

**U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK CONSERVATION PRACTICE GUIDELINE**

TREE/SHRUB ESTABLISHMENT

(ACRE)

612

REFERENCES

National Handbook of Conservation Practices-612, Tree/Shrub Establishment
Lead Discipline: ESD-For & CED-LA

Commonly Associated Practices or Processes

The following conservation practices are commonly used in conjunction with this practice to address natural resource concerns and opportunities in New York. This does not imply that any or all of the listed practices must be included or that others may not be included in a conservation management system (CMS). Consult Section III of the Field Office Technical Guide for assistance in developing a CMS.

To determine whether a Conservation Practice Standard applies to this and any other associated practices in New York, check the following website: http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=NY. Select a County. On the eFOTG main screen, in the menu pane on the left side of the screen, open the Section IV folder to find the Conservation Practices for use in New York. Also included under Section IV are New York Construction Specifications, Engineering Job Sheets, Guidelines and/or Procedures relevant to the Practice Standards.

Table A: Commonly Associated Practice Standards or Processes

Number	Name
314	Brush Management
327	Conservation Cover
380	Windbreak/Shelterbelt Establishment
382	Fence
391	Riparian Forest Buffer
422	Hedgerow Planting
595	Pest Management
472	Use Exclusion
490	Tree/Shrub Preparation
580	Streambank and Shoreline Protection
643	Restoration and Management of Declining Habitats
644	Wetland Wildlife Habitat Management
645	Upland Wildlife Habitat Management
647	Early Successional Habitat Development/Mgt.

OTHER REFERENCES

The following references can be accessed from: <http://policy.nrcs.usda.gov>

- NRCS National Forestry Manual
- NRCS National Biology Handbook
- NRCS National Biology Manual
- NRCS National Agronomy Manual
- NRCS National Planning Procedures Handbook (NPPH)
- NRCS National Environmental Compliance Handbook (NEPA)

New York NRCS Plant Materials Technical Reference No. 11, "A Guide To: Conservation Plantings on Critical Erosion Areas for New York".

Vegetative Practice Design Application (VegSpec) <http://vegspec.nrcs.usda.gov/vegSpec/index.jsp>

NRCS Conservation Buffers Training Manual(s) (from NEDC training course)

CULTURAL RESOURCES

Cultural resource reviews will be conducted for all ground disturbing practices, components, or other activities, as per the State Level Agreement between NRCS and the New York State Historic Preservation Officer.

PERMITS AND NOTIFICATIONS

All permits, easements, and rights-of-way are the responsibility of the landowner. **Dig Safely NY** (formerly the Underground Facilities Protection Organization, or UFPO) and non-member local utilities will be contacted according to the time required before construction to mark all facilities in the construction area. This is the responsibility of the excavator.

Identification and the location of all other underground or overhead facilities is the responsibility of the landowner.

Erosion and Sediment Control - An erosion and sediment control plan shall be developed for all ground disturbing activities. For disturbed areas greater than one acre, the erosion and sediment control plan shall meet the planning, installation, and maintenance requirements of NYS Pollutant Discharge Elimination System General Permit for Stormwater Discharges. All erosion and sediment control structures and measures shall be installed prior to earth disturbing activities unless otherwise directed in the construction drawings and specifications.

Threatened and endangered (T&E) species review will be conducted for all projects as part of the NEPA process. This review will include an assessment of available records documenting the presence of T&E species in the project area. At a minimum, the New York State Department of Environmental Conservation and U.S Fish and Wildlife Service will be contacted for potential presence of listed species. If a T&E species is or was historically present at a site, document findings on the NRCS-CPA-52 form as appropriate and contact the Appropriate Biological Specialist for guidance on how to proceed with the project.

DECISION MAKER INVOLVEMENT AND PLAN REVIEW

Involve the decision maker at all stages of inventory and design. All landowner decisions need to be documented. Review the conservation plan. Determine that the NEPA process has been completed and documented on a CPA-52 and that the project can proceed with no additional analysis required. Ensure an operation and maintenance plan is provided to and reviewed with the decision maker.

INVENTORY AND EVALUATION

1. Review landowner/operators objectives and extent of proposed treatment area.
2. Review all potential sites in the field to determine if the site meets the “Condition Where Practice Applies” statement within the conservation practice standard.
3. Compile and review all relevant resource inventory maps. These include but are not limited to aerial imagery, soils maps, topographic maps, and wetland maps.
4. Determine land use of proposed treatment area and surrounding landscape. Document land use on plan map. Label tract, field, and acreage. Be cognizant of property boundaries, other land easement boundaries, overhead power lines, and major underground utilities.
5. From field observation identify and inventory existing vegetation, density, and type of habitat, document all information on field notes and plan maps. If any invasive plant species exist within and/or adjacent to the treatment area, evaluate the effect they may have on the practice establishment.
6. Evaluate the Forest Productivity soil site index rating from the soil survey for the proposed treatment area.
7. Based on field observation identify and label existing conservation practices within the proposed treatment area. Include practices that are adjacent to the treatment area that could have an impact on the treatment area.
8. Document management activities including livestock and vehicle traffic patterns.
9. Evaluate the need for exclusion fencing and additional practices.
10. Evaluate the up-slope conditions to determine whether systems that are in place meet quality criteria. Determine the need for any additional treatment.
11. Summarize the inventory and evaluation process in a Benchmark Plan Narrative.

