TEDI

Tree for Every Delawarean Initiative

FY 2022 Annual Report

Department of Natural Resources
and Environmental Control

Division of Climate, Coastal and Energy

de.gov/tedi

Shawn M. Garvin
Office of the Secretary

Secretary of
the Department of
Natural Resources and
Environmental Control

Message from Secretary Shawn Garvin

In its first year, the Tree for Every Delawarean Initiative – TEDI – has put in place a foundation on which to build toward the program's goal of planting 1 million trees by 2030.

These plantings, and the plantings that will occur in the coming years, will help Delaware in its efforts to reduce the harmful greenhouse gases that are driving climate change. Trees are natural champions. They improve air, water, and soil quality, and they reduce carbon dioxide in the atmosphere by absorbing and storing it.

In rural settings, trees and forests provide habitat for animals, improve water quality, and reduce soil erosion. In urban settings, trees help provide shade and improve air quality.

Planting trees is not the only way we can reduce the causes and consequences of climate change. Delaware's Climate Action Plan outlines strategies including energy efficiency, a greater use of renewable energy, clean transportation alternatives, and improving grid stability.

But as we are looking around our homes and businesses for ways that we can be part of the solution, planting trees is one way that we can make a difference. The online TEDI tracker (de.gov/tedi) lets home and business owners enter the details of their own plantings – whether it is a single tree or a larger effort – and contribute to the goal of 1 million trees.

TEDI's accomplishments this year would not have been possible without the help of many partners, including the Delaware Forest Service's Urban and Community Forestry Program under the Delaware Department of Agriculture, environmental groups, non-governmental organizations and countless volunteers.

Their efforts help Delaware reduce greenhouse gases in our atmosphere, enhance habitat for wildlife, improve air and water quality, and promote healthy ecosystems now and for generations ahead.

Continuing to grow these partnerships, as well as establishing new alliances in the coming years, will help us build on the successes of our inaugural year and move toward our goal of planting a tree for every Delawarean.

Department of Natural Resources and Environmental Control

Division of Climate, Coastal and Energy
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Acknowledgements

We would like to thank our dedicated volunteers and committed partners in helping to make the first year of TEDI a great success. We are looking forward to working with groups and individuals in the future to continue to expand tree plantings in Delaware communities, parks, cities, rural areas and more.

Overview

Governor John Carney launched the Tree for Every Delawarean Iniative (TEDI) on November 9, 2021. Delaware has set a goal of planting 1 million trees by 2030, in support of its Climate Action Plan.

TEDI is administered by the Delaware Department of Natural Resources and Environmental Control's (DNREC) Division of Climate, Coastal and Energy (DCCE) in partnership with the Delaware Forest Service's Urban and Community Forestry (UCF) Program under the Delaware Department of Agriculture (DDA).

TEDI works with Delaware partners to enhance and support tree planting projects throughout the state. TEDI provides financial support through grant awards, technical assistance, resources to communities and more. The program aims to involve the public in an important environmental effort, enhance tree canopy coverage in Delaware, connect partners that share a common goal and bring communities together.

TEDI partners include DCCE, UCF, conservation partners, non-governmental organizations and state and local agencies.

This report details accomplishments in fiscal year 2022 (July 1, 2021–June 30, 2022), the first fiscal year of TEDI.

Importance of Trees

Trees are natural champions, from our state forests to our city parks. For example, they improve air, water and soil quality. They also play a critical role in helping to fight climate change. Planting and nurturing trees is a nature-based solution to reducing the greenhouse gases that drive climate change. Trees and forests reduce carbon in the atmosphere by absorbing carbon dioxide from the air and storing it in the tree, so planting more trees is one way to help curb climate change.

Types of Projects Receiving TEDI Funding

Delaware's operating budget allocated $100,000 in FY 2022 to TEDI. With this first year of funding, the goal was to accelerate and augment already planned projects.

TEDI focuses on three types of projects: reforestation, afforestation and urban plantings. Approaches and methods to planting trees can vary depending on factors including the location and surrounding environment of the project. Each project type has specific considerations for implementation.

Reforestation projects involve the replanting of trees that were previously lost to natural disasters, disease, pests and/or development, while afforestation projects establish forests in lands that were previously not forested. Reforestation and afforestation projects are typically large in scale (hundreds to thousands of trees) and occur in areas including parks, wildlife areas, agricultural fields and parcels of land owned by conservation partners.

