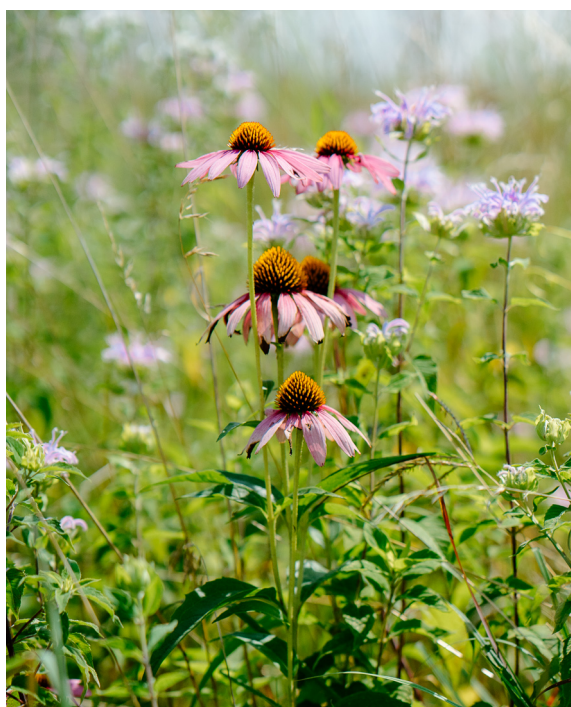


Flourishing Landscapes:

Planting Forests and Meadows Across Pennsylvania



A guide to understanding how DCNR's Watershed Forestry Program can help plant a riparian forest, lawn-to-forest, or lawn-to-meadow project on your land via direct contracting



pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

Pennsylvania's Watershed Forestry Program

Pennsylvania has a lot of streams - over 86,000 miles of them. All of this water provides drinking water for humans and animals and opportunities for recreation. How we live on the land ultimately impacts water. The Watershed Forestry Program aims to support Pennsylvanians in planting native trees, shrubs, and meadows across the landscape to improve the quality of water, land, and life. Planting riparian forest buffers and converting lawn to forests and meadows are cost-effective, nature-based solutions to improve water quality, mitigate climate change, and restore native habitat.

This document will provide you with more information about the Watershed Forestry practices and how the Department of Conservation and Natural Resources (DCNR) supports planting with direct contracting, what makes a project eligible for planting via direct contracting, and what a landowner can expect when DCNR funds their project. If you still have questions after carefully reviewing this document, please reach out to DCNR's Watershed Forestry staff!

Riparian Forest Buffers



Riparian forest buffers are native forests planted within 300-ft of a waterbody, such as a stream or pond. Benefits include:

- Improve water quality through increased stormwater infiltration, nutrient reduction, and erosion reduction
- Shade waterways to reduce temperature pollution
- Add leaf litter to waterways to increase the in-stream processing of pollutants
- Increase native plant biodiversity
- Increase wildlife and pollinator habitat through the restoration of native plant communities
- Improve carbon sequestration and storage
- Improve air quality via forest establishment

1. Site Visit

The Direct Contracting Process

How DCNR supports eligible Watershed Forestry planting projects by directly contracting with landscape and conservation professionals.

The process starts when you reach out to DCNR with interest in a project. The Watershed Forestry Program is in high demand and it may take several months for your site visit to be scheduled.

DCNR will visit your property to see the project area. You're encouraged to share more about what you're looking for with a Watershed Forestry project and ask any questions you may have. They'll determine the project size and look for any problematic invasive plants. Receiving a site visit does not guarantee you are eligible for planting via direct contracting.

Project Planting via Direct Contracting

When federal grants and state discretionary funding are available, DCNR contracts with pre-qualified landscape and conservation professionals to implement eligible, shovel-ready riparian forest, upland forest, and native meadow plantings on privately- and publicly-owned lands. Funding varies yearly and its availability is never guaranteed. With high demand for these forest and meadow plantings, there is often a long list of eligible projects waiting to be implemented.

As a private landowner, you do not receive funding directly from the Commonwealth for your project. DCNR hires pre-qualified professionals through a contract to implement projects at little to no cost to you.

There may also be other funding opportunities available for your project through other federal or state agencies, non-profits, or local governments.

