

MARION COUNTY STORMWATER MANAGEMENT PLAN

2019-2024



Marion County Public Works
Environmental Services Division
5155 Silverton Rd NE
Salem, OR 97305

(503) 588-5036

Table of Contents

Background	1
Revisions.....	1
Control Measure: Public Education & Outreach	2
Goal	2
Permittee Intentions.....	2
Measurable Goals	2
BMPs.....	3
Control Measure: Public Involvement & Participation	5
Goal	5
Permittee Intentions.....	5
Measurable Goals	5
BMPs.....	6
Control Measure: Illicit Discharge Detection & Elimination	7
Goal	7
Permittee Intentions.....	7
Measurable Goals	7
BMPs.....	9
Control Measure: Construction Site Runoff Control	11
Goal	11
Permittee Intentions.....	11
Measurable Goals	12
BMPs.....	13
Control Measure: Post-Construction Site Runoff for New Development & Redevelopment.....	15
Goal	15
Permittee Intentions.....	15
Measurable Goals	16
BMPs.....	16
Control Measure: Pollution Prevention & Good Housekeeping for Municipal Operations.....	19
Goal	19
Permittee Intentions.....	19
Measurable Goals	19
BMPs.....	20

Background

Since 2007, Marion County has implemented the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit (NPDES MS4). Currently under the Phase II General Permit and having changed at one point from an individual permit to a general permit, many of the program’s Best Management Practices (BMPs) since inception have also undergone changes to fit within current permit requirements.

Marion County’s Stormwater Management Area (SWMA) corresponds with the U.S. Census Bureau and is designated as an “Urbanized Area”. These areas are developed based on census data relating to population densities and census blocks. Within this “Urbanized Area”, Marion County has a specified Stormwater Management Area around the cities of Salem, Keizer, and Turner, and a small area in Butteville, but primarily located within the East Salem Service District (ESSD). Though it is designated as an urbanized area, the land use is inclusive of agricultural, commercial, multi-family residential, single-family residential, and rural-residential areas as well. The SWMA is comprised of 8,589 total acres containing a total of 11,412 property locations:

SWMA Area	Acres	Properties
Inside ESSD	3,407	9,344
Outside ESSD	5,182	2,068
Total:	8,589	11,412

The following watersheds can be found, whole or just partially, within the Marion County SWMA:

- Claggett Creek
- Little Pudding River
- Mill Creek (including Battle Creek)
- Croisan Creek

Revisions

The SWMP document must be reviewed and, if necessary, updated annually. Once reviewed, please sign and date when the necessary revisions are approved:

Due Date	Signature	Date
November 2021	Alex Wade	October 2021
November 2022	Roxanne Toepfer	October 2022
November 2023		
November 2024		

Control Measure: Public Education & Outreach

Goal

The goal of the education and outreach program is to reduce the behaviors and practices of target audiences that cause or contribute to adverse stormwater impacts on receiving waters. The program should promote specific actions to increase understanding of how to reduce pollutant discharges in stormwater runoff and prevent illicit discharge from entering the MS4 and impacting receiving waters.

Permittee Intentions

- Inform the general public, homeowners, school children, construction site operators, elected officials, and other stakeholders about the impacts of stormwater pollution on our waterways.
- Provide these audiences with steps and/or actions that will reduce pollutants in stormwater runoff.
- Understand which local behaviors and practices cause and contribute to stormwater pollution and work to reduce those selected behaviors.

The program will utilize education and outreach methods that are appropriate for the desired audiences. Some of these methods may include social media messaging, brochures, flyers, handouts, in-person events, presentations, and/or trainings.

Responsible Person(s)

Most outreach activities are designed and implemented by an Environmental Specialist who is supervised by the Environmental Services Program Supervisor. Some outreach activities may involve other groups within Public Works or other entities but will be coordinated through an Environmental Specialist. All Environmental Services activities are approved and overseen by the Environmental Services Division Manager and the Public Works Director.

Measurable Goals

Milestones	Imp.	Deliverables
1. Education and Outreach Program:		
Stay abreast of new priority topics	Feb. 2020	Coordinate topics with target audience
2. Educational Activities, Target Audiences, Topics, & Construction Site Control Measures:		
Offer 2 messages annually (messaging should be offered in Spanish)	Feb. 2020	Priority topic covered, method, audience type, estimated reach
3. Tracking and Assessment:		
Determine type of assessment and activity to assess; implement assessment; implement findings in following year	Nov. 2020	Assessment metric, summary of how the activity was considered successful

BMPs

1. Education and Outreach Program: Stay abreast of priority topics that impact water quality, universally and locally. The following will be classified as priority topics to be addressed during outreach campaigns over the course of the permit term:
 - a. Impacts from impervious surfaces and to avoid them
 - b. Practices for proper use and storage of pesticides, herbicides, and fertilizers
 - c. Practices to reduce litter
 - d. Practices for recycling programs
 - e. Practices for power washing, carpet, cleaning, auto repair and maintenance
 - f. Low impact development and green infrastructure
 - g. Potential impacts of septic systems and practices for maintenance
 - h. Watershed awareness
 - i. Storm drain awareness and connectivity to local rivers and streams
 - j. Other stormwater issues of significance
 - k. Mercury in sediments and impacts
 - l. Impacts of illicit discharges on receiving waters and how to report them

