

City of Keizer
2024-2029 TMDL Implementation Plan Matrix
 Revised October 2023

Pollutant: Bacteria

Minimum Control Measure	Source <i>What source of this pollutant is being addressed?</i>	Strategy <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	Fiscal Analysis	Measure <i>How will successful implementation or completion of this strategy be measured?</i>	Milestone <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	Timeline <i>When will the strategy be completed?</i>	Status
Public Education & Outreach	Stormwater Runoff	Implement the NPDES Public Education Program to reduce stormwater pollution	Approved	Public Education BMPs have been fully implemented.	PE-1 Implement the Public Education and Outreach Program PE-2 Offer Stormwater Education Activities (as outlined in the Public Education Plan) PE-3 Deliver Target Topics to Target Audiences PE-4 Provide Education to Construction Professionals	Ongoing	
	Biological Waste - Sewer Overflows	Develop and implement an educational campaign aimed at reducing the number of sanitary sewer overflows	Approved	Track campaign metrics. Track the number of sewer overflows as a result of clogged pipes.	1. Collaborate with the City of Salem to determine the number of sewer overflows or sewer maintenance that are a result of wipe-clogged pipes. 2. Develop and implement a multi-media outreach campaign, designed to prevent residents from flushing disposable wipes. 3. Develop supporting outreach material to share sewer care best practices and sewer maintenance repair information to home owners (cost and impacts of clogged pipes). 4. Track campaign success and frequency of overflows or pipe maintenance.	2025	
	Biological Waste – Sewer/Septic Discharges	Develop and implement an educational campaign to promote public reporting of sewer/septic discharges, leaks, and spills using the City’s Online ID Report Tool	Approved	Track campaign metrics. Track illicit discharge reports.	1. Assess the Online ID Report Tool and make improvements to increase accessibility. 2. Assess historical ID reports to collect baseline data. 3. Develop a multi-faceted educational campaign designed to increase awareness and utilization of the online reporting form. 4. Implement the campaign to promote the Online ID Reporting Tool, paired with messaging on detecting and reporting sewer discharges. 5. Continue tracking the number and type of illicit discharge complaints. 6. Evaluate campaign success and adapt messaging each year.	2026-27	
	Other Sources - Agriculture, RV Waste, Unsheltered encampments	Conduct a literature review and topical research to determine if any of these sources are main contributors of bacteria loading in Keizer.	Approved	Completion of review.	1. Conduct a literature review of local data to determine if either of these three sources are major contributors to bacteria loading in the Mid-Willamette Subbasin. 2. If available, review GIS data to determine potential farm or agricultural sites that may contribute to bacteria loading. 3. Identify current RV dump site locations and determine if there are gaps in service areas. 4. If the results from this review show that any source may be a significant contributor, develop and implement a campaign to reduce the said source.	2027-28	
Public Involvement & Participation	Stormwater Runoff	Implement the NPDES Public Involvement Program	Approved	Public Involvement BMPs have been fully implemented.	PI-1 Implement a Public Involvement and Participation Program PI-2 Maintain a Publicly Accessible Website PI-3 Offer a Stewardship Opportunity	Ongoing	
	Multiple Sources	Explore new avenues to encourage collaboration and public involvement in water quality programming	Approved	Report completed, Proposal completed, Initiative implemented, Engagement metrics.	1. Perform topical research and review of public engagement tools offered elsewhere. 2. Create a report that summarizes findings, evaluates options, and provides recommendations 3. Draft a proposal to implement one initiative 4. Upon approval, develop and implement the initiative.	2024-25	
	Multiple Sources	Attend two community group meetings each year to share information to	Approved	Number of meetings attended annually.	1. Create a list of possible community groups / community meetings to attend 2. Develop content/messaging to target audience; align content with audience interests and the City’s water quality program goals. 3. Attend meetings to share information, build relationships, assess future opportunities to collaborate, and solicit feedback from members and attendees.	Annually	

