

Step 1. Confirm that a Temporary Batch Plant or Standard GESC Permit is required.

Section 2.1, **Projects that Require a Temporary Batch Plant or Standard GESC Permit**, identifies the kinds of projects that require either a Temporary Batch Plant/GESC Permit or Standard GESC Permit.

Step 2. Retain a Professional Engineer to prepare a GESC Plan.

Section 2.2, **Who Prepares GESC Plans?** confirms that the State Board of Registration has stipulated that a GESC Plan must be prepared under the responsible charge of a licensed Professional Engineer. This section emphasizes the value of continued training in the field of construction site erosion and sediment control.

Step 3. Determine type of GESC Drawings and identify what additional Town, State, and Federal plans and permits are required for the project (Pre-submittal Meeting with the Town is recommended).

Section 2.3, **Pre-submittal Meeting**, points out that an efficient way to clarify GESC Permit requirements is to schedule a Pre-submittal Meeting with Town staff at the outset of the process. A Pre-submittal Meeting, although optional, gives Town staff an opportunity to understand the Applicant's plans for the site and to offer guidance in developing a GESC Plan.

Section 2.4, **Types of GESC Drawings**, discusses four types of GESC Drawings and their submittal formats. Depending on the size and nature of a construction project, either a Temporary Batch Plant, Small Site and Utility, Staged, or Staged and Phased is required.

Section 2.5, **Other Town Plans and Permits**, describes the related plans and permits that may need to be submitted along with the development of a GESC Plan, including the following:

- ◆ Construction plans for the project.
- ◆ Drainage Plans.
- ◆ Drainage, Erosion and Sediment Control (DESC) Plan (for residential construction projects). (Refer to Section 8 for Residential DESC Permitting)
- ◆ Landscape/Irrigation Plans.
- ◆ Construction Permit.
- ◆ Floodplain Development Permit.

Section 2.6 discusses **State Permitting**, such as the following:

- ◆ Stormwater Management Plan.
- ◆ Dewatering Permit.
- ◆ Air Quality Permitting.

Section 2.7 discusses **Federal Permitting**, including:

- ◆ Federal Emergency Management Agency map revisions.
- ◆ Department of Army Corps of Engineers Section 404 Permit.
- ◆ Threatened and Endangered Species approvals.
- ◆ NEPA

Permit Step 1: Confirm that a Temporary Batch Plant or Standard GESC Permit is Required.

Section 2.1 provides background information related to Step 1.

Projects that Require a Temporary Batch Plant or Standard GESC Permit

Information *If a Low Impact GESC Permit is required, see Section 7 for applicable Permit Steps and information.*

2.1

The first step in the process is to examine the information in Section 1.4 and 1.5 to confirm that a Temporary Batch Plant or Standard GESC Permit is required for the project. These GESC Permits apply to most land disturbing activities in the Town other than small (less than 1 acre) projects with negligible negative impact (requiring a Low Impact GESC Permit) and most agricultural or emergency activities (exempt activities).

The Town of Castle Rock can be contacted to clarify GESC Permit requirements and to help interpret which GESC Permit, if any, applies to a particular project. Contact information is provided in Appendix A.

Important! *If a GESC Permit is not required, the process described herein is not applicable; however, BMPs shall still be required in accordance with the information shown in Sections 3 and 5.*

Permit Step 2: Retain a Professional Engineer to Prepare a GESC Plan.

Section 2.2 discusses Step 2.

Who Prepares GESC Plans?

2.2

Laying out erosion and sediment controls on a site may involve engineering design issues such as embankment stability and spillway sizing (for sediment basins), pipe strength calculations (for temporary stream crossings), and peak discharge estimates and hydraulic computations (for determination of flood elevations and velocities and for sizing conveyance facilities).

Because of these issues, Colorado State Statutes require that GESC Plans be prepared by or under the responsible charge of, and signed and stamped by, a Professional Engineer (PE) registered in the State of Colorado (see Colorado State Engineering Law 12-25-101, General Provisions). For the purpose of this manual the Professional Engineer is referred to as the Design Engineer. Non-PEs with experience in erosion and sediment control may assist in the development of a GESC Plan, but they must conduct their work under the supervision of the Design Engineer.



GESC Plans are to be prepared under the responsible charge of a Professional Engineer.

