the stormwater utility fees are assigned and billed correctly. The Stormwater Coordinator meets regularly with the Accounting Technician and the Customer Service Supervisor to discuss and review calculations of stormwater utility fees on new and redevelopment parcels, annexations, and customer service questions related to utility fee collections.

Table 1 below provides a summary of roles and responsibilities for City departments and divisions for each Permit section and associated activities.

Intergovernmental Coordination

The Stormwater Coordinator maintains communication and coordinates with adjacent local jurisdictions such as Walla Walla County and the City of College Place who are also covered under the Permit. This is accomplished through participation in the Walla Walla County Regional Stormwater Group (WWCORSG) which meets four to six times a year to discuss Permit topics such as pollution prevention, effectiveness studies and public education and outreach.

Table 1 – Summary of Department/Divisions Roles and Responsibilities by Permit Section

Permit Section	Activity / Task	Department / Division	Specific Requirement and Frequency
S5.B.1	Public Education & Outreach	• Public Works Department • Support Services Department • Technology Services Department • Development Services Department	• System O&M cleaning; annual training • Public information support • GIS mapping, data collection; EOY reporting • Code Compliance support; annual training
S5.B.2	Public Involvement & Participation	• Public Works Department • Support Services Department • Technology Services Department • Police Department • City Council	• Public event participation • Public event & social media support • GIS mapping • National Night Out support • Advisory Committee input and updates
S5.B.3	Illicit Discharge Detection & Elimination (IDDE)	• Public Works Department • Technology Services Department • Code Enforcement Division • Fire Department • Parks & Recreation Department	• ID investigations; annual training • GIS mapping edits; piped system tracing • ID reporting; annual training • ID reporting; hazardous cleanup • ID reporting; annual training
S5.B.4	Construction Site Stormwater Runoff Control	• Public Works Department • Development Services Department • Code Enforcement Division	• Site inspections; plans review; annual training • Code compliance support • Site inspections; code compliance support
S5.B.5	Post-Construction Stormwater Management	• Public Works Department • Development Services Department	• Site inspections; plans review; EOY reporting • Code compliance support
S5.B.6	Municipal Operations & Maintenance	• Public Works Department • Parks & Recreation Department • Technology Services Department	• System O&M cleaning; annual training • BMP maintenance; annual training • GIS mapping revisions & updates
S7	Compliance with Total Maximum Daily Load Requirements	• Public Works Department • Parks & Recreation Department • Technology Services Department • Support Services Department	• Sampling and testing; EOY reporting • O&M of Parks facilities • GIS mapping & reporting • Public information support
S8	Monitoring and Assessment	• Public Works Department • Technical Services Department • City Council	• O&M support for study participation • GIS mapping and reporting • Advisory Committee input and updates

Appendix A - Public Education & Outreach / Training Activities Calendar - 2022

Date(s)	Event	Presenters	Target Audience	Description
30-Mar	Bioswales & Storm Water Management Discussion with Whitman College Environmental Studies Class	Stormwater Coordinator	Approximately 20 Whitman College students	Met with students at Isaacs Ave classroom to discuss bioswales and storm water management. Discussed Pet Waste Management, Car Washing and Other Sources of Pollution that Influence Pond Design and Maintenance.
May 16-18	National Public Works Week	Stormwater Coordinator	Elementary students from 3 local schools	Stormwater presentation on preventing pollution: not dumping down drains, recycle, do not litter, dispose of pet waste, wash cars on grass, sweep up spills on sidewalks or driveways. Water Cycle illustration.
Aug 3	National Night Out - Booth in Pioneer Park	Stormwater Coordinator and Walla Walla County Stormwater Group	Approximately 1,500 residents	National Night Out Celebration in Pioneer Park - provided pet waste baggies, 811 notebooks, displayed posters about simple steps to clean water, talked with residents.
Jul 23	Utility Bill Insert for Healthy Household Habits	Stormwater Coordinator	Resident property owners & tenants	Utility Bill insert highlighting 'Healthy Household Habits for Clean Water' including Don't Drip and Drive, proper yard waste management, pet waste management, and using a commercial car wash instead of washing your car at home.
Sept 15	Neighborhood Block Party Washington Park	Stormwater Coordinator	Approximately 200 residents	Set up booth in Washington Park to discuss local street project on Pine Street and recycling tips.
Sept 25	Utility Bill Insert for Not Polluting Storm Drains	Stormwater Coordinator	Resident property owners & tenants	Utility bill insert regarding draining pools to lawns or sanitary sewer and not to the street that storm drains outfall directly to creeks without any treatment.
Nov 3	Bioswales & Storm Water Management Discussion with Whitman College Environmental Studies Class	Stormwater Coordinator	Approximately 20 Whitman College students	Met with students at Isaacs Ave classroom to discuss bioswales and storm water management. Discussed Pet Waste Management, Car Washing and Other Sources of Pollution that Influence Pond Design and Maintenance.

