United States Department of Agriculture

Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

CONSERVATION COVER

CODE 327

(Ac.)

DEFINITION

Establishing and maintaining permanent vegetative cover.

PURPOSE

This practice may be applied to support one or more of the following purposes:

- Reduce sheet, rill, and wind erosion and sedimentation;
- Reduce ground and surface water quality degradation by nutrients and surface water quality degradation by sediment;
- Reduce emissions of particulate matter (PM), PM precursors, and greenhouse gases;
- Enhance wildlife, pollinator, and beneficial organism habitat;
- Improve soil health.

CONDITION WHERE PRACTICE APPLIES

This practice applies on all lands needing permanent herbaceous vegetative cover. This practice can be applied on a portion of a field.

This practice does not apply to:

- Plantings intended for forage production. Refer to the Maryland conservation practice standard Forage and Biomass Planting (512);
- Plantings that will be established on critically eroding areas that usually cannot be stabilized by ordinary conservation treatment and management. Refer to the Maryland conservation practice standard Critical Area Planting (342);
- Plantings on field edges or in riparian buffers, for which other standards are applicable. Refer to the Maryland conservation practice standards for Field Border (386), Filter Strip (393), and Riparian Herbaceous Cover (390).

CRITERA

General Criteria Applicable to All Purposes

Select species that are suitable for the planned purposes(s), based on their compatibility in growth rates, shade tolerance, moisture requirements, and other characteristics. Planting rates, dates, planting

methods, and care in handling and planting of the seed or planting stock shall be adequate to accomplish the planned purpose.

Only viable, high quality seed and planting stock shall be used. When available, use certified seed. No plants on the federal or state noxious weed list shall be planted.

Prepare the site by establishing a consistent seeding depth. Eliminate weeds that would impede the establishment and growth of selected species.

Base the timing and equipment selection on the site and soil conditions.

Use seeding rates and planting methods that will be adequate to accomplish the planned purpose. Inoculate legumes at planting time.

Apply lime and fertilizer if needed based on soil test results. The use of commercial fertilizer and other forms of plant nutrients must be in compliance with Maryland nutrient management regulations, as applicable.

Protect the planting from unacceptable impacts due to pests, wildlife, livestock, or wildfire. Exclude livestock as needed to establish the planting. Control noxious weeds as required by state law.

For additional requirements concerning species selection, planting dates, rates, methods, and care in handling and planting of the seed or planting stock, refer to the applicable sections of the Maryland Conservation Planting Guide.

Additional Criteria to Reduce Sheet, Rill, and Wind Erosion and Sedimentation

Use the current approved wind and/or water erosion prediction technology to determine and maintain the amount of plant biomass and cover needed to reduce wind and water erosion to the planned soil loss objective.

Additional Criteria to Reduce Emissions of Particulate Matter (PM), PM Precursors, and greenhouse gases

In perennial crop systems such as orchards, vineyards, berries, and nursery stock, establish vegetation to provide full ground coverage in alleyways to minimize generation of particulate matter during mowing and harvest operations.

Criteria to Enhance Wildlife, Pollinator, and Beneficial Organism Habitat

Plant a diverse mixture of grasses and forbs to promote bio-diversity and meet the needs of the desired wildlife species.

To meet the needs for pollinators, plant a high diversity mix of mostly native forbs with showy flowers to provide blooming throughout the growing season. Utilize additional vegetative cover establishment practices (e.g., Cover Crop (340), Hedgerow Planting (422), Tree/Shrub Establishment (612)) to provide early season pollinator resources when conservation cover plantings are not sufficient to meet pollinator needs.

Locate habitat plantings to reduce pesticide exposures that could harm wildlife, pollinators, and other beneficial organisms.

Additional Criteria to Improve Soil Health

To maintain or improve soil organic matter, select plants that will produce high volumes of organic material. Use the current Soil Conditioning Index (SCI) procedure to determine the amount of biomass needed.

Note: Specific programs or other funding sources may impose criteria in addition to, or more restrictive than, those specified in this standard.

CONSIDERATIONS

This practice may be used to promote the conservation of wildlife species in general, including threatened and endangered species.

Consider using plant species that have multiple values such as those suited for nesting, biomass, timber, nuts, fruit, seeds, browse, aesthetics and tolerance to locally used herbicides.

Avoid selecting plant species or planting near existing species that may be alternate hosts to undesirable pests, or that may be considered invasive or undesirable. Species diversity should be encouraged in order to minimize problems due to species-specific pests.

When establishing habitats with diverse plant species needs, such as pollinator habitat, consider establishing separate planting areas for plantings with different management requirements (e.g., establish clovers for early season pollination in a separate area from a native pollinator mix).

Consider the need for firebreaks when warm-season grass plantings are used. Mature plantings of warm-season grasses can be quite flammable. Large areas of warm-season grasses should have cool-season grass firebreaks adjacent to woodlands and buildings, and in other locations where firebreaks may be needed to manage a prescribed burn.

Inoculating legume seed with the proper *Rhizobium* bacteria should be considered on sites where the legumes to be planted have not been previously grown.

During vegetation establishment, natural mulches, such as wood products or hay, can be used to conserve soil moisture, support beneficial soil life, and suppress competing vegetation.

Mowing may be needed during the establishment period to reduce competition from broadleaf annual weeds.

Consider the potential for volunteer invasive species that could pose establishment or management risks. Include mitigation for these risks in the establishment, maintenance, and management plans, when appropriate.

Consider the management requirements for maintaining the planting, and the available resources for implementing management.

Where wildlife management is an objective, the food and cover value of the planting can be enhanced by using a habitat evaluation procedure to aid in selecting plant species and providing or managing for other habitat components necessary to achieve the objective.

Where pollinator and wildlife habitat are primary purposes, consider less dense seeding rates as long as soil loss is within tolerable soil loss limits.

Use native species that are appropriate for the identified resource concern and management objective. Consider trying to re-establish the native plant community for the site. Use local ecotypes of native species when available if the cost of the seed or seedlings does not make it impractical.

Consider rotating management and maintenance activities (e.g., mow only one-fourth or one-third of the area each year) throughout the managed area to maximize spatial and temporal diversity.

Consider the adverse impacts of high populations of nuisance wildlife such as deer, groundhog, beaver, or resident geese, on the establishment and maintenance of vegetation. When feasible, select plant species that are not preferred foods of the nuisance animals, and utilize methods for protecting the plants until they become well established.

Consider the potential for attracting nuisance wildlife into an area, either intentionally or unintentionally. Plantings that contain preferred wildlife foods may be used to attract nuisance wildlife away from valuable agricultural crops or ornamental plantings, but may also result in attracting additional nuisance wildlife into an area.

Consider the use of grazing animals to maintain herbaceous cover.

Take note of other constraints such as economic feasibility, access, regulatory or program requirements, social effects, and visual aspects.

Refer to the fact sheets listed on the NRCS Maryland Biology website for additional habitat considerations for wildlife species.

PLANS AND SPECIFICATIONS

Plans and specifications for this practice shall be prepared in accordance with the previously listed criteria. Refer to the applicable sections of the Maryland Conservation Planting Guide for specifications concerning species selection, planting dates, rates, methods, and care in handling and planting of the seed or planting stock. Plans and specifications shall contain sufficient detail to ensure successful implementation of this practice and may be recorded in narrative form, on Implementation Requirements (IR) sheets, or other approved forms.

Use the Maryland NRCS fact sheets *Warm-Season Grasses*, *Cool-Season Grasses*, and *Native Herbaceous Plantings* to provide additional planting and establishment information, as applicable, and complete the 327 IR sheet. The IR sheet and appropriate fact sheet(s) can serve as the planting plan and specifications for implementing this practice.

The following items shall be addressed, as appropriate:

- Method of site preparation;
- Species and rates to be seeded/planted;
- Seeding/planting dates;
- Rate and type of soil amendments to be applied (if any);
- Method(s) used to protect plantings from animal damage (e.g., fencing, repellents, etc.) or for weed control.

<u>Supporting Data and Documentation</u>

The following is a list of the minimum data and documentation to be recorded in the case file:

- Location of the practice on the conservation plan map;
- Assistance notes. The notes shall include dates of site visits, name or initials of the person who made the visit, specifics as to alternatives discussed, decisions made, and by whom;

- Completed IR sheet, and copy of the appropriate fact sheet(s) or other specifications and management plans.

OPERATION AND MAINTENANCE

An Operation and Maintenance (O&M) plan shall be prepared and is the responsibility of the client to implement. The appropriate fact sheet(s) and IR sheet may serve as the management plan, as well as supporting documentation, and shall be reviewed with and provided to the client.

At a minimum, the following components shall be addressed in the O&M plan, as applicable:

- Describe the extent of management needed to maintain vegetation in the desired species composition or age class (if applicable), or no management required (e.g., natural area);
- Inspect the planting at least annually. Shape and reseed areas damaged by heavy rainfall, animals, chemicals, tillage, or equipment traffic, and any other areas where the stand is not adequate;
- Check for insects and diseases, and if an incidence threatens stand survival, take corrective action to keep the pest under control;
- Control undesirable plants by pulling, mowing, or spraying with a selective herbicide. Control noxious weeds as required by state law;
- Protect the planting from wildfire and damage from livestock, wildlife, and equipment, to the extent feasible;
- When wildlife habitat is the primary purpose, do not mow during the primary nesting season (April 15 to August 15). During the establishment period, mowing may be needed during the nesting season to reduce heavy competition from annual weeds. Noxious weeds may be spot treated during the primary nesting season;
- Apply soil amendments periodically, if needed to maintain plant vigor. If nutrients are applied, refer to the conservation practice standard for Nutrient Management (590);
- Do not use the planted area for hay storage or machinery parking for an extended period of time, especially if doing so will damage or impair the function of the practice;
- Describe the acceptable uses (e.g., flash grazing, haying, etc.) and time of year or frequency of use restrictions, if any. *Pay particular attention to program requirements as they relate to acceptable vs. restricted uses and other management restrictions.*

If native cover (other than what was planted) becomes established, and this cover meets the intended purpose of the practice and the client's objectives, the cover should be considered adequate.

REFERENCES

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USDA, Natural Resources Conservation Service. *Conservation Practice Standards.* Maryland Field Office Technical Guide, Section IV.

USDA, Natural Resources Conservation Service. *Preventing or Mitigating Potential Negative Impacts of Pesticides on Pollinators Using IPM and Other Conservation Practices*. National Agronomy Technical Note 9, Washington, DC.

Vaughan, Mace, Matthew Shepherd, Claire Kremen, and Scott Hoffman Black. 2011. *Farming for Bees: Guidelines for Providing Native Bee Habitat on Farms*. The Xerces Society for Invertebrate Conservation, Portland, OR.