



CITY OF LONE TREE

**CONSTRUCTION SITE
GRADING, EROSION, AND
SEDIMENT CONTROL
(GESC) PROGRAM**

**STANDARD OPERATING
PROCEDURES MANUAL**

CITY OF LONE TREE PUBLIC WORKS DEPARTMENT

SEPTEMBER 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 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL 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 Runoff Control,**
- 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 Construction Site Stormwater Runoff Control, 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 Program for Construction Site Stormwater Runoff Control as follows:

- Chapter 2 explains the Construction Site Stormwater Runoff Control requirements of the Permit.
- Chapter 3 identifies the exclusions allowed by the Permit.
- Chapter 4 references the regulatory mechanisms.
- Chapter 5 references the Control Measure Requirements.
- Chapter 6 provides the procedures for the review and approval of site plans.
- Chapter 7 reviews the procedures for site inspections.
- Chapter 8 provides the procedure for enforcement and sanctions against entities responsible for applicable construction activities.
- Chapter 9 outlines the training approaches.
- Chapter 10 describes the files used for recordkeeping.

CHAPTER 2 - CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM

WHY ARE CONSTRUCTION SITE STORMWATER RUNOFF CONTROL EFFORTS NECESSARY?

Discharges from MS4s often include wastes and wastewater from non-stormwater sources. The goal of the Construction Site Stormwater Control, through the Grading, Erosion, and Sediment Control (GESC) and Drainage, Erosion, and Sediment Control (DESC) Permit Programs is to implement effective erosion and sediment control best management practices (BMPs) as a standard for all land disturbance activities to reduce increases in erosion and sedimentation over pre-development conditions. During the relatively short period of time when undeveloped land is converted to urban uses, a significant amount of sediment can erode from a construction site and be transported to adjacent properties and receiving waters. Erosion caused by construction and subsequent downstream sedimentation can damage property and degrade the quality of streams and lakes. Sediment can also be a transport mechanism for many stormwater pollutants that disturb riparian and aquatic habitat. Eroded sediments often contain significant phosphorus that can lead to unwanted algae growth in creeks, rivers, lakes and reservoirs.

THE ELEMENTS OF AN CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM

The Permit states that “The permittee must implement a program to reduce or prevent the discharge of pollutants to the MS4 from construction activities”. The City’s Construction Site Stormwater Runoff Control program includes the following elements:

- Regulatory Mechanisms: Lone Tree Municipal Code
 - Section 15-1-30 adopts the Douglas County Grading, Erosion, and Sediment Control (GESC) Manual for the City’s program;
 - Section 15-2-20 prohibits the discharge of any non-stormwater into the City’s MS4 or Waters of the State;
 - Section 15-2-60 prohibits any land-disturbing activity to be conducted in a manner that violates the MS4 Permit of the GESC Manual;
 - Section 15-2-80 authorizes access to private and public properties for inspection or investigation conditions that may constitute a violation;
 - Section 15-2-90 provides for the administration and enforcement for any and all illicit discharges;
 - Section 15-2-100 provides for the civil enforcement of the GESC Manual; and
 - Section 15-2-110 defines the penalties for violation.
- Regulatory Mechanism Exemptions: The City tracks any exemption implemented by the City to waive control measures used to meet effluent limits.
- Development Review: The City reviews all construction stormwater site plans; sediment and erosion control plans, stormwater pollution prevention plans,

- drainage reports, drainage plans, and stormwater management plans submittals for general compliance with the GESC Manual;
- Construction Inspection: The City inspects all applicable construction sites to confirm that the appropriate control measures are:
 - Implemented prior to the start of construction activity;
 - Control potential pollutants during each phase of construction;
 - Continued through final stabilization; and
 - Maintained in operational condition.
 - Enforcement: The City can, at its discretion, escalate the enforcement mechanisms defined under the City Code.
 - Recordkeeping: The City maintains records that include:
 - The City-approved GESC Plans;
 - Inspection forms and associated photographs;
 - Correspondence; and
 - Project files with activity spreadsheets

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

DEFINITIONS OF A CONSTRUCTION SITE

The following definitions for Construction Sites under the 2016 Permit:

Applicable construction activities include construction activities that result in a land disturbance of greater than or equal to one acre or that is less than one acre but is part of a larger common plan of development or sale that would disturb, or has disturbed since March 2, 2001, one acre or more, unless excluded below or the disturbed areas have been finally stabilized.