Reforestation and afforestation projects have their own challenges. These types of plantings are extremely vulnerable to wildlife impacts, especially trees in their early stages of growth. Deer, rodents and other pests can damage newly planted trees and lower survivability rates of project plantings. For these reasons, protective measurements such as tree tubes and tree guards are often incorporated in reforestation and afforestation projects. These projects tend to take place on lands with little to no access to water. Therefore, tree survivability is highly dependent on watering, which can occur either naturally or through manual watering practices.

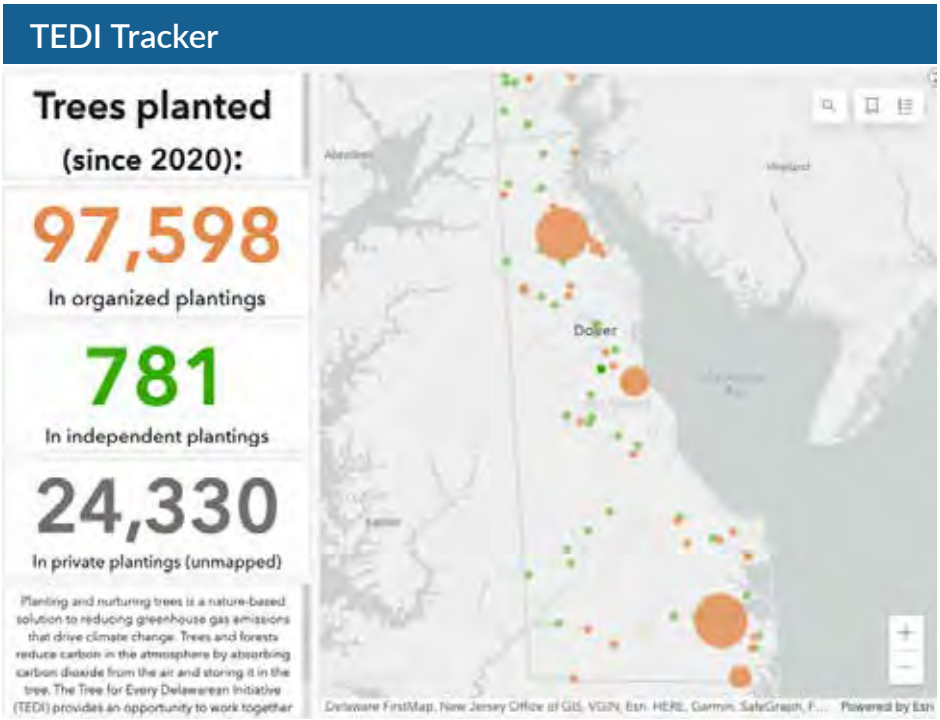
Urban plantings occur in areas including municipalities, subdivisions, business complexes, urban streets and parks and schools. Urban plantings, generally smaller in scale but with higher relative costs, help to curb heat island effects due to climate change. Urban plantings can also include the planting of street trees, which can be costly and labor intensive. Special considerations for urban plantings include routine maintenance, potential for heaving sidewalks, extreme heat stress and water stress due to high percentage of impervious surfaces (sidewalks, roadways, parking lots, etc.).

TEDI Website and Tracker

To help support Delaware's goal of planting 1 million trees by 2030, DNREC developed a TEDI website (de.gov/tedi) which features a tree planting tracker, planting tips, maintenance considerations, a list of Delaware native trees and local nurseries that carry native trees.

The TEDI Tracker includes trees planted since January of 2020 from all funding sources, not just TEDI funding.

To serve all user groups, three categories were developed for the tracker, displayed as follows:



- Orange represents organized plantings. These plantings are conducted by conservation partners and organizations.
- Green represents independent plantings, trees planted and voluntarily logged by Delaware home and business owners.
- Gray represents plantings on private property. They are not shown on the map for privacy reasons by request of the property owner.

TEDI Tracker (accessed from de.gov/tedi)

FY 2022 Plantings

In FY 2022, the TEDI team established partnerships across the First State and set the foundation for success. The FY 2022 funding was allocated to leverage already-planned projects among TEDI partners. FY 2022 funding was broken out as follows:

70% to state agencies, non-governmental organizations and conservation partners for afforestation and reforestation projects

30% to the Delaware Forest Service's UCF Program for urban plantings

Of the $70,000 allocated to state agencies, non-governmental organizations and conservation partners, funding was disbursed across a multitude of organizations, including: DNREC Division of Fish and Wildlife; Delaware Center for Horticulture; Delaware Center for the Inland Bays; Delaware National Estuarine Research Reserve; Delaware Wild Lands; and the Delaware Nature Society.

