

SEMSWA's Role in the Land Development Process

One of SEMSWA's responsibilities is to ensure that any new development or redevelopment within its service area is designed and constructed in compliance with the applicable Stormwater Criteria. This narrative will help you better understand SEMSWA's role in the land development process and will help you plan, design and construct your development in compliance with the Stormwater Criteria. As each site is unique, your site may have additional requirements or constraints not addressed or contemplated herein. We encourage you to review the City of Centennial, Arapahoe County and SEMSWA websites for additional information relative to stormwater management and contact us if you have any questions.

I. Pre-planning and Stormwater Management

Stormwater management and its associated costs should be evaluated during the early stages of development planning. Following are a couple of basic questions /issues relative to the location of the development site that should be considered early in the planning process:

a. How much are the System Development Fees (SDFs) for the site?

SDFs are fees collected by SEMSWA to fund stormwater infrastructure improvements within the drainage basin in which they are collected. These fees, which vary by basin, are based on the total amount of impervious surface a project adds to the basin. A complete list of SDFs by drainage basin is available on the SEMSWA website.

b. Are regional or sub-regional Stormwater Detention and/or Water Quality facilities available for the site?

Many areas within SEMSWA's jurisdiction are served by regional detention and water quality facilities. If a site is located in one of these areas, the need for onsite stormwater facilities is reduced. However, even if the site is served by a regional facility, it may be necessary to provide some stormwater management facilities; which may include:

- i. Onsite enhancements such as Grass Buffers or Grass Swales.
- ii. Improvements or modifications to the existing regional facility.
- iii. Upgrades or new infrastructure to convey flows from the site to the existing regional facility.

If regional or sub-regional facilities are not available, the site will be required to meet all applicable criteria onsite. It is not unusual for stormwater detention and water quality facilities to require 10% to 20% of the total area of a site.

II. Pre-Submittal Meeting

One of the first steps in the development process is to contact a City/County planner to discuss the proposed development and to schedule a formal pre-submittal meeting. An applicant should contact the appropriate entity to determine what specific items need to be submitted prior to the pre-submittal meeting.

The City/County will review the submitted documents and then schedule a pre-submittal meeting with the applicant to discuss any concerns identified by the City/County or SEMSWA, the process that the development will follow, and the associated review fees that will with the initial submittal. The applicant will receive copies of the Pre-Submittal Meeting notes and checklists of the items that will be required with the first submittal.

III. Submittal Requirements

Following is a list of the documents that SEMSWA typically reviews and approves for most development applications:

a. Drainage Report

Developers are required to prepare and submit a Drainage Report, which identifies and analyzes the stormwater related impacts of their development and proposes measures for mitigating those impacts. The type of report that will be required is determined by the extent of the project, and the process that the City/County has determined that the project must follow. Generally one of the following drainage documents/reports is required:

- i. **Letter of Compliance or Letter of No Impacts** - generally for projects that have a minimal impact and do not need to provide any mitigation measures; or for projects that are a part of a larger development which has already created a drainage report, and has designed (and possibly constructed) all required stormwater facilities for the site.
- ii. **Technical Drainage Letter/Letter of Drainage Amendment** - similar to the Letter of Compliance. However, some calculations may be required to demonstrate conformance or quantify any variance from the original drainage report.
- iii. **Phase I & Phase II Drainage Reports** - generally these reports, which are more conceptual in nature than a Phase III Report, are required for zoning cases, preliminary development plans and preliminary plats.
- iv. **Phase III Drainage Report** - this document provides an in-depth drainage analysis of the site and discusses how the site will meet all applicable criteria. A Phase III Drainage Report may be substituted for a Phase I or Phase II Report.

b. Final Development Plan (FDP) - this document will be reviewed by both the City/County and SEMSWA. An FDP contains detailed drawings, which illustrate how the site will be developed. The pre-submittal meeting notes will discuss the specific requirements for the site and the information that will be required to be included in the FDP submittal.

