

Effects of NRCS Conservation Practices - National

Critical Area Planting

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.

Code: 342

Units: ac.

AL-Aso Land
 O-Other
 W-Water
 D-Developed
 FS-Farmstead
 Pr-Protected
 P-Pasture
 R-Range
 F-Forest
 C-Crop

Typical Landuse: C F R P Pr FS D O AL

| <u>Soil Erosion</u> | <u>Effect</u> | <u>Rationale</u> |
|--|---------------|--|
| Soil Erosion - Sheet and Rill Erosion | 5 | Increased vegetation and cover, and stabilization of erosive conditions will improve infiltration and decrease soil detachment by water. |
| Soil Erosion - Wind Erosion | 5 | An increase in vegetation and cover will protect the soil surface and decrease soil detachment by wind. |
| Soil Erosion - Ephemeral Gully Erosion | 5 | An increase in vegetation and cover will improve infiltration, protect the soil surface and decrease soil detachment by concentrated flow. |
| Soil Erosion - Classic Gully Erosion | 4 | Increased vegetation and cover will decrease erosion and runoff. |
| Soil Erosion - Streambank, Shoreline, Water Conveyance C | 4 | Increased vegetation and cover will decrease erosion and runoff. |
| <u>Soil Quality Degradation</u> | | |
| Organic Matter Depletion | 5 | Increased cover and growing vegetation will increase soil organic matter. |
| Compaction | 2 | Increased root growth will decrease compaction. |
| Subsidence | 0 | If it affects drainage the practice can have an impact on subsidence. |
| Concentration of Salts or Other Chemicals | 1 | Increased vegetation will increase salt uptake and increased organic matter may tie up salts and other chemicals. |
| <u>Excess Water</u> | | |
| Excess Water - Seeps | 0 | Growing plants will take up excess water but planting area is so small there is a neutral effect. |
| Excess Water - Runoff, Flooding, or Ponding | 0 | Growing plants will take up excess water but planting area is so small there is a neutral effect. |
| Excess Water - Seasonal High Water Table | 0 | Growing plants will take up excess water but planting area is so small there is a neutral effect. |
| Excess Water - Drifted Snow | 0 | Not Applicable |
| <u>Insufficient Water</u> | | |
| Insufficient Water - Inefficient Use of Irrigation Water | 0 | Not Applicable |
| Insufficient Water - Inefficient Moisture Management | 0 | Not Applicable |
| <u>Water Quality Degradation</u> | | |
| Pesticides in Surface Water | 0 | Not Applicable |
| Pesticides in Groundwater | 0 | Not Applicable |
| Nutrients in Surface water | 2 | The action reduces erosion and sediment-attached nutrient delivery to surface water. Permanent vegetation will uptake nutrients. |
| Nutrients in Groundwater | 1 | Permanent vegetation will uptake excess nutrients. |
| Salts in Surface Water | 0 | Less runoff reduces transport of soluble salts. Growing vegetation can use excess water which reduces seepage. |
| Salts in Groundwater | 0 | Vegetation takes up moisture and salts. |
| Excess Pathogens and Chemicals from Manure, Bio-solic | 0 | Not Applicable |
| Excess Pathogens and Chemicals from Manure, Bio-solic | 0 | Not Applicable |