Appendix A - Public Education & Outreach / Training Activities Calendar - 2023

Date(s)	Event	Presenters	Target Audience	Description
May	Utility flyer with Dos and Don'ts of Pool Cleaning	Stormwater Coordinator	Resident property owners & tenants	Monthly utility bill insert which provided residents with information on how to properly drain their swimming pools or spa.
May 13	Return to the River Salmon Festival	Stormwater Coordinator	Resident property owners & tenants	Had a stormwater booth with a watershed/nonpoint source model which showed attendees how storm water runoff carries pollutants through the watershed to a pond, lake, river, bay, or ocean and the best management practices to prevent this type of pollution from occurring.
May 22 & 23	Public Works Week	Stormwater Coordinator	Elementary Students, Grade 3	Provided a presentation to 3rd graders from four elementary schools in Walla Walla regarding "only rain down the drain".
June 5	Letter for Pool Owners Regarding Dos and Don'ts of Pool Cleaning	Stormwater Coordinator	Resident property owners & tenants	This letter reminded pool and spa owners/sevice providers that water from swimming pools and spas may not be discharged into City streets. Provided information on how to properly drain pools and what is and isn't allowed.
August 1	National Night Out Parade for Law Enforcement & Public Works Vehicles	Stormwater Coordinator	Approximately 1,500 residents along 50 miles of Parade Route	National Night Out Parade through City of Walla Walla, Walla Walla County, and College Place displaying "Only Rain Down the Drain" messaging on the City Street Sweeper to 44 Neighborhoods in Walla Walla. Manned a booth with stormwater coordinators from City of College Place and Walla Walla County. Discussed stormwater pollution prevention, handed out 2,000 dog waste bags (100 rolls of 20 bags), 100 coloring books, 28 boxes of crayons, hundreds of pet waste and general pollution prevention, and Stormwater FAQ brochures.
August 24	City of Walla Block Party	Stormwater Coordinator	Resident property owners & tenants	Had a stormwater booth with a watershed/nonpoint source model which showed attendees how storm water runoff carries pollutants through the watershed to a pond, lake, river, bay, or ocean and the best management practices to prevent this type of pollution from occurring.

Appendix B - Public Involvement Activities Calendar - 2022

Date(s)	Event	Presenters	Target Audience	Description
1.19.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared slides regarding the purpose for his attendance & meeting contributions: MS4 permit requires public invovlement, path for communication for all SW issues & questions, provide MS4 permit & SW Manual refreshers.
2.16.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack report, WWTP discussion.
3.16.22	EWA Stormwater Management Manual and General Construction Stormwater Permit Training	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Updates on SWMP for 2022,WW Regional Airport monthly rainfall graph, snowpack at 83%.
4.20.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared 2022 SWMP and 2021 Annual Report.
5.18.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	UIC drywells & WASWD Appeal follow-up, snowpack report/drought.
6.15.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack Report/Flood.
7.20.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared rainfall graph.
8.17.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Shared rainfall amounts, funded two additional Ecology FY23 SW Grants.
9.21.22	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	SW CIP project soonon Clinton St.

Appendix B - Public Involvement Activities Calendar - 2023

Date(s)	Event	Presenters	Target Audience	Description
1.18.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Grants update, Staffing updates, WWTP Regionalization update
2.15.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, new SW coordinator, USFS Tiger-Mill Project
3.15.23	EWA Stormwater Management Manual and General Construction Stormwater Permit Training	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, precipitation update
5.17.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, USFS Tiger-Mill Project, Spring Study Agrnda for Mill Creek watershed discussed
6.21.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Snowpack, stream levels, water usage discussed
10.18.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	UGA water & sewer expansion, WWTP projects update, 2nd Ave gas leak update
11.15.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	Watershed Open House at Whitman, WWTP projects, 2nd Ave gas leak update
12.20.23	Water and Wastewater Advisory Committee Meeting	City of Walla Walla Stormwater Coordinator	Water and Wastewater Advisory Committee	UGA water & sewer expansion, WWTP projects update, 2nd Ave gas leak update, District water metering, 2050 conservation meeting discussed for 2024