SEMSWA reviews the FDP to:

- i. Confirm that the site is being designed in conformance with the drainage report and the applicable stormwater criteria.
- ii. Identify potential offsite drainage issues that could impact the property.
- iii. Identify other properties that may be impacted by the proposed development.

c. Construction Documents

Construction documents (CD's) for stormwater facilities must be reviewed and approved by SEMSWA prior to construction. The purpose of SEMSWA's review is to verify that;

- i. the design is adequate.
- ii. the applicable stormwater management criteria are being met.
- iii. the proposed facilities are in conformance with the project's drainage report.

As part of the review SEMSWA will also try to identify any offsite stormwater issues that could impact the site and identify other properties that may be impacted by the proposed development.

d. Additional Submittal Requirements

Depending on the location, extent and complexity of the development; some, or all , of the following items may also be required:

- i. **Easements** - are required to ensure that SEMSWA can legally access the facilities for the purpose inspection; and maintenance, if necessary.
- ii. **Public Improvement Permit** - ensures that public stormwater facilities are constructed per the approved plans.
- iii. **Collateral** - provides financial surety that any proposed public improvements will be constructed in accordance with the approved CD's.
- iv. **SIA/PIA** -obligates the developer/owner to install the public facilities per the approved plans and fulfill any additional requirements specific to the site.
- v. **Record (As-Built) Drawings** –verifies that the facilities were constructed in accordance with the approved CD's.
- vi. **License Agreement**-entitles developer to discharge approved volumes of clean stormwater at approved rates to SEMSWA's stormwater system.

e. Grading, Erosion, Sediment Control (GESC) Plan

The City/County has developed a permitting program for grading, erosion and sediment control on public and private construction sites within their jurisdiction. The goal of these GESC Permit Programs, which are administered by SEMSWA, is to implement effective erosion and sediment control BMPs for all land disturbing activities. GESC Permits are not issued until SEMSWA has reviewed and approved the GESC Plan and Report for the proposed development. *Please see our website for more GESC information, checklists, criteria, and requirements.*

The scope and extent of a project will determine which of the following GESC Permits will be required:

- i. **Low-impact GESC Permit** is applicable when the proposed activity will have only minor impacts on adjacent properties and downstream receiving waters. No report is required for a Low-Impact GESC Plan, and the Plan does not have to be prepared by a professional engineer. See the GESC manual for more information regarding the type of projects which qualify for a low-impact GESC permit.
- ii. **Standard GESC Permit** is applicable for all land disturbing activities which do not qualify for a Low-Impact GESC Permit. Standard GESC permits can be one of the following:
 - a. **Small-Site/Utility** - applicable to *most* projects less than one acre.
 - b. **Staged** - applicable to projects which disturb less than 40 acres.
 - c. **Staged and Phased** - applicable to projects which disturb more than 40 acres.

The **GESC report**, which is required with all standard GESC permits, provides a narration of how the GESC plan is to be implemented. The GESC Manual includes specific instructions on how to prepare a report, as well as checklists to ensure that all required elements are addressed within the report.

A **GESC Permit** is issued by SEMSWA after the GESC Plan is approved and prior to the initiation of any land disturbing activities.

GESC Collateral must be submitted with the GESC Permit application for all projects requiring a Standard GESC Permit, as well as for some projects requiring a Low Impact GESC Permit. The collateral is held to ensure that the required BMPs are installed and maintained properly. If a developer fails to meet the requirements of his/her GESC Permit, the GESC collateral may be used by SEMSWA to stabilize the site.

f. Operations and Maintenance Manual

An Operations and Maintenance (O&M) Manual must be developed in conjunction with the final design to provide operation and maintenance guidance for all detention ponds, open channels, post-construction BMPs, and other stormwater facilities as determined by the County/SEMSWA. The O & M Manual shall be submitted for acceptance and shall be prepared by the design engineer and certified by the engineer and the owner. The Manual must be prepared in accordance with the templates provided on the County/ SEMSWA websites.

g. Stormwater Facilities Maintenance Agreement

The County/SEMSWA requires that a Stormwater Facilities Maintenance Agreement be executed for all stormwater facilities to ensure that the facilities will be maintained in accordance with the O & M Manual for the development. A copy of the standard County/SEMSWA Stormwater Facilities Maintenance Agreement can be found on the County and SEMSWA websites.

