Family Forests in North America

Investigating wood production from private landholder managed, small-scale forests

Pat McCarthy

Gottstein Fellowship Report

April 2026

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The Trust is the living legacy to honour Bill (Joseph William) Gottstein - who died in a tragic field accident in 1971 while visiting New Guinea. He was an exceptional, innovative man and was internationally respected. He was a scientist and a leader in the CSIRO forest products division.

The Gottstein Trust invests in capacity building which directly contributes to the success and evolution of Australia's wood products and forestry industry.

Governed by several Trustees – all with close industry links – every year the Trust calls for applications from interested candidates for Fellowships, Scholarships and Skill Development grant awards. These grants are awarded to individuals through a competitive selection process. The funding provided enables recipients to pursue projects, further their studies or undertake specific skill development. Regular short courses and industry field trips are also run each year, with a focus on understanding both forest science and wood science.

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Figure 1. The author at the F.G. Wilson State Nursery in Boscobel, Wisconsin

Author's acknowledgement

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Executive Summary

Australian forestry industry groups and governments have implemented a host of grant programs, loan schemes, policies and position statements that try to promote and support farm and private native forestry over the decades, spanning most of the forest-growing regions of Australia. The success and uptake of the various programs and schemes have often been limited, and very few have become mainstays of the local forest products sector. Private native forestry in Tasmania, south east Queensland and north east New South Wales, and farm forestry in Tasmania are the possible exceptions.

Across the USA and Canada, more than 10 million family forest owners control around 127 million hectares of forest—roughly the same area as Australia's total area of forest. These family forests make an immense contribution to their local forest products industries. As an example, 25% of the 224,000 family forest owners in the state of Mississippi, who collectively manage 4.5 million hectares of forest, have harvested trees for sale in the last 5 years.

In the American states of Mississippi, Wisconsin and Washington and the Canadian provinces of Nova Scotia and New Brunswick, tremendous resources are devoted to working with family forest owners to help them manage their forests for the full range of forest values in ways that align with their family's objectives. The programs, services and networks are tailored for family forest owners and are generally funded either through government budget processes, or through cost-recovery or beneficiary pays levy mechanisms on wood products sales.

These programs and initiatives from the USA and Canada that support the management, harvesting, and log marketing of already established natural and planted stands could be considered to have merit for implementation in some Australian contexts. However, in most Australian forestry regions, trying to hurriedly implement a lot of the initiatives would likely be ill-advised and more work to identify local landowner values and attitudes should be undertaken first. This insight will become the crucial foundation to the development of any successful programs in the future.

Recommendations

1) Local industry groups and relevant government agencies should implement targeted farm and private native forestry support programs in defined regions with existing service providers, a developed resource base and a robust market.
2) Industry groups, organisations and governments that seek to raise awareness of the opportunities provided by integrating forestry into agricultural landscapes must directly link their awareness campaigns to achievable next steps to achieve meaningful outcomes.
3) Industry groups, organisations and governments that seek to increase the prevalence of small-scale landowners integrating forestry into agricultural landscapes need to fully identify and consider the values and attitudes of the local landowners and work with them to deliver programs that encourage integration of forestry into their enterprises.

1 Introduction

1.1 Australia

The farm forestry sector report published in 2022 by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) compiled and validated existing available inventory data and identified a total of 73,400 hectares of farm forestry plantings in Australia, representing about 3,000 landholders (Daian *et al.*, 2022).

The ABARES report identified further areas of farm forestry that may be in the order of 60,000 hectares, but information to validate this was not available. The Private Forestry Guidance Materials published by Forest & Wood Products Australia in 2023 summarised other relatively contemporary estimates of the total area of farm forestry in Australia, which range from 66,983 ha to 155,431 ha, whilst also acknowledging challenges associated with compiling the data and accurately estimating the total area figure (Groenhout *et al.,* 2023).

Private and leasehold native forests account for 88 million hectares of Australia's native forests (67% of Australia's total native forest area), with most of this area being woodland forests in inland regions of Queensland, the Northern Territory and New South Wales. Most of the wood harvested in Australia from native forests continues to be sourced from multiple-use publicly owned native forests managed by government business enterprises, even though that tenure represents only 7% of the total area of native forest. The annual log volume harvested from private native forests has declined significantly since 2000–01, with the average annual harvest volume from 2011–12 to 2015–16 totalling 420,000 m^3 (Howell *et al.*, 2025). This is the most recent publicly available national figure—a current figure might be even lower.

Given the seemingly recurring gap between the forecasts for market demand and local supply of wood fibre in Australia, consideration is frequently given to a diverse range of policies and initiatives that seek to increase opportunities for participation in the forest and wood products market by private landholders managing small-scale forests.

In the National Library in Canberra there is a copy of the proceedings of the New South Wales Division of the Institute of Foresters of Australia's 1963 symposium on the role of private forestry in Australia. The preface written by Hector McDonald on the first page reads as follows:

> "*The Forest was a physical obstacle to be overcome by the agricultural pioneer and its regenerative powers a threat. Almost everywhere forest products were available greatly in excess of the pioneer's needs. But he dealt so effectively with the forest, in many parts of Australia, that today the encouragement of farm forestry is widely canvassed, for production and for general conservation benefits.*
>
> *It is well established that there is a growing gap between timber demands and domestic production and between desirable and actual current softwood planting rates. It is often suggested that large scale private planting should be encouraged to fill this gap.*

> *But private forestry is an idea which often evokes an emotional response. To some of those who think of farm forestry, it is the inspiration of a crusade. Others are repelled, who think of forestry investment companies, by a suspicion of financial swindle or, at best, the common innocence of promoters and investors.*"

The proceedings include a record of the discussions that took place and the six papers submitted to the symposium, including a paper by NSW Forestry Commission farm-forestry extension officer R. M. Black who outlined government and industry programs and policies that support small-scale forest growers in Sweden, Norway, France, Spain, the Netherlands, West Germany, Great Britain, Argentina, the USA, India and New Zealand. It also includes the below comment from the general manager of APM Forests, W. G. Chandler, when asked about their efforts to encourage Gippsland landowners to establish farm forests:

> "*Generally the response has been limited and rather poor. The main reason for this would be, I should think, the long-range nature of the return from forestry investments.*
>
> *I have been very keen for some years to encourage private landholders in the Gippsland area to establish plantations. We have published an encouraging brochure; we have given seedlings; we have hired out our planting machines; we have freely offered our technical advice – but, overall, we have succeeded in encouraging the planting of some 2 – 300 acres only*."

A 1991 report of the National Plantations Advisory Committee titled *Integrating forestry and farming – commercial wood production on cleared agricultural land* similarly includes summaries of different policies and programs that relate to farm forestry observed on an overseas study mission to South Africa, Portugal, Brazil and Chile.

There has been a host of grant programs, loan schemes, policies and position statements that try to promote and support farm and private native forestry over the decades, spanning most of the forest-growing regions of Australia. Several of these were analysed in the *Benchmarking analysis: Part 1 Australia's history of plantation development, policy and incentives* report prepared by Braden Jenkin (2018), alongside other well-known programs like the Commonwealth Softwood Loan Agreements and the Managed Investment Schemes. The report summarises that:

> "*While large scale plantation development has responded to such enabling initiatives, farm forestry has failed to initiate, evolve or expand*."

