



**Management
Analysis
& Development**

**Minnesota Department of Natural
Resources—Division of Forestry**

State Forest Nurseries Program

Business Plan Update Fiscal Years 2013-2016

December 2013

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Division of Forestry
State Forest Nurseries Program
Business Plan Update –
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Table of Contents

Executive Summary

Introduction	1
2012 Business Plan	1
2013 Business Plan Update	1
Nursery Operations Update	3
Badoura Nursery transition to single-site operation	3
Gen. Andrews Nursery repurposing	5
Operational Directions and Infrastructure Development	6
Goals and current limitations	6
Scenarios and contingencies	6
Badoura current building infrastructure and activities	8
Seedling production operations	9
Seed production operations	9
Coordination with Tree Improvement Program and implications	9
Badoura Expansion as Single-Site State Forest Nursery	10
Background and Rationale	10
Building infrastructure option and costs	10
Expansion option	11
Evaluation and conclusions	13
Financial and Operating Information Update	14

Executive Summary

The Legislature in 2013 directed the DNR Commissioner to update the Nurseries Program business plan from 2012 in conjunction with the “development of a plan and recommendations, in consultation with the University of Minnesota, Department of Forest Resources, on utilizing the state forest nurseries to: ensure the long-term availability of ecologically appropriate and genetically diverse native forest seed and seedlings to support state conservation projects and initiatives, protect the genetic fitness and resilience of native forest ecosystems; and support tree improvement research to address evolving pressures such as invasive species and climate change.” (Laws 2013, art. 3, ch. 114, sec. 4, subd. 4). The business plan and update were developed by the Management Analysis Division, Minnesota Management & Budget with information provided by the Nurseries Program staff and DNR management.

This document updates the 2012 state nurseries business plan, with a focus on strengthening the Badoura Nursery as the sole state forest nursery after the cessation of seedling production at the Gen. Andrews Nursery. The report:

- reviews developments at both nurseries,
- updates financial and operating statistics through FY2016, and
- describes a scenario for development and expansion of Badoura to continue as a financially self-sufficient operation positioned to maintain for the longer-term the necessary capabilities to produce conservation grade source-identified bareroot seedlings in large volumes for public and private forestry purposes. The state nursery program does not produce containerized seedlings.

The transition to a single state forest nursery has been completed, with a few minor actions to be completed in this fiscal year. No more seedlings are being planted and harvested at Gen. Andrews Nursery, which now accommodates several other Division of Forestry and department activities. Gen. Andrews Nursery has been the site for tree improvement activities and would be the site for expanded tree improvement activities and seed orchard development, contingent on the availability of funds.

Badoura’s identified long-term needs in this scenario include expansion to support two essential seedling production functions – grading and packaging space to accommodate workers, supplies, and workflow (expansion of the current packing shed); and cooler/storage space in a new building to accommodate the combination of hardwood and conifer production now combined at Badoura. Hardwoods formerly grown, harvested, processed and stored over the winter at Andrews will now (to the extent of demand) be accommodated at the Badoura Nursery. Hardwoods require several times the cooler/storage space in comparison to an equal number of conifer seedlings.

Badoura is projected to produce between 4.7 and 5.5 million seedlings each year through FY2016. Financial self-sufficiency is attained at approximately 5 million. The current production capacity at Badoura is estimated at 6 million seedlings annually in the current configuration of staffing and buildings. The two nurseries operated at well over 10 million seedlings for several years, but reduced demand and self-sufficient operations moved the production goals down to 8

million then 6 million seedlings annually. The current expected longer-term level of stable production would be 6 million, subject to changes in demand from cost share programs and other events, trends and initiatives. Badoura might be stretched to 8 million seedlings annual production with infrastructure and staffing changes. This magnitude of production would require a major increase in mostly-seasonal labor and ability to manage increased processing demands.

The estimated long-term facilities investment to upgrade Badoura for its role as the single state forest seedling nursery would be approximately \$1.5 million including expanded packaging building, new cooler/storage building, some additional office space and road paving.

Introduction

In 2013, the Legislature directed the commissioner of natural resources to develop a plan and recommendations on utilizing long-term availability of ecologically appropriate and genetically diverse native forest seed and seedlings to support state conservation projects and initiatives, protect the genetic fitness and resilience of native forest ecosystems, and support tree improvement research to address evolving pressures such as invasive species and climate change.

The report would (1) address funding to improve state forest nursery and tree improvement capabilities, and (2) provide updated recommendations from those contained in the budget and financial plan required under Minnesota law.¹ *This Business Plan Update addresses the second of the two numbered items.*

2012 Business Plan

The State Forest Nurseries Program Business Plan and Report to the Legislature (January 15, 2012)² included a description of the program with budget and financial history and plan through FY2015. A central theme of the plan was the transition from two state forest nurseries to one for the large-scale planting, cultivation and harvesting of forest tree seedlings.³

Today, the Badoura State Forest Nursery in Akeley, MN (Badoura) is the sole remaining large-scale seedling production and distribution operation within the DNR. The General C.C. Andrews State Forest Nursery in Willow River, MN (Andrews) has been repurposed, principally for various Division of Forestry operations. Both locations are currently involved with forest tree seed processing, and Andrews has become the center for tree improvement activities, in support of long-term sustainability of Minnesota's forest resources.

