



CONSERVATION ENHANCEMENT ACTIVITY

E612C

CONSERVATION STEWARDSHIP PROGRAM

Establishing tree/shrub species to restore native plant communities

CONSERVATION PRACTICE: 612 - Tree/Shrub Establishment

APPLICABLE LAND USE: Forest

RESOURCE CONCERN: Animals, Plants

ENHANCEMENT LIFE SPAN: 15 years

Enhancement Description

Establish trees and/or shrubs to restore elements of plant communities and diversity that have been lost. Restoring stand-level diversity and function improves health and vigor through planting resilient and/or resistant native plant communities. Additional benefits include providing diversity in wildlife habitat and forage.

Criteria

- States will apply criteria from the NRCS National Conservation Practice Standard Tree/Shrub Establishment (Code 612), and any additional criteria as required by the NRCS State Office.
- Species selected for planting will be native to the site and will create a successional state that progresses toward the identified target plant community.
- To enhance native plant diversity, select a minimum of three different species of trees and/or shrubs to be planted. An exception is in situations where a native lost species is being restored to a fully-stocked forest stand. (i.e., American chestnut). Selection of species should also be chosen according to the site's natural disturbance regime. Species should be selected based on traits, successional status, structure, and composition.
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- Build forest resilience by favoring existing species that are better adapted to projected future climate conditions, and by enhancing relative compositional and structural diversity.
- Do not plant species on the Federal or State invasive species or noxious weed lists.
- Only viable, high-quality and site-adapted planting stock or seed will be used.
- A precondition for tree/shrub establishment is appropriately prepared sites. Refer to criteria in NRCS Conservation Practice Standard Tree/Shrub Site Preparation (Code 490).
- Implementation and timing of planting will be appropriate for the site and ensure successful establishment.
- Planting must be protected from unacceptable adverse impacts from insects, disease, wildlife, and/or fire. Apply supporting practices and treatments to protect establishing trees and shrubs, as necessary.
- Each site will be evaluated to determine if mulching, supplemental water, or other treatments (e.g., tree protection devices, shade cards, weed mats) will be needed to assure adequate survival and growth.
- The enhancement will comply with all applicable federal, state, and local laws and regulations, and with States' Forestry Best Management Practices for Water Quality.

Documentation and Implementation Requirements

Participant will:

- Prior to implementation:
 - provide an updated Forest Management Plan that documents intended objectives for restoring native plant communities.
 - select a combination of at least three native tree/shrub species that will increase plant and stand diversity.

Species	Note selected species characteristic(s)



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- During implementation:
 - install and maintain erosion control measures as needed for the site.
 - protect the planting(s) from plant and animal pests and fire.
 - notify NRCS in writing of any planned changes to verify changes meet NRCS enhancement criteria.

TASK	Species	Species	Species
Planting Date			
Planting Technique			
Arrangement/Spacing			

NRCS will:

- Prior to implementation:
 - provide and explain NRCS Conservation Practice Standard Tree/Shrub Site Preparation (Code 490) as it relates to implementing this enhancement.
 - verify the enhancement is planned for the appropriate land use.
 - provide and explain NRCS Conservation Practice Standard Tree/Shrub Establishment (Code 612) as it relates to implementing this enhancement.
 - verify no plants on the Federal or state noxious weeds list are included.
 - NRCS will provide Technical Assistance, as needed, in the following:
 - Selecting a combination of species to meet enhancement criteria.
 - Selecting planting techniques, arrangement and spacing design, and timing appropriate for the site and soil conditions.
 - Planning the use of additional erosion control for the site, as needed.
 - Preparing specifications for applying this enhancement for each site using approved state implementation requirements, national technical notes, appropriate state technical notes, and narrative statements in the conservation plan, or other acceptable documentation.

- During implementation:
 - evaluate any planned changes to verify they meet the enhancement criteria and were established to specifications developed for the site.



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- After implementation:
 - verify the plantings were protected from plant and animal pests and fire.
 - verify all erosion control needed for the site is functioning and is maintained to specifications developed for the site.

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

CONSERVATION STEWARDSHIP PROGRAM

E612C

Additional Criteria for Washington

- In addition to the criteria specified in the National job sheet E612C the following additional criteria apply in Washington:
 - This enhancement is applicable to rare and declining forest plant communities as well as other native forest plant communities in Washington. Below is a list of example plant communities in need of restoration:
 - Riparian restoration.
 - For Western Washington this would include re-establishing conifer component into hardwood (mostly red alder) riparian forest communities.
 - Throughout the state, this would include improving the native tree/shrub species diversity and control of non-native invaders.
 - See Plant Materials Technical Note 24 Riparian Tree and Shrub. This document is organized by MLRA.
 - Western White Pine re-introduction into it to its native range.
 - Re-introduce Blister Rust Resistant Western White Pine into its historic range. (Refer to USDA/USFS Agricultural Handbook 654 "Silvics of North America")
 - Western White Pine is a pioneer species (early seral) and will need a lot of sunlight. So, plant in forest openings.
 - Quaking Aspen restoration within its native range.
 - Generally, requires the removal of competing conifers and other decedent trees, and disturbance of the roots through ripping/tilling or prescribed fire.
 - Oregon White Oak protection and restoration within its native range.
 - For oaks within a forest setting, crop tree management thin may be needed along with removal of competing conifers.



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- For lands also used for grazing, prescribed grazing and other protection methods may be needed to protect the planted and naturally regenerated seedlings.
- For seedling stock types, planting methods, care, handling, temporary storage and protection options see 612 Specification Guide and Implementation Requirements standard instructions.
- The Web Soil Survey provides reports on site suitability for trees and shrubs such as: Ecological Site Descriptions (ESD), Forest Productivity and Rangeland and Forest Vegetation Classification. Natural Heritage Program ecological sites or USFS plant associations may be substituted for ESDs, if ESDs are unavailable.
- In WA, use Forestry Technical Note 10-Stand Density Guidelines (FOTG, Section I), for guidance on appropriate spacing. The stand density guidance is based on shade tolerance, climate and soils.
- NRCS WA planners do not provide technical or financial assistance for prescribed burning. NRCS does provide funding for help with developing Burn plans under DIA 160, through the use of a Technical Service Provider (TSP) found on the NRCS TechReg website. See WA DNR for help with burn permits and permitting process

Additional Documentation Requirements for Washington

- In addition to the documentation requirements specified in the National job sheet E612C the following additional documentation requirements apply in Washington:
 - As Needed Implementation Requirements for additional supporting practices such as:
 - 384 Woody Residue Treatment when there is an unusual amount of woody slash inhibiting planting.
 - 315 Herbaceous Weed Treatment or 314 Brush Management if there is a need for post-planting vegetation control due to pervasive competing vegetation.
 - 484 Mulch or 441 Irrigation system micro-irrigation when moisture management issues are inhibiting establishment of new plantings.



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- Through Forest Inventory methods document species composition and abundance (stocking and/or cover) before and after treatment.
- For long term success of planting, stocking (Survival) surveys should be done and documented for the first 3 years or until the planted and seeded stock are determined to be established and free to grow. If there is enough mortality to compromise the functionality of the planting, then it is recommended that the dead trees or shrubs are replaced. Volunteer trees and shrubs are acceptable replacements if their location maintains the functionality of the planting.

This is the only E612 Enhancement where 490 costs are not included as part of the enhancement. If 490 is needed it is appropriate to contract it.