Effects of NRCS Conservation Practices - National

Anaerobic Digester

A device or system for reducing emissions of air contaminants from a structure via interception and/or collection.

Code: 366
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
					FS					

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	0	Not Applicable
Concentration of Salts or Other Chemicals	0	Not Applicable
Excess Water		
Excess Water - Seeps	0	Not Applicable
Excess Water - Runoff, Flooding, or Ponding	0	Not Applicable
Excess Water - Seasonal High Water Table	0	Seepage is minimal.
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	Not Applicable
Pesticides in Groundwater	0	Not Applicable
Nutrients in Surface water	2	Management options are increased. Proper field application of nutrients should minimize runoff losses.
Nutrients in Groundwater	0	Not Applicable
Salts in Surface Water	0	Not Applicable
Salts in Groundwater	0	Earthen waste storage ponds do have limited seepage. The amount of seepage depends on the viability of the lining materials chosen. Seepage will contain some level of salinity.
Excess Pathogens and Chemicals from Manure, Bio-solic	2	Digester provides storage and treatment of manure and other organics which would normally reach surface water.
Excess Pathogens and Chemicals from Manure, Bio-solic	0	Unlined earthen waste storage ponds do leak and may allow movement of pathogens to groundwater.

Excessive Sediment in Surface Water	**0**	**Not Applicable**
Elevated Water Temperature	**0**	**Not Applicable**
Petroleum, Heavy Metals and Other Pollutants Transporte	**0**	**Harmful levels of heavy metals are rarely associated with manure. Digester provides storage and treatment of manure and other organics which would normally reach surface water.**
Petroleum, Heavy Metals and Other Pollutants Transporte	**0**	**Heavy metals are rarely associated with manure. Earthen waste storage ponds do have limited seepage which may contain some metals.**
Air Quality Impacts		
Emissions of Particulate Matter (PM) and PM Precursors	**0**	**Dust from manure application will be less from a liguid application system than a dry untreated manure system. However, anaerobic digestion may result in a greater potential for ammonia release.**
Emissions of Ozone Precursors	**1**	**There is a decrease in potential ozone precursor emissions. Digesters breakdown VOCs which are ozone precursors.**
Emissions of Greenhouse Gases (GHGs)	**4**	**By flaring or combusting the syngas, methane is converted to CO2, reducing net GHG.**
Objectionable Odors	**5**	**Cover will retain gas emissions and eliminate contact with atmosphere. Digesters breakdown VOCs, substantially reducing odors.**
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**	**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	**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