



CITY OF LONE TREE

**PUBLIC EDUCATION
AND OUTREACH
PROGRAM**

**STANDARD OPERATING
PROCEDURES MANUAL**

CITY OF LONE TREE PUBLIC WORKS DEPARTMENT

OCTOBER 2018

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CHAPTER 1 - INTRODUCTION

The Federal Clean Water Act (CWA) is the cornerstone of surface water quality protection in the United States. Though the CWA does not deal directly with groundwater or with water quantity issues, the statute employs a variety of regulatory and nonregulatory tools to sharply reduce direct pollutant discharges into waterways and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters so that they can support the protection of watersheds. To further reduce the adverse effects of stormwater runoff, the U.S. Environmental Protection Agency (EPA) instituted its Stormwater Phase II Final Rule on December 8, 1999.

PHASE II STORMWATER PROGRAM ADMINISTRATION

As authorized by the CWA, the National Pollutant Discharge Elimination System (NPDES) Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The Phase II Stormwater Program is part of the EPA's NPDES program, which in Colorado is delegated to the Water Quality Control Division (Division) of the Colorado Department of Public Health and Environment (CDPHE) to administer.

PHASE II STORMWATER PROGRAM REGULATIONS

The City of Lone Tree's Municipal Separate Storm Sewer System (MS4) is a system that discharges stormwater runoff to surface water or waters of the state. Phase II regulates discharges from small MS4s located in "urbanized areas" (as delineated by the Census Bureau in the most recent census) and from additional small MS4s designated by the Division. Phase II also regulates construction activities that disturb one (1) or more acres of land. In addition, the Phase II Final Rule ends the temporary exemption from Phase I requirements for some municipally-operated industrial activities.

MS4s are typically operated by municipalities, but the Phase II definition of "MS4" includes storm sewer systems owned or operated by other public bodies (e.g., counties). The EPA also notes that an MS4 is not always just a system of underground pipes; it can include roads with drainage systems, gutters, and ditches.

THE ROLE OF PUBLIC EDUCATION AND OUTREACH IN PHASE II STORMWATER

The EPA's Phase II rule specified that permitting authorities (i.e., the Division) must issue general permits for "automatically designated" small MS4s by December 9, 2002. The rule required that the City of Lone Tree (City) apply for NPDES permit coverage within 90 days of permit issuance, and no later than March 10, 2003. To obtain this coverage, the City had to develop, implement, and enforce a stormwater management program that was designed to reduce the discharge of pollutants to the maximum extent practicable, protect water quality, and satisfy the applicable water quality requirements of the CWA. The EPA's Stormwater Phase II Final Rule stated that this stormwater management program must include the following six minimum control measures:

- **Public Education and Outreach** on stormwater impacts,
 - Public Involvement and Participation,
 - Illicit Discharge Detection and Elimination,
 - Construction Site Stormwater Management,
 - Post-Construction Stormwater Management in new development and redevelopment, and
 - Pollution Prevention and Good Housekeeping for municipal operations.

As part of the application for permit coverage, the City had to identify the Best Management Practices (BMPs) used to comply with each of these six minimum control measures and measurable goals set for each measure. Since it went into effect on March 28, 2003, the City has implemented the Colorado Discharge Permit System (CDPS) General Permit COR-080000 under the Certification Number COR-080016. The current version of the City's permit has an effective date of July 1, 2016 and expires June 30, 2021.

PHASE II STORMWATER EDUCATION

As reflected above, the City, through the successful implementation of the six minimum control measures, provides stormwater education, including Public Education and Outreach, to City employees and the general public.

ABOUT THIS MANUAL

This Manual has been designed to give an overview of the processes used by the City of Lone Tree to meet the requirements of the Permit for the Public Education and Outreach Program as follows:

- Chapter 2 explains the Public Education and Outreach requirements of the Permit.
- Chapter 3 identifies the City's activities to meet those requirements.
- Chapter 4 describes the files used for recordkeeping.

CHAPTER 2 - PROGRAM REQUIREMENTS

WHY ARE PUBLIC EDUCATION AND OUTREACH EFFORTS NECESSARY?

A robust public education and outreach program helps inform citizens and businesses about stormwater pollution and illicit discharges and the steps that they can take to reduce stormwater pollution, such as properly disposing of trash and applying pesticides and fertilizers so that trash and excess lawn care chemicals do not wash into local waterways during the next rainstorm. It should offer citizens an opportunity to comment on the permittee's stormwater program and participate in its implementation, such as a hotline that citizens can call if they see dirt on roadways from construction sites that could wash into a local stream.

