

CITY OF Dallas
TMDL IMPLEMENTATION PLAN
August 2022

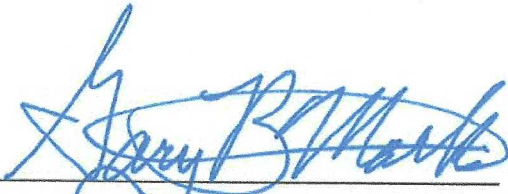


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Certification

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



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ACRONYMS

BMPs	Best Management Practices
City	City of Dallas
CESCL	Certified Erosion and Sediment Control Lead
CS	Construction Site Runoff
CWA	Clean Water Act
DEQ	(Oregon) Department of Environmental Quality
DMA	Designated Management Agency
ESCP	Erosion and Sediment Control Plan
EPA	United States Environmental Protection Agency
GH	Good Housekeeping in Municipal Operations
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
LUCS	Land Use Compatibility Statement
LWI	Local Wetland Inventory
MCM	Minimum Control Measure (aka Stormwater Controls)
NPDES	National Pollutant Discharge Elimination System
NPS	Nonpoint Sources (not under an NPDES permit)
NWI	National Wetland Inventory
OAR	Oregon Administrative Rules
ODA	Oregon Department of Agriculture
ODFW	Oregon Department of Fish and Wildlife
PC	Post-Construction Runoff Control in New and Re-development
PE	Public Education
PI	Public Involvement
SWPPP	Stormwater Pollution Prevention Plan
SWMP	Stormwater Management Plan
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
UIC	Underground Injection Control Device

USGS United States Geological Survey
WQMP Water Quality Management Plan

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Appendix A	BMP List
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This TMDL Implementation Plan represents a response to the *2019 Final Revised Willamette Basin Mercury TMDL and WQMP*. The City of Dallas submitted its first Willamette Basin TMDL Implementation Plan in 2008. This document (2022) is a revision of the revised plan which was submitted in 2018. This plan meets current TMDL requirements.

In regard to mercury reductions, the load allocation for the Willamette Basin is 75%. The City anticipates that full implementation of the management strategies listed in this plan will meet the requirements set forth by DEQ.

Section 1.0 - Introduction

Section 1.1 Background

A Willamette Basin Mercury TMDL was first issued in 2006. Dallas was included as a Designated Management Agency (DMA) and submitted a TMDL Implementation Plan to DEQ in 2008. The latest revision of the plan occurred in 2018.

On November 22, 2019 DEQ issued the Final Revised Willamette Basin Mercury Total Maximum Daily Load (TMDL) and Water Quality Management Plan (WQMP). According to DEQ, DEQ and the EPA worked together to revise the 2006 Willamette Basin Mercury TMDL to meet the fish tissue methylmercury criterion adopted in 2011. This criterion allows Oregonians to safely consume higher amounts of fish (approximately 23 8-oz fish meals a month) caught in Oregon waterways. Among those who rely on Willamette Basin fish and shellfish as a food source are tribal, immigrant and low-income communities and other historically marginalized communities. This revised TMDL identifies sources of mercury and how much mercury needs to be reduced to meet water quality standards.

On March 3, 2021 the City of Dallas was notified that DEQ had included Dallas as a designated management (DMA) agency in the Willamette Basin Mercury TMDL and WQMP. According to Oregon Administrative Rules (OAR 340-042-0030(2)) DMA means a federal, state or local governmental agency that has legal authority over a sector or source contributing pollutants, and is identified as such by the Department of Environmental Quality in a TMDL. DMAs are responsible for implementing strategies and DMA specific TMDL Implementation Plan.

The City of Dallas is submitting this plan as a revision of the original implementation plan submitted in 2008 with the intent of meeting the new regulations listed in the Final Revised Willamette Basin Mercury TMDL and WQMP, and elevating new and existing Best Management Practices (BMPs) for the community.

The final TMDL and Water Quality Management Plan specifies mercury reductions which can be achieved through planned implementation of permits, best management practices, conservation practices, and other management strategies to help reduce mercury entering waterways. The ultimate goal of this process is to provide full restoration of the beneficial use of fish consumption, including protection of aquatic species and wildlife throughout the Willamette Basin.

Section 1.2 Summary of TMDL Plan Development

The original TMDL Implementation Plan, submitted in 2008 provided a broad range of activities that the City had or was planning to implement. Staffing shortages, vacancies, and lack of proper recordkeeping led to a program that struggled with implementation, reporting, and consistency in the infancy of the program.

In an effort to correct deficiencies and bring the program up-to-date, staff sought outside assistance in 2021 to remedy the situation. The City hired a consultant to assist with program implementation, revise the original implementation plan and incorporate new requirements of the 2019 Final Mercury TMDL and WQMP. The consultant also assisted staff with completion of the 2021/2022 annual report which was submitted on May 27, 2022. Moving forward, this TMDL Implementation plan is intended to address programmatic deficiencies, provide staff a defined path forward, and meet current regulations.

Appendix A of this document provides a list of the proposed Best Management Practices (BMPs), and Appendix B is the Matrix which includes management strategies, timelines, and a status column to be used for reporting.

The format of the matrix was changed from previous years and includes the following:

- a) All BMPs for the control measures are listed under the appropriate parameter. There may be some redundancy given certain BMPs are associated with more than 1 pollutant.
- b) In order to clearly recognize that this plan is the most current version and the plan from which future activities originate, all annual reporting in subsequent years will include progress updates provided from the attached matrix. Furthermore, it is this document that will be evaluated during the 5th year review and to which any adaptive management is applied.
- c) Control measures are numbered based on the MS4 Phase II permits, with control measures starting with Public Education #1 through Good Housekeeping as #6. This was done because many of the proposed programs and BMPs refer to the Phase II permit.

