

Appendix F: Glossary of Best Management Practices Identified as Available for ECWA Cost-Share Funds

A brief description of each Best Management Practice is listed below. For more information about each practice either refer to the NRCS Standard or the City of Indianapolis' Technical Design Standards Manual.

Alternative Watering System – The use of a livestock watering systems other than full access to a stream or nearby waterbody. Alternative systems may include: controlled direct access, gravity systems, solar powered pumps, nose pumps, etc. (NRCS Code 614)

Bioretention/Rain Garden – Utilizing biological systems to retain stormwater runoff and remove pollutants and nutrients by filtration through soil medium. (City of Indianapolis' Technical Design Standards)

Bioswale/Swales – A gently sloping channel filled with dense vegetation, compost and riprap designed to filter silt and pollution from runoff. Nutrients and pollutants are removed through biological processes. (City of Indianapolis Technical Design Standards)

Constructed Wetland – A shallow water ecosystem constructed to simulate natural wetlands in order to reduce pollution associated with runoff and wastewater from agricultural lands. (NRCS Code 656)

Cover Crops – Grasses, legumes, forbs, or other herbaceous plants established for seasonal cover and conservation purposes (NRCS Code 340).

Critical Area Treatment & Seeding – To stabilize the soil, reduce damages from sediment and runoff to downstream areas, and improve wildlife habitat and visual resources. (NRCS Code 342).

Diversion – A channel created to redirect surface water flow, which would otherwise contribute to erosion, to a stable area. (NRCS Code 362).

Equipment Rental – Assistance with rental equipment to be used for no-till seeding and nutrient application.

Filter Strips – A strip or area of herbaceous vegetation situated between cropland, grazing land, or disturbed land (including forest land) and environmentally sensitive areas (NRCS Code 393).

Grade Stabilization Structure - In areas where the concentration and flow velocity of runoff is sufficiently high, an engineered structure such as a rock chute or block chute is required to control the grade and head-cutting of natural or artificial channels, thereby preventing the advancement or formation of gullies. As with certain other practices, installation of these structures can result in a directed discharge of waterborne pollutants into

receiving streams. For this reason, their construction should be accompanied by installation of appropriately designed filter strips which can trap sediment, nutrients, and pesticides upstream from the structure. These filter strips must be sized to allow for conformance with regulations pertaining to application setbacks for specific pesticides used in their vicinity (NRCS Code 410).

Grassed Waterways – A constructed shallow channel that is shaped and vegetated to provide for stable conveyance of runoff. (NRCS Code 412).

Green Roof - An extension of the existing roof which involves a high quality water proofing and root repellent system, a drainage system, filter cloth, a lightweight growing medium, and plants in order to treat and retain stormwater. (City of Indianapolis' Technical Design Standards)

Heavy Use Area Protection – To stabilize facility areas frequently and intensely used by people, animals, or vehicles (NRCS Code 561).

Infiltration Basin – The creation of a shallow impoundment intended to infiltrate stormwater, allowing soil to filter pollutants from stormwater runoff. (City of Indianapolis' Technical Design Standards)

Infiltration Trench – The creation of an outlet-free, rock-filled, long, narrow trench that collects stormwater runoff and allows the water to move through the rocks and infiltrate into the soil. (City of Indianapolis' Technical Design Standards)

Livestock Composting Facility – A facility located on the farm for the treatment or disposal of livestock and poultry carcasses. Animals must currently exist on the property (NRCS Code 317).

Media Filtration – Sand Filter – Media filters are two-stage constructed treatment systems, including a pretreatment settling basin and a filter bed containing sand or other filter media. The filters are not designed to treat the entire storm volume but rather the portion that tends to contain higher pollutant levels. Sand filters can be designed so that they receive flow directly from the surface (via inlets or even as sheet flow directly onto the filter bed) or via storm drain pipes. They can be exposed to the surface or completely contained in underground pipe systems or vaults. (City of Indianapolis' Technical Design Standards)

Naturalized/Retrofit Wet Detention Basin - The creation or modification of a stormwater detention basin that improves or combines treatment of the existing basin with a native plant perimeter (including both wetland emergent plant zone and an upland prairie buffer). (City of Indianapolis' Technical Design Standards)

No-Till Cost-Share – Assistance with the expenses of no-till practices, such as chaff spreader on combine, no-till coulters, row cleaners, split nitrogen applications, variable rate phosphorus, potassium, and lime applications. (NRCS Code 329).