Rationale: The County has an established web presence and utilizes social media to share several water quality-related educational messages annually. Marion County Public Works has recently hired a Communications Coordinator who oversees and implements strategic social media campaigns aimed at educating the public on environmental messaging including pollutants and hazards to the environment, best practices for sustainable living, and what resources are available to them. In addition, Environmental Specialist staff are routinely working in coordination with the Communications Coordinator to specifically meet the targeted needs of the NPDES Permit. To promote behavioral change, staff will consider behaviors that negatively impact water quality locally. Staff will concentrate on creating in-depth messaging and activities that target those behaviors throughout the permit term. Focusing in-depth on a small number of topics will promote a lasting behavioral change.

2. Educational Activities, Target Audiences, Topics, & Construction Site Control Measures: Offer at least two educational messages or activities a year that address the County's priority topics created from the above list (messaging should be offered in Spanish):
 - a. Offer at least one educational message or activity from the priority list to the general public, homeowners, students, or businesses over the permit term.
 - b. Offer at least one educational message or activity from the priority list to local elected officials, land use planners or engineers over the permit term.

- c. Offer at least two educational messages or activities to construction site operators over the permit term that addresses any of the following topics:
 - i. Appropriate selection, design, installation and use of onsite stormwater controls as outlined by Marion County ordinances
 - ii. Appropriate maintenance of onsite stormwater controls as outlined by Marion County ordinances

Rationale: By distributing at least two educational messages or activities a year, the County will be fulfilling the general permit requirements. Additionally, by focusing messages on the County identified priority topics, the messaging will be more impactful.

The County currently focuses heavily on distributing most of their educational messages to the public using social media. During this permit term, staff should identify priority topics to promote through social media. Staff should also coordinate social media messaging with other activities to have a greater impact. Finally, staff should continue to provide messaging in Spanish.

Historically, the County has reached land use planners through the Point of Contact program by handing out brochures and informational pamphlets. During this permit term, staff should work with the Land Development Planning and Engineering group and the Marion Water Quality Advisory Committee (MWQAC) to identify priority topics to focus on annually and the best methods for distributing those messages. As updates are made to the engineering standards and thresholds tightened for construction erosion, these topics should be specifically targeted to construction operators.

Typically, methods for reaching elected officials have been through updates to the Board of Commissioners as issues or changes arise. This approach meets the permit requirements. However, staff should consider identifying other possible ways of sharing educational messages with County public officials in a less formal way, to keep them abreast of concerns and successes.

The County has been successful in reaching Construction Site Operators through the annual Erosion Control Summit, coordinated in partnership with the Mid-Willamette Outreach Group. Continued participation in the development of the summit should be pursued, but if other opportunities to reach this audience arise, they should be considered as well.

- 3. Tracking and Assessment: Assess or evaluate one education and outreach activity to determine effectiveness of the activity in conveying materials to the intended audience.

Rationale: While the County has conducted informal evaluations of outreach programs, these evaluations do not typically inform future outreach activities. At least one program, message, or activity shall be evaluated each year for effectiveness.

Control Measure: Public Involvement & Participation

Goal

Implement a public involvement and participation program that provides opportunities for the public to effectively participate in the development of the SWMP control measures.

Permittee Intentions

- Provide adequate opportunity for the public to participate in the development of the SWMP control measures and programs.
- The program will utilize a variety of methods to make the public aware of opportunities to participate in the development of implementation plans. It will also encourage participation from diverse groups within the community.

Responsible Person(s)

Many of the outreach activities are designed and implemented by an Environmental Specialist who is supervised by the Environmental Services Program Supervisor. All Environmental Services activities are approved and overseen by the Environmental Services Division Manager and the Public Works Director.

Measurable Goals

Milestones	Imp.	Deliverables
1. Publicly Accessible Website:		
Conduct an annual revision and update	Feb. 2020	Date of revision and update
2. Stewardship Opportunity:		
Develop stewardship opportunity; implement activity	Feb. 2024	Summary of opportunities, relevant dates, and number of participants
Utilize the Marion Water Quality Advisory Committee (MWQAC) to develop the SWMP and SWMP programs: Host quarterly MWQAC meetings; provide opportunities for input	Feb. 2024	Meeting dates, agendas, number of attendees, and minutes
3. Tracking and Assessment:		
Determine type of assessment and activity to assess; implement assessment; implement findings in following year	-	Assessment metric, summary of how the activity was considered successful

BMPs

1. Publicly Accessible Website: Maintain and promote a publicly accessible website that includes the following information:
 - a. Illicit discharge reporting mechanism
 - b. Draft documents, final reports, plans and current SWMP document
 - c. Links to ordinances, policies related to stormwater control programs, and various educational materials
 - d. Contact information for current staff

Rationale: The County maintains and operates a publicly accessible website that meets current permit standards. Updates will be made as the relevance of contents shifts. Staff will periodically review the site and make updates that will add educational value as well as make the site easier to navigate. Additionally, the most recent versions of the SWMP, illicit discharge reporting protocol, and County Ordinances will be added as they are updated.

