**Conservation Practice Effects**

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| **Vegetative Barrier (Ac) 601**  **Definition: Permanent strips of stiff, dense vegetation established along the general contour of slopes or across concentrated flow areas.**  **Major Resource Concerns Addressed: Waste runoff, water quality.**  **Benchmark Condition: Livestock winter feeding and loafing area.**  **Date: October, 2016 Developer/Location: Hal Gordon, OR** | |
| **Positive Effects** | **Negative Effects** |
| **Soil**   * **Sheet, rill, wind and gulley erosion is reduced by stiff-stemmed vegetation planted along the contour or across areas of concentrated flow increasing infiltration.**   **Water**   * **Reduced runoff and erosion and traps adsorbed pesticides, nutrients and agricultural chemicals.** * **Soluble organics infiltrate into the soil and may be taken up by plants and soil organisms.** * **Vegetative barriers capture sediment-bound pathogens and retard pathogen movement, allowing more time for mortality to occur before pathogens can reach water bodies.** * **Vegetation slows runoff, filters water, and increases infiltration.**   **Air**   * **Vegetation removes CO2 from the air and stores it in the form of carbon in the plants and soil.**   **Plants**   * **Reduced erosion and improved water management creates site conditions favorable to plant health and productivity.**   **Animals**   * **Wildlife habitat/food species can be included in the barrier.** * **The barrier provides cover, space and habitat for some species.** * **Fish and wildlife habitat/water will be improved by the filtering functions of the barriers.**   **Energy**   * **None**   **Human**   * **Stabilizing steep land and bringing land into production.** * **Increase yields/reduce costs as land becomes more productive.** * **Create sustainability of natural resources that support your business.** * **Increase the property value (real estate) of your property.** * **Create open space and improve habitat for wildlife.** * **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.** * **Increased profitability in the long run.** | **Land**   * **Historic properties may be protected by erosion reduction.** * **Minimal land taken out of agricultural production, some land may be brought into production.**   **Capital**   * **No additional field equipment required.** * **Installation equipment costs.** * **Materials and planting costs.** * **Annual operation and maintenance costs to maintain control barrier.**   **Labor**   * **Increase in labor to remove sediment and maintain vegetation.**   **Management**   * **No Change.**   **Risk**   * **Over time salts are collected or redistributed within a field due to seepage, if present.** |
| **Net Effect: Improved water quality and reduced erosion at a moderate cost.** | |

**Commonly Associated Practices:** Conservation Crop Rotation, Contour Farming, Integrated Pest Management, 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.

**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.