

SECTION I: LAND-DISTURBING ACTIVITY PLAN

Land-Disturbing Activity Plan

DEFINITION

A plan for the control of soil erosion and sedimentation resulting from a land-disturbing activity.

PURPOSE

The purpose of this standard is to provide instructions for the preparation of detailed plans for a proposed land-disturbing activity in order to accomplish one or more of the following:

1. provide suitable sites for buildings, roadways, facilities and other land uses.
2. improve surface drainage.
3. control soil erosion and sediment deposition.

CONDITION

This standard is applicable where land-disturbing activities are undertaken for any of the purposes set forth above.

PLANNING CRITERIA

This land-disturbing activity plan shall be based upon adequate surveys, resource data and investigations. Erosion and sediment control measures shall be designed in accordance with the applicable standard applied herein. Practical combinations of the following principles shall be utilized, as a minimum, in planning for any land-disturbing activity.

1. **Fit the Activity to the Topography and Soils.**

Detailed planning should be employed to assure that roadways, buildings and other permanent features of the activity conform to the natural characteristics of the site. Large graded areas should be located on the most level portion of this site. Areas subject to flooding should be avoided. Areas of steep slopes, erodible soils and soils with severe limitations for the intended uses should not be utilized without overcoming the limitations through sound engineering practices. *Erosion control, development and maintenance costs can be minimized if a site is selected for a specific activity.*

2. **The Disturbed Area and the Duration of Exposure to Erosion Elements Should Be Minimized.**

Clearing of natural vegetation should be limited to only those areas of the site to be developed at a given time. Natural vegetation should be retained,

protected and supplemented with construction scheduling employed to limit the duration of soil exposure. Major land clearing and grading operations should be scheduled during seasons of low potential runoff.

3. **Stabilize Disturbed Areas Immediately.**

Permanent structures, temporary or permanent vegetation, and mulch, or a combination of these measures, should be employed as quickly as possible after the land is disturbed. Temporary vegetation and mulches can be most effective on areas where it is not practical to establish permanent vegetation. These temporary measures should be employed immediately after rough grading is completed if a delay is anticipated in obtaining finished grade. The finished slope of a cut or fill should be stable and ease of maintenance considered in the design. Stabilize all roadways, parking areas, and paved areas with the gravel subbase, temporary vegetation or mulch. *Mulch, temporary vegetation, or permanent vegetation shall be completed on all exposed areas within 14 days after disturbance.* Mulch and/or temporary grassing may be used up to six months; permanent vegetation shall be planted if the area is to be left undisturbed for greater than six months.

4. **Retain or Accommodate Runoff.**

Runoff from the development should be safely conveyed to a stable outlet using storm drains, diversions, stable waterways or similar conservation measures. Consideration should also be given to the installation of storm water retention structures to prevent flooding and damage to downstream facilities resulting from increased runoff from the site. Temporary or permanent facilities for conveyance of storm water should be designed to withstand the velocities of projected peak discharges. These facilities should be operational as soon as possible after the start of construction, and if possible before the disturbance of the surrounding areas.

5. **Retain Sediment.**

Sediment basins, sediment barriers and related structures should be installed to filter or trap sediment on the site to be disturbed. The most effective method of controlling sediment, however, is to control erosion at its source. Sediment retention structures should be planned to retain sediment when erosion control methods are not practical, or insufficient, or in the process of being installed, or have failed due to some unforeseen factor. If possible, the structures should be installed before the disturbance of surrounding areas.

6. Do Not Encroach Upon Watercourses.

Permanent buildings should not be subjected to flooding, sediment damages or erosion hazards. Earth fills should not be constructed in flood-prone areas so as to adversely obstruct water flows or increase downstream velocity of water flows. When necessary to span a flood prone area or water-course, bridge or culvert openings should be sized to permit passage of peak discharges without causing undue restrictions in water flows or without creating excessive downstream velocities. Uses of flood prone areas should be limited to activities which would not suffer excessive damages from flooding, scour, and sediment damages. Temporary bridges or culverts should be employed when construction equipment is required to cross natural or constructed channels.

PLAN REQUIREMENTS

The land-disturbing activity plan should contain a narrative description of the project, maps, drawings, computations and supportive data in accordance with the following guidelines.