The success and uptake of the various programs and schemes have often been limited, and very few of the programs and initiatives have become mainstays of the local forestry sector, with private native timber harvesting in Tasmania, south east Queensland and north east New South Wales and farm forestry in Tasmania being possible exceptions. At the national overview level, most of the annual log harvest volume continues to be sourced from plantations owned by institutional investors and state government forestry bodies.

1.2 The United States of America and Canada

In the USA, an estimated 9.6 million family forest ownerships manage around 106 million hectares of forest land. This area is coloured light green on Figure 2 and represents 37% of the nation's total forest area, which is a little over 300 million hectares (Family Forest Research Center, n.d.). This means family ownerships control more forests than any other category. More than the federal government, more than the collective state governments and more than the collective corporations.

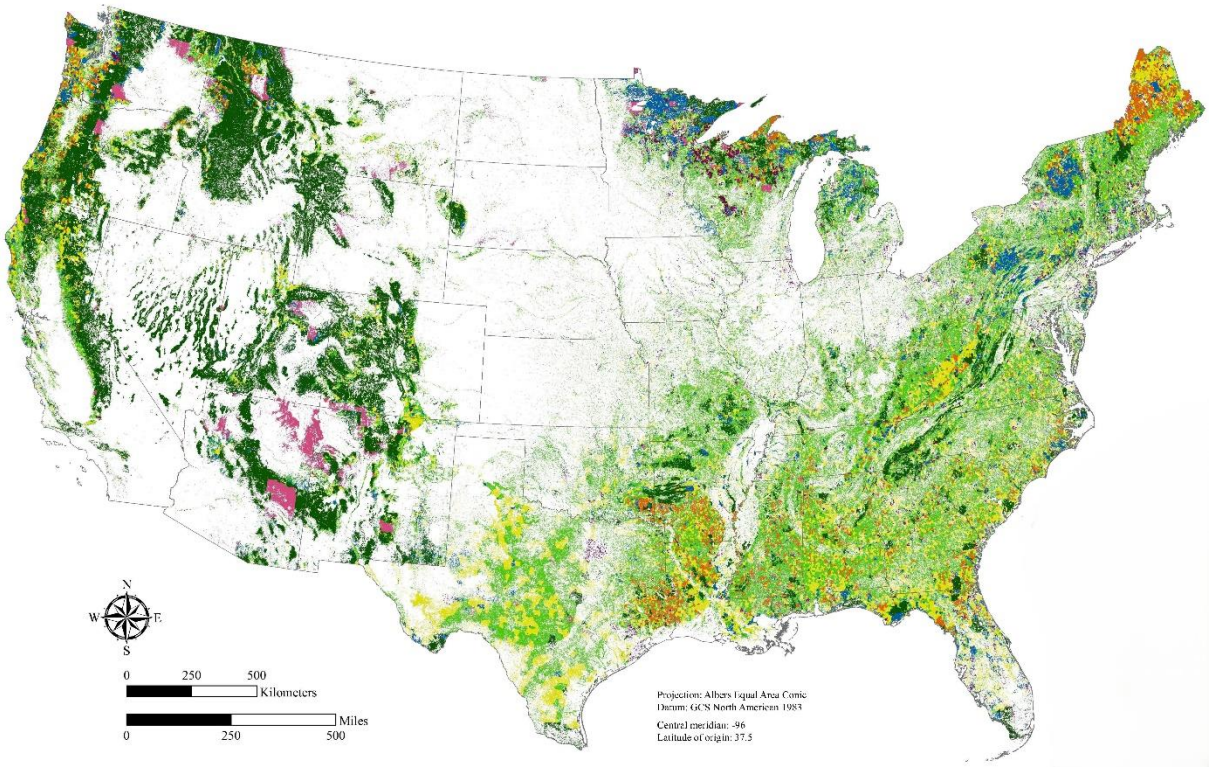


Figure 2. Estimated Distribution of Forest Ownerships Across the Conterminous United States, 2017

Source: USDA Forest Service

In Canada, where the total forest area is 369 million hectares, forest ownership is dominated by provincial and territory governments (Natural Resources Canada, n.d.). However, there are still 21 million hectares of family forests owned and managed by around 450,000 landowners (Canadian Forest Owners, 2023). This means that across the USA and Canada more than 10 million family forest owners control around 127 million hectares of forest—roughly the same area as Australia's total area of forested land.

Like Australia, the USA and Canada are both geographically large countries with diverse ranges of different regional climates. They are both large agricultural producers and advanced economies that are grappling with global environmental and economic challenges. The USA and Canada both also have three levels of relatively similar government: federal, state or territory and local, with a few differences in terminology, areas of responsibility and operation.

Bearing these factors in mind, and given the immense scale of the contribution that family forests in the USA and Canada make to their respective forest products sectors, I travelled to Mississippi, Nova Scotia, New Brunswick, Wisconsin and Washington state to observe and understand the economic, organisational and cultural environment that enables the contribution to wood supply from privately held forests to thrive in comparison to Australia.

2 United States of America

2.1 Mississippi

The state of Mississippi is in the southern United States and had a population of 2,961,279 at the time of its last census. It has a total land area of 121,531 km^2 (United States Census Bureau, 2020). For comparison, the total area of Victoria is 227,444 km^2 and Tasmania is 60,401km^2 (Geoscience Australia, 2014).

The total forest area in Mississippi is around 7.8 million hectares. Forest area has increased from around 6.8 million in 1977 as agricultural land was converted to forests in an effort to manage erosion and water quality concerns under various federal and state incentive schemes that provided a mix of upfront and annual payments to farmers (Jacobson *et al*., 2007, Wear & Greis, 2012).

The state has 224,000 family forest owners that manage around 4.5 million hectares of forests. This represents 59% of the total forest area of the state, making family owners the largest forest ownership category by a considerable margin. The next largest is corporate forest owners that control 26% of the state's forest area. Only 11% of Mississippi's forest area is publicly owned and managed.

In the last 5 years, 25% of the state's family forest owners have harvested trees for sale. In 2023, the volume of logs harvested in the state was approximately 29 million m^3, a volume greater than Australia's total annual log harvest in each of the last 4 financial years (U.S. Forest Service, 2023).

Some hardwoods are harvested in Mississippi, but roughly 90% of production is softwood dominated by loblolly, longleaf, shortleaf, and slash pines, referred to collectively as southern yellow pine.

2.1.1 Mississippi Forestry Association

Founded in 1938, the Mississippi Forestry Association (MFA) is a non-profit member association that presents a unified forestry industry voice in the state and delivers a variety of programs and member benefits. Members come from across the breadth of the diverse forest products value chain, including approximately 1,100 family forest owners.

The Membership dues vary considerably to reflect the relative size of the members. Forestry students pay a $25 annual membership fee, family forest owners with less than 250 acres pay $60 and logging contractors pay $90. At the other end of the scale, the annual membership fees for Real Estate Investment Trusts (REITs), Timberland Investment Management Organisations (TIMOs), sawmillers and processors are calculated individually and are based on set unit costs per acre of forest land owned and managed or annual production volumes.