Construction activity refers to ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Activities that include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility are not considered construction activities. Activities to conduct repairs that are not part of regular maintenance and activities that are for replacement are considered construction activities and are not considered routine maintenance. Repaving activities where underlying or surrounding soil is cleared, graded, or excavated as part of the repaving operation are construction activities unless they are an excluded site. Construction activity occurs from initial ground breaking to final stabilization regardless of ownership of the construction activities.

Land disturbing activity is any activity that results in a change in the existing land (both vegetative and non-vegetative). Land disturbing activities include, but are not limited to clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Compaction that is associated with stabilization of structures and road construction must also be considered a land disturbing activity.

A **Common plan of development or sale** is a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules but remain related. The Division has determined that “contiguous” means construction activities located in close proximity to each other (within ¼ mile).

Final stabilization is the condition reached when all ground surface disturbing activities at the site have been completed, and for all areas of ground surface disturbing activities a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

CHERRY CREEK RESERVOIR DRAINAGE BASIN

The City’s program must also meet the requirements contained in the Cherry Creek Reservoir Control Regulation (5 CCR 1002- 72) for sites within the City limits that drain wholly or in part to the Cherry Creek Reservoir drainage basin in addition to the requirements contained in this document.

CHAPTER 3 – CONSTRUCTION SITE EXCLUSIONS

GENERAL PERMIT EXCLUSIONS

The General Permit includes the following three exclusions from the Construction Site Program. These construction activities are not subject to the requirements of Section (1.E.3.c.):

- Construction Activities with R-Factor Waiver: The permittee may exclude the waived activity from being an applicable construction activity if the Division waives requirements for stormwater discharges associated with a small construction activity in accordance with Regulation 61.3(2)(f)(ii)(B) (the “R-Factor” waiver):

“The Division may waive the otherwise applicable requirements in a general permit for a stormwater discharge from a small construction activity that disturbs less than five acres where the value of the rainfall erosivity factor (“R” in the Revised Universal Soil Loss Equation) is less than five during the period of construction activity. The rainfall erosivity factor must be determined using a State Approved method. The operator or owner must certify to the Division that the construction activity will only take place during a period when the value of the rainfall erosivity factor is less than five. If unforeseeable conditions occur that are outside of the control of the applicant for a waiver, and that will extend the construction activity beyond the dates initially applied for, the owner or operator must reapply for the waiver or obtain coverage under a general permit for stormwater discharges. The waiver reapplication or permit application must be submitted within two business days after the unforeseeable condition becomes known. This waiver does not relieve the operator or owner from complying with the requirements of local agencies.”
- Activities for County Growth Areas: Permittees that are counties may exclude certain activities from being applicable construction activities when they occur within a county growth area. This exclusion is not applicable to the City.
- Facilities associated with oil and gas exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activity. These facilities might still be covered under the state general permit for Stormwater Discharges Associated with Construction Activity.

The City does not currently allow these exclusions.

CHAPTER 4 – REGULATORY MECHANISMS

INTRODUCTION

The City of Lone Tree has implemented regulatory mechanisms to:

- Give the City the ability to implement sanctions against entities responsible for applicable construction activities;
- Require control measures to be implemented for all applicable construction activities from initial disturbance until final stabilization; and
- Implement procedures to ensure that any exemptions, waivers or variances included in the regulatory mechanism are applied in a manner that complies with the terms and conditions of the Permit.

SANCTIONS

Section 15-1-40 of the Code identifies the City's ability to sanction a project or property for failing to meet the City's Construction Site Program, by amending 5.10.1 Penalties and Enforcement of the Douglas County GESC Manual to read:

"Failure to comply with any term, condition, limit, deadline or other provision of the GESC Manual, or failure to obtain a GESC Permit, constitutes a violation of this Article. Any person who violates any provision of this Article commits a criminal offense and upon conviction shall be punished by a fine not exceeding one thousand dollars (\$1,000.00) or by imprisonment not exceeding one (1) year, or by both such fine and imprisonment. Each day a violation continues shall be considered a separate offense.