Narrative Description

A brief description of the overall project containing:

1. Location, nature, size, and zoning classification of the overall project.
2. Location, nature and size of each phase of development.
3. Size, type of structural units, paved areas and green-belt area.
4. Starting dates of initial land-disturbing activities and date expected final stabilization will be completed.
5. Existing and proposed erosion and sediment control problems for the proposed site.
6. Purpose, nature and extent of proposed sediment control program.
7. Proposed storm water management program for the development and the effect of the development on downstream facilities.
8. Major topographic features, streams, existing soil types and vegetation located on the project site.
9. Maintenance programs for the sediment control facilities including inspection frequencies, vegetative programs, repair procedures, frequency of removal and disposition of solid waste and disposition of temporary sediment structural measures.

Maps

Detailed maps, drawings and sketches showing:

1. A location sketch of the project relative to roadways, municipalities, major streams and other

identifiable landmarks.

2. A boundary line survey or detailed boundary sketch of the proposed project.
3. Contours, existing and proposed, for that portion of the activity being developed.
4. Soils boundaries including name, texture, slope, depth, drainage and structure.
5. Streams and drainage areas, lakes or ponds, flood prone areas, vegetation and existing structures.
6. The proposed alteration of the area including limits of clearing and grading, roads, buildings and structures.
7. Location and extent of temporary and permanent erosion and sediment control measures including both vegetative and structural practices.
8. Location and extent of storm water management facilities.
9. Other significant features including legend, map scales, north arrow, title blocks, seals and signatures.

Activity Schedules

For each phase or stage of land-disturbing activity, an activity schedule will be included. The activity schedule will show the anticipated starting and completion date for all land development activities including:

1. Timber salvage operations
2. Installation of construction exit, sediment barriers, and other perimeter controls
3. Clearing and grubbing of areas necessary for the installation of sediment retention basins and related structures
4. Installation of sediment retention basins and related structures
5. Clearing and grubbing of remaining areas
6. Rough grading
7. Installation of stormwater management system
8. Permanent stabilization of areas at final grade and temporary stabilization of remaining areas
9. Installation of curb and gutter
10. Installation of gravel subbase for roads and parking areas (construction road stabilization)
11. Building construction
12. Final grading
13. Permanent stabilization/landscaping
14. Removal of erosion and sediment control measures.

Supportive Data

Supportive data shall include reference to the applicable standards and specifications, calculations, charts, graphs, maps and any other data used in the design and layout of the measures installed.

CONSTRUCTION SPECIFICATIONS

All timber having a marketable value shall be salvaged. Timber logs, brush, rubbish, and vegetable matter which will interfere with the grading operations or affect the planned stability of fill areas shall be removed and disposed of according to the plan and in accordance with all local and state laws.

Topsoil is to be stripped and stockpiled in amounts necessary or available on site to complete final grading of all exposed areas.

Fill material is to be free of brush, rubbish, rocks, logs, and stumps in amounts that are detrimental to constructing stable fills.

Cut slopes which are to be top soiled will be scarified to a minimum depth of 3 inches prior to placement of topsoil.

Compaction of fills will be as required to reduce slipping, erosions or excess saturation.

Frozen mixtures of soft, mucky or easily compressible materials are not to be incorporated in fills intended to support buildings, parking lots, road, structures, sewers, or conduits.

Maximum thickness of layers to be compacted by sheeps foot rollers are not to exceed 9 inches.

All disturbed areas shall be left with a neat and finished appearance and stabilized with the appropriate permanent protective cover.