h. Floodplain

If your development site is located in or near a floodplain, there may be additional submittal requirements associated with the development of your site. The City/County has adopted floodplain management regulations which apply to all floodplains within their jurisdictions. Many of the regulated floodplains within these communities have been identified by the Federal Emergency Management Agency (FEMA), the Urban Drainage and Flood Control District (UDFCD), and other agencies. However, there a number of floodplains in SEMSWA's service area that have not been officially studied and mapped. In general, these unstudied areas are regulated in the same manner as those which have been mapped. A regulatory floodplain is defined as the floodplain associated with any drainageway that has a tributary area of 130 acres or more. The floodplain management requirements in the Stormwater Management Manual apply to all properties, which are located in a regulatory floodplain. When there is no existing floodplain information available, the developer is responsible for delineating the floodplain. A developer can determine if his site is located in a regulated floodplain by visiting the FEMA website or by contacting the Floodplain Administrator at the County or at SEMSWA.

A Floodplain Development Permit (FDP) is required for any development activity in a regulated floodplain, regardless of the impact of the activity. An FDP is required prior to the issuance of other development related permits; such as building permits, right-of-way use permits, grading permits, and public improvements permits. The standard FDP application can be found on the County/SEMSWA websites. The FDP application must include information which is sufficient for the purposes of determining the impacts of the proposed activity on the floodplain. Contact SEMSWA to determine what information and documents

will be required to support the FDP application for your project. Following is a list of documents that may be required in support of a development's FDP application:

- i. **Floodplain Delineation and Mapping** - shows all of the applicable floodplain delineations that affect the development site. Existing base flood information must be shown and, if not available, it may be necessary to compute this information.
- ii. **Engineer's Certification of Impacts** - provide a Professional Engineer's Certification of the project's impacts with regard to the floodplain and base flood elevations.
- iii. **Floodplain Modification Study** - is required when the proposed development or other activities will result in modification of, or construction in, an existing floodplain. *For floodplain modifications that require FEMA approval, an approved CLOMR will be required prior to issuance of the FDP.*
- iv. **Floodplain Easement** - is required to ensure that property within the regulated floodplain is restricted to allow only permitted floodplain uses. A copy of the standard County/SEMSWA floodplain easement can be found on the County and SEMSWA websites.
- v. **404 permit** - often it is necessary to obtain a U.S. Army Corps of Engineers 404 Permit for development within a floodplain or drainageway. Please contact the Corps of Engineers to determine if a 404 Permit is required for your development.
- vi. **FEMA Regulated Floodplain** - if a site is located in or around a FEMA regulated floodplain, the site must also meet FEMA regulations as well. This may include preparing and processing a:
 - a. **CLOMR**-Conditional letter of map revision.
 - b. **LOMR**-Letter of map revision.

IV. Submittal/Review/Approval

All required documents and review fees should be submitted to the City, County or SEMSWA as appropriate. SEMSWA will not initiate document review until the review fees have been received. SEMSWA staff reviews the documents submitted, generally within a two to three week timeframe, and then issues either comments or the appropriate approvals. To facilitate the review/approval process, SEMSWA staff encourages applicants to contact them as necessary to discuss review comments and obtain criteria clarifications.

V Permitting/Inspections

Once all the required documents have been approved, the development moves into the permitting and construction phases. Construction cannot commence until SEMSWA has issued a GESC Permit

and a Public Improvement Permit, if necessary. Please note that the SDFs, GESC Collateral, Public Improvement Collateral, and all permit fees are due with the permit application submittals. Included with the permits will be information regarding the frequency and nature of any required construction and GESC inspections; and the requirements for final close out and collateral release.

V. **Final Close Out**

After construction is complete, the close out process can begin. This process includes the preparation and submittal of Record (As-Built) drawings for SEMSWA's review and acceptance. Collateral for public improvements and GESC will be reduced, and eventually totally released, as the public improvements are accepted and the site is adequately stabilized. *Please go to the Resources & Downloads/Permit tab of this website to view SEMSWA's Final Close Out and Final Acceptance procedures and requirements.*

Conclusion

Please see our website www.semswa.org for more information about SEMSWA and the Land Development Program. The Stormwater Management and GESC Manuals for both the City of Centennial and Arapahoe County are also available thru the SEMSWA website. Please feel free to call (303-858-8844) or email (semswamain@semswa.org) us if you have any questions, or would like to discuss your project.