In addition, any violation of this Article may constitute a violation of the Federal Clean Waters Act and the Colorado Water Quality Control Act. Pursuant to Section 25-8- 08,C.R.S., any person who violates the Act or any permit issued under the Act shall be subject to a civil penalty of not more than \$10,000 per day for each day during which such violation occurs. Pursuant to Section 25-8-609, C.R.S., any person who recklessly, knowingly, intentionally or with criminal negligence discharges any pollutant into any state waters commits criminal pollution if such discharge is made in violation of any permit issued under the Act. If the violation is committed with negligence or recklessness, the maximum fine shall be \$12,500 per day. If the violation is committed knowingly or intentionally, the maximum fine shall be \$25,000 per day.

In addition to any other legal or equitable remedies that the City may have for GESC Permit violations, the City may cease issuance of all Building Permit Approvals and other permissions until such violation is corrected and the Permittee takes additional steps to ensure compliance with the GESC Permit."

CHAPTER 5 – CONTROL MEASURE REQUIREMENTS

INTRODUCTION

The City's Construction Site Program must address selection, installation, implementation, and maintenance of control measures that meet the requirements of Part I.B. Control measures must prevent pollution or degradation of state waters. Control measures must also be appropriate for the specific construction activity, the applicable pollutant sources, and phase of construction. There are a wide variety of structural and non-structural control measures that can be used at applicable construction sites. The current edition of the Douglas County Grading, Erosion and Sediment Control Manual, as adopted by Code Section 15-1-30, meets the following requirements.

REQUIREMENTS

Control measures must meet the following minimum requirements:

- Appropriate control measures must be implemented prior to the start of construction activity, must control potential pollutants during each phase of construction, and must be continued through final stabilization. Appropriate structural control measures must be maintained in operational condition.
- Control measures must be selected, designed, installed, implemented, and maintained to provide control of all potential pollutants, such as but not limited to sediment, construction site waste, trash, discarded building materials, concrete truck washout, chemicals, sanitary waste, and contaminated soils in discharges to the MS4. At a minimum pollutant sources associated with the following activities, if part of the applicable construction activity, must be addressed:
 - 1) Land disturbance and storage of soils
 - 2) Vehicle tracking
 - 3) Loading and unloading operations
 - 4) Outdoor storage of construction site materials, building materials, fertilizers, and chemicals
 - 5) Bulk storage of materials
 - 6) Vehicle and equipment maintenance and fueling
 - 7) Significant dust or particulate generating processes
 - 8) Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, and oils
 - 9) Concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment
 - 10) Dedicated asphalt and concrete batch plants.
 - 11) Other areas or operations where spills can occur.
 - 12) Other non-stormwater discharges including construction dewatering not covered under the Construction Dewatering Discharges general permit and wash water that may contribute pollutants to the MS4.

CHAPTER 6 – SITE PLANS

INTRODUCTION

The City's Public Works Department, as part of the entitlement process, reviews every Site Improvement Plan (SIP) submitted to the City. Under the Permit, SIPs can include construction stormwater site plans; sediment and erosion control plans, stormwater pollution prevention plans, drainage reports, drainage plans, and stormwater management plans.

REVIEW REQUIREMENTS

The City requires operators to develop SIPs that locate and identify all structural and non-structural control measures for the applicable construction activities. The SIP must contain installation and implementation specifications or a reference to the document with installation and implementation specifications for all structural control measures. A narrative description of non-structural control measures must also be included in the SIP.

The City, using the current edition of the Douglas County Grading, Erosion and Sediment Control Manual as a reference, shall confirm that the proposed site plan includes appropriate control measures for all stages of construction, including final stabilization.

REVIEW PROCESS

An SIP is required for the development of new buildings and related site improvements and for exterior modifications to existing buildings and site improvements, as determined by the City's Planning Director. SIPs are required for all single-family attached, multi-family and non-residential development.

Public Works reviews several documents (or portions thereof) as part of the SIP process, including but not limited to:

- Preliminary and Final Plats
- SIP sheets pertaining to Grading, Utilities, and Drainage
- Preliminary and Final Utility Reports
- Master, Preliminary, and Final Drainage Reports
- GESD Plans and Report
- Preliminary and Final Construction Plans
- Public Improvements Cost Estimate

The initial submittal of these documents occurs through the Planning Department. Subsequent correspondence can be directly between the development's engineer and Public Works. Include the project planner with all documentation. Once approved by Public Works, final versions of the documents, complete with engineer's stamp, are received and approved by the City and stored electronically in the City's database.