It is the responsibility of the Design Engineer to use professional judgment in the development of the GESC plans. If the Design Engineer determines that any GESC requirements, as applied to their specific project, pose a safety hazard, it is the Design

**Who Prepares GESC Plans?
continued**

Engineer’s responsibility to notify the Town of Castle Rock of these issues, as well as to recommend an approach to alleviate the concerns.

The Design Engineer is responsible for preparing the GESC Plan in accordance with the requirements of this *GESC Manual* and is one of the key personnel who should attend the on-site Preconstruction Meeting at the start of the construction phase.

Information *The Town of Castle Rock highly recommends that the Design Engineer attend the Presubmittal meeting to reduce delays in the start of construction.*

Step 3. Determine type of GESC Plan and identify what additional Town, State, and Federal plans and permits are required for the project (Pre-Submittal Meeting with the Town is recommended).

Sections 2.3 through 2.5 address Step 3.

Presubmittal Meeting

2.3

Prior to preparing GESC Plans and other submittal documents for a proposed construction project, a Pre-Submittal Meeting with Town staff is recommended. The purpose of the meeting is to confirm the type of GESC Plan appropriate for a specific development site. The meeting will help to clarify the GESC Permit Program and confirm what related plans and permits may be required. Also, initial discussions can take place regarding the general configuration of controls that may be appropriate for the site.



A Pre-Submittal Meeting with Town staff is recommended to clarify GESC Permit requirements.

It is anticipated that the Owner and/or the Design Engineer of the GESC Plan would attend the Pre-Submittal Meeting. The Owner or Owner’s representative shall bring the following information to the meeting:

Information Needed at Pre-Submittal Meeting

- ◆ *Name, type, and location of development.*
- ◆ *Brief description of site topography and drainage features.*
- ◆ *Size of development site and anticipated disturbed area, in acres.*
- ◆ *Anticipated type of GESC permit.*
- ◆ *Anticipated plans and permits to accompany GESC Plan.*

Types of GESC Drawings

2.4

Depending on the degree of disturbance and the amount of area to be disturbed, one of four types of GESC Drawing is applicable. Each type of GESC Drawing has unique formatting requirements, as described in detail in Section 3. Table 2-1 summarizes permit types, site areas, and GESC Drawing requirements.

Table 2-1. Types of GESC Plans

Type of GESC Permit	Type of GESC Drawing	Site Size Criteria	Drawing Format
<i>Temporary Batch Plant/ GESC Permit</i>	<i>Temporary Batch Plant</i>	<i>No size criteria</i>	<i>Projects shall be organized into an Initial (Site Plan) and Final (Reclamation) Plan.</i>
<i>Standard GESC Permit</i>	<i>Small Site/ Utility</i>	<i>Less than 1 acre</i>	<i>Initial, Interim, and Final Stage BMPs may be shown on a single sheet.</i>
	<i>Staged</i>	<i>1 acre to 40 acres</i>	<i>Projects shall be organized into an Initial, Interim, and Final Stage; Initial, Interim, and Final BMPs shall be shown on separate sheets.</i>
	<i>Staged and Phased</i>	<i>Greater than 40 acres</i>	<i>Projects shall be divided into separate construction phases each disturbing less than 40 acres (70 acres for soil mitigation operations), with each phase showing Initial, Interim, and Final BMPs on separate sheets.</i>

A brief description of each type of GESC Drawing follows.

2.4.1 Temporary Batch Plant/GESC Drawing. Temporary Batch Plant/GESC Drawings shall be organized into two stages. Initial BMPs shall be shown on a Batch Plant Site Drawing and Final BMPs shall be shown on a Reclamation Plan. Additional detail on Drawing requirements is provided in Section 3.16.

2.4.2 Small Site and Utility GESC Drawing. For disturbed areas of new developments less than one acre and utility construction over 1000 linear feet, (outside of Town Right-of-Way) erosion and sediment controls for the Initial, Interim, and Final stages of construction may be shown on a single drawing (as opposed to three separate drawings).

2.4.3 Staged GESC Drawing. For disturbed areas greater than one acre, separate GESC Drawings are required for the Initial, Interim and Final stages of a project. This is to clarify, both to the Design Engineer and field personnel, what erosion and sediment controls are appropriate at the outset of construction, as well as maximum during construction drainage areas, during site development, and at the end of construction prior to final establishment of vegetation.

