

Effects of NRCS Conservation Practices - National

Mulching

Applying plant residues or other suitable materials produced off site, to the land surface

Code: 484

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	4	Soil cover reduces erosion from water.
Soil Erosion - Wind Erosion	4	Soil cover reduces erosion from wind.
Soil Erosion - Ephemeral Gully Erosion	0	Not Applicable
Soil Erosion - Classic Gully Erosion	0	Not Applicable
Soil Erosion - Streambank, Shoreline, Water Conveyance Cl	0	Not Applicable
<u>Soil Quality Degradation</u>		
Organic Matter Depletion	1	Decreased erosion and biomass addition from organic mulches will increase soil organic matter.
Compaction	0	Not Applicable
Subsidence	0	Not Applicable
Concentration of Salts or Other Chemicals	1	Reduced evaporation may reduce salt build-up. Added organic matter will buffer salts.
<u>Excess Water</u>		
Excess Water - Seeps	-1	Increased infiltration results in more water moving through the profile.
Excess Water - Runoff, Flooding, or Ponding	1	Increased infiltration, reduces runoff and ponding.
Excess Water - Seasonal High Water Table	-1	Increased infiltration results in more water moving through the profile.
Excess Water - Drifted Snow	0	Not Applicable
<u>Insufficient Water</u>		
Insufficient Water - Inefficient Use of Irrigation Water	2	Increases infiltration and decreases evaporation resulting in more available water.
Insufficient Water - Inefficient Moisture Management	2	Increases infiltration and decreases evaporation resulting in more available water.
<u>Water Quality Degradation</u>		
Pesticides in Surface Water	2	The action reduces runoff, erosion and the need for pesticide use. Impervious mulches may increase runoff.
Pesticides in Groundwater	0	Not Applicable
Nutrients in Surface water	2	The action reduces erosion and runoff, reducing the loss of dissolved and sediment-bound nutrients from the site.
Nutrients in Groundwater	-1	The action increases infiltration that contributes to nutrient leaching. Also, high organic carbon will cause microbes to immobilize nutrients.
Salts in Surface Water	1	Less runoff reduces transport potential of soluble salts.

Salts in Groundwater	-1	Better infiltration increases leaching potential.
Excess Pathogens and Chemicals from Manure, Bio-solid:	0	Not Applicable
Excess Pathogens and Chemicals from Manure, Bio-solid:	0	Better infiltration could increase leaching, but increased microbial activity increases competition with pathogens.
Excessive Sediment in Surface Water	2	Less erosion and runoff reduces transport of sediment.
Elevated Water Temperature	0	Not Applicable
Petroleum, Heavy Metals and Other Pollutants Transporte	0	Not Applicable
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<i>Air Quality Impacts</i>		
Emissions of Particulate Matter (PM) and PM Precursors	2	Mulches can stabilize the soil surface, reducing the generation of particulate matter.
Emissions of Ozone Precursors	0	Not Applicable
Emissions of Greenhouse Gases (GHGs)	0	Not Applicable
Objectionable Odors	0	Not Applicable
<i>Degraded Plant Condition</i>		
Undesirable Plant Productivity and Health	2	Mulching materials improve growing conditions contributing to increased plant health and vigor.
Inadequate Structure and Composition	0	Not Applicable
Excessive Plant Pest Pressure	2	Thick and/or impenetrable mulch cover can prevent emergence of undesired species.
Wildfire Hazard, Excessive Biomass Accumulation	0	Not Applicable
<i>Fish and Wildlife - Inadequate Habitat</i>		
Inadequate Habitat - Food	1	Mulching enhances production of any food species planted.
Inadequate Habitat - Cover/Shelter	1	Mulching enhances cover/shelter conditions.
Inadequate Habitat - Water	0	Not Applicable
Inadequate Habitat - Habitat Continuity (Space)	0	Not Applicable
<i>Livestock Production Limitation</i>		
Inadequate Feed and Forage	0	Not Applicable
Inadequate Shelter	0	Not Applicable
Inadequate Water	0	Not Applicable
<i>Inefficient Energy Use</i>		
Equipment and Facilities	0	Not Applicable
Farming/Ranching Practices and Field Operations	0	Not Applicable

CPPE Practice Effects:	<i>0 No Effect</i>
<i>5 Substantial Improvement</i>	<i>-1 Slight Worsening</i>
<i>4 Moderate to Substantial Improvement</i>	<i>-2 Slight to Moderate Worsening</i>
<i>3 Moderate Improvement</i>	<i>-3 Moderate Worsening</i>
<i>2 Slight to Moderate Improvement</i>	<i>-4 Moderate to Substantial Worsening</i>
<i>1 Slight Improvement</i>	<i>-5 Substantial Worsening</i>