#3 Plan & Report Submittal Requirements

**GESC Drawing Cover Sheet**
- Project Name and Address
- Owner Name and Address
- Design Firm Name and Address
- Plan Sheet Index
- Design Engineer’s Signature Block
- Note regarding GESC Obligations
- SEMSWA Approval Block
- General Location Map, including vicinity of site location, major roadway names, North arrow and scale

**GESC Drawing Initial Sheet**
- Property Lines; existing/proposed easements
- Show existing topography: 1’ or 2’ countours, extended minimum of 100’ past property lines
- Show existing structures/hydrologic features
- USGS Bench Mark used; utility tie-ins
- Show Limits of construction, all work areas:
  - Locate stockpiles: topsoil, aggregates
  - Locate staging: equipment, fuel, similar
  - Locate storage: materials, waste
  - Locate of borrow & disposal areas
  - Location of temp roads, haul roads
- Show stream corridors, other natural areas
- Show Initial erosion & sediment control BMPs
- Specify type & dimensions of BMPs
- Note: Legend of BMP Names/Symbols

**GESC Drawing Interim Sheet**
All information on GESC Initial plan sheet, plus
- Topo showing elevations, dimensions, locations, and slope of proposed grading
- Outlines of cut/fill areas; earthwork balance summary
- Show interim erosion & sediment control BMPs, incorporating initial BMPs
- Show buildings, drainage facilities, paved areas, retaining walls, cribbing, WQ facilities, all permanent features to be constructed as approved work
- Required Notes
  - Legend of BMP names/symbols
  - Left-in-place Initial BMPs
  - Interim BMPs
  - Proposed slopes & BMPs used
  - Permanent Control Measures
- Design Engineer approval sign-off block

**GESC Drawing Final Sheet**
- Directional flow arrows, all drainage flow
- Initial or Interim BMPs to be removed
- Show Final BMPs, to minimize erosion until final stabilized, permanent landscape
- Show buildings, pavement, sod, final landscaping per approved plan
- Show seeding/mulching for all other areas
- Show BMPs to be removed at completion
  - Dewatering (DW)W, Sediment Control Log (SCL)
  - Stabilized staging area (SSA)
  - Street inlet protection (IP)
- Required Notes:
  - Legend of BMP names/symbols
  - Left-in-place Interim BMPs
  - Areas undisturbed for > 30 days
  - Proposed slopes & BMPs used
  - Permanent WQ or drainage facilities

**Standard Notes & Details**
GESC Plan Standard Notes and Details, consisting of 14 sheets, have been prepared to depict typical BMPs. Construction details and notes provide direction to the Applicant regarding installation and maintenance requirements for each BMP. Notes and Details represent minimum measures to be adhered to, and shall be submitted with all GESC Drawings in order to:
- Increase consistency
- Provide time savings for Design Engineer
- Provide definition of Sizing Variables

**Number of GESC Plan Sheets**
The number of sheets to illustrate the three stages of construction controls depends on the degree of project disturbance, the amount of total area to be disturbed, and the quantity of BMP controls. Clearly illustrating BMPs for erosion and sediment control usually requires three separate sheets, Initial; Interim; and Final. In some cases, the site may only require two (2) sheets, with the Initial/Interim clearly shown on one sheet, and the Final control BMPs as a separate sheet. Small, non-complex sites may be shown on a single drawing if the BMP controls can be clearly shown for a Contractor to identify, install and maintain.

Screening on GESC Drawings
Screening on drawings shall be used to provide the Contractor a reference point for the previous stage BMPs and differentiate three stages of GESC controls.
**Engineer Cost Estimate for GESC Controls**

The GESC BMP costs provided in the ECE spreadsheets are not necessarily the costs that the applicant would incur, but reflect an opinion of SEMSWA install/replace costs in the event that the Applicant does not perform GESC as required.

**Phased projects ECEs**

For projects that will be phased, the Engineer’s GESC Cost Estimate spreadsheets are separate and sub-totaled for each phase, for both the Initial/Interim BMPs and Final BMPs Cost Estimate spreadsheets. This allows Close-Out to be processed individually for each phase, provided public improvements are completed and specific close-out requirements are met. This will impact the amount of collateral release and timing.

**GESC Responsibility**

A GESC Permit is issued for a site based on specific GESC drawings that lay-out several layers and stages of BMPs to control erosion potential and sediment transport. In the course of a project, special districts, utilities, subcontractors, and similar will be working at the site and may impact the BMP controls. The original Permittee is the one responsible for the functionality and maintenance of the GESC Drawing BMPs for the site, regardless of other factors.

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**GESC REPORT COMPONENTS**

The GESC Report accompanies the GESC Drawings and provides a narrative of critical site information:

- **Name, address, phone** of Applicant and Design Engineer, if not the same
- **Brief description** of nature and purpose of the land disturbance activity: total area, disturbed area, location
- **Existing site** topography, vegetation & drainage; wetlands, protected areas, unique features of property
- **Adjacent areas** which may be affected by land disturbance: creeks, lakes, residential areas, roads, etc.
- **Site soil**: type, name, mapping unit, erodibility, permeability, hydrologic group, depth, texture, structure
- **Estimate quantity** (cy) of excavation/fill (earthwork balance), haul road info, surface area disturbed (Ac)
- **Describe erosion & sediment control measures** and methods to control sediment transport off site
- **Construction schedule**: start, end, phases; grading and construction sequence, when install/remove BMPs
- **Describe site permanent stabilization** after project completed, including applicable specifications
- **Explain how handling and managing stormwater runoff** from and through site during construction
- **Special maintenance** above & beyond what is required and identified on Standard Notes & Details
- **Calculations** used in the design for quantities, flow rates & volumes, e.g. sediment basin size
- **Note** stating any & all BMPs will be required to control sediment and the GESC Plan runs with land
- **Signature Page**, acknowledging review, acceptance & responsibility by Owner/Authorized Agent

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**Engineer's Cost Estimate**

Applicants are required to provide an Engineer's Cost Estimate for implementing GESC drawings erosion and sediment controls including anticipated maintenance during construction. Examples of ECE Spreadsheets with Unit cost information to generate the GESC BMP cost estimate are in a **GESC Manual** appendix. Two cost estimate spreadsheets are required: the combined Initial and Interim costs associated with the Initial and Interim GESC drawings, and the Final BMP costs associated with the Final GESC drawing. The Engineer’s GESC BMPs ECE is used as a basis for collateral. Since the Initial/Interim GESC BMPs are completed prior to the Final BMPs, the costs are not cumulative and only the greater of the two ECE spreadsheets will be guaranteed with collateral. In most cases, the greater costs will be the combined Initial and Interim BMP costs, and this will be the amount that is required to be secured with collateral.

**Comprehensive Grading Plan**

SEMSWA recognizes that, on large-scale projects, where there are long-term continual earthwork operations, certain criteria within the GESC requirements may need to be adjusted in order to allow the grading operations to progress in an efficient, cost effective manner, while still meeting federal, state and local requirements. The overall goal of completing grading operations with minimal disruption and impact may best be achieved by preparing a site-specific all-encompassing grading plan, which addresses the grading and erosion control measures necessary to reflect the intended construction sequence and schedule. For these types of projects, SEMSWA may allow for a Comprehensive Grading Plan (CGP). The CGP will be considered for sites in which the Applicant demonstrates a need to seek a variance from **GESC Manual** criteria and certain specific GESC requirements in order to perform the grading operations in an effective manner. See SEMSWA Land Development staff and SEMSWA GESC Manager for specifics on a CGP for a large site.