PE	Public Education
PI	Public Involvement and Participation
ID	Illicit Discharge Detection and Elimination
CS	Construction Site Runoff
PC	Post Construction Runoff in New and Redevelopment
GH	Good Housekeeping in Municipal Operations

- d) Justification for removing BMPs or editing those BMPs listed in the 2020 plan through adaptive management, are provided in Table 1.2.1.
- e) Identification for specific BMPs have been changed from a 'Task #' as shown in previous TMDL documents to a specific identifier for the BMP based on the control measure. For example, PE-1 would refer to Public Education, BMP #1; ID-2 would refer to Illicit Discharge Detection and Elimination BMP #2 and so on.

TMDL Implementation Plan

- f) Public Education BMPs listed in the matrix applies to the 3 pollutants of concern and are not necessarily carried throughout the matrix. For example, PE-2 in mercury calls for the development of educational materials, but the source does not apply to temperature or bacteria. See the BMP List in Appendix A.

There are 17 original BMPs, and the revised program includes 32 BMPs which does not include annual and programmatic requirements included in the Matrix. The increase is due to a refinement of existing BMPs and the addition of measures required in the Willamette Basin Mercury TMDL.

Table 1.2.1 includes a list of the original BMPs and revisions covered in the new implementation plan.

Table 1.2.1 Original BMPs and Status/Revisions

Task #	Original Task Description	Revisions
#1 T	Education and outreach for riparian health	Specific outreach efforts covered in Public Education Program
#2 T	Partner with other organizations	Covered under revised PE-6
#3 T	Develop Local Wetland Inv	Removed in new matrix/complete
#4 TM	Track variances to identify illegal riparian plant removal	Removed – covered under new CS and PC BMPs
#5 MB	Training for spill response and materials needed	Removed and replaced with new ID BMPs
#6 MB	Develop SOP for catchbasin cleaning	Covered under new GH-4
#7 MB	Develop a map with outfall locations	Covered under new ID-1 and ID-6
#8 B	Provide pet waste bags at stations	No changes
#9 B	Implement IDDE plan to identify illegal connections	Cover under new ID-5
#10 MB	Training for IDDE inspections	No changes
#11 M	Implement policy regarding charity car washes	Removed
#12 MBT	Implement and enforce a Post-Construction program	Covered under new PC BMPs
#13 MB	Catch basin marking	Rewritten under PI-3
#14 MB	Public education – utility bill insert	Replaced with new Public Education Program
#15 MBT	Actively engage civic organization and business for stormwater related outreach	Replaced with new Public Education Program
#16 MBT	Website develop to allow for stormwater related material	No changes
#17 MBT	Explore options for collaboration on monitoring	Removed. Performance monitoring will occur annually and submitted with annual report

T= Temperature, M=Mercury, B=Bacteria

Section 1.3 The City of Dallas

According to the 2020 census, the population is 16,854. Dallas incorporated as a town in 1874 and as a city in 1904. Dallas is located west of the City of Salem at the base of the Coast Range. The City is composed of long-time residents and those looking for a more rural environment. The City lies southwest of state highway 22, and is transected by highway 223.



Tree Planting Activity

Dallas has functioned as a bedroom community for the City of Salem, but local leaders and residents have sought their own identity.

The City once established a moratorium on growth, but in recent years this suspension has not been enforced. The City's Community Development Department reports growth in single family dwellings indicates that the area is being used for commuters, work from home families, and retirees.

Dallas has completed a Local Wetland Inventory, but no assessment or methodology has been completed. The City does require Division of State Lands approved wetlands delineations for development that may impact wetlands.

Dallas has some tree protection elements in place and they are a Tree City. They have a riparian ordinance, although setbacks need to be increased in that ordinance to provide adequate waterway protection. In summary, the City has and does conduct some sound water quality minded practices, but those elements need to be revisited.

Section 2.0 - Hydrological Conditions / Existing Conditions

Section 2.1 Mid-Willamette Subbasin / Rickreall Creek / Local Waterways

The Middle Willamette Subbasin, Hydrologic Unit Code (HUC) 17090007, includes the Willamette River from Willamette Falls at river mile (RM) 26.6 to RM 108, near the Santiam

River, with four 5th-field HUC watersheds that drain to the Willamette River. It is located in the northwest portion of the Willamette Basin and drains parts of the Cascade foothills from the east and the Coast Range from the west. The Willamette River longitudinally divides the subbasin with several medium to large tributaries and many smaller tributaries throughout its length. The City of Dallas lies within the Rickreall Creek Watershed.

According to the 2006 Willamette Basin TMDL, Rickreall Creek Watershed drains a 183 square mile (117,119 acres) area of the Willamette Valley and the Coast Range. The watershed has three major tributaries that contribute to the Willamette River flow; Rickreall Creek, Ash Creek, and Bashaw Creek. The City of Dallas obtains its drinking water from Rickreall Creek and Aaron Mercer Reservoir. The Ankeny National Wildlife Refuge and Baskett Slough National Wildlife Refuge are located in the lower watershed. There is also scattered public land managed by the US Forest Service and the Bureau of Land Management, primarily in the upland forested areas of the watershed. Agriculture accounts for approximately 61% of land use in the watershed, with forestry land use accounting for 33% of use, and 5% for rural residential use.

Polk County Soil and Water Conservation District completed a Rickreall Watershed Assessment in 2013 which addresses watershed conditions. That document is posted on the City's website.

Rickreall Creek transects Dallas generally from west to east and enters the Willamette River near West Salem. Approximately 4.5 miles of waterway lie within the City's Urban Growth Boundary (UGB). The waterway has a riparian buffer in many places, but this buffer is not consistent within the City.

The North Fork of Ash Creek also flows from the southwest to east through Dallas, but lies to the south of Rickreall Creek. Ash Creek has been channelized and piped in portions. Stream shading is minimal and temperature is a pollutant of concern along with other parameters. This waterway passes through a substantial amount of agricultural land prior to entering the City, and ultimately discharges to the Willamette River at Independence, OR.

Section 2.2 City Services

Stormwater – The City maintains and operates its stormwater conveyance system. A Stormwater Master Plan was completed in 2016 and is available on the City's website. Older portions of the system are highlighted in that document as needing replacement or retrofitting.