The MFA staff and office bearers deliver a range of communications products, education programs and events to advocate for landowner rights, environmental stewardship and member prosperity, as well as community understanding of forestry more broadly.

2.1.2 County Forestry Associations

The MFA's headquarters is in Jackson, which is the capital city of Mississippi, but they also have 67 local affiliate County Forestry Associations spread across the state's 82 counties, which are equivalent to local government areas in Australia. The County Forestry Associations generally comprise local family forest owners, foresters, forestry consultants, processors, and anyone else interested in forestry. Each association hosts meetings, industry tours and field days, and these events also serve as opportunities for extension staff from the Mississippi Forestry Commission and Mississippi State University to engage with local landholders.

As with local community run organisations universally, the operations of each County Forestry Association vary depending on the collective level of engagement from the group. The MFA provides a landowner coordinator who can assist the county forestry associations where they might need occasional support.

Figure 3. Noxubee County Forestry Association Meeting in Macon, Mississippi

I was fortunate enough to attend a Noxubee County Forestry Association meeting and meet some local family forest owners and foresters. The meeting was held on a Thursday evening at the Noxubee Civic Center in Macon and 25 people attended. A local farm supply store sponsored the evening's meal and provided two bags of wildlife food plot seed mix as door prizes. After dinner, the group heard a brief update from the local Mississippi State University extension agent and a presentation from a representative from Huber Engineered Woods, who are constructing a new oriented strand board facility within the county.

2.1.3 Mississippi Forestry Commission

The Mississippi Forestry Commission (MFC) was established in 1926 and is responsible for providing forest management, protection and information services within the state. It has approximately 250 staff spread across the state's four geographic regions, which are further divided into 24 areas comprising between two and five counties. The MFC provides each of the 24 areas with a dedicated area forester.

The MFC is the forest manager for the non-federal public forests in Mississippi, which total some 196,000 hectares and mainly comprise land set aside to generate income for nearby public schools, known as 16th Section Public School Trust lands, as well as a small area of state forests.

Whilst the MFC's public forest management program is relatively modest when compared to the area of public forests managed by equivalent state-based organisations in most Australian states, it plays a large and active role in the management of family forests. The MFC also coordinates the management of wildfire preparedness, detection and suppression, as well as the state's prescribed burning program and burn permit system.

The MFC delivers a wide-ranging outreach and extension program that provides family forest owners with free management planning, technical assistance and advice. Services are provided free-of-charge and include conducting compliance checks for state and federal forest improvement cost-share programs and providing forest management advice relating to forest-damaging insects, diseases, invasive species, forest productivity and water quality.

The commission can also perform a range of fee-based services for family forest owners. Family forest owners with larger areas of forest (generally greater than 80 hectares but considered on a case-by-case basis) are generally referred to private consulting foresters to coordinate works. Services provided under this arrangement include:

- developing forest management plans
- hazard mitigation/prescribed burning
- firelane/firebreak establishment and maintenance
- logging road/skid trail/loading deck maintenance
- southern pine beetle suppression activities (ground location, flagging, marking, coordination of harvest)
- vegetation management – control of competition, wildlife habitat enhancement, and invasive species control.

2.1.4 Forest Resource Development Program

The MFC also administers the Forest Resource Development Program (FRDP), which was established in 1974 by the Mississippi Legislature to aid in the development of the local forest economy.

The FRDP provides funding to family forest owners to cover some of the costs of a range of specific forestry practices including site preparation, tree planting, fertiliser application, weed control and

firebreak works. Payments cover approximately 50–75% of the total cost of each activity, noting each activity has a prescribed maximum payment rate.

Family forest owners may receive up to $10,000 of FRDP assistance a year and they must agree to manage and protect the area where the work has been undertaken from fire and grazing for a minimum of 10 years, using approved practices.

The program is funded by the state of Mississippi's Timber Severance Tax, which is levied on all timber products produced or harvested within Mississippi at one of several different rates depending on product type. The levies range from $1.27 per m^3 of logs used for poles, pilings and posts, to $0.42 per m^3 for softwood logs used to manufacture lumber and veneers and $0.08 per m^3 for pine pulplogs. In the 2024 fiscal year, the FRDP distributed $2.59 million to private forest landowners, and 35,317 hectares were planted, re-planted after a harvest or otherwise improved.

2.1.5 Land-grant universities

In the USA, land-grant universities are required by law to deliver practical research-based programs and resources to residents within their state. Each institution is designated by its state to receive the benefits of the Morrill Acts of 1862 and 1890, or the Equity in Educational Land-Grant Status Act of 1994. The granted lands were sold and the resulting funds were used to finance the establishment of schools, which are now mostly known as universities, to teach agriculture and mechanics. There are 106 land-grant universities in total, with at least one in each state and territory, as well as the District of Columbia.

The Smith–Lever Act of 1914 established a system of cooperative extension services, connected to the land-grant universities, which deliver research-based knowledge to the residents and landholders in each state and funded jointly by the federal and state governments. At the inception of the land-grant university and cooperative extension systems, they were chiefly focused on agriculture, horticulture and mechanical engineering, but they have evolved with time to also cover forest management.

There are two land grant universities in Mississippi, the smaller, historically black Alcorn State University with a specialised extension program serving 15 counties in southwest Mississippi and the larger Mississippi State University.

2.1.6 Mississippi State University Forestry Extension

The Mississippi State University has a physical office and an extension agent in each of the state's 82 counties and a range of broader district and statewide extension specialists. The MSU Extension Service's operating budget for the 2026 fiscal year, across all subject matter, is $47.9 million.

The county extension agents have a range of backgrounds. In some counties with more forest production and cover, the agents are registered foresters whilst in other counties the agents have backgrounds in agriculture and horticulture. The county extension agents spend most of their time talking to local landholders and participating in local meetings, workshops and field days. Generally, all agents can answer simple forestry questions and refer landholders on to specialist regional and state-wide extension colleagues or partner organisations.

In addition to the county extension agents, the state is divided into four extension districts, and each district has a district forestry specialist, and there are additional forestry extension professors and faculty based at the university's campus in Starkville. The forestry extension service hosts workshops and field days and publishes online and hard copy documents covering forest ecology, economics, management, soils, carbon, timber harvesting and disaster recovery. Most services are provided to landholders free-of-charge, but some workshops and field days have modest registration fees.

2.2 Wisconsin

The state of Wisconsin is in the Midwest with coastlines on Lake Michigan and Lake Superior. The total land area is 140,268 km^2 and the population at the time of the 2020 Census was 5,893,718 (United States Census Bureau, 2020). The area sizes are different, but the proportion of the state's forests controlled by family forest owners is very similar to the proportion in Mississippi. The 3.9 million hectares of forest managed by Wisconsin's 313,000 family forest owners represents 57% of the state's total forest area.

