Effects of NRCS Conservation Practices - National

Water and Sediment Control Basin

An earth embankment or a combination ridge and channel constructed across the slope of minor watercourses to form a sediment trap and water detention basin with a stable outlet.

Code: 638
Units: no.

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

Soil Erosion	*Effect*	*Rationale*
Soil Erosion - Sheet and Rill Erosion	0	Not Applicable
Soil Erosion - Wind Erosion	0	Not Applicable
Soil Erosion - Ephemeral Gully Erosion	2	Controlled flow will reduce gulley erosion down slope of basin.
Soil Erosion - Classic Gully Erosion	2	Water diverted from gulley and spread in a nonerosive manner.
Soil Erosion - Streambank, Shoreline, Water Conveyance C	0	Not Applicable
Soil Quality Degradation		
Organic Matter Depletion	0	Not Applicable
Compaction	0	Not Applicable
Subsidence	0	Not Applicable
Concentration of Salts or Other Chemicals	0	Not Applicable
Excess Water		
Excess Water - Seeps	-2	Retarded water in basin will infiltrate causing seepage problems below basin.
Excess Water - Runoff, Flooding, or Ponding	2	Basin will retard flows reducing runoff.
Excess Water - Seasonal High Water Table	-2	Retarded water in basin will infiltrate causing increased subsurface 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	0	Basins reduce runoff losses but provide a direct conduit to surface waters
Pesticides in Groundwater	-1	Water containing pesticides may seep from the basin into the groundwater in highly permeable soils.
Nutrients in Surface water	0	Basins reduce runoff losses but provide a direct conduit to surface waters
Nutrients in Groundwater	-1	Nutrients impounded could contaminate groundwater in highly permeable soils.
Salts in Surface Water	0	Basins reduce runoff losses but provide a direct conduit to surface waters
Salts in Groundwater	-1	Infiltrating water in the basin can move soluble salts to the ground water
Excess Pathogens and Chemicals from Manure, Bio-solic	0	Basins reduce runoff losses but provide a direct conduit to surface waters
Excess Pathogens and Chemicals from Manure, Bio-solic	-1	Infiltrating water in the basin may leach pathogens into the groundwater in highly permeable soils.

Excessive Sediment in Surface Water	**4**	**Basin retains sediment and minimizes turbidity**
Elevated Water Temperature	**-2**	**Water retained in basin is generally warmer than receiving waters to which outlets drain.**
Petroleum, Heavy Metals and Other Pollutants Transporte	**0**	**Basins reduce runoff losses but provide a direct conduit to surface waters**
Petroleum, Heavy Metals and Other Pollutants Transporte	**-1**	**Infiltrating water in the basin will move soluble contaminants to the ground water in highly permeable soils.**
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)	**0**	**Not Applicable**
Objectionable Odors	**0**	**Not Applicable**
Degraded Plant Condition		
Undesirable Plant Productivity and Health	**0**	**Not Applicable**
Inadequate Structure and Composition	**0**	**Not Applicable**
Excessive Plant Pest Pressure	**0**	**Not Applicable**
Wildfire Hazard, Excessive Biomass Accumulation	**0**	**Not Applicable**
Fish and Wildlife - Inadequate Habitat		
Inadequate Habitat - Food	**0**	**Not Applicable**
Inadequate Habitat - Cover/Shelter	**0**	**Not Applicable**
Inadequate Habitat - Water	**0**	**Surface runoff retained will provide temporary water to wildlife as sediment is trapped, improving water quality in watershed.**
Inadequate Habitat - Habitat Continuity (Space)	**0**	**Not Applicable**
Livestock Production Limitation		
Inadequate Feed and Forage	**0**	**Not Applicable**
Inadequate Shelter	**0**	**Not Applicable**
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