Many think that water flowing in curbs and gutters goes to the local sewage treatment plant. This is not typically true in Colorado. Stormwater and all of the pollutants that it picks up in curbs and gutters flows directly to local waterways. The City can use this program to respond to reports of illicit discharges and clean up potential pollutants such as, used motor oil, grass clippings, leaves, grease from restaurants, and dirty wash water from power washing sidewalks.

THE ELEMENTS OF A PUBLIC EDUCATION AND OUTREACH PROGRAM

The Permit states that "The permittee must implement a public education program to promote behavior change by the public to reduce pollutants in discharges from the MS4. Education and outreach activities, individually or as a whole, must address the impacts of stormwater discharges on water bodies, the steps the target audience can take to reduce pollutants in stormwater runoff, and water quality impacts associated with illicit discharges and improper disposal of waste.". By the Permit, the City's Public Education and Outreach Program must include the following:

- **Illicit Discharges:** The City must provide information to businesses and the general public regarding the permittee's prohibitions of and the water quality impacts associated with illicit discharges as part of the public education program. The City may incorporate the education and outreach to meet this requirement into the education and outreach strategies, and include the following:
 - The City must determine the targeted businesses that are likely to cause an illicit discharge or improperly dispose of waste. At a minimum, the City must identify at least one type of business and a list of those businesses that fit the identified type of business.
 - The City must develop and implement at least one education and outreach activity to those businesses. 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 business can take to reduce the likelihood of illicit discharges and the improper disposal of waste.

- **Education and Outreach Activities Table:** Each year, the City must implement at least four education and outreach activities shown in Table 1 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.

TABLE 1 Education and Outreach Activities Table	
Passive Outreach	Active and Interactive Outreach (pick any two bullets each year)
<ul style="list-style-type: none"> • Bus shelter/bench advertisement • Billboard/dasher board advertisement • Vehicle/bus advertisement • Radio/television/movie theatre advertisement • Newspaper advertisement • Distribute educational materials by brochure • Distribute educational materials by fact sheet • Distribute educational material by utility bill insert • Publish article (hard copy or electronic) • Storm drain marking by permittee staff that maintains 25% of permittee maintained inlets. • Stormwater related signage • Web site 	<ul style="list-style-type: none"> • Ongoing advertisement/promotion of a stormwater hotline number or other method to report an illicit discharge • Ongoing advertisement/promotion on how to get more information about the stormwater program • Ongoing social media program • Web site that is interactive or contains stormwater information that includes actions that can be taken to reduce stormwater pollution • Newsletter (hard copy or electronic) • Promotion of existing local stormwater/environmental events or program that help 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 • Stormwater booth at a community event • Conduct a stormwater survey • Storm drain marking program performed by the public/community • Pet waste stations • Participate in, plan or present stormwater materials to schools • Stormwater demonstration projects that show control measures or other pollutant reduction methods

- **Nutrients:** As part of their public education program, the City must specifically address the reduction of water quality impacts associated with nitrogen and phosphorus in discharges from the MS4. 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 City's discharge.
 - The City must determine the targeted sources (e.g., residential, industrial, agricultural, or commercial) that are contributing to, or have the potential to contribute, nutrients to the waters receiving the discharge authorized under the MS4 permit.
 - The City must prioritize which targeted sources are likely to obtain a reduction in nutrient discharges through education. The City 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. The City may incorporate the

education and outreach to meet this requirement into the education and outreach strategies provided in accordance with the Permit.

- Cherry Creek Reservoir Basin Discharges: In accordance with the Cherry Creek Reservoir Control Regulation (5 CCR 1002-72), for those parts of the MS4 that drain wholly or in part into the Cherry Creek Reservoir drainage basin, the permittee shall meet the requirements of Regulation 72.7.2(a) in addition to the requirements listed above.

The City has incorporated all of these elements within this Manual and through implementation of our Phase II Permit requirements.

CHAPTER 3 - PUBLIC EDUCATION AND OUTREACH ACTIVITIES

ORGANIZATIONAL COOPERATION

In Year 1 (2003) of the City's Permit, one of the stated goals was to establish local and regional partnerships with other Phase II entities. The City joined two organizations and continues to participate in both today.

