

CONSERVATION PRACTICE PHYSICAL EFFECTS WORKSHEET

STATE	Pennsylvania	FIELD OFFICE	Any	DATE	
PRACTICE: Recreation Trail and Walkway 568		Baseline Setting:			
		Appropriate Land Use(s): Forest, Grazed Forest, Grazed Range, Native or Naturalized Pasture, Natural Area, Recreation, Water, Watershed Protection, Wildlife			
RESOURCES, CONSIDERATIONS AND CONCERNS		PHYSICAL EFFECTS		RATIONALE	
SOIL - EROSION					
Sheet and Rill		Neutral		Pathways may direct travel away from erosion prone areas.	
Wind		Neutral		Pathways may direct travel away from erosion prone areas.	
Ephemeral Gully		Neutral		Pathways may direct travel away from erosion prone areas.	
Classic Gully		Moderate to Substantial Improvement		Recreational traffic is diverted away from problem area and can facilitate healing of gully.	
Streambank		Slight to Substantial Improvement		Recreational traffic is diverted away from problem area and can facilitate healing.	
Shoreline		Slight to Substantial Improvement		Recreational traffic is diverted away from problem area and can facilitate healing.	
Irrigation Induced		Not Applicable		Not applicable.	
Mass Movement		Slight Improvement		Directing Recreational traffic away from sensitive area will promote vegetative cover.	
Road, Roadsides, and Construction Sites		Slight to Substantial Improvement		Directing Recreational traffic away from sensitive area will promote vegetative cover.	
SOIL – CONDITION					
Organic Matter Depletion		Not Applicable		Not applicable.	
Rangeland Site Stability		Not Applicable		Not applicable.	
Compaction		Slight to Moderate Improvement		Controlled traffic confines compaction to a more limited area.	
Subsidence		Not Applicable		Not applicable.	
Contaminants:					
• Salts and other Chemicals		Not Applicable		Not applicable.	
• 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		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 to Moderate Improvement	Managed Recreational traffic increases vegetative cover.
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	Slight Improvement	Managed Recreational traffic increases vegetative cover.
Reduced Capacity of Conveyances by Sediment Deposition	Slight to Moderate Improvement	Managed Recreational traffic increases vegetative cover and improves erosion control.
Reduced Storage of Water Bodies by Sediment Accumulation	Slight to Moderate Improvement	Managed Recreational traffic increases vegetative cover and improves erosion control.
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	Slight to Moderate Improvement	Suspended sediment and turbidity in surface water will decrease due to controlled traffic and reduced erosion
• Excessive Salinity	Not Applicable	Not applicable.
• Harmful Levels of Heavy Metals	Not Applicable	Not applicable.
• Harmful Temperatures	Not Applicable	Not applicable.
• Harmful Levels of Pathogens	Slight to Moderate Worsening	The risk of increasing pathogens in surface water may increase due to heavy equestrian traffic in close proximity to water bodies
• Harmful Levels of Petroleum	Neutral	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	Not Applicable	Not applicable.
Excessive Greenhouse Gas:		
• CO ₂ (Carbon Dioxide)	Not Applicable	Not applicable.
• 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	Slight Improvement	Trails are surfaced or maintained to decrease dust.
Undesirable Air Movement	Not Applicable	Not applicable.
Adverse Air Temperature	Not Applicable	Not applicable.
PLANTS – SUITABILITY		
Plants not Adapted or Suited	Substantial Improvement	Adapted and suited species are selected for this practice for erosion control.
PLANTS - CONDITION		
Productivity, Health, and Vigor	Moderate to Substantial Improvement	When species are selected, they will be 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	Neutral	When threatened or endangered plants are present, protection and recovery are addressed in the planning process.
• Declining Species, Species of Concern	Neutral	When threatened or endangered plants are present, protection and recovery are addressed in the planning process.
Noxious and Invasive Plants	Slight Worsening	Trails may provide an environment for weeds.
Forage Quality and Palatability	Not Applicable	Not applicable.
Wildfire Hazard	Slight to Moderate Improvement	Trails provide firebreaks and access to sites for fuel reduction activities.
ANIMALS - FISH AND WILDLIFE		
Inadequate Food	Slight to Moderate Worsening	Construction and maintenance activities eliminate or reduce food species.
Inadequate Cover/Shelter	Slight to Moderate Worsening	Construction and maintenance activities eliminate or reduce cover/shelter.
Inadequate Water	Not Applicable	Not applicable.
Inadequate Space	Slight to Moderate Worsening	Increased recreation use and disturbance reduces habitat availability.
Habitat Fragmentation	Slight Worsening	Recreational use generally increases disturbance and fragmentation to plant communities.
Imbalance Among and Within Populations	Not Applicable	Not applicable.
Threatened and Endangered Fish and Wildlife Species:		
• Fish and Wildlife Species Listed or	Neutral	Activities are designed,

Proposed for Listing Under the Endangered Species Act		installed, and mitigated to an extent to maintain or enhance species of concern.
• 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	Substantial	Substantial, cropland converted to walkway.
Land – Land in Production	Slight decrease	Slight decrease, if land taken out of production.
Capital – Change in Equipment	Moderate increase.	
Capital - Total Investment Cost	Substantial.	Substantial.
Capital – Annual Cost	Slight increase.	
Capital – Credit and Farm Program Eligibility	Situational.	
Labor - Labor	Negligible	
Labor – Change in Management Level	Negligible	
Risk - Yield	Not applicable.	Not applicable.
Risk - Flexibility	Not applicable.	Not applicable.
Risk - Timing	Not applicable.	Not applicable.
Risk – Cash Flow	Slight Increase	Slight increase because of construction costs.
Profitability – Change in Profitability	Situational	Slight decrease to moderate increase.
HUMAN - CULTURAL		
Cultural Resources and/or Historic Properties Present or Suspected to be PRESENT	Slight to Substantial Increase	Construction impacts (mechanical); increased access and impacts from people.
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.