Effects of NRCS Conservation Practices - National

Pumping Plant

A facility that delivers water at a designed pressure and flow rate. Includes the required pump(s), associated power unit(s), plumbing, appurtenances, and may include on-site fuel or energy source(s), and protective structures.

Code: 533
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			O	

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	0	Not Applicable
Soil Erosion - Classic Gully Erosion	0	Not Applicable
Soil Erosion - Streambank, Shoreline, Water Conveyance C	0	Not Applicable
Soil Quality Degradation		
Organic Matter Depletion	0	Not Applicable
Compaction	0	Not Applicable
Subsidence	2	Maintaining water levels reduces opportunity for organic material oxidation, however, if the pump is used as a drainage tool, the oxidation and resulting subsidence may increase.
Concentration of Salts or Other Chemicals	0	Not Applicable
Excess Water		
Excess Water - Seeps	2	Provide drainage by the removal of groundwater.
Excess Water - Runoff, Flooding, or Ponding	2	Provides drainage by the removal of surface water.
Excess Water - Seasonal High Water Table	2	Provide drainage by the removal of groundwater.
Excess Water - Drifted Snow	0	Not Applicable
Insufficient Water		
Insufficient Water - Inefficient Use of Irrigation Water	2	Provides control for better water distribution.
Insufficient Water - Inefficient Moisture Management	2	Provides control for better water distribution.
Water Quality Degradation		
Pesticides in Surface Water	0	Not Applicable
Pesticides in Groundwater	0	Not Applicable
Nutrients in Surface water	0	Not Applicable
Nutrients in Groundwater	0	Not Applicable
Salts in Surface Water	0	Not Applicable
Salts in Groundwater	0	Not Applicable
Excess Pathogens and Chemicals from Manure, Bio-solic	0	Not Applicable
Excess Pathogens and Chemicals from Manure, Bio-solic	0	Not Applicable

Excessive Sediment in Surface Water	0	Not Applicable
Elevated Water Temperature	0	Not Applicable
Petroleum, Heavy Metals and Other Pollutants Transporte	0	Not Applicable
Petroleum, Heavy Metals and Other Pollutants Transporte	0	Not Applicable
Air Quality Impacts		
Emissions of Particulate Matter (PM) and PM Precursors	2	Replacement of older pumping plants with more efficient internal combustion engines or electric motors will reduce PM emissions, however, new placement of internal combustion engines will result in increase in PM emissions.
Emissions of Ozone Precursors	2	Replacement of older pumping plants with more efficient internal combustion engines or electric motors will reduce emissions of ozone precursors, however, new placement of internal combustion engines will result in increase in emission of ozone precursors.
Emissions of Greenhouse Gases (GHGs)	2	Replacement of older pumping plants with more efficient internal combustion engines or electric motors will reduce CO2 emissions, however, new placement of internal combustion engines will result in an increase in CO2 emissions.
Objectionable Odors	0	Not Applicable
Degraded Plant Condition		
Undesirable Plant Productivity and Health	2	Increased water availability enhances plant growth, health and vigor.
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	Not Applicable
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	5	Pumping plants facilitates the distribution of water to livestock.
Inefficient Energy Use		
Equipment and Facilities	4	Efficient pumping plant saves energy
Farming/Ranching Practices and Field Operations	2	Properly sizing pumps, power plants, and controllers to maximize efficiency, will result in reduced energy use for pumping.

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