Colorado Stormwater Council

The Colorado Stormwater Council (CSC) is an organization for local governments who own a storm drainage system and are required to have a municipal permit (National Pollutant Discharge Elimination System (NPDES) for the discharge from those systems to state waters. In the State of Colorado, the Colorado Department of Public Health and the Environment (CDPHE) is responsible for regulating the discharge of stormwater by issuing discharge permits through the Colorado Discharge Permit System.

In 2000, the Urban Drainage and Flood Control District put together the CSC to assist the Colorado Department of Public Health and Environment - Water Quality Control Division in developing the State Phase II Permitting Program. Members were important contributors to the UDFCD/WQCD Stormwater Phase II Permitting Program, particularly with respect to identifying and meeting permit conditions and requirements.

The CSC acts as a forum for municipalities and municipal permit holders which:

- Enables exchange of technical information regarding stormwater regulations and compliance with permits.
- Serves as a voice for its members during regulatory procedures, meetings and hearings.
- Educates members on all aspects of stormwater: legislation, permitting, technology, resources, program management, and more.
- Aids in the development and implementation of stormwater programs at local and regional levels.

To date, some significant CSC accomplishments include providing representation of 79 local governments and organizations in the State regulatory processes, working closely with the Water Quality Control Division to streamline permit renewal processes, providing experienced and innovative solutions for incorporation into draft permits, and collaborating in the production of stormwater related education and outreach materials. One achievement of which we are especially proud is winning the 2007 Public Works Program Award for Environmental Design/Maintenance/Operations.

The City has participated in the CSC since 2003, attends the monthly general meetings, and has served on several of the committees. The City pays annual dues of \$500 to maintain membership in CSC.

CLEAR - Douglas County Stormwater Co-op

The Douglas County Stormwater Co-op is an organization for local governments in and around the greater Douglas County area who own a storm drainage system and are required to have a MS4 permit. The Co-op encourages sharing of resources, ideas, and creates a unified voice in working with State regulators and the public.

The Co-op originated in 2000, when Douglas County and Highlands Ranch Metro District staff felt that working together on the Stormwater Phase II Permit would be an effective way to create a successful partnership among entities. The original members of the Co-op group were Douglas County, Town of Castle Rock, Town of Parker, City of Lone Tree, Highlands Ranch Metro District, Castle Pines Metro District, Castle Pines North Metro District, Stonegate and Lincoln Park Metro Districts, Inverness Water and Sanitation District, Douglas County School District, Arapahoe County, and Arapahoe County Water and Wastewater Authority. Since its origination, other groups including SPLASH, SEMSWA, Cherry Creek Stewardship Partners, Heritage Hills Metro District, and Meridian Metro District have joined and contributed to the Co-op.

The City has participated in the Co-op by attending the bi-monthly general meetings, has served on several of committees, and has acted as Chair since 2008. The Co-op created the CLEAR (Cooperative for Local Environmental Awareness & Responsibility) brand in 2010 to develop the website <http://onethingisclear.org> as a clearing house for the Co-op's educational materials.

The Co-op does not collect membership dues; however, the City participates annually to maintain the Co-op's CLEAR website and the monthly newspaper advertisements in the Lone Tree Voice through Community Media of Colorado. Below is an example:



Are you a good neighbor to your environment?

Everyone plays a part in protecting water quality. Washing and dumping waste into storm drains is a direct threat to our lakes and streams. By keeping a neighborhood watch on your streets and shopping areas, you play a big part in keeping our lakes and streams clean and healthy. Please report illegal and accidental dumping to your local authorities. To find out how to properly discard household chemicals, contact your local agency.

Local stormwater agencies are teaming up to bring you this message. We take this so seriously that we posted this ad rather than send you more garbage in the mail.

One thing is clear: our creeks, rivers and lakes depend on you.

THIS MESSAGE BROUGHT TO YOU BY

One Thing Is CLEAR
Cooperative for Local Environmental Awareness & Responsibility
onethingisclear.org

Visit onethingisclear.org to:

- Report accidental and illegal dumping to your local agency
- Search local volunteer events
- Find more helpful tips

Never dump anything in the storm drain that you yourself would not drink or swim in.

NO DUMPING
No Dangerous Materials
REPORT ILLEGAL DUMPING TO 311

Colorado Community Media agrees: Please recycle this newspaper responsibly and partner with our communities for a better tomorrow. Ad campaign creative donated by the Castle Rock Water, Stormwater Division.