In 2020, the state's log harvest volume was around 8.5 million m^3, with some 6 million m^3 of hardwood and 2.5 million m^3 of softwood. The 8.5 million m^3 figure is greater than the annual log production volume of any Australian state since 8.9 million m^3 were harvested in Victoria during the 2018–19 financial year.

2.2.1 Wisconsin Forest Landowner Grant Program

The Wisconsin Forest Landowner Grant Program (WFLGP) is a cost-sharing program that reimburses family forest owners up to 50% of the cost of a range of eligible practices that protect or enhance their forests' production and environmental values. The program was established in 1997 and is administered by the Wisconsin Department of Natural Resources (DNR). Applicants must own from 4 to 200 contiguous hectares of forest land.

Eligible activities include forest management plan development, tree planting and site preparation, invasive species control, wildlife habitat improvement and soil and water protection measures. The maximum grant amount varies depending on the scope of the project, with funding awarded quarterly on 1 August,1 November, 1 February and 1 May 1 on a first-come, first-served basis. Successful applicants have two years to complete their projects from when they are awarded their grant.

The program currently has an annual budget of $1.15 million and is funded through the state's biennial budget, which covers a 2-year period from July 1 of one odd-numbered year through June 30 of the next odd-numbered year. Generally, the program is oversubscribed with approximately 600 grants awarded each year and the most common practice is forest management plan development. Applicants usually must wait around 6 to 9 months to be awarded a grant from the time of application.

2.2.2 20,000 Landowner Connections

In March 2018, the Wisconsin Private Forestry Advisory Committee, which is comprised of family forest landowners, forestry consultants and representatives from the forest products industry, tribal organisations, and federal, state and local government agencies, recommended an initiative that

encouraged the local professional forestry community to connect with 20,000 new family forest owners over a 5-year period. The committee reports to the State Forester, who adopted the recommendation which was subsequently delivered by the Wisconsin DNR in collaboration with several partners organisations.

Wisconsin DNR's principal partner for the initiative was the Aldo Leopold Foundation, which was established by the children on the revered ecologist, forester and environmentalist who lived and worked in Wisconsin from 1924 to his death in 1948, and penned most of his famous book, *A Sand County Almanac,* in Wisconsin. The eponymous foundation was established in 1982 (some 32 years after Leopold died of a heart attack while fighting a grass fire) in response to growing interest in his legacy and a period of increased book sales as public concern for environmental matters grew.

The foundation advocates for a harmonious relationship between people and the land, striving to inspire ethical and responsible stewardship of the natural environment, through education, research, and community engagement. They host events and workshops, publish news, articles and publications and provide fellowships in land stewardship and education and communication. The foundation also maintains Leopold's original farm and personal archives containing Leopold's original writings, sketches and photographs.

The 20,000 Landowner Connections campaign was adapted from the transtheoretical model of behaviour change, also known as the stages of change model, developed by American psychologists James Prochaska and Carlo Di Clemente in the 1970s (Prochaska & Di Clemente 2005). The Aldo Leopold Foundation focused on the *1. Awareness* and *2. Learn More* stages through landowner outreach and education and the DNR took over at the *3. Take a First Step* stage, as presented in Figure 4. The DNR and Aldo Leopold Foundation staff that I met with stressed the importance of tackling the challenge with a social science lens because ultimately it is more a behavioural change matter than a forest science matter to motivate a family forest owner who has never previously sought the opinion of a professional.

Over the five years from 2018 to 2023, the information about the campaign reached 252,030 family forest owners through direct mailing, social media, e-newsletters and workshops. From that cohort, 21,172 owners who are responsible for 949,143 acres of forest engaged a professional forester for the first time to undertake for a free property walkthrough and identify forestry actions that align with their values, which span the full range of provisioning and ecosystem services. At the time of the final campaign update in September 2023, 2,183 of those owners had undertaken one of the actions they identified, which ranged from developing a management plan to undertaking a timber harvest or timber stand improvement works.

Whilst the 20,000 Landowner Connections campaign has ended, the DNR still provides free first-time property walkthroughs to Wisconsin's family forest owners. Engaging with first time family forest owners is the stated number one priority task for the foresters allocated to the DNR's Private Forestry Section. One of the highlights of my trip was accompanying the local DNR foresters on a first-time site visit to a relatively small cattle and hay farm bisected by a mixed hardwood forest in Grant County in the south west of Wisconsin.

Figure 4. 20,000 Landowner Connections September 2023 Report

Source: Wisconsin DNR

2.2.3 Managed Forest Law

The Wisconsin DNR administers the Managed Forest Law (MFL), a voluntary program established in 1985 to encourage sustainable forestry on private lands by offering reduced property tax rates to landowners who commit to sustainable long-term forest management practices.

Enrolment in the MFL program is open to all private owners of forest land. To be eligible, each unit of land must be at least 8 contiguous hectares under the same ownership or be at least 4 contiguous hectares and be connected by a tract of land under the same ownership to at least one other parcel of at least 4 contiguous hectares. At least 80% of each parcel must be productive forest. Approximately 1.4 million hectares of family forest owned by roughly 50,000 owners is currently enrolled in the program. Landowners must commit to a 25 or 50-year forest management plan, which is approved by the DNR at the time of application and must be updated every 10 years.

The forest management plan must be written by a forester certified by the DNR to write MFL plans after completing a three-day training course and meeting other educational and continuing professional development requirements. The plans are required to address items such as landowner objectives, timber management, wildlife management and water quality and set out a planned schedule of forestry practices. Critically, the landowners must complete these practices at specified times to remain within the program. Once enrolled, there are fees and penalties for withdrawing from the program early and there are additional requirements associated with selling or transferring ownership of enrolled properties.

The land tax rates for properties enrolled in the MFL program are the same across the entire state. The rates can be further reduced by allowing public access to the property for on-foot only hunting, fishing, hiking, sight-seeing and cross-country skiing. Properties that were entered into the program before 2005 have even further reduced grandfathered rates, as reported in Table 1. Anecdotally, the current property tax rates for forest properties that are not enrolled in the MFL property range from $8 to $60 a hectare depending on the location.

Table 1. The per hectare MFL tax rates for 2023 through to 2027

	Open to the public	**Closed to the public**
Land entered before 2005	$0.29	$0.68
Land entered in or after 2005	$0.77	$3.84

Source: Wisconsin DNR

2.2.4 Managed Forest Law Group Certificate

Family forest owners in Wisconsin who are enrolled in the MFL are eligible to become members of the MFL Certified Group. The group is dual certified under the Forest Stewardship Council (FSC) and the American Tree Farm System (ATFS). The ATFS specialises in certifying family forests and is recognised by the Programme for the Endorsement of Forest Certification (PEFC).

Membership is free and voluntary, landowners just need to nominate that they would like to join the certified group when enrolling in the MFL and follow a few additional requirements, including not using pesticides prohibited by FSC and adhering to the Wisconsin Forestry Best Management Practices, which are otherwise voluntary.

A dedicated team within the Wisconsin DNR manages the group certificate as a service to the state's family forest owners, including meeting all the reporting and audit requirements. The group certificate enables the growers to command better log prices when selling to several customers who offer higher prices for logs from certified forests, as well as allowing access to log markets where certification is a requirement.

