Stormwater Public Education and Outreach Strategy TEMPLATE

(The following template is an example only. There are many methods to comply with the COR-070000 MS4 Permit and many types of permittees. Edit this document as needed based on your outreach.)

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*DISCLAIMER:*

*This document, courtesy of SPLASH members, has been provided for* ***educational purposes only*** *to assist other permittees regarding the MS4 Non-standard Permit, effective November 1, 2021.*

*This document may contain omissions or errors and therefore any use of this will be entirely at your own risk.*

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# Introduction

Protecting the quality of stormwater runoff is required by the Colorado Discharge Permit System (CDPS) Regulations. The procedures described in this document detail compliance with requirements of the Municipal Separate Storm Sewer System (MS4) Permit issued by the Colorado Department of Public Health and Environment (CDPHE). The CDPHE, Water Quality Control Division (WQCD), through the MS4 permit issued to the Permittee, requires the Permittee to control and reduce the discharge of pollutants to protect stormwater quality and to satisfy the appropriate water quality requirements of the Colorado Water Quality Control Act and the Colorado Discharge Permit Regulations (Colorado Regulation 61). Specifically, 61.8(11) Conditions for Phase II Municipal Stormwater Permits states,

*(a) An individual permit or general stormwater permit certification issued to a regulated small MS4 shall contain the following requirements, at a minimum:*

*(i) …regulated small MS4 develop, implement, and enforce a stormwater management program designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Colorado Water Quality Control Act (25-8-101 et seq., C.R.S.). …Implementation of BMPs consistent with the provisions of the stormwater management program required pursuant to this section and the provisions of the permit required pursuant to subsection (ii) constitutes compliance with the standard of reducing pollutants to the MEP…*

*(ii) Minimum control measures (management programs).*

*(A) Public education and outreach on stormwater impacts. The permittee must implement a public education program to:*

*(I) distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff; and*

*(II) inform businesses and the general public of impacts associated with illegal discharges and improper disposal of waste.*

As required in the MS4 general permit (COR-070000) Public Education and Outreach, a program to educate the public on stormwater impacts must be implemented.

## Purpose of Document

This procedure, titled *Stormwater Public Education and Outreach*, documents how the MS4 permit holder is meeting the requirement to implement a public education program to promote behavior change by the public to reduce in discharges from the MS4 in the Non-Standard MS4 Permit (COR-070000).

This Document may change without notice if it is found to no longer be effective and/or compliant with the MS4 permit requirements. Unless significant changes warrant, this Document is reviewed annually and updated as necessary.

## Targeted Pollutants

This sub-section, titled Targeted Pollutants, documents the pollutants that MS4 permit holder has identified and targeted for public education to meet the requirements of the Education and Outreach Program.

Nutrients – Nutrients are inorganic substances, such as **nitrogen** and **phosphorous**. They commonly exist in the form of mineral salts that are either dissolved or suspended in water. The primary source of nutrients in urban runoff has been identified as fertilizer products. Excessive use of fertilizer can result in the discharge of nutrients to water bodies and streams, resulting in excessive aquatic algae and plant growth. Overgrowth of aquatic algae and plants can lead to a state of eutrophication in the water body. Eutrophication occurs when overgrowth leads to excessive decay of organic matter in the water body, loss of oxygen in the water, and the eventual death of water body organisms. In addition to fertilizer, other common sources of nutrients include yard waste and pet waste.

Sediments – Sediments are soils or other surficial materials transported or deposited by the action of wind, water, ice, or gravity, as a product of erosion. For example, sediments can erode from land when disturbed by a construction activity or heavy rainfall. Sediments can increase turbidity, clog the gills of fish, reduce spawning, lower the ability of young aquatic organisms to survive, smother bottom dwelling organisms, and suppress the growth of aquatic vegetation.

Floatable Materials - Trash (e.g., paper, plastic, polystyrene packing foam, aluminum materials, etc.) and biodegradable organic matter (e.g., leaves, grass cuttings, food waste, etc.) are considered floatable materials. The presence of floatable materials has a significant impact on the recreational value of a water body and can potentially impact aquatic species habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby, lower the water quality of the stream. Also, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.

Oil and Grease – Oil and grease are characterized as high-molecular weight organic compounds. Primary sources of oil and grease are petroleum hydrocarbon products, motor products, esters, oils, fats, waxes, and high molecular-weight fatty acids. Migration of these pollutants to the water bodies are very possible due to the wide uses and applications of some of these products in either municipal, residential, commercial, industrial, or construction areas. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality.

