# Best Management Practices

This table is a compilation of Best Management Practices (BMPs) used by the Mason Conservation District in Mason County; the most commonly used highlighted in green. The information provided includes the Conservation Practice number as listed by the National Resource Conservation Service together with a description of the practice, when it is appropriate to use, and where it is applied.

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| **BEST MANAGEMENT PRACTICE | BMP** | **#[[1]](#footnote-1)** | **DEFINITION** | **PURPOSE** | **CONDITIONS WHERE PRACTICE APPLIES** |
| **FENCING** | 382 | Constructed barrier to animals or people | Facilitates conservation objectives by providing means to control movement of animals and people, including vehicles. | May be applied on any area where management of animal or human movement is needed. |
| **HEAVY USE PROTECTION AREA** | 561 | Used to stabilize ground surface frequently and intensively used by people, animals, or vehicles | Provide stable, non-eroding surface for areas frequently used by animals, people, vehicles; Protect/improve water quality | All land uses where frequently or intensively used area requires treatment to address one or more resource concerns |
| **SUBSURFACE DRAIN** | 606 | Conduit installed beneath the ground surface to collect and/or convey excess water. | Remove or distribute excessive soil water; Remove salts and other contaminants from soil profile | Poor health, productivity of plants; poor field trafficability; accumulation of salts in root zone; health risk & livestock stress due to pests; wet soil conditions around farmsteads, structures, roadways. Applies where collected excess water distributed through subsurface water utilization or treatment area. |
| **COMPOSTING FACILITY** | 317 | Structure/device to contain & facilitate controlled aerobic decomposition of organic material by microorganisms into biologically stable organic material suitable as a soil amendment. | Reduce pollution potential and improve handling characteristics of organic waste solids; produce soil amendment that adds organic matter and beneficial organisms, provides slow-release plant-available nutrients, and improves soil condition. | Agricultural production or processing waste; component of waste management system; constructed, operated & maintained without polluting resources; compost can be applied to land or marketed to public. |
| **USE EXCLUSION (ACCESS CONTROL)** | 472 | Exclusion of animals, people, vehicles, and/or equipment from an area. | Monitor, manage intensity of use by animals, people, vehicles, equipment with other practices of conservation plan. | This practice applies on all land uses. |
| **FILTER STRIP** | 393 | A strip or area of herbaceous vegetation that removes contaminants from overland flow. | Reduce suspended solids and contaminants in runoff; reduce dissolved contaminants in runoff; reduce suspended solids and contaminants in irrigation tailwater. | Where environmentally sensitive areas need to be protected from sediment; other suspended solids and dissolved contaminants in runoff. |
| **WASTE STORAGE STRUCTURE (FACILITY)** | 313 | A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. | Temporarily store wastes, wastewater, & contaminated runoff as storage function component of agricultural waste management system. | Component of waste management system; needed for agricultural production or processing wastes; constructed, operated, maintained without polluting resources; conditions suitable for construction |
| **PASTURE/HAYLAND PLANTING (FORAGE AND BIOMASS PLANTING)** | 512 | Establishing adapted and/or compatible species, varieties, or cultivars of herbaceous species suitable for pasture, hay, or biomass production. | Improve/maintain livestock nutrition and/or health; provide/increase forage supply; reduce soil erosion & improve soil and water quality; produce feedstock for biofuel or energy production; increase carbon sequestration | Applies all lands suitable to establishment of annual, biennial or perennial species for forage or biomass production. |
| **IRRIGATION SYSTEM: MICRO-IRRIGATION** | 441 | Frequent application of small quantities of water on or below the soil surface: as drops, tiny streams, or miniature spray through emitters or applicators placed along a water delivery line. | Efficiently & uniformly apply irrigation water and maintain soil moisture; prevent contamination of ground and surface water | Where soils and topography are suitable for irrigation of crops and adequate supply of suitable quality water is available for the intended purpose(s). |
| **PRESCRIBED GRAZING** | 528 | Managing harvest of vegetation with grazing and/or browsing animals. | Improve/maintain desired plant species composition; improve/maintain quantity & quality of forage, water, riparian & watershed functions, and food/cover for wildlife; reduce accelerated soil erosion; manage fine fuel loads. | Applies to all lands where grazing and/or browsing animals are managed. |