Maintenance of the system is conducted by Public Works personnel primarily from the Streets Division. During high precipitation events, staff from all Public Works divisions are utilized.

Stormwater infrastructure has been added to the City's GIS, but routine inventory updates or priorities are not established. A complete asset inventory has not been completed. The City is currently recruiting for a position that will be responsible for GIS management.

Wastewater – The wastewater system is operated under NPDES Permit #101518. The permit allows Dallas to discharge to Rickreall Creek year round. The City's comprehensive wastewater program is fully funded and the City has demonstrated good management activities for this utility.

Water – The City's drinking water source is Mercer Reservoir located on the upper reaches of Rickreall Creek. The City maintains the intake facility, water treatment plant, and distribution system is carefully managed as discharges often result in the only flow for downstream irrigators during summer months.

Streets – Streets personnel maintain Dallas streets including repairs, street sweeping, and right-of-way maintenance. The City has an annual fall leaf haul program. Streets personnel carry out the majority of stormwater related operations activities.

Section 2.3 Existing Conditions and Pollutant Sources

The pollutants of concern addressed in this implementation plan are mercury, bacteria, and temperature.

1. Mercury – Mercury is a toxic heavy metal. Bioaccumulation of mercury in fish tissue can lead to fish consumption limits due to health hazards associated with consuming mercury. Waterways can become contaminated when soils that naturally contain mercury are eroded.
2. Bacteria – Elevated levels of bacteria can make recreational activities such as swimming unsafe. Bacteria contamination may be linked to animal waste from farming activities, unnatural concentrations of water fowl and other wildlife, and domestic pets.
3. Temperature - Temperature drastically impacts the feeding, reproduction, and survival of aquatic wildlife. Water warmer than 64°F will not support salmon species. Turbidity and too much direct sunlight contribute to high water temperature.

Pollutant sources coming from Dallas are similar to those in other rural northwestern Oregon municipalities. The City has a downtown core, residential areas, regional and neighborhood parks, and some industry. Industries within the City have 1200-Z permits. A new process will be developed to review existing permits and management plans. In addition, the City will assign review of new 1200-Z permits obtained within Dallas.

With minimal erosion control or vegetation management requirements in place, mercury and TSS are contributors to impacted water quality. The City of Dallas has no applicable erosion control program as of the date of this document.. Because of the role sediment plays in mercury reduction, it is essential that the City moves forward rapidly with development of an effective program.

The City of Dallas is surrounded largely by agricultural land. According to the TMDL WQMP, the Oregon Department of Agriculture (ODA) is DMA under OAR 340-042-080(3). The Agricultural Water Quality Management Act (ORS 568.900 to 933), and ORS 561.191, give ODA the responsibility to adopt and enforce rules that protect water quality on agricultural lands.” DEQ works directly with ODA for implementation of these rules. Dallas recognizes that pollutants coming from agricultural sources may need some sort of correction that would be driven by the ODA and DEQ.

Section 3.0 Mercury Reductions / Pollutant Discussion

Section 3.1 General Approach for Mercury Reduction

In general, the City will focus on setting the foundation for the revised program in Years 1 and 2. The City will utilize a consultant to develop some of the program basics as is covered in Appendix B.

Overall, educating the residents and employees of the City of Dallas is crucial to any stormwater program. Stormwater is a relatively new utility in the minds of residents and is often only associated with flooding events. Therefore, the program requires consistent and accurate messaging in order to gain support. The ultimate goal for public education is to encourage behavioral change which is tied to strong educational efforts. In addition to providing information to the community, and developers/builders, Public Works personnel should also take advantage of a variety of training opportunities such as networking with other municipalities, attending regional training opportunities and making use of guest speakers.

Additional measures to reduce mercury and TSS will be the development of comprehensive illicit discharge and construction site runoff control programs. Those stormwater control measures, along with the others, are discussed below.

Public Education – The City has been implementing educational outreach, but there hasn’t been a focused effort. In order to remedy the situation, staff has developed the following list of target audiences. These target audiences will have messages and activities designed that pertain specifically to that group through key messages. While certain audiences like the general public can receive a wide variety of messages through various means (brochures, articles, social media, etc.), if the target audience is school children for example, messages should be designed in a way that is useful for that group. Field trips or field presentations covering the impacts of mercury might be much more interesting for students.

Target Audiences for the City of Dallas

General Public

Students / School Children

Businesses

Industries

Landscapers

Developers/Builders/Engineers

Elected Officials / City Staff

The City will complete messages in 2022/2023 that can be used for each of the target audiences, for each of the pollutants of concern, over the 5 year term and beyond. Records will be maintained in order to make certain all audiences are being reached and what factors indicate success or poor performance to fine-tune efforts over the permit term.



2022 Krazy Days Outreach Booth

Public Involvement – Dallas has hosted volunteer events that will benefit water quality over the years, but recordkeeping has been limited on these events. In an effort to make certain this



Volunteer Ivy Removal Event

measure is properly addressed, presentations to the City Council will occur annually. In addition, the City will implement storm drain marking, and keep all TMDL materials, including the implementation plan, on the City's website.

Illicit Discharge Detection and Elimination

Developing a comprehensive illicit discharge detection and elimination (IDDE) program is very important to this community. At present the City provides some spill response training for personnel and has also issued some illicit discharge educational material. However, Dallas does not have an established program.

The City does utilize GIS and has recently hired personnel who will be keeping the data current. There are some gap in the data, but Dallas has done a good job collecting and managing assets through the database.

The management strategies for this control measure, listed in Appendix .B were developed to align with the Phase II General Permit regulations. The City will develop an IDDE program that outlines the process for response to spills or dumping, and an ordinance that will provide a legal means to remedy situations that are illegal or intentional. Staff training will occur annually and a review of City activities will be conducted to identify potential pollutant contributors in City operations.

Construction Site Runoff Control – Dallas does not have an erosion control program. Construction sites larger than 1 acre are currently required to obtain coverage under the State's 1200-C program.