2. Stewardship Opportunity: Create stewardship opportunities for the public. These could include:
 - a. Stream team activities
 - b. Storm drain marking
 - c. Volunteer monitoring
 - d. Riparian plantings or stormwater facility enhancement
 - e. Neighborhood low-impact development
 - f. Adopt-a-Road
 - g. Citizen advisory committee
 - h. Other locally relevant opportunities

Rationale: The County has typically relied on the Adopt-a-Road program to fulfill the permit stewardship requirements; however, success has also been made in hosting volunteer opportunities for litter clean up events and storm drain marking. To see continued success and attendance at stewardship events, it will be important to continue to cultivate engagement of volunteers. Staff will work with the Marion County Volunteer Services Coordinator to develop a list of potential volunteers and will continue to implement at least one of those stewardship opportunities yearly.

Marion County will utilize the Marion Water Quality Advisory Committee (MWQAC) to develop the SWMP and SWMP programs:

Rationale: During previous permit cycles, County staff met with the MWQAC to develop and review proposed ordinance changes and found great value in their feedback. Staff should continue to utilize this public group by meeting with them quarterly. These meetings should provide updates and assess programmatic needs. Staff will rely heavily on the MWQAC for their input on the SWMP, ordinance updates and other protocol that are being updated as a result of the general permit.

3. Tracking and Assessment: Assess or evaluate one Public Involvement & Participation activity to determine effectiveness of the activity in engaging the to the intended audience.

Rationale: While the County has conducted informal evaluations of participatory programs, these evaluations do not typically inform future activities. At least one program or activity shall be evaluated each year for effectiveness.

Control Measure: Illicit Discharge Detection & Elimination

Goal

Implement and enforce a program to detect and eliminate illicit discharges into the MS4.

Permittee Intentions

- Implement and enforce a program that detects and eliminates illicit discharges into the MS4.
- The program will prohibit non-stormwater discharges into the MS4 through the enforcement of a county ordinance or other regulatory method.

Responsible Person(s)

The illicit discharge program has traditionally been run as a coordinated effort between the Public Works Dispatch staff, the stormwater operations crew, and Environmental Specialists. Dispatch collects and documents complaints. Stormwater operations crews will investigate where appropriate. Environmental Specialists will investigate and respond.

Measurable Goals

Milestones	Imp.	Deliverables
1. MS4 Map:		
Create an outfall map and inventory	Aug. 2021	Outfall inventory created; refining information through ground-truthing; GIS; Stormwater operations crews update with identifiers as new items are installed

Continually update MS4 map, conveyance system, and stormwater assets	Aug. 2023	Updated maps; GIS; Stormwater operations crews update with identifiers as new items are installed
Create unique IDs for stormwater assets and structural stormwater control locations in GIS; conduct GIS analysis to determine missing information	Aug. 2022	Unique IDs created; percent of MS4 mapped; GIS; Stormwater operations crews update with identifiers as new items are installed
Map chronic illicit discharges	-	No known chronic discharges as of date; mechanism to capture through Survey123
2. Ordinance and/or Other Regulatory Mechanisms:		
Implement Ordinance	Jul. 2022	Internal Enforcement Procedure; Completed by way of MC Code Chapter 15.15 (Ordinance 1311)
3. Enforcement Procedures:		
Evaluate and update IDDE enforcement procedures (as needed)	Jul. 2020	IDDE Enforcement Procedure (Updated 02/24/2022)
4. Program to Detect and Eliminate Illicit Discharges:		
Review and update IDDE documentation procedures and reporting system	Jan. 2022	Through the public-facing website, complaints are routed (Report-a-Concern) to internal distribution group where complaint is forwarded to Dispatch Center and Environmental Specialist for appropriate tracking, response, and investigation; average response time within 24-hours. Maintain contact information for neighboring jurisdictions.
5. Dry Weather Screening Program:		
Develop a dry weather screening schedule to capture 60 percent of their MS4 outfalls each year.	Feb. 2022	Schedule completed; historically, 100% of outfalls are screened each permit year.
Develop priority locations for annual dry-weather field screening of outfalls to detect illicit discharges.	Feb. 2022	Annual survey: goal of 100% of outfalls screened. Historically, this is accomplished with ease.
Develop pollutant parameter action levels for response	Feb. 2022	Pollutant parameter document developed and employed.
Laboratory analysis	Feb. 2022	Site visit; sample and analysis.
6. Illicit Discharge Detection and Elimination Training and Education:		
Develop IDDE training	Feb. 2022	Training is currently done in person; one-on-one.

7. Tracking and Assessment:		
Determine type of assessment and activity to assess; implement assessment; implement findings in following year	Feb. 2022	Assessment metric: summary of how the implementation of the program was considered successful.

