

**APPENDIX B**  
**GESC PLAN DEVELOPMENT CHECKLIST**

**DRAINAGEWAYS**

**A. Drainageways Should Not be Filled, Regraded, or Realigned**

- yes  no 1. Determine design discharges for drainageways
- yes  no 2. Delineate floodplain limits for all drainageways
- yes  no 3. Show limits of fill adjacent to drainageways and channel area to be preserved

**B. Ample Freeboard Above the 100-year Floodplain Provided**

- yes  no 1 Provide ample freeboard above the 100-year floodplain to lot grades and lowest floor elevations (including basements in fill)

**C. Existing Drainageways Stabilized**

- yes  no 1. Design grade control structures in all drainage channels as necessary
- yes  no 2. Design bank stabilization improvements as necessary

**D. Disturbance to Existing Drainageways Minimized and Quickly Restored**

- yes  no 1. Identify features whose construction within drainageways is unavoidable, such as the following:
- yes  no a) grade control structures
  - yes  no b) bank stabilization
  - yes  no c) road crossings (bridges or culverts)
  - yes  no d) storm sewer outfalls
  - yes  no e) utility crossings
  - yes  no f) temporary stream crossings for construction access
- yes  no 2. Determine limits of construction around the features identified in Item D.1. above that are just large enough to allow construction to minimize disturbance
- yes  no 3. Show **Check Dam (CD)** or **Reinforced Check Dam (RCD)** immediately downstream of each disturbed area in the stream. Check sizing criteria
- yes  no 4. Show **Temporary Stream Crossings (TSC)**, as necessary
- yes  no 5. Show **Erosion Control Blanket (ECB)** in all disturbed areas of streams

**E. Any Additional Drainageways Shall be Designed and Stabilized**

- yes  no 1. Identify any additional small drainageways that are necessary to manage stormwater runoff on the site
- yes  no 2. Determine design discharges and size the drainageways
- yes  no 3. Design stabilization improvements as necessary for drainageways, including any drop structures or lining. For 2-year flows less than 10 cfs, criteria for **Diversion Ditches (DD)** may be used

**F. Stream-Related Permitting Shall be Completed**

- yes  no 1. Determine if the following permits (and any others) are necessary. If so, complete the required documentation and submit applications
- yes  no a. US Army Corps of Engineers Section 404 Permit
  - yes  no b. US Fish and Wildlife Service Threatened and Endangered Species approvals

## **SENSITIVE AREAS**

\_\_\_ yes \_\_\_ no 1. Conduct a resource inventory on the site and identify on the GESC Plan the type and extent of features such as the following:

- \_\_\_ yes \_\_\_ no a. Protected habitat for endangered species
- \_\_\_ yes \_\_\_ no b. Wetlands
- \_\_\_ yes \_\_\_ no c. Nesting bird habitat
- \_\_\_ yes \_\_\_ no d. Riparian buffer zones
- \_\_\_ yes \_\_\_ no e. Forested areas
- \_\_\_ yes \_\_\_ no f. Mature cottonwood stands
- \_\_\_ yes \_\_\_ no g. Bedrock outcroppings
- \_\_\_ yes \_\_\_ no h. Steep slopes
- \_\_\_ yes \_\_\_ no i. Potential stormwater infiltration areas
- \_\_\_ yes \_\_\_ no j. Historic, cultural, or archeological resources
- \_\_\_ yes \_\_\_ no k. Areas of unique or pristine vegetation, or habitat

## **BALANCE EARTHWORK ONSITE**

\_\_\_ yes \_\_\_ no 1. Endeavor to balance earthwork quantities on site through the following tasks.

- \_\_\_ yes \_\_\_ no a. Develop initial grading plan.
- \_\_\_ yes \_\_\_ no b. Check earthwork quantities for balance (consider shrink/swell).
- \_\_\_ yes \_\_\_ no c. Raise or lower portions of the site as necessary to try to balance earthwork.
- \_\_\_ yes \_\_\_ no d. Repeat steps b and c until balance is achieved.

\_\_\_ yes \_\_\_ no 2. If it is impossible to balance earthwork quantities on site, prepare letter requesting variance per the information in Section 3.22 of the GESC Manual.

## **PHASING GRADING TO REDUCE SOIL EXPOSURE**

\_\_\_ yes \_\_\_ no 1. For large projects, determine separate grading phases.

\_\_\_ yes \_\_\_ no 2. Balance earthwork for each phase following the guidance above.

## **STABILIZE SOILS IN A TIMELY MANNER**

\_\_\_ yes \_\_\_ no 1. Show **Surface Roughening (SR)** for all areas of grading, to be performed immediately after portions of grading are complete.

\_\_\_ yes \_\_\_ no 2. Indicate **Seeding and Mulching (SM)** in all areas to be seeded.