Construction site runoff and erosion control management is minimal in the City of Dallas. The BMPs for this control measure were developed according to the WQMP Table 13.11. According to that document *DMA's must refer project sites to DEQ, or the appropriate DEQ agent, to obtain NPDES 1200-C Construction Stormwater Permit coverage for construction projects that disturb one or more acres (or that disturb less than one acre, if it is part of a "common plan of development or sale" disturbing one or more acres).*

In addition, DMA's must require construction site operators to complete and implement an Erosion and Sediment Control Plan for construction project sites in its jurisdictional area that result in a minimum land disturbance of 21,780 square feet (one half of an acre) or more, and are not already covered by a 1200-C permit.

Through ordinance or other regulatory mechanism, to the extent allowable under state law, the DMA must require erosion controls, sediment controls, and waste materials management controls to be used and maintained at all qualifying construction projects (as described above) from initial clearing through final stabilization to reduce pollutants in stormwater discharges to the stormwater conveyance system from construction sites.

The DMA must develop, implement and maintain a written escalating enforcement and response procedure for all qualifying construction sites. The procedure must address repeat violations through progressively stricter response, as needed, to achieve compliance.

The DMA must track implementation of its construction site runoff program required activities. In each TMDL annual report, the DMA must assess their progress toward implementing its construction site runoff program's control measures.

City staff is currently interested in developing their construction site runoff program in a manner that will allow for inclusion in the 1200-CN permit. BMPs for this control measure are listed in Appendix B.

Post-Construction Runoff Control – The City's fairly recent Stormwater Master Plan should allow for a smoother process to the Design Standard revisions that will likely be needed to fully meet the conditions of this control measure.

Dallas will also start annual training in 2022/2023 to introduce Post-Construction principles and actions. In addition to training, the City will develop an inspection process to capture the facilities currently within the community.

The City has mixed soils with some areas where moderate infiltration may be possible. As a means to utilize a more efficient means of stormwater management, the City will explore the feasibility of using Underground Injection Control Facilities (UICs) in some sections of the

community. Technologies for the use of UICs continue to evolve and utilization of these devices in concert with a post-construction program is a defensible process for managing the impact of stormwater. Findings and future actions will be included in annual reports.

Good Housekeeping – The City currently implements many good housekeeping activities. The BMPs developed for this control measure were designed with the intent of fine-tuning existing practices. See Appendix A for a list of applicable BMPs

Section 3.2 Public Involvement

The City has not done adequate work in regard to public involvement. As has been covered in Section 3.1 above, Dallas has revised its activities to include the BMPs listed in the Matrix.

Section 3.3 Land Use Compliance

The original 2008 TMDL Implementation Plan stated that the plan met local land use plans and the Oregon Statewide Planning Goals.

The City of Dallas Community Development staff have reviewed the current plan and confirm that the document remains compliant with City and State land use regulations.

Section 3.4 Fiscal Analysis

The City of Dallas does not have a fully funded stormwater utility. There is a stormwater fee, but it is not sufficient to address all stormwater management activities. The City's stormwater maintenance activities and any regulatory activities are conducted by a total of 1.2 fte with substantial support from the Streets, Wastewater, and Engineering Divisions. The City has recently hired 2 new ftes that will likely help address the program as a whole

The City's 2022/2023 budget can be accessed at [final budget 2022-2023.pdf \(dallasor.gov\)](#) The City has added development of a sustainable funding source to its revised TMDL Implementation Plan. Dallas understands that the program must be properly funded to meet the program obligations.

Section 4.0 - Implementation Plan Management

Section 4.1 Recordkeeping

It is important for the City of Dallas to maintain comprehensive and accurate records. The City has been successful in implementing a number of successful BMPs since the original program started, but recordkeeping has not been completed according to program requirements. Dallas will develop a records management program to address this issue in order to provide for accurate and efficient access to the most current and past data.

Section 4.2 Annual Reporting

The City of Dallas will include progress on the attached matrix for each annual report. A concise summary of annual progress shall be submitted as well which will include any activities that are applicable, but are not listed on the matrix.

As was requested in the 2021/2022 annual report, the report year will be changed to October through September starting in 2022/2023, with the first annual report being submitted on November 1, 2023. This initial report will be a longer version to capture activities from June 2022 through September 2022.

During the 5th year of the implementation period, the City of Dallas will submit a program evaluation and assessment according to guidance provided by DEQ. The five-year evaluation shall be submitted every 5th year according to the provided DEQ timeline.

Section 4.3 Plan Review / Performance Monitoring

In an effort to make certain that the program remains on track, applicable Dallas personnel will need to carefully review annual progress reports and tasks for upcoming years. Corrections and adjustments will be made at annual report time.

For each monitoring year, staff will look at developing trends to determine if BMPs need to be adaptively managed. Personnel will look for avenues to improve function, funding, efficiency, and pollutant reduction. These outcomes will be the markers for considering and applying Adaptive Management. According to the Mercury TMDL WQMP *Adaptive Management is a process that acknowledges and incorporates improved technologies and practices over time in order to refine implementation*. Adaptive Management is intended to improve the effectiveness of the chosen BMP. Progress of each BMP will be included in the status column of the matrix and submitted with the annual report. Program analysis and adaptive management proposals will be included in the narrative of the annual report.

