

CONSERVATION PRACTICE PHYSICAL EFFECTS WORKSHEET

STATE	Nebraska	FIELD OFFICE	Any	DATE	12/27/2011
PRACTICE: Waste Facility Cover 367		Baseline Setting:			
		Appropriate Land Use(s): Headquarters			
RESOURCES, CONSIDERATIONS AND CONCERNS	PHYSICAL EFFECTS	RATIONALE			
SOIL - EROSION					
Sheet and Rill	Not Applicable	Not applicable.			
Wind	Not Applicable	Not applicable.			
Ephemeral Gully	Not Applicable	Not applicable.			
Classic Gully	Not Applicable	Not applicable.			
Streambank	Not Applicable	Not applicable.			
Shoreline	Not Applicable	Not applicable.			
Irrigation Induced	Not Applicable	Not applicable.			
Mass Movement	Not Applicable	Not applicable.			
Road, Roadsides, and Construction Sites	Not Applicable	Not applicable.			
SOIL – CONDITION					
Organic Matter Depletion	Not Applicable	Not applicable.			
Rangeland Site Stability	Not Applicable	Not applicable.			
Compaction	Not Applicable	Not applicable.			
Subsidence	Not Applicable	Not applicable.			
Contaminants:					
• Salts and other Chemicals	Not Applicable	Not applicable.			
• Animal Waste and other Organics - N	Neutral	Covered lagoons tend to have less opportunity for overflows.			
• Animal Waste and other Organics - P	Neutral	Covered lagoons tend to have less opportunity for overflows.			
• Animal Waste and other Organics - K	Neutral	Covered lagoons tend to have less opportunity for overflows.			
• Commercial Fertilizer - N	Neutral	Covered lagoons tend to have less opportunity for overflows.			
• Commercial Fertilizer – P	Neutral	Covered lagoons tend to have less opportunity for overflows.			
• Commercial Fertilizer – K	Neutral	Covered lagoons tend to have less opportunity for overflows.			
• Residual Pesticides	Not Applicable	Not applicable.			
Damage from Sediment Deposition	Not Applicable	Not applicable.			
WATER – QUANTITY					
Rangeland Hydrologic Cycle	Not Applicable	Not applicable.			
Excessive Seepage	Not Applicable	Not applicable.			
Excessive Runoff, Flooding, or Ponding	Slight Worsening	Excluded rainfall on pond will contribute to runoff.			
Excessive Subsurface Water	Not Applicable	Not applicable.			
Drifted Snow	Not Applicable	Not applicable.			
Inadequate Outlets	Not Applicable	Not applicable.			
Inefficient Water use on Irrigated Land	Not Applicable	Not applicable.			
Inefficient Water use on Non-Irrigated Land	Not Applicable	Not applicable.			
Reduced Capacity of Conveyances by Sediment Deposition	Not Applicable	Not applicable.			

Reduced Storage of Water Bodies by Sediment Accumulation	Not Applicable	Not applicable.
Aquifer Overdraft	Not Applicable	Not applicable.
Insufficient Flows in Water Courses	Neutral	Rainfall secluded from facility will add to runoff.
WATER – QUALITY		
In Groundwater:		
• Harmful Levels of Pesticides	Not Applicable	Not applicable.
• Excessive Nutrients and Organics	Not Applicable	Not applicable.
• Excessive Salinity	Not Applicable	Not applicable.
• Harmful Levels of Heavy Metals	Slight Improvement	Reduced opportunity for overflow due to rainfall exclusion will reduce opportunity for groundwater contamination.
• Harmful Levels of Pathogens	Slight Improvement	Reduced opportunity for overflow due to rainfall exclusion will reduce opportunity for groundwater contamination.
• Harmful Levels of Petroleum	Not Applicable	Not applicable.
In Surface Water:		
• Harmful Levels of Pesticides	Not Applicable	Not applicable.
• Excessive Nutrients and Organics	Not Applicable	Not applicable.
• Excessive Suspended Sediment and Turbidity	Not Applicable	Not applicable.
• Excessive Salinity	Neutral	Exclusion of rainfall on the facility will reduce incidence of overflow and associated contaminants.
• Harmful Levels of Heavy Metals	Slight Improvement	Exclusion of rainfall on the facility will reduce incidents of manure overflow and associated contaminants.
• Harmful Temperatures	Not Applicable	Not applicable.
• Harmful Levels of Pathogens	Neutral	Exclusion of rainfall on the facility will reduce incidence of overflow and associated contaminants.
• Harmful Levels of Petroleum	Not Applicable	Not applicable.
AIR – QUALITY		
Particulate Matter less than 10 Micrometers in Diameter (PM 10)	Not Applicable	Not applicable.
Particulate Matter less than 2.5 Micrometers in Diameter (PM 2.5)	Not Applicable	Not applicable.
Excessive Ozone	Neutral	There is a decrease in potential ozone precursor emissions.
Excessive Greenhouse Gas:		
• CO ₂ (Carbon Dioxide)	Neutral	Anaerobic conditions, which are promoted by covering, provide for a temporary sequestration of carbon, however, stored carbon will be released as CO ₂ if material is burned.

• N ₂ O (Nitrous Oxide)	Neutral	Not applicable.
• CH ₄ (Methane)	Slight to Moderate Improvement	Methane releases may be contained with cover and converted to CO ₂ with combustion.
Ammonia (NH ₃)	Slight to Moderate Improvement	Proper nutrient management reduces NH ₃ production.
Chemical Drift	Not Applicable	Not applicable.
Objectionable Odors	Slight to Moderate Improvement	Cover will reduce/eliminate volatilization of materials.
Reduced Visibility	Not Applicable	Not applicable.
Undesirable Air Movement	Not Applicable	Not applicable.
Adverse Air Temperature	Not Applicable	Not applicable.
PLANTS – SUITABILITY		
Plants not Adapted or Suited	Not Applicable	Not applicable.
PLANTS - CONDITION		
Productivity, Health, and Vigor	Not Applicable	Not applicable.
Threatened or Endangered Plant Species:		
• Plant Species Listed or Proposed for Listing Under the Endangered Species Act	Not Applicable	Not applicable.
• Declining Species, Species of Concern	Not Applicable	Not applicable.
Noxious and Invasive Plants	Not Applicable	Not applicable.
Forage Quality and Palatability	Not Applicable	Not applicable.
Wildfire Hazard	Not Applicable	Not applicable.
ANIMALS - FISH AND WILDLIFE		
Inadequate Food	Not Applicable	Not applicable.
Inadequate Cover/Shelter	Not Applicable	Not applicable.
Inadequate Water	Not Applicable	Not applicable.
Inadequate Space	Not Applicable	Not applicable.
Habitat Fragmentation	Not Applicable	Not applicable.
Imbalance Among and Within Populations	Not Applicable	Not applicable.
Threatened and Endangered Fish and Wildlife Species:		
• Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act	Not Applicable	Not applicable.
• Declining Species, Species of Concern	Not Applicable	Not applicable.
ANIMALS – DOMESTIC		
Inadequate Quantities and Quality of Feed and Forage	Not Applicable	Not applicable.
Inadequate Shelter	Not Applicable	Not applicable.
Inadequate Stock Water	Not Applicable	Not applicable.
Stress and Mortality	Not Applicable	Not applicable.
HUMAN – ECONOMICS		
Land - Change in Land Use	Not applicable.	Not applicable.
Land – Land in Production	Not applicable.	Not applicable.
Capital – Change in Equipment	Moderate to substantial increase.	

Capital - Total Investment Cost	Substantial.	Substantial.
Capital – Annual Cost	Slight to moderate.	
Capital – Credit and Farm Program Eligibility	Situational.	
Labor - Labor	Negligible to slight.	
Labor – Change in Management Level	Slight to moderate increase.	
Risk - Yield	Not applicable.	Not applicable.
Risk - Flexibility	Not applicable.	Not applicable.
Risk - Timing	Not applicable.	Not applicable.
Risk – Cash Flow	Moderate Decrease	Situational. Negligible to moderate decrease in risk due to management of biogas.
Profitability – Change in Profitability	Moderate Increase	Situational. Negligible to moderate increase in profitability where biogas is put to profitable use.
HUMAN - CULTURAL		
Cultural Resources and/or Historic Properties Present or Suspected to be PRESENT	Not applicable.	Not applicable.
HUMAN – ENERGY		
Depletion of Fossil Fuel Resources	Not Applicable	Not Applicable
Underutilization of Non-Fossil Energy Resources	Slight to Substantial Decrease	Practice facilitates methane collection for renewable fuel use.

Human Considerations Explanation

Considerations	Physical effects indicate:
Land - Change in Land Use	The degree to which implementing the conservation practice is expected to cause a change from one land use to another.
Land - Land in Production	The degree to which implementing the conservation practice is expected to cause an increase or decrease in the amount of land in production.
Capital - Change in Equipment	The degree to which implementing the conservation practice is expected to cause an increase or decrease in the amount of capital equipment required for farm or ranch operations.
Capital - Total Investment Cost	A qualitative measure of the increase in total investment dollars required in order to implement the conservation practice.
Capital - Annual Cost	A qualitative measure of the expected change in annual capital costs required in order to operate and maintain the conservation practice.
Capital - Credit & Farm Program Eligibility	Included to make conservation planners aware of the potential availability of funding for implementing conservation practices.
Labor – Labor	The degree to which implementing the conservation practice is likely to cause an increase or decrease in the total amount of overall farm or ranch labor required for operations.
Labor - Change in Management Level	The degree to which implementing the conservation practice is likely to cause an increase or decrease in the total amount of required active management on a farm or ranch.
Risk – Yield	The degree to which risk, as related to crop or livestock yields, is expected to increase or decrease as a result of implementing the conservation practice.
Risk – Flexibility	The degree to which risk, as related to the flexibility of farm or ranch operations, is expected to increase or decrease as a result of implementing the conservation practice. For example, converting from flood irrigation to a sprinkler system gives a farmer an increase in flexibility of irrigation, which results in a decrease in the level of risk associated with inflexibility of operations.
Risk – Timing	The degree to which risk, as related to the timing of farm or ranch operations, is expected to increase or decrease as a result of implementing the conservation practice.
Risk - Cash Flow	The degree to which risk, as related to cash flow in farm or ranch operations, is expected to increase or decrease as a result of implementing the conservation practice.
Profitability - Change in Profitability	The degree to which farm or ranch profitability is expected to increase or decrease as a result of implementing the conservation practice.
Cultural Resources and/or Historic Properties Present or Suspected to be Present	The degree to which implementation of the conservation practice is expected to increase or decrease the risk of cultural resource disturbance, degradation, or loss.
Depletion of Fossil Fuel Resources	Inefficient use of fossil-originated energy sources (diesel, gasoline, propane, natural gas, coal), lubricants, and other materials.
Underutilization of Non-Fossil Energy Sources	Available and cost-effective alternative energy sources (solar, wind, biofuel, hydroelectric, geothermal) are not being used or are being used inefficiently.