Bacteria and Viruses – Bacteria and viruses are micro-organisms that thrive under certain environmental conditions. Water, containing excessive bacterial and viral levels, can alter the aquatic habitat and create a harmful environment for humans and aquatic life. This type of water pollution is characterized by high coliform bacterial counts. It is typically caused by excess animal or human fecal wastes in the water. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water. (LA Reference Guide for Stormwater BMPs, July 2000)

# Section 1: Illicit Discharges: Targeted Businesses (Part I.E.1.a.i)

This section, titled Illicit Discharges: Targeted Businesses, documents the education and outreach conducted to targeted business to meet the requirements of the Education and Outreach Program.

Permit Requirement:

Part I.E.1.a.i. Illicit Discharges: *The permittee must provide information to businesses (which may include population, vendors, concessionaires, tenants, and contractors), if present, and the general public of impacts associated with illegal discharges and improper disposal of waste. The permittee can meet the requirements of this section through contribution to a collaborative program to evaluate, identify, target, and provide education and outreach that meet the requirements of this section. The permittee may incorporate the education and outreach to meet this requirement into the education and outreach strategies provided in accordance with Part I.E.1.a.ii. The information must be provided as follows:*

*(A) The permittee must determine the targeted businesses (which may include the vendors, concessionaires, tenants, or contractors), that are likely to cause an illicit discharge or improperly dispose of waste. At a minimum, the permittee must identify at least one type of targeted business, if present.*

*(B) The permittee must develop and implement at least one education and outreach activity to one or more targeted user populations, businesses, vendors, concessionaires, tenants or contractors identified in Part I.E.1.a.i.(A). Educational materials and activities, individually or as a whole, must describe water quality impacts associated with illicit discharges and the improper disposal of waste, the behaviors of concern, and actions that the vendor, concessionaire, tenant, contractor or general public can take to reduce the likelihood of illicit discharges and the improper disposal of waste.*

Part I.E.1.b.i.Illicit Discharges*: A written list of the targeted user population group (e.g., park users; specified type of vendors, concessionaires, tenants, and contractors) and the distribution mechanism for each activity and the following:*

*(A) Dates the activities were implemented, including, as applicable, dates of events and the materials that were made available.*

*(B) Documentation of the activities that were provided and/or made available and the dates of distribution. Signs, markers, or equivalent intended to be maintained for the permit term must be described with location information.*

*Click here to enter text.*

*<<Pro Tip: Partner with your City/County/local watershed group/etc. for a more holistic approach.>>*

*List the business types that are likely to cause an illicit discharge that you have identified. Use the pollutant source list above to determine what pollutants you may have, then determine what audience is appropriate to provide outreach to. Last, determine the method of outreach (brochure, training, posted signs, etc). Note that you may count this outreach towards the required outreach in Table 2.*

*Who are your users/What is your population? For schools, this could be students and trash; for a metro district this could be restaurants in your service area.*

*Fill out the table below to document the outreach you will conduct.*

## Table 1: Business Outreach

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Business Types | Format | Distribution | Documentation | Location of Documentation |
| Lawn Care Providers | Brochure: Brochure: Managing Yard Waste | Direct Mail | Copy of brochure; List of Lawn Care Providers distributed to | S:\Storm Water\PROGRAMS\Public Education |

# ****Section 2: Education and Outreach Activities**** (Part I.E.1.a.ii)

This section, titled Education and Outreach Activities, documents the education and outreach conducted to meet the requirements of the Education and Outreach Program.

Permit Requirement:

Part I.E.1.a.ii. Education and Outreach Activities Table: *Each calendar year, the permittee must implement at least four education and outreach activities (bulleted items) and at least two must be from the Active and Interactive Outreach column. The activities can be the same from year to year or be different each year. The permittee can meet the requirements of this section through contribution to a collaborative program to evaluate, identify, target, and provide education and outreach that meet the requirements of this section.*

Part I.E.1.a.ii.Education and Outreach Activities: *A written list of the targeted pollutant sources and/or pollutants, the target audience, and distribution mechanism for each activity and the following:*

*(A) Dates the activities were implemented, including, as applicable, dates of events and the materials that were made available.*

*(B) Documentation of the activities that were provided and/or made available and the dates of distribution. Signs, markers, or equivalent intended to be maintained for the permit term must be described with location information.*