CHAPTER 7 – SITE INSPECTION

STANDARD OPERATING PROCEDURES

PERMITS

The City issues a GESG permit for every project that requires a GESG Plan and Report and has, on a case-to-case basis, issued a permit for a project that did not require a BGESG submittal. This is to track specific construction activities that may have public or municipal sensitivities.

INSPECTIONS

Per the Permit, the City is required to inspect permitted construction sites and document these inspections in accordance with the following frequencies and requirements:

Site Inspection Frequency Exclusion

For any of the following, the City is only required to conduct inspections if there are observations or reports of discharges of sediment from disturbed areas:

- Individual Homes in a Residential Subdivision-Finished Home: Inspections are not required for a residential lot that has been conveyed to a homeowner when all of the following criteria have been met:
 - The lot has been sold to the homeowner(s) for private residential use;
 - The lot has less than one acre of disturbed area;
 - All construction activity associated with grading the lot and building the home is completed;
 - A certificate of occupancy (or equivalent) has been issued to the homeowner; and
 - The City has documented that the lot is subject to this exclusion.

- Individual Homes in a Residential Subdivision-Unfinished Home: Inspections are not required for a residential lot with an unfinished home when all of the following criteria have been met:
 - The lot has less than one acre of disturbed area; and
 - The City has documented that the lot is subject to this exclusion.

- Winter Conditions: Inspections are not required at sites where construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This exclusion is applicable only during the period where melting conditions do not exist. The following information must be documented for this exclusion:
 - Date(s) when snow cover occurred;
 - Date(s) when construction activities ceased; and
 - Date melting conditions began.

Site Inspection Frequency

For all other sites, the City is required to conduct the following inspections:

- Routine Inspection: A routine inspection must be conducted at least once before final stabilization.
 - Frequency: Conduct at least every 45 days.
 - Scope: The inspection must assess the following:
 - Control measures: Identify failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance.
 - Pollutant sources: Evaluate all pollutant sources, including trash, to determine if an illegal discharge has occurred.
 - Discharge points: Evaluate discharge points to the MS4, or beyond the limits of the construction site as necessary to determine if an illicit discharge has occurred. The City must require the removal of the pollutants, when feasible, from the MS4 when the City identifies a failure to implement a control measure or an inadequate control measure resulting in pollutants discharging to the MS4 or beyond the limits of the construction site.

- Reduced Site Inspection: Reduced site inspections must occur at the frequency and include the scope indicated below for each type of site:
 - Inactive Site Inspection: Sites where surface ground disturbance activities are completed and are pending growth for final stabilization or for sites where no construction activity has occurred since the last inspection.
 - Frequency: Conduct at least every 90 days.
 - Scope: The inspection must assess the following:
 - Control measures: Identify failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance.
 - Discharge points: Evaluate discharge points to the MS4, or beyond the limits of the construction site as necessary to determine if an illicit discharge has occurred. The permittee must require the removal of the pollutants, when feasible, from the MS4 when the permittee identifies a failure to implement a control measure or an inadequate control measure resulting in pollutants discharging to the MS4 or beyond the limits of the construction site.
 - Stormwater Management System Administrator's Program Inspection: These inspections are for construction activities operated by a participant in a Division designated Stormwater Management System Administrator's Program in accordance with Article 8 of title 25, Colorado Revised Statutes that has been identified by the Stormwater Management System Administrator to be fully implementing the program and qualified for reduced

oversight incentives of the program. ***This is not applicable, as the City is not a qualified program.***

- Staff Vacancy: These inspections are allowed to accommodate a staff vacancy or temporary leave due to vacation or illness.
 - Frequency: Conduct at least every 90 days.
 - Scope: The inspection must assess the following:
 - Control measures: Identify failure to implement control measures, inadequate control measures, and control measures requiring routine maintenance.
 - Pollutant sources: Evaluate all pollutant sources, including trash, to determine if an illicit discharge has occurred.
 - Discharge points: Evaluate discharge points to the MS4, or beyond the limits of the construction site as necessary to determine if an illicit discharge has occurred. The City must require the removal of the pollutants, when feasible, from the MS4 when the permittee identifies a failure to implement a control measure or an inadequate control measure resulting in pollutants discharging to the MS4 or beyond the limits of the construction site.