Appendix C - Illicit Discharge Log - 2022

Discharge Site	Property Owner	Responsible Party/Parties	Previous Discharger and When	Date Reported	Reported by	Date Investigated	Illicit Discharge Confirmed	Discharge Composition	Discharge to Storm or Surface Waters?	Action Taken	Resolved	Date Resolved
320 Coyote Ridge Drive	Chris Nulph	Landscape company	Unknown	11/17/2022	Leah Rohan City Eng.	11/17/2022	Yes	Wash water/sediment	Yes, to storm drain	homeowner to have company clean up	Yes	11/17/2022
21 E. Main Street	John T Saul	Andrea Bopp (AK's Mercado Restaraunt)	No	2/7/2022	Annonymous Person	2/7/2022	Yes	Grease or fat that discharged from industrial meat smoker located in parking lot behind the building	Yes	Spoke with restaurant owner. Cleanup was done but soap and water was used and this process water was washed directly in to private CB that drains into Mill Creek.	Yes	2/9/2022
421 S. 3rd Ave	WWPS District	Lincoln High School Redevelopment Chervenell Construction	No	2/7/2022	Stormwater Coordiantor, discovered while responding to another ID call	2/7/2022	Yes	Track out of concrete slurry/sediment into MS4on S 3rd Ave. Sediment laden wash water flowing out of parking lot and into MS4 on S 4th Ave.	Yes	Sent email to CSWGP permittee to stop these practices and clean up street ASAP.	Yes	2/9/2022
1603 S Wilbur Ave	City of Walla Walla	Unknown Construction Contractor	No	2/8/2022	Convenience Store Employees	2/8/2022	Yes	Approximately 5 gallons of hydraulic fluid	No	City Crews responded with absorbnet material and Street Sweeper to sweep up the dried absorbent material.	Yes	2/8/2022
1627 Evergreen Street	Walla Walla Housing Authority	M.C. Lundgren, Inc. and various subcontractors	No	2/9/2022	Brian Morgenroth	2/9/2022	Yes	Sediment Trackout from construction site	No	Notified Ecology SW Inspector about violation. Sent email to CSWGP permittee to stop these practices and clean up street ASAP.	Yes	2/11/2022
244 Malcolm Street	Gary Witherspoon	Owner & Tenant	No	5/3/2022	Travis Rakestraw	5/3/2022	Yes	Sewage	No	City crews responded with Vactor to clean sewer main and plug storm pipe out of CB in street.	Yes	5/3/2022
46 Ransom Road	Kip Kelly	Jackson Contracting Group	No	9/16/2022	Brian Morgenroth	9/16/2022	Yes	Either hydraulic fluid or deisel oil from construction equipment parked on the asphalt road	No	Sent email to property owner to have contractor cleanup the spill.	Yes	0919/2022

Appendix C - Illicit Discharge Log - 2023

Discharge Site	Property Owner	Responsible Party/Parties	Previous Discharger and When	Date Reported	Reported by	Date Investigated	Illicit Discharge Confirmed	Discharge Composition	Discharge to Storm or Surface Waters?	Action Taken	Resolved	Date Resolved
502 N. 13th Ave	Koncrete Industries	Owner	Yes, 2017	1/12/2023	Travis Rake, Streets Div		No	Reported as sediment-laden surface runoff from property to street	No	Made record of report for follow-up by Stormwater Coordinator when hired	Yes	unknown, presume 1/12/23
509 Main St.	Barbara Whatley	Property Owner	Yes, 2022	3/13/2023	Steve Kelley, Stormwater Coordinator	3/13/2023	Yes	Food mobile waste/grease & food	Yes. Discharge drained into a drywell located on the owner's private property	Notified property owner of discharge. Owner hired a third party to clean and remove waste from the drywell.	Yes	3/28/2023
Newell St./2nd Ave.	Koncrete Industries	Owner	Yes, 2023	4/28/2023	Steve Kelley, Stormwater Coordinator	4/28/2023	No	Concrete mix spill	No	Roads swept	Yes	5/2/2023
Poplar Alder Project	Koncrete Industries	Owner	Yes, 2023	3/21/2023	Steve Kelley, Stormwater Coordinator	3/21/2023	No	Concrete - red ready mix	No	Roads swept	Yes	3/21/2023
Second Ave/Park St.	Culbert Construction	Owner	Unknown	3/21/2023	Steve Kelley, Stormwater Coordinator	3/21/2023		Red concrete dye powder, dry	No	Roads swept	Yes	unknown, presume 3/21/23
620 Chase Ave	Unknown	Owner	Unknown	1/24/2023	Leah Rohan, City Eng.	1/24/2023	Yes	sewage	No	City staff cleaned are & jetted line	Yes	1/24/2023
708 Edith	Janette Garcia	Owner	Unknown	2/2/2023	Leah Rohan, City Eng.	2/2/2023	Yes	sewage, toilet paper	No	Called home owner, no response to many attempts to contact	unknown	unknown, presume 2/2/23
109 S Palouse St	251 E. Poplar	Owner	Unknown	9/22/2023	Leah Rohan, City Eng.	9/22/2023	Yes	sewage	Yes, to catch basin	jetted line, found gravel blockage in line	Yes	9/22/2023

Appendix D 2022 Outfall Inspection Program Summary

Creek	# of Outfalls Inspected	# of City-Owned Outfalls Inspected	# of Illicit Discharges Detected	
Stone	11	10	0	
College	7	7	0	
Titus	2	2	0	
Barber	2	2	0	
Other Creek(s)	0	0	0	
Total # of Outfalls Inspected	22	21	0	

Permit Section S5.B.3.c.iv requires 12% on average of the City's outfalls to be screened each year.