*Click here to enter text.*

*<<Pro Tip: Partner with your City/County/local watershed group/etc. for a more holistic approach and to save on resources.>>*

*Highlight the activities conducted by you or through your collaborative effort in Table 2 below.*

*Consider using Table 3 or something similar to document the outreach you will conduct as well as how the efforts will be documented to meet the recordkeeping requirements in the permit. These tables include* ***EXAMPLES*** *of outreach that could be conducted and how the outreach could be documented. Delete the existing examples and insert your own outreach activities if using the table.*

## Table 2: Education and Outreach Activities Table

|  |  |
| --- | --- |
|  | |
| **Passive Outreach** | **Active and Interactive Outreach (pick any two bullets each year)** |
| * Provide a bus shelter/bench advertisement on at least one bench. * Provide a billboard/dasher board advertisement on at least one billboard/dasher board. * Provide a vehicle/bus advertisement on at least 3 busses. * Provide radio/television/movie theatre advertisement. * Publish newspaper advertisement in at least two issues. * Distribute educational materials by brochure, door hanger or email to at least 50 percent of the user population. * Distribute educational materials by fact sheet to at least 50 percent of the user population. * Distribute educational material by utility bill insert to at least 50 percent of the user population. * Publish article (hard copy or electronic). * Provide storm drain marking by permittee staff that maintains 25% of permittee maintained inlets. * Provide stormwater related signage. * Provide a website. * Social media advertisement for a minimum of 1 month. | * Provide ongoing advertisement/promotion of a stormwater hotline number or other method to report an illicit discharge * Provide ongoing advertisement/promotion on how to get more information about the stormwater program * Provide an ongoing social media program * Provide a website that is interactive or contains stormwater information that includes actions that can be taken to reduce stormwater pollution. * Provide two newsletters (hard copy or electronic). * Promote an existing local stormwater/environmental events or program that helps protect water quality. * Distribute promotional items or giveaways. * Participate in or sponsor a water festival which involves populations that exist within the permit boundary. * Participate in or sponsor a waterway clean-up and trash removal event. * Participate in or sponsor a service project. * Participate in or sponsor a stormwater or environmental presentation. * Participate in or sponsor a stormwater or environmental event. * Participate in or sponsor community project based programs that investigate watershed health and meet applicable school Science, Technology, Engineering and Math (STEM) standards. * Participate in or sponsor a household hazardous waste event. * Participate in or sponsor an Adopt-a-Street program. * Participate in or sponsor an Adopt-a-Waterway program. * Participate in or sponsor an Adopt-a-Storm Drain program. * Provide ongoing access to motor vehicle fluids recycling program. * Participate in a stormwater booth at a community event. * Conduct a stormwater survey. * Sponsor a storm drain marking program performed by the public/community. * Provide pet waste stations. * Participate in, plan, or present stormwater materials to schools. * Provide stormwater demonstration projects that show control measures or other pollutant reduction methods. * Include information and links for stormwater regulations when soliciting construction contractors. * Participate in or sponsor a poster contest. * Ongoing social media campaign. |

## Table 3: Outreach Conducted

Activities are completed as needed. See the location of documentation for dates and materials distributed where necessary.