BMPs

1. MS4 Map: Update and maintain a current map and digital inventory of the MS4 including the following:
 - a. Outfalls
 - b. Conveyance system
 - c. Stormwater control locations
 - d. Chronic illicit discharges
 - e. Dry weather flows

In addition to the map, there must also be an outfall inventory with all the known outfall locations. The inventory must include a unique identifier (i.e., alphanumeric code), any geographic information necessary to find the outfall in the field and the name(s) of the receiving water(s).

Rationale: The County maintains a GIS database that includes features such as the storm drains, pipes, culverts, and outfalls. Staff will continue to work to update the mapping of new or discovered assets, create unique IDs for all features, and continue to map illicit discharge and dry weather monitoring sites.

2. Ordinance and/or Other Regulatory Mechanisms: Implement the existing Stormwater Discharge Quality Control Ordinance (#1311) to reflect the conditions of the general permit.

Rationale: In 2003 the County implemented East Salem Service District (ESSD) Ditch Maintenance Ordinance (#1174) which prohibits the dumping of solid waste, discarded items, or yard debris into ESSD ditches. This ordinance serves a large portion of the SWMA and can be used for IDDE purposes. It should be reviewed and updated in conjunction with general permit updates or revisions.

In 2011, the County implemented the Stormwater Discharge Quality Control Ordinance (#1311) to meet the illicit discharge terms of the permit. An escalating enforcement procedure has been developed and employed.

The requirements of Ordinances 1174 and 1311 are part of Marion County Code Chapter 15.15, "Stormwater Discharge Quality Control" which requires prohibitions within the

SWMA. The Water Quality Management Plan for the updated Willamette Basin Mercury TMDL does have extra provisions which should be met through expansion of this code, or a similar code to all county owned assets and property. This is currently be evaluated for the appropriate approach.

3. Enforcement Procedures: Develop and implement an IDDE Enforcement Plan that includes the following:
 - a. Timelines for compliance
 - b. Progressively stricter responses for repeat violations

Rationale: The County currently has a written escalating enforcement and response procedure that fulfills the requirements of the permit. This document will be used as guidance in enforcing a progressive response. Marion County Public Works Environmental Services staff will work in conjunction with the Marion County Code Enforcement Division to address repeated violations to achieve compliance.

4. Program to Detect and Eliminate Illicit Discharges: Develop and implement an IDDE response plan that includes the following:
 - a. An internal and external IDDE reporting system
 - b. Timelines for response and investigation
 - c. Documentation and tracking procedures

Rationale: Illicit Discharge Detection and Elimination complaints are received by phone, walk-in, or routed through the County website (Report-a-Concern) to an internal distribution group where complaint is forwarded to the Marion County Public Works Dispatch Center, operations crews, and Environmental Specialists for response and investigation. For consistency and proper documentation, a reporting and investigation mechanism through GIS is being developed. The County has a standard for responding to emergency situations where there is a threat to human health, welfare, or the environment; response time will be immediate, during and after office hours. Marion County typically has a current response rate within 1-day for all other complaints. An Environmental Specialist will ensure that contact will be made to notify neighboring jurisdictions when the authority has been misplaced.

5. Dry Weather Screening Program: Develop and implement a dry weather screening schedule.

Rationale: On an annual basis, during the dry season, stormwater operations crews will complete the established route to conduct dry weather screening for all outfalls which alleviates the need to establish a priority list. Documentation is gathered through the existing GIS system which documents timestamp and condition of each outfall. As the program develops and with each screening season, improvements will be made to enhance the collected data. The County has developed a pollutant parameter action level document if a response is necessary.

6. Illicit Discharge Detection and Elimination Training and Education: Implement an IDDE training program for all potential response staff.

Rationale: Illicit Discharge Detection and Elimination training has been an ongoing practice for all County operations crews. Trainings will undergo revisions and updates to reflect new expectations and evolving technologies. Stormwater operations crews within the SWMA specifically undergo an annual refresher training.

7. Tracking and Assessment: Evaluate to determine the effectiveness the implementation of the IDDE program.

Rationale: As an ongoing assessment, data throughout the permit year will be collected and monitored. Reports will be produced from the data collected where they can be further analyzed to ensure that the program is meeting permit requirements. This allows for the response to IDDE to be evaluated and improved upon and to be implemented in an efficient and resolute way.

Control Measure: Construction Site Runoff Control

Goal

Implement and enforce a construction site runoff control program to reduce discharges of pollutants from construction sites in the coverage area.

Permittee Intentions

- Implement and enforce a program that reduces the discharge of pollutants from construction sites to the MS4.
- By an ordinance or other regulatory mechanism, the program will require erosion and sediment controls and waste materials management controls to be used at all qualifying construction sites.