Through a combination of GIS analysis and inventory spreadsheets, outfalls are identified by the creek drainage basin where they are located. The basins are then parsed out over the 5-year duration of the Permit so that approximately 12% of the outfalls are inspected annually. The exception is Mill Creek which contains approximately 40% of the City's outfalls. The schedule for outfall inspections over the current 2019-2024 Permit cycle is as follows:

Year to be Completed	Creek Basin	Percentage of MS4
2019	Butcher, Barber, Owen Spring	12%
2020	Bryant, Lincoln	12%
2021	Garrison, Kathy	12%
2022	Stone, College, Titus	12%
2023	Yellowhawk, Russell, Caldwell, Peter Spring**	12%
2024	Mill	40%

**Mill Creek outfalls may be started in 2023.

Appendix D 2023 Outfall Inspection Program Summary				
Creek	**# of Outfalls Inspected**	**# of City-Owned Outfalls Inspected**	**# of Illicit Discharges Detected**	
Mill	55	12	0	
Other Creek(s)	0	0	0	
Total # of Outfalls Inspected	55	12	0	

Permit Section S5.B.3.c.iv requires 12% on average of the City's outfalls to be screened each year.

Through a combination of GIS analysis and inventory spreadsheets, outfalls are identified by the creek drainage basin where they are located. The basins are then parsed out over the 5-year duration of the Permit so that approximately 12% of the outfalls are inspected annually. The exception is Mill Creek which contains approximately 40% of the City's outfalls. The schedule for outfall inspections over the current 2019-2024 Permit cycle is as follows:

Year to be Completed	Creek Basin	Percentage of MS4
2019	Butcher, Barber, Owen Spring	12%
2020	Bryant, Lincoln	12%
2021	Garrison, Kathy	12%
2022	Stone, College, Titus	12%
2023	Yellowhawk, Russell, Caldwell, Peter Spring**	12%
2024	Mill	40%

**Mill Creek outfalls may be started in 2023.

APPENDIX E

City of Walla Walla
2022-23 TMDL Monitoring Report

for

National Pollution Discharge Elimination System (NPDES)
Eastern Washington Phase II Municipal
Stormwater Permit WAR046508

Prepared by: City of Walla Walla Engineering Department
Dara Osborne, Stormwater Coordinator

March 2024

1.0 Overview

This Total Maximum Daily Loading (TMDL) Monitoring Report (Report) has been developed by the City of Walla Walla (City) to meet the requirements specified in the Eastern Washington Phase II Municipal Stormwater Permit (Permit) issued by the Department of Ecology (Ecology) for the period effective August 1, 2019 and expiring July 31, 2024. This Report describes actions taken to sample surface water and stormwater runoff within the City of Walla Walla's (City's) Permit coverage area and to satisfy Special Condition S7.A and Appendix 2 – *Total Maximum Daily Load Requirements (TMDLs)* of the Permit. Specifically, the Permit identifies fecal coliform bacteria (FCB) as a pollutant having an approved TMDL that the City needs to characterize and evaluate. This report provides a description of the monitoring conducted during 2022 and 2023, how the sampling and monitoring data was assessed, and what follow-up actions will be taken by the City to fulfill the conditions of the Permit.

The sampling and monitoring data collected by the City during 2022 and 2023 was reviewed and analyzed and then submitted to Ecology as part of the annual reporting process. This data was also shared with other regional stormwater permittees, including Walla Walla County and the City of College Place, since these permittees have similar Permit requirements and have adjoining jurisdictional boundaries that are crossed by the receiving water bodies (RWBs) monitored. The sampling and monitoring data will also assist the City in ongoing assessment of the RWBs within its jurisdiction to identify sources of FCB and to adaptively manage the Stormwater Management Plan (SWMP) to reduce or limit FCB levels to meet TMDL target reductions. The long-term goal of this document is to provide guidance on how the City will continue to collect pollutant data for this Permit cycle and provide a template for collecting data for other pollutants of concern should it become necessary.

2.0 Permit Requirements

Section S7. of the Permit specifies that affected permittees shall comply with the specific requirements identified in Appendix 2 of the Permit for stormwater discharges from the permittee's municipal separate storm sewer system (MS4). For the City, Mill Creek, Garrison Creek, Russell Creek, and Yellowhawk Creek have all been listed as impaired for fecal coliform bacteria. The TMDL requirements prescribed in Appendix 2 of the Permit apply to all areas served by the MS4 within Walla Walla County and the cities of Walla Walla and College Place.

