

Effects of NRCS Conservation Practices - National

Waste Treatment Lagoon

A waste treatment impoundment made by constructing an embankment and/or excavating a pit or dugout.

Code: 359

Units: no.

Typical Landuse:

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

<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	1	The action will allow waste application at rates and times to address the resource concern.
Compaction	1	Storage will allow better management of waste as to rate and timing of application, which allows application when compaction is least likely.
Subsidence	0	Not Applicable
Concentration of Salts or Other Chemicals	0	Not Applicable
<u>Excess Water</u>		
Excess Water - Seeps	0	Theoretically there will be an increase in infiltration at pond site.
Excess Water - Runoff, Flooding, or Ponding	0	Polluted runoff is collected and stored, but less likely than storage facility.
Excess Water - Seasonal High Water Table	0	Theoretically there will be an increase in infiltration at pond site.
Excess Water - Drifted Snow	0	Not Applicable
<u>Insufficient Water</u>		
Insufficient Water - Inefficient Use of Irrigation Water	1	Lagoon contents will provide limited source of moisture.
Insufficient Water - Inefficient Moisture Management	0	Not Applicable
<u>Water Quality Degradation</u>		
Pesticides in Surface Water	0	Not Applicable
Pesticides in Groundwater	0	Not Applicable
Nutrients in Surface water	4	Storage provides flexibility in rate, timing, and location of waste application, with the potential for reductions of contaminants available for transport.
Nutrients in Groundwater	2	There could be some increase in infiltration of soluble contaminants in the case of seepage.
Salts in Surface Water	2	Storage provides flexibility in rate, timing, and location of waste application, with the potential for reductions of contaminants available for transport.
Salts in Groundwater	1	Storage provides flexibility in rate, timing, and location of waste application; however, there could be some increase in infiltration of soluble contaminants at storage site.
Excess Pathogens and Chemicals from Manure, Bio-solic	4	Storage provides flexibility in rate, timing, and location of waste application, with the potential for reductions of contaminants available for transport.
Excess Pathogens and Chemicals from Manure, Bio-solic	2	Storage provides flexibility in rate, timing, and location of waste application, reducing the potential for pathogen contamination.. Increased infiltration of pathogens at storage site is possible. Treatment tends to encourage die-off of bacteria.

Excessive Sediment in Surface Water	0	Better timing of waste application due to storage will minimize risk of runoff.
Elevated Water Temperature	0	Not Applicable
Petroleum, Heavy Metals and Other Pollutants Transport	0	Not Applicable
Petroleum, Heavy Metals and Other Pollutants Transport	1	Heavy metals are rarely associated with manure; however, storage provides flexibility in rate, timing, and location of waste application. There could be some increase in infiltration of soluble contaminants at storage site.
<u>Air Quality Impacts</u>		
Emissions of Particulate Matter (PM) and PM Precursors	-1	Lagoons convert organic nitrogen to ammonia.
Emissions of Ozone Precursors	1	Properly functioning lagoons can reduce emissions of VOCs.
Emissions of Greenhouse Gases (GHGs)	-3	Anaerobic conditions create methane.
Objectionable Odors	-1	Type of lagoon and location will determine odor production, however, a correctly sited and managed facility will be relatively odor free.
<u>Degraded Plant Condition</u>		
Undesirable Plant Productivity and Health	2	Storage allows nutrient application at a rate, time, and location most suited to the plant needs.
Inadequate Structure and Composition	0	Not Applicable
Excessive Plant Pest Pressure	0	Not Applicable
Wildfire Hazard, Excessive Biomass Accumulation	0	Not Applicable
<u>Fish and Wildlife - Inadequate Habitat</u>		
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
<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	1	Use in concert with cover to capture methane
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>