**Conservation Practice Effects**

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| **Bedding (Ac) 310****Definition: Plowing, blading, or otherwise elevating the surface of flat land into a series of broad, low ridges separated by shallow, parallel channels with positive drainage.****Major Resource Concerns Addressed: Plant productivity.****Benchmark Condition: Furrow irrigated onions with ponding water.****Date: October, 2016 Developer/Location: Hal Gordon, OR** |
| **Positive Effects** | **Negative Effects** |
| **Soil*** **If beds are oriented across the prevailing wind erosion direction, wind erosion may be reduced.**

**Water*** **Reduced ponding on field.**
* **Water is conveyed offsite during periods of excess moisture.**
* **Improved surface drainage promotes surface runoff, reduces infiltration and reduces nutrients and chemicals in groundwater.**

**Air*** **None**

**Plants*** **Improved drainage can enhance plant health and vigor.**
* **Increase in crop yields by creating more productive growing conditions for a wider variety of crops.**

**Animals*** **None**

**Energy*** **None**

**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.**
* **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*** **No change in land use or land in production.**

**Capital*** **Some earth-moving field equipment required.**
* **No annual operation and maintenance costs.**

**Labor*** **Slight increase in field operation labor.**

**Management*** **Increase in developing crop management plans.**

**Risk*** **Increase in sheet, rill or furrow erosion with erosive irrigation water velocities.**
* **Movement of soils during construction and maintenance causes oxidation of the organic matter.**
* **Equipment movement during construction and maintenance may cause soil compaction.**
* **May reduce soil moisture.**
* **Improved surface drainage increases surface runoff of pathogens, pesticides, nutrients, salts, chemicals and manure.**
* **Increased surface water movement carries sediment to waterways.**
* **Intensive tillage can increase emissions of particulate matter and ozone precursors.**
* **Intensive tillage can release stored soil carbon as carbon dioxide.**
* **Undesired plants can colonize bedded areas.**
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| **Net Effect: Improved plant productivity at a minimal cost.** |

**Commonly Associated Practices:** Constructed Wetland, Contour Buffer Strips, Filter Strip, Integrated Pest Management, Sediment Basin, Tree/Shrub Establishment, Tree/Shrub Site Preparation, Water and Sediment Control Basin

**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.