TMDLs for the Walla Walla Watershed have been established and approved by EPA for chlorinated pesticides and PCBs, fecal coliform bacteria, temperature, and pH and dissolved oxygen. Ecology conducted a review of these TMDLs in 2014 to determine whether stormwater, including municipal stormwater sources, were identified in any of the TMDLs. Ecology did not identify any TMDLs with established load or waste load allocations for municipal stormwater discharges covered under the Permit at that time. Since then, Ecology has identified specific requirements for fecal coliform bacteria that permittees must take action on during the current 2019-24 Permit cycle. They include:

- Provide an explanation of activities or work conducted to meet the new Permit requirements.

- Develop and implement a pet waste education program for residents of the City per the schedule in Section S5.B.1. of the Permit.
- Consider during SEPA review, the potential for projects to increase runoff and sources of fecal coliform bacteria, and the need for mitigation measures to reduce these adverse impacts to the MS4 and surface waters.
- Beginning on August 1, 2020, annually select a minimum of two outfall locations suitable for sampling for fecal coliform bacteria and turbidity in the receiving water body at each outfall during two separate storm events (in spring and fall). The data collected should be used to trace and remedy fecal coliform bacteria sources as part of the City's IDDE program.
- Beginning January 1, 2020, for each outfall drainage area investigated, submit a report to Ecology summarizing the testing results and outlining any efforts taken to reduce bacteria loadings to receiving surface water bodies.
- For any monitored outfall that has not shown improvement by June 2022, the City must also report to Ecology the actions it intends to take to further reduce or eliminate bacterial loadings through a basin wide approach of monitoring, detection, and actions taken.

3.0 Monitoring Requirements

Appendix 2 of the Permit does not stipulate the method of sampling to be used for Permit compliance. After discussing these details with Ecology, it was decided that grab sampling methods would be used to collect samples for fecal coliform bacteria and turbidity. Appendix 2 required sampling for fecal coliform bacteria and turbidity in the RWB at each outfall during two separate storm events. The City also decided to collect an additional sample from the flow coming out of the pipe outfall in order to better characterize the loadings to the RWB and aide in tracing any sources that may be contributing to the outfall. Grab samples for fecal coliform bacteria and turbidity followed Ecology's *Collecting Grab Samples from Stormwater Discharges, Standard Operating Procedure Version 1.1, July 2018*.

4.0 Testing Methods

Since the testing of FCB in water samples requires the use of an incubator for 24 hours before the testing is complete, the City requested assistance from the Laboratory at the City's Wastewater Treatment Facility. The Laboratory staff agreed to accept our samples for testing and provide the sample bottles needed to collect and transport the samples back to the Laboratory. The testing method used was the Fecal Coliform Membrane Method or Standard Method 9222 D (m-FC)-2006. Proper sample handling methods per the Laboratory's Standard Operating Procedures (SOPs) were discussed with Laboratory staff and implemented during sample collection. Staff worked together to create a Chain of Custody (CoC) for the samples to ensure proper handling in the field and at the Laboratory. These procedures included keeping the samples cold while being transported to the Laboratory and not exceeding the 8-hour maximum holding time between sample collection and delivery to the Laboratory.

In 2022, turbidity measurements were performed in the field using a Secchi Tube and accomplished by taking a separate sample of stream flow or pipe flow water after samples for FCB were taken. The method of measurement followed the methods outlined in Ecology's *Illicit Connection & Illicit Discharge Field Screening and Source Tracing Guidance Manual, May 2020 Revision.* In 2023, turbidity measurements were performed at Wastewater Treatment Plant Laboratory using a Hach TU5200 Turbidimeter following SM 2130 B (2011).

Laboratory Logistical Challenges

Limited working hours at the Wastewater Treatment Laboratory and the 8-hour maximum holding time for FCB samples presented several of the challenges that limited the storm event that could be sampled. Other challenges included:

- No sampling on Fridays, Saturdays, Sundays, or holidays.
- Pre-sampling check-in with Laboratory staff to ensure that FCB samples could be accepted.

Physical Logistical Challenges

There are several challenges to consider before choosing a location to conduct sampling including: (a) physical access to the stream and outfall; (b) outfall contributing basins size and amount of rainfall required to produce a measurable amount of runoff at the outfalls selected for sampling; and (c) general safety considerations, including time of day, lighting, and visibility requirements in order to collect stream and outfall samples.

5.0 Sampling Results

2022 Sampling Results

Outfalls selected for sampling in 2022 included: (1) Garrison Creek at Fern Avenue (STC818-013), the downstream site and (2) Garrison Creek at Whitman Street (STO818-030), the upstream site. In addition, two outfalls on Yellowhawk Creek were sampled in 2022 including: (1) Yellowhawk Creek at Plaza Way (STO515-066-01), the downstream site and (2) Yellowhawk Creek at Fern Ave (SFC617-002-01), the upstream site.