Responsible Person(s)

The work involved in this control measure will be a collaborative effort between the County's LDEP Engineering staff and Environmental Specialists. LDEP is responsible for reviewing, permitting, and inspecting construction sites. To update ordinances and standards, they will need input from both Engineering and Environmental Specialist staff. LDEP staff will review and provide updates for ESCP templates, inspection checklists, and enforcement procedures. Engineering staff will review and provide updates to engineering standards and the Environmental Specialists will coordinate meetings, draft new language for ordinances, and review final documents to ensure compliance with the general permit.

Measurable Goals

Milestones	Imp.	Deliverables
1. Ordinance and/or Other Regulatory Mechanism:		
Provide draft to BOC for review; public comment period; update Ordinance #1307	Aug. 2022	Updated ordinance
2. Compliance with Other NPDES Permits:		
For construction projects that disturb one or more acres	Feb. 2023	Refer to DEQ or appropriate DEQ agent to obtain NPDES Construction Stormwater Permit coverage.
3. Erosion and Sediment Control Plans (ESCP):		
ESCP template established; develop updated internal procedures for ESCP documentation	Jan. 2021	Updated procedure
Requirement for construction site operators to complete a site-specific ESCP prior to construction/land disturbance	Feb. 2023	Document will be used to verify that items on checklist are complete prior to approval from County.
Requirement for ESCP to be maintained and updated as needed; develop updated inspection procedures.	Feb. 2023	Inspectors to be trained to ensure proper maintenance of ESCP; updated procedures and ordinance
Maintain ESCPs on site during construction.	Feb. 2023	Inspectors to be trained to ensure ESCP on site.
4. Erosion and Sediment Control Plans Review:		
Review ESCPs by checklist; consider potential water quality impacts	Feb. 2023	Inspectors to be trained to ensure completion of ESCP
5. Construction Site Inspections:		
Inspect sites once during permit term, if sediment is visible/reported in stormwater, or a complaint is filed.	Feb. 2023	Updated inspection documentation procedure
Train inspectors to adhere to minimum inspection requirements to maintain	Feb. 2023	Inspectors to be trained to meet the permit Construction Site Runoff Control requirements

compliance and complete, comprehensive, inspection reports		
6. Enforcement Procedures:		
Develop updated enforcement procedures for qualifying construction sites	Feb. 2023	Updated ordinance and implemented escalating enforcement procedure
7. Construction Runoff Control Training and Education:		
Develop Construction Runoff Control Training for Marion County Staff	Feb. 2023	Training is currently done in person; one-on-one. Training to be developed on cloud-based training system and on regular intervals for existing staff and for new onboards.
8. Tracking and Assessment:		
Track implementation of the Construction Site Runoff Program.	Feb. 2022	Assessment metric: summary of how the implementation of the program was considered successful.

BMPs

1. Ordinance and/or Other Regulatory Mechanism: Revise and update the existing Construction Erosion Ordinance (#1307) to reflect the conditions of the general permit.

Rationale: In 2010 the County implemented the Construction Erosion Ordinance (#1307) to meet the construction erosion requirements of the previous individual permit. However, changes in the general permit such as size requirements for ESCP and requirements for enforcement procedures require the ordinance to be updated. During this update, the County will review the erosion and sediment control program to ensure new expectations and internal processes are effective and meet permit requirements.

2. Compliance with Other NPDES Permits: Refer to DEQ or appropriate DEQ agent to obtain NPDES Construction Stormwater Permit coverage

Rationale: 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), project sites must be referred to DEQ, or the appropriate DEQ agent, to obtain NPDES Construction Stormwater Permit coverage. The NPDES Construction Stormwater General Permit requirements are in addition to the internal construction site runoff control requirements.

3. Erosion and Sediment Control Plans: Review and update ESCP requirements for site operators as well as the County’s procedures for documentation and tracking.

Rationale: The Land Development Engineering and Planning (LDEP) Division currently uses a permitting system to ensure construction site operators and developers comply with ESCP requirements. To meet the conditions of the general permit, the threshold for submitting an ESCP must be updated, along with the supplementary materials provided to site operators. Staff will develop or update the ESCP template, inspection checklist, and internal procedures for ESCP review and approval as necessary.

4. Erosion and Sediment Control Plans Review: Review ESCPs from construction projects that will result in land disturbance of one or more acres using a checklist to determine compliance with the ordinance or other regulatory mechanism required. ESCP review procedures must include consideration of the construction activities' potential water quality impacts and remain in accordance with applicable state and local public notice requirements.

Rationale: This program is undergoing modification. The LDEP and Environmental Services Division will work together to review the current procedures and update them to meet the general permit guidelines.

5. Construction Site Inspections: Review and update the Construction Site Inspection procedure which should include triggers for inspection and minimum inspection documentation.

Rationale: The LDEP's inspection procedures were created in 2010 to fulfill the needs of the individual permit. To comply with the new general permit requirements, an updated procedure will need to be implemented. LDEP and Environmental Specialists will work to update the inspection procedures to meet the current permit expectations

6. Enforcement Procedures: Review and update the Construction Site enforcement procedures which should include an escalating enforcement procedure for repeat violations.

Rationale: The County's Construction Erosion ordinance has been updated to fulfill the current general permit and as such, the enforcement procedures are sufficient to meet the current requirements.

