**Conservation Practice Effects**

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| **Rock Barrier (Ac) 555**  **Definition: A rock retaining wall constructed across the slope to form and support a bench terrace that will control the flow of water and check erosion on sloping land.**  **Major Resource Concerns Addressed: Surface water quality, soil erosion.**  **Benchmark Condition: Concentrated water flow off steep field.**  **Date: October, 2016 Developer/Location: Hal Gordon, OR** | |
| **Positive Effects** | **Negative Effects** |
| **Soil**   * **Sheet, rill, streambank and gully erosion is reduced by shorting slope length.**   **Water**   * **Reduced sediment in runoff water.** * **Barrier will act as drain and may reduce seeps and seasonal high water table.** * **The barrier will trap snow upwind of structures and animal concentration areas.** * **Increase infiltration of water and dissolved chemicals, pathogens and agricultural chemicals to protect surface water.**   **Air**   * **Terracing promotes vegetative growth that removes CO2 from the air and stores it in the form of carbon in the plants and soil.**   **Plants**   * **Reduced erosion will enhance the health and vigor of desired species.**   **Animals**   * **No change.**   **Human**   * **Reduced labor managing sediment.** * **Create sustainability of natural resources that support your business.** * **Increase the property value (real estate) of your property.** * **Conserve soil and water for periods of drought and future use.** * **Prevent off-site negative impacts.** * **Comply with environmental regulations.** * **Save time, money and labor.** * **Promote family health and safety.** * **Make land more attractive and promote good stewardship.** * **May be eligible for cost share.** | **Land**   * **May damage cultural resources if in construction area.** * **Some land may be taken out of agricultural production or stabilize steep land and bring land into production.**   **Capital**   * **No change in field equipment.** * **Materials & construction costs.** * **Annual operation and maintenance costs to maintain barriers and structures.**   **Labor**   * **No change.**   **Management**   * **No change.**   **Risk**   * **Increase infiltration of water and dissolved chemicals, pathogens and agricultural chemicals may damage ground water.** |
| **Net Effect: Improves surface water quality and soil productivity at a low cost.** | |

**Commonly Associated Practices:** Conservation Crop Rotation, Diversion, Grassed Waterway, Integrated Pest Management, Land Reclamation, Abandoned Mined Land, Land Reclamation, Currently Mined Land, Land Reclamation, Landslide Treatment, Lined Waterway or Outlet, Nutrient Management, Residue and Tillage Management-Mulch Till, Residue and Tillage Management-No Till/Strip Till/Direct Seed, Residue and Tillage Management-Ridge Till, Residue Management, Seasonal, Underground Outlet.

**Note:** This worksheet contains general talking points for the conservation planner to discuss with the land user. It is the first step towards an economic or financial analysis. The second step would include identifying a specific site for analysis at the farm or field level, editing the template for local conditions, adding units and quantities of farm inputs and outputs. The third step in the economic analysis is to place a dollar value on as many variables as possible, put all units in the same time frame, using amortization ($/Acres/Year) or net present value ($/Acre), so benefits and costs can be compared. The fourth and final step would be to combine several conservation practices into a conservation system, which is how most conservation practices are applied at the field level. Data for the worksheet comes from the land user, conservation planner, technical specialist and local agricultural supply vendors and contractors. See Economics Technical Note: TN 200-ECN-1, Basic Economic Analysis Using T-Charts (August 2013) for more information.