- Indicator Inspection: Indicator inspections, such as a drive-by or screening, are conducted to assess sites for indicators of noncompliance and do not fully assess the adequacy of control measures and overall site management. A routine inspection must be conducted at least once at the site with an applicable construction activity before an indicator inspection can be used. In addition, if the indicator inspection indicates a need for a compliance inspection, then another routine inspection must be conducted before the indicator inspection frequency and scope can be used again. Indicator inspections are a reduced scope inspection that can be used to extend the frequency required of routine inspections up to 90 days when all indicators evaluated determine control measures meet Good Engineering, Hydrologic and Pollution Control Practices and there is no evidence of discharges to the MS4. Types of Indicator inspections are defined below:
 - Frequency: Conduct at least every 14 days. A Routine Inspection must be conducted every 90 days.
 - Scope: Perimeter of the site must be evaluated for indicators of inadequate control measures. The inspection must assess the following:
 - Control measures: Identify failure to implement control measures and inadequate control measures.
 - Discharge points: Evaluate discharge points to the MS4, or beyond the limits of the applicable construction activities as necessary to determine if an illicit discharge has occurred. The City must require the removal of the pollutants, when feasible, from the MS4 when the permittee identifies a failure to implement a control measure or an inadequate control measure resulting in pollutants discharging to the MS4 or beyond the limits of the construction site.

- Compliance Inspection: A compliance inspection must occur after the City documents an illicit discharge or identifies that there is a failure to implement a

control measure or an inadequate control measure, unless corrections were made and observed by the City's inspector during the initial inspection.

- Frequency: Conduct within at least 14 days from the time the City documents an illicit discharge or identifies that there is a failure to implement a control measure or an inadequate control measure, unless corrections were made and observed by the inspector during the initial inspection.
- Scope: A compliance inspection, or alternative inspection listed below, must identify if corrections have been completed on sites where the City has documented an illicit discharge or failure to implement a control measure or an inadequate control measure during the previous inspection. One of the following, that incorporates this required scope, may be performed or required in lieu of a compliance inspection within 14 days of the City's site inspection identifying that there is a failure to implement a control measure or an inadequate control measure:
 - Routine inspection;
 - Indicator Inspection; or
 - Operator Compliance Inspection: Require the operator to inspect and report that the control measure has been implemented or corrected as necessary. The operator report must include photographs of the new/adequate control measure(s).

Site Inspection Form

The City uses the following form to document each site inspection. A form shall be filled out for each visit, making sure to fill out all pertinent information. It is important to indicate:

- Permit number and Inspection date for cross reference;
- The Pass/Fail of each Best Management Practice (BMP);
- Which type of inspection has been completed; and
- Enforcement Action taken.

Signature of the contractor is desired, but not necessary for **No Action Taken**, however, Level I through Level III violations should have the contractor's (or site representative) signature if available.

The Douglas County GESC Manual classifies violations in one of three categories, depending on the severity of the violation. Enforcement action varies for each category. A Level I Violation has the most severe impact on people and the environment while a Level III Violation has the least severe impact.

- Level I Violations are viewed to pose an immediate serious risk to the health, safety, or welfare of people and/or the environment. Level I Violations result in an immediate issuance of a Stop Work Order.
- Level II Violations are viewed to pose a moderate immediate risk to the health, safety, or welfare of people and/or the environment; however, if not immediately corrected, will pose a serious risk. Remediation for Level II Violations shall commence immediately after the GESC Permittee(s) are notified of the violation(s). Generally, the City may reinspect for compliance within 24 hours of notification of Level II Violations.

- Level III Violations are viewed to pose a low immediate risk to the health, safety, or welfare of people and/or the environment, however, if not corrected quickly, will pose a more serious risk. Level III Violations shall be corrected immediately after the GESC Permittee(s) are notified of the violation(s). Generally, the City may reinspect for compliance within 48 hours of notification of Level III Violations.

