

Minnesota Ecological Science Job Approval Authority Fact Sheet

Critical Area Planting (342)

DEFINITION:

Establishing permanent vegetation on sites that have, or are expected to have, high erosion rates, and on sites that have physical, chemical or biological conditions that prevent the establishment of vegetation with normal practices.



PURPOSE:

This practice supports one or more of the following purposes:

- Stabilize stream and channel banks, pond and other shorelines – Resource concern (SOIL EROSION– Excessive bank erosion from streams shorelines or water conveyance channels)
- Stabilize areas with existing or expected high rates of soil erosion by wind or water – Resource concern (SOIL EROSION – Concentrated flow erosion and/or SOIL EROSION - Sheet, rill, & wind erosion and/or SOIL QUALITY DEGRADATION – Concentration of salts or other chemicals)
- Stabilize areas, such as sand dunes and riparian areas – Resource concern (SOIL EROSION – Concentrated flow erosion and/or SOIL EROSION - Sheet, rill, & wind erosion)

ESJAA INFORMATION:

Job Classes	Control Factors	
	Type Site Preparation	Slope
Job Class I	Standard Tillage	< 6%
Job Class II	Earthmoving Equipment	6% – 8%
Job Class III	Hydroseeding	8% – 10%
Job Class IV	Difficult sites with slope/complexity	All
Job Class V	All	

CONTROL FACTORS:

The Critical Area Planting (342) practice has two controlling factors and units. They are Type Site Preparation as a controlling factor with “Type” as the units, and Slope as a controlling factor with “percent” as the units.

Difficult sites are associated with engineering practices.

KNOWLEDGE, SKILLS, AND ABILITIES (KSA):

1. Ability to use current Wind and Water Erosion Prediction Tools
2. Ability to Assess Site Soil Conditions and Prescribe Treatment and the Appropriate Vegetation
3. Knowledge of Soil pH and Sodicity to Prescribe Appropriate Treatment

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COMMON ASSOCIATED PRACTICES:

Critical Area Planting (342) is commonly applied with practices such as Mulching (484), Nutrient Management (590), and Herbaceous Weed Control (315). Installation of practices such as Diversion (362), Obstruction Removal (500), Subsurface Drain (606), or Underground Outlet (620) may be necessary to prepare the area or ensure vegetative establishment.

ADDITIONAL MATERIALS:

- [Minnesota Agronomy Technical Note No 31](#)
- Federal Interagency Stream Restoration Working Group. 1998. [Stream Corridor Restoration: Principles, Processes, and Practices](#). National Engineering Handbook, Part 653
- USDA-NRCS. 2007. National Engineering Handbook, Part 654. [Stream Restoration Design Process](#)
- USDA-NRCS. 2010. The PLANTS Database (<http://plants.usda.gov>), checked January 2017). National Plant Data Center