

## 4-3. WINTER WEATHER STABILIZATION & CONSTRUCTION PRACTICES

### GENERAL DESCRIPTION

A project involving construction activity extending beyond one construction season will require measures to stabilize the site for the over-winter period. If a construction site is not stabilized with pavement, a road gravel base, 85 % mature vegetation cover, or riprap by October 15, then the site must be protected with over-winter stabilization. The winter construction period is from October 15 through May 15.

### CONSIDERATIONS

Winter excavation and earthwork activities need to be limited in extent and duration, to minimize potential erosion and sedimentation impacts.

- No more than one acre of the site should be exposed (without stabilization) at any one time. Generally, the exposed area should be limited to only those areas in which work will occur during the following 15 days and that can be mulched in one day prior to any snow or rainfall event.
- Subsequent work areas should not be exposed until the previously exposed work are has been fully stabilized.
- An area is considered “exposed” until stabilized with gravel base on a road or parking area, pavement, vegetation, mulching, erosion control mix, erosion control mats, or riprap.
- All erosion and sediment control measures installed for the project should have routine maintenance and cleaning completed, and should be inspected and repaired as needed in preparation for the construction season. Temporary

embankments should be fully vegetated or otherwise stabilized by accepted methods.

## MAINTENANCE REQUIREMENTS

Maintenance measures should continue as needed throughout construction, including the over-winter period. After each rainfall, snowstorm, or period of thawing and runoff, the site contractor should conduct an inspection of all installed erosion control measures and perform repairs as needed to insure their continuing function.

For any area stabilized by temporary or permanent seeding prior to the onset of the winter season, the contractor should conduct an inspection in the spring to ascertain the condition of vegetation cover, and repair any damage areas or bare spots and reseed as required to achieve an established vegetative cover (at least 85% of area vegetated with healthy, vigorous growth).

## SPECIFICATIONS

To adequately protect water quality during cold weather and during spring runoff, the following stabilization techniques should be employed during the period from October 15th through May 15th.

- The area of exposed, unstabilized soil should be limited to one acre and should be protected against erosion by the methods described in this section prior to any thaw or spring melt event. Subject to applicable regulations, the allowable area of exposed soil may be increased if activities are conducted according to a winter construction plan, developed by a professional engineer licensed to practice in the state of New Hampshire or a Certified Professional in Erosion and Sediment Control as certified by the CSPESC Council of EnviroCert International, Inc.

- Stabilization as follows should be completed within a day of establishing the grade that is final or that otherwise will exist for more than 5 days:
  - All proposed vegetated areas having a slope of less than 15% which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, should be seeded and covered with 3 to 4 tons of hay or straw mulch per acre secured with anchored netting, or 2 inches of erosion control mix (see description of erosion control mix berms for material specification).
  - All proposed vegetated areas having a slope of greater than 15% which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, should be seeded and covered with a properly installed and anchored erosion control blanket or with a minimum 4 inch thickness of erosion control mix, unless otherwise specified by the manufacturer. Note that compost blankets should not exceed 2 inches in thickness or they may overheat.
- All stone-covered slopes must be constructed and stabilized by October 15.
- Installation of anchored hay mulch or erosion control mix should not occur over snow of greater than one inch in depth.
- All mulch applied during winter should be anchored (e.g., by netting, tracking, wood cellulose fiber).
- Stockpiles of soil materials should be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. Mulching should be done within 24 hours of stocking, and re-established prior to any rainfall or snowfall. No soil stockpile should be placed (even covered with mulch) within 100 feet from any wetland or other water resource area.
- Frozen materials, (e.g., frost layer that is removed during winter construction), should be stockpiled separately and in a location that is away from any area needing to be protected. Stockpiles of frozen material can melt in the spring and become

unworkable and difficult to transport due to the high moisture content in the soil.

- Installation of erosion control blankets should not occur over snow of greater than one inch in depth or on frozen ground.
- All grass-lined ditches and channels should be constructed and stabilized by September 1. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, should be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions, as determined by a qualified Professional Engineer or a Certified Professional in Erosion and Sediment Control as certified by the CSPESC Council of EnviroCert International, Inc. If a stone lining is necessary, the contractor may need to re-grade the ditch as required to provide adequate cross-section after allowing for placement of the stone.
- All stone-lined ditches and channels must be constructed and stabilized by October 15.
- After November 15th, incomplete road or parking areas where active construction of the road or parking area has stopped for the winter season should be protected with a minimum 3 inch layer of sand and gravel with a gradation such that less than 12% of the sand portion, or material passing the number 4 sieve, by weight, passes the number 200 sieve.
- Sediment barriers that are installed during frozen conditions should consist of erosion control mix berms, or continuous contained berms. Silt fences and hay bales should not be installed when frozen conditions prevent proper embedment of these barriers.