

# Effects of NRCS Conservation Practices - National

## Precision Land Forming

Reshaping the surface of land to planned grades.

Code: 462

Units: ac.

Typical Landuse:

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

<u>Soil Erosion</u>	<u>Effect</u>	<u>Rationale</u>
Soil Erosion - Sheet and Rill Erosion	0	Reshaping the surface of land may reduce the degree of slope, however, slope length may be increased.
Soil Erosion - Wind Erosion	0	Not Applicable
Soil Erosion - Ephemeral Gully Erosion	2	Creating a more uniform surface may increase infiltration and decrease concentrated flow.
Soil Erosion - Classic Gully Erosion	4	Land forming is used to reshape and fill gully.
Soil Erosion - Streambank, Shoreline, Water Conveyance C	0	Not Applicable
<u>Soil Quality Degradation</u>		
Organic Matter Depletion	-2	The process of land forming alters the soil profile and aerates the soil.
Compaction	-1	Use of heavy equipment during land forming may cause compaction. Mitigation and appropriate timing are part of practice design.
Subsidence	0	Not Applicable
Concentration of Salts or Other Chemicals	1	Smoothing causes a more uniform infiltration
<u>Excess Water</u>		
Excess Water - Seeps	2	Creates a more uniform surface and removal of depressions.
Excess Water - Runoff, Flooding, or Ponding	2	Creates a more uniform surface and removal of depressions will eliminate ponding.
Excess Water - Seasonal High Water Table	2	Creates a more uniform surface and removes depressions to improve drainages.
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	2	Because of improved water distribution.
<u>Water Quality Degradation</u>		
Pesticides in Surface Water	1	Reshaping the surface of the land reduces erosion.
Pesticides in Groundwater	1	Reshaping the surface of the land reduces deep percolation.
Nutrients in Surface water	1	The action smooths the surface which increases infiltration and reduces transport of nutrients to surface waters.
Nutrients in Groundwater	2	The action smooths the surface which reduces ponding and the transport of nutrients to ground water.
Salts in Surface Water	0	The action will not appreciably alter runoff and runoff-related contaminants.
Salts in Groundwater	1	The action causes a decrease in ponding and a more uniform infiltration.
Excess Pathogens and Chemicals from Manure, Bio-solic	0	Not Applicable
Excess Pathogens and Chemicals from Manure, Bio-solic	1	The uniform surface grade reduces ponding and excessive infiltration of contaminated water.

Excessive Sediment in Surface Water	1	Land surface is formed to a non-erosive grade.
Elevated Water Temperature	0	Not Applicable
Petroleum, Heavy Metals and Other Pollutants Transport	1	Smoothing uneven land allows the application of practices that can reduce sheet, rill and ephemeral gully erosion and increase infiltration.
Petroleum, Heavy Metals and Other Pollutants Transport	1	The uniform surface grade reduces ponding and excessive infiltration of contaminated water.
<u>Air Quality Impacts</u>		
Emissions of Particulate Matter (PM) and PM Precursors	0	Equipment operations temporarily produce particulate emissions and exhaust emissions.
Emissions of Ozone Precursors	0	Equipment operations temporarily produce exhaust emissions.
Emissions of Greenhouse Gases (GHGs)	-1	Some carbon may be lost due to soil disturbance.
Objectionable Odors	0	Not Applicable
<u>Degraded Plant Condition</u>		
Undesirable Plant Productivity and Health	4	Site modification to improve irrigation application enhances the health and vigor of desired species.
Inadequate Structure and Composition	0	Not Applicable
Excessive Plant Pest Pressure	0	Not Applicable
Wildfire Hazard, Excessive Biomass Accumulation	0	Not Applicable
<u>Fish and Wildlife - Inadequate Habitat</u>		
Inadequate Habitat - Food	0	Not Applicable
Inadequate Habitat - Cover/Shelter	0	Not Applicable
Inadequate Habitat - Water	0	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

<b><u>CPPE Practice Effects:</u></b>	<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>