

TMDL Implementation Matrix 2021-2026 Summary
 Includes City of Silverton, Sept 30, 2022 Revised Mercury TMDL Update
 Supersedes matrix used for 09/30/2021

#	Pollutant	Table 13-11 Storm water Program Measure	Source/Strategy	How – Best Practice Management Activity	Funding	Measure Reporting Metric Timeline	Milestone – Interim activity and Table 13-14 completion timeline	Status
1	Mercury	WQMP Requirement - Assess existing programs	DEQ monkey surveys from Jan-Oct 2021 used to assess existing programs against 2019 Mercury TMDL WQMP Tables 13-11 and 13-14	List of activities assessed for adding to the plan for mercury: approximately 27 activities in support of WQMP 6 storm water program measures (Table 3 TMDL plan updates for mercury)	Existing Staff for planning	Describe Pre-plan activity for due date of Sept 3 2022	Completed Sept 3, 2022	
2	Mercury, Bacteria, Temperature	Public Education and Outreach and Public Involvement and participation program	Requirement- Reasonable assurance plan will be implemented and sustained overtime Cost analysis and estimation page 128-221 https://www.oregon.gov/deq/wq/Documents/willHgtmdlwqmpF.pdf	Budget development and City Council approval for plan development, implementation, annual status reporting and a five-year review	General fund Payroll	Report date of budget approval and Council approval for all TMDL implementation plan approved activities	Each year, document dates for confirming budget and Council approval; Annual costs and funding to determine approximate extent of BMP activity	March 6, 2023 report to City Council on TMDL implementation plan.
3	Mercury, Bacteria, Temperature	Public Education and Outreach and Public Involvement and participation program	Awareness of water quality protection programs – Provide opportunities for the public to effectively participate in the development TMDL plan	Post City Council approved implementation plan and reports for public viewing to the City website	Administration staff	Annually provide web link for access to Plan and report viewing	Completed Sept 3, 2022 - Program in-place completed – Post annual reports before next TMDL reporting cycle (09/30 of every year report due)	Updated TMDL Plan is posted on website
4	Mercury	Public Education and Outreach and Public Involvement and participation program	Provide opportunity for residents and the public to effectively participate in the development of storm water control measures.	Compliance with land use planning – Public notice requirements for plan and storm water programs, such as: fee increases, design standards, planning and development, ordinance development and approval, budget	Ongoing 2021-2026	Annual report on dates and topics, funding changes, for plan or confirm none.	Maintain list of public notices for reporting year with description and dates of activity or City website links;	March 6, 2023
5	Mercury	Public Education and Outreach and Public Involvement and participation program	Provide opportunity for residents and the public to effectively participate in the development of storm water control measures.	The City has an Environmental Management Committee that residents participate in. This Committee can develop storm water outreach to the community and city council.	Ongoing 2021-2026	Update the City Council on programs Annually. Include summary of relevant environmental committee activities in TMDL annual report.	Maintain outreach through the City web page and through the Environmental Management Committee.	Environmental Management Committee meets once a month

