Effects of NRCS Conservation Practices - National

Silvopasture Establishment

Code: 381
Units: ac.

An application establishing a combination of trees or shrubs and compatible forages on the same acreage.

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

Typical Landuse:

Soil Erosion	*Effect*	*Rationale*
Soil Erosion - Sheet and Rill Erosion	5	Establishing a combination of trees or shrubs and compatible forages will reduce erosion by water.
Soil Erosion - Wind Erosion	5	Tall vegetation creates a wind shadow, reduces erosive wind velocities and, along with understory forage, provides a stable area which stops saltating particles.
Soil Erosion - Ephemeral Gully Erosion	5	Establishing a combination of trees or shrubs and compatible forages will reduce erosion by water.
Soil Erosion - Classic Gully Erosion	2	There will be decreased overland flow, enhanced vegetation cover.
Soil Erosion - Streambank, Shoreline, Water Conveyance (	2	There will be enhancement of protective riparian vegetation.
Soil Quality Degradation		
Organic Matter Depletion	4	Roots, vegetative matter and livestock waste and their breakdown increases organic matter.
Compaction	0	Root penetration and organic matter helps restore soil structure and counteracts compactive forces of hooves as livestock traverse the grazed area.
Subsidence	0	Not Applicable
Concentration of Salts or Other Chemicals	0	Contaminants taken up by forage plants will be returned to the soil as manure. Most tree species take up limited amounts of salt.
Excess Water		
Excess Water - Seeps	1	There is potential for a decrease in seep flow because of increased utilization of soil moisture, however there may be slight worsening due to increased infiltration, especially during dormant season.
Excess Water - Runoff, Flooding, or Ponding	2	Runoff will be reduced and infiltration increased due to improved vegetative cover.
Excess Water - Seasonal High Water Table	1	There may be an increase in plant uptake of water.
Excess Water - Drifted Snow	2	Snow is captured by tree/shrub crowns and deposited within the grazed area.
Insufficient Water		
Insufficient Water - Inefficient Use of Irrigation Water	0	Grazing animals may cause difficulty in scheduling irrigations.
Insufficient Water - Inefficient Moisture Management	3	There will be increased infiltration, increased available water, and extended interflow yield.
Water Quality Degradation		
Pesticides in Surface Water	3	Trees and shrubs take up pesticide residues and may intercept pesticide drift. Also, the practice reduces runoff and erosion.
Pesticides in Groundwater	1	Trees and shrubs take up pesticide residues. Also, pesticide degradation may be improved by increased soil organic matter and biological activity.
Nutrients in Surface water	5	Permanent vegetation will uptake excess nutrients.
Nutrients in Groundwater	3	Permanent vegetation will uptake excess nutrients.
Salts in Surface Water	1	Dense vegetation will increase infiltration and reduce runoff. Planting of range species in recharge areas may reduce movement of salts to seep areas and surface waters.
Salts in Groundwater	1	The action may increase salt uptake by plants.
Excess Pathogens and Chemicals from Manure, Bio-soli	1	Ground vegetation captures and delays pathogen movement and thereby increase their mortality.
Excess Pathogens and Chemicals from Manure, Bio-soli	1	Vegetation captures and delays pathogen movement and thereby increases their mortality. Where pastures are grazed animals will introduce pathogens to site.
Excessive Sediment in Surface Water	3	Improved plant vigor and cover reduces erosion.

Elevated Water Temperature	**1**	**Tall vegetation established near surface waters provides shade and reduces direct sunlight heating.**
Petroleum, Heavy Metals and Other Pollutants Transport	**1**	**Some plants may take up heavy metals.**
Petroleum, Heavy Metals and Other Pollutants Transport	**1**	**The action may result in some increased heavy metal uptake by plants.**
Air Quality Impacts		
Emissions of Particulate Matter (PM) and PM Precursors	**1**	**Tall vegetation slows winds to reduce erosive wind velocities, vegetation filters particulates from the air and the planted areas stop saltating particles.**
Emissions of Ozone Precursors	**0**	**Not Applicable**
Emissions of Greenhouse Gases (GHGs)	**4**	**Vegetation removes CO2 from the air and stores it in the form of carbon in the plants and soil.**
Objectionable Odors	**1**	**Tall vegetation slows surface air movement and intercepts and captures air borne materials.**
Degraded Plant Condition		
Undesirable Plant Productivity and Health	**5**	**Plants are selected and managed to maintain optimal productivity and health.**
Inadequate Structure and Composition	**-1**	**Establishment and management of pasture reduces the native understroy plant community.**
Excessive Plant Pest Pressure	**0**	**Vegetation is installed and managed to control undesired species.**
Wildfire Hazard, Excessive Biomass Accumulation	**1**	**Overstory trees are spaced and managed to reduce hazard.**
Fish and Wildlife - Inadequate Habitat		
Inadequate Habitat - Food	**5**	**Plants are chosen and managed to enhance food for wildlife.**
Inadequate Habitat - Cover/Shelter	**3**	**Plants are chosen and managed to enhance value as cover/shelter.**
Inadequate Habitat - Water	**5**	**Not Applicable**
Inadequate Habitat - Habitat Continuity (Space)	**1**	**Tall vegetation creates vertical habitat structure/space.**
Livestock Production Limitation		
Inadequate Feed and Forage	**5**	**Plant species in the understory will be selected that accommodate seasonal livestock production and nutritional needs.**
Inadequate Shelter	**5**	**Tall vegetation provides shelter.**
Inadequate Water	**0**	**Not Applicable**
Inefficient Energy Use		
Equipment and Facilities	**0**	**Not Applicable**
Farming/Ranching Practices and Field Operations	**0**	**Not Applicable**

CPPE Practice Effects:	
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