| Target Pollutant | Target Audiences | | Format | | Distribution | | Documentation | | Location of Documentation | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Nutrients (Phosphorous) |  | |  | |  | |  | |  | | | | |
|  | Property Management Companies | | Brochure: Lawn Care | Response letters to complaints | | Copy of Brochure | | Investigations S:\Storm Water\PROGRAMS\IDDE | | | | | |
|  | Employees/ Contractors | | Standard Operating Procedure | Available on share drive and in contracts | | Training Log | | S:\Storm Water\PROGRAMS\Pollution Prevention and Good Housekeeping | | | | | |
|  | Website users | | Informational materials, contact information | www.go stormwater.org | | Screenshot of website | | S:\Storm Water\PROGRAMS\Public Education | | | | | |
| Oil/Grease |  | |  |  | |  | |  | | | | | |
|  | Restaurants | | Brochure: Fats Oil & Grease (FOG) | Given during FOG inspections | | List of restaurants inspected | | S:\Storm Water\PROGRAMS\Public Education | | | | | |
| Sediment | |  |  | |  | | |  | | |  | | | |
|  | | Construction sites/operator | Brochure: Construction Site/ Brochure: Construction Site in Spanish | | Available during construction meetings | | | Copy of Brochure | | | | S:\Storm Water\PROGRAMS\Public Education | | |
| Trash/Debris | |  | |  |  | |  | |  | | | | | |
|  | | General population | | Awareness Ads- what is a pollutant | Bus shelter/bench advertisement | | Copy of Poster | | S:\Storm Water\PROGRAMS\Public Education | | | | | |
|  | Website users | | Informational materials, contact information | www.go stormwater.org | | Screenshot of website | | S:\Storm Water\PROGRAMS\Public Education | | | | | |
|  | |  | |  |  | |  | |  | | | | | |
| Bacteria (Pet Waste) | | | | | | | | | | | | | | |
|  | | Dog Owners | | Pet Waste Stations and signage | Public park areas | | | Map of pet waste locations | | | | | S:\Storm Water\PROGRAMS\Public Education | |
|  | |  | |  |  | | |  | | | | | |  |
| Illicit Discharges/Illegal Dumping | | | | | | | | | | | | | | |
|  | | Residents | | Brochure: Managing Household Waste | Reception area | | | Copy of brochure | | S:\Storm Water\PROGRAMS\Public Education | | | | |
|  | | General population | | Storm manhole lids stamped “drains to Creek” | On all owned storm sewer manholes | | | Map of storm manholes | | S:\Storm Water\PROGRAMS\Public Education | | | | |
|  | Website users | | Informational materials, contact information | www.your stormwater page.org | | Screenshot of website | | S:\Storm Water\PROGRAMS\Public Education | | | | | |
|  | |  | |  |  | | |  | | | | | |  |

# Section 3: ****Nutrients (Part I.E.1.a.iii)****

This section, titled Nutrients, documents the education and outreach conducted specific to nitrogen and phosphorus to meet the requirements of the Education and Outreach Program.

Permit Requirement:

Part I.E.1.a.iii. Nutrients*: As part of their public education program, the permittee must specifically address the reduction of water quality impacts associated with nitrogen and phosphorus in discharges from the MS4. This program component must address both pollutants: nitrogen and phosphorus. Permittees can meet the requirements of this section through contribution to a collaborative program to evaluate, identify, target, and provide education and outreach that addresses sources state-wide or within the specific region or watershed that includes the receiving waters impacted by the MS4 permittee’s discharge.*

*(A) For both nitrogen and phosphorus, the permittee must determine the targeted sources (e.g., residential, industrial, agricultural, or commercial) that are contributing to, or have the potential to contribute these constituents to the waters receiving the discharge authorized under the MS4 permit. Targeted sources may include but are not limited to the use of deicers containing phosphorus, application of fertilizers, and pet waste.*

*(B) The permittee must prioritize which targeted sources are likely to obtain a reduction in nutrient discharges through education and outreach. The permittee must distribute educational materials or equivalent outreach to the prioritized targeted sources. Educational materials or equivalent outreach, individually or as a whole, must describe stormwater quality impacts associated with nitrogen and phosphorus in stormwater runoff and illicit discharges, the behaviors of concern, and actions that the target source can take to reduce nutrients. Examples of education efforts includes: encouraging responsible fertilizer application, encouraging xeriscaping, proper disposal of leaves and lawn waste, and evaluating alternatives to deicers containing phosphorus.*

*(C) The permittee may incorporate the education and outreach to meet this requirement into the education and outreach activities provided in accordance with Part I.E.1.a.ii.*

Part I.E.1.b.iii. Nutrients: *A written list of the targeted sources that are contributing to, or have the potential to contribute nutrients to stormwater and the education and outreach activity for nitrogen and phosphorus sources.*

*Click here to enter text.*

*<<Pro Tip: Partner with your City/County/local watershed group/etc. for a more holistic approach and to save on resources.>>*

*First, list the identified targeted sources of nutrients that are specific to your stormwater discharge. For example, do not decide to target agriculture if it is not likely to be a source of nutrient pollution in the discharge from your MS4.*

*Next, prioritize those sources that are most likely to be reduced through education and outreach.*

*Example: The following targeted sources have been prioritized as likely to obtain a reduction in nutrient discharges through education. Table 4, Nutrients Outreach, contains the list of the targeted sources, their prioritization, and the education and outreach activity for the targeted source. Each educational material or equivalent will describe stormwater quality impacts associated with nitrogen and phosphorus in stormwater runoff and illicit discharges, the behaviors of concern, and actions that the target source can take to reduce nutrients.*