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6	Mercury	Public Education and Outreach	Illicit discharges or pollution impacts to storm water runoff to municipal system.	Promote awareness of storm water protection measures - Tools that may be used for awareness: Water quality brochure, utility bill insert, city newsletter. Website utilized for posting and storing water quality documents Media releases related to water quality (Website news flash, Facebook, Twitter) Public Works lobby pamphlets for visitors on water quality.	Ongoing 2021-2026	TMDL annual report will describe tools used to deliver announcements to city residents regarding pollutant impacts from excess sediment in storm water runoff including pesticides and mercury	Utilize tools throughout year as needed.	
7	Mercury	Pollution Prevention in Municipal Operations	Properly operate and maintain its facilities, using prudent pollution prevention and good housekeeping to reduce the discharge of mercury-related pollutants, such as sediment, through the storm water conveyance system to waters of the state.	Cleaning program for storm water ditches, lines, catch basins, streets, and parking areas. Sediment in runoff - Reduce sediment load in runoff	Already funded through Public Works budget	Report approximate percentage, by category, of ditches, lines, basins, and streets, and parking areas cleaned	Maintain cleaning records throughout each year w/records available upon request.	Annually 25% of ditches, 50% of storm lines, 70% of catch basins, and 85% of streets are cleaned
8	Mercury	Pollution Prevention in Municipal Operations	Properly operate and maintain its facilities, using prudent pollution prevention and good housekeeping to reduce the discharge of mercury-related pollutants, such as sediment, through the storm water conveyance system to waters of the state.	Ensure DMA owned or operated facilities with industrial activity identified in DEQ's 1200-Z Industrial Storm water General Permit have coverage under this permit. Obtain 1200Z permit for applicable City operations	Ongoing 2021-2026	Provide description, and date, of any new 1200Z City facility identified during the reporting year or document none.	City will evaluate new city owned facilities or changes for 1200Z permit moving forward.	City does not own any 1200Z facilities
9	Mercury, Bacteria, Pesticides	Illicit Discharge Detection and Elimination	Sediment in storm water runoff Implement and enforce a program to detect and eliminate illicit discharges into the storm water conveyance system to reduce sediment load and other pollutants in runoff	1. Develop and routinely maintain a current map of their storm water conveyance system for location of outfalls and an outfall inventory, conveyance system and storm water control locations.	Ongoing 2021-2026	Describe any changes or planned updates to maps inventories in annual report; Make maps and inventories available upon request;	City has a map of current storm water system that is updated in GIS regularly.	Last update was done on 11/10/2022.

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10	Mercury, Bacteria, Pesticides	Illicit Discharge Detection and Elimination	Sediment in storm water runoff Implement and enforce a program to detect and eliminate illicit discharges into the storm water conveyance system to reduce sediment load and other pollutants in runoff	2. Prohibit non-storm water discharges into the storm water conveyance system a) Through enforcement of an ordinance or other legal mechanism for appropriate enforcement procedures and actions to ensure compliance. b) Define the range of illicit discharges it covers, including those discharges that are conditionally allowed, such as non-storm water discharges or flows are authorized city does not identify them as significant contributors of pollutants (i.e., illicit discharges): water line flushing, landscape irrigation, diverted groundwater, potable water sources, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, dechlorinated swimming pool discharges, discharges or flows from firefighting activities. c) (3) No person shall cause pollution of any water of the state or cause any waste to be placed in a location where those wastes are likely to be carried into the storm drainage system.	Ongoing 2021-2026. An update of code to meet TMDL requirements will be completed by March 3, 2024 by City Staff.	Provide information on any enforcement activities in annual report.	City will update code by Mar 3 2024 to provide for increased penalties for multiple violations.	No enforcement activities implemented in the past year.
11	Mercury, Bacteria, Pesticides	Illicit Discharge Detection and Elimination	Sediment in storm water runoff Implement and enforce a program to detect and eliminate illicit discharges into the storm water conveyance system to reduce sediment load and other pollutants in runoff	3 Maintain a procedure or system to document all complaints or reports of illicit discharges into and from the storm water conveyance system.	Ongoing 2021-2026	Describe approximate number of calls related to water quality, storm water runoff in annual report. Make compliant list available upon request.	Complaints are referred to code enforcement. Public Works staff collaborates with code enforcement on resolution.	No calls were received in 2022.

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12	Mercury	Construction Site Storm water Runoff Control	Sediment in runoff leaving construction sites and/or activity into storm water conveyance system. Implement a Construction Site Runoff Control Program	<ol style="list-style-type: none"> 1. Refer project sites to DEQ, or the appropriate DEQ agent, to obtain NPDES 1200-C Construction Storm water 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) 2. 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. <ol style="list-style-type: none"> a. Through ordinance or other regulatory mechanism, to the extent allowable understate law, the DMA must require erosion controls, sediment controls, and waste materials management controls to be used and maintained at all qualifying construction - b. 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 	Ongoing 2021-2026. Staff time for inspections paid for by developer fees. Updated code to include escalating enforcement to be implemented by March 3, 2024 by City Staff.	Track implementation of construction site runoff program required activities for annual report.	Procedures are in place for approval and monitoring of erosion and sediment control at all construction sites. By March 3, 2024 City Code will be updated to include escalating enforcement for repeat violations.	As of 12/13/22 there are 4 active construction sites in Silverton with 1200C permits. City staff monitors erosion and sediment control measures on these sites as part of routine construction observation done by City Engineer and Engineering Tech.