Nutrient Management Planning – Managing the amount, source, placement, form and timing of the application of nutrients and soil amendments. Cost share includes implementation of the plan. (NRCS Code 590).

Parking Lot Retrofits/Curb Cuts – The installation of vegetative swales, bioretention areas, and infiltration basins, as well as breaks in concrete curbs which allow surface runoff to enter the swales at controlled points. (City of Indianapolis' Technical Design Standards)

Pasture/Hayland Seeding – Establishing and re-establishing long-term stands of adapted species of perennial, biennial, or reseeding forage plants (Includes pasture and hayland renovation. Does not include grassed waterways or outlets on cropland.) (NRCS Code 512).

Pest Management Planning – Utilizing environmentally sensitive prevention, monitoring and suppression strategies, to manage weeds, insects, diseases, animals and other organisms (including invasive and non-invasive species), that directly or indirectly causes damage or annoyance. Cost share includes implementation of the plan. (NRCS Code 595).

Pipeline – To convey water from a source of supply to points of use for livestock, wildlife, or recreation (NRCS Code 516).

Porous/Permeable Pavement – The use of pervious concrete over an open-graded stone base with a filter fabric to collect pollutants from "first flush" runoff. (City of Indianapolis' Technical Design Standards)

Prescribed Grazing Plan – Created to prolong the life of desirable forage species; maintain or improve the quality and quantity of forage; provide soil protection and reduce water loss; and improve water quality (NRCS Code 528).

Riparian Forest Buffer – An area of predominately trees and/or shrubs located adjacent to and up-gradient from watercourses or water bodies (NRCS Code 391).

Riparian Herbaceous Cover – Establishment or management of grasses and forbs, tolerant of intermittent flooding or saturated soils, in the transitional zone between terrestrial and aquatic habitats (NRCS Code 390).

Stream Restoration (Daylighting) - 'Daylighting' restores the natural drainage system using surface waterways by removing them from the pipes in which

they were entombed. It addresses flood control and storm water management objectives but also adds value by maximizing ecological and water quality benefits. (NRCS NEH-654).

Stream Crossing – A trail or travel way constructed across a stream to allow livestock, equipment, or vehicles to cross with minimal disturbance to the stream ecosystem. This practice is used in conjunction with Streambank Fencing. (NRCS Code 578).

Streambank Fencing – A constructed barrier to keep people and animals from entering the water body. (NRCS Code 382).

Tree and Shrub Establishment – The establishment of a stand of trees to help to control erosion, conserve soil, and retain moisture. This can aid in flood reduction, sedimentation control, and wildlife habitat improvement. Water quality benefits can be derived from plantings adjacent to streams which provide shade and act as a food source, and reduce streambank erosion. Mature trees can also serve as barriers to erosion-causing winds. Professional assistance regarding species selection and planting regimes can be solicited from IDNR district foresters or private consulting foresters, and is encouraged. (NRCS Code 612).

Two-Stage Agriculture Ditch – The creation of a ditch with two stages (or benches) to improve water quality while maintaining the necessary flow of the stream. The main channel will allow slight meandering within the ditch and will carry the effective discharge. The second stage will be designed to have a cross-sectional capacity to carry enough discharge to prevent over-bank flow and allow for nutrient assimilation. (NRCS Code 582)

Waste Storage Facility – Temporary storage of liquid or solid wastes as part of a pollution control system to conserve nutrients and protect the environment. A Comprehensive Nutrient Management Plan must be completed before commencing construction. A waste storage facility cannot be constructed for a new facility. (NRCS Code 313).

Waterways – A natural or constructed channel that is shaped or graded to required dimensions and established with suitable vegetation (NRCS Code 412).

Wetland Creation – Create wetlands in areas where soils, hydrology, and vegetation can be met to meet wetland functions and values. Typically this practice applies to sites where no natural wetland occurred or where a wetland exists or existed and the wetland characteristics will be different from what historically existed. Wetlands are used to hold and filter non-point source pollutants. (NRCS Code 658).

Wetland Restoration – Restore hydrologic conditions and hydrophytic plant community necessary for the reestablishment of wetlands for the benefit of wildlife and plants and animal biodiversity, reduce flooding, improve water quality, and provide other environmental benefits (NRCS Code 657).