

Section 2. Getting Started

Overview of Section 2

2.0

Section 2 addresses Steps 1 through 3 of the GESC Permit Process:

Step 1. Confirm that a Temporary Batch Plant, Standard GESC, Annual Maintenance GESC, or Small Utility GESC Permit is required.

Section 2.1, **Projects that require a Temporary Batch Plant, Standard GESC, Annual Maintenance GESC, or Small Utility GESC Permit**, identifies the kinds of projects that require one of the above mentioned GESC Permits.

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 County, State, and Federal plans and permits are required for the project (Presubmittal Meeting with the County is recommended).

Section 2.3, **Presubmittal Meeting**, points out that an efficient way to clarify GESC Permit requirements is to schedule a Presubmittal Meeting with County staff at the outset of the process. A Presubmittal Meeting, although optional, gives County 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 6 types of GESC Drawings and their submittal formats. Depending on the size and nature of a construction project, a Temporary Batch Plant, Small Site and Utility, Staged, Staged and Phased, Oil and Gas Well Site, or Small Utility Project is required.

Section 2.5, **Other County 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 detached single-family residential projects).
- ◆ Right-of-Way Use and Construction Permit.
- ◆ Temporary Construction Access Permit.
- ◆ Floodplain Development Permit.

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

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.

Permit Step 1: Confirm that a Temporary Batch Plant or Standard GESC, Annual Maintenance GESC, or Small Utility 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

2.1

The first step in the process is to examine the information in Sections 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 County other than small (less than 1.0 acre) projects with negligible negative impact (requiring a Low Impact GESC Permit) and most agricultural or emergency activities (exempt activities).

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

Douglas County Public Works Engineering 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

**Who Prepares GESC Plans?
continued**

specific project, pose a safety hazard, it is the Design Engineer’s responsibility to notify Douglas County 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.

i *Douglas County highly recommends that the Design Engineer attend the Presubmittal meeting to reduce delays in the start of construction.*

Information

Step 3. Determine type of GESC Plan and identify what additional County, State, and Federal plans and permits are required for the project (Presubmittal Meeting with the County 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 Presubmittal Meeting with County 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 Presubmittal Meeting with County 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 Presubmittal Meeting. The Owner or Owner’s representative shall bring the following information to the meeting:

Information Needed at Presubmittal 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 the following types of GESC Drawings 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>Project shall be organized into an Initial and Final 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>
	<i>Oil and Gas Well Site</i>	<i>No size criteria</i>	<i>Initial and Final Stage BMPs shall be shown on separate sheets.</i>
<i>Small Utility GESC Permit</i>	<i>Small Utility Project</i>	<i>Trenches wider than 36" and longer than 1,000'</i>	<i>See drawing requirements in Section 9 of the GESC Manual.</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.

Types of GESC Drawings, continued

2.4.2 Small Site and Utility GESC Drawing. For disturbed areas of new developments less than 1.0 acre and utility construction over 1,000 linear feet (outside of County 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 3 separate drawings).

2.4.3 Staged GESC Drawing. For disturbed areas greater than 1.0 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 personal, what erosion and sediment controls are appropriate at the outset of construction, during site development, and at the end of construction prior to final establishment of vegetation.

If the applicant can adequately demonstrate to Public Works Engineering that the Initial, Interim and Final phases of construction can be clearly shown on a single plan (for sites with disturbed areas up to 5 acres), then the Small Site/Utility Construction requirements identified above may be followed. However, this will be the exception, not the rule, and the County reserves the right to make this determination.

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 overexcavation, stockpiling, and replacement of soils are necessary for mitigating expansive soils or addressing similar issues, each phase may disturb up to a maximum of 70



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

acres. During construction, each grading phase shall be approved by the Erosion Control 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.

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.

Phasing Requirements for Adjacent Projects

An owner or developer may have several adjacent projects that, individually, may or may not be subject to the area phasing requirements. This situation typically occurs in large developments, part of a larger common plan of development or sale, which is platted in numerous individual filings. For design and construction purposes, the projects are typically submitted to the County as separate projects and they are reviewed accordingly. However, for purposes of grading, erosion and sediment control, when the individually-platted projects are contiguous and the grading operations could be occurring simultaneously, the County shall treat the sum of the individual projects as one large project. The sum of the individual projects shall be subject to the area phasing requirements and the issuance of individual project grading permits shall be based on the disturbance and/or stabilization that have been accomplished in the adjacent projects.

