



CONSERVATION ENHANCEMENT ACTIVITY

E528B

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Grazing management that improves Monarch butterfly habitat

Conservation Practice 528: Prescribed Grazing

APPLICABLE LAND USE: Range

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 1 year

Enhancement Description

Implement a grazing management plan that will increase the abundance and diversity of monarch nectar-producing perennial forbs, including milkweed, while maintaining ecosystem benefits for other wildlife and livestock.

Criteria

- Evaluate habitat in the enhanced, delineated Monarch areas with the state NRCS Monarch Butterfly Wildlife Habitat Evaluation Guide (WHEG) and manage delineated Monarch areas to improve the WHEG score at least one category (e.g. from poor to fair, or from good to excellent).
- Enhance diversity of rangeland plants to optimize delivery of nutrients to domestic grazing animals by incorporating the intensity, frequency, timing and duration of grazing and/or browsing needed as determined by a planning process that includes:
 - Clear objectives,
 - A resource inventory with ecological site description or reference sheet and structural improvements and existing resource conditions,
 - Grazing plan,

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- A contingency plan, and
- Monitoring and needed adjustments for Monarchs, domestic grazing animals, and other wildlife (including pollinators).
- Defer, rest, or graze the enhanced, delineated Monarch areas to meet the nectar-producing forbs, including milkweed, needs of Monarch Butterflies when the Monarchs will be migrating through the area (e.g. spring and fall for the southern Great Plains, summer and fall for the Midwest, northern Great Plains and east, and spring through fall for the west.
- Delineate Monarch area(s) within the planned enhancement area/acres, comprising at least 5 acres or at least 5% of the planned enhancement area/acres, whichever is most.
- A written plan for matching the forage quantity and quality produced with the grazing and/or browsing demand by livestock and wildlife will be followed.
- Supplemental feed and/or minerals will be balanced with the forage consumption to meet the desired nutritional level for the kind and class of grazing and/or browsing livestock.



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Documentation and Implementation Requirements

Participant will:

- Prior to implementation, develop a map delineating the areas where the Monarch habitat will be implemented.
- Prior to implementation, obtain a written grazing plan (NRCS can provide assistance as needed). Plan must include:
 - Clear goals and objectives of the plan, including identification of the specie(s) of concern and the plant functional groups providing structure and composition.
 - Map identifying all permanent pastures, water sources, and any riparian area or watershed drainage locations improved or maintained by this management.
 - Forage inventory
 - Forage-animal balance sheet
 - A grazing plan narrative describing the basis for when livestock movement or rotation will occur, including deferment plans.
 - Contingency plans for forage shortfalls and for events that trigger adverse results.
 - Monitoring locations, key species, and monitoring techniques.
- Prior to implementation, work with NRCS to complete an assessment of the site using the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG).
- During implementation, keep the following documentation:
 - Livestock herd management records with seasonally important phenological stages of plant growth relative to species of concern.
 - Annually complete a forage utilization worksheet, such as NRCS Conservation Practice Standard Prescribed Grazing (Code 528) job sheet.
 - Grazing intensity records for all key grazing areas that accommodate the criteria.
- During implementation, defer, rest, or graze the enhanced, delineated Monarch areas to meet the nectar-producing forbs, including milkweed, needs of Monarch Butterflies when the Monarchs will be migrating through the area (e.g. spring and fall for the



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southern Great Plains, summer and fall for the Midwest, northern Great Plains and east, and spring through fall for the west.

- During implementation, consult with NRCS to adjust and adapt the grazing plan to current conditions to verify the changes meet enhancement criteria. Changes to the grazing plan will be documented in writing.
- After implementation, make all records available for review by NRCS to verify implementation of the enhancement.
- After implementation, complete an assessment of the site with NRCS using the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG).

NRCS will:

- As needed, provide technical additional assistance to the participant as requested.
- Prior to implementation, verify there are at least two delineated Monarch areas within the enrolled area, comprising at least 5 acres or 5% of the enrolled area, whichever is most.
- Prior to implementation, provide and explain NRCS Conservation Practice Standard Prescribed Grazing (Code 528) as it relates to implementing this enhancement, including any state approved job sheets or work sheets.
- Prior to implementation, complete an assessment of the site with the participant using the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG). Minimum score after implementation will be one category higher than initial score when specifically rated for Monarch Butterflies.

WHEG score before implementation: _____

WHEG score after implementation: _____

- Prior to implementation, assist the participant with development of a grazing plan, if requested. If NRCS does not assist with plan development, the plan(s) will be reviewed by NRCS for approval prior to implementation to confirm the written objectives meet the criteria of the enhancement.
- During implementation, as requested, assist the participant with adapting the grazing strategy and plan to current conditions.



