

Effects of NRCS Conservation Practices - National

Constructed Wetland

An artificial ecosystem with hydrophytic vegetation for water treatment.

Code: 656

Units: ac.

Typical Landuse:

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

<u>Soil Erosion</u>	<u>Effect</u>	<u>Rationale</u>
Soil Erosion - Sheet and Rill Erosion	0	Not Applicable
Soil Erosion - Wind Erosion	0	Not Applicable
Soil Erosion - Ephemeral Gully Erosion	0	Not Applicable
Soil Erosion - Classic Gully Erosion	0	Not Applicable
Soil Erosion - Streambank, Shoreline, Water Conveyance C	0	Not Applicable
<u>Soil Quality Degradation</u>		
Organic Matter Depletion	0	Not Applicable
Compaction	0	Not Applicable
Subsidence	0	Not Applicable
Concentration of Salts or Other Chemicals	0	Not Applicable
<u>Excess Water</u>		
Excess Water - Seeps	0	Not Applicable
Excess Water - Runoff, Flooding, or Ponding	2	Provide temporary flood storage.
Excess Water - Seasonal High Water Table	0	Not Applicable
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	0	Not Applicable
<u>Water Quality Degradation</u>		
Pesticides in Surface Water	2	The action captures pesticide residues and facilitates their degradation.
Pesticides in Groundwater	1	The action captures pesticide residues and facilitates their degradation.
Nutrients in Surface water	4	The action traps nutrients and organics which are broken down and used by wetland plants.
Nutrients in Groundwater	1	The action traps nutrients and organics which are broken down and used by wetland plants.
Salts in Surface Water	1	Any salts in surface runoff will be detained in the wetland. Some wetland plants may take up salts.
Salts in Groundwater	1	Any salinity in runoff or wastewater will be assimilated in the wetland rather than infiltrating to groundwater.
Excess Pathogens and Chemicals from Manure, Bio-solic	4	Pathogens are trapped in the wetland.
Excess Pathogens and Chemicals from Manure, Bio-solic	3	Microbial activity in wetlands can reduce pathogen levels.

Excessive Sediment in Surface Water	5	System traps and holds suspended materials from entering surface waters.
Elevated Water Temperature	0	Footprint usually too small for effect.
Petroleum, Heavy Metals and Other Pollutants Transport	4	Vegetation and anaerobic conditions trap heavy metals.
Petroleum, Heavy Metals and Other Pollutants Transport	1	Heavy metals attached to sediment can be trapped in wetlands.
<u>Air Quality Impacts</u>		
Emissions of Particulate Matter (PM) and PM Precursors	0	Not Applicable
Emissions of Ozone Precursors	0	Not Applicable
Emissions of Greenhouse Gases (GHGs)	1	The accumulation of organic matter and sediments sequester carbon. However, anaerobic conditions can promote the generation of methane.
Objectionable Odors	-1	Anaerobic conditions can promote the generation of hydrogen sulfide and other odorous compounds.
<u>Degraded Plant Condition</u>		
Undesirable Plant Productivity and Health	0	Not Applicable
Inadequate Structure and Composition	4	Plants selected are adapted and suited.
Excessive Plant Pest Pressure	-2	Could create habitat for noxious invasive plants
Wildfire Hazard, Excessive Biomass Accumulation	0	Not Applicable
<u>Fish and Wildlife - Inadequate Habitat</u>		
Inadequate Habitat - Food	3	Increased quality and quantity of vegetation provides more food for wildlife.
Inadequate Habitat - Cover/Shelter	3	Increased quality and quantity of vegetation provides more cover for wildlife.
Inadequate Habitat - Water	0	The wetland provides additional water but it will likely be chemical-laden and unfit for fish and wildlife use.
Inadequate Habitat - Habitat Continuity (Space)	2	Additional wetland space is created.
<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

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