\_\_\_ yes \_\_\_ no 3. Indicate **Erosion Control Blanket (ECB)** or **Compost Blanket (CB)** on slopes steeper than 3:1 and in all areas where an extra measure of stabilization is appropriate.

## IMPLEMENT PERIMETER CONTROLS.

### A. Upslope Perimeters.

- \_\_\_ yes \_\_\_ no 1. Use **Diversion Ditch (DD)** to capture runoff entering the site via sheet flow. Follow design guidance in Section 3.17 of the GESC Manual.
- \_\_\_ yes \_\_\_ no 2. For steep reaches, such as where the ditch conveys runoff down a channel bank to the bottom of a stream, the diversion ditch is to be lined based on the criteria shown in the GESC Manual.
- \_\_\_ yes \_\_\_ no 3. For an alternative to a lined ditch in steep sections, consider a **Temporary Slope Drain**

### B. Downslope Perimeters.

- \_\_\_ yes \_\_\_ no 1. If the upslope disturbed drainage area exceeds 1.0 acre, use a **Diversion Ditch (DD)** or permanent drainageway to convey runoff to a **Sediment Basin (SB)**.
- \_\_\_ yes \_\_\_ no 2. If the upslope disturbed drainage area is less than 1.0 acre, use a **Diversion Ditch (DD)**, **Reinforced Rock Berm (RRB)**, **Sediment Control Log (SCL)**, or **Silt Fence (SF)**. In general, the latter three BMPs are to be used on the contour.
- \_\_\_ yes \_\_\_ no 3. Use a **Check Dam (CD)** or **Reinforced Check Dam (RCD)** across a stream or drainage channel at the downslope perimeter of the site.

## TREAT RUNOFF IN A SEDIMENT BASIN.

- \_\_\_ yes \_\_\_ no 1. Runoff from all disturbed areas greater than 1.0 acre shall be treated in a **Sediment Basin (SB)**. Use the standard design for drainage areas less than 15 acres. For areas less than 1.0 acre, a **Sediment Trap (ST)** may be used.
- \_\_\_ yes \_\_\_ no 2. If a non-standard design is used, construction drawings detailing the storage volume, embankment, spillway, and outlet are required.
- \_\_\_ yes \_\_\_ no 3. Wherever possible, sediment basins are to be located within any permanent water quality or quantity detention facilities. Permanent water quality or quantity detention facilities shall have a sediment basin incorporated within them.

**PROTECT STEEP SLOPES.**

A. Proposed Slopes Shall be no Steeper than 3 to 1.

\_\_\_ yes \_\_\_ no 1. Ensure that no slopes are proposed that are steeper than 3H to 1V, except small areas of riprap outlet protection near outfalls and culverts.

\_\_\_ yes \_\_\_ no 2. Show **Erosion Control Blanket (ECB)** on slopes steeper than 4:1.

B. Runoff Shall be Diverted Away from Steep Slopes.

\_\_\_ yes \_\_\_ no 1. Use **Diversion Ditch (DD)** at the top of steep slopes to capture runoff before it flows down the slope.

C. Terracing Shall be Incorporated into the Grading of Steep Slopes.

\_\_\_ yes \_\_\_ no 1. Use **terracing (TER)** in steep slopes to break up the flow of incidental water and reduce the development of rill and gully erosion runoff before it flows down the slope.

**PROTECT INLETS, STORM SEWER OUTFALLS, AND CULVERTS.**

\_\_\_ yes \_\_\_ no 1. Show **Inlet Protection (IP)** at all street and area inlets.

\_\_\_ yes \_\_\_ no 2. Show **Reinforced Rock Berm for Culvert Protection (RRP)** at all culvert inlets.

\_\_\_ yes \_\_\_ no 3. Design outlet protection for all storm sewer outfalls and culvert outlets.

\_\_\_ yes \_\_\_ no 4. Show **Erosion Control Blanket (ECB)** in stream areas disturbed by the construction of the outfall or culvert.

**PROVIDE ACCESS AND GENERAL CONSTRUCTION CONTROLS.**

\_\_\_ yes \_\_\_ no 1. Identify limits of construction activity.

\_\_\_ yes \_\_\_ no 2. Provide one or more **Vehicle Tracking Controls (VTC)** at all entrance/exit points from a public street to a site.

\_\_\_ yes \_\_\_ no 3. Show a **Stabilized Staging Area (SSA)** near the main access point.

\_\_\_ yes \_\_\_ no 4. Show a **Concrete Washout Area (CWA)** near all concrete work areas.

\_\_\_ yes \_\_\_ no 5. Show temporary access roads and stockpile areas.

\_\_\_ yes \_\_\_ no 6. Select areas for the vehicle tracking control, stabilized staging area, access roads, and stockpile areas that avoid disturbance to trees, desirable vegetation, steep areas, and low, wet areas