Lawn to Habitat



Lawn to habitat is the intentional transition of regularly mowed, maintained lawn to either native, managed meadow or native forest. Benefits include:

- Improve water quality through increased stormwater infiltration, nutrient reduction, and erosion reduction
- Promote healthy soils
- Increase native plant biodiversity
- Increase wildlife and pollinator habitat through the restoration of native plant communities
- Improve carbon sequestration and storage
- Improve air quality through decreased mowing emissions and air pollution removal

2. Eligibility

After visiting your property, DCNR will let you know if you are eligible for a project via direct contracting, or if there's other funding better suited for your project. If you're eligible and suited for planting via Direct Contracting, your project will be added to DCNR's waitlist for prioritization.

If your project is not eligible, DCNR will share why and give you recommendations on how to achieve your goals. Presence of invasive plants, ineligible starting land use, and too small of a project area commonly lead to a project being deemed ineligible.

3. Contracting

Eligible projects on DCNR's waitlist are ranked annually. You will be notified when your project is ready for planting. Due to high program demand and limited funding, it may take several planting seasons for your project to be contracted.

When your project is ready to move forward, DCNR will notify you. After completing a planting plan with you, DCNR will contract with pre-qualified professionals to plant your new forest or meadow. The contracting process typically takes several months. Site prep can begin once the contract is in place and planting is completed in either fall or spring.

Riparian Forest Buffers

Planting a new forest along or within 300-ft of a waterbody improves water quality and increases wildlife habitat both on the land and in the stream.



Tree Species

- Swamp white oak
- Black willow
- Black gum
- River birch
- Silver maple
- Sycamore
- Blackhaw viburnum

Shrub Species

- Silky dogwood
- Swamp rose
- Buttonbush
- Ninebark
- Speckled alder
- Spicebush
- Meadowsweet



Planting a Riparian Forest

- Riparian forests are planted on a grid with small containerized or bare root seedlings at a density of at least 150 stems per acre
- Trees and shrubs are protected from deer and voles using tree shelters, such as plastic tubes or cages
- Species planted are native and appropriate for the site's specific conditions
- DCNR cannot guarantee that specific tree or shrub species will be available for planting
- Riparian forests must have an average width of at least 35-ft when planted next to a waterbody
- Riparian forests may need periodic mowing or herbicide applications in the first five (5) years to control competing vegetation while the young trees and shrubs establish
- Riparian forests are wild spaces that should not be mulched, irrigated, or fertilized

Eligibility Requirements for a Riparian Forest Buffer

- Your project is within 300-ft of a waterbody, such as a stream or pond
- Your project area has little to no invasive plants
- You are open to the limited use of herbicide for site preparation
- You agree to care for the planting for five (5) years
- You understand that funding is limited and you will be responsible for the costs to care for the planting after the project is installed

DCNR must visit your property with you to determine your eligibility for planting via direct contracting.

Multifunctional Riparian Forest Buffers

Growing in popularity are multifunctional riparian forest buffers. These forest plantings provide you opportunities for harvesting nuts, berries, woody florals, and more. Whether planted for your own enjoyment or for income diversification, a multifunctional riparian forest buffer can add value to your land.



Edible and Floral Plants

Pennsylvania is home to diversity of tasty fruit and beautiful flowers. Trees and shrubs can be planted as straight species, or you may be interested in adding a few hybrids or varieties to your planting. Landowners enjoy using serviceberries to create jams, topping a cheesecake with persimmons, or adding curly willow to floral arrangements.

- Pawpaw
- Persimmon
- Elderberry
- Hazelnut
- Red-osier dogwood
- Serviceberry
- Black currant
- Blueberries
- Curly willow
- Chestnut
- Black chokeberry
- Witch hazel
- Black walnut
- Blackberry
- Hydrangea
- Pussy willow

Lawn to Habitat

Transitioning your lawn to native meadow or forest is a great way to improve water quality, increase wildlife habitat, reduce the time and costs of lawn care, and reduce the environmental impacts associated with mowing. You don't have to lose all of your lawn to enjoy these benefits!



Native Meadow

Meadows are a type of plant community dominated by native wildflowers and grasses. These diverse habitats are maintained over time with periodic mowing, prescribed fire, or other disturbances to prevent them from becoming forest. Full of year-round color and texture, these habitats are a refreshing sight for people and wildlife alike in a sea of turf grass, parking lots, and buildings.