DESIGN

Tree/Shrub Establishment will be designed using a combination of practices that when implemented will combine to provide a treatment level meeting required quality criteria.

1. Determine appropriate tree/shrub species based upon resource inventory. Avoid species known to be invasive. Consider insect and disease quarantines on tree and shrub species that may limit plant selection.
2. Additional conservation practice components may be needed to protect the integrity of the tree/shrub establishment. Include practices to address concentrated flow areas, unstable streambanks, livestock exclusion, and treatment of adjacent cropland runoff. Refer to appropriate standards and guidelines to plan, design, and install the required components.
3. Identify all measures needed for successful tree/shrub establishment. Develop tree/shrub planting specifications for the selected species based on soil suitability ratings, intended function and habitat type. Planting specifications will document required density/planting pattern, method of planting, type of planting stock, timing of establishment and related activities. Include measures to guard against damage from animals and excessive weed competition and need for supplemental watering.
4. Develop a plan map and job sheet with appropriate scale and legend that documents cover extent and specific layout. A plan map needs to provide location and extent of all existing and planned components.
5. Determine your level of Ecological Science Practice Standard Certification and approval authority for the project. Obtain approval from the appropriate individual if not qualified.

6. In situations where inadequate cover exists for erosion control, cover needs to be established prior to tree planting. Include appropriate seeding specifications with this design.
7. If existing cover has been determined to be of adequate density and species diversity, or if natural regeneration has been selected as an establishment option, identify and specify the appropriate management practices that will maintain/enhance the existing cover and/or promote successful natural regeneration in O&M plan.
8. Ensure plant materials are ordered and available to coincide with optimum planting dates. If project completion does not coincide with optimal planting dates, alternative methods to protect the site will be used (i.e. cover crop, mulching).
9. Develop an installation sequence for tree/shrub establishment so as not to interfere with individual practice function.
10. Compute material quantities for each item of work.
11. Develop a cost estimate, an O & M Plan, and an inspection plan for the project, and review these and the completed construction drawings and specifications with the landowner.
12. A statement requiring the excavator to notify **Dig Safely NY** and non-member utilities for proper utility notification is **REQUIRED** on the drawing.

INSTALLATION

The construction and inspection will be in accordance with the practice(s) being installed.

1. Provide copies of the planting specifications and drawings to the landowner. Explain all aspects of the job before a contractor is secured. Review the O&M plan with the landowner to assure understanding and proper maintenance of the completed practice
2. Review the job with landowner and contractor prior to establishment. Ensure that all utilities applicable to the job site have been marked prior to establishment.
3. Ensure proper site preparation for planting, which may require close mowing of grass/brush and/or herbicide application.
4. Inspect all component practices to ensure they are installed in the specified sequence.
5. Ensure plant material quantity and quality standards are met.
6. Ensure trees/shrubs are planted at the specified location, density, and depth. Check for proper soil-root contact. Ensure all seedling protection measures have been installed and properly anchored.

CHECK OUT

All planned, designed, and installed conservation practices require documentation in the appropriate case file. Documentation must be sufficient to show:

1. The design conforms to the applicable standard;
2. The prepared construction drawings, specifications, plan maps, and/or job sheets accurately reflect the design;
3. The installed practice meets the requirements of the construction drawings, specifications, and practice standard; and
4. The "As Built" condition of the practice. Write "As Built" in red on drawings. Record all changes made during implementation in red. Practices not requiring drawings will have the "As Built" condition documented on plan maps, job sheets, and/or with narrative.

REPORTING

Enter all documentation in the Conservation Plan (Toolkit), contract document (Protracts) and Conservation Assistance Notes (NRCS-CPA-6/6A), or equivalents.

Report the practice and applicable components in the NRCS Progress Reporting System (PRS). Be certain to report benefits for all applicable resources and resource concerns as allowed in the NRCS progress reporting system.

OPERATION AND MAINTENANCE

Facilities, structures, and practices must be operated and maintained to ensure proper function and longevity. Periodic follow-up with the landowner is essential to ensure that all operation and maintenance (O&M) requirements are understood and followed.