

## CONSERVATION PRACTICE PHYSICAL EFFECTS WORKSHEET

STATE	Pennsylvania	FIELD OFFICE	Any	DATE	
<b>PRACTICE: Clearing &amp; Snagging 326</b>		Baseline Setting:			
		Appropriate Land Use(s): All Land Uses			
<b>RESOURCES, CONSIDERATIONS AND CONCERNS</b>		<b>PHYSICAL EFFECTS</b>		<b>RATIONALE</b>	
<b>SOIL - EROSION</b>					
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		Slight to Substantial Improvement		Removal of undesirable obstructions will prevent bank erosion by eddies.	
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.	
<b>SOIL – CONDITION</b>					
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		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.	
<b>WATER – QUANTITY</b>					
Rangeland Hydrologic Cycle		Not Applicable		Not applicable.	
Excessive Seepage		Not Applicable		Not applicable.	
Excessive Runoff, Flooding, or Ponding		Slight to Moderate Improvement		Removal of obstructions will reduce flooding.	
Excessive Subsurface Water		Not Applicable		Not applicable.	
Drifted Snow		Not Applicable		Not applicable.	
Inadequate Outlets		Slight to Moderate Improvement		Clearing of obstructions will help restore flow capacity.	
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		Removal of obstructions can help reduce the formation of	

		bars; and/or minimize blockages by debris and ice.
Reduced Storage of Water Bodies by Sediment Accumulation	Slight to Moderate Improvement	Removal of obstructions can help reduce the formation of bars; and/or minimize blockages by debris and ice.
Aquifer Overdraft	Not Applicable	Not applicable.
Insufficient Flows in Water Courses	Not Applicable	Not applicable.
<b>WATER – QUALITY</b>		
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 Worsening	Removal of snags or large wood reduces deposition of sediments.
• Excessive Salinity	Not Applicable	Not applicable.
• Harmful Levels of Heavy Metals	Not Applicable	Not applicable.
• Harmful Temperatures	Slight Worsening	Removal of shade-producing canopy will lead to an increase in surface water temperature, especially during low flows.
• Harmful Levels of Pathogens	Not Applicable	Not applicable.
• Harmful Levels of Petroleum	Not Applicable	Not applicable.
<b>AIR – QUALITY</b>		
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 <sub>2</sub> (Carbon Dioxide)	Not Applicable	Not applicable.
• N <sub>2</sub> O (Nitrous Oxide)	Not Applicable	Not applicable.
• CH <sub>4</sub> (Methane)	Not Applicable	Not applicable.
Ammonia (NH <sub>3</sub> )	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.
<b>PLANTS – SUITABILITY</b>		
Plants not Adapted or Suited	Not Applicable	Not applicable.
<b>PLANTS - CONDITION</b>		

Productivity, Health, and Vigor	Not Applicable	Not applicable.
Threatened or Endangered Plant Species:		
<ul style="list-style-type: none"> <li>Plant Species Listed or Proposed for Listing Under the Endangered Species Act</li> </ul>	Not Applicable	Not applicable.
<ul style="list-style-type: none"> <li>Declining Species, Species of Concern</li> </ul>	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.
<b>ANIMALS - FISH AND WILDLIFE</b>		
Inadequate Food	Slight to Moderate Worsening	Depending on species, availability of food sources may be lost with removal of instream materials.
Inadequate Cover/Shelter	Slight to Moderate Worsening	Depending on species, availability of cover will be lost with removal of instream materials.
Inadequate Water	Slight Worsening	Clearing of bank vegetation and instream wood generally increases flow velocities and decreases slow-water habitat complexity.
Inadequate Space	Slight to Moderate Worsening	Removing woody debris from stream reduces aquatic habitat.
Habitat Fragmentation	Slight to Moderate Worsening	Removal of wood fragments aquatic habitats.
Imbalance Among and Within Populations	Not Applicable	Not applicable.
Threatened and Endangered Fish and Wildlife Species:		
<ul style="list-style-type: none"> <li>Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act</li> </ul>	Neutral	Activities are designed, installed, and mitigated to an extent to maintain or enhance species of concern.
<ul style="list-style-type: none"> <li>Declining Species, Species of Concern</li> </ul>	Neutral	Activities are designed, installed, and mitigated to an extent to maintain or enhance species of concern.
<b>ANIMALS – DOMESTIC</b>		
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.
<b>HUMAN – ECONOMICS</b>		
Land - Change in Land Use	Not applicable.	Not applicable.
Land – Land in Production	Slight decrease	Slight short-term decrease, debris placed on farmland.
Capital – Change in Equipment	Moderate increase.	
Capital - Total Investment Cost	Substantial.	

Capital – Annual Cost	Moderate increase.	
Capital – Credit and Farm Program Eligibility	Situational.	
Labor - Labor	Substantial increase	Substantial increase during establishment.
Labor – Change in Management Level	Moderate increase.	
Risk - Yield	Not applicable.	Not applicable.
Risk - Flexibility	Not applicable.	Not applicable.
Risk - Timing	Not applicable.	Not applicable.
Risk – Cash Flow	Substantial Increase	Substantial increase due to application costs.
Profitability – Change in Profitability	Slight to moderate decrease.	
<b>HUMAN - CULTURAL</b>		
Cultural Resources and/or Historic Properties Present or Suspected to be PRESENT	Slight to Substantial Increase	Mechanical removal impacts.
<b>HUMAN – ENERGY</b>		
Depletion of Fossil Fuel Resources	No Effect	Implementing this practice requires energy. Energy efficiency depends on the method of practice implementation.
Underutilization of Non-Fossil Energy Resources	Not Applicable	Not applicable.

## Human Considerations Explanation

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