The Delaware Forest Service's UCF Program received $30,000, which was matched to additional federal and state sources and utilized for planting trees in communities and other urban areas.

DCCE provided $20,000 in supplemental funding to help support TEDI in its first year, since the funding needs exceeded the amount available.

The table below shows the FY 2022 TEDI funding and DCCE supplemental funding provided to each partnering organization:

Organization	Funding	Trees Planted
TEDI Funding: Partner Organizations	$70,000	72,318
TEDI Funding: DDA Urban Forestry Grant Program	$30,000	163
TEDI Funding Total	$100,000	72,481
DCCE Supplemental Funding: Delaware Parks	$20,000	867
GRAND TOTAL	$120,000	73,348
TEDI Funding Received by Partner Organizations:		
DNREC/UCF TEDI Kick-Off Event	$843	26
Center for the Inland Bays	$11,657	7,425
Delaware National Estuarine Research Reserve	$5,000	226
Delaware Wild Lands	$9,500	3,000
DNREC Fish and Wildlife	$20,000	61,500
Delaware Nature Society	$3,000	111
Delaware Center for Horticulture	$20,000	30

In FY 2022, TEDI funding resulted in planting a total of 72,481 native trees on approximately 120 acres. Supplemental funding provided by DCCE supported the planting of an additional 867 trees. Planting projects occurred in all three counties in the form of reforestation, afforestation and urban tree plantings.

Tree Planting Projects: Partner Organizations

Tree planting projects led by state agencies, non-governmental organizations and conservation partners are described in the following:

(Left to Right) DCCE Division Director Dayna Cobb, DNREC Secretary Shawn Garvin, Governor John Carney, DDA Secretary Michael Scuse, Lt. Governor Bethany Hall-Long, New Castle County Executive Matt Meyer and State Senator Stephanie Hansen plant a willow oak tree at the TEDI kick-off.

TEDI Kick-Off Event

DNREC and DDA held a TEDI kick-off event on November 9, 2021, at the Lt. Szczerba Memorial Park in New Castle County. Governor John Carney, DNREC Secretary Shawn Garvin and DDA Secretary Michael Scuse planted 26 trees (8-12 feet tall) with volunteers. This native tree planting consisted of white oak, willow oak, sycamore and white pine. The newly planted trees will provide shade for cooling and improved air quality in the surrounding community.

Volunteers assist with tree plantings at the Lighthouse Road Project.

Center for the Inland Bays

Lighthouse Road Project in Sussex County

The Center for the Inland Bays reforested 9.6 acres on two parcels along Lighthouse Road approximately five miles east of Selbyville. These parcels lie within the Little Assawoman Bay Watershed in Sussex County. A total of 7,425 native trees were planted. New plantings consisted of black locust, persimmon, shortleaf pine and willow oak. Reforestation efforts at this site will help to reduce sediment and nutrients such as nitrogen and phosphorus entering the Little Assawoman Bay, enhance wildlife habitat in the area and sequester atmospheric carbon.

The planting area at Blackbird Creek Reserve is staged for volunteers to plant trees.

Delaware National Estuarine Research Reserve

Blackbird Creek Reserve Planting in Townsend

The Delaware National Estuarine Research Reserve hosted a volunteer tree planting event in celebration of Earth Day in April of 2022. Volunteers from the public planted 226 native trees at the Blackbird Creek Reserve in Townsend. New plantings consisted of river birch, loblolly pine, white oak and more. This planting was part of a long-term afforestation plan that will reconnect important wildlife corridors, sequester carbon, enhance upland habitats and improve water quality in the Blackbird Creek.

A volunteer at the Blackbird Creek Reserve planting in Townsend plants a tree.

Volunteers work together at Roberts Farm on November 20, 2021.

Volunteers secure a tree guard to deter deer browsing around the newly planted tree.

Delaware Wild Lands

Taylors Bridge Roberts Farm Planting in Townsend

The Taylors Bridge Roberts Farm features 1,250 acres along Blackbird Creek in Townsend in southern New Castle County. This large-scale initiative is an ongoing, phased conservation project headed by Delaware Wild Lands. Other partners include the Conservation Fund and Mount Cuba Center. In the fall of 2021, volunteers planted 3,000 seedlings on the property. New plantings consisted of native trees such as hickory and white oak. Tree plantings will provide for wildlife habitat and wildlife corridor connections, while improving water quality for the Blackbird Creek and the Appoquinimink River.

Trees are staged at Eagles Nest Wildlife Area for a tree planting project.

