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4.2.6.12 Vegetation: Temporary



Source: TNWRR

Definition and Purpose

Temporary vegetation involves planting fast-growing grasses, legumes, or small grains to provide short-term soil stabilization. By quickly establishing a vegetative cover, temporary seeding helps mitigate dust and erosion potential that arises from exposed soil during construction activities and rainfall. It also aids in preserving soil structure, promoting infiltration, and reducing the velocity of sheet flow. Additionally, temporary vegetation serves as an initial protective layer that prepares the soil for the eventual establishment of permanent plant cover or other long-term erosion control measures.

Appropriate Applications

Temporary vegetation is applicable on construction sites where soil disturbing activities will temporarily cease for 14 or more days. Temporary vegetation may be a common measure on topsoil stockpiles, rough graded areas, temporary sediment basins, temporary earthen structures, bare areas not under active construction, diversion channels, etc.

Limitations and Maintenance

Regular inspections should be conducted to assess seedling emergence and soil stability. Temporary vegetation will be most effective if it uniformly covers 70% of the disturbed area. If bare patches are apparent or if vegetation fails to establish sufficiently, reseeding should be done as soon as possible to prevent erosion. To support germination and early plant growth, it is recommended to loosen soil prior to seeding and apply mulch or straw at the prescribed rate (Section 4.2.6.9) after seeding to help regulate soil moisture and temperature. Adequate watering is also necessary, particularly in hot or dry conditions, but



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care must be taken to control watering rates to prevent runoff. Additionally, the area needs to be protected from excessive traffic to avoid soil compaction and disturbance that could hinder plant establishment. Mowing may need to be avoided in order to allow vegetation to develop properly and serve its intended function of erosion control.

Planning and Design Considerations

Temporary seeding is an effective and cost-efficient method for erosion control, particularly in areas not subject to immediate construction activity. Annual plant species, which germinate rapidly and complete their lifecycle within a single growing season, are particularly suitable for this purpose. The successful establishment of temporary vegetation depends on several key factors, including proper site preparation, seed selection, and soil amendments. Before seeding, any necessary erosion control structures should be installed to manage runoff effectively.

The seedbed must be well-prepared, ensuring a loose, uniform soil texture that facilitates seed germination and plant growth. Prepare the seedbed and use soil amendments or topsoil in the same manner as specified in Vegetation and Landscaping: Permanent (Section 4.2.6.11) for temporary vegetation. Avoid seedbed preparation techniques before large rainfall (KTC, 2015).

Seeding success is highly dependent on seasonal conditions and plant species selection. Seeding methods should ensure uniform distribution, with recommended depths varying based on plant species. Follow guidance in the Seed Mix Appendix (Appendix D), for example, plant species and application rates.

In conjunction, or as an alternative method of stabilization, Hydroseeding (Section 4.2.6.5), which combines seed, fertilizer, and mulch in a slurry, can be an effective technique for steep slopes or difficult-to-access areas. Mulching (Section 4.2.6.9) is particularly necessary in harsh conditions, including areas subject to winter seeding, hot or dry climates, those with highly erodible soils, or on steep slopes. Temporary vegetation is expected to provide soil stabilization for up to one year since it survives for only one growing season. After which, permanent seeding or alternative stabilization measures will likely be needed to maintain erosion prevention measures (NCDEQ, 2013; VDEQ, 2024).

Example Application

No formal design or quantities are required for this measure and therefore are not presented here.



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References

- KTC. (2015). *Best Management Practices (BMPs) for Controlling Erosion, Sediment, and Pollutant Runoff from Construction Sites*.
- NCDEQ. (2013). *Erosion and Sediment Control Planning and Design Manual*.
- VDEQ. (2024). *Virginia Stormwater Management Handbook*.