BMP LIST

BMP	Description
PE-1	Develop a resource portfolio of outreach messages for the identified target audiences.
PE-2	Post relevant stormwater public education materials to the City's website.
PE-3	Participate in Krazy Days and/or other local events.
PE-4	Provide educational opportunities and material for students.
PE-5	Mail informational letter to streamside property owners 2x during the 5 year term
PE-6	Partner with local watershed council, SWCD, university, etc
PE-7	Maintain pet waste stations
PI-1	Maintain a website to post the most current environmental educational information
PI-2	Annual presentation to City Council
PI-3	Utilize community groups to mark catch basins and include an educational element
ID-1	Update the City's GIS system to include new stormwater data
ID-2	Develop an ordinance that prohibits non-stormwater discharges into the stormwater system
ID-3	Develop and enforce an escalating and response procedure to include construction sites, illegal dumping and illegal connections.
ID-4	Annual staff training
ID-5	Recordkeeping including response to complaint accounting
ID-6	Conduct annual outfall inspections
CS-1	Coordinate with the development community regarding the need for a 1200-C permit and a City ECSP Plan
CS-2	Develop an Erosion Control Ordinance which includes DEQ requirements
CS-3	Develop and enforce an escalating and response procedure to include qualifying construction sites
CS-4	Develop a tracking system
CS-5	Send selected personnel to CESCL training and annual training for PW person
PC-1	Develop an ordinance or other regulatory mechanism such as design standards to meet the post-construction requirements
PC-2	Evaluate the use of UICs in areas where stormwater cannot be infiltrated
PC-3	Develop inspection and maintenance requirements for publically owned property
PC-4	Develop an inventory of private and public facilities
PC-5	Staff training
PC-6	Recordkeeping
GH-1	Develop a Good Housekeeping Manual
GH-2	Monthly Inspections at Shop Facility
GH-3	Street Sweeping
GH-4	Catchbasin Cleaning
GH-5	Annual training
	Develop a sustainable stormwater fee
	Develop a Stormwater Management Plan (SWMP)
	Complete annual reports
	Evaluate public education activities according to WQMP

	Annually evaluate implementation efforts and program progress (monitoring)
	Complete 5 th Year Assessment and Evaluation

City of Dallas TMDL IMPLEMENTATION PLAN MATRIX 2022 – 2027 Report Year 1 October 1, 2022 to Sept. 30, 2023* (*to include 6/1/22 to 9/2/22)									
BMP#	Source What source is being addressed? (ex. runoff from construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status	
POLLUTANT: Mercury									
MCM #1 Public Outreach									
PE-1	Runoff from soil disturbance and direct discharge to waterway from riparian area	Develop a resource portfolio of outreach messages for the identified target audiences.	Resources to be developed by knowledgeable persons to reach target audiences	Work to be completed by consultant	Report updates in annual report	2022	Develop program foundation with focused approach	Target audiences developed and key messages developed. Work in underway and will be completed by the end of 2022	
PE-2	Runoff from soil disturbance and direct discharge to waterway from riparian area	Post relevant stormwater public education materials to the City's website.	Utilize material from portfolio to make FAQ sheets, brochures, etc	Staff	Document materials and topics covered annually and discuss in annual report	Ongoing annually	Completion of multiple documents on the website for the public to access. Update routinely		
PE-3	Runoff from soil disturbance and direct discharge to waterway from riparian area	Participate in Crazy Days and/or other local events.	Host a booth or event and document materials	Small fund for display materials and incentive items	Document date of events and participation	Ongoing annually	Report number of materials handed out, date, and participation	Krazy Days was held the weekend of 7/28/22. Outreach included brochures and educational material for children. The annual event is well attended	
PE-4	Discharge from unvegetated riparian area	Provide educational opportunities and material for students.	Presentation in classroom or field events at a local park, etc	Staff time and presentation needs	Document date, # of students, and content	Ongoing annually	Report specifics of event including date, material covered, etc		
PE-5	Runoff from soil disturbance and direct discharge to waterway from riparian area	Mail informational letter to streamside property owners 2x during the 5 year term	Letters will cover streamside responsibilities and BMPs	Staff time and mailing cost	Complete mailing list in 2022/2023	2023 and 2025	Maintain records of how many recipients and copy of the letters		

APPENDIX A – 2022 TMDL Matrix

BMP#	Source What source is being addressed? (ex. runoff from construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
PE-6	Runoff from soil disturbance and direct discharge to waterway from riparian area	Partner with local watershed council, SWCD, university, etc	Provide financial support or other incentives for environmental activities in Dallas	Tbd – agreement should be reached with the applicable group	Report annual progress in yearly report	Ongoing annually	Document progress annually	
MCM #2 Public Involvement								
PI-1	Runoff from soil disturbance and direct discharge to waterway from riparian area	Maintain a website to post the most current environmental educational information	Post the TMDL Plan on the City website with educational material	Staff time	Post the plan in 2022 and post plan reports submitted to DEQ annually	To occur each year starting in 2022	Post new and updated material annually and report	
PI-2	Runoff from soil disturbance and direct discharge to waterway from riparian area	Annual presentation to City Council	Work Session presentation	Consultant and staff	Report progress in yearly report	To occur each year starting in 2022/2023	Content and date to be included in annual report	Council meeting work session being scheduled for fall 2022
PI-3	Runoff from soil disturbance and illicit discharges	Utilize community groups to mark catch basins and include an educational element	Utilize community groups to mark a number of basins each year	Budget for placards, and misc. costs for adhesive, kits, etc.	Track number of basins marked and report annually	To occur each year starting in 2024	Track number of markers installed, dates, and volunteers	
MCM #3 Illicit Discharge Detection and Elimination								
ID-1	Runoff from soil disturbance and impervious area	Update the City's GIS system to include new stormwater data	Review WQMP to meet DEQ requirements	Staff time	Document annual updates	To occur each year starting in 2022/2023	Track annual assets (ie. outfalls, catchbasins, etc)	

APPENDIX A – 2022 TMDL Matrix

BMP#	Source What source is being addressed? (ex. runoff from construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
ID-2	Runoff from soil disturbance and impervious area	Develop an ordinance that prohibits non-stormwater discharges into the stormwater system	Utilize ordinances and programs from other agencies	Staff time involving legal	Provide DEQ annual progress on this BMP in the annual report	Complete by 2025/2026	Document annual activities	
ID-3	Runoff from soil disturbance and impervious area	Develop and enforce an escalating and response procedure to include construction sites, illegal dumping and illegal connections.	The plan will include escalating steps of enforcement	Staff time	Report progress and final to DEQ	Complete by 2025/2026	Document annual activities	
ID-4	Runoff from soil disturbance and impervious area	Annual staff training	Annual training by existing staff. Take advantage of inexpensive regional training	Include training in the annual budget	Report training date, # of employees in attendance	To occur each year starting in 2022/2023	Conduct annual training – develop a schedule. Yr 1 training by consultant	
ID-5	Runoff from soil disturbance and impervious area	Recordkeeping including response to complaint accounting	Utilize GIS or another database to document response to calls and complaints	Staff time	Report # of complaints and outcome annually	To occur each year starting in 2022/2023	Develop a response process and tracking system	
ID-6	Runoff from soil disturbance and impervious area	Conduct annual outfall inspections	Field inspect outfalls and maintain inventory	Staff time	Report activities in annual report	To occur each year starting in 2023/2024	Develop process and maintain digital inventory. Prepare for dry weather insp	