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13	Mercury, Bacteria, Pesticides (TSS)	Post-Construction Program for development & redevelopment	Storm runoff from impervious surfaces Develop, implement, and enforce Post-Construction Program to reduce discharges of pollutants and control post-construction storm water runoff from new development and redevelopment project sites in its jurisdictional area.	Existing municipal code and Public Works Design Standards require detention of peak storm runoff for all new developments over 2,000 square feet of new impervious area. Existing standard is the 25-year storm developed flow must meet or be lower than the 5-year undeveloped flow. City will upgrade public works design standards to include the following: 1. A site-specific storm water management approach that targets natural surface or pre-development hydrological function through the installation and long-term operation and maintenance of storm water controls. 2. Retain rainfall on-site and minimize the offsite discharge of precipitation utilizing storm water controls that infiltrate and evapotranspiration of storm water. 3. For projects that are unable to fully retain rainfall/runoff from impervious surfaces on-site, the remainder of the rainfall/runoff from impervious surfaces must be treated prior to discharge with structural storm water controls. These storm water structural controls should be designed to remove, at a minimum, 80 percent of the total suspended solids. 4. Long-term operation and maintenance of storm water controls at project sites that are under the ownership of a private entity.	Ongoing 2021-2026 City staff to update public works design standards by September 3, 2024.	Track implementation of construction site runoff program required activities for annual report - Briefly describe progress toward implementing post-construction long-term operation and maintenance.	Sept 3, 2024– New municipal code in place requiring additional detention and water quality requirements for developments.	City staff will be discussing the process and implementation of LID practices in the City with City Council in March of 2023.
14	Bacteria	Public Involvement and Participation	Pet Waste/Pet waste stations in parks (bacteria concern)	Install pet waste stations in public parks to encourage removal of pet waste.	Ongoing 2021-2026	Document annually number of stations and number of functioning stations.		City has 5 pet waste stations in City Parks. Around 5,000 bags are provided a year.

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15	Temperature	Public Involvement and Participation	Solar radiation – urban forestry/ reduce thermal inputs from urban areas (temperature concern)	Protect existing forestry through Ordinance 19-14, Trees on City-Owned Property, Ordinance 08-06, Street Trees and Landscape Conservation. Identify enhancement projects through Environmental Management Committee.	Ongoing 2021-2026	Annual number of trees planted by City reported in annual report.	Environmental Management Committee discusses and reviews urban forestry enhancement projects.	60 trees were planted along the west side of Silver Creek in 2022 as part of mitigation for the Silver Creek Intake Project.
16	Temperature	Pollution prevention Post-construction	Solar radiation – urban forestry/ reduce thermal inputs from urban areas (temperature concern)	Protect city riparian properties during development and re-development. Ordinance 08-06 included a new Wetlands and Riparian Overlay District to ensure wetland and riparian sites are developed properly. Enforce ordinances (Chapter 2.7 of Title 18 Development Code and Zoning Map)	Ongoing 2021-2026	Annually describe activities supporting construction program to protect riparian habitat or report no development	Ongoing	All development projects within wetland and riparian areas are appraised in the planning stages and must comply with City and State codes.
17	Mercury, Pesticides	Public Education and Outreach	Road Runoff/Prevent Pollutants from reaching waterways (pesticide concern)	Marking storm catch basins (dump no waste – drain to stream)	Ongoing 2021-2026	Annual number of basins marked by City reported in annual report.	Ongoing	City has not marked any basins in 2022.
18	Pesticides	Pollution Prevention and Good Housekeeping for Municipal Operations	Public Property storm water runoff/ Proper pesticide use by park maintenance staff (pesticide concern)	Pesticides are only applied by a licensed applicator	Ongoing 2021-2026	List of employees with applicator licenses provided in annual report.	Ongoing	Jacob Rush, Lead Maintenance Worker, is a licensed pesticide applicator.