Types of GESC Drawings, continued

2.4.4 Staged and Phased GESC Drawing. For sites where the total disturbed area will exceed 40 acres, grading operations shall not take place all at one time. Instead, the site shall be divided into separate grading phases each disturbing 40 acres or less. If over-excavation, stockpiling, and replacement of soils is necessary for mitigating expansive soils or addressing similar issues, each phase may disturb up to a maximum of 70 acres. During construction, each grading phase shall be approved by the GESC Inspector and drill seeded and crimp mulched prior to starting the subsequent phase. Additional information on drawing requirements for these stages is provided in Section 3.



Large areas of disturbance create huge potential for erosion and sedimentation; limiting the area of disturbance substantially reduces the problem.

If a GESC Plan can not adequately be shown on one plan sheet (see scale requirements in Section 3), multiple sheets shall be used. However, at least one overall plan sheet shall be provided as an index to subsequent sheets.

Other Town Plans and Permits

2.5

GESC Plans shall be submitted along with the following related Town plans and permit applications. These related plans and permits do not reflect all requirements for development in the Town of Castle Rock, but rather describe plans and permits that shall be considered when proceeding through the GESC Permit Process.

2.5.1 Complete Submittal Package. The GESC Plan shall be submitted concurrently with or prior to, the construction plans for a proposed construction project, when applicable. The entire submittal package may include a Final Planned Development Site Plan (FPDSP); Site Plan; Utility Study; Final Plat, construction plans, drainage report, traffic study, pavement design report, geotechnical report, landscape/irrigation plans, payment of applicable review and inspection fees, or other documents as determined by the Development Services Department.

2.5.2 Construction Permit. Projects that include use of or construction in the Town right-of-way must obtain a Construction Permit. All storm drainage improvements require a Construction Permit. Overexcavation due to soil mitigation for pavement design requires an active GESC Permit as well as a Construction Permit. Special requirements will be associated with work in the right-of-way to reduce impacts to vehicular traffic. Information on construction permitting is found in the Town of Castle Rock Development Procedures Manual, as amended.

2.5.3 Temporary Construction Access Permitting. All access points to or from a construction site require review and approval from the Town, and are permitted as part of the GESC Permit. No ramps of dirt, gravel, asphalt, wood, or other materials are allowed in the curb section.

2.5.4 Drainage Plans. The GESC Plan shall be consistent with the Phase III Drainage Plans for the development, prepared in accordance with the Town's Storm Drainage Design and Technical Criteria Manual, as amended. This requirement does not apply to Temporary Batch Plant GESC Plans, Low Impact GESC Plans or Temporary Stockpiles. At a minimum, the Phase II Drainage Plan shall be submitted, reviewed, and accepted by the Town before a GESC Permit is issued.

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Permanent erosion control measures shall be addressed in the Drainage Plans per the requirements found in the *Drainage Regulations*. Permanent water quality or detention basins shall incorporate sediment basins during construction and shall be constructed and maintained as soon as possible once site disturbance occurs. GESC Plan BMPs shall be provided for permanent drainage features and shall be staged and removed at the appropriate time relative to drainage facility construction and final site stabilization.

Other Town Plans and Permits, continued

2.5.5 DESC Plan. A Drainage, Erosion and Sediment Control (DESC) Plan must be submitted to the Town of Castle Rock for all residential construction. (See Section 8).



2.5.6 Floodplain Development Permit. Projects that include work within designated 100-year floodplain limits of drainageways in the Town require a Floodplain Development Permit. This permit shall be obtained from the Town Floodplain Administrator prior to issuance of the GESC Permit. The objective of this permit is to ensure that the proposed project activities are in compliance with approved floodplain management standards. If the floodplain is altered as a result of the project, a flood insurance map change approval may be needed from the Federal Emergency Management Agency (FEMA), as discussed in Section 2.7.1.



Streams and drainage channels comprise valuable resources and are not to be disturbed unless accepted in advance by the Town of Castle Rock.

Drainageways comprise valuable resources and shall not be disturbed unless accepted in advance by the Town of Castle Rock. Erosion and sediment controls addressing work in and around drainageways are described in Section 3 along with illustrations in the example GESC Plans. Any acceptance obtained from the Town of Castle Rock does not release an Applicant from the need to comply with the requirements of Sections 7 and 9 of the Endangered Species Act of 1973, 16 U.S.C. 1531 *et seq.*, as amended, or with any other applicable Federal, State or Local laws or regulations.