DNREC Division of Fish and Wildlife

The DNREC Division of Fish and Wildlife implemented six tree planting projects in FY 2022, totaling 61,500 trees across 33.2 acres, as described below:

Eagles Nest Wildlife Area in New Castle County

DNREC's Division of Fish and Wildlife staff planted 11,400 bareroot seedlings on 8.2 acres of retired agricultural fields at Eagles Nest Wildlife Area in Townsend. New plantings consisted of pin oak, willow oak, loblolly pine, eastern red cedar and persimmon.

Cedar Swamp Wildlife Area in New Castle County

DNREC Division of Fish and Wildlife staff planted 8,600 bareroot seedlings on 6.2 acres at the Cedar Swamp Wildlife Area, along the shore of the Delaware Bay in New Castle County. New plantings consisted of pin oak, willow oak, dogwood and red bud.

Woodland Beach Wildlife Area in Kent County

DNREC Division of Fish and Wildlife staff planted 8,200 bareroot seedlings on 7.3 acres at the Woodland Beach Wildlife Area along the shore of the Delaware Bay in Kent County. The planting occurred across three separate tracts of the wildlife area. New plantings consisted of chestnut oak, willow oak and red oak.

Newly planted bareroot seedlings are secured with tree tubes at the Piney Point Tract in the Assawoman Wildlife Area.

Blackiston Wildlife Area in Kent County

DNREC Division of Fish and Wildlife staff and volunteers planted 5,500 bareroot seedlings on 4 acres at the Blackiston Wildlife Area, northwest of Kenton in Kent County. New plantings consisted of loblolly pine and eastern red cedar.

Ted Harvey Conservation Area in Kent County

DNREC Division of Fish and Wildlife staff planted 8,800 bareroot seedlings on 5.5 acres at the Ted Harvey Conservation Area, located near Kitts Hummock in Kent County. New plantings consisted of loblolly pine, eastern red cedar and dogwood.

Assawoman Wildlife Area in Sussex County

DNREC Division of Fish and Wildlife staff and The Center for Inland Bays partnered to plant 19,000 seedlings on 20 acres at former cropland within the Assawoman Wildlife Area, located along the Little Assawoman Bay in Sussex County. New plantings consisted of black locust, persimmon and southern red oak. Protective measures included a mix of tree shelters and temporary fencing to combat deer browsing.

A properly staked tree features a watering bag to maximize survival during hot summer months.

Delaware Nature Society

Red Clay Floodplain Restoration in New Castle County

The Delaware Nature Society replaced storm damaged trees in the floodplain of Red Clay Creek in New Castle County. Volunteers and staff planted 111 trees. New plantings consisted of black gum, sycamore and white oak.

Delaware Center for Horticulture

Westmoreland Street Tree Planting in Wilmington

The Delaware Center for Horticulture planted 30 large trees in the Westmoreland Neighborhood in Wilmington. New plantings consisted of oak, redbud and dogwood. Urban street trees in this area will provide shade for cooling and habitat for urban species, while improving air quality.

New Street trees help to shade the Westmoreland Neighborhood in Wilmington.

A row of newly planted trees provides a wind barrier at the Meadows at Beaver Creek community in Milton.

Urban Forestry Grant Program

The Urban Forestry Grant Program, administered through Delaware Forest Service's UCF Program, provides grants to assist cities, towns and communities with the management, care and enhancement of urban forestry resources. In FY 2022, this program received $30,000 in TEDI funding to support and increase tree canopy in urban and community settings within Delaware. Five urban and community tree planting projects received funding, resulting in 163 newly planted trees. Each of the five projects is described below:

Hunn Nature Preserve in Dover

Volunteers and Delaware Forest Service staff planted 55 trees at the Hunn Nature Preserve to offset damage from a recent tornado. The Hunn Nature Preserve, locally known as the Hunn Property, is the largest park within the Kent County system. New plantings consisted of magnolia, sycamore, red maple and American holly.

Reserves at Lewes Landing in Lewes

Volunteers and Delaware Forest Service staff planted 24 large coniferous trees in the Reserves at Lewes Landing Community, located in Lewes. These trees will provide year-round greenery and wildlife habitat and will act as riparian buffers to nearby waterways.

Meadow at Beaver Creek in Milton

Volunteers and Delaware Forest Service staff planted 50 trees in the Meadow at Beaver Creek community in Milton. New plantings consisted of American beech, American holly, eastern red cedar, dogwood and red maple. These trees will enhance wildlife and pollinator habitat, provide color and visual interest and create ecosystems that can survive over time.