Other County Plans and Permits

2.4.5 Oil and Gas Well Site Drawings. Exclusively for Oil and Gas Well Sites that may have long-term impacts on the designated area. The drawings shall be site specific and include the GESC Plan Standard Notes and Details (Appendix B). The Oil and Gas Well Site Drawings shall include erosion and sediment controls for the Initial and Final stages being shown on separate sheets.

2.4.6 Small Utility GESC Drawing. For sites that utility companies will be performing small projects or installations. The drawings shall be site specific and include the Standard Notes and Details for Small Utility GESC Permits. Additional information regarding Small Utility GESC Drawings can be found in Section 9 of the *GESC Manual*.

2.5

GESC Plans shall be submitted along with the following related County plans and permit applications. These related plans and permits do not reflect all requirements for development in Douglas County, 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 the construction plans for a proposed construction project, when applicable. The entire submittal package will include an acceptable form of plat or improvement plan, construction plans, drainage report, traffic study, pavement design report, a site improvement agreement, geotechnical report (if applicable), and payment of applicable engineering review fees. The GESC Plans will be reviewed as a part of the whole package and **not as a separate plan**.

2.5.2 Right-of-Way Use and Construction Permit. Projects that include use of or construction in the County right-of-way must obtain a Right-of-Way Use and Construction Permit. All storm drainage improvements require a Right-of-Way Use and Construction Permit. Overexcavation due to soil mitigation for pavement design requires an active GESC Permit as well as a Right-of-Way Use and Construction Permit. Special requirements will be associated with work in the right-of-way to reduce impacts to vehicular traffic.

Other County Plans and Permits, continued

Information on Right-of-Way Use and Construction permitting is found in the Douglas County *Roadway Design and Construction Standards Manual*, (*Roadway Manual*), as amended.

2.5.3 Temporary Construction Access Permitting. All access points to or from a construction site onto a public right-of-way require a Temporary Construction Access Permit and a Right-of-Way Use and Construction Permit as outlined in the *Roadway Manual*, as amended. No ramps of dirt, gravel, asphalt, wood, or other materials are allowed in curb section.

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

i At a minimum, the Phase II Drainage Plan shall be submitted, reviewed, and accepted by the County before a GESC Permit is issued.

Information

Permanent erosion control measures shall be addressed in the Drainage Plans per the requirements found in the *Drainage Manual*. Permanent water quality or detention basins shall incorporate sediment basins during construction and shall be constructed 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.

2.5.5 DESC Plan. A Drainage, Erosion and Sediment Control (DESC) Plan must be submitted to the Douglas County Building Division for construction of all detached single-family residential units. See Section 8 for further requirements.

2.5.6 Floodplain Development Permit. Projects that include work within designated 100 year floodplain limits of drainageways in the County require a Floodplain Development Permit. This permit shall be obtained from Public Works Engineering. 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. Drainageways comprise valuable resources and shall not be disturbed unless accepted in advance by Douglas County. Erosion and sediment controls addressing work in and around



A DESC Plan is required for construction of single-family residential units.

Other County Plans and Permits, continued

drainageways are described in Section 3 along with illustrations in the example GESC Plans. Any acceptance obtained from Douglas County does



Streams and drainage channels comprise valuable resources and are not to be disturbed unless accepted in advance by Douglas County.

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 Douglas County. 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.

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 1.0 acre of disturbance or less than 1.0 acre of disturbance part of a larger plan of development.



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

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

State Permitting, continued

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.

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 U.S. 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).

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 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.



A Preble's Meadow Jumping Mouse.

2.7.3 U.S. Fish and Wildlife Service Threatened and Endangered Species Clearance. The U.S. Fish and Wildlife Service have 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

**Federal Permitting,
continued**

species in this area are the Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*) and Ute Ladies' Tresses Orchid (*Spiranthes diluvialis*). Clearance of these 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.



*Ute Ladies' Tresses
Orchid.*