State Permitting

2.6

The State of Colorado requires permits for construction-related activities, which are in addition to permitting requirements of the Town of Castle Rock. The Applicants or the Design Engineer shall contact the State of Colorado, Water Quality Control Division (WQCD) for specific State permitting information for their specific projects. Contact information for the WQCD is provided in Appendix A.

State Permitting, continued

Information on some of the State permits that may be applicable include the following (this is not to be considered an exhaustive list; therefore, applicants are advised to contact the State).

2.6.1 Stormwater Management Plan. In compliance with the NPDES Stormwater Permit Program, the State requires that Stormwater Management Plans (SWMPs) be prepared for construction projects exceeding one (1) acre of disturbance.

2.6.2 Construction Dewatering Permits. The State issues a permit for Discharges Associated with Construction Activities to manage dewatering discharges from construction projects. The permit establishes water quality standards and BMPs for dewatering discharges.

2.6.3 Air Quality Plans. As described in the Urban Drainage and Flood Control District's *Urban Storm Drainage Criteria Manual - Volume 3, (Volume 3)*, as amended, the surface stabilization measures identified for control of precipitation-induced erosion generally inhibit soils from becoming windborne. However, measures and requirements to control airborne emissions shall be addressed in the GESC Plan. In addition, applicable State regulations pertaining to air quality shall be addressed.



Control of airborne emissions is to be addressed in the GESC Plan and may be subject to additional State regulations.

The Air Pollution Control Division of the Colorado Department of Public Health and Environment (CDPHE) has passed air quality regulations consistent with Federal legislation. Regulation No. 3 requires submittal of an Air Pollutant Emission Notice (APEN) for sources of fugitive dust from construction sites, as well as other sources. Regulation No. 1 defines particulate emission control

regulations for haul roads and roadways. Additional controls, such as road watering, may be necessary to fully comply with these regulations at a construction site. The CDPHE should be contacted about APENs and other air quality requirements.

Federal Permitting

2.7

Applicants are also responsible for complying with all applicable Federal permitting. This may include, but is not limited to the FEMA map revision process, the Department of the Army Corps of Engineers Section 404 Permit and US Fish and Wildlife Service, Endangered Species Action Section 10 and/or Section 7 Permits.

Information on some of the Federal programs and permits that may be applicable include the following (this is not to be considered an exhaustive list; therefore, applicants are advised to confirm the Federal requirements that may apply).

**Federal Permitting,
continued**

2.7.1 FEMA Map Revisions. As mentioned in Section 2.5.6, projects that impact the regulatory floodplain may need to obtain a Conditional Letter of Map Revision (CLOMR) and/or Letter of Map Revision (LOMR) from FEMA. In this case, proper documentation needs to be submitted to FEMA through the Town’s Floodplain Administrator for review and approval.

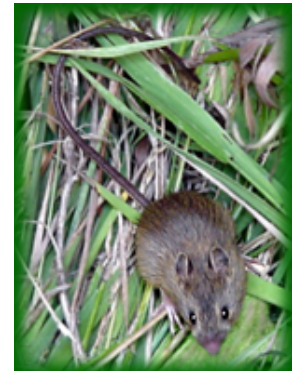
Contact Information for FEMA is provided in Appendix A.

2.7.2 Section 404 Permitting. Excavation activity associated with a dredge and fill project in “Waters of the United States” (including streams, open water lakes, ponds, wetlands, etc.) may require a Section 404 Permit. The level of permitting is dependent on the extent of disturbance along the water body of interest. It should be reviewed with the U.S. Army Corps of Engineers as to whether a Nationwide Permit or an Individual Permit is required. Individual Permits will require more detailed information about the project and preparation of exhibits specific to the project site.

Contact Information for the U.S. Army Corps of Engineers is provided in Appendix A.

2.7.3 U.S. Fish and Wildlife Service Threatened and Endangered Species Clearance. The U.S. Fish and Wildlife Service has established guidelines for surveys to determine the presence or absence of threatened and endangered species within a project’s limits. The most prominent of these species in this area are the Preble’s Meadow Jumping Mouse (*Zapus hudsonius preblei*). Clearance of this species from a project site is dependant on spatial, regional requirements determined by the U.S. Fish and Wildlife Service.

Contact Information for the U.S. Fish and Wildlife Service is provided in Appendix A.



*A Preble’s Meadow
Jumping Mouse.*