2013 Business Plan Update

The updated plan concentrates on strengthening the one-location DNR seedling production nursery program model⁴ to meet future needs of the DNR and the state's public and private forests. The scope of discussion is the State Forest Nurseries Program and excludes the proposed

¹ Laws of Minnesota 2013, article 3, chapter 114, section 4, subdivision 4.

² For the full 2012 business plan and report, go to:

<http://files.dnr.state.mn.us/aboutdnr/reports/legislative/StateForestNurseryProgramBusinessPlan-Jan2012.pdf>

³ Additionally, the plan addressed the implications of a recently enacted statutory limitation on the uses of new plantings at Badoura: "Beginning July 1, 2011, the commissioner of natural resources shall limit all new plantings at the Badoura Nursery to the planting of stock for research or use on public lands or private conservation lands with permanent protection. Excess plant material may be sold or traded to private wholesale nurseries." (Laws of Minnesota 2011, First Special Session, chapter 2, article 4, section 30.) For this business plan update, it is noteworthy that the 2013 legislature *repealed* this provision. (Laws of Minnesota 2013, chapter 114, article 4, section 108.)

⁴ That is, the business plan update assumes that no event or combination of events and circumstances will revive the need for a multi-location state forest seedling production capability within the time frame of this plan. If it would become necessary to recommission Andrews for any reason, the effort would take two to three years to harvest the first crop of seedlings. For the first two to three years, the financial picture would be costs-only, without revenues.

state-managed Tree Improvement Program. More specifically, the goals of the updated nursery program plan are to:

- (1) continue operations as a self-sustaining program,
- (2) provide physical infrastructure for the single-site consolidated seedling production at Badoura,
- (3) expand readiness to meet potential increased demand for *seedling* production and distribution capabilities at Badoura,
- (4) continue forest *seed* production and processing capabilities within the nurseries program for public and private conservation program needs, and
- (5) coordinate and support actions with the *tree improvement program* as funding and capabilities allow.

Nursery Operations Update

Program changes presented in the 2012 plan were based in part on a provision in 2011 laws that limited certain private sales. That provision was repealed by the 2013 legislature.⁵ Discussion of the Andrews site presented a number of options for repurposing the nursery that would no longer be used for large-scale seedling production. Actions taken after the business plan's completion have strongly supported the one-nursery design for seedling production at Badoura and alternative uses for Andrews that include small but viable tree improvement and seed production activities with plans for added capabilities.

Badoura Nursery transition to single-site operation

Badoura Nursery is now the single large-scale DNR seedling production facility. No new planting has occurred at Andrews for several years and the final harvest of in-ground seedlings planted in earlier years was completed in fall 2012.

Most seedling production nurseries program staff and equipment have been transferred from Andrews to Badoura. Nurseries program staffing at Andrews is currently zero. Additional staff will be hired at Badoura in the current fiscal year. Although not finalized, the new staffing would include an assistant office manager (0.9 FTE), two equipment operators (0.8 FTE each) and an assistant supervisor (1.0 FTE).

The financial breakeven point for single-site Badoura operations was calculated by the program onsite supervisor to be 4.6 to 4.7 million seedlings sold annually.⁶

The annual supply of seedlings *available for sale* at Badoura shows a declining trend from FY2012 to FY2015, and then is projected to increase for FY2016 as the hardwood seedlings that previously were produced at Gen. Andrews Nursery become available for sale at Badoura Nursery.

With expected demand—in the timeframe of this plan, covering FY2013-FY2016—Badoura seedling *sales* are expected to be in the range of 4.7 to 5.5 million per year.

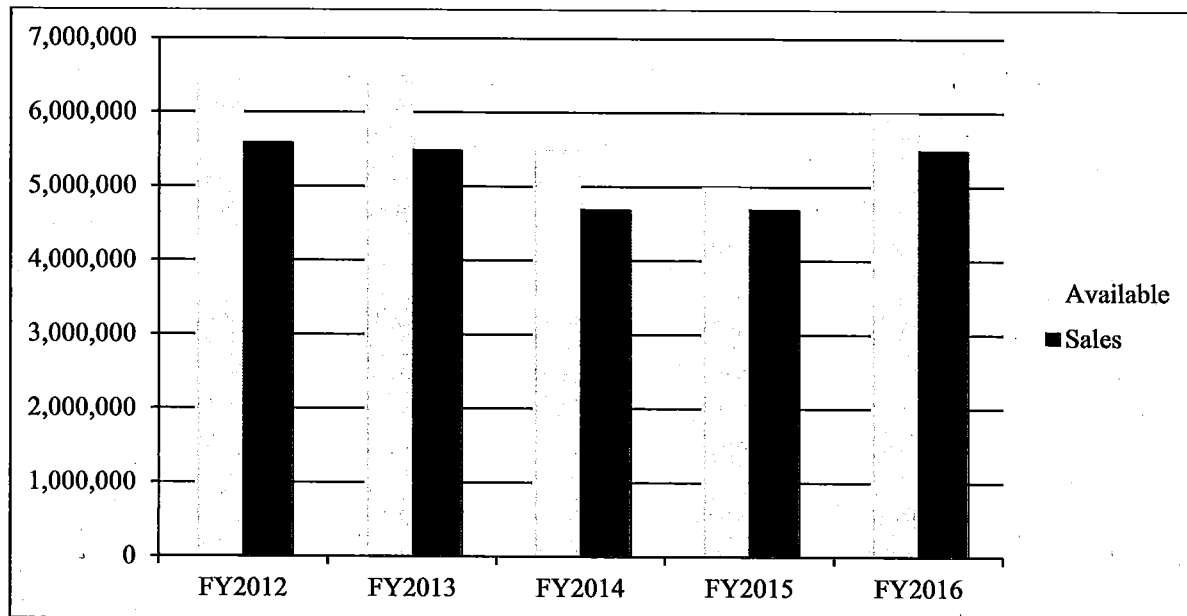
	<u>FY2012*</u>	<u>FY2013*</u>	<u>Estimated</u>		
	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>		
Available for sale	6,500,000	6,500,000	5,500,000	5,000,000	6,000,000
Sales	5,700,000	5,600,000	4,700,000	4,700,000	5,500,000