*Consider using Table 4 or something similar to document the outreach you will conduct for nutrients as well as how the efforts will be documented to meet the record keeping requirements in the permit. These tables include* ***EXAMPLES*** *of outreach that could be conducted and how the outreach could be documented. Delete the existing examples and insert your own outreach activities if using the table.*

## Table 4: Nutrients Outreach

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Target Nutrient Source | Target Audiences | Format | Distribution | Documentation | Location of Documentation |
| Priority 1: Fertilizers | | | | | |
|  | Landscaping Companies | Informational Materials about proper clean up of over fertilizer; grass clipping disposal | Direct Mail | List of Companies material is mailed to; what materials are mailed | S:\Storm Water\PROGRAMS\Public Education |
|  | General population | Awareness Posters- Algae Monster | stormwater booths, events | Number of community events and their location | S:\Storm Water\PROGRAMS\Public Education |
|  | Website users | Informational materials, contact information | www.go stormwater.org | Live interactive website | S:\Storm Water\PROGRAMS\Public Education |
| Priority 2: Dog Waste | | | | | |
|  | Website users | Informational materials, contact information | www.go stormwater.org | Screenshot of the webpage | S:\Storm Water\PROGRAMS\Public Education |
|  | Dog owners | Dog waste bag containers | stormwater booths, events | Number of community events and their location | S:\Storm Water\PROGRAMS\Public Education |
| Priority 3: Grass/Leaves from City Parks | | | | | |
|  | Employees/ Contractors | Standard Operating Procedure | Available on share drive and in contracts | Training Log | S:\Storm Water\PROGRAMS\Pollution Prevention and Good Housekeeping |

# Section 4: Cherry Creek Watershed Requirements (Part I.E.1.a.iv)

This section, titled Cherry Creek Watershed Requirements, discusses the education and outreach conducted specific to the Cherry Creek Watershed to meet the requirements of the Education and Outreach Program.

Permit Requirement:

Part I.E.1.a.iv. Cherry Creek Watershed Requirements: *The following requirements in Part I.E.1.a.iv apply only to permittees within the Cherry Creek Watershed and apply in addition to the above requirements in Part I.E.1.a.i through iii:*

*(A) As part of their public education program, the permittee must specifically focus on residential, industrial, agricultural, and/or commercial sources that have the potential to contribute significant nutrient concentrations to state waters at a rate that could result in or threaten to result in exceedance of the chlorophyll a standard in Cherry Creek Reservoir. Permittees can meet the requirements of this section through contribution to a collaborative program to evaluate, identify, target, and provide outreach that addresses sources state-wide or within the specific region or watershed that includes the receiving waters impacted by the MS4 permittee’s discharge.*

*1) The permittee must determine the targeted sources (e.g., residential, industrial, agricultural, or commercial) that are contributing to, or have the potential to contribute, nutrient concentrations to state waters at a rate that could result in or threaten to result in exceedance of the chlorophyll a standard in the Cherry Creek Reservoir. Examples of sources that may need to be addressed by the permittee's program include chemical deicing, residential fertilizer, retailers with outdoor storage of fertilizers, concentrated agricultural activities such as turf farms and landscape plant facilities, and animal feeding operations.*

*2) The permittee must distribute educational materials to the targeted sources.*

*3) Public education activities to meet this requirement in Part I.E.1.a.iv may be used to satisfy other public education requirements in Part I.E.1.a.i through iii, provided all requirements in Part I.E.1.a.i, ii, iii, and iv are met.*

Part I.E.1.b.iv. Cherry Creek Drainage Basin Public Education: *A written list of the targeted sources (residential, industrial, agricultural, or commercial) that have the potential to contribute substantial nutrient concentrations to state waters at a rate that could result in or threaten to result in exceedance of the chlorophyll a standard in Cherry Creek.*

*(A) The permittee must document and maintain records of dates that materials to address targeted sources in Part I.E.1.a.iv(A) were made available.*

*(B) If participating in a collaborative program, the permittee must maintain documentation of participation in activities that address the targeted sources in Part I.E.1.a.iv(A), including dates that materials to address targeted sources in Part I.E.1.a.iv(A) were made available.*

*Click here to enter text.*

*<<Pro Tip: Partner with your City/County/Cherry Creek Stewardship Partners/etc. for a more holistic approach and to save on resources.>>*

*Review the targeted sources identified above in Table 4. Add additional sources to the list, if necessary.*

*All targeted sources and information on documentation are located in Table 4 above.*