The City continued to use the rainfall information collected and published by the National Weather Service (NWS) at the Walla Walla County Regional Airport (USW00024160) as the gage of record for all rainfall data collection and decision making on sampling. Both Garrison Creek and Yellowhawk Creek are diversion-source creeks that are controlled by a diversion gate owned and operated by the US Army Corps of Engineers (ACOE) located on Mill Creek just upstream of City limits. Daily stage and flow readings for each creek sampled were provided by ACOE staff.

Four grab samples were collected on November 1, 2022 in an attempt to satisfy the sampling requirements; however, only one sampling event took place for the year instead of the required two events. FCB sampling results and the associated storm event data are summarized in Table 1 and Table 2 below.

2022 Fecal Coliform Bacteria & Turbidity Sampling Results

Table 1

Date	Parameter (units)	Yellowhawk Creek @ Fern Ave		Garrison Creek @ Fern Ave	
		Outfall	Creek	Outfall	Creek
11/1/2022	FC (CFU/100mL)	440	275	430	320
11/1/2022	Turbidity (NTUs)	NDA	NDA	17	<12
		Yellowhawk Creek @ Plaza Way		Garrison Creek @ Whitman Ave	
11/1/2022	FC (CFU/100mL)	960	370	>2000	440
11/1/2022	Turbidity (NTUs)	NDA	NDA	27	<12

*NDA = No data available

Table 2

Event Date	Flow (cfs) at Diversion	Rainfall (in) previous 24 hrs	Rainfall (in) previous 48 hrs
11/1/2022 - GC	20.2	0.23	0.23
11/1/2022 - YC	20.2	0.23	0.23

Creek flow measurements were obtained from the ACOE for Garrison and Yellowhawk Creek at the diversion location from the Mill Creek channel. Rainfall totals were obtained from the National Weather Service (NWS) at the Walla Walla Regional Airport.

2023 Sampling Results

Outfalls selected for sampling in 2023 included: (1) Garrison Creek at Fern Avenue (STC818-013), the downstream site and (2) Garrison Creek at Whitman Street (STO818-030), the upstream site. The City continued to use the rainfall information collected and published by the National Weather Service (NWS) at the Walla Walla County Regional Airport (USW00024160) as the gage of record for all rainfall data collection and decision making on sampling. Daily stage and flow readings for Garrison Creek was provided by ACOE staff.

Two grab samples were collected on May 3 and December 7, 2023 to satisfy the sampling requirements. FCB sampling results and the associated storm event data are summarized in Table 3 and Table 4 below.

2023 Fecal Coliform Bacteria & Turbidity Sampling Results

Table 3

Date	Parameter (units)	Garrison Creek @ Fern Ave		Garrison Creek @ Whitman Ave	
		Outfall	Creek	Outfall	Creek
5/3/2023	FC (CFU/100mL)	< 1	NDA	< 1	NDA
5/3/2023	Turbidity (NTUs)	31.6	NDA	62.2	NDA
12/7/2023	FC (CFU/100mL)	< 1	1684	< 1	25
12/7/2023	Turbidity (NTUs)	0.41	3	1.8	2.4

*NDA = No data available

Table 4

Event Date	GC Flow (cfs) at Diversion	Rainfall (in) previous 24 hrs	Rainfall (in) previous 48 hrs
5/3/2023	288	0	Trace
12/7/2023	255	0.18	0.18

6.0 Conclusions and Follow Up Actions

FCB had a fresh water/surface water quality standard in Washington that was phased out by Ecology in 2020. The Permit and Appendix 2 references and requires that the City sample for FCB. Discussions with Ecology staff in 2020 clarified that FCB should be sampled per the Permit requirements; therefore, the City will be using the latest state water quality standards on FCB before the phase out. Based on the information provided in Ecology's *Illicit Connection & Illicit Discharge Field Screening and Source Tracing Guidance Manual, May 2020 Revision,* State Water Quality Standards (SWQS) for a single value measurement is 200 CFUs/100ml and the recommended range for further investigation and indicator sampling is 500 to 1,200 CFUs/100ml. In addition, the SWQS for turbidity is 5 to 10 NTUs above background when background is ≤50 NTUs or 10 to 20% above background if background readings are >50 NTUs. Likewise, the recommended threshold for further investigation and indicator sampling is >50 NTUs (19 centimeters on the Secchi Tube).

After reviewing the results of the tests and the information summarized in Ecology Publication No. 08-10-094, *Walla Walla Watershed PCBs, Chlorinated Pesticides, Fecal Coliform, Temperature, pH, Dissolved Oxygen Total Maximum Daily Load; Water Quality Implementation Plan,* the following conclusions were made for 2022:

2022 Season

1. Standard operating procedures for sampling and good laboratory procedures for sample handling and testing were followed based on the sampler's and laboratory's backup documentation; therefore, the results of the tests appear to be accurate based on protocol and procedure.
2. Test results appear to be reasonable and logical by nature.