As of the 2024 ATFS audit, approximately 1 million hectares of family forests owned by 35,000 members are enrolled in the group certificate, making it the largest third party forest certification group certificate in North America.

2.3 Washington

With a total land area of 172,119 km^2 and a population of 8,115,100 at the time of the most recent state government estimate, Washington was the largest of the USA states I visited by both measures (United States Census Bureau, 2020). It also had the largest area of forest land at around 17.2 million hectares. Approximately 7 million m^3 of logs were harvested in the state in 2020, with 62% of the volume being Douglas-fir and another 21% being Western Hemlock.

Unlike Mississippi and Wisconsin, 64% of the forest area is public and is managed by the federal and state governments. Of the balance, 21% is owned by large industrial private landowners, mainly REITs and TIMOs. This makes family forests a relatively small ownership category, with the state's family forest owners managing 7.6%, with only 1.3 million hectares.

2.3.1 Northwest Natural Resource Group

The Northwest Natural Resource Group (NNRG) is a non-profit organisation that specialises in providing forest management services to family forest owners, as well as other small-scale forest ownerships including Indian tribes and non-profit organisations. They prepare management plans and coordinate operations, including harvesting operations and timber sales.

Founded in 1992, the NNRG employs practices that it collectively refers to as "ecological forestry" which focus on mimicking natural processes, increasing the structural complexity of forests, and improving biological diversity. The group primarily operates in western Washington and Oregon. Figure 5. displays some poor form and unmerchantable trees that were deliberately retained in a first thinning operation that was being delivered by the NNRG in southern Washington.

Most services provided by the NNRG are fee-based, however the NNRG currently has some grant funding that enables it to provide free first-time property walkthroughs. Forest owners are encouraged to become members of the group, which provides access to reduced rates for work performed, access to the NNRG staff for ongoing consultation, and member only information and resources to support ongoing forest management. The NNRG also manages an FSC group certificate with approximately 75 members. There is a $350 initial fee to join the group certificate for a family forest that is less than 40 hectares in size. There is also an annual renewal fee of $75, which increases to $250 in years when there is significant management activity such as timber harvesting or road construction, which requires a field audit from NNRG staff.

Figure 5. Examples of poor form and unmerchantable trees deliberately retained in a first thinning operation delivered by the NNRG in Ashford, Washington

2.3.2 Washington State Department of Natural Resources, Small Forest Landowner Office

The Washington State DNR has a Small Forest Landowner Office (SFLO), which sits within the broader forestry apparatus of the department. The SFLO was established in 1999 in recognition of the challenges that increasing regulation, including widened buffers on waterways, presented to the state's family forest owners.

The SFLO currently comprises of 5 Regulatory Assistance Foresters that provide free site-visits and support services directly to family forest owners to assist them with questions related to the state's Forest Practices Rules and the preparation of the required applications and notifications. They can also provide general advice around managing forests for timber production, forest health, wildlife and fish habitat, special forest products, amenity and fire safety, tailored to meet the family forest owner's specific objectives.

The SFLO also manages several other funding programs for family forest owners. These include the Family Forest Fish Passage Program, a cost-share program that provides small landowners with 75–100% percent of the cost to remove culverts and other stream crossing structures that keep trout, salmon, and other fish from reaching upstream habitat, and the Forestry Riparian Easement Program, which is a voluntary program that provides compensation for 90% of the timber value for trees they are required to leave to protect fish habitat. Under the easement program, family forest owners receive compensation for granting a 40-year conservation easement, which is on the trees only and does not provide public access to the land.

2.3.3 Washington Farm Forestry Association

The Washington Farm Forestry Association (WFFA) is a non-profit, non-governmental association with around 1,300 family memberships who manage around 60,000 hectares acres of forest land in Washington for timber, other forest products, wildlife, fish, recreation and aesthetics. The association divides the state into 15 regional chapters that all host local meetings, industry tours and field days. The WFFA executive committee are very active on the advocacy front. I met with the WFFA president at their family forest in southern Washington and attended a meeting of the Upper Puget Sound Chapter, hosted at a member's family forest roughly an hour north of Seattle.

Figure 6. WFFA Upper Puget Sound Chapter meeting in Arlington, Washington

It struck me while speaking with local family forest owners in Washington that the regulatory and market access challenges they faced are somewhat unique and on a much greater scale when compared with Mississippi and Wisconsin. Some of the challenges are similar to those faced by the Australian forestry industry. Multiple family forest owners lamented the seemingly inordinate environmental policies and regulations, with limited scientific backing, that hampered their ability to fully utilise timber harvesting as a tool when managing their forests.

3 The Maritimes (Canada)

The Maritimes, or the Maritime provinces, is the commonly used name for the region of Eastern Canada comprising the three provinces of New Brunswick, Nova Scotia, and Prince Edward Island. The region is bordered by the Atlantic Ocean, the Canadian province of Quebec and the American state of Maine. The three provinces have a largely shared colonial history, which is distinct from most other regions in Canadia and has contributed to their current forest and land ownership structures.

3.1 New Brunswick

New Brunswick has a land area of 71,377 km^2 and had a population of 775,610 at the time of their last census (Statistics Canada, 2022). The province's total forest area is 5.91 million hectares, meaning that 83% of the total land area is forested. 2.96 million hectares is public forest, and 1.21 million hectares is private industrial freehold land. The remaining 1.74 million hectares are family forests owned by an estimated 42,000 owners (Canadian Forest Owners, 2023).

Figure 7. The boundary between two neighbouring family forests delineated by high stumps, blazes and flagging tape in Drummond, New Brunswick

The province's total log production figures across all forest ownership tenures are not easily accessible, however the New Brunswick Forest Products Commission published them annually for the 1.74 million hectares of family forests. During the 2023–24 reporting year, 2.3 million m^3 of logs were harvested from family forests with a nearly even split of softwood and hardwood volumes.

3.1.1 Forest Products Marketing Boards

In New Brunswick there are seven forest products marketing boards that were established between 1962 and 1981, originally to help family forest owners to negotiate prices and supply agreements with wood product processors. The boards are regulated by the New Brunswick Forest Products Commission, an independent commission which was put in place in 1971 to oversee the marketing relationships involving forest industries, forest products marketing boards and the provincial government.

With time, the role of the boards has evolved to include the coordination of the New Brunswick Government's Private Woodlot Silviculture Program within their region. Several of the boards also deliver broader support services to local family forest owners such as field day and information sessions, newsletters and other publications, landowner recognition programs and maintaining GIS tools and databases.

The boards are governed by volunteer committees and have several full-time staff members, funded through levies on logs sold from family forests within their region. Each board sets their own levy rates. As an example, the York-Sunbury-Charlotte Forest Products Marketing Board collects a 2.5% levy based on the mill door price. Family forest owners are not obligated to conduct their log sales through the agreements negotiated by the boards, however the levies are imposed regardless.