*FY2012 and FY2013 include sales at both Badoura and Gen. Andrews Nurseries. Andrews Nursery production was approximately 1 million in each year.

⁵ See footnote 3 above for text.

⁶ When the 2012 business plan was prepared, an assumption was made that 6 million seedling sales would be needed for the program to achieve financial self-sufficiency. However, current estimates of future revenues and expenditures through FY2016 forecast that financial breakeven can be achieved at a level of 4.7 million sales. The completed consolidation of resources and staff at Badoura has reduced costs to better align with expected revenues. See the financial and operating statistics for FY2012 to FY2016 on the following pages.

Table 1: Seedling production (1) Available for Sale and (2) Sold (FY2012-13) or expected to be sold (FY2014-16).



Badoura has current capacity to *grow* up to 6 million seedlings per year. Additional physical infrastructure and staffing beyond its historical baseline would be needed for the Badoura seedling *production* capability (lifting, grading, packaging for sale, and cooler storage) to accommodate additional workload from the Gen. Andrews Nursery closing and increased demand. Components of additional physical infrastructure to increase the capacity of Badoura are enumerated and discussed later in the report.

The changeover to all-Badoura for plantings affected the nursery program's ability to meet current demand. Andrews produced most of the hardwoods and Badoura produced conifers principally for state lands. Past practice to plant very limited hardwoods at Badoura has been changed with the Andrews closure and repeal of the 2011 provision of laws; however, there will be a continuing shortage of state nursery hardwoods (estimated at 50 percent of demand this year) for sale to private parties through 2015. Conifer plantings and demand at Badoura are at full strength. Overall, several new strategies have been implemented and are being planned for the all-Badoura plantings and production.⁷

Seedling prices were raised twice in the past few years, most recently in FY2013. The more recent price increase was implemented a year sooner than had been scheduled in the 2012 business plan. There will be no price increase in the current fiscal year for spring sales.

⁷ For example, changes are required because hardwood seedlings are not as well adapted for growth at Badoura, and the seedlings require two to three times the cooler/storage space per thousand compared to conifer seedlings.

Gen. Andrews Nursery repurposing

The contraction of seedling production at Andrews had begun as early as FY2008–09, and for FY2012 there were no new plantings. By fall of 2012, all Gen. Andrews stock for sale had been liquidated. Discussions within the Division of Forestry included planting alternative crops to support the facility as part of the nurseries program, but the ideas were not implemented.

The 2012 business plan recommended options for repurposing Andrews. Several of those alternative uses have been implemented. Currently, the Division of Forestry, not the Nurseries Program, has primary responsibility for use of Gen. Andrews space and its costs.

The nursery program in FY2014 is paying for two groundskeepers (together 0.5 FTE) and minor field maintenance. Otherwise, Gen. Andrews costs are paid by DNR Forestry and other parts of the department utilizing the remaining buildings. The Forestry Division fire program occupies the shop building. The office building houses seven people from various divisions, and each division pays a portion of costs. A few items of nursery equipment still at Andrews will be brought to Badoura in the near future. In summary, operations at Andrews now consist of tree improvement, forestry activities, DNR enforcement or wildlife, and the federal excess property program.

In the future, the nurseries program at Badoura might use the cooler at Andrews for seedling storage and pay for the electrical costs. However, the transportation between Badoura and Andrews would reduce efficiency and increase costs.

The Division of Forestry is making recommendations to expand and upgrade Andrews as a tree improvement facility if additional funding becomes available. Among the needed functions would be establishment of additional seed orchards—trees planted and maintained for the sole purpose of harvesting seeds.

In the fall of 2012, two fields of white spruce, one field of jack pine, and one field for prairie crabapple were planted as seed orchards. These will be “seed source” orchards for use in the nursery program and for others. Now, 4 of 60 available fields at Andrews are in service as orchards, either in production or wild orchards. Andrews could be further upgraded for tree improvement capabilities. The Division of Forestry intends that the 60 fields at Andrews will not be turned over to uncontrolled growth. All 60 fields will be put into cover crops and kept free of weeds. As a result, if there is a need for additional orchards or seed beds, the fields would be usable in the short term. As each field turns into an orchard, grass will be planted. In 2015, the program expects to add three additional fields under existing funding.

The State Forest Nursery and Tree Improvement Report prepared in response to the 2013 legislation identifies options to expand tree improvement operations. An important consideration is that seed orchards don’t make money, but seed production is necessary to improve seedlings and ultimately forests.

Operational Directions and Infrastructure Development

The transition to a single-site DNR seedling production location at Badoura has been essentially completed. Andrews has been repurposed and may be the location for an expanded tree improvement program and larger, more diverse seed orchards. The direction of Badoura development is toward a developed single-site seedling production facility, with capacity to efficiently meet short-term demand and adapt to longer-term trends and cyclical changes.

Goals and current limitations

Overall, current demand for identified-source conservation grade bareroot seedlings in large quantities is down but stable, mostly as a result of depressed timber and housing markets. Additionally, the current lack of federal cost-share program funds for private tree plantings hurts demand for seedlings.

The current *production* capacity at Badoura is estimated at 6 million seedlings annually in the current configuration of staffing and buildings.⁸ The two nurseries operated at well over 10 million seedlings for several years, but reduced demand and self-sufficient operations moved the production goals down to 8 million then 6 million seedlings annually. Badoura might be stretched to 8 million seedlings annual production with infrastructure investments and staffing changes. This magnitude of production would also require a major increase in mostly-seasonal labor and other significant changes to usual practices.⁹ It should also be noted that capacity can effectively be increased by purchases and exchanges from other states and private nurseries, although under current limited demand this is done on a comparatively small scale. Outside entities are not always able to meet specific needs.

Scenarios and contingencies

Various scenarios of demand indicate the need for an anticipatory approach to meeting future demand. Such scenarios would involve an expeditious response to counteract larger scale natural forest destruction, invasive species, climate change and other man-made and natural forest disasters. In-place infrastructure can better accommodate quick adaptation to predictable and

⁸ Explanation: The best-case timing for harvest (“lifting”) is four to five weeks in the spring. This is up to a 25-day window to harvest the seedlings. With the single production location at Badoura, one million seedlings are lifted in the fall for winter storage and five million seedlings are harvested in the spring. Thus six million seedlings harvested is the practical annual limit for Badoura.

⁹ To produce more than 6 million seedlings annually at Badoura, weather and labor force are essential limits. Harvest is a four to five week season. The problem is not growing space, it is the harvest. At a level of 7 million annual spring harvest, 300,000 per day would be harvested (contrast to 200,000 per day currently). Significant expansion of short-term labor would be needed for that much more work. Seedlings would be *bulk-lifted*. Storage would require a much larger cooler space, beyond current capacity. Any delay in harvest means the seedlings could flush and spoil. It would be practical in this scenario to move seedlings into the cooler buildings where they would keep for weeks – time to get them counted, graded and packaged. This describes a changeover to a high-volume system – to lift all of it in fourteen working days and ship in 25 days. In summary, for a Badoura seedling harvest to be significantly greater than six million seedlings annually, there could be a fundamental process change, requiring greater cooler space and additional short-term seasonal labor as essential requirements.

unpredictable demand changes. Building additional capacity at Badoura can help to address these current and future problems of uncertain magnitude.

The Division of Forestry considers that the single site nurseries program at Badoura would be a permanent 6 million annual seedling harvest facility. As noted earlier, the one-site nurseries program can break even at 4.6 to 4.7 million seedlings harvested annually. When both Badoura and Andrews were operating, the program supported the two nurseries at a breakeven of 5.6 million in annual seedling production.

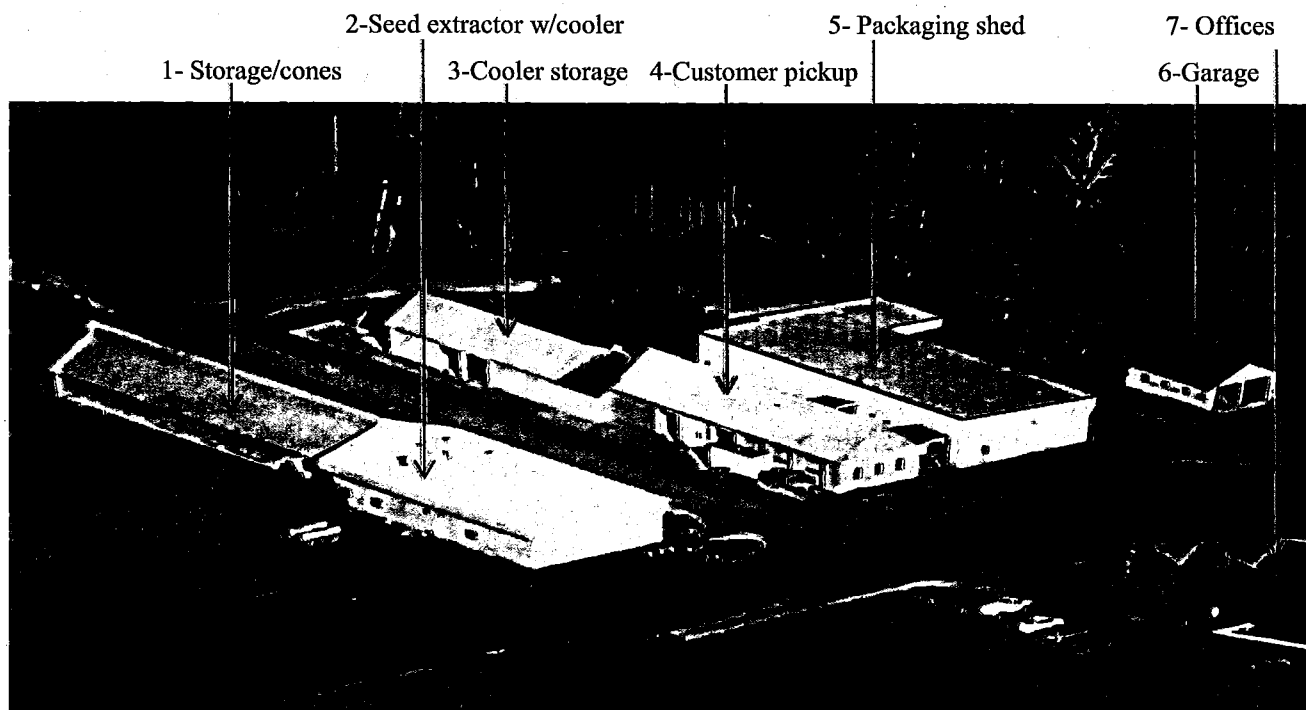
The demand for seedlings depends on not only the housing and timber markets, but also the traditional sources of funding for private and government planting programs. The Federal Farm Bill reauthorization, which could provide significant federal cost share funds to drive up the volume of private tree planting, has been delayed for four years. If these cost share funds become available, plantings could go up significantly.

Another significant consideration driving the level of private tree planting is agricultural practices and prices. Recently the prices for soybeans and corn were high enough to cause farmers to uproot trees and plant corn. Some of this was land in conservation reserve programs—that is, lower productivity land that farmers were paid to leave wild. Now, much of this land is being farmed. Additionally, windbreaks are being plowed up for the same reasons.

Another factor currently limiting demand is the after-effect of 2011 legislation that strictly limited sales to private buyers (repealed in 2013, but several other statutory limitations on sales are still in effect). According to the program staff, some private landowners mistakenly believe that they cannot buy seedlings from the nursery program. Other customers and potential customers of the nursery program think the 2011 law is still in effect; others think that both DNR nurseries were closed. The nursery program is increasing communications to overcome some of the misperceptions.

Badoura current building infrastructure and activities

The current building infrastructure at the Badoura Nursery supports potential growth in seedling production, distribution and sales, and other support activities.



Building	Activities
1-Storage/cones	Stores 2,200 bushels of purchased cones on trays until seeds are extracted
2-Seed extractor/cooler	Extracts seeds and provides cool storage for preservation
3-Cooler storage	Provides seasonal storage for seedlings from fall to spring
4-Distribution/customer pickup	Distribution center for mailing and customer pickup, cooler, some packing
5-Packing shed (packaging)	Houses majority of fieldworkers counting, sorting, grading, pruning, boxing seedling orders
6-Garage	Provides equipment and vehicle space
7-Offices	Provides offices for staff

Seedling production operations

Seedling production at Badoura, explained above, would benefit from expanding packaging shed space, increasing cooler and office space, and paving between buildings. Seedling production and sales is the revenue-generating component of nursery operations.

Seed production operations

Seed acquisition and processing/production are necessary components of nursery operations and also critical to tree improvement activities. Moving forward, the seed *processing* infrastructure at Badoura may not need any more than what is currently in place. On the other hand, the seed kilns are somewhat outdated and improvements should be evaluated on a cost-benefit basis for the programs.

Coordination with Tree Improvement Program and implications

Gen. Andrews Nursery has been the site for tree improvement activities and would be the site for expanded tree improvement activities and seed orchard development, contingent on the availability of funds. The MN DNR's Tree Improvement Program (TIP) operations are funded from the nurseries sale of seed and seedlings. Expansion of TIP initiatives will be limited by the ability of the nurseries program to recover investment costs through the sale of seedlings or seed from improved orchards. The nurseries program purchases and processes seeds for plantings, including improved varieties of seedlings. In the past, the nursery paid private parties to maintain orchards and collect cones, which then would belong to the nursery. An expanded tree improvement program may change the basis for at least some of the seed acquisition over the long term. Seed acquisition and processing by itself does not generate revenues for the nurseries program, but is the origin of planting materials.

Badoura Expansion as Single-Site State Forest Nursery

Background and rationale

A brief recap of how seedlings are harvested in the fall and spring is useful to explain resource needs for Badoura.

Millions of seedlings are harvested from the ground each spring and fall, and are brought to an assembly and packaging area, where seasonal workers bundle them in preparation for sale or storage. Fall harvested seedlings are packaged and stored in a cooler/freezer for transplantation in the spring. Packaging for fall and spring harvests must be done quickly after the seedlings are removed from the ground or the seedlings will be much less likely to survive or thrive upon transplantation. The work must be done in a short period, and depends on the availability of sufficient workers and physical infrastructure to quickly package and store (in large coolers to preserve viability) large quantities of harvested seedlings.

With the consolidation of operations from two nurseries to one nursery, thirteen fields (including 9–conifers and 4–hardwoods) are now planted at Badoura, whereas ten fields (9–conifers and 1–hardwoods) were planted at Badoura before Andrews was closed. The packaging and storage space needs at Badoura are greater with production of both hardwoods and conifers. The Andrews cooler formerly was filled with hardwoods; now all are at Badoura – an extra one million trees annually. Expansion of buildings would allow packaging and storage for up to 6 to 7 million seedlings annually at Badoura.

The demand for source-identified conservation quality bareroot seedlings has cycles and trends as well as routine and non-routine spikes for natural and man-made events, such as large fires, tree disease, blow-downs and others. In addition, the big-picture health and sustainability of Minnesota forests is being examined in light of climate change, which is altering the ecology of forests. Initiatives to strengthen forest growth and viability would require an increased supply of seed and seedlings well adapted to (sometimes changing) local conditions.

Building infrastructure option and costs

An expansion at Badoura would accommodate current demand as well as increased demand for source-identified conservation grade bareroot seedlings to sustain and improve forest health.¹⁰

The options are to expand the basic and essential Badoura building infrastructure or to maintain the current infrastructure. The “as is” option incurs no direct costs but involves opportunity costs due to the less efficient capacity to meet potential future demand. Added grading and packaging space and additional cooler/storage capacity are the most basic functionality for efficient

¹⁰ The state forest nursery program does not produce containerized seedlings, and by statute may supply only bareroot seedlings for use on private lands. Minn. Stat. § 89.37, subd. 3. The department does not contemplate producing containerized seedlings.

increased production. Two possible configurations and cost estimates were initially prepared by DNR staff, and the lesser-cost option is presented here.

Features of a proposed expansion include:

- Additional space for grading and packaging seedlings, made necessary by the short time frame for processing after harvest required to maintain health of the seedlings. With more space, more employees can be working simultaneously.
- Increased cooler storage, necessary to maintain health of the seedlings after they are removed from the ground and before they are distributed for transplantation.
- Separation of hardwood processing from conifer processing. Hardwoods are slower to process (fall harvest that goes into the cooler space for spring sale). The major constraints are processing and refrigerated storage capacity for the fall harvest.
- Additional space for packaging materials.
- Additional office space within the production area.

The status of current building space utilization is summarized below.

Building	Expansion Needs
1-Storage/cones	Acceptable ¹¹
2-Seed extractor/cooler	Acceptable ¹²
3-Cooler storage	Expansion needed
4-Distribution/customer pickup	Acceptable ¹³
5-Packing shed (packaging)	Expansion needed
6-Garage	Satisfactory
7-Offices	Expansion needed

Expansion option

The Nurseries Program currently expects a longer-term stabilized volume at Badoura Nursery of approximately 6 million seedlings harvested annually. In order to fully configure and strengthen Badoura as the single-location seedling production site for the DNR at the stabilized harvest level of up to 6 to 7 million seedlings annually, and to provide for reasonably foreseeable future events, trends and contingencies, the following needs have been identified for the Badoura Nursery:

¹¹ If seed acquisition and production are expanded, the cones storage space may not be adequate. Current space could use an upgrade.

¹² Seed extractor/cooler would benefit from an upgrade if the program expands. However, this business plan update focuses on seedling production infrastructure and capabilities.

¹³ Customer pickup and mailing distribution areas could be modernized and upgraded.

1-Expanded building space for single-location nursery program seedling production

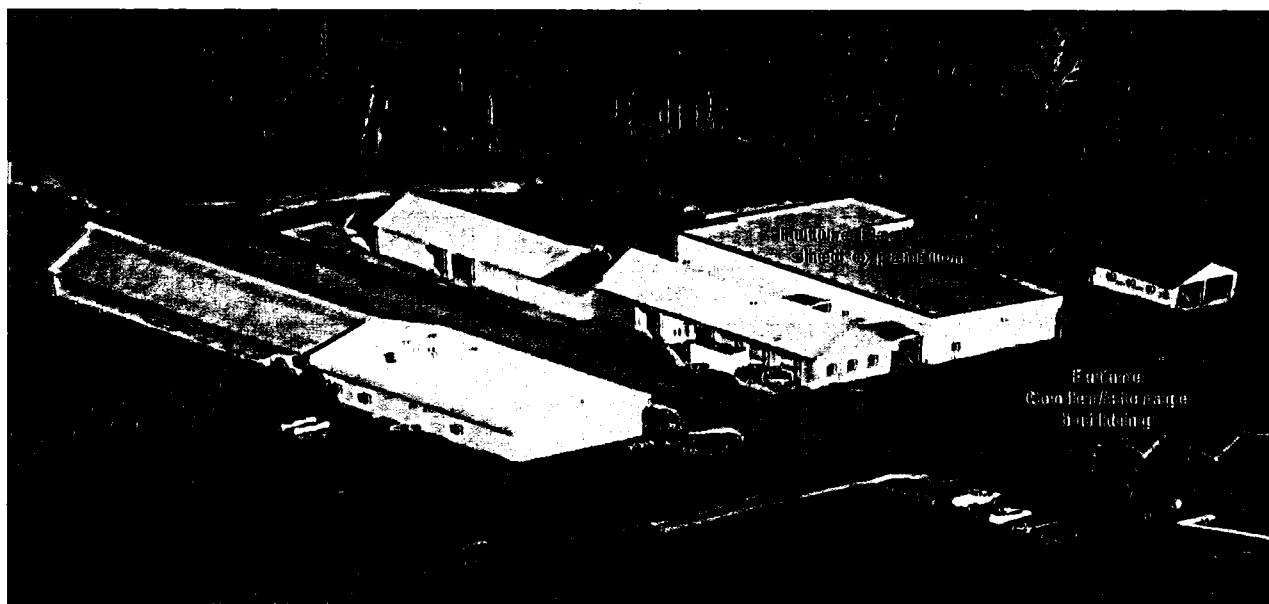
- seedling packaging capacity
- cooler/freezer capacity
- office space for new or expanded building

2-Additional paved roads as needed

The current seedling packaging building capacity would be expanded and a new cooler/freezer building erected for an estimated cost of approximately \$1,500,000 (2014-2015).

Badoura packaging addition	40' x 90'	\$ 430,000
Badoura freezer building including office space	40' x 130'	<u>1,070,000</u>
		\$1,500,000

Badoura single-site nursery infrastructure development—packaging shed and cooler/storage building



- The seedling grading/packages shed expansion would “square” the current L-shaped building, with an addition of 3,600 square feet.
- The seedling cooler/storage building would be located in a central area between the packaging shed and offices, with 5,200 square feet of new space.

Evaluation and conclusions

The rationale for providing additional building space at Badoura is to strengthen its role as the DNR's sole large-scale source-identified conservation grade bareroot seedling production facility and to equip the facility for future demand and contingencies. With additional space for packaging and cooler/storage, Badoura would more effectively meet current and future demand including current projections and various scenarios for increased demand.

The current packaging building and the freezer/storage building at Badoura accommodate current levels of production. However, if demand requires that Badoura produce larger quantities of seedlings for governmental and private uses, including both hardwoods and conifers, the current infrastructure could limit the ability to respond fully. Expansion of Badoura facilities would both complete the transition from a multi-location nursery program to a single location nursery and provide additional capacity to meet greater demand for source-identified conservation grade bareroot seedlings in large and predictable quantities. With the completed transition to a single-site DNR state forest nursery, Badoura Nursery now has an essential role in the maintenance and growth of Minnesota's future forest resources.

Financial and Operating Information Update

Historical FY2011-13 Nursery Program financial data and operating statistics (FY2013 based on 'best available')

	FY2011	FY2012	FY2013
Revenues and Expenditures			
Revenues			
Seedling Sales [1]	\$1,957,090	\$1,867,239	\$1,801,782
Seed Sales	\$271,530	\$227,260	\$208,000
Other revenues and adjustments[2]	<u>\$1,417</u>	<u>\$5,058</u>	<u>\$4,823</u>
Total revenues	\$2,230,037	\$2,099,557	\$2,014,605
Expenditures[3]			
Salary and other compensation [4]	\$1,359,474	\$1,071,436	\$1,030,098
Other costs [5]	<u>\$737,571</u>	<u>\$603,255</u>	<u>\$537,632</u>
Total expenditures	<u>\$2,097,045</u>	<u>\$1,674,691</u>	<u>\$1,567,730</u>
Revenues minus expenditures	\$132,992	\$424,866	\$446,875
Forest Nursery Account (cash basis)			
Balance start of FY	\$1,085,540	\$1,013,761	\$1,280,199
Cash receipts during FY	\$2,025,262	\$1,953,692	\$1,762,974
Expenditures during FY	<u>\$2,097,045</u>	<u>\$1,687,254</u>	<u>\$1,567,729</u>
Balance end of fiscal year[6]	\$1,013,759	\$1,280,199	\$1,475,444
Net change for FY	(\$71,781)	\$266,438	\$195,245
Percent change for FY	-7%	26%	15%
Accounts Receivable			
A/R start of fiscal year [7]	\$35,436	\$240,211	\$646,373
A/R end of fiscal year	<u>\$240,211</u>	<u>\$646,373</u>	<u>\$893,181</u>
Net change in receivables	\$204,775	\$406,162	\$246,808
Percent change in receivables	578%	169%	38%
Seedling sales volume			
Available for sale	--	6,500,000	6,500,000
Public sales (government)	4,516,425	3,416,075	3,497,623
Private sales (non-government)	<u>2,290,075</u>	<u>2,253,150</u>	<u>2,119,182</u>
Total seedling sales volume[8]	6,806,500	5,669,225	5,616,805
Percent change from previous FY	13 %	-17%	-1%
Nursery program personnel by location			
[9]			
<u>Badoura</u>			
Full-time staff (FTE)	4	4	4
Part-time staff (FTE)	2.8	2.8	2.8
Seasonal staff (FTE)	9.5	9.5	9.5
<u>Gen. Andrews</u>			
Full-time staff (FTE)	3.9	3	0.5
Part-time staff (FTE)	2.2	2.2	0.6
Seasonal staff (FTE)	5	5	3
Nursery program staffing totals	27.4	26.5	20.4