| **FIELD BORDER** | 386 | A strip of permanent vegetation established at the edge or around the perimeter of a field. | Reduce wind/water erosion; protect soil/water quality; provide wildlife food and cover and pollinator or other beneficial organism habitat; increase carbon storage; improve air quality | Applied around inside perimeter of fields, can support or connect other practices, applies to cropland and grazing lands |
| **IRRIGATION SYSTEM: SPRINKLER** | 442 | A distribution system that applies water by means of nozzles operated under pressure | Efficient, uniform water application; improve plant condition, productivity, health, vigor; Prevent entry of excessive nutrients, organics, other chemicals in water; improve soil condition; reduce particulate matter emissions; reduce energy use | Applies to planning and functional design of sprinkler system components; areas must be suitable and have adequate water supply;  applies to renozzling existing sprinkler systems to reduce pressure, reduce flow rate, increase distribution uniformity. |
| **IRRIGATION WATER CONVEYANCE – PIPELINE: HIGH PRESSURE PLASTIC (IRRIGATION PIPELINE)** | 430DD (430) | A pipeline and appurtenances installed to convey water for storage or application, as part of an irrigation water system. | This practice may be applied as part of a resource management system to achieve one or more of the following purposes: • Conveyance of water from a source of supply to an irrigation system or storage reservoir. • Reduce energy use. • Develop renewable energy systems (i.e., inpipe hydropower). | This standard applies to water conveyance and distribution pipelines installed above or below ground. |
| **RECREATION TRAIL AND WALKWAY (TRAILS AND WALKWAYS)** | 568 (575) | Trail: constructed path with vegetated or earthen surface. Walkway: constructed path with artificial surface. Trail/walkway: facilitate movement of animals, people, or off-road vehicles | Provide/improve animal access to forage, water, working/handling facilities, shelter; Facilitate improved grazing; Protect ecologically sensitive, erosive sites; Provide pedestrian/off-road vehicle access to agricultural, construction, maintenance operations; provide for recreational activities or access to recreation sites. | Applies on lands where management of animal/human movement needed; applies to a trail/walkway constructed for use by off-road vehicles |
| **SURFACE DRAINAGE – FIELD DITCH** | 607 | A graded channel on the field surface for collecting excess water | Intercept excess surface and shallow subsurface water from a field, conveying it to a surface main or lateral; collect excess irrigation water for a tailwater reuse system. | Soils with low permeability shallow barriers, which impede percolation of water to a deep stratum; surface depressions/barriers that trap rainfall; areas of insufficient land slope; excess runoff or seepage; excess irrigation water. |
| **SURFACE DRAINAGE – MAIN OR LATERAL** | 608 | An open drainage ditch for moving excess water collected by a field ditch or subsurface drain to a safe outlet. | Convey excess surface or shallow subsurface water from field ditch to safe outlet; convey excess subsurface water from subsurface drain to safe outlet. | Applies to ditches that receive and convey drainage water from surface and subsurface drains. |
| **WASTE FACILITY COVER (ROOFS AND COVERS)** | 367 | A rigid, semi-rigid, or flexible manufactured membrane, composite material or roof structure placed over a waste management facility, agrichemical handling facility, or an on-farm secondary containment facility. | Protect clean water in existing or planned animal waste handling or storage area; improve waste management and utilization; capture biogas emissions from an existing or planned animal waste storage facility; protect clean water by excluding it from a chemically contaminated area | Precipitation should be excluded from contaminated areas; a porous cover on wastewater storage facility improves air quality, limit odors, moderates net effect of greenhouse gas emissions; biogas capture and utilization improves air quality, limits odors, and reduces net effect of greenhouse gas emissions. |
| **WATERING FACILITY** | 614 | A means of providing drinking water to livestock or wildlife. | Supply daily water requirements; improve animal distribution; provide water source as alternative to sensitive resource | Applies where there is a need; where there is a source of water that is adequate for the purpose; where soils and topography are suitable |
| **HEDGEROW PLANTING** | 422 | Establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose. | Food, cover, corridors for terrestrial wildlife, and aquatic organisms that live in streams; improve water quality and aquatic habitat in ditches and channels; living fences; boundary delineation; intercept airborne particulate matter; reduce chemical drift, odor movement; increase carbon storage in biomass and soils; contour guidelines; screens and barriers to noise, dust; improve landscape appearance | Applies wherever it will accomplish at least one of the purposes |