3. All FCB test results from Garrison Creek and Yellowhawk Creek and all outfall samples were above 200 cfu/100ml which is the State Water Quality Standards for a single value sample. These results suggest further investigation is needed into sources of fecal coliform in Garrison Creek and Yellowhawk Creek.
4. The *Water Quality Implementation Plan* listed target reductions in Garrison Creek (at the mouth) to be 81% and Yellowhawk Creek (at the mouth) to be 42%. When comparing the results of the sampling done in 2002-03 with the results from 2022, no conclusions can be made on whether any reductions in FCB levels have been achieved. This can mainly be attributed to the lack of data.
5. The outfalls tested on Garrison Creek and Yellowhawk Creek appear to be significant contributors of FC based on the results from the one sampling event. Subsequent sampling at these outfalls is recommended in order to establish this conclusion more firmly with data.
6. Turbidity measurements in Garrison Creek were relatively low and do not indicate the presence of any sources of bank erosion or construction related erosion in the reaches above the sampling locations.

2023 Season

After reviewing the results of the tests and the information summarized in Ecology Publication No. 08-10-094, *Walla Walla Watershed PCBs, Chlorinated Pesticides, Fecal Coliform, Temperature, pH, Dissolved Oxygen Total Maximum Daily Load; Water Quality Implementation Plan,* the following conclusions were made for 2023:

1. Standard operating procedures for sampling and good laboratory procedures for sample handling and testing were followed based on the sampler's and laboratory's backup documentation; therefore, the results of the tests appear to be accurate based on protocol and procedure.
2. Test results appear to be reasonable and logical by nature.
3. FCB test results from both sets of outfall samples were below 200 cfu/100ml which is the State Water Quality Standards for a single value sample. Garrison Creek at Fern Avenue results in December were extremely high compared to the Whitman Avenue results on the same day.
4. The *Water Quality Implementation Plan* listed target reductions in Garrison Creek (at the mouth) to be 81%. When comparing the results of the sampling done in 2002-03 with the results from 2023, reductions in FCB levels may have been achieved.
5. The outfalls tested on Garrison Creek do not appear to be significant contributors of FCB based on the results from the two samples taken. It's notable that the creek test results were higher in December than they were in May at Fern Avenue.
6. Turbidity measurements in Garrison Creek were relatively low and do not indicate the presence of any sources of bank erosion or construction related erosion in the reaches above the sampling locations.

Follow-up Actions

To help further reduce fecal coliform pollution in Garrison Creek and Yellowhawk Creek, the City is taking the following steps in 2024:

A. Continue participation in the WWCORSG to compare testing results and discuss what next steps can be taken to identify possible FC sources to eliminate.
B. Purchase and distribute pet waste stations for installation on walking paths in each creek basin.
C. Continue to target existing property owners and schools in each basin with direct mailings and in-person discussions on the problems that pet waste, improper landscaping or hobby farming can create when CB sources are left unchecked. Offer on-site visits to residents and property owners who are interested in getting advice from the City on how to correctly manage their property to reduce FCB pollution.

Appendix F 2022 UIC Drywell Assessment Summary

Creek Basin	# of Drywells Inspected	# of Drywells w/ ID Detected	# of Drywells Requiring Cleaning	# of Drywells w/ Standing Water Observed
Stone	0	0	0	0
Lincoln	0	0	0	0
Garrison	3	0	0	0
Mill	0	0	0	0
Caldwell	2	0	0	0
Russell	4	0	0	0
Titus	0	0	0	0
Assessment Totals	**44**	**6**	**13**	**2**

The Underground Injection Control (UIC) Program is regulated in Washington under Chapter 173-218 of the Washington Administrative Code (WAC). This program overlaps with the Municipal Stormwater Permit (Permit) to provide guidance for stormwater management. The 2019-24 Permit includes components for design, construction, O&M, and BMPs for UICs owned and operated by the City.

Since 2015, the City has participated in an UIC Risk Assessment Process as part of its UIC Program. The program includes an inspection and monitoning component for the UIC drywells that are catagorized with a risk level that is "greater than minimal." In 2021, there were 21 remaining UIC drywells on the list and under observation.

The presence of standing water in the bottom of a UIC drywell can be an indication that maintenance is needed or it could be an indication that the bottom of the structure is completed in groundwater. All UIC drywells that were found to have standing water in them were cleaned and determined not to be in groundwater. Two UIC drywells that were not previously on the monitoring list were identified during O&M inspections as being in standing water. These structures will be added to the monitoring list and inspected again in 2023.

Inspections completed in 2022 are summarized above. Drywells located in the creek basins where outfall inspections were conducted (Garrison, Caldwell and Russell) were also inspected to augment the City's IDDE and O&M programs.

