

CONSERVATION PRACTICE PHYSICAL EFFECTS WORKSHEET

STATE	Oklahoma	FIELD OFFICE		DATE	10/22/07
PRACTICE: Land Reclamation, Landslide Treatment 453		Baseline Setting:			
		Appropriate Land Use(s): Forest, Grazed Forest, Grazed Range, Headquarters, Mined, Native or Naturalized Pasture, Natural Area, Pasture, Recreation, Urban, Watershed Protection, Wildlife			
RESOURCES, CONSIDERATIONS AND CONCERNS		PHYSICAL EFFECTS		RATIONALE	
SOIL - EROSION					
Sheet and Rill		Slight to Moderate Improvement		The establishment of vigorous vegetative cover will reduce erosion from water.	
Wind		Slight to Moderate Improvement		The establishment of vigorous vegetative cover will reduce erosion from wind.	
Ephemeral Gully		Slight to Moderate Improvement		The establishment of vigorous vegetative cover will reduce erosion from water.	
Classic Gully		Not Applicable		Not applicable.	
Streambank		Not Applicable		Not applicable.	
Shoreline		Not Applicable		Not applicable.	
Irrigation Induced		Not Applicable		Not applicable.	
Mass Movement		Slight to Substantial Improvement		The action will increase vegetation, water management and stabilization of slopes.	
Road, Roadsides, and Construction Sites		Slight to Substantial Improvement		The action will increase vegetation, water management and stabilization of slopes.	
SOIL – CONDITION					
Organic Matter Depletion		Slight to Substantial Improvement		Site modifications including vegetation establishment increases on-site organic matter.	
Rangeland Site Stability		Not Applicable		Not applicable.	
Compaction		Neutral		Site modifications may include revegetation or other features that impact compaction.	
Subsidence		Not Applicable		Not applicable.	
Contaminants:					
• Salts and other Chemicals		Neutral		In some cases the loose talus may contain salts or other material that must be removed to re-establish vegetation.	
• Animal Waste and other Organics - N		Not Applicable		Not applicable.	
• Animal Waste and other Organics - P		Not Applicable		Not applicable.	
• Animal Waste and other Organics - K		Not Applicable		Not applicable.	
• Commercial Fertilizer - N		Not Applicable		Not applicable.	
• Commercial Fertilizer - P		Not Applicable		Not applicable.	
• Commercial Fertilizer - K		Not Applicable		Not applicable.	
• Residual Pesticides		Not Applicable		Not applicable.	

Damage from Sediment Deposition	Moderate to Substantial Improvement	The action is designed to reduce sedimentation from land slides.
WATER – QUANTITY		
Rangeland Hydrologic Cycle	Not Applicable	Not applicable.
Excessive Seepage	Slight to Substantial Improvement	Removal of water to stabilize slopes reduces seepage.
Excessive Runoff, Flooding, or Ponding	Not Applicable	Not applicable.
Excessive Subsurface Water	Slight to Substantial Improvement	Removal of water to stabilize slopes reduces seepage.
Drifted Snow	Not Applicable	Not applicable.
Inadequate Outlets	Slight Improvement	Water control measures will reduce runoff.
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	Slight to Moderate Improvement	Increased stability will reduce erosion and sediment load.
Reduced Storage of Water Bodies by Sediment Accumulation	Slight to Moderate Improvement	Increased stability will reduce erosion and sediment load.
Aquifer Overdraft	Not Applicable	Not applicable.
Insufficient Flows in Water Courses	Not Applicable	Not applicable.
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	Not Applicable	Not applicable.
• Harmful Levels of Pathogens	Not Applicable	Not applicable.
• 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	Moderate to Substantial Improvement	Erosion control and increased cover will reduce runoff and sediment.
• Excessive Salinity	Not Applicable	Not applicable.
• Harmful Levels of Heavy Metals	Moderate to Substantial Improvement	Increased vegetation increases infiltration and reduces runoff and erosion.
• Harmful Temperatures	Not Applicable	Not applicable.
• Harmful Levels of Pathogens	Slight Improvement	Because of increased cover and reduced infiltration
• Harmful Levels of Petroleum	Slight Improvement	Because of increased cover and reduced infiltration
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 short-term increase in motor vehicle emissions from

		equipment. There is a minimal reduction of ozone precursors through reduced surface temperatures offered by shade or ground cover, and minimal biofiltering of ozone concentrations due to interception by vegetation.
Excessive Greenhouse Gas:		
• CO ₂ (Carbon Dioxide)	Neutral	If used, vegetation removes CO ₂ from the air and stores it in the form of carbon in the plants and soil.
• N ₂ O (Nitrous Oxide)	Not Applicable	Not applicable.
• CH ₄ (Methane)	Not Applicable	Not applicable.
Ammonia (NH ₃)	Not Applicable	Not applicable.
Chemical Drift	Not Applicable	Not applicable.
Objectionable Odors	Not Applicable	Not applicable.
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	Substantial Improvement	When species are selected for stabilization, they are adapted and suited.
PLANTS - CONDITION		
Productivity, Health, and Vigor	Moderate to Substantial Improvement	Vegetative cover species will be selected and maintained at optimal conditions for the intended purpose.
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	Moderate to Substantial Improvement	Vegetation is installed and managed to control undesired species.
Forage Quality and Palatability	Not Applicable	Not applicable.
Wildfire Hazard	Not Applicable	Not applicable.
ANIMALS - FISH AND WILDLIFE		
Inadequate Food	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides more food for wildlife.
Inadequate Cover/Shelter	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides more food for wildlife.
Inadequate Water	Not Applicable	Not applicable.
Inadequate Space	Not Applicable	Not applicable.
Habitat Fragmentation	Not Applicable	Not applicable.
Imbalance Among and Within	Not Applicable	Not applicable.

Populations		
Threatened and Endangered Fish and Wildlife Species:		
<ul style="list-style-type: none"> Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act 	Neutral	Activities are designed, installed, and mitigated to an extent to maintain or enhance species of concern.
<ul style="list-style-type: none"> Declining Species, Species of Concern 	Neutral	Activities are designed, installed, and mitigated to an extent to maintain or enhance species of concern.
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.	
Capital – Annual Cost	Not applicable.	Not applicable
Capital – Credit and Farm Program Eligibility	Situational.	
Labor - Labor	Moderate to substantial increase.	
Labor – Change in Management Level	Moderate to substantial increase.	
Risk - Yield	Not applicable.	Not applicable.
Risk - Flexibility	Substantial Decrease	Substantial decrease in risk due to improved public safety and environment.
Risk - Timing	Substantial Increase	Substantial increase - practice must be applied to eliminate hazards.
Risk – Cash Flow	Moderate to Substantial Increase	Moderate to substantial increase due to design considerations.
Profitability – Change in Profitability	Situational	Substantial decrease or increase.
HUMAN - CULTURAL		
Cultural Resources and/or Historic Properties Present or Suspected to be PRESENT	Slight to Substantial Increase	Construction impacts (mechanical).
HUMAN – ENERGY		
Depletion of Fossil Fuel Resources	Not Applicable	Not Applicable
Underutilization of Non-Fossil Energy Resources	Not Applicable	Not Applicable

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.