The current version of the GESC Field Inspection Report looks like this:



CITY OF
LONE TREE

Public Works Department
9220 Kimmer Drive, Suite 100
Lone Tree, Colorado 80124
303-662-8112

Permit #
Inspection Date:

GESC FIELD INSPECTION REPORT

Proj. Name:	
Location:	
Contractor:	Contact Name:
Phone:	Fax:
Email:	

Grading, Erosion and Sediment Control				
BMP	Condition			Comments
Silt Fence	Pass	Fail	n/a	
VTC	Pass	Fail	n/a	
Inlet Protection	Pass	Fail	n/a	
Sediment Basin	Pass	Fail	n/a	
EC Blanket	Pass	Fail	n/a	
Temp Swale	Pass	Fail	n/a	
Seed & Mulch	Pass	Fail	n/a	
Dust Control	Pass	Fail	n/a	
Concrete Wash Out	Pass	Fail	n/a	
Check Dam	Pass	Fail	n/a	
Construction Fence	Pass	Fail	n/a	
Diversion Ditch	Pass	Fail	n/a	
Sediment Control Log	Pass	Fail	n/a	
Stabilized Staging Area	Pass	Fail	n/a	
Street Sweeping/Tracking	Pass	Fail	n/a	
Stockpile	Pass	Fail	n/a	
Other	Pass	Fail		
Other	Pass	Fail		
Other	Pass	Fail		
Other	Pass	Fail		
Other	Pass	Fail		
Other	Pass	Fail		

Additional Comments:

INSPECTION TYPE			
<input type="checkbox"/> Routine	<input type="checkbox"/> Indicator	<input type="checkbox"/> Reduced	<input type="checkbox"/> Compliance

ENFORCEMENT ACTION	
<input type="checkbox"/> No Action Taken	Notice of Violation (NOV): <input type="checkbox"/> Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III
NOTE:	Level I NOV's may result in an immediate Stop Work Order. Level II NOV's may be re-inspected within 1 calendar day. Level III NOV's may be re-inspected within 2 calendar days. Failure to comply with a NOV prior to a re-inspection may result in a Stop Work Order and revocation of the applicable GESC Permit. Subsequent to issuance of a Stop Work Order, a GESC Permit reinstatement fee must be paid at the City DPW prior to any further site activity (other than GESC corrections). Regardless of Violation Level and re-inspection schedule, any GESC compliance violation must be corrected immediately, whether documented or not, and may subject the Permittee to enforcement (and associated penalties) by any of the applicable agencies (City, County, State, EPA).
Inspector's Signature:	Contractor's Signature:

(Rev 09-2018)

CHAPTER 8 – ENFORCEMENT RESPONSE

INTRODUCTION

As described in Chapter 4, Section 5.10.1 of the Code identifies the City's ability to sanction a project or property for failing to meet the City's Construction Site Program. While the City strives to find equitable solutions with the GESC Permittee(s), there may be an occasion where the City is required to escalate enforcement proceedings.

VIOLATIONS

As described in Chapter 7, there are three levels of violation for the GESC program. Levels II and III require re-inspections but do not stop the construction activities for the site. Only a Level I Violation requires the immediate suspension of all construction activities and this suspension is via the Stop Work Order.

STOP WORK ORDER

A Stop Work Order is not a legally binding document but generally gets the attention of the Permittee(s) that immediate remediation is required for the site. The inspector should use this level of violation judiciously, as stopping all progress on the site could have significant ramifications to the Permittee's project schedule.

In the event that the Permittee(s) does not immediately comply with the Stop Work Order, the City will need to get the Police Department involved to enforce the GESC Program. Per Chapter 2 Article III of the Municipal Code, the Police Department is the sole entity within the City that has enforcement abilities.

PROCEDURE

The City inspector shall compile all documentation that led to the Stop Work Order and present this documentation to the Public Works Director (or the highest-ranking available member of Public Works) immediately upon failure to comply with the Stop Work Order. If the violation is determined to be egregious enough for intervention by the Police Department, the complete file needs to be forwarded to one of the Police Department's Captains for their determination of the next course of action to be taken against the Permittee(s).

All documentation regarding the Stop Work Order and its resolution shall be kept within the City's GESC Permit file.

CHAPTER 9 - TRAINING

PROCEDURE

The City is responsible for training new inspectors for the requirements of field observation and associated documentation. The City may also provide continued education for its inspectors for current trends and approaches for the control of pollutants within the City's MS4.