| **HERBACEOUS WEED CONTROL** | 315 | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants | Enhance accessibility, quantity, quality of forage and/or browse; restore or release plant communities and wildlife habitats consistent with the ecological site; protect soils, control erosion; reduce fine-fuels fire hazard and improve air quality | Lands except active cropland where removal reduction, or manipulation of herbaceous vegetation is desired. |
| **RIPARIAN FOREST BUFFER** | 391 | An area predominantly trees and/or shrubs located adjacent to and up-gradient from watercourses or water bodies. | Create shade to lower, maintain water temperatures; provide source of detritus and large woody debris; reduce excess amounts of sediment, organic material, nutrients and pesticides in surface runoff and in shallow ground water flow; reduce pesticide drift; restore riparian plant communities; increase carbon storage in plant biomass and soils. | Riparian forest buffers are applied on areas adjacent to permanent or intermittent streams, lakes, ponds, and wetlands. They are not applied to stabilize stream banks or shorelines. |
| **STREAM HABITAT IMPROVEMENT & MANAGEMENT** | 395 | Maintain, improve, restore physical, chemical, biological functions of stream, and associated riparian zone | Provide suitable aquatic habitat; maintain stream corridor ecological processes and hydrological connections of diverse stream habitat types important to aquatic species. | All streams and their adjoining backwaters, floodplains, associated wetlands, and riparian areas where reproduction, growth, survival, diversity is limited |
| **TREE/SHRUB ESTABLISHMENT** | 612 | Establishing woody plants by planting seedlings or cuttings, direct seeding, or natural regeneration. | Establish woody plants for: forest products; habitat; long-term erosion control and water quality; treat waste; store carbon in biomass; reduce energy use; develop renewable energy systems; improve restore natural diversity; enhance aesthetics. | Applied on any appropriately prepared site where woody plants can be grown. |
| **TREE/SHRUB SITE PREPARATION** | 490 | Treatment of areas to improve site conditions for establishing trees and/or shrubs. | Encourage natural regeneration; permit artificial establishment of woody plants. | All lands needing treatment to establish trees and/or shrubs |
| **WETLAND RESTORATION** | 657 | The return of a wetland and its functions to a close approximation of its original condition as it existed prior to disturbance on a former or degraded wetland site. | Restore: conditions conducive to hydric soil maintenance; wetland hydrology; native hydrophytic vegetation; original fish and wildlife habitats. | Applies only to natural wetland sites with hydric soils which have been subject to the degradation and where the natural hydrologic conditions can be approximated to the original, natural conditions. |
| **Roof Runoff Structure** | 558 | A structure that will collect, control and convey precipitation runoff from a roof. | Protect surface water quality by excluding roof runoff from contaminated areas; protect structure foundation from water damage or soil erosion from excess water runoff; increase infiltration of runoff water; capture water for other uses | Where roof runoff needs to be: diverted from contaminated area or structure foundation; collected, conveyed to stable outlet or infiltration area; collected, captured for evaporative cooling systems, livestock water and irrigation. |
| **Stream Crossing** | 578 | A stabilized area or structure constructed across a stream to provide a travel way for people, livestock, equipment, or vehicles | Access to another land unit; Improve water quality by reducing sediment, nutrient, organic, and inorganic loading; reduce streambank and streambed erosion | All land uses where an intermittent or perennial watercourse exists and a ford, bridge, or culvert type crossing is needed |
| **Nutrient Management** | 590 | Managing the amount (rate), source, placement (method of application), and timing of plant nutrients and soil amendments | Budget, supply, and conserve nutrients; minimize agricultural nonpoint source pollution; properly utilize manure or organic byproducts; protect air quality; maintain or improve the physical, chemical, and biological condition of soil. | All lands where plant nutrients and soil amendments are applied. |
| **Silvopasture Establishment** | 381 | An application establishing a combination of trees or shrubs and compatible forages on the same acreage. | Provide forage for livestock and wood products; Increase carbon sequestration; improve water quality; reduce erosion; enhance wildlife habitat; reduce fire hazard; provide shade for livestock; develop renewable energy systems | Pasture where trees or shrubs can be added; forest where forages can be added; land on which neither the desired trees nor forages exist in sufficient quantity to meet the land user’s objectives. |

1. United States Department of Agriculture, National Resource Conservation Service, Conservation Practice Number [↑](#footnote-ref-1)