

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
 P-Protected
 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	1	Soil cover reduces erosion from water.
Soil Erosion - Classic Gully Erosion	1	Mulching will stabilize eroding areas and reduce runoff.
Soil Erosion - Streambank, Shoreline, Water Conveyance C	2	Mulching will stabilize eroding areas and reduce runoff.
<u>Soil Quality Degradation</u>		
Organic Matter Depletion	2	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	2	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	2	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-solic	0	Not Applicable
Excess Pathogens and Chemicals from Manure, Bio-solic	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 Transport	1	Decreased erosion and runoff reduces heavy metal delivery to surface water.												
Petroleum, Heavy Metals and Other Pollutants Transport	0	Not Applicable												
<u>Air Quality Impacts</u>														
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												
<u>Degraded Plant Condition</u>														
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												
<u>Fish and Wildlife - Inadequate Habitat</u>														
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	4	Not Applicable												
Inadequate Habitat - Habitat Continuity (Space)	0	Not Applicable												
<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"> <tr> <td>CPPE Practice Effects:</td> <td>0 No Effect</td> </tr> <tr> <td>5 Substantial Improvement</td> <td>-1 Slight Worsening</td> </tr> <tr> <td>4 Moderate to Substantial Improvement</td> <td>-2 Slight to Moderate Worsening</td> </tr> <tr> <td>3 Moderate Improvement</td> <td>-3 Moderate Worsening</td> </tr> <tr> <td>2 Slight to Moderate Improvement</td> <td>-4 Moderate to Substantial Worsening</td> </tr> <tr> <td>1 Slight Improvement</td> <td>-5 Substantial Worsening</td> </tr> </table>	CPPE Practice Effects:	0 No Effect	5 Substantial Improvement	-1 Slight Worsening	4 Moderate to Substantial Improvement	-2 Slight to Moderate Worsening	3 Moderate Improvement	-3 Moderate Worsening	2 Slight to Moderate Improvement	-4 Moderate to Substantial Worsening	1 Slight Improvement	-5 Substantial Worsening
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