ILLICIT DISCHARGES

To meet the requirements and timeline of the Permit, the City created the following document that identified businesses that are likely to cause an illicit discharge. See Chapter 5 for the location of this document.

9222 Teddy Lane
Lone Tree, Colorado 80124



Ph: 303-662-8112
Fax: 303-792-9489
www.cityoflonetree.com

CITY OF LONE TREE

Department of Public Works

December 2017

RE: List of Potential Sources of Illicit Discharges

The City must implement a public education program to promote behavior change by the public to reduce pollutants in discharges from the MS4. Per Part I.E.1.a.i. of the Colorado Department of Health and Environment Permit No. COR080016, the permittee (City of Lone Tree) must "...determine the targeted businesses that are likely to cause an illicit discharge or improperly dispose of waste."

Every MS4 has varying demographics and land use and sources can vary. The City of Lone Tree has identified the following list of entities as targeted potential sources of illicit discharges:

Targeted Business Type	Contributing Source
Automotive	Sediment Trash Vehicle Oil, Fluids, and Grease
Construction (New and Remodeling)	Erosion Paint Sediment Trash Vehicle Oil, Fluids, and Grease
Restaurants	Cooking Oil and Grease Food Waste Trash Vehicle Oil, Fluids, and Grease
Retail Businesses	Sediment Trash Vehicle Oil, Fluids, and Grease
Landscapers	Animal waste (specifically dog) Fertilizers Pesticides Sediment Vegetation Debris Vehicle Oil, Fluids, and Grease

The monthly newspaper advertisements and the City Website offers educational materials for the general public to reduce illicit discharges.

The City continues to implement the education and outreach to those businesses through information posted on the CLEAR website and with monthly full-page advertisements (like below) in the Lone Tree Voice newspaper.



One message you can absorb.

Whether your business is near a creek or on top of a hill, you play a vital role in keeping our waterways clean. By containing and cleaning up automotive fluid spills promptly, your business prevents these contaminants from damaging the environment. Remember, one drop of oil picked up during a rain storm can pollute 1 million drops of water. Contact your local agency to find out how you can dispose of automotive fluids.

Local stormwater agencies are teaming together to bring you this message. We take this so seriously that we posted this ad rather than send you more garbage in the mail. One thing is clear: our creeks, rivers and lakes depend on you.

THIS STORMWATER MESSAGE BROUGHT TO YOU BY

Visit onethingisclear.org to:

- Report accidental and illegal dumping to your local agency
- Search local volunteer events
- Find more helpful tips



Be prepared. Have appropriate spill supplies on hand to address automotive fluid leaks.

Colorado Community Media agrees: Please recycle this newspaper responsibly and partner with our communities for a better tomorrow. Ad campaign creative donated by the Castle Rock Water, Stormwater Division.

EDUCATION AND OUTREACH

The City takes advantage of the CLEAR organization to meet the Passive Outreach and Active and Interactive Outreach requirements of the Permit. While the 2016 Permit language requires significantly more actions for the City, the Table 1 requirements were already met.

Passive Outreach



CLEAR...

One Thing is Clear stands for Cooperative for Local Environmental Awareness and Responsibility. We are local neighbors, in and around Douglas County Colorado, creating a CLEAR message for stormwater quality.

Our message is simple and clear, providing you with practical ways to protect stormwater quality. If our waterways are going to stay clean, they depend on all of us to do our part in protecting them.

Awareness is one of our key goals in sending you this message. Throughout this website you have the resources you need to report spills, find volunteer opportunities in your local community and most of all tips on how to protect stormwater at your home or business.

Responsibility is in your hands. We can provide you with the information and resources to protect our waterways, but only you can choose to make the right choice. Please report accidental and illegal dumping to your local agency.

Household Chemical WARNING:

Thin paint, kills wildlife.



learn report a concern events

The CLEAR organization recognized the value of creating a unified outreach program, with newspaper advertisements and the website as the central vehicles for getting the word out to the public. The members of CLEAR remain steadfast in their participation in these two activities.

