



## CONSERVATION ENHANCEMENT ACTIVITY

E612B

# CONSERVATION STEWARDSHIP PROGRAM

### Planting for carbon sequestration and storage

#### CONSERVATION PRACTICE: 612 - Tree/Shrub Establishment

APPLICABLE LAND USE: Forest

RESOURCE CONCERN: Air

ENHANCEMENT LIFE SPAN: 15 years

#### Enhancement Description

Plant tree species and/or shrubs to sequester and store carbon. Forest stands will be managed for longer rotations and/or enhanced composition diversity to improve carbon storage.

#### 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 will be selected for their rate of growth, lifespan, historic range, mature size, suitability for retention as wildlife or legacy species, and/or suitability for use in long-lived sustainable wood products as well as their adaptability to current and future site conditions, including soil type.
- To support forest-level carbon sequestration and storage, native plant communities, soil organic matter, standing and down woody material should be properly maintained.
- 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.
- 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.

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- 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 carbon sequestration and storage.
  - select a combination of species with longer life spans that are suitable for their rate of growth, historical range, mature size, suitability for retention as wildlife or legacy species, and/or suitability for use in long-lived sustainable wood products as well as their adaptability to current and future site conditions, including soil type.
  - select planting technique, arrangement and spacing design, and timing appropriate for the site conditions.

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 acres that have been appropriately prepared for tree/shrub establishment.
  - 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, as needed for the site.
- During implementation:
  - evaluate any planned changes to verify they meet the enhancement criteria.
- After implementation:
  - verify the planned trees and shrub species were established to specifications developed for the site.
  - verify all erosion control needed for the site is functioning and is maintained to specifications developed for the site.



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**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

### E612B

#### Additional Criteria for Washington

- In addition to the criteria specified in the National job sheet E612B the following additional criteria apply
- in Washington:
  - 391 Riparian Forest Buffer nested inside other land uses can be considered forest land. See Plant Materials Technical note 24 Riparian Trees and Shrubs for species list.
  - For reforestation and afforestation situations, use the CPS for 612 Tree and Shrub Establishment, the associated Specification Guide for 612 and Forestry Technical Note 10-Stand Density Guide for guidance on minimum stocking levels, timing, design, treatment methods and considerations needed for successful implementation of the enhancement activity.
  - When selecting native upland species, 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 addition, Forestry Technical Note 10 (FOTG, Section I) has a list of conifers and hardwoods that commonly used for producing durable products. The conifers will have the longer life spans and the two hardwoods will have the fastest growth rates when the species is suited to the site (both soil and climate).

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## Additional Documentation Requirements for Washington

In addition to the documentation requirements specified in the National job sheet E612B the following additional documentation requirements apply in Washington:

- Document if the enhancement activity is afforestation, reforestation and/or Stand density management (thinning-commercial or pre- commercial).
- As Needed Implementation Requirements for 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.
- 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.