7. Construction Runoff Control Training and Education: Provide orientation and training to all new LDEP staff working to implement the construction runoff control program within 30 days of hire. The staff must be trained and knowledgeable in the understanding of erosion,

sediment, and waste material management controls to conduct ESCP reviews and inspections. All staff must receive training at least once during the permit term and provide follow-up training as procedures and technology change.

Rationale: All staff in the department who conduct work in this area are currently trained. Environmental Services staff will work with LDEP staff to establish a routine training mechanism that stays relevant to the standards and technology of the program. Training records should be retrievable within a reasonable timeframe through the county provided cloud-based management system.

8. Tracking and Assessment: Track implementation of the Construction Site Runoff Program. Evaluate to determine the effectiveness the implementation of the program.

Rationale: As an ongoing assessment, data throughout the permit year will be collected and monitored. Reports will be produced from the data collected where they can be further analyzed to ensure that the program is meeting permit requirements. This allows for the response to CSRC to be evaluated and improved upon and to be implemented in an efficient and resolute way.

Control Measure: Post-Construction Site Runoff for New Development & Redevelopment

Goal

Implement post-construction stormwater pollutant control program to meet MS4 requirements to reduce discharges of pollutants and address stormwater runoff from new development and redevelopment project sites in the coverage area.

Permittee Intentions

- Implement and enforce a program that reduces the discharge of pollutants and controls stormwater runoff from new development and redevelopment to the MS4
- By an ordinance or other regulatory mechanism, the program will require that qualifying sites use stormwater controls and implement long term operation and maintenance for proper upkeep.

Responsible Person(s)

Implementing these BMPs will be a collaborative effort between the County's LDEP, Engineering staff and Environmental Specialists. LDEP is responsible for reviewing, permitting, and inspecting post construction sites. However, in order to update ordinances and standards they will need input from both Engineering and Environmental Services staff. LDEP will review and provide updates for internal documentation and procedures as well as enforcement. Engineering will review and

provide updates to engineering standards and Environmental Specialists will coordinate meetings, draft new language for ordinances and review final documents to ensure compliance with the general permit.

Measurable Goals

Milestones	Imp.	Deliverables
1. Ordinance and/or Other Regulatory Mechanism:		
Review and update current ordinance; Provide draft for BOC to review; Public comment period; update ordinance #1324	Feb. 2023	Updated ordinance
2. Removing Barriers to Low Impact Development:		
Develop a team to review codes, policy, and ordinances; review codes, policies, and ordinances for barriers to GI or LID implementation; provide recommendations to BOC	Feb. 2023	Barriers; recommendations and changes; updated codes, ordinances, or policies
3. Post-Construction Stormwater Management Requirements:		
Develop a post construction standard review team; review and update post construction standards	Feb. 2023	Updated standards
Review and update enforcement procedures	Feb. 2023	Updated ordinance
4. Post-Construction Site Runoff Plan Review:		
Review and update the site plan review procedures	Feb. 2023	Updated procedures
5. Long-Term Operation and Maintenance:		
Implement a strategy to ensure that all structural stormwater controls installed in compliance and operated and maintained to meet the site performance standard.	Feb. 2023	Implemented Operations and Maintenance Strategy; updated Engineering Standards
6. Training and Education		
Develop Construction Runoff Control Training	Feb. 2023	Training developed
7. Tracking and Assessment:		
Track implementation of the Post-Construction Site Runoff for New Development & Redevelopment Program.	Feb. 2023	Assessment metric: summary of how the implementation of the program was considered successful.

BMPs

1. Ordinance and/or Other Regulatory Mechanism: Revise and update the existing Post Construction Runoff Ordinance #1324 to reflect the conditions of the general permit.

Rationale: In 2010, the County implemented Ordinance #1324 to meet the construction erosion requirements of the previous individual permit. However, changes in the general permit (ex: size requirements for stormwater controls) call for the ordinance to be updated. The enforcement procedures are not sufficient to meet the current requirements of the general permit. Staff will update the ordinance with the new enforcement procedures.

2. Removing Barriers to Low Impact Development: Review ordinances, code, and standards for any barriers to implementing green infrastructure or low impact development. If barriers are identified, work to minimize, or remove those barriers within three years.

Rationale: The County has a large list of codes, policies and ordinances that must be reviewed for barriers to LID and GI implementation. To review these policies, a team from Public Works will be gathered to identify barriers. Once barriers have been identified the group will propose recommendations to the County's management team and the Board of Commissioners for approval and implementation.

3. Post-Construction Stormwater Management Requirements: Review and develop standards that meet the conditions of the general permit. These should include the following:
 - a. Structural stormwater control design and specifications
 - b. Site performance standards with a numeric stormwater retention requirement
 - c. Treatment standards for sites unable to meet the retention standards
 - d. Allowance for alternative compliance for sites unable to meet the retention requirements
 - e. Stormwater mitigation options for sites that qualify for alternative compliance

Rationale: The post construction standards are used by LDEP, capital projects and the general public during post-construction development. As such, to develop a set of standards that meet permit requirements and fulfill the needs and expectations of those who use them, a team from Public Works will be gathered to provide input in the changes. Representatives will assist in reviewing the County's 2012 Draft Interim Standards, review other jurisdiction's standards and propose updates.

