**Conservation Practice Effects**

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| **Wetland Creation (No) 658**  **Definition: The creation of a wetland on a site location that was historically non-wetland.**  **Major Resource Concerns Addressed: Wildlife habitat, off-site flooding.**  **Benchmark Condition: Farmland that is often flooded.**  **Date: October, 2016 Developer/Location: Hal Gordon, OR** | |
| **Positive Effects** | **Negative Effects** |
| **Soil**   * **Water ponding promotes growth of wetland vegetation and reduces decomposition of soil organic matter.**   **Water**   * **Provides temporary flood storage reducing flooding and ponding.** * **Increases infiltration to subsurface water, springs and seeps.** * **Captures pesticides, nutrients, sediment, pathogens and facilitates their degradation protecting surface and ground water.** * **Lower offsite surface water temperatures with improved hydrological conditions.** * **Vegetation and anaerobic conditions trap heavy metals.**   **Air**   * **The accumulation of organic matter and sediments sequester carbon.**   **Plants**   * **Wetland plants are selected and managed to maintain optimal productivity and health.** * **Vegetation is installed and managed to control undesired species.**   **Animals**   * **Improved fish and wildlife habitat, food, cover and shelter.** * **Created wetlands will benefit some species, but their creation can alter hydrology of the area.** * **Feed and forage for livestock may be created.**   **Energy**   * **None**   **Human**   * **Improved recreational opportunities.** * **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.** * **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**   * **Cultural resources may be flooded.** * **Convert agricultural land to wetland, change in land use and land in production.**   **Capital**   * **No additional field equipment required, some installation equipment required.** * **Materials, on-site equipment, planting costs.** * **Maintain vegetation, water control structures and manage pests.** * **Foregone income from lost production or change in seasonal use.**   **Labor**   * **Decrease in labor with land taken out of production.**   **Management**   * **Develop water, pest and wildlife management plans.**   **Risk**   * **Increase in wildlife populations may encourage unlawful trespass and property damages.** * **Reduced farm flexibility when land is taken out of production.** * **Lost crop/forage production.** * **Reduced cash flow** * **High implementation costs, a facilitating practice that may make other activities more profitable.** * **Anaerobic conditions can promote the generation of methane, hydrogen sulfide and other odorous compounds.** |
| **Net Effect: Improved wildlife habitat, reduced flooding, at a significant cost.** | |

**Commonly Associated Practices:** Access Control , Aquatic Organism Passage , Dike, Grade Stabilization Structure, Pond, Pond Sealing or Lining, Bentonite Sealant, Pond Sealing or Lining, Compacted Clay Treatment, Pond Sealing or Lining-Flexible Membrane, Pond Sealing or Lining-Soil Dispersant, Structure for Water Control, Upland Wildlife Habitat Management, Wetland Enhancement, Wetland Restoration, Wetland Wildlife Habitat Management.

**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.