Planting a Native Meadow

- Meadows are planted with seed mixes comprised of native wildflowers and/or grasses
- Meadows are designed as wild spaces where plants flourish where they do best; each meadow is unique
- Meadows are not garden beds and should not be mulched, irrigated, or fertilized
- DCNR cannot guarantee that specific wildflower or grass species will be available for planting
- Meadows need periodic high clippings at 8"-10" in the first growing season after being planted to control competing vegetation
- Long-term, meadows need a periodic disturbance to prevent woody plants from establishing. Rotational mowing is commonly used no more than once per year in the late fall or early spring
- Properly-timed herbicide applications may be needed to control invasive vegetation that does not respond to manual removal

Eligibility Requirements for a Lawn to Habitat Project

- You regularly maintain lawn in the project area
- Your project area is at least 1/2-acre in size
- Your project area is free of invasive plants
- You are open to the limited use of herbicide for site preparation
- You agree to care for the planting for five (5) years
- You understand that funding is limited and you will be responsible for the costs to care for the planting after the project is installed

*DCNR must visit your property with you to determine your eligibility for planting via direct contracting.
Continue mowing your lawn to maintain eligibility!*

Upland Forest

Native forests are a plant community characterized by mature trees and shrubs, where the canopy is mostly closed. After establishment, mowing should cease to allow the forest to regenerate, but you may still need to manage competing and invasive plants. As the canopy closes, you'll find that your new forest is a refreshing place to enjoy birdwatching, gather native fruit, or enjoy the shade on a hot summer day.



Planting an Upland Forest

- Upland forests are planted on a grid with small containerized or bare root seedlings at a density of at least 150 stems per acre
- Trees and shrubs are protected from deer and voles using tree shelters, such as plastic tubes or cages
- Species planted are native and appropriate for the site's specific conditions
- DCNR cannot guarantee that specific tree or shrub species will be available for planting
- Upland forests may need periodic mowing or herbicide applications in the first five (5) years to control competing vegetation while the young trees and shrubs establish
- Upland forests are wild spaces that should not be mulched, irrigated, or fertilized

Frequently Asked Questions

1. I've already started to plant a forest or meadow. Can DCNR reimburse me?

The Commonwealth is unable to pay private landowners directly and cannot reimburse you for costs you've already incurred or have yet to incur.

2. I'm interested in a lawn-to-habitat project and have stopped mowing my lawn.

The starting land use for a lawn-to-habitat project must be lawn. If you've stopped mowing your lawn, start mowing it again and address any invasive plants that have established before reaching out to DCNR. Other ineligible starting land uses include, but are not limited to, cropland, pasture, fallow fields, and natural areas.

3. How does DCNR Watershed Forestry staff support landowners?

DCNR is eager to help Pennsylvanians plant forests and meadows on their lands. Our staff can assist by recommending species to plant, suggesting management techniques for your planting, giving a presentation, identifying funding opportunities if appropriate, and more. We also share resources from other state agencies, non-profits, and NGOs to help landowners meet their goals. If you are looking for someone to provide hands-on land management or highly-personalized designs, inquire with a local landscape professional.

4. Can I plant a combination of upland forest, riparian forest, and/or meadow on my land?

Yes, as long your project is meets eligibility requirements for planting via Direct Contracting! Let DCNR know what type(s) of projects you are interested in prior to your site visit. DCNR may recommend one type of planting over another, depending on site conditions present.

5. Why does DCNR require using herbicides when planting projects via direct contracting?

Managing invasive and non-native plants is key to establishing and maintaining diverse native plant communities. DCNR recognizes that all weed management techniques, chemical or non-chemical, have environmental tradeoffs. We consider herbicides to be an effective and reliable short-term method to prepare a site or to control especially aggressive non-native plants. These targeted herbicide applications are always made by certified professionals with the goal of using the least chemical for the shortest amount of time. If someone in your household is on Pennsylvania Department of Agriculture's Pesticide Hypersensitivity Registry, let DCNR know when you reach out. If your project is otherwise eligible for planting via direct contracting, non-chemical site preparation may be possible.