3.1.2 Private Woodlot Silviculture Program

The boards are charged with delivering the New Brunswick Government's Private Woodlot Silviculture Program within their region's boundaries. The program provides cost-sharing grant funds for developing forest management plans and eligible silviculture treatments on family forests, up to a maximum activity rate that is nominally 90% of the cost. Properties need to be 10 or more hectares to be eligible, and the stated main objective of the program is to increase the supply of high-value timber available in the future.

In 2022, the provincial government passed the *Private Woodlot Sustainability Act*, which allowed the government to make upward adjustments to Crown timber stumpage so that more money can be invested in private woodlots. As a result, recent years have seen budget increases for the Private Woodlot Silviculture Program budget. In 2025–26, $10 million is allocated to the program and distributed proportionally to the forest products marketing boards. The boards pay the entire cost of the silvicultural treatment to the contractor and in turn the family forest owner pays a fee for the service to the Marketing Board.

I saw examples of a diverse range of operations that were being delivered across three forest products marketing board regions, South East New Brunswick, Madawaska and York-Sunbury-Charlotte. The various operations were targeting or seeking to release a mix of softwoods and hardwoods, some planted and some natural. The 2025–26 New Brunswick Private Woodlot Silviculture Program Manual includes maximum rates for 61 different treatment combinations activities, including mechanical pre-commercial thinning. Figure 8 shows a 6-tonne excavator with a 200mm cutting diameter shear head undertaking this operation in a mixed softwood and hardwood stand in the York-Sunbury-Charlotte Forest Product Marketing Board region.

Figure 8. Excavator with a shear head conducting a mechanical pre-commercial thinning operation in North Forks, New Brunswick

3.2 Nova Scotia

The province of Nova Scotia comprises the large land masses of the Nova Scotia Peninsula and Cape Breton Island and many surrounding islands. Almost entirely surrounded by water, the total land area is 52,939.44 km^2 and the most recent provincial government population estimate is 1,079,627 (Statistics Canada, 2022).

Nova Scotia's 31,000 family forest owners manage 1.78 million hectares of forests, making them the largest ownership category in the province (Canadian Forest Owners, 2023). There is an additional 1.03 million hectares of public forest and 850,000 hectares of private industrial forest, combining for a total forest area across all land tenures of 3.66 million hectares. The total reported provincial harvest for 2024 was 2,322,413 m^3, 87% or 2,020,900 m^3 of which was softwood and 70% or 1,631,948 m^3 of which came from family forests.

3.2.1 Registry of Buyers of Primary Forest Products

The Nova Scotia DNR collates and publishes information about the annual production volumes of all of the province's forest product processors, as well as the harvest volume and origin of timber harvests. The reporting system, referred to as the Registry of Buyers, was first implemented in 1998 and culminates in a yearly report that is publicly available.

The report details log harvest volumes by species, county of origin (the Nova Scotian equivalent of an Australian Local Government Area) and the land tenure category of the originating forest. It collates production figures by species and forest product category for all wood processing facilities. It does not include additional details about forest property addresses or owners, nor does it include any information about prices at any stage of the supply chain.

Registration within the system and reporting is mandatory for the operators of all wood processing facilities in the province, as well as anyone acquiring more than 1000 m^3 of primary forest products as a fuel. The names and locations of all registered buyers are published alongside the products they process and volume of logs they acquired in an ordinal scale of acquisition classes, as seen in Figure 9a.

The stated objectives of the Registry of Buyers are to collect reliable data and information about the acquisition and use of forest products to understand regional forest product demand and supply, estimate and monitor sustainable harvest levels, determine long-term resource management needs, and identify forest product and value-added development opportunities. It can also provide a good starting place for family forest owners and service providers who are trying to identify local customers.

3.2.2 Wood Acquisition Plan

Nova Scotia's Forest Sustainability Regulations require all Registered Buyers acquiring greater than 5000 m^3 from family forest and industrial freehold lands in Nova Scotia to deliver a silviculture program, where the required value of the program is directly proportional to the amount of wood acquired, or pay the equivalent value into the province's Sustainable Forestry Fund.

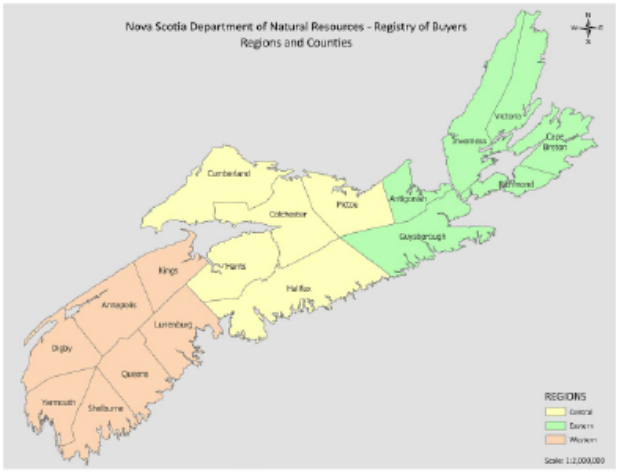
The value of the required silviculture program for each individual buyer is based on the rates of $3.00 per m^3 of softwood and $0.60 per m^3 of hardwood acquired. There are seven categories of eligible silvicultural treatments that can be delivered as part of the program, each with their own technical standard and a predetermined value that is used to account for the value of the program, which is set by the DNR each year. The seven categories are:

- natural regeneration establishment
- plantation establishment
- early competition control
- density control and release in plantations
- density control and release in natural stands
- commercial thinning
- forest quality improvement

The volumes for 2024 that required a wood acquisition plan silviculture program totalled 1,814,443 m^3, accounting for 96% of the province's family forest and industrial freehold harvest for the year. This was spread across the 18 largest Registered Buyers and ensured that 9,439 hectares of silviculture treatments were delivered, as seen in Figure 9b.

Anecdotally, the large processors are generally aligned with the large industrial freehold forest managers and can deliver their full silviculture programs on their estates. However, the medium and smaller sized processors, who generally source their logs from family forests, often fund silviculture work such as replanting post-harvest or improvement works on adjacent stands as part of their stumpage sales. This can assist family forest owners in controlling their forest management costs, whilst allowing processors to meet their required silviculture obligations.

Businesses by Acquisition Class



NOTE: For continuity of reporting the counties within each regions have remained the same since 2000

Sawmills

NOTE: Acquisition Classes are in m^3 solid, based on wood of Nova Scotia Origin

Name	Location	County
Acquiring over 200,000 per year		
Harry Freeman & Son Ltd.	Greenfield	Queens
J.D. Irving – Truro Lumber	Valley	Colchester
Ledwidge Lumber Co. Ltd.	Enfield	Halifax
Scotsburn Lumber Ltd.	Scotsburn	Pictou
Acquiring 30,001 to 200,000 per year		
Elmsdale Lumber Co. Ltd.	Elmsdale	Hants
F.W. Taylor Lumber Ltd.	Middle Musquodoboit	Halifax
Acquiring 10,001 to 30,000 per year		
Groupe Savoie Westville Divison	Westville	Pictou
J.A. Turner & Sons (1987) Ltd.	West Northfield	Lunenburg
Williams Brothers (2013) Ltd.	Barney's River	Pictou

Figure 9a. Excerpt from the 2024 Calendar Year Registry of Buyers of Primary Forest Products Report

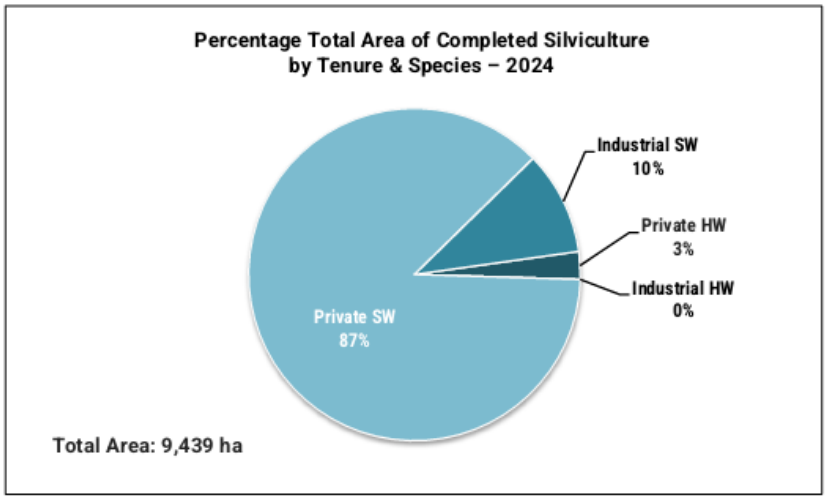
Source: Nova Scotia DNR

Summary of Completd Silviculture Area
by Category and Tenure Class

TABLE 6

CATEGORY	Area Treated (Hectares) by Tenure/ Species			
	SOFTWOOD		HARDWOOD	
	Industrial	Private	Industrial	Private
1. (a) Natural Regeneration Establishment < 300/ ha	0	1,451	0	137
(b) Natural Regeneration Establishment >= 300/ha	0	22	0	0
2. (a) Established Plantation	158	2,016	0	0
(b) Intensive Plantation	0	121	0	0
3. Early Competition Control: Plantation & Natural	344	1,151	0	0
4. Density Control & Release; Plantations	246	891	0	0
5. Density Control & Release; Natural Stand	166	935	0	59
6. Commercially Thinned	38	947	0	21
7. Quality Improvement:				
(a) Crop Trees Released	0	0	0	0
(b) Crop Trees Pruned	0	0	0	0
(c) Selection Managed	0	698	0	38
TOTAL AREA by Tenure / Species	**952**	**8,232**	**0**	**255**
TOTAL AREA by Species	**9,184**		**255**	
TOTAL AREA	**9,439**			

Percentage Total Area of Completed Silviculture
by Tenure and Species



NOTE: "Tenure" in this report means land ownership.

Registry of Buyers (2025) | NS Department of Natural Resources 42

Figure 9b. Excerpt from the 2024 Calendar Year Registry of Buyers of Primary Forest Products Report

Source: Nova Scotia DNR

4 Findings and recommendations

It should go without saying, that an investment in planting and managing trees with the plan to harvest them in 20-, 30-, 40- or 50-years' time is a serious matter for any landowner, regardless of where you are in the world.

When driving around the regional areas of the USA and Maritime Canada and observing the awesome ambition and quantity of resources devoted to working with these family forest owners—in helping them to manage their forests for the full range of forest values in ways that align with their family's objectives—you get the sense that ensuring support is available for these landowners is an equally serious matter.

There are extension agents and foresters from universities and federal and state government agencies and departments who can set family forest owners on their way at the start of their journey, often for free. There are firms of private consulting foresters who are trained experts at working with family forest owners. There are silviculture and harvesting contractors with specialist machinery and operators who have mastered working in small and poky family forests.

There are log buyers who are adept at being the intermediary between family forest owners and processors. There are teams of procurement foresters working for some of the largest and most well-known sawmillers and pulp and paper producers, who buy logs from family forest owners, sometimes by the individual truck load. There are tailored certification schemes and accessible group certificates, helping family forest owners with market entry.

There are co-operatives, formal and informal networks, and member associations where family forest owners can meet, learn from each other and work together. There are specialised family forestry tax programs that provide a taxation environment that supports their ownership structures. There are state and local government environmental and planning regulations that enable family forest owners to sustainably manage their forests, both planted and naturally regenerated.

There is also a large amount of cost-share funding available, some of it generated through cost-recovery or beneficiary pays levy mechanisms on wood products sales, and some of it is appropriated directly through government budget processes. But this funding is only deployed effectively because of the successful operation of all of the other individual components of the family forest support apparatus.

In Australia there are several fine examples of committed professionals, member networks and specialist agencies, organisations and businesses offering tailored services that support regionally important farm forestry and private native forestry operations. However, they are few and far between, and crucially, they are not all accessible within every individual forestry region.

The challenge here is the lack of both critical mass and comprehensive ongoing support for these services to operate in a lot of Australian regions and be attractive to landowners. Yet, having the full breadth of support services available to work with any one of 100 or 200 landowners in the Green Triangle in Victoria and South Australia is likely to be just as important to the success of their

individual forest operations as it is to any one of 3,000 or 4,000 family forest owners in the Golden Triangle in Mississippi, as well as the supply chain that relies on their production.

There are many programs and initiatives in the USA and Canada that support the management, harvesting, and log marketing of already established natural and planted stands. All of these could be considered with merit in some Australian contexts where there are existing services providers, a developed resource base and a robust market. Current examples in Australia might be private native forestry in Tasmania, south east Queensland and north east New South Wales and farm forestry in Tasmania.

Recommendation 1

Local industry groups and relevant government agencies should implement targeted farm and private native forestry support programs in defined regions with existing service providers, a developed resource base and a robust market.

However, in most other Australian forestry regions, trying to hurriedly implement a lot of the initiatives would likely be ill-advised. Of the 73,400 hectares of farm forestry plantings in Australia validated by ABARES, 45,600 hectares, or 62% of the total area, is in Tasmania. Most of this area is *Eucalyptus nitens* of Managed Investment Scheme (MIS) heritage, so some of these areas might yet revert to other agricultural land uses. The next two biggest state totals belong to Victoria and New South Wales with 10,700 and 9,000 hectares respectively. For the areas with a known planting date, only 2,300 hectares were planted nationwide from 2011 to 2020.

The 73,400 hectares is held by around 3,000 landholders nationally, a number that would need to grow considerably to be able to valuably integrate the wood from farm forestry plantings into the forest products supply chain. With this in mind, the delivery of the 20,000 Landowner Connections initiative, recommended by the Wisconsin Private Forestry Advisory Committee and delivered by the Wisconsin DNR, Aldo Leopold Foundation and several other partners organisations, might be worth analysing further as a model for Australia to adopt.

