

Guidance for Wildlife Habitat Establishment and Restoration in Areas Heavily Browsed by Deer, Elk, Moose or Other Ungulates when Utilizing Farm Program Funds

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Introduction

One of the most effective ways to improve wildlife habitat on upland landscapes is to re-establish the native plant community that existed prior to the introduction of agriculture. This often requires that the planting of woody species be considered or recommended as a primary restoration option. Once the native habitat has been restored, the benefits of improved cover and food resources are shared by all species of wildlife that occur in the area. This includes some species that are quite common and some species that are so uncommon or even rare that they are considered to be a threatened or endangered species by either the federal government or by the state.

An example of a common species that benefits from the planting of trees and shrubs are the white-tailed deer and the mule deer. These species, along with other ungulates, browse on woody plant material, especially during the winter months, utilizing the buds and inner bark as a food source. They can over browse newly established plants killing them. This requires the costly replacement of the plant materials and the risk of damage to the new vegetation is as great as it was to the original trees and shrubs. Protection from ungulate damage is therefore required to ensure the successful establishment of woody species during the habitat restoration process. Many attempts to find a low cost, effective method of deterring deer and other large herbivores have been made. All except game prove fencing have largely failed. Fencing is expensive and should only be used when it is really needed to address a resource concern.

There are alternative methods and/or plant materials that can be used to restore habitat in areas with high levels of ungulates that are regularly causing substantial levels of damage to woody plant materials. The use of herbaceous plant materials to restore habitat should, in this case, be the primary recommendation to the landowner. Only on sites where there are federally or state listed species or state species of concern that require woody habitat, and that can support the establishment of woody species should game prove fencing be used to protect trees and shrubs.

When targeting a listed species, Technical Note #14 The Wildlife Habitat Evaluation Guide may not be the proper tool to determine the Quality Criteria QC level because this Guide is designed to assess habitat for multiple suites of species that occupy the landuse being evaluated. Instead a Habitat Evaluation Procedure HEP model may be used. HEP models are designed for a specific wildlife species and will require the technical assistance of a biologist to locate and apply the proper model for the species, habitat and location being evaluated. It is also important to note that most HEP models have not been adequately tested in the field to determine if the elements within them are properly calibrated. Additionally, the most likely listed species that benefit from tree and/or shrub establishment will require large blocks of plantings and will not use the site for many years until the trees mature. The biologist will determine if the proposed tree and/or shrub establishment will benefit the target species.

Lastly it should be determined if all the elements necessary for the target species' habitat are in place. If the species has a need in addition to the trees and/or shrubs, this need must also be addressed or the species will not be able to utilize the restoration site. The restoration site may also need to be located in proximity to another habitat type. For example, a seasonal wetland, in the case of many amphibians, may need to be near the restoration site.

Use the guidelines below to determine how to proceed when planning targeted habitat restoration for specific species in areas heavily used by ungulates. Do not use this guidance when considering habitat improvement for a game species listed by the state.

Planning

1. Using the soil survey, determine what plant community the site supports, based on the soils present.
2. Inventory the plant species that currently occupy the site. Concentrate on the most dominant plant species first, then try to identify as many of the less dominate plants as possible. Next to each plant species, make note of the percentage of the area the plant inhabits. Estimate this percentage; do not spend too much time attempting to secure an exact number.
3. Using the Federal Threatened and Endangered species list and the Washington State priority species list for the area that includes the location where the work is to be completed, determine if the planned establishment or restoration will benefit any of the priority species. If you need assistance contact an NRCS or Washington Department of Fish and Wildlife biologist. ***Do not consider habitat improvement for game species listed by the state for this process.***

4. Complete the appropriate Landuse sections of the Washington Biology Technical Note #14 Wildlife Habitat Evaluation Guide (WHEG) to determine at what Quality Criteria (QC) level the site is currently. Work with a NRCS or Washington Department of Fish and Wildlife biologist to complete a HEP model for the target listed species. Also work with the biologist to determine if the planned plantings will meet the requirements the species has in conjunction with any other habitat needs, so it can be determined if the site will be able to maintain a viable population of the target species.
5. Work with the landowner to determine their objectives for improving wildlife habitat.

Decision Making

1. Determine which land uses evaluated using Technical Note #14 are at or above the QC level.
 - a. If the Landuse is at or above the QC level and the soils survey indicates that the site can support the establishment of woody vegetation, go to 2.
 - b. If the Landuse is below the QC level go to 3.
2. Determine if there are any Federal or State listed species or State priority species which may benefit from shifting the current QC level habitat to a habitat type that requires the establishment of some types of trees or shrubs. Working with a biologist, find a HEP model that will evaluate the habitat needs of the listed species and apply it to the site.
 - a. If there are species which would benefit from tree or shrub establishment based on the HEP model, go to 4.
 - b. If there are not species which would benefit from tree or shrub establishment, go to 6.
3. If the Landuse is below the QC level for wildlife habitat.
 - a. Determine if the site supports the establishment of trees and/or shrubs based on the soils survey information. If it does go back to question 2.
 - b. If the site does not support the establishment of trees and shrubs go to 6.
4. Does the site contain a wetland or is the site wholly or partly within the flood prone width?
 - a. If there is no wetland or if the site is not within the flood prone width, go to 5.
 - b. If there is a wetland or if the site is within the flood prone width, go to 6.
5. This site would benefit from the establishment of woody vegetation. Select trees and/or shrubs that the site could support and will be beneficial to the identified wildlife species. Request variance to construct a game proof fence and proceed with the project once a variance has been issued.

6. The site would not benefit from or support the establishment of woody vegetation. Plan on using herbaceous plant materials to improve wildlife habitat until it is above the QC level and supports the objectives set forth by the landowner. Proceed with the project using this alternative.

If you have any questions about this decision making process or need assistance in planning alternative habitat for wildlife, contact your Area Biology Contact or Area Resource Conservationist. If you need assistance with evaluating target listed or priority species, contact a NRCS or Washington Department of Fish and Wildlife biologist.