4. Post-Construction Site Runoff Plan Review: Review and update the Post Construction Site Runoff Plan Review procedures. Review and approve plans for structural stormwater controls at new development and redevelopment sites

Rationale: LDEP is responsible for the review of all post construction plans submitted to the County. With multiple staff members potentially performing a review of the plans, it is important to have a documented procedure. This can be used by all staff performing the Site Runoff Plan Review to ensure consistency in evaluations and to provide site operators with a better understanding of County expectations. To comply with the general permit, this procedure will be reviewed and updated by staff.

5. Long-Term Operation and Maintenance: Implement a strategy to ensure that all structural stormwater controls installed in compliance and operated and maintained to meet the site performance standard.

Rationale: An Operations and Maintenance Strategy has been developed and implemented. The County's LDEP, Capital Projects, and Environmental Services staff have worked diligently to update the Engineering Standards. The draft is being proposed to county leadership and will potentially be instated prior to the February 28, 2023, deadline.

9. Training and Education: Provide orientation and training to all new LDEP staff working to implement the Post-Construction Site Runoff for New Development & Redevelopment Program within 30 days of hire. The staff must be trained and knowledgeable in the understanding of erosion, sediment, and waste material management controls to conduct ESCP reviews and inspections. All staff must receive training at least once during the permit term and provide follow-up training as procedures and technology change.

Rationale: All staff in the department who conduct work in this area are currently trained. Environmental Services staff will work with LDEP staff to establish a routine training mechanism that stays relevant to the standards and technology of the program. Training records should be retrievable within a reasonable timeframe through the county provided cloud-based management system.

6. Tracking and Assessment: Track implementation of the Post-Construction Site Runoff for New Development & Redevelopment Program. Evaluate to determine the effectiveness the implementation of the program.

Rationale: As an ongoing assessment, data throughout the permit year will be collected and monitored. Reports will be produced from the data collected where they can be further analyzed to ensure that the program is meeting permit requirements.

Control Measure: Pollution Prevention & Good Housekeeping for Municipal Operations

Goal

Operate and maintain facilities, using prudent pollution prevention and good housekeeping to reduce the discharge of pollutants through the MS4 to waters of the state.

Permittee Intentions

- Implement a program that ensures prudent pollution prevention and good housekeeping practices are used to reduce the discharge of pollutants from municipal operations
- The program will utilize a variety of methods to train staff on pollution prevention practices and ensure that good housekeeping practices are being utilize during day-to-day municipal activities.

Responsible Person(s)

Implementing these BMPs will be a coordinated effort between Road Operations, Stormwater Operations and Environmental Specialists. Stormwater Operations will be responsible for mapping and inspecting stormwater controls as well as inspecting catch basins. Road and Stormwater Operations will be responsible for implementing all BMPs during day-to-day activities. Finally, Environmental Specialist will be responsible for updating the BMP procedures and implementing training programs. The Road Operations Division Manager and Supervisors along with the Environmental Services Program Supervisor are responsible for ensuring the implementation.

Measurable Goals

Milestones	Imp.	Deliverables
1. Operation and Maintenance Strategy for Existing Structural Stormwater Controls:		
Document all existing stormwater controls in the MS4; develop an annual maintenance plan for O&M	Feb. 2022	Updated map; maintenance plan and documented work
2. Inspection and Cleaning of Catch Basins:		
Develop an annual maintenance plan; inspect catch basins annually	Feb. 2022	Updated map; documentation of inspections
3. Pollution Prevention in Facilities and Operations:		
Review the existing BMP document; compare practices to other jurisdictions; update BMPs as necessary	Feb. 2022	Updated BMP guide
4. Registrant-owned NPDES Industrial Stormwater Permit Facilities:		
Ensure owned and operated industrial facilities are covered under NPDES Industrial Stormwater Permit	Feb. 2022	All qualifying sites covered under permit
5. Requirements for Pesticide and Fertilizer Applications:		

Implement Pesticide and Fertilizer BMPs	Feb. 2022	BMP trainings held; BMP manual to be updated as needed
4. Litter Control:		
Document all solid waste removed from the MS4 through the course of daily operations; develop a plan to reduce most frequent materials	Feb. 2022	Documentation of waste; litter reduction plan
5. Materials Disposal:		
Implement proper disposal program for waste materials collected in the process of standard operations and maintenance.	Feb. 2022	BMP trainings held; BMP manual to be updated as needed
6. Stormwater Infrastructure Staff Training:		
Develop BMP training program; implement training program for new hires; train employees on BMPs once per year	Feb. 2022	Updated training program; documentation of participants
7. Tracking and Assessment		
Determine type of assessment and activity to assess; implement assessment; implement findings in following year	Feb. 2022	Assessment metric: summary of how the implementation of the program was considered successful.