Appendix G

City of Walla Walla Municipal Stormwater Permit 2019-2024
Summary of Internal and Intergovernmental Coordination

Internal Coordination

The City of Walla Walla (City) Public Works Department in the central location where most of the Service Line of Businesses (LoBs) at the City are located. These LoBs are identified as Divisions and include Engineering, Landfill, Sanitation, Stormwater, Streets, Wastewater, and Water. The position of Stormwater Coordinator has been designated as a position within the Engineering Division that coordinates all stormwater regulatory compliance activities, tracks implementation of the NPDES II Permit, provides required training to staff, and leads stormwater management policy development for the City. With the help of the City Engineer and the Development Review Engineer, the Stormwater Coordinator provides stormwater-related technical support to the other engineers, development review staff, and to outside design professionals, engineers, or contractors on an as needed basis. Staff from the Stormwater and Streets Divisions are largely responsible for executing the Stormwater Operations & Maintenance (O&M) Plan, which guides the cleaning and maintenance of the City's physical stormwater assets. The Stormwater Coordinator meets weekly and monthly with the Maintenance Supervisor and Lead Workers to ensure that the O&M Plan is being followed, provide refresher training classes, and make sure records are being maintained.

There are three other Departments that the Stormwater Coordinator relies upon and works closely with to ensure compliance with the Permit. First is the Parks Department and the Parks Maintenance Supervisor. The Stormwater Division has entered into and agreement with the Parks Department for the maintenance and upkeep of all City-owned stormwater treatment and flow control facilities. The Stormwater Coordinator meets with the Parks Maintenance Supervisor quarterly to insure that the facilities are being maintained according to the O&M Plan, provide refresher training classes, and keep track of maintenance costs.

The second Department the Stormwater Coordinator relies upon and works closely with to ensure compliance with the Permit is the Technology Services Department. Technology Services provides mapping and GIS support needed to maintain the stormwater assets in GIS and collect and report the maintenance activities performed on those assets throughout the year. The Stormwater Coordinator meets monthly with the GIS Supervisor to ensure that corrections to the GIS map are being completed and that the attribute fields for stormwater assets are complete and up to date.

The third Department the Stormwater Coordinator relies upon and works closely with to ensure compliance with the Permit is the Finance Department. The Finance Department is the home of Utility Billing and responsible for ensuring that the stormwater utility fees are assigned and billed correctly. The Stormwater Coordinator meets regularly with the Accounting Technician and the Customer Service Supervisor to discuss and review calculations of stormwater utility fees on new and redevelopment parcels, annexations, and customer service questions related to utility fee collections.

Table 1 below provides a summary of roles and responsibilities for City departments and divisions for each Permit section and associated activities.

Intergovernmental Coordination

The Stormwater Coordinator maintains communication and coordinates with adjacent local jurisdictions such as Walla Walla County and the City of College Place who are also covered under the Permit. This is accomplished through participation in the Walla Walla County Regional Stormwater Group (WWCORSG) which meets four to six times a year to discuss Permit topics such as pollution prevention, effectiveness studies and public education and outreach.

Table 1 – Summary of Department/Divisions Roles and Responsibilities by Permit Section

Permit Section	Activity / Task	Department / Division	Specific Requirement and Frequency
S5.B.1	Public Education & Outreach	• Public Works Department • Support Services Department • Technology Services Department • Development Services Department	• System O&M cleaning; annual training • Public information support • GIS mapping, data collection; EOY reporting • Code Compliance support; annual training
S5.B.2	Public Involvement & Participation	• Public Works Department • Support Services Department • Technology Services Department • Police Department • City Council	• Public event participation • Public event & social media support • GIS mapping • National Night Out support • Advisory Committee input and updates
S5.B.3	Illicit Discharge Detection & Elimination (IDDE)	• Public Works Department • Technology Services Department • Code Enforcement Division • Fire Department • Parks & Recreation Department	• ID investigations; annual training • GIS mapping edits; piped system tracing • ID reporting; annual training • ID reporting; hazardous cleanup • ID reporting; annual training
S5.B.4	Construction Site Stormwater Runoff Control	• Public Works Department • Development Services Department • Code Enforcement Division	• Site inspections; plans review; annual training • Code compliance support • Site inspections; code compliance support
S5.B.5	Post-Construction Stormwater Management	• Public Works Department • Development Services Department	• Site inspections; plans review; EOY reporting • Code compliance support
S5.B.6	Municipal Operations & Maintenance	• Public Works Department • Parks & Recreation Department • Technology Services Department	• System O&M cleaning; annual training • BMP maintenance; annual training • GIS mapping revisions & updates
S7	Compliance with Total Maximum Daily Load Requirements	• Public Works Department • Parks & Recreation Department • Technology Services Department • Support Services Department	• Sampling and testing; EOY reporting • O&M of Parks facilities • GIS mapping & reporting • Public information support
S8	Monitoring and Assessment	• Public Works Department • Technical Services Department • City Council	• O&M support for study participation • GIS mapping and reporting • Advisory Committee input and updates