Active and Interactive Outreach

The Permit requires two activities from this column on Table 1. The City currently has many to choose from:

The monthly newspaper ad campaign satisfies:

- Ongoing advertisement/promotion of a stormwater hotline number or other method to report an illicit discharge
- Ongoing advertisement/promotion on how to get more information about the stormwater program
- Information that includes actions that can be taken to reduce stormwater pollution
- Participate in or sponsor a waterway clean-up and trash removal event (The ads include stream clean-up events for Castle Rock)
- Promotion of existing local stormwater/environmental events or program that help protect water quality

The CLEAR website satisfies:

- Web site that is interactive or contains stormwater
- Participate in or sponsor a stormwater or environmental event
- Participate in or sponsor a household hazardous waste event

The City has programs to meet the following:

- Provide ongoing access to motor vehicle fluids recycling program
The City has an on-going “At Your Door Special Collection” service. The program focuses on collecting items that cannot be recycled locally and should not be placed in the trash: paint, paint thinners, car batteries, used oil, pesticides, poisons, spray cans, antifreeze, household cleaners, electronics and more. The program is funded by the City with a minimal resident co-pay of \$30.00, beginning January 1, 2018, per pick-up. The City will pay the remaining amount. Additional quantities of materials may be collected at an additional charge.
- Pet waste stations
The City partners with the South Suburban Recreation District and other metropolitan districts to install and maintain over sixty pet waste stations within the City.

NUTRIENTS

To meet the requirements and timeline of the Permit, the City created the following document that identified the targeted sources that are contributing, or have the potential to contribute, nutrients to the City’s permitted waters. See Chapter 5 for the location of this document.



CITY OF LONE TREE

Department of Public Works

December 7, 2017

RE: List of Targeted Sources of Nutrients

Nutrients include sources of phosphorus and nitrogen. Per Part 1.E. iii, of the Colorado Department of Health and Environment Permit No. COR080016, the permittee (City of Lone Tree) must “determine the targeted sources (residential, industrial, agricultural or commercial) that are contributing to, or have the potential to contribute nutrients to the waters receiving the discharge authorized under the MS4 Permit”.

Every MS4 has varying demographics and land use and sources can vary. The City of Lone Tree has identified the following list of landscape management entities as targeted sources of nutrients:

Target Source	Contributing item or activity
Residential <ul style="list-style-type: none"> • Homeowners Associations • Residential Management Firms • Landscaping Contractors 	Fertilizers
Commercial <ul style="list-style-type: none"> • Ownership Associations • Commercial Management Firms • Landscaping Contractors 	Fertilizers
Parks/Greenways/Open Space/Golf Courses <ul style="list-style-type: none"> • Homeowners Associations • South Suburban Recreational District • Douglas County School District • Rampart Range Metropolitan District • Heritage Hills Metropolitan District • Park Meadows Metropolitan District • City of Lone Tree • Landscaping Contractors 	Fertilizers Animal waste (specifically dog)

On June 28, 2018, the City used an e-mail blast to distribute this message...

PROTECTING, PRESERVING AND RESTORING COLORADO'S CLEAN WATER STARTS WITH YOU.

We've all seen water running in the streets and gutters after a rain or snow storm. Wonder where it goes? Straight into our local waterways. Why does it matter?

Because along the way, the stormwater picks up all of the “gunk” on streets and sidewalks– including fertilizers, pet waste, leaves, grass clippings, and other pollutants. The result? Nutrient pollution in our lakes and rivers.

Nutrient pollution is not only unsightly, it degrades our water quality. Excess nitrogen and phosphorus is the root causes of nutrient pollution and causes an overgrowth of algae, ultimately removing oxygen from lakes and rivers– endangering fish, lessening the recreational opportunities of lakes and rivers, degrading water quality, and eventually leading to a decline in safe drinking water.

You can help save our waterways. Incorporating sustainable landscaping practices can help to reduce nutrient pollution in stormwater runoff. It can also lead to healthier plants and lawns that need less pesticides and fertilize and minimize water use.


Simple ways that you *can* make a difference:

- **Apply the right amount of fertilizer according to the instructions.** Clean up any spills and dispose properly.
- **Test the soil to determine its nutrient needs.** A soil nutrient analysis kit is available at most home improvement stores and is an easy, inexpensive way to determine what your lawn really needs and can reduce costly inputs like water, fertilizer, pesticides, and unwanted nutrient runoff.
- **Fertilizing in the early fall promotes healthy root systems** - leading to stronger more resilient lawns and plants.
- **Avoid blowing leaves and grass clippings into the street.** It's best that you compost or bag it instead.
- **Adjust sprinkler systems** based on weather conditions and repair leaks to reduce runoff.
- **Consider native plants** that naturally adapt to the environment and require less turf, water, and fertilizer.