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		share information about Keizer's water quality programs and plans and solicit feedback from members and attendees.			4. Document feedback and revise programs and plans as necessary.		
Illicit Discharge Detection & Elimination	Stormwater Runoff	Implement the NPDES Illicit Discharge Detection and Elimination Program	Approved	Illicit Discharge BMPs have been fully implemented.	ID-1 Implement an Illicit Discharge Detection and Elimination Program ID-2 Maintain a Map and Digital Inventory of the MS4 ID-3 Prohibit Illicit Discharges by Ordinance ID-4 Maintain Enforcement Procedures ID-5 Conduct Dry-Weather Inspections of Outfalls ID-6 Provide IDDE Training to Program Staff	Ongoing	
	Biological Waste – Wastewater Discharges	Provide specialized training to staff that focuses on identifying, responding to, and reporting sewer/septic discharges, leaks, and spills.	Approved	Completion of training Number of staff trained	1. Review commercial training programs or products to determine if the material is available. If so, take steps to provide the training. If not: 2. Seek opportunities to collaborate with subject matter experts and regional staff to develop a training event. 3. Schedule and provide training to all operations and program staff.	2024-25	
Construction Site Runoff Control	Stormwater Runoff	Implement the NPDES Erosion Control Program	Approved	Erosion Control BMPs have been fully implemented.	EC-1 Implement an Erosion and Sediment Control Program EC-2 Prohibit Construction Site Runoff by Ordinance EC-3 Require NPDES Construction Permits for Large-Scale Projects EC-4 Develop Written Erosion Control Standards EC-5 Review Erosion and Sediment Control Plans EC-6 Inspect Construction Sites for Compliance EC-7 Maintain Enforcement Procedures EC-8 Provide Training to Program Staff	Ongoing	
	Multiple Sources	Inspect all permitted construction sites to ensure waste management BMPs are properly installed and maintained.	Approved	Number of sites inspected. Number of waste/spill violations.	1. Review site plans/ECSPs to ensure waste management and spill BMPs are included. 2. Ensure waste management and spill BMPs are adequately addressed at initial inspections. 3. Perform routine and final inspections of permitted sites to ensure maintenance of waste management and spill BMPs 4. Evaluate barriers and track violations for these BMPs 5. Provide education to CSOs as needed to effectively address requirements	Annually	
Post Construction Runoff Control	Stormwater Runoff	Implement the NPDES Post Construction Program	Approved	Post Construction BMPs have been fully implemented.	PC-1 Implement and Enforce a Post Construction Stormwater Management Program PC-2 Maintain Legal Authority to Control Post Construction Runoff PC-3 Prioritize Low Impact Development PC-4 Update Stormwater Design Standards PC-5 Review Plans for Compliance with Stormwater Design Standards PC-6 Implement a Long-Term PC SW Management O&M Program PC-7 Provide Training to Program Staff	Ongoing	
Municipal Pollution Prevention (Good Housekeeping)	Stormwater Runoff	Implement the NPDES Municipal Pollution Prevention Program	Approved	Municipal Pollution Prevention BMPs have been fully implemented.	MPP-1 Implement a Municipal Pollution Prevention Program MPP-2 Inspect and Clean Catch Basins MPP-3 Implement Integrated Pest/Vegetation Management Plans MPP-4 Control Litter MPP-5 Develop and Implement a Materials Management Plan MPP-6 Provide MPP Training to Program Staff	Ongoing	
	Animal Waste	Continue to stock and maintain pet waste stations	Approved	Number of pet stations offered and maintained annually	1. Maintain a list of parks with pet waste stations 2. Monitor use by bag supplies 3. Continue to stock and maintain stations	Annually	

Six Minimum Control Measures
PE = Public Education/Outreach

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PI = Public Involvement/Participation
ID = Illicit Discharge Detection and Elimination
EC = Construction Site Runoff Control
PC = Post-Construction Runoff Control
MPP = Municipal Pollution Prevention (Good Housekeeping)

