Chapter 2

Minimum Control Measure: Item 1

Public Education and Outreach on Stormwater Impacts

Categories of Regulated Small MS4s under this comprehensive permit. This comprehensive permit categorizes MS4s by the following categories, or Groups, based on the population served as determined by the most the recent Decennial Census at the time of permit issuance, the type of Regulated MS4, and the co-permittee situation.

Group A	Group B	Group C
Traditional Small MS4s (cities) that serve a population of less than 10,000 within a UA; OR	**Traditional Small MS4s that serve a population of at least 10,000 but less than 40,000; OR**	Traditional Small MS4s that serve a population of 40,001 or more; OR
Class 2 counties; Non-traditional such as Universities, Federal facilities.	**Class 1 counties**	Co-permit Small MS4s

The City of Nixa, as a regulated MS4, falls within "Group B"

The MS4 Operator may add supplemental items to the SWMP. These items include but are not limited to:

- Maps;
- Standard operating procedures (SOPs);
- Inspection forms;
- Sample data;
- Operations and Maintenance Manual;
- Website or social media account tracking;
- Stream Team Activity Reports;
- Tracking and evaluation documents; and
- Documentation of agreements for co-permittees and/or cooperative agreements. Not applicable to the City of Nixa, we have no co-permitee.

The MS4 Operator may replace or modify ineffective BMPs with effective BMPs. If the name of a MS4 contact changes, that may be updated on the next Stormwater Management Program Report and/or via email to the Department at MS4@dnr.mo.gov.

Entities under coverage of the MOR04C general permit shall develop and implement a Stormwater Program that includes the following six (6) Minimum Control Measures (MCMs).

1. All six MCMs apply to all traditional MS4s (cities and counties) regulated under this permit.
2. For non-traditional MS4s (universities, hospital complexes, prisons, and federal facilities) or MS4s in a co-permit that do not have responsibility over all MCMs. The permittee shall document in the SWMP and on each MS4 Stormwater Management Program Report which MCMs are not applicable. Contact the Department for any questions regarding applicability of MCMs.

A. 4.1 Permit Requirements

The MS4 Operator shall implement a public education program to distribute educational materials to the community and/or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.

The public education and outreach program shall, at a minimum include the following:

4.1.A The MS4 Operator shall target specific audiences who are likely to have significant stormwater impacts. Choose which is

- [X] Traditional municipalities (cities and counties) shall address the residents being served by the MS4;
- [ ] Non-traditional municipalities (universities, hospital complexes, prisons, and federal facilities) shall address the community served by the MS4 as listed below:
  a) Universities shall target the faculty, other staff, and students;
  b) Military bases shall target military personnel (and dependents), and employees.
  c) Prisons or prison complexes shall target staff and applicable contractors.

Additional other audiences within the MS4 service area (such as, but not limited to, those listed in **Table I)** shall be addressed as listed below:

Group A: No requirement for additional audiences
Group B: A minimum of one (1) additional audience
Group C: A minimum of two (2) additional audiences

The target audiences may remain the same for the entire permit cycle or may change if the tracking and adaptive management reviews show a new target may be better for the MS4. Any changes shall be stated and explained in the MS4 Stormwater Management Program Report.

Table I – Target Audiences

Choose which is applicable: (selected in **bold**)

☒ **Schools, educational organizations, or youth service and youth groups;**
☐Businesses, including commercial facilities, home-base and mobile businesses;
☐Institutions or formal organizations such as churches, hospitals, service organizations;
☒ **Developers or construction site operators;**
☒ **Homeowner or neighborhood associations;**
☐Industrial facilities;
☒ **Local government;**
☐Contractors;
☐Visitors/ tourist; and
☐Other target group,

4.1.B The MS4 Operator shall target specific pollutant(s) in the permittee's education program (such as, but not limited to, those listed in **Table II)**.
Each MS4 shall have a minimum of one target pollutant for each target audience from Section 4.1.A of this permit. The same pollutant may be used for more than one target audience.

Traditional MS4s:

	Table I Audiences	Table II Target Pollutant(s)
All Traditional	Residents	Grass clippings, leaf litter, fertilizer & pesticides.
Group B &C	Schools	Litter, trash containment, balloon releases, Illegal disposal of household hazardous waste. Pet waste.
	Developers	Sediment runoff from construction/land disturbance.
	Local Governments	Vehicle washing; and De-icing/ rock salt usage/ storage. Oil, grease, fluids from vehicles

Table II- Example Pollutants/ sources (not limited to this list)

- **Grass clippings & leaf litter**.
- **Fertilizer & pesticides.**
- **Litter, trash containment, balloon releases**.
- Dumping of solid waste.
- **Illegal disposal of household hazardous waste.**
- Pet waste.
- Failing septic systems.
- Swimming pool discharge, including saltwater pools.
- **De-icing/ rock salt usage/ storage.**
- **Oil, grease, fluids from vehicles.**
- **Sediment runoff from construction/land disturbance.**
- Unauthorized discharge of restaurant waste.
- Power washing.
- Unauthorized discharge of industrial waste.
- **Vehicle washing; and**
- Wash water/ grey water.

