

## **Categorical Permission Alteration Description – 19. Seepage and Stability Berms**

The categorical permission covers the construction, modification, and replacement of seepage and stability berms within the easement of the federal project. The total area of ground disturbance must not exceed 10 acres. The construction site should be cleared and grubbed to a sufficient depth to remove vegetation, roots, and soil containing roots. This material must be removed from the easement area and must not be used as fill. The resulting ground surface in the area(s) where the berm is to be located should be scarified to a depth of at least six inches or the full depth of shrinkage cracks, whichever is deeper. If soft or yielding soils are encountered during subgrade preparation, they should be scarified, moisture-conditioned, and compacted or removed by excavation to expose firm, competent soil.

Berms must be constructed of material that is as permeable as, or more permeable, than the adjacent existing ground and designed in accordance with USACE standards. Seepage and stability berms may be drained or undrained. Both berm types must be constructed at a 2% minimum slope to drain surface water away from the berm and the levee.

Proper maintenance of berms is necessary to ensure continued competency of the berm and associated levee. For example, after each high water event, berms must be inspected for cracks, depressions, settlement and other problems in need of repair. The design grade of the berm must be maintained to ensure proper drainage and seepage/stability control. Visibility of and accessibility to the berm must be ensured by maintaining grass and other vegetation at a height of 12 inches or less. Removal of material from the berm (e.g., by agricultural activities) that may reduce the berm's ability to function as designed is prohibited. Nearby vegetation should be regularly controlled (e.g., trees with roots that may interfere with a berm's function; blown over trees can remove a section of the berm). Filter layers, when present, must be retained intact during repairs.

### **Categorical Permission Alteration Checklist – 19. Seepage and Stability Berms**

Please note, the following checklist is intended for planning purposes only and reflects information that USACE reviewers will look for when considering a Section 408 request for seepage and stability berms under the Categorical Permission. To be reviewed under the Categorical Permission, the proposed project must adhere to all requirements of the Categorical Permission, including the full alteration description (see previous page). The plans and narrative project description should reflect this information.

Installation  Modification  Replacement

Maximum total area of disturbance is 10 acres:

Any material cleared or grubbed from the area will be removed from the federal project easement and will not be used as fill: Yes  NA

Berms will be constructed of material that is as permeable as, or more permeable, than the adjacent existing ground:

Berms are designed in accordance with USACE standards:

Berms will be constructed at a 2% minimum slope to drain surface water away from the berm and the levee: