The attached guidance, “Recommendations for a Reforestation Program”, was developed for use by Department staff when making decisions related to programmatic changes, partnership opportunities, and statutory changes to strengthen afforestation and reforestation practices in Wisconsin. The recommendations cover five areas:

- Production of tree and shrub seed and plant material
- Reforestation monitoring and research
- Partnerships
- Education and outreach projects
- Nursery operations

These recommendations are based on the results of a 2013 Request for Information (RFI) from the public (see Appendix 1of Recommendations document) as well as program analysis from the Division’s Nursery Team.

The Department is seeking comments on the proposed recommendations described in this document until December 2, 2013. Following public input, the recommendations will be finalized and implementation plans developed for various elements.

Comments related to this draft guidance document should be sent to Carmen Hardin, Carmen.hardin@wisconsin.gov; (608)267-3139.

Recommendations for a Reforestation Program

Wisconsin Department of Natural Resources
Division of Forestry
November 1, 2013
dnr.wi.gov

Executive Summary

This document describes recommendations for a new Reforestation Program in the Division of Forestry. This new program is grounded in the Division's State Nursery Program, but reflects a much broader direction, and thus the new name.

These recommendations are based on the results of a 2013 Request for Information (RFI) from the public (see Appendix 1) as well as program analysis from the Division's Nursery Team.

The Department recognizes the need to work in concert with the private nurseries, forest industry, consulting foresters, tree planters, and landowners to ensure that high quality products, services, and information are available for afforestation and reforestation projects in both rural and urban settings in Wisconsin.

The Reforestation Program will continue production of high quality, native bare-root stock for conservation purposes at a level, when combined with private sector capacity, meets projected statewide seedling demand. The Program will also explore expanding its role into other arenas to further support successful reforestation projects in the state. These recommendations reflect the Division's role in encouraging afforestation and reforestation by facilitating the availability of adequate supplies of high quality seedlings of native species at economical prices from public and private sources.

The new Reforestation Program will align itself to address emerging needs and concerns, including diversifying community forests to build more resiliency to EAB and other pests and developing disease resistant varieties of native trees and shrubs.

The recommendations include programmatic changes, partnership opportunities, and statutory changes to strengthen afforestation and reforestation practices in Wisconsin. The recommendations cover five areas:

- Production of tree and shrub seed and plant material
- Reforestation monitoring and research
- Partnerships
- Education and outreach projects

- Nursery operations

Public input is being sought on the recommendations outlined in this document and will be considered in finalizing the recommendations. Implementation of the recommendations will occur over time as the Department begins exploring partnerships and identifying opportunities to support and improve reforestation projects in Wisconsin.

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Introduction

Wisconsin's State Nursery Program began in 1911. Since its inception, over 1.6 billion hardwood, conifer, and shrub seedlings have been planted on public and private lands across the state. The benefits of planting these seedlings include creating jobs, providing a stable wood supply to the forest industry, improving water quality, creating and enhancing wildlife habitat, reducing soil erosion, and conserving energy.

Today, approximately 352,000 family forest owners control 9.1 million acres of Wisconsin's 16.7 million acres of forestland. Half of these family forest owners have between 1 and 9 acres of forestland, but two-thirds of the family forestland is part of holdings of 50 acres of more. These private landowners, in addition to the 7.6 million acres under public ownership, provide the basis for reforestation opportunities in the state. Afforestation opportunities also exist in rural and urban areas,

By helping to ensure that landowners have access to economically priced seedlings for afforestation and reforestation projects, the Reforestation Program can help achieve a number of important statewide goals of the Division, including:

- Increasing the amount of forestland in Wisconsin
- Connecting fragmented forest parcels
- Economically producing forest products
- Increasing the diversity of species across Wisconsin

In developing these goals, the Division recognizes that land ownership patterns have been changing. The average size of a family forest parcel in 1997 was 37 acres, by 2009 it had declined to 26 acres. At the same time, the number of cooperating consultant foresters has increased over 250% from 1999 to 2013 with nearly 190 foresters now participating in the program, creating more opportunities for landowners to receive professional forestry advice.

In contrast, tree plantings have declined in the state due to a number of factors, including changes in industrial forest ownership, the economic downturn, shifting landowner objectives, and reductions in federal cost-share programs.

Division of Forestry's Role

The Division of Forestry encourages afforestation and reforestation in Wisconsin by ensuring an adequate supply of high quality seedlings of native species at economical prices. In doing so, the Division will maintain its capacity to produce stock at a level that, combined with private sector capacity, meets the state's projected seedling demand.

In fulfilling this niche, the Department operates three nurseries – Griffith State Nursery in Wisconsin Rapids, Hayward State Nursery in Hayward, and Wilson State Nursery in Boscobel. Production at the state nurseries is scaled to reflect changing seedling demands and production costs, which is then balanced against private sector capacity.

The Division is committed to increasing its investment in monitoring forest regeneration, identifying problems, field testing potential solutions, and sharing lessons learned to ensure successful reforestation projects.

Wisconsin's Nursery Program, in existence for over 100 years, is recognized as a national leader in reforestation. The program has ongoing partnerships with the University of Wisconsin – Madison, USDA Forest Service, and others focusing on soil management, genetically improved plant material, and integrated pest management strategies. Information from these science-based partnerships is used to implement practices that will improve reforestation success.

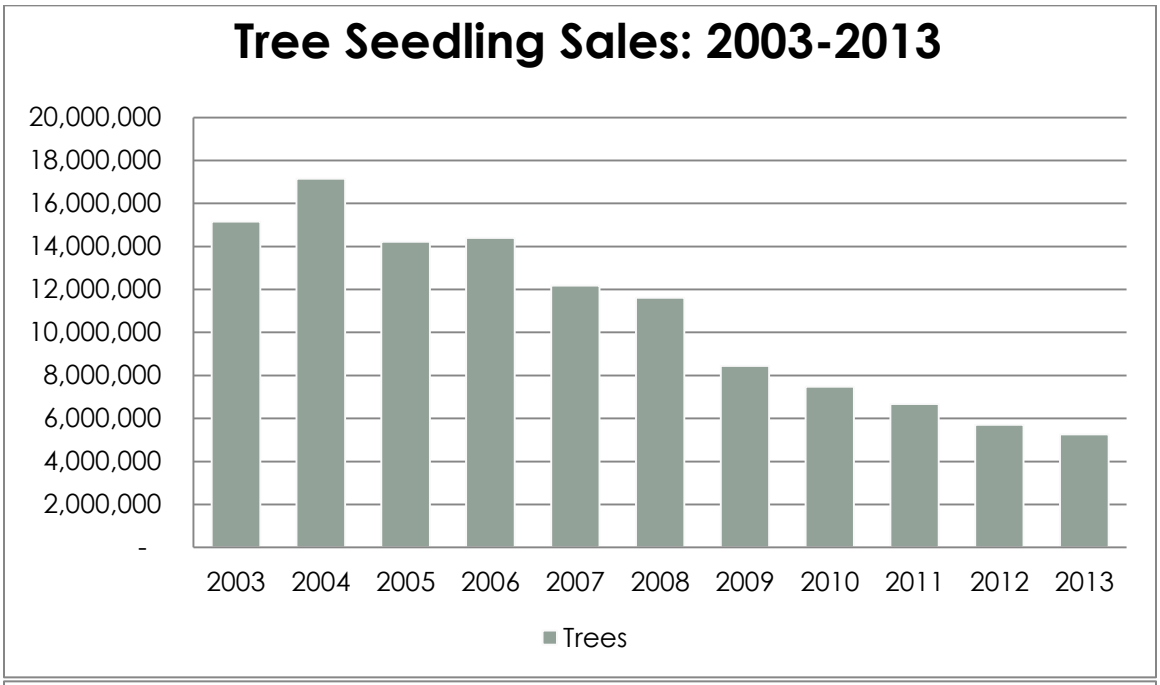
Nursery Overview

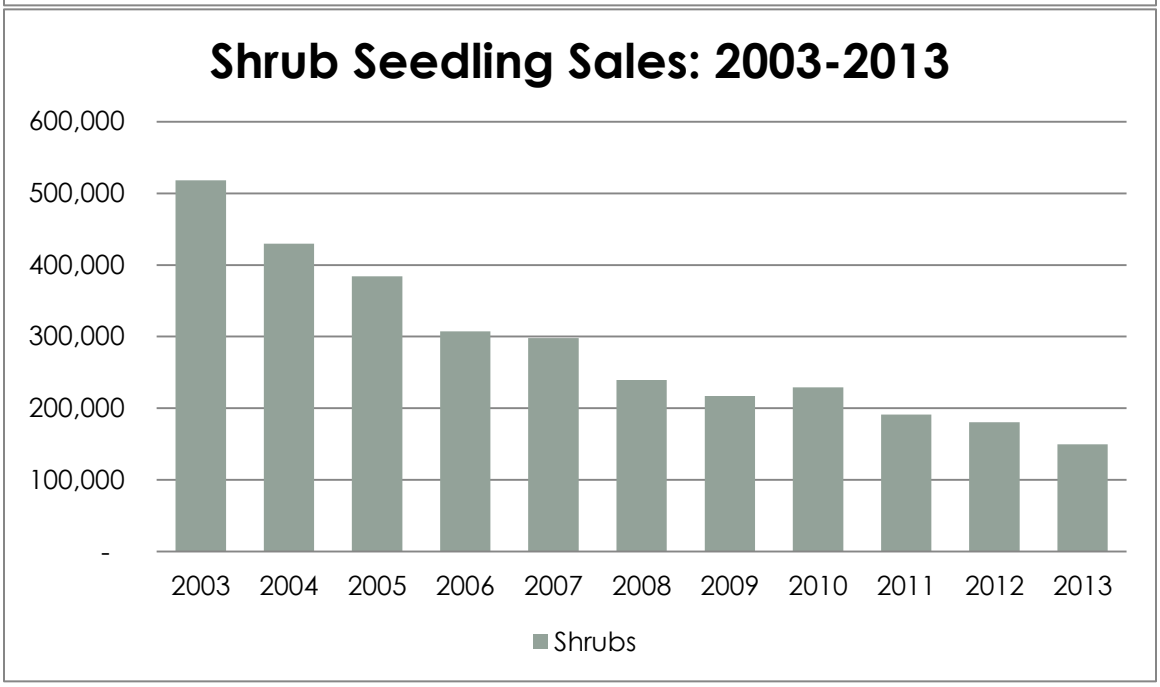
The Nursery Program reached peak production in 1959 when 42 million trees and 2.3 million shrubs were distributed. In 2013, just over 5.2 million trees and nearly 150,000 shrubs were sold. Currently over 35 native species of hardwoods, conifers, and shrubs are in production at two facilities.

In 2010, bare-root stock production was consolidated at Griffith State Nursery and Wilson State Nursery to maximize operational efficiencies. Wilson also grows park development stock for state lands. Stock is no longer produced at Hayward State Nursery. All customer orders are processed at Griffith and all three facilities serve as seedling distribution centers.

On average, about 2,400 tree and shrub applications are processed annually. Private landowners represent 73% of nursery orders and 67% of the seedlings purchased. A private landowner plants, on average, 2,300 seedlings per year. DNR managed lands (state forests, parks, wildlife, fish combined) generate 13%

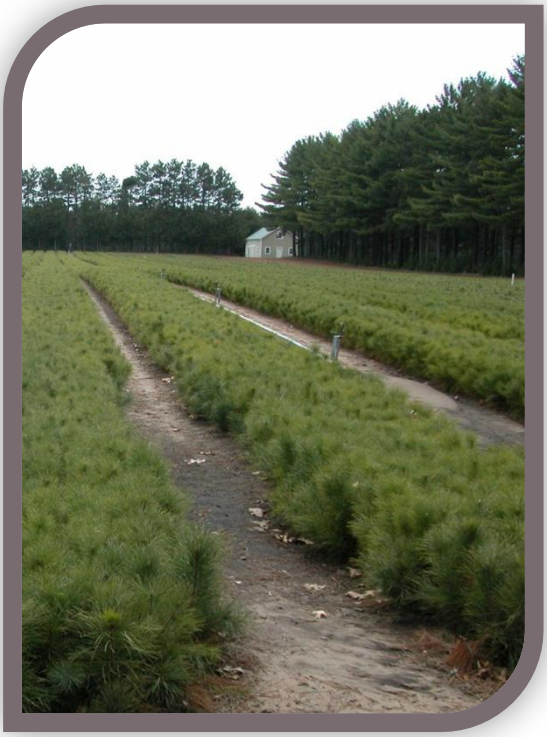
of the seedlings ordered. County forests represent 12% of the trees ordered. The minimum order is 1,000 trees, 500 shrubs, or a packet of 300 seedlings.





Besides bare-root stock, the nurseries also are involved in seed production and processing. Seed orchards and seed production areas have been established at both Wilson and Hayward, and all three facilities serve as seed buying stations. Seeds are cleaned at Wilson (hardwood) and Hayward (hardwood and conifer). The statewide seed storage facility is located at Hayward.

Recommendations



The recommendations for the Reforestation Program include programmatic changes, partnership opportunities, and statutory changes to strengthen the Program and to enhance afforestation and reforestation opportunities in Wisconsin. The recommendations cover five areas:

- Production of tree and shrub seed and plant material
- Reforestation monitoring and research
- Partnerships
- Education and outreach projects
- Nursery operations

The result of these recommendations will be to broaden the focus of the Reforestation Program from solely nursery stock production to a more encompassing set of objectives compatible with the Division of Forestry's Strategic Direction. The goal of this expanded program will be to provide a wide range of public services and benefits, working with private nurseries, forest industry, consulting foresters, tree planters, and landowners. The intent is to create a stronger, more secure program for the future.

Production of Tree and Shrub Seed and Plant Material

Production of bare-root stock – hardwoods, conifers, and shrubs – for conservation purposes will continue to be a primary focus of the Program. Opportunities also exist to meet the changing reforestation needs of public and private landowners in Wisconsin.

Recommendations in this area are to:

- ➤ Explore the feasibility of growing seedlings of native species not currently available commercially from the private sector. Continue work with improved and disease resistant varieties of native species and investigate native species that are not widely distributed across Wisconsin, but may be favored by a warming climate.
- ➤ Explore the feasibility of growing seedlings in containerized trays for state lands use. Conduct a trial at DNR nurseries of native species not currently available commercially from the private sector nurseries.

- Explore contracting with private sector nurseries to provide stock in containerized trays from appropriate seed sources for Wisconsin landowners. Determine if this will increase the market access of seedlings to public and private landowners, as well as helps support private sector nurseries. Tree species to be considered are white pine, red pine and jack pine.
- Investigate the details of leasing a portion of the state nursery facilities to a private sector nursery to produce stock in containerized trays.
- Increase availability of local seed sources of trees and shrubs by updating seed extractor facilities, expanding seed purchasing stations, establishing new seed orchards and seed production areas, and providing contract cleaning of seed material.
- Update Seed Purchase Policy to establish priorities in seed distribution and highlights the importance of providing local seed sources to customers.

Reforestation Monitoring and Research

In 2007, the Program began a reforestation monitoring program on public and private lands to evaluate and improve reforestation success in the state. In addition, the Program has worked with the University of Wisconsin – Madison on nutrient and tree improvement research projects. The Forestry Division has also developed research priorities in conjunction with Science Services Bureau.

The Program will continue monitoring and research efforts and recommends expanding efforts in this area to:

- Evaluate sites where natural regeneration is not successful to provide planting recommendations, if appropriate, and improve silviculture prescriptions.
- Develop management strategies for public and private landowners conducting tree planting projects.
- Work with silviculturists to identify which sites and species are best-suited for containerized tray and bare-root stock.
- Work with research institutions, partners, and other groups to identify and support research needs and opportunities related to the production and use of native shrub and tree material.

Partnerships

Building on existing partnerships and developing new ones allows the Program to address emerging reforestation issues, which in turn helps the forestry community as whole. Current partnerships include providing a list of businesses that provide tree and shrub stock, site preparation services, and tree planting services to private landowners, offering park stock to the WDNR Bureau of Parks, providing seedlings to state lands, and supporting county forest reforestation projects with a 50% price reduction of bare-root nursery stock.

The Program recommends continuing these associations and building new partnerships in this area to include:

- Investigate creating a Cooperative Tree Planter Program, similar to the Cooperative Consulting Forester Program, with a goal of increasing services in counties that currently lack them.
- Explore production of native grass and forbs species for restoration projects with Bureau of Wildlife Management, WI Department of Transportation, US Army Corps of Engineers, US Fish and Wildlife Service, and others. The focus is on species not currently readily available from private sector.
- Explore the opportunity to work with and support private sector nurseries on urban and rural reforestation issues, including research projects, education and outreach opportunities, and the production of tree and shrub material.

Education and Outreach Projects

Education and outreach projects include the annual 4th grader free seedling program, seedlings for registered community forests and school forests, demonstration projects, web-pages, videos, and open houses. These projects highlight the benefits trees provide, including clean air and water, wildlife habitat, shoreline protection, and forest products.

The Program would continue these efforts and recommends to:

- Work with partners to promote the benefits of trees and tree planting.
- Expand outreach efforts with cooperating consultant foresters to promote successful tree planting projects.
- Update on-line tree planting plan to meet Stewardship Plan requirements.
- Implement activities identified in the Division of Forestry Education Plan.

Nursery Operations

Nursery operations encompasses staffing, facilities, finances, sales, and other components of the Program. A majority of the core functions would be maintained. The recommendations are intended to improve and strengthen the Program to better meet customer needs and include:

- Scale facilities, seedling production, and staff levels to produce stock at levels, when combined with private sector capacity, that meet projected seedling demand.
- Expand and improve seed processing and storage facilities to meet the demand for seed from local sources.
- Clarify intent of the seedling surcharge. Evaluate whether it is meeting its purpose and if it is at the appropriate amount. This may require a statutory change depending on outcome.

- Provide customers a credit card payment option.
- Evaluate Department equipment charge backs and pricing structures.
- Work with Bureau of Facilities and Lands to evaluate safety and future use of historical structures on nursery grounds.

Reforestation Program Recommendations Overview

Summary

The Department is seeking comments on the proposed recommendations described in this document until December 2, 2013. Following public input, the recommendations will be finalized and implementation plans developed for various elements. Some aspects of the Reforestation Program can be attained quickly, while others, especially those involving partners, will require a longer investment to achieve.

The goal for the new Reforestation Program, which includes the state nurseries, is to encourage afforestation and reforestation projects, facilitate the availability of high quality seedlings of native species at economical prices from public and private sources, and ensure that reforestations projects are successful for public and private landowners.

Appendix 1: Summary of RFI Comments

On March 28, 2013, the Department released a Request for Information (RFI) regarding the state nurseries. Comments were accepted until May 9, 2013. The Department received 24 comments as a result of the RFI. The comments were from:

- 12 from DNR employees and programs
- 6 from private landowners/land managers
- 3 from public landowners/land managers
- 2 from private nursery industry
- 1 from University staff

The major themes of the RFI were:

- Nursery Program offers quality product at reasonable price and staff exceed expectations when helping private landowners
- Importance of Nursery Program to Department operations: private forestry, public forestry, urban forestry, endangered resources, state parks, and wildlife
- Offer containerized stock
- Offer native and improved seed
- Focus on species (trees, shrubs, and prairie plants) that are not commercially available and to help develop markets in response to Emerald Ash Borer (EAB), climate change, and other threats
- Allow landowners to purchase smaller quantities of seedlings
- Allow Nursery Program to retain revenues and have a designated fund to maintain investment in nursery infrastructure and to promote tree planting
- Continue and enhance Nursery Program leadership in reforestation education and research
- Develop a "Cooperating Tree Planter" program, similar to Cooperating Forester program, to encourage and promote tree planting
- Value of Arbor Day 4th Grader seedling distribution
- System for providing RFI comments was not user friendly

Copies of the full comments are available from the Department by request.