The 20,000 Landowner Connections initiative led to 21,172 owners engaging a professional forester for the first time and identified opportunities for management activities, already had existing forests on their properties. However, some of the takeaways about the development of the program are still relevant here in Australia. The challenge of increasing the uptake of farm forestry practices in Australia is also a much greater behavioural change matter than it is a forest science matter. In a magazine article published about the initiative, the Aldo Leopold Foundation's program director, Steve Swenson (2019), highlighted that:

> "*In the past, naivety, enthusiasm, and modest budgets sustained our fantasy that raising landowner awareness led to the adoption of new land care behaviors. For the most part, it doesn't…*
>
> *Landowner organizations and agencies – locally, statewide, and nationally – vie for landowner attention and action. There are two aspects to this business-as-usual model that betray an understanding of behavior change for high-involvement decisions: 1) groups are constantly competing for awareness, diluting an ability to scale up or*

> *advance behavior change strategies; 2) groups building awareness and excitement to learn more with no clear pathway to necessary next steps for landowners will predictably fall short of landowner action*."

In Australia, there has been no shortage of programs, loan schemes, policies and position statements promoting farm forestry stretching back at least as far as the 1960s. Over the last decade or so, these have mostly taken the form of published documents and online resources, chiefly developed to raise landowner awareness with few clearly outlined next steps or helpful funding to attract and motivate an interested landowner—likely due to naivety, enthusiasm, modest budgets, or a combination of these factors. Future Australian initiatives that seek to raise awareness of the opportunities provided by integrating forestry into agricultural landscapes must be directly linked to achievable next steps, funding and markets to achieve meaningful outcomes.

Recommendation 2

Industry groups, organisations and governments that seek to raise awareness of the opportunities provided by integrating forestry into agricultural landscapes must directly link their awareness campaigns to achievable next steps to achieve meaningful outcomes.

The 20,000 Landowner Connections initiative incorporated tailored approaches targeted at different landowners based on their likely ownership values and receptiveness to various activities. The approaches were based upon four landowner profiles developed by the Sustaining Family Forests Initiative, a collaboration between the Yale School of Forestry & Environmental Studies, the U.S. Forest Service, and the Center for Nonprofit Strategies. The four general profiles, *Woodland Retreat Owners*, *Working the Land Owners*, *Supplemental Income Owners* and *Uninvolved Owners*, were created using data from the National Woodland Owner Survey.

It is important to note here that most of the family forests ownerships in the USA are not part of a farming operation. Of the 2.1 million farms in the country, nearly 40% have some amount of forest on the property, and these areas total to 31 million hectares (Huff *et al*., 2019). However, the much larger share of USA family forests, 76 million hectares, is in forest only ownerships.

We do not have a National Woodland Owner Survey in Australia to provide us with our statistics. A similar percentage of Australian farming properties might contain forested areas, but it is very likely that forest only ownerships are far less prevalent here. There are several factors that contribute to this, many of which are ultimately longstanding features of the evolution of Australian government and land ownership structures.

These differences in forest tenure and governance between Australia and the USA and Canada (and several other parts of the world where wood production from private landholder managed, small-scale forests is prevalent) mean that it is extremely important to invest time and effort locally to understand landowner values and the key factors in their decision-making. Without such a sound grounding, projects and initiatives that are designed without a full appreciation of the target audience will miss the mark.

The Next Generation Forest Plantation Investment Research Project (Bull & Keenan, 2020), which was delivered in late 2019 and involved several forest industry and university project partners identified that:

> "*While there has been significant research investigating trees on farms in Australia and overseas over the past two decades, the focus of much of this research has been on the environmental, social and economic benefits of farm trees, opportunities for agroforestry products, markets, and investment and socio-economic and public policy issues including identifying training and extension needs.*
>
> *There has been relatively little qualitative or quantitative research seeking to understand the social and psychological factors underlying landowner attitudes and motivations to participate in commercial forestry in Australia*."

The second stage of the project, which was led by Dr Nerida Anderson (2017) from the University of Melbourne, sought to understand the views of landowners about integrating trees on their land. Analysis was undertaken using 183 responses to a survey that was mailed to Victorian landowners and property managers within 200 km of Colac, Mt Gambier and Morwell, with some groupings of types of landowners identified based on the similarity of responses. Research studies like this that seek to identify landowner values and attitudes, as well as the risk and return profiles that will be required for different types of landowners to implement projects, will be crucial foundations to the development of any successful farm forestry programs in the future.

Recommendation 3

Industry groups, organisations and governments that seek to increase the prevalence of small-scale landowners integrating forestry into agricultural landscapes need to fully identify and consider the values and attitudes of the local landowners and work with them to deliver programs that encourage integration of forestry into their enterprises.

5 Conclusion

The estimated 9.6 million family forest ownerships in the USA manage around 106 million hectares of forest land and account for approximately 42% of the nation's annual log harvest (Butler & Sass 2023). The family forests are generally concentrated in the states in the south and east of the USA with the longest histories of European settlement, and the local forest product industries in these regions are reliant on their supply. Similarly, Canadian family forests are concentrated in the eastern provinces.

In some regards, the prominence and culture of family forest ownership could be considered a by-product of the history of land tenure and ownership in the United States and Canada. In Washington state most of the forest area is managed by the federal and state governments, and most of the log harvest comes from forests owned by large industrial private landowners. The state's relatively small number of family forest owners are well-organised, passionate and politically engaged, yet they faced regulatory and market access hurdles and challenges on a much greater scale than the family forest owners did in any of the other regions I visited.

Most of Australia's log production comes from plantations of a small number of species owned by institutional investors and state government forestry bodies. Nationally, softwood logs are the log type produced in the greatest volume. They are typically grown in large plantation estates spanning thousands of hectares and sold to a relatively small number of processors through long-term contracts with take-or-pay conditions. Economies of scale that are generally unattainable for softwood farm forestry growers are inherent in mill door log prices and there is only ever a small selection of customers within an economically viable haulage distance, regardless of where you are in Australia.

Similarly, the difficulties facing hardwood log customers present challenges for the small-scale hardwood growers. There has been a sustained decline in the number of hardwood sawmills operating in Australia, which plainly reduces the options for small-scale hardwood growers looking to sell into the market. The ABARES National Wood Processing Survey 2021–22 identified 146 hardwood sawmills operating in Australia, a significant decrease from the 502 hardwood sawmills identified back in 2006–07 (Wong *et al*., 2024). The figures refer to the number of green sawmills and do not include portable sawmills.

Some of the decrease can be attributed to consolidation as the sawmilling industry has become significantly more capital intensive and larger in scale, however the reduction or cessation of supply from multiple-use publicly owned native forests is likely the most critical factor in recent years. There has been a recent increase in hardwood plantation saw and veneer log production, and associated research and development. This could potentially present market opportunities for small-scale hardwood growers in the future.

For foresters, who have pursued their chosen profession because they are generally passionate about thoughtfully managing forests for the full range of values that they provide, the appeal of proposing and advocating for greater uptake of farm and private native forestry practices is enduring. It endures similarly for the forest and wood products sector, which manufactures the valuable renewal products that we use every day and is a foundation of the local economy in several regions.

Ultimately, to truly expand farm forestry and integrate it into the Australian forest products supply chain will require a tremendous shift in the general attitudes, approaches and patterns of investment of all parties involved—landholders, participants at every stage of the forestry product supply change from the nursery to processing facility and all levels of government. For this to extend to private native forestry, attitudes, laws and regulations about native