



CONSERVATION ENHANCEMENT ACTIVITY

E570A

Enhanced Rain Gardens for Wildlife

Conservation Practice 570: Stormwater Runoff Control

APPLICABLE LAND USE: Crop (Annual & Mixed), Crop (Perennial),
Associated Ag Land & Farmstead

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 1 year

Enhancement Description

Seed or plug nectar and pollen producing plants into rain gardens to provide wildlife habitat.

Criteria

Establish habitat for Monarchs, pollinators and beneficial insects as described below:

Monarch butterflies

- Lists of larval host plants and nectar plants suitable for Monarch butterfly habitat are provided in the NRCS Field Office Technical Guide (FOTG).
- A grass component to a Monarch habitat planting is commonly needed for ecological stability, weed control, and fuel for prescribed burning. The FOTG provides information on the grass/forb ratio for Monarch habitat plantings.
- To provide food (nectar and pollen) for adult Monarch butterflies, at least 60% of the forb seeds (pure live seed) in the mix shall be from the Monarch butterfly planting list (FOTG). Milkweed seeds are included in meeting the 60% minimum because milkweeds are excellent nectar plants. The FOTG provides information on the required number of forb species per bloom period (early, mid, or late season) for Monarch habitat plantings. Bloom periods are to coincide with Monarch presence in the area.



- To provide food for Monarch butterfly larvae, plantings shall include at least one species of milkweed (*Asclepias* spp.) from the FOTG Monarch butterfly planting list. All milkweed species used in the mix must be from this list and shall represent at least 1.5% of the total seeds in the mix. The total seeds include pure live seed from both grass and forbs. Tropical milkweed (*Asclepias curassavica*) shall not be planted.

Waiver: In some regions, a commercial source of native Asclepias species is limited or not available. In these situations, the NRCS State Conservationist may apply for a waiver, and only require that plantings include Monarch nectaring species. In this situation, milkweed seed or plugs are still encouraged to be planted, if possible. If such a waiver is granted, the mix will result in at least 80% of the seed being from the state's Monarch nectaring plant list.

- If a Monarch Butterfly Wildlife Habitat Evaluation Guide (WHEG) is available for use in the state, a minimum planned Monarch WHEG score of 0.60 will be obtained for the planted area.

Planting criteria for Monarch butterfly habitat

- Site selection should consider existing weed pressures and available methods of control. Delay planting and conduct an additional growing season of weed control if high weed pressure requires aggressive treatment.
- Successful establishment is when the planting is providing at least 80 percent soil cover, visually estimated, and that the resultant cover consists of at least 1 milkweed plant per 100-sq. ft., and successful establishment of at least two targeted nectar plants per bloom period when Monarchs are present in the state. A milkweed plant is defined as a single stem emerging from the ground.
- Insecticides should not be used in the rain garden or immediately adjacent area.
- Herbicides are allowed during site preparation (prior to planting) when it is necessary to eliminate competing weeds from a planting area in order for nectar and pollen producing plants to establish. After a Monarch habitat enhancement has been planted, herbicides may be spot-sprayed to remove broad-leaf weeds, or grass-selective herbicides may be applied to larger areas to eliminate persistent weedy grasses. Similarly, in the first year post-planting, the entire site may be mowed 8 to 10 inches high to reduce annual or biennial weeds that persist (site should be mowed just before dominant annual weeds flower).

Operation and maintenance for Monarch butterfly habitat

- Management and/or maintenance activities such as mowing, haying, burning, or grazing shall be conducted outside of the season when Monarch larvae or adults are present.



- Insecticides will not be used in the habitat planting area.
- The planted habitat areas must be regularly inspected for invasive and/or noxious plants or other plants that may compromise the purpose of this enhancement. Undesirable species should be controlled using the least damaging method, for example, spot-spraying with herbicide or physical removal of individual plants.





Documentation and Implementation Requirements

Participant will:

- Take before and after photos of the rain garden.
- During implementation, purchase specified seed mix or plant materials that meet planting requirements provided by NRCS. Provide seed tags to NRCS.
- During implementation, follow habitat establishment guidance provided by NRCS.
- After implementation, provide a list of management and/or maintenance activities carried out to manage the habitat areas and the dates on which those activities occurred.

NRCS will:

- Prior to implementation, assess habitat condition using a monarch Wildlife Habitat Evaluation Guide (WHEG) to calculate current WHEG score and anticipated WHEG score after implementation of Enhancement.
 - **Benchmark WHEG score = _____ Planned Post Implementation WHEG score = _____**
- Prior to implementation, confirm installation of NRCS Conservation Practice Standard Storm Water Runoff Control (Code 570) State specifications have been met and installation of E5701A enhancement is feasible.
- Prior to implementation, provide participant with guidance to establish the planting and a site specific mix. Provide mix designs with plants suitable for pollinator and beneficial insect habitat, including larval host and nectar plants, with as many native species as practical.
- Prior to implementation, provide and explain State specifications for NRCS Conservation Practice Standard Conservation Cover (Code 420).
- Prior to implementation, provide participant with a recommended seed mix and planting specifications per above criteria (grass/forb ratio; number of forb species per bloom period for Monarch habitat plantings)
- After implementation, verify successful establishment (per planting criteria above) and collect supporting documentation (seed tags, pictures) from participant.

Design Approvals & Acknowledgements:

Design Approval	Date	Job Approval Authority
Designed by:		
Approved by:		

Client's Acknowledgement Statement:

The client acknowledges:

- I have received a copy of the specification and understand the contents and requirements.
- It is my responsibility to obtain all necessary permits and/or rights and to comply with all ordinances and laws pertaining to the application of this practice.
- I will not begin installation of this practice until I have received appropriate approval to do so. I understand NRCS also has Federal and state laws to comply with that may take some time to address (e.g. cultural resources).

Client's Signature	Date

Certification Documentation:

	Field Evaluation: Post-treatment inventory, measurements, notes, as-built, and supporting documentation (document completion in conservation plan), as required.
	Map(s): Including field numbers, fields treated, and units treated (may document on conservation plan map), as required.
	Photos or other supporting documentation (e.g., seed tags, soil tests, receipts, invoices, spray records, fertilizer records, etc.)
Brief Description of Work Accomplished (types of equipment used, date of application, extents and quantities installed, etc.)	

Certification Statement:

The employee certifies the implementation of this conservation practice:

- Meets the purpose, general criteria, and any required additional criteria as documented in the conservation practice standard and/or enhancement sheet.
- Meets the specifications contained herein and is complete.
- Conforms to my existing Job Approval Authority controlling factors and levels.

Name	Date	Job Approval Authority

Field Level Certification – For multiple applications of this design.				
Land Unit/ Contract Item Number	Date	Unit(s)	Amount Installed	Certifier