Estimated FY2014-16 Nursery Program financial data and operating statistics

	FY2014	FY2015	FY2016
Revenues and Expenditures			
Revenues			
Seedling Sales [1]	\$1,603,641	\$1,504,000	\$1,760,000
Seed Sales	\$260,000	\$260,000	\$208,000
Other revenues and adjustments[2]	<u>\$4,473</u>	<u>\$4,473</u>	<u>\$4,560</u>
Total revenues	\$1,868,114	\$1,768,473	\$1,972,560
Expenditures[3]			
Salary and other compensation [4]	\$1,078,307	\$1,227,657	\$1,264,487
Other costs [5]	<u>\$576,987</u>	<u>\$616,799</u>	<u>\$622,967</u>
Total expenditures	<u>\$1,655,294</u>	<u>\$1,844,456</u>	<u>\$1,887,184</u>
Revenues minus expenditures	\$212,820	(\$75,983)	\$88,376
Forest Nursery Account (cash basis)			
Balance start of FY	\$1,475,444	\$1,683,791	\$1,607,808
Cash receipts during FY	\$1,863,641	\$1,768,473	\$1,972,560
Expenditures during FY	<u>\$1,655,294</u>	<u>\$1,844,456</u>	<u>\$1,887,184</u>
Balance end of fiscal year [6]	\$1,683,791	\$1,607,808	\$1,693,184
Net change for FY	\$208,347	(\$75,983)	\$157,599
Percent change for FY	14%	-4.5%	5.3%
Accounts Receivable			
A/R start of fiscal year [7]	\$893,181	\$252,600	\$252,600
A/R end of fiscal year	<u>\$252,600</u>	<u>\$252,600</u>	<u>\$252,600</u>
Net change in receivables	\$640,581	\$0	\$0
Percent change in receivables	-72%	--	--
Seedling sales volume			
Available for sale	5,500,000	5,000,000	6,000,000
Public sales (government)	2,400,000	2,500,000	2,900,000
Private sales (non-government)	<u>2,300,000</u>	<u>2,200,000</u>	<u>2,600,000</u>
Total seedling sales volume [8]	4,700,000	4,700,000	5,500,000
Percent change from previous FY	-16%	0%	17%
Nursery program personnel by location [9]			
<u>Badoura</u>			
Full-time staff (FTE)	4.0	5.9	5.9
Part-time staff (FTE)	1.6	3.0	3.0
Seasonal staff (FTE)	13.4	13.4	13.4
<u>Gen. Andrews</u>			
Full-time staff (FTE)	0	0	0
Part-time staff (FTE)	0.5	0	0
Seasonal staff (FTE)	<u>0</u>	<u>0</u>	<u>0</u>
Nursery program staffing totals	18.5	22.3	22.3

Endnotes to financial and statistical tables

- [1] Sales. FY2014–16 estimated sales assume an average seedling price \$.315 for the Division of Forestry—which included value-added services that the division typically buys. The estimate also includes sales at an average seedling price of \$.296 for all purchasers, and \$200,000 in seed sales. The sales figures reflect the Forestry Division’s FY2013 purchase of 1.72 million seedlings (as of Nov. 30, 2013) and the same amount each year after that. The 6 percent increases raises prices for the Forestry Division to \$.334 (FY2013) and \$.354 (FY2016). For all other purchases, the prices would be \$.314 (FY2014) and \$.332 (FY2016). The higher prices for the Forestry Division are based on additional services provided.
- [2] Other revenues and adjustments. Other revenues represent interest earned on the nursery account. Interest would average approximately \$10,000 annually for the plan period. Adjustments are assumed to be zero for FY2014–FY2016.
- [3] Costs/expenditures. Costs (and expenditures) for FY2014 have been budgeted and are based on program costs for FY2013.
- [4] Wages and other compensation. For FY2014–16, this line assumes a 4% annual increase in wages and a 1% annual decrease in “other compensation” as employee levels are reduced. The 4% increase is based on MMB methodology which uses step increases that are typically 3.5% plus increases in insurance costs.
- [5] Other costs. This includes supplies and expenses, equipment and capital improvements, other costs and adjustments. Supplies and expenses: for FY2014–16, the reductions of this cost reflect the transition to one location, reduced operations and reduced staffing. This line item assumes a 1% increase in the cost for each planned year. Equipment and capital improvements: A 30% decrease in capital equipment needs is assumed in FY2014, when Andrews discontinues seedling production activities. This line item assumes a 1% cost increase for each of FY2015 and FY2016.
- [6] Nursery Account Balance breakeven. The Nursery Program is required to be self-sufficient. In future years for which estimates are shown, the fund balance grows slightly year by year. The fund balance at the end of FY2016 is projected to be \$1,667,692 based on available information and assumptions noted.
- [7] Accounts receivable. Account receivable have increased over the past two years with the loss of 1.8 FTE staffing at Andrews Nursery. Accounts receivable backlogs will be reduced substantially with the hiring of a tree sales assistant at Badoura, beginning in January 2014.
- [8] Badoura private sales and Gen. Andrews production. With the repeal of the 2011 legislation that limited sales to private landowners and soil and water control districts, the nursery program projects private seedling sales will remain at 2 million to 2.3 million for each of the plan years FY2014 to FY2016. The last seedling plantings at Andrews occurred in Fall 2010. No further seedling harvesting has occurred after FY2013. Badoura is now the sole location of large-scale DNR seedling production.
- [9] Nursery Program staffing level changes. Additional staff will be hired at Badoura in the near future. Although not finalized, the new staffing would include an assistant office manager (0.9 FTE), two equipment operators (0.66 FTE each – 8 month positions) and an assistant supervisor (1.0 FTE) for FY2015.

DATE: February 6, 2014

LEGISLATIVE REPORT – Cost of Preparation

NAME OF LEGISLATIVE REPORT – Minnesota Department of Natural Resources, Division of Forestry—2014 State Forest Nurseries Business Plan Update

Based on: Legislatively Mandated Report

Minnesota Statute Reference: Minnesota Session Laws of 2013, Regular Session; chapter 114 Environment, Natural Resources, and Agriculture Finance and Policy Bill, section 4, subdivision 4. "Forest Management."; and as referenced Minnesota Session Laws 2011, First Special Session chapter 2, article 4, section 30.

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Description of Cost	Further explanation if necessary	Amount
Staff Time	48 hours @ \$50.00/hr	\$2,400
Other Purchased Services: MMB Management Analysis Group	Service Level Agreement	\$15,000
TOTAL TO PREPARE REPORT (Note: Right click on amount cell and choose update to complete)		\$17,400