| Excessive Sediment in Surface Water | 4 | Vegetation reduces erosion and sediment delivery. | | | | | | | | | | | | | | |
|--|--------------------------------------|---|-------------------------------|--|---------------------------|-------------|---------------------------------------|---------------------|------------------------|---------------------------------|----------------------------------|-----------------------|----------------------|--------------------------------------|--|--------------------------|
| Elevated Water Temperature | 0 | Not Applicable | | | | | | | | | | | | | | |
| Petroleum, Heavy Metals and Other Pollutants Transport | 0 | Not Applicable | | | | | | | | | | | | | | |
| Petroleum, Heavy Metals and Other Pollutants Transport | 0 | Not Applicable | | | | | | | | | | | | | | |
| <u>Air Quality Impacts</u> | | | | | | | | | | | | | | | | |
| Emissions of Particulate Matter (PM) and PM Precursors | 2 | Permanent cover helps reduce wind erosion and generation of fugitive dust. | | | | | | | | | | | | | | |
| Emissions of Ozone Precursors | 0 | Not Applicable | | | | | | | | | | | | | | |
| Emissions of Greenhouse Gases (GHGs) | 1 | Vegetation removes CO2 from the air and stores it in the form of carbon in the plants and soil. | | | | | | | | | | | | | | |
| Objectionable Odors | 0 | Not Applicable | | | | | | | | | | | | | | |
| <u>Degraded Plant Condition</u> | | | | | | | | | | | | | | | | |
| Undesirable Plant Productivity and Health | 5 | Proper plant selection, nutrient modification, and management improves plant growth and vigor. | | | | | | | | | | | | | | |
| Inadequate Structure and Composition | 5 | Plants selected are adapted and suited. | | | | | | | | | | | | | | |
| Excessive Plant Pest Pressure | 4 | Establishment of permanent vegetation may provide competition that would slow the spread of noxious plants. | | | | | | | | | | | | | | |
| Wildfire Hazard, Excessive Biomass Accumulation | 0 | Not Applicable | | | | | | | | | | | | | | |
| <u>Fish and Wildlife - Inadequate Habitat</u> | | | | | | | | | | | | | | | | |
| Inadequate Habitat - Food | 2 | Increased quality and quantity of vegetation provides more food for wildlife. | | | | | | | | | | | | | | |
| Inadequate Habitat - Cover/Shelter | 2 | Increased quality and quantity of vegetation provides more cover for wildlife. | | | | | | | | | | | | | | |
| Inadequate Habitat - Water | 5 | Not Applicable | | | | | | | | | | | | | | |
| Inadequate Habitat - Habitat Continuity (Space) | 2 | Increased cover will increase space for wildlife. May be used to connect other cover areas. | | | | | | | | | | | | | | |
| <u>Livestock Production Limitation</u> | | | | | | | | | | | | | | | | |
| Inadequate Feed and Forage | 0 | Not Applicable | | | | | | | | | | | | | | |
| Inadequate Shelter | 0 | Not Applicable | | | | | | | | | | | | | | |
| Inadequate Water | 0 | Not Applicable | | | | | | | | | | | | | | |
| <u>Inefficient Energy Use</u> | | | | | | | | | | | | | | | | |
| Equipment and Facilities | 0 | Not Applicable | | | | | | | | | | | | | | |
| Farming/Ranching Practices and Field Operations | 0 | Not Applicable | | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th colspan="2"><u>CPPE Practice Effects:</u></th> </tr> </thead> <tbody> <tr> <td>5 Substantial Improvement</td> <td>0 No Effect</td> </tr> <tr> <td>4 Moderate to Substantial Improvement</td> <td>-1 Slight Worsening</td> </tr> <tr> <td>3 Moderate Improvement</td> <td>-2 Slight to Moderate Worsening</td> </tr> <tr> <td>2 Slight to Moderate Improvement</td> <td>-3 Moderate Worsening</td> </tr> <tr> <td>1 Slight Improvement</td> <td>-4 Moderate to Substantial Worsening</td> </tr> <tr> <td></td> <td>-5 Substantial Worsening</td> </tr> </tbody> </table> | <u>CPPE Practice Effects:</u> | | 5 Substantial Improvement | 0 No Effect | 4 Moderate to Substantial Improvement | -1 Slight Worsening | 3 Moderate Improvement | -2 Slight to Moderate Worsening | 2 Slight to Moderate Improvement | -3 Moderate Worsening | 1 Slight Improvement | -4 Moderate to Substantial Worsening | | -5 Substantial Worsening |
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