**Conservation Practice Effects**

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| **Hillside Ditch (Ft) 423****Definition: A channel that has a supporting ridge on the lower side constructed across the slope at definite vertical intervals and gradient, with or without a vegetative barrier.****Major Resource Concerns Addressed: Water quantity.****Benchmark Condition: Hillside irrigated pasture.****Date: October, 2016 Developer/Location: Hal Gordon, OR** |
| **Positive Effects** | **Negative Effects** |
| **Soil*** **Diverts damaging runoff and shortens slope length, reduces soil erosion.**
* **Diverts damaging runoff to a protected outlet.**
* **Diverts overland flow that may reach streambanks.**

**Water*** **Reduced flood damages.**
* **Increased irrigation efficiency.**
* **Collects and slows run-off to a non-erosive velocity and conveys safe outlet.**
* **May provide outlet for seepage.**
* **Diverts water from the pesticide application site.**

**Air*** **No effect.**

**Plants*** **Diverting runoff and reducing erosion will enhance the health and vigor of desired species.**
* **May increase crop yields or bring land into crop production.**
* **Compliments other enterprises, allows earlier access or longer season of use.**

**Animals*** **Water will be temporarily available in the ditch for wildlife and livestock.**

**Energy*** **No Effect.**

**Human*** **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*** **Slight change in landuse, minor amount of land taken out of agricultural production.**

**Capital*** **Some water management equipment required, installation equipment needed.**
* **Operation and maintenance costs to keep ditch clear and surfaced.**

**Labor*** **Additional labor to maintain ditch, less irrigation labor may be required.**

**Management*** **Increase in water planning and management costs.**

**Risk*** **Increases infiltration which may provide transport for nutrients to groundwater.**
* **Collects runoff and delivers possible nutrients, pesticides, pathogens or manure to surface water.**
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| **Net Effect: Reduces flood damages, erosion and sedimentation at a moderate cost.** |

**Commonly Associated Practices:** Brush Management, Clearing & Snagging, Conservation Cover, Contour Buffer Strips, Contour Orchard and Other Perennial Crops, Critical Area Planting, Grassed Waterway, Land Reclamation, Abandoned Mined Land, Land Reclamation, Currently Mined Land, Land Reclamation, Landslide Treatment, Lined Waterway or Outlet, Vegetative Barrier.

**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.