4.1.C The MS4 Operator must utilize appropriate educational resources to be used as BMPs (materials, events, activities, etc.) in conjunction with the selected pollutants for the selected target audiences.

- The MS4 Operator may change BMPs during the permit cycle if determined appropriate through tracking and adaptive management reviews show a different BMP may be more effective for the MS4. Any changes shall be reflected in the SWMP and explained in the MS4 Stormwater Management Program Report.

1. Using **Table III**, the MS4 Operator shall implement a minimum of the follow including the tracking and adaptive management processes:

Group B: Each permit cycle; four (4) education and outreach BMPs from Table III. (4 Table III education and outreach applicable BMPs have been selected and the remaining choices/suggestions have been deleted for space and simplification)

Table III - Outreach and Education BMPs

	BMPs:	Measurable goals (The quantity or frequency required to count as a full BMP)	Tracking & Adaptive Management
1	Information on the MS4 Operator's website;	Maintain a webpage with up-to-date information & working links. All links shall be checked, and the page shall be updated as necessary at minimum annually. Must be maintained the entire year.	The number of hits shall be tracked. The MS4 Operator shall use this to see which messages get reactions, and if certain messages may need more education.
2	Social Media posts, social media campaign;	Post a minimum of four (4) times a year, on a minimum of one social media platform. The messages shall address ways attendees can minimize or avoid adverse stormwater impacts or practices to improve the quality of stormwater runoff. The messages shall be seasonally appropriate. Must be continued for the full year.	The number of views, impressions, and other interactions shall be tracked. The MS4 Operator shall use this to see which messages get reactions, and if certain messages may need more education.
3	Publish articles in local newsletter, may be electronic;	Develop topics that are group specific and address activities and or pollutants of concern at a seasonally appropriate time. A minimum of two articles annually shall be published or emailed.	To the extent possible evaluate the pollutant before the article, and again after to see if there has been a change. Consider including a mechanism to track active response such as following the social media account or a website to visit. Track those responses to determine if the article was effective in reaching people.

4	Paid membership in a regional or watershed group.	The organization must focus on stormwater runoff.	The group may enact BMPs on behalf of all members, the permittee must participate to ensure their MS4 has representation and receives some of the educational BMPs.

4.1.D The MS4 Operator must create opportunities, or support activities that are coordinated by citizen groups, for residents and others to become involved with the Stormwater Management Program. The activities, (BMPs) must have an effort to impact stormwater runoff by improving water quality.

Group B: Each permit cycle; two (2) involvement BMPs from Table IV.

Table IV Involvement BMPs

BMPs	Measurable goals (The quantity or frequency required to count as a full BMP)	Tracking & Adaptive Management
#1. Stream/lake or Watershed clean-up events; Litter clean-up events such as Missouri Stream Team, Adopt-A-Spot, Adopt-A-Street, Adopt-A-Stream;	To be considered an event, the land area cleaned must be at minimum 2 acres, or 400 yards of stream/ streambank/ watershed, or 2 miles of roadside. (These may be combined such as 1 acre of land and 200 yards of stream.)	Track the area or distance cleaned (by acre, yard or lane miles), the amount of waste removed (by tonnage, cubic yard, or Stream Team bag count) and the attendance. Use the waste measurements to determine if there are priority areas for litter entering stormwater, or areas for illegal dumping.
#2. Hold events to train residents or work a project for homeowner associations (HOAs), or other public groups. The event or training must cover stormwater related topics such as: building rain barrels; Fertilizer application training; Rain Garden/ bio retention	Provide one project or training at minimum annually.	Record the attendance, the topic covered, and any training materials distributed. Use these numbers and interactions during the event to determine if the project or training covered a topic of interest and/or a topic that could be brought to a different or wider audience.

creation or maintenance; How to recognize illicit discharge activities and communicate observations to appropriate MS4 staff.		

4.1.E The MS4 Operator shall create or support the involvement BMP(s) in Section 4.1.D. –see table above.