All new inspectors shall review this Manual as well as the Illicit Discharge Detection and Elimination Manual to be adequately versed in the requirements of the City's Permit. It is also helpful to have reviewed the Douglas County GESC Manual for reference.

CHAPTER 10 - RECORDKEEPING

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 construction 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.

CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM FILES

The following files can be found under: **MS4 Documentation\Section - Construction**

GESC-Permit-Log.xls

An Excel file used to catalog each GESC Permit issued. The input:

- **Permit Number:** Gxx-xxx (xx-Last two digits of the year xxx-Order of issue)
- **Project No.:** City's tracking number for the project review(s)
- **Project Name:** Residence, Business, or Project reference
- **Issue Date:** The date of issuance for the permit
- **Permit Fee:** The fee paid to administer the permit
- **Fee Paid By:** Indicate Cash, Check, or Credit Card
- **Security Amount:** Amount of security determined by Probable Cost spreadsheet
- **Security Type:** The City accepts a check or Letter of Credit. The Check is cashed and placed in an account administered by the City.
- **Security Expiration:** A Letter of Credit has an expiration date. This needs to be tracked in the event that the project is not closed when approaching that expiration date.
- **Status:** **Closed:** Permit is closed **Active:** Requires Inspections
Voided: Permit has been voided or superseded
- **Date Closed:** The date that the permit is closed
- **Comments:** As needed
- **Owner:** The owner of the property or project
- **Contractor:** Contractor, Contact, and Phone Number
- **Inspector:** The City Inspector assigned to inspect the project

This file shall be updated when newer information is available.

GESC Permit Inspection Tracking.xls

An Excel file used to catalog each GESC Permit inspection. The input:

- **Permit #:** The GESC Permit number
- **Date:** Date of Inspection
- **Inspection Type:** Routine; Reduced; or Compliance
- **Violation:** The determined enforcement action:
No Action Taken; Level I; Level II; or Level III
- **# of Visits:** This column is self-populating – it counts the total number of inspections for that Permit.

The bottom of the spreadsheet has an auto-populating summary that is used to fill out

	Number of Active Permits for Year			38
	Total Number of Inspections			367
	Number of Routine Inspections			345
	Number of Reduced Inspections			20
	Number of Compliance Inspections			2
	Number of No Action Taken			364
	Number of Level III (NOV)			0
	Number of Level II (NOV)			0
	Number of Level I (NOV)			3
	Number of Shut down operation			0
	Average Number of Site Visits			9.7

the City's Annual Report to CDPHE.

This file shall be updated when newer information is available.

GESC Opinion of Probable Costs Form.xls

An Excel file used to determine the probable cost of installing the grading, erosion and sediment controls required on a site. The line items in the spreadsheet have City-determined unit costs, so the applicant only needs to fill in the quantities of each line item. Fifteen percent (15%) is added to sub-total as contingency, per Chapter 15 Section 15-5-110 Security.

The spreadsheet is protected to avoid tampering with the unit cost data. The password to unprotect the file is: **CoLTGESC**

The unit costs should be reviewed on an annual basis to best represent the current costs that are experienced in the metropolitan area.

CoLT Construction Site Exclusions Database.xls

An Excel file used to document all construction site activities given exclusions:

- **Site name:** Reference name
- **Owner:** Owner of site/project
- **Legal Description/Location:** Description of location
- **Completion Date:** Date when construction was completed and accepted
- **Site Acreage:** The total area disturbed
- **Reason for Exclusion:** Identify the exclusion category from those listed in Chapter 3: R-Factor; or Oil & Gas

While this spreadsheet has been prepared, the City does not currently use these exclusions.

CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PERMIT FILES

Each active permit has a folder kept in the front office of the Public Works Department. The folder includes:

- A copy of the approved GESC Plan and Report
- A copy of the approved Permit, including payment for fees and surety
- A GESC Field Inspection Report for each inspection. Each report can include supporting documentation such as e-mails, photographs, phone memos, etc.

Once a permit has been closed, the entire hard copy file is scanned and placed in the City's DocuWare® filing system.

CITY OF LONE TREE GEOGRAPHIC INFORMATION SYSTEM (GIS)

The City's GIS system is not currently used to track construction site information.