EROSION AND SEDIMENT CONTROL PLAN REVIEW CHECKLIST FOR LINEAR PROJECTS

Project Name _____ Address _____

City/County _____ Date on Plans _____

Site Plan:

- 1) Show graphic scale and north arrow.
- 2) Provide vicinity map showing site's relation to surrounding area.
- 3) Provide both existing and planned contours in accordance with the following:
 - Existing contours: USGS 1" : 2000' topographical sheets
 - Proposed contours: 1" : 400' centerline profile
- 4) Delineate on-site drainage and off-site watersheds using USGS 1" : 2000' topographical sheets.
- 5) Delineate all state waters located on or within 200 feet of the project site – refer to 1" : 2000' USGS topographical sheets, published soil surveys, GIS information, etc.
- 6) Show location of erosion and sediment practices using uniform coding symbols from the Manual for Erosion and Sediment Control in Georgia, Chapter 6, with legend.
- 7) Delineate 25-foot undisturbed buffers of state waters and 100-foot management zones along designated trout streams. Clearly note areas of impact.
- 8) Delineate all wetlands and provide regulatory documentation permitting any proposed impacts.
- 9) Include soil series and their delineation.
- 10) Describe adjacent areas – neighboring areas such as streams, lakes, residential areas, etc., which might be affected.

Narrative Notes and Other Information: (Notes or narrative should be located on the site plan under general notes or under erosion and sediment control notes.)

- 1) Provide description of existing land use at project site and description of proposed project. Include land lot and district numbers for site location.
- 2) Provide name, address and phone number of utility/contractor.
- 3) Provide name and phone number of 24-hour local contact that is responsible for erosion and sediment controls.
- 4) Show signature and seal of qualified plan preparer.
- 5) Note total and disturbed acreage of the project or phase under construction.
- 6) Provide detailed construction activity schedule – show anticipated starting and completion dates for project events, include vegetation and mulching timeline.
- 7) Clearly note the statement in bold letters: **“The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land-disturbing activities.”**
- 8) Provide 67 cubic yards per acre sediment storage. Include specific design information and calculations for structural measures on site.
- 9) Show storm-drain pipe and weir velocities and provide appropriate outlet protection to accommodate discharges without erosion.
- 10) Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime, and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.
- 11) Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
- 12) Clearly note maintenance statement – “Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.”

EROSION AND SEDIMENT CONTROL PLAN REVIEW CHECKLIST

Project Name _____ Street Address _____
 City/County _____ Date on Plans _____

Site Plan:

- 1) Show graphic scale and north arrow.
- 2) Provide vicinity map showing site's relation to surrounding area, including designation of specific phase, if necessary.
- 3) Provide both existing and planned contours with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Interval, ft.
1 inch = 100 ft. or larger scale	Flat 0-2% Rolling 2-8% Steep 8% +	0.5 or 1 1 or 2 2, 5 or 10

- 4) Delineate contributing drainage areas both on and off site. Include hydrology study and maps of drainage basins for both the pre- and post-developed conditions.
- 5) Delineate all state waters located on or within 200 feet of the project site.
- 6) Show location of erosion and sediment practices using uniform coding symbols from the Manual for Erosion and Sediment Control in Georgia, Chapter 6, with legend.
- 7) Delineate 25-foot undisturbed buffers of state waters and 100-foot management zones along designated trout streams. Clearly note areas of impact.
- 8) Delineate all wetlands and provide regulatory documentation permitting any proposed impacts.
- 9) Include soil series and their delineation.
- 10) Describe adjacent areas – neighboring areas such as streams, lakes, residential areas, etc., which might be affected.

Narrative Notes and Other Information: (Notes or narrative should be located on the site plan under general notes or under erosion and sediment control notes.)

- 1) Provide statement from local tax official that all ad valorem taxes owed and due have been paid.
- 2) Provide description of existing land use at project site and description of proposed project. Include land lot and district numbers for site location.
- 3) Provide name, address and phone number of developer/owner.
- 4) Provide name and phone number of 24-hour local contact that is responsible for erosion and sediment controls.
- 5) Show signature and seal of qualified plan preparer.
- 6) Note total and disturbed acreage of the project or phase under construction.
- 7) Provide detailed construction activity schedule – show anticipated starting and completion dates for project events, include vegetation and mulching timeline.
- 8) Clearly note the statement in bold letters: **“The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land-disturbing activities.”**
- 9) Provide 67 cubic yards per acre sediment storage. Include specific design information and calculations for all structural measures on site, such as temporary sediment basins, retrofitted detention ponds, and channels.
- 10) Show storm-drain pipe and weir velocities and provide appropriate outlet protection to accommodate discharges without erosion.
- 11) Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime, and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.
- 12) Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
- 13) Clearly note maintenance statement – “Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.”