The goal of Stormwater Permittees for Local Awareness of Stream Health is to partner with the community to maximize our local water quality. Please share this with others in your organization or community and help us to protect, preserve, and restore Colorado's most valuable resource. For more information, please visit our website at www.splashco.org.



SPLASH
STORMWATER PERMITTEES FOR LOCAL AWARENESS OF STREAM HEALTH



...and the attached poster:

GREEN LAWNS DON'T HAVE TO EQUAL GREEN LAKES

Sure, we all want a great lawn. Doing it the right way ensures we get great water, too.

Excess nutrients, specifically nitrogen and phosphorus, pollute stormwater run-off from urban areas, contributing to the third greatest cause of lake deterioration in the US.

Leaf "litter" and landscape trash accounts for **56%** of phosphorus in urban stormwater, not to mention clogging storm drains and increasing debris in our streams and waterways.

Just one pound of fertilizer over-application on the average lawn can equate to **34.2 lbs.** of excess algae growth in streams and lakes...

The amount of phosphorus in grass clippings generated from just one lawn mowing can produce up to **100 lbs.** of unwanted algae if it ends up in our lakes and ponds.

...that's **ONE TON** for every 60 homes!

WHY DOES IT MATTER?

More than 100,000 miles of rivers and streams in the US are polluted with too much nitrogen and phosphorus, a distance that could stretch around the earth **4X**!

Too much nutrients can cause rapid growth of algae, which removes oxygen from the water, attributing odors, and upsetting the aquatic ecosystem. This also directly leads to a decline in Colorado's drinking water quality.

WHAT YOU CAN DO

Dispose Properly

- Compost or bag your leaves and grass clippings
- Don't blow grass clippings into the street
- Hand pull weeds when possible
- Sweep up any spills or overspray of fertilizers on sidewalks or streets

Turn It Down

- Adjust sprinkler systems based on weather, repair leaks, and reduce runoff
- Don't powerwash debris into the street
- Adjust fertilizer spreaders to apply the correct amount over areas. Fertilizer bags typically provide this information or ask at the local garden center

Fertilize Effectively

- Fertilizing in the early fall promotes healthy root systems - leading to stronger, more resilient lawns and plants
- Watch the weather and make sure to not apply when storms will be approaching

Choose Wisely

- Perform soil testing to determine the right amount of fertilizers to apply
- Consider using slow-release fertilizers with water-insoluble or slowly-soluble nutrients
- Planting species that are native to the region can decrease the amount of turf, water, and fertilizer needed

One Thing Is CLEAR
Cooperative for Local Environmental Awareness & Responsibility
onethingisclear.org

SPLASH
STORMWATER PERMITTEES FOR LOCAL AWARENESS OF STREAM HEALTH
WWW.SPLASHCO.ORG

The City also continues to use this pet waster poster:

SCOOP THE POOP, PROTECT THE WATER

1.4M Dogs in Colorado

Each dog generates about **12 oz.** of waste per day

That's **274 lbs.** of waste per year

Equalling a Colorado total of **390M lbs.** pounds per year...

... equivalent to **4,126** dumptrucks' worth!

390M Pounds! If dog owners don't clean up after their pooches, that **390 million pounds** of poop can wash into your waterways every year!

WHY DOES IT MATTER?

39M
8M

Just in Colorado, that's 39 million pounds of phosphates and 8 million pounds of nitrogen generated by dog poop every year.

Dog waste contains 10% phosphates and 2% nitrates.

These nutrients contribute to algae growth, causing low oxygen in the water that can kill fish and other aquatic life.

Rain and snowmelt washes dog waste into our storm drains that connect to rivers and lakes without treatment where it decomposes, releasing nutrients that cause excessive growth of algae and weeds...

...making the water murky, green, smelly and even unusable for swimming, boating or fishing.

PLUS

Dog waste can spread pathogens that can be transmitted from pets to humans, including salmonella, giardia, parvovirus among others.

AND...

Parasite eggs dispersed by poop can survive for years in outdoor areas.

