Effects of NRCS Conservation Practices - National

Grassed Waterway

A shaped or graded channel that is established with suitable vegetation to carry surface water at a non-erosive velocity to a stable outlet.

Code: 412
Units: ac.

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

Soil Erosion	*Effect*	*Rationale*
Soil Erosion - Sheet and Rill Erosion	0	Not Applicable
Soil Erosion - Wind Erosion	0	The unsheltered distance may be reduced by trapping saltating soil particles.
Soil Erosion - Ephemeral Gully Erosion	5	Shaping or grading of the channel conveys runoff water without causing erosion.
Soil Erosion - Classic Gully Erosion	4	Runoff is controlled and managed to prevent erosion.
Soil Erosion - Streambank, Shoreline, Water Conveyance C	1	Inflows into the stream are controlled to prevent erosion.
Soil Quality Degradation		
Organic Matter Depletion	3	Permanent vegetation in the area of the waterway increases soil organic matter.
Compaction	0	Not Applicable
Subsidence	0	Not Applicable
Concentration of Salts or Other Chemicals	-1	Vegetation traps contaminated sediment.
Excess Water		
Excess Water - Seeps	0	Provide outlet for seeps.
Excess Water - Runoff, Flooding, or Ponding	3	Waterways provide outlets for diversions and other water control practices.
Excess Water - Seasonal High Water Table	2	Subsurface drainage installed as part of this practice removes excess water.
Excess Water - Drifted Snow	0	Not Applicable
Insufficient Water		
Insufficient Water - Inefficient Use of Irrigation Water	0	Not Applicable
Insufficient Water - Inefficient Moisture Management	0	Not Applicable
Water Quality Degradation		
Pesticides in Surface Water	2	The action increases infiltration and traps adsorbed pesticides.
Pesticides in Groundwater	0	The action increases infiltration which is offset by increased soil organic matter and biological activity .
Nutrients in Surface water	2	The vegetation in the channel will filter out some sediments, and the vegetation will utilize some nutrients.
Nutrients in Groundwater	0	The action may slightly increases infiltration within the waterway. However, the vegetation will uptake nutrients.
Salts in Surface Water	0	The action results in slight increase of infiltration that could decrease soluble salts in runoff.
Salts in Groundwater	0	Not Applicable
Excess Pathogens and Chemicals from Manure, Bio-solic	1	Waterway acts as filter and reduces pathogens in the runoff
Excess Pathogens and Chemicals from Manure, Bio-solic	0	Not Applicable

Excessive Sediment in Surface Water	**2**	**Erosion is controlled, vegetation traps sediment, and runoff is delivered at a safe velocity.**
Elevated Water Temperature	**0**	**Water is not retained in the waterway**
Petroleum, Heavy Metals and Other Pollutants Transporte	**1**	**Waterway acts as filter and reduces heavy metals in the runoff. Vegetation may take up heavy metals.**
Petroleum, Heavy Metals and Other Pollutants Transporte	**0**	**Not Applicable**
Air Quality Impacts		
Emissions of Particulate Matter (PM) and PM Precursors	**0**	**Not Applicable**
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**
Degraded Plant Condition		
Undesirable Plant Productivity and Health	**5**	**Vegetation is maintained at optimal conditions for the function of the waterway**
Inadequate Structure and Composition	**4**	**Plants selected for retention are more adapted and suited.**
Excessive Plant Pest Pressure	**4**	**Vegetation is installed and managed to control undesired species.**
Wildfire Hazard, Excessive Biomass Accumulation	**0**	**Not Applicable**
Fish and Wildlife - Inadequate Habitat		
Inadequate Habitat - Food	**1**	**Planting of wildlife adapted plants outside the hydraulic functioning area of the waterway will provide food.**
Inadequate Habitat - Cover/Shelter	**1**	**Planting of wildlife adapted plants outside the hydraulic functioning area of the waterway will provide cover/shelter.**
Inadequate Habitat - Water	**0**	**The action improves surface water quality and provides seasonal habitat for aquatic species, especially if connected to a stream or river.**
Inadequate Habitat - Habitat Continuity (Space)	**1**	**Waterways constructed in cropland will increase space and provide wildlife corridor**
Livestock Production Limitation		
Inadequate Feed and Forage	**1**	**There may be some use of the planting for feed and forage by livestock.**
Inadequate Shelter	**0**	**Not Applicable**
Inadequate Water	**0**	**Not Applicable**
Inefficient Energy Use		
Equipment and Facilities	**1**	**Fewer gullies to cross with equipment**
Farming/Ranching Practices and Field Operations	**1**	**Fewer gullies to cross with equipment**

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