BMPs

1. Operation and Maintenance Strategy for Existing Structural Stormwater Controls: Develop and implement an operations and maintenance strategy for all existing stormwater controls that discharge into the MS4.

Rationale: The County’s post-construction requirements require certain sites to install stormwater controls within the MS4. However, documenting and inspecting these controls has been inconsistent in the past. To ensure compliance with the permit, LDEP and Capital Projects will develop a comprehensive list of stormwater controls in the MS4. Once all the controls have been documented, the Environmental Services Program Supervisor will develop an annual plan for the Stormwater Operations team to inspection and maintain.

2. Inspection and Cleaning of Catch Basins: Develop and implement a strategy to inspect and maintain at least 50% of the catch basins and inlets within the MS4.

Rationale: Stormwater operations crews already inspect and clean catch basins within the MS4 on a regular basis. However, to ensure that there is evidence of meeting the permit expectations, the Environmental Services Specialists are developing an annual plan and working in coordination with the Marion County IT Department to implement GIS tracking

mechanisms. Stormwater Operations will provide documentation upon inspection and cleaning each catch basin.

3. Pollution Prevention in Facilities and Operations: Revise and update the existing best management practices document and ensure proper procedures are in place for the following activities:
 - a. Pipe cleaning for stormwater and wastewater conveyance systems
 - b. Cleaning of culverts conveying stormwater in roadside ditches
 - c. Ditch Maintenance
 - d. Road and bridge maintenance
 - e. Road repair and resurfacing including pavement grinding
 - f. Dust control for roads and municipal construction sites
 - g. Winter road maintenance including salt or de-icing
 - h. Fleet maintenance and vehicle washing
 - i. Building and sidewalk maintenance including washing
 - j. Solid waste transfer and disposal areas
 - k. Municipal landscape maintenance
 - l. Material storage and transfer areas including fertilizer and pesticide, hazardous material, used oil storage and fuel
 - m. Firefighting training activities
 - n. Maintenance of municipal facilities including public parks and open space, golf courses, airports, parking lots, swimming pools, marinas, etc.
 - o. Application and disposal of pesticides and fertilizers
 - p. Material disposal that is removed during maintenance, treatment, control of stormwater or wastewater

Rationale: The County updated the Marion County Best Management Practices for Clean Water document in 2022. Since it covers many different municipal activities, it is important that those BMPs are reviewed and updated to meet current expectations. An Environmental Specialist will continue to review the BMP document and BMP activities and compare with current standards and outside agencies to update the document accordingly.

4. Registrant-owned NPDES Industrial Stormwater Permit Facilities: Ensure owned and operated industrial facilities are covered under NPDES Industrial Stormwater Permit.

Rationale: All qualifying sites under Marion County's authoritative jurisdiction are currently covered under the NPDES permit. The North Marion County Disposal Facility (File Number:

103964; EPA Number: ORR501463) is currently compliant with the 1200-Z Industrial Stormwater Permit. There are no other qualifying sites under the County's jurisdiction.

5. Requirements for Pesticide and Fertilizer Applications: Implement practices to reduce the discharge of pollutants to the MS4 associated with storage of pesticides and fertilizers. Focusing on County-owned right-of-way, parks, or other operational facilities, employees or contractors applying pesticides must follow all label requirements, including those regarding application methods, rates, number of applications allowed, and disposal of the pesticide, fertilizer and rinsate.

Rationale: Road operations crews abide by the rules written in the BMP manual regarding the storage of pesticides and fertilizers.

6. Litter Control: Implement a method to reduce litter within MS4 by working cooperatively with other departments and entities on a regular basis (example: Adopt-a-Road).

Rationale: Road operations crews remove solid waste and debris from roadways, ditches and catch basins throughout the county, including the MS4 areas. To show compliance with the general permit, staff who retrieve and dispose of wastes generally capture and track the materials that they remove through a Public Works Dispatch Log. An Environmental Specialist will review the data periodically and consider a litter reduction plan that would address the root causes of the most frequent materials being found.

7. Materials Disposal: Materials and pollutants removed in the course of maintenance, treatment, control of stormwater, or other wastewaters must be managed and disposed of in a manner to prevent pollutants from entering conveyance systems or open waterways.

Rationale: The BMP manual addresses material disposal during the course of regular maintenance. Excess materials are deposited above the 100-year floodplain, at a supervisor approved site, and not within 75' of a stream, wetland, or riparian area. Crews are directed to follow the Erosion Control Table provided within the manual (Appendix A)

8. Stormwater Infrastructure Staff Training: Develop and implement a program to train all new staff working to implement pollution prevention for municipal operations within 30 days of hire and at least once during the permit term.

Rationale: Since 2009, the County has been implementing BMP training for all municipal operations crews. However, with newer technology and updated BMP strategies, there is

an opportunity to update how training is implemented. To meet permit requirements, staff should be trained once upon hire and once a year as a refresher. An Environmental Specialist will update these trainings and provide them to all appropriate employees.