Lakeshore community members assist with project preparation.

Sawgrass Community in Rehoboth

Volunteers and Delaware Forest Service staff planted 31 trees in the Sawgrass Community in Rehoboth. New plantings consisted of American elm, bald cypress, willow oak and dogwood. These trees will naturally enhance community common areas, reduce storm water run-off and improve air and water quality.

Lakeshore Village

Volunteers planted three large red maple trees at Lakeshore Village, just north of Cheswold, as part of their new management plan to replace storm damaged and non-native trees.

Newly planted trees provide for bird nesting habitat at Lakeshore Village in Dover.

Volunteers plant trees at the Killens Pond State Park planting.

Glen Stubbolo (Left), DNREC Division of Parks and Recreation Volunteer Services Administrator, assists a volunteer from Dover High School's Strive Program.

Tree Plantings: Other Funding Sources

To support TEDI, DNREC DCCE provideds $20,000 in supplemental funding to the DNREC Division of Parks and Recreation to plant nearly 900 native trees. In FY 2022, plantings took place at Killens Pond State Park, Trap Pond State Park, Brandywine Creek State Park, the Port Penn Interpretive Center and the Evan G. Shortlidge Academy.

Killens Pond State Park in Felton

DNREC Division of Parks and Recreation staff hosted a two-day planting event on a recently acquired property adjacent to Killens Pond State Park. Students from the Dover High School's Strive Program, volunteers from the Bank of America and other volunteers planted 307 native trees. These new trees will increase wildlife habitat and improve water quality.

Polytech High School teens plant trees in the campground area at Trap Pond State Park.

Trap Pond State Park Planting in Laurel

Due to mature trees dying in heavily utilized areas of Trap Pond, DNREC Division of Parks and Recreation staff planted new trees along selected areas within the park's campground, picnic and primitive youth camping areas. During the spring of 2022, volunteers planted 320 trees that will be enjoyed by thousands of park visitors each year. The added trees will also improve habitat for local wildlife.

Melanie Cucanato, a member of DNREC Division of Parks and Recreation staff, demonstrates proper tree planting to volunteers.

Newly planted trees provide for stabilization along the Brandywine River in Wilmington.

Jobs for Delaware Graduates work together to plant trees at Brandywine State Park.

Riparian Buffer Planting in Wilmington

In April 2022, as part of National Volunteer Month, DNREC Division of Parks and Recreation staff hosted a volunteer award ceremony and a tree planting at Brandywine State Park. Volunteers from the Jobs for Delaware Graduates program planted 120 native trees along the floodplain of the Brandywine Creek. Species planted included sycamore and river birch. These trees will help to stabilize the riverbank along the Brandywine and improve water quality. This project enhances the riparian buffer and absorbs excess water around the combined sewer overflow, which can become overloaded during times of heavy rainfall.

Volunteers assist with plantings at Port Penn.

Evan G. Shortlidge Academy Planting in Wilmington

Volunteers and DNREC Division of Parks and Recreation staff planted 60 trees on a small parcel of land adjacent to the Shortlidge Academy in Wilmington. Newly planted trees will help to repopulate native tree species and deter regrowth of invasive trees and vines that were recently removed.

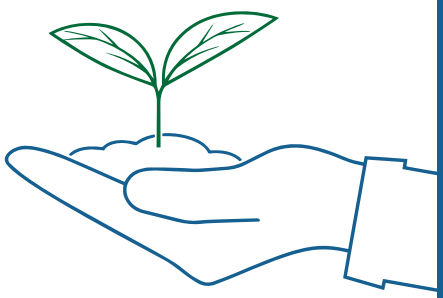
Port Penn Interpretive Center Planting in Port Penn

Volunteers and DNREC Division of Parks and Recreation staff planted 60 trees at the Port Penn Interpretive Center, located along the Delaware Bay north of Odessa. Planting trees in this area will allow for the growth of native species and deter against the regrowth of previously removed invasive plant species. Tree species planted at this location include American beech, northern red oak, white oak and dogwood.

Newly planted trees prevent erosion next to the Shortlidge Academy in Wilmington.

CONCLUSION

In the first year, TEDI built the foundation for reaching the goal of planting at least 1 million trees over the next decade. With TEDI funding alone, seven partner organizations planted 72,481 trees in Delaware. An additional 867 trees were planted throughout the state using other funding sources. As of November 2022, a total of nearly 120,000 trees have been planted since January 2020.



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