Regional Categorical Permission Alteration Description – 10. Erosion Control

The Regional Categorical Permission covers a variety of erosion control activities, including bank stabilization, erosion control features, repairs, and actions similar in nature. Alterations proposed for erosion control should be designed to withstand the velocity and stresses created by the flow of water at the design water surface elevation (DWSE). The maximum area of construction is 2,000 linear feet of bank. Rock slope protection (e.g., riprap) is the most common type of erosion control; however, other types of erosion control and bank stabilization methods and materials may be used.

The following list illustrates some of the factors that must be taken into consideration when the rock type and quality for proposed erosion control are being determined:

- Asphalt and other petroleum-based products, floatable, or refuse material must not be used for erosion control on a levee or within a floodway.
- Riprap should be sound and durable and free of cracks, seams, shale parting, and soil material. The rocks should be angular, blocky, and relatively free of thin slab-like pieces. Deleterious substances, including soft and friable particles, should be minimized in erosion control measures. Gravel, up to 3 inches in size, is allowed but should be limited. Inappropriate materials, such as vegetation and other foreign matter, must also be minimized. The total amount of deleterious substances, friable particles, gravel, vegetation, and foreign matter should not exceed 5 percent of the overall material placed for erosion control.
- Riprap should be obtained from appropriate sources. • Other types of erosion control, such as bioengineering, may be considered.

The following list illustrates some of the factors that must be taken into consideration regarding the method for placing riprap:

- Rocks should be placed to full layer thickness measured normal to the slope by any method that will avoid segregation by rock size and avoid displacing the underlying material.
- The finished revetment should be free of pockets of small and large rocks. Larger rocks should be well distributed throughout.
- All rocks should be contained reasonably well within the riprap layer to provide maximum resistance against erosion.
- Abrupt bank line changes should be avoided.
- Rocks must not be grouted.

If erosion control is intended for the invert of the channel, the final profile of the material should be identical to the profile of the adjacent channel invert.

When needed to stabilize underlying soils, proper bedding should be provided under the riprap. Vegetation and other organic material must be removed before placing bedding. Geotextiles should not be used as filter layers; instead, a minimum 6-inch layer of sand-sized aggregate should be used.

Maintenance of erosion control is required when:

- Minor rock displacement or degradation is threatening the integrity of the erosion protection;
- Significant displacement is exposing the bedding or seriously degrading the rocks;
- Erosion control material has been displaced by vegetation; or
- Vegetation is interfering with inspection of the erosion control.

Regional Categorical Permission Alteration Checklist – 10. Erosion Control

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

1.	Maximum total area of construction is 2,000 linear feet of bank: ☐ Reference: [Click to enter document source. Example – plan sheet (p. 4), specs, report.] Comment: [Click to enter rationale, explanation, unique situation, etc.]
2.	No asphalt or other petroleum-based products, floatable, or refuse material used for erosion control: ☐ Reference: [Click to enter document source. Example – plan sheet (p. 4), specs, report.] Comment: [Click to enter rationale, explanation, unique situation, etc.]
3.	No grouting of rocks: ☐ Reference: [Click to enter document source. Example – plan sheet (p. 4), specs, report.] Comment: [Click to enter rationale, explanation, unique situation, etc.]
4.	If bedding is to be placed under riprap, vegetation and other organic material will be removed before bedding placement : Yes ☐ No ☐ Reference: [Click to enter document source. Example – plan sheet (p. 4), specs, report.] Comment: [Click to enter rationale, explanation, unique situation, etc.]
5.	Hydraulic blockage calculation ≥1%? Yes ☐ No ☐ Reference: [Click to enter document source. Example – plan sheet (p. 4), specs, report.] Comment: [Click to enter rationale, explanation, unique situation, etc.]
6.	Hydraulic model used for hydraulic analysis? Yes ☐ No ☐ Reference: [Click to enter document source. Example – plan sheet (p. 4), specs, report.] Comment: [Click to enter rationale, explanation, unique situation, etc.]

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RCP Eligibility Review

Yes	No	Add'l. Info Requested				
☐	☐	☐	Environmental Reviewer:		Date	Click date
☐	☐	☐	Engineering Reviewer:		Date	Click date