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MCM #4 Construction Site Runoff								
CS-1	Runoff from soil disturbance and impervious area	Coordinate with the development community regarding the need for a 1200-C permit and a City ESCP Plan	Provide materials on the website and conduct site visits	Staff time	Report progress in yearly report	Ongoing to commence in 2023	Develop a flyer for builders/developers. Use in field and post on website	The City hired a new Environmental Technician in July 2022. 1200-C materials are being reviewed
CS-2	Runoff from soil disturbance and impervious area	Develop an Erosion Control Ordinance which includes DEQ requirements	Ordinance and document need to be consistent with 1200-C and 1200-CN programs	Staff time	Document annual progress	2025/2026	Report progress in each annual report	City is currently reviewing ordinances from the cities of Conrallis and Keizer
CS-3	Runoff from soil disturbance and impervious area	Develop and enforce an escalating and response procedure to include qualifying construction sites	The response procedure will be linked to a process that applies to the ID, PC portions of the plan	Staff time	Report progress in annual report	2023/2024	Education will be emphasized prior to ordinance development. Develop draft	
CS-4	Runoff from soil disturbance and impervious area	Develop a tracking system	Will seek to eventually tie this process to GIS	Staff time	Report progress in annual report	2023/2024	Maintain annual tracking data	
CS-5	Runoff from soil disturbance and impervious area	Send selected personnel to CESCL training and annual training for PW person	Utilize resources for local training	Training fees included in budget	Report training and recertification dates	2023/2024	Obtain training	

APPENDIX A – 2022 TMDL Matrix

BMP#	Source What source is being addressed? (ex. construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
MCM #5 Post-Construction Runoff Control for New and Redevelopment								
PC-1	Runoff from soil disturbance and impervious area	Develop an ordinance or other regulatory mechanism such as design standards to meet the post-construction requirements	Utilize DEQ resources and mirror what other municipalities have done.	Staff time – potential for engineering costs	Document progress annually	Complete by 2025/2026	Describe progress in the annual report	Staff is reviewing design standards from West Linn
PC-2	Runoff from soil disturbance and impervious area	Evaluate the use of UICs in areas where stormwater cannot be infiltrated	Utilize engineering reports, soil surveys, field studies	Consulting cost	Report path forward in yearly report	2023/2024	Review regulatory language and soil data to determine feasibility	
PC-3	Runoff from soil disturbance and impervious area	Develop inspection and maintenance requirements for publically owned property	The plan should include a checklist for inspections	Staff time	Report annual progress	2024/2025	Add maintenance plan and protocol to GH manual	
PC-4	Runoff from soil disturbance and impervious area	Develop an inventory of private and public facilities	Review as-builts, field verify, etc	Staff time	Describe progress in the annual report	Complete by 2024/2025	Inventory shall include owner, installation date, type, etc.	
PC-5	Runoff from soil disturbance and impervious area	Staff training	Annual staff training for involved personnel	Cost of training	Report annual training activities	Ongoing starting in 2022/2023	Consultant to facilitate Year 1 training	
PC-6	Runoff from soil disturbance and impervious area	Recordkeeping	Track facilities, ownership, age, type, etc	Staff time	Report annual activities	Ongoing starting in 2023/2024	Inventory existing facilities in 2023/2024	

APPENDIX A – 2022 TMDL Matrix

BMP#	Source What source is being addressed? (ex. runoff from construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
MCM #6 Good Housekeeping in Municipal Operations								
GH-1	Pollution from municipal operations	Develop a Good Housekeeping Manual	The manual is a reference guide for operations personnel	Staff time w/ Consultant	Describe progress in the annual report	Complete by 2022/2023	Complete manual	
GH-2	Pollution from municipal operations	Monthly Inspections at Shop Facility	Inspections will occur according to Good Housekeeping Manual in Yr 2	Staff time	Provide completion date and documentation for inspections to DEQ	Conduct inspections starting in 2023/2024	Conduct inspections according to the manual	
GH-3	Pollution from municipal operations	Street Sweeping	Continue street sweeping activities	Staff time	Provide annual activities in annual report	To occur each year starting in 2023	Evaluate practices to improve effort. Record quarterly removal totals	
GH-4	Pollution from municipal operations	Catchbasin Cleaning	Continue catchbasin cleaning – clean 50% of total annually	Staff time	Evaluate practices to improve effort	To occur each year starting in 2023	Provide annual activities in annual report	
GH-5	Pollution from municipal operations	Annual training	Utilize consultant for initial training	Consultant	Record date, content, and employees	To occur each year starting in 2023	Describe progress in the annual report	

APPENDIX A – 2022 TMDL Matrix

BMP#	Source What source is being addressed? (ex. runoff from construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
POLLUTANT: Temperature								
MCM #1 Public Education								
PE-1	Sediment loading and lack of shade	Develop a resource portfolio of outreach messages for the 5 year evaluation period	Resources to be developed by knowledgeable persons	Work to be completed by consultant	Report updates in annual report	2022	Develop program foundation with focused approach	Target audiences developed and key messages developed. Work in underway and will be completed by the end of 2022
PE-4	Sediment loading and lack of shade	Mail informational letter to streamside property owners 2x during the 5 year term	Letters should cover streamside responsibilities such as tree preservation	Staff time and mailing cost	Document date, # of students, and content	Ongoing annually	Report specifics of event including date, material covered, etc	
PE-5	Sediment loading and lack of shade	Partner with local watershed council, SWCD, university, or other regional groups	Provide financial support or other incentives in exchange for environmental support	Tbd – agreement should be reached with the applicable group	Complete mailing list in 2022/2023	2023 and 2025	Maintain records of how many recipients and copy of the letters	
MCM #2 Public Involvement								
PI-1	Sediment loading and lack of shade	Maintain a website to post the most current environmental educational information	Post the TMDL Plan on the City website with educational material	Staff time	Post the plan in 2022 and post plan reports submitted to DEQ annually	To occur each year starting in 2022	Post new and updated material annually and report	

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BMP#	Source What source is being addressed? (ex. runoff from construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
PI-2	Sediment loading and lack of shade	Annual presentation to City Council	Work Session presentation	Consultant and staff	Report progress in yearly report	To occur each year starting in 2022/2023	Content and date to be included in annual report	Council meeting work session being scheduled for fall 2022
PI-3	Sediment loading and lack of shade	Utilize community groups to mark catch basins	Utilize community groups to mark a number of basins each year	Budget for placards, and misc. costs for adhesive, kits, etc.	Track number of basins marked and report annually	To occur each year starting in 2024	Track number of markers installed, dates, and volunteers	
MCM #3 Illicit Discharge Detection and Elimination								
ID-2	Sediment loading and lack of shade	Develop an ordinance that prohibits non-stormwater discharges into the stormwater system	Utilize ordinances and programs from other agencies	Staff time involving legal	Provide DEQ annual progress on this BMP in the annual report	Complete by 2025/2026	Document annual activities. Use Phase II as guidance	
ID-3	(See CS-3)	Develop and enforce an escalating and response procedure to include construction sites, illegal dumping and illegal connections.	The plan will include escalating steps of enforcement	Staff time	Report progress and final to DEQ	Complete by 2025/2026	Document annual activities	
ID-4	Sediment loading and lack of shade	Annual staff training	Annual training by existing staff. Take advantage of inexpensive regional training	Include training in the annual budget	Report training date, # of employees in attendance	To occur each year starting in 2022/2023	Conduct annual training – develop a schedule. Yr 1 training by consultant	

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BMP#	Source What source is being addressed? (ex. construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
MCM #4 Construction Site Runoff								
CS-2	Sediment loading and lack of shade	Develop an Erosion Control Ordinance which includes DEQ requirements	Ordinance and document need to be consistent with 1200-C and 1200-CN programs The response procedure will be linked to a process that applies to the ID, PC portions of the plan	Staff time	Document annual progress	2025/2026	Report progress in each annual report	City is currently reviewing ordinances from the cities of Corvallis and Keizer
CS-3	Sediment loading and lack of shade	Develop and enforce an escalating and response procedure to include qualifying construction sites	The response procedure will be linked to a process that applies to the ID, PC portions of the plan	Staff time	Report progress in annual report	2023/2024	Education will be emphasized prior to ordinance development. Develop draft	
MCM #5 Post Construction Runoff Control in New and Redevelopment								
PC-1	Sediment loading and lack of shade	Develop an ordinance or other mechanism such as design standards to meet the post-construction reqs.	Utilize DEQ resources and mirror what other municipalities have done.	Staff time – potential for engineering costs	Document progress annually	Complete by 2025/2026	Describe progress in the annual report	Staff is reviewing design standards from West Linn
PC-3	Sediment loading and lack of shade	Evaluate the use of UICs in areas where stormwater cannot be infiltrated	Utilize engineering reports, soil surveys, field studies	Consulting cost	Report annual progress	2024/2025	Add maintenance plan and protocol to GH manual	
PC-5	Sediment loading and lack of shade	Develop an inventory of private and public facilities	Review as-builts, field verify, etc	Staff time	Report annual training activities	To occur annually starting in 2022/2023	Consultant to facilitate Year 1 training	

APPENDIX A – 2022 TMDL Matrix

BMP#	Source What source is being addressed? (ex. runoff from construction sites, riparian condition)	Strategy What will be done to control or reduce pollutant from source?	How Specifically, how will this be done?	Fiscal Considerations How is the BMP funded? (ex. In the 2023 budget, grant, etc.)	Measure How will successful implementation or completion be measured?	Timing When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when. Measure success	Status
PC-6	Sediment loading and lack of shade	Staff training	Annual staff training for involved personnel	Cost of training	Report annual activities	Ongoing starting in 2023/2024	Inventory existing facilities in 2023/2024	
MGM #6 Good Housekeeping in Municipal Operations								
GH-1	Pollution from municipal operations	Develop a Good Housekeeping Manual	Include protocol for retention of trees and native vegetation along waterways	Staff time w/ Consultant	Complete manual	Complete by 2022/2023	Describe progress in the annual report	
POLLUTANT: Bacteria								
MGM # 1 Public Education								
PE-1	Runoff from pervious surface, or illegal discharge	Develop a resource portfolio of outreach messages for the 5 year evaluation period	Resources to be developed by knowledgeable persons	Work to be completed by consultant	Target audiences and key messages have	2022	Develop program foundation with focused approach	Target audiences developed and key messages developed. Work in underway and will be completed by the end of 2022
PE-2	Runoff from pervious surface, or illegal discharge	Post relevant stormwater public education materials to the City's website.	Material in the form of FAQ sheets, articles, brochures, etc	Staff	Document materials and topics covered annually and discuss in annual report	Ongoing annually	Completion of multiple documents on the website for the public to access. Update routinely	
PE-3	Runoff from pervious surface, or illegal discharge	Participate in Crazy Days and/or other local events.	Host a booth or event and document materials	Small fund for display materials and incentive items	Document date of events and participation	Ongoing annually	Report number of materials handed out, date, and participation	Krazy Days was held the weekend of 7/28/22. Outreach included brochures and educational material for children. The annual event is well attended