To be considered support given to the coordinating groups the MS4 Operator shall at minimum conduct the following or similar:

* Plan, or assist with planning, the event or activity;
* Contribute supplies, materials, tools, or equipment;
* Provide assistance from MS4 staff during the activity;
* Provide assistance with recruiting volunteers for events;
* Make a space available for projects, meetings, or events;
* Advertisement for the events;
* Supply disposal services;
* Arrange land or stream access;
* Financial support; and
* In-kind donations such as food.

4.1.F Using adaptive management as required in parts 4.1.A.3.d and 4.1.B.1.c, all MS4 Operators shall review their Public Education and Outreach on Stormwater Impacts Program, at minimum, annually and update implementation procedures and/or BMPs as necessary within the requirements of this permit. This may be conducted when preparing the MS4 Stormwater Management Program Report for submittal to the Department.

Because the annual review date(s) for MCM 1 have yet to be determined, that information will be included when preparing the annual MS4 Stormwater Management Program Report for submittal to the Department.

Annual review of MCM 1			
Year reviewed	Date of review	Reviewer(s)	Were changes made and noted?
2021	**TBD**	**TBD**	**TBD**
2022	**TBD**	**TBD**	**TBD**
2023	**TBD**	**TBD**	**TBD**
2024	**TBD**	**TBD**	**TBD**
2025	**TBD**	**TBD**	**TBD**

B. Benefits of Public Education and Outreach

An informed and knowledgeable community is crucial to the success of any stormwater management program. Without a public knowledgeable about local water problems caused by urban runoff, it is difficult to obtain public support for local stormwater programs. This support ranges from individuals changing their daily actions to community support for all stormwater quantity and quality measures. As with all of the measures, the goal is to reduce the magnitude of a flood and degradation of local water bodies and improve chemical, physical and biological quality of state waters.

To achieve these benefits, public education programs shall target the following pollutants:

1. Solid Wastes: The proper handling and disposal. (Solid Waste-unwanted or discarded waste materials in a solid or semi-solid state, including but not limited to garbage, ashes, street refuse, rubbish, dead animals, animal and agricultural wastes, yard wastes, discarded appliances, special wastes, industrial wastes, and demolition and construction wastes).

2. Hazardous Wastes: The proper handling and disposal. (Hazardous Wastes-including but not limited to: pathological wastes, explosive wastes, toxic or radioactive materials).

3. Fertilizers (Nitrogen, Phosphates, and Potassium): The proper handling and application as recommended by the manufacturers.

4. Pesticides: (DDT, DDE, Chlordane, Heptachlor, Diel Drin, Methoxane Diazinon, Chlorpyrifos.): The proper handling and application as recommended by the manufacturers.

5. Herbicides: (Triazine, Glyphosate (roundup)): The proper handling and application as recommended by the manufacturers.

6. Oil and other automotive fluids, other petroleum chemicals: The elimination of illegal dumping into storm drains.

7. Sediment: The importance of erosion control structures on construction sites to prevent sediment from eroding into storm drains.

8. Erosion: The importance of detention basins and other post-construction structures to prevent erosion downstream of new development.

In the 1990's concern over the effects of water quality in the James River watershed led to the City of Nixa participating in the founding of the James River Basin Partnership (JRBP).

The James River Basin Partnership is a grass roots locally led organization aimed at providing the basic knowledge for citizens to make informed, responsible decisions about the use and preservation of our water resources. The JRBP is a project of the Southwest Missouri Resource Conservation and Development (RC&D), Inc. with support from the City of Nixa and a host of other local municipalities and organizations.

The City will continue to recognizes and support the efforts of the James River Basin Partnership through its stewardship of the James River and Finely River watershed management. The JRBP has been instrumental in developing and initiating best management practices for point and non-point pollution.

C. General Pollution Prevention Compliance Activities

Programs will include, but are not limited to, the distribution of educational materials and promotion of outreach activities. Depending on the type of pollution contained in stormwater runoff, the impact on natural watercourses can be cumulatively severe. It must be recognized that each individual is personally responsible for the pollutants in the runoff from his or her occupied land area. Ordinary citizens must be conscious of their responsibility for proper handling of trash, pet waste, and other sources of pollution wherever they are located.

The basic implementation approach will be to seek out and form partnerships with educational institutions, watershed groups, and businesses to assure the water quality needs of the community are met.

Education and information will address general pollution prevention goals plus specific pollution problems identified. Educational materials will offer options and alternatives for prevention and proper disposal of pollutants that should not be discharged into the storm sewer system.

D. Program BMPs

See Table III for - Outreach and Education BMPs
and Table IV for - Involvement BMPs.