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- After implementation, review grazing plan, records, and documentation to verify the enhancement was implemented to meet the criteria.
- After implementation, complete an assessment of the site with the participant using the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG). Minimum score after implementation will be one category higher than initial score when specifically rated for Monarch Butterflies. **WHEG score after implementation:** _____

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date



WASHINGTON SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY

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References for Washington Conservation Practice 528 (Prescribed Grazing) Enhancements

To meet criteria for the Prescribed Grazing Enhancements utilize one or more of the the below references or Technical Notes:

NOTE – Only eastern Washington (east of the Cascade Range) is suitable for Monarch butterfly Habitat.

CAUTION – Although grazing animals do not normally consume it, milkweed is poisonous to livestock. Consumption of milkweed indicates that adequate amounts of good forage are in short supply. **Do not plant milkweed in high livestock use areas or where it could be mixed in with hay.**

Biology Technical Note 29: **Eastern Washington Monarch Butterfly Wildlife Habitat Evaluation Guide (updated 2022)**; note that one will need both the datasheet (XLS) and instructions/appendices (PDF) documents. These are located in FOTG Section 1/Reference Lists/Technical Notes by discipline/Biology.

- Consult Biology Technical Note 24, **Plants for Pollinators in the Inland Northwest, Revised 2016** for appropriate plant species east of the Cascade Mts. and for guidance on establishing Monarch butterfly habitat. (efotg – [Section 1/Reference Lists/Technical Notes by Discipline/Biology](#))
- For additional Monarch nectar plants consult **Xerces Society’s Monarch Nectar Plant Guide: Inland Northwest** located on the Xerces website <https://xerces.org/monarchs>
- A list of **Certified Range Management Consultants** can be found on the Society for Range Management’s website under the Education Tab. <http://rangelands.org/>
- **NRCS Prescribed Grazing Conservation Practice Standard 528** can be found in FOTG Section 4, Practice Standards and Supporting Documents /Prescribed Grazing (AC) (528) folder <https://efotg.sc.egov.usda.gov/#/state/WA/documents>

- **National Range and Pasture Handbook.** Location: eDirectives, Handbooks, Title 190 – Ecological Sciences, Part 645 National Range and Pasture Handbook.
- **Ecological Site Descriptions** can be found in the NRCS Field Office Technical Guide <https://efotg.sc.egov.usda.gov/#/state/WA/documents> in Section 2. For planning unit ecological sites see bullet below.
- **Ecological Sites** for planning unit soils can be found by using the **Web Soil Survey** <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- **Interpreting Indicators of Rangeland Health**, Technical Reference 1734-6, Version 5 (*Range Technical Note 103 Rangeland Health Assessment*). Location: Field Office Technical Guide (FOTG), Section 1/Reference Lists/Technical Notes by Discipline/Range folder. [WA FOTG Range Folder](#)
- **Pasture Condition Scoring** (*Pasture Technical Note 104 Pasture Condition Scoring Guide*). Location: Field Office Technical Guide (FOTG), Section 1/Reference Lists/Technical Notes by Discipline/Pasture folder. [Washington | Field Office Technical Guide | NRCS - USDA](#)
- Information on native and non-native grass species critical growth periods can be found in **Range Technical Note 34**. Location: Field Office Technical Guide (FOTG), Section 1/Reference Lists/Technical Notes by Discipline/Range folder. [WA FOTG Range Folder](#)
- **Prescribed Grazing (528) Design Worksheet/s.** This document has several useful worksheets for developing grazing plans. Location: Section 4/Conservation Practice Standards & Support Documents/Prescribed Grazing (528) folder. [Washington | Field Office Technical Guide | NRCS - USDA](#)
- **Herbaceous Stubble Height as a Warning of Impending Cattle Grazing Damage to Riparian Areas.** Hall, Frederick C.; Bryant, Larry. 1995 Gen. Tech. Rep. PNW-GTR-362. USDA Forest Service, Pacific Northwest Research Station. 9 p. <https://www.treesearch.fs.fed.us/pubs/3062>

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- **Managing Grazing of Riparian Areas in the Intermountain Region.** Clary, Warren P.; Webster, Bert F.; 1989. Gen. Tech. Rep. INT-263. USDA Forest Service, Intermountain Research Station. 11 p. <https://www.fs.usda.gov/research/treesearch/24605>
- **Monitoring the Vegetation Resources in Riparian Areas.** Winward, Alma H. 2000. RMRS-GTR-47. USDA Forest Service, Rocky Mountain Research Station. 49 p. <https://www.fs.usda.gov/research/treesearch/5452>
- Use the Washington Department of Fish & Wildlife (WDFW) **Priority Habitats and Species (PHS) database** to identify priority wildlife and habitat in your area. <http://wdfw.wa.gov/mapping/phs/>
- Washington State's Wildlife Habitat Evaluation Guide (WHEG) is **Biology Technical Note 14 Wildlife Habitat Evaluation Guide (WHEG)**. Location: Field Office Technical Guide (FOTG), Section 1/Reference Lists/Technical Notes by Discipline/Biology folder. [WA FOTG Biology folder](#)
- For Washington State's **Sage Grouse Habitat Evaluation Guide (WHEG)** – contact State Sage Grouse lead (**NRCS State Biologist**) for the current evaluation guide.