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PE-5	Runoff from pervious surface, or illegal discharge	Mail informational letter to streamside property owners 2x during the 5 year term	Letters should cover streamside responsibilities and BMPs	Staff time and mailing cost	Complete mailing list in 2022/2023	2023 and 2025	Maintain records of how many recipients and copy of the letters	
PE-7	Runoff from pervious surface, or illegal discharge	Maintain pet waste stations	Stock, install, and maintain pet waste stations	Maintain budget for this activity	Collect records of when stations are stocked	To occur each year starting in 2022/2023	Report yearly activity in annual report	
MCM #2 Public Involvement and Participation								
PI-1	Runoff from pervious surface or degraded riparian area	Maintain a website to post the most current environmental educational information	Post the TMDL Imp Plan and other educational information	Staff time	Post new and updated material annually and report	To occur each year starting in 2022	Post the plan in 2022 and post plan reports submitted to DEQ annually	
PI-3	Runoff from pervious surface or degraded riparian area	Utilize community groups to mark catch basins	Utilize community groups to mark a number of basins each year	Budget for placards, and misc. costs for adhesive, kits, etc.	Track number of basins marked and report annually	To occur each year starting in 2024	Track number of markers installed, dates, and volunteer	
MCM #3 Illicit Discharge Detection and Elimination								
ID-2	Runoff from soil disturbance and impervious area	Develop an ordinance that prohibits non-stormwater discharges	Develop a plan to meet the conditions of IDDE in 2022/2023	Staff time involving legal	Document annual progress	Complete by 2025/2026	Provide DEQ annual progress on this BMP in the annual report	

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ID-3	Runoff from soil disturbance and impervious area	Develop an enforcement response plan	The plan will include escalating steps of enforcement	Staff time	Report progress and final to DEQ	Complete by 2025/2026	Document annual activities	
MGM #4 Construction Site Runoff								
CS-2	Runoff from soil disturbance and impervious area	Develop an Erosion Control Ordinance which includes DEQ requirements	Ordinance and document need to be consistent with 1200-C and/or 1200-CN programs	Staff time	Document annual progress	2025/2026	Report progress in each annual report	City is currently reviewing ordinances from the cities of Corvallis and Keizer
CS-3	Runoff from soil disturbance and impervious area	Develop and enforce an escalating and response procedure to include qualifying construction sites	The response procedure will be linked to a process that applies to the ID, PC portions of the plan	Staff time	Report progress in annual report	2023/2024	Education will be emphasized prior to ordinance development. Develop draft	
MGM #5 Post Construction Runoff Control in New and Redevelopment								
PC-1	Runoff from soil disturbance and impervious area	Develop an ordinance or other regulatory mechanism such as design standards to meet the post-construction requirements	Utilize DEQ resources and mirror what other municipalities have done.	Staff time – potential for engineering costs	Describe progress in the annual report	Complete by 2025/2026	Document progress annually	Staff is reviewing design standards from West Linn

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PC-2	Runoff from soil disturbance and impervious area	Evaluate the use of UICs in areas where stormwater cannot be infiltrated	Utilize engineering reports, soil surveys, field studies	Consulting cost	Report path forward in yearly report	2023/2024	Review regulatory language and soil data to determine feasibility	
PC-3	Runoff from soil disturbance and impervious area	Develop inspection and maintenance requirements for publically owned property	The plan should include a checklist for inspections	Staff time	Report annual progress	2024/2025	Add maintenance plan and protocol to GH manual	
PC-4	Runoff from soil disturbance and impervious area	Develop an inventory of private and public facilities	Review as-built, field verify, etc	Staff time	Describe progress in the annual report	Complete by 2024/2025	Inventory shall include owner, installation date, type, etc.	
PC-5	Runoff from soil disturbance and impervious area	Staff training	Annual staff training	Cost of training	Report annual training activities	To occur annually starting in 2022/2023	Consultant to facilitate Year 1 training	
MCM #6 Good Housekeeping in Municipal Operations								
GH-1	Pollution from municipal operations	Develop a Good Housekeeping Manual	Include protocol for retention of trees and native vegetation along waterways	Staff time w/ Consultant	Describe progress in the annual report	Complete by 2023/2024	Complete manual and track activities	
GH-3	Pollution from municipal operations	Street Sweeping	Continue street sweeping activities	Staff time	Provide annual activities in annual report	To occur each year starting in 2023	Evaluate practices to improve effort. Record quarterly removal totals	

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GH-4	Pollution from municipal operations	Catchbasin Cleaning	Continue catchbasin cleaning – clean 50% of total annually	Staff time	Provide annual activities in annual report	To occur each year starting in 2023	Evaluate practices to improve effort. Field verify condition and priority	
Other Management Activities								
		Develop a sustainable stormwater fee	Review possible options including an impervious surface study	Staff time	Provide annual activities in annual report	2025/2026	Annual progress shall include options considered, and next steps	
		Develop a Stormwater Management Plan (SWMP)	SWMP to be developed using Phase II as a guide	Consultant to complete	Report completion date and provide upon request	2022/2023	Develop the SWMP	
		Complete annual reports	Develop document based on recordkeeping	Consultant to complete	Complete and submit the annual report	By due date Nov 1 st annually		
		Evaluate public education activities according to WQMP	Choose 1 activity to promote and help lead other activities	Consultant to complete	Review activities with staff and determine most effective activity and why	To be submitted with annual report		

APPENDIX A – 2022 TMDL Matrix

		Annually evaluate implementation efforts and program progress	Review and evaluate actions (monitoring)	Consultant to complete	Review and discuss with staff to plan changes for following year	To be submitted with annual report	
		Complete 5 th Year Assessment and Evaluation	Gather information based on recordkeeping and annual reports	Staff time	Complete assessment using DEQ guidelines	2026/2027	

Control Measures	
PE	Public Education
PI	Public Involvement and Participation
ID	Illicit Discharge Detection and Elimination
CS	Construction Site Runoff Control
PC	Post-Construction Runoff Control
GH	Good Housekeeping in Municipal Operations