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Pollutant: Mercury

Minimum Control Measure	Source <i>What source of this pollutant is being addressed?</i>	Strategy <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	Fiscal Analysis <i>Has staff time or funding for these BMPs been approved?</i>	Measure <i>How will successful implementation or completion of this strategy be measured?</i>	Milestone <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	Timeline <i>When will the strategy be completed?</i>	Status
Public Education & Outreach	Stormwater	Implement the NPDES Public Education Program to reduce stormwater pollution	Approved	Public Education BMPs have been fully implemented.	PE-1 Implement the Public Education and Outreach Program PE-2 Offer Stormwater Education Activities PE-3 Deliver Target Topics to Target Audiences PE-4 Provide Education to Construction Professionals	Ongoing	
	Vehicles / Combustion	Develop or collaborate on an educational campaign to encourage the public to use alternative transportation.	Approved	Campaign completion and engagement metrics	1. Collaborate with Cherriots Bus Services and other regional public / alternative transportation programs to identify on-going initiatives. 2. Identify at least one initiative to collaborate on that targets the reduction in single-occupancy vehicle trips. 3. Monitor and evaluate effectiveness to determine future involvement.	2027-28	
	Soils / Erosion	Partner with MWOG to host the annual Erosion Control & Stormwater Management Summit (or similar event).	Approved	Event attendance and survey responses from attendees	1. Review previous EC Summit survey responses to identify areas for improvement. 2. Revise and implement as needed.	Annually	
	Solid Waste – Improper Disposal	Develop messaging or partner with other organizations to promote the proper handling and disposal of mercury-containing products.	Approved	Campaign completion and engagement metrics.	1. Collaborate with Marion County and local haulers to identify locations for disposal of mercury containing products. 2. Develop or partner to develop messaging to promote the proper disposal of mercury-containing items.	2025-26	
	Solid Waste – Illegal Dumping	Promote the Online Report Tool on social media to encourage public reporting of illegal dumping of solid wastes including yard debris, bark, compost, and soils.	Approved	Track illicit discharge reports.	1. Communicate with local soil and bark companies to remind them not to unload soil in the road or right of way. 2. Draft outreach campaign designed to encourage the use of the online reporting tool to report illegal dumping and potential illicit discharges. 3. Evaluate reports to determine effectiveness.	Annually	
Public Involvement & Participation	Stormwater Runoff	Implement the NPDES Public Involvement Program	Approved	Public Involvement BMPs have been fully implemented.	PI-1 Implement a Public Involvement and Participation Program PI-2 Maintain a Publicly Accessible Website PI-3 Offer a Stewardship Opportunity	Ongoing	
	Multiple Sources	Conduct a study to understand and inform the City's solid waste management	Approved	Completion of evaluation.	1. Evaluate existing City solid waste policies and practices. 2. Design an internal study to collect information to inform process improvements. 3. Develop tools and tracking mechanisms to fill gaps in knowledge. 4. Report findings and make recommendations to management for solid waste programming.	2027-28	

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		policies and practices.			5. Develop a plan to implement the approved policy and process changes.		
Illicit Discharge Detection & Elimination	Stormwater Runoff	Implement the NPDES Illicit Discharge Detection and Elimination Program	Approved	Illicit Discharge BMPs have been fully implemented.	ID-1 Implement an Illicit Discharge Detection and Elimination Program ID-2 Maintain a Map and Digital Inventory of the MS4 ID-3 Prohibit Illicit Discharges by Ordinance ID-4 Maintain Enforcement Procedures ID-5 Conduct Dry-Weather Inspections of Outfalls ID-6 Provide IDDE Training to Program Staff	Ongoing	
Construction Site Runoff Control	Stormwater Runoff - Soils	Implement the NPDES Erosion Control Program	Approved	Erosion Control BMPs have been fully implemented.	EC-1 Implement an Erosion and Sediment Control Program EC-2 Prohibit Construction Site Runoff by Ordinance EC-3 Require NPDES Construction Permits for Large-Scale Projects EC-4 Develop Written Erosion Control Standards EC-5 Review Erosion and Sediment Control Plans EC-6 Inspect Construction Sites for Compliance EC-7 Maintain Enforcement Procedures EC-8 Provide Training to Program Staff	Ongoing	
		Continue to ensure all qualified sites are permitted through 1200-CN program.	Approved	Number of permits issued. Number of violations Number of DEQ referrals	1. Continue to maintain 1200-CN permit coverage to offer 1200-CN permit coverage to all qualifying sites in Keizer. 2. Refer all non-qualifying sites to DEQ (and other regulatory agencies) for appropriate permitting. 3. Implement the program as specified by DEQ and the City Council.	Ongoing (expires in 2026)	
Post-Construction Runoff Control	Stormwater Runoff – Impervious Surfaces	Implement the NPDES Post Construction Program	Approved	Post Construction BMPs have been fully implemented.	PC-1 Implement and Enforce a Post Construction Stormwater Management Program PC-2 Maintain Legal Authority to Control Post Construction Runoff PC-3 Prioritize Low Impact Development PC-4 Update Stormwater Design Standards PC-5 Review Plans for Compliance with Stormwater Design Standards PC-6 Implement a Long-Term PC SW Management O&M Program PC-7 Provide Training to Program Staff	Ongoing	
		Convene a work group to develop and implement an LID Action Plan to remove barriers to LID from City codes, ordinances, and policies.	Approved	LID Action Plan created Dates/counts of codes/ordinances revised	1. Identify stakeholders within the organization and beyond. 2. Convene a work group to present the project scope and identify priorities. 3. Evaluate feasibility, opportunity/risk, outreach needs, 4. Develop a plan with goals, timelines, and strategies; share with stakeholders 5. Assign work and schedule progress check-ins 6. Conduct outreach, as appropriate 7. Implement the LID Action Plan	2024-26	
Municipal Pollution Prevention (Good Housekeeping)	Stormwater Runoff	Implement the NPDES Municipal Pollution Prevention Program	Approved	Municipal Pollution Prevention BMPs have been fully implemented.	MPP-1 Implement a Municipal Pollution Prevention Program MPP-2 Inspect and Clean Catch Basins MPP-3 Implement Integrated Pest/Vegetation Management Plans MPP-4 Control Litter MPP-5 Develop and Implement a Materials Management Plan MPP-6 Provide MPP Training to Program Staff	Ongoing	

Six Minimum Control Measures

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Pollutant: Temperature

Minimum Control Measure	Source <i>What source of this pollutant is being addressed?</i>	Strategy <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	Fiscal Analysis	Measure <i>How will successful implementation or completion of this strategy be measured?</i>	Milestone <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	Timeline <i>When will the strategy be completed?</i>	Status
Public Education & Outreach	Stormwater Runoff	Implement the NPDES Public Education Program to reduce stormwater pollution	Approved	Public Education BMPs have been fully implemented.	PE-1 Implement the Public Education and Outreach Program PE-2 Offer Stormwater Education Activities PE-3 Deliver Target Topics to Target Audiences PE-4 Provide Education to Construction Professionals	Ongoing	
		Develop and/or collaborate to offer resilient landscape management content to homeowners and streamside property owners.		Number of workshops or similar programs Number of attendees	1. Review Stream Health Survey and perform collection to gain insight regarding public and private vegetation practices. 2. Plan initiative(s) to inform public and private landowners about resilient landscaping and management techniques. 3. Implement the planned initiatives to build/foster relationships with landowners. 4. Solicit feedback and adjust the plan as needed.	2026-2029	
		Seek to collaborate with the Marion Soil and Water Conservation District to introduce a backyard habitat program to home owners in Keizer.		Collaboration with SWCD	1. Meet with the Marion SWCD to determine the status and capacity of the Backyard Habitat to determine feasibility for implementing in Keizer 2. Perform topical research to learn about and evaluate comparable alternatives. 3. Assess Keizer's ability to develop and implement a similar program. 4. Identify the most effective (and efficient) option and pursue it. 5. Implement (or collaborate to offer) a Backyard Habitat (or similar) Program	2026	
Public Involvement & Participation	Stormwater Runoff	Implement the NPDES Public Involvement Program	Approved	Public Involvement BMPs have been fully implemented.	PI-1 Implement a Public Involvement and Participation Program PI-2 Maintain a Publicly Accessible Website PI-3 Offer a Stewardship Opportunity	Ongoing	
		Solar Radiation – Streambank Erosion	Approved	Number of participants Number of plants Enhanced stream miles	1. Utilize the Stream Health Survey (canopy cover assessment) to identify priority areas to implement the program. 2. Review results and update the Streamside Plant Program as necessary to increase the number of participants 3. Outreach to streamside residents, informing them of the results of the Canopy Cover Assessment results and the importance of riparian health.	Annually	
		Solar Radiation – Canopy Cover	Approved	Program launch date. Number of volunteer hours. Number of trees collected.	1. Develop a project plan and SOP for volunteers. 2. Develop outreach strategy and content to attract volunteers 3. Host a volunteer training event. 4. Launch (2024) and collect tree data during leaf-out season. 5. Perform QA-QC and review results 6. Use the TPI app tools to generate and share reports. 7. Develop urban forestry practices and tree management plans to build resilience.	2025	
Illicit Discharge Detection & Elimination	Stormwater Runoff	Implement the NPDES Illicit Discharge Detection and Elimination Program	Approved	Illicit Discharge BMPs have been fully implemented.	ID-1 Implement an Illicit Discharge Detection and Elimination Program ID-2 Maintain a Map and Digital Inventory of the MS4 ID-3 Prohibit Illicit Discharges by Ordinance ID-4 Maintain Enforcement Procedures ID-5 Conduct Dry-Weather Inspections of Outfalls ID-6 Provide IDDE Training to Program Staff	Ongoing	
Construction Erosion	Stormwater Runoff	Implement the NPDES Erosion	Approved	Erosion Control BMPs have been fully	EC-1 Implement an Erosion and Sediment Control Program EC-2 Prohibit Construction Site Runoff by Ordinance	Ongoing	

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		Control Program		implemented.	EC-3 Require NPDES Construction Permits for Large-Scale Projects EC-4 Develop Written Erosion Control Standards EC-5 Review Erosion and Sediment Control Plans EC-6 Inspect Construction Sites for Compliance EC-7 Maintain Enforcement Procedures EC-8 Provide Training to Program Staff		
Post Construction	Stormwater Runoff	Implement the NPDES Post Construction Program	Approved	Post Construction BMPs have been fully implemented.	PC-1 Implement and Enforce a Post Construction Stormwater Management Program PC-2 Maintain Legal Authority to Control Post Construction Runoff PC-3 Prioritize Low Impact Development PC-4 Update Stormwater Design Standards PC-5 Review Plans for Compliance with Stormwater Design Standards PC-6 Implement a Long-Term PC SW Management O&M Program PC-7 Provide Training to Program Staff	Ongoing	
		Research and evaluate opportunities to incentivize LID and GSI applications beyond what is required in the City's Engineering Design Standards.	Approved		1. Review incentive programs from other jurisdictions 2. Conduct outreach to stakeholders to determine barriers and incentives that would be motivating 3. Conduct cost-benefit analysis 4. Recommend program changes and implement as appropriate.	2029	
	Multiple Sources	Install public GSI to serve as a demonstration site and include educational signage about its purpose and functions.	Approved	Completion of one demonstration site	1. Work with the Public Works Director to identify at least one project to install GSI/LID as a demonstration site with educational signage	2029	
Municipal Pollution Prevention (Good Housekeeping)	Stormwater Runoff	Implement the NPDES Municipal Pollution Prevention Program	Approved	Municipal Pollution Prevention BMPs have been fully implemented.	MPP-1 Implement a Municipal Pollution Prevention Program MPP-2 Inspect and Clean Catch Basins MPP-3 Implement Integrated Pest/Vegetation Management Plans MPP-4 Control Litter MPP-5 Develop and Implement a Materials Management Plan MPP-6 Provide MPP Training to Program Staff	Ongoing	
		Update the BMP Manual to current practices.	Approved	BMP Manual updates complete.	1. Review BMPs with operations staff to ensure they align with field practices. 2. Add/modify to reflect riparian protections, encourage native and climate resilient species, reinstated tree policy compatibility.	2027	
	Solar Radiation Low/Slow Flow	Implement the Stream Health Survey to build and share knowledge about our local streams and to guide decision-making.	Approved		1. Continue to implement the program. 2. Collect stream bank vegetation data and assess stream condition. 3. Collect canopy cover data to inform riparian improvement projects. 4. Develop a digital application with a map of survey points. 5. Incorporate noxious weed vegetation location mapping.	Semi-annual	
	Solar Radiation Riparian Vegetation	Update the City's Tree Preservation Ordinance.	Approved	Ordinance is revised and adopted by City Council.	1. Staff review and evaluation of the City's tree/vegetation policies. 2. Consult with urban forestry experts and conduct a review of tree policies in other governments. 3. Utilize public comment, the Stream Health Survey, and TreePlotter data to inform planning strategy. 4. Develop a plan to revise the Tree Preservation Ordinance with the goal of adding native and resilient species and riparian protection. 5. Plan and implement education and outreach. 6. Prepare a revised ordinance for legal and council review. 7. Recommend adoption.	2027-2029	
	Claggett Creek Park Wetland		Approved	Track streamside feet planted	8. The City will complete the Claggett Creek Park Wetland Project 9. Funding has been secured.	2024-2026	

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		Enhancement Project		Project completion date	10. Conceptual designs and planning are complete. 11. Finalize the construction plans 12. Obtain the appropriate permits from federal and state agencies. 13. Solicit bids.		
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Six Minimum Control Measures

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