WHAT YOU CAN DO

Pick it Up
Carry extra pet waste bags on every walk

Pitch It
Make sure to put the bags in a garbage can

Pay a Scooper
There are several local and affordable pooper scooper businesses available online

SPLASH
STORMWATER PERMITTEES FOR LOCAL AWARENESS OF STREAM HEALTH
WWW.SPLASHCO.ORG

CITY OF FORT COLLINS, COLORADO
1995

PREVIOUS PROGRAM ELEMENTS

The previous (2008) version of the City's Program Description Document included this list as Appendix B:

Discontinued Element	Rationale
Public Education and Outreach	
Stencil or mark existing storm drains.	The City has experienced similar issues to other members of the Douglas County Stormwater Co-op. Vandalism makes this approach ineffective.
School programs and public education task force	This element has been difficult to implement due to a lack of participation by the Douglas County School District. However, the City will continue to support Project WET (Water Education for Teachers - through the Cherry Creek Stewardship Partners) and the Douglas County School District when possible.
Radio public service announcements	The City has found that videos on DC8 and articles in local newspapers are more effective outreach methods than public service announcements aired on the radio.
Stormwater library	The City will no longer maintain a library because it is too resource intensive to maintain and has not been helpful to employees or the public. However, the City will provide web-site links to appropriate articles and resources.
Stormwater survey	This has not been an effective outreach tool because only a few City citizens and employees completed the survey.
Public Participation and Involvement	
Traveling Road Show	The City will continue to support the "Traveling Road Show" to those in the DC Stormwater CO-OP Group that want to give presentations, but has found that the Road Show is generally ineffective for most non-school activities.
Post-Construction Stormwater Management in New Development and Redevelopment	
Annual inspections of permanent BMPs	The City does not have the resources to conduct annual inspections. The City will, however, inspect each permanent BMP once within the permit term and in response to complaints.
Development of SOPs for plan review, inspection, enforcement, and tracking	Procedures for plan review are outlined in the Douglas County Storm Drainage Design and Technical Criteria Manual, as amended and the BMPs are tracked in a database. The City will inspect each permanent BMP once within the permit term and in response to complaints.

Each of these elements was determined, after the first five years of the program, to be ineffective or resource-prohibitive for the City to continue.

The stencil kit that was developed for the City included this plaque, which was made of a hard plastic. The plaques were epoxied onto the existing inlets but the City experienced either vandalism or epoxy failure and most of those markers no longer exist. There are a growing number of foundries that cast this information into their manhole covers and inlet grates that are used for storm sewer applications.



The Travelling Road Show is an interactive model that is used to demonstrate the locations and types of pollutants that can be picked up by stormwater runoff. It is an effective hands-on experience for school presentations. The Co-op members have access to this Show by contacting the Cherry Creek Stewardship Partnership and picking it up at the Cherry Creek State Park Administrative Office.



Note that the discontinued elements under the Post-Construction program have since been re-introduced to the City's program.

CHAPTER 4 - RECORDKEEPING FOR THE PROGRAM

INTRODUCTION

The Division substantially revised the framework of the 2016 Permit. Review of the previous permit indicated a gap in the documentation of demonstrating permit compliance. For the 2016 Permit, recordkeeping requirements include the development of documents such as standard operating procedures (SOPs).

Recordkeeping allows the City to communicate accurately and effectively to staff and construction operators. Recordkeeping enables the City, applicable development site operators, and others participating in the stormwater program to be timely in reporting to both the Division and the City. In addition, recordkeeping helps to minimize errors and allow for a periodic review of the success of the stormwater program. Opportunities for stormwater program improvements can also be identified through the review of records.

PUBLIC EDUCATION AND OUTREACH PROGRAM FILES

The following files can be found under:

MS4 Documentation\Section – Public Education and Outreach

Illicit Discharges FOLDER

Documents associated with meeting the Permit Compliance Schedule, including:
2017-12 Targeted Sources of Illicit Discharges.pdf

2018-Jan Targeted Sources of Nutrients FOLDER

Documents associated with meeting the Permit Compliance Schedule, including:
2017-12-07 Targeted Sources of Nutrients Memo.pdf
2018-06-28 E-Mail Blast for Nutrients.pdf
2018 Nutrient Poster.pdf
2018 DogPoopPoster Lone Tree.pdf

2018-Jan Begin E and O Activities FOLDER

Documents associated with meeting the Permit Compliance Schedule, including:
2018 Possible Table 1 E & O Activities.pdf
Table 1 Activities from Annual Report 2017.pdf

CLEAR FOLDER

Documents associated with the CLEAR organization, including:
Annual folders that include meeting invitations, meeting minutes, agendas, annual CLEAR Newspaper Ad Summaries, and other CLEAR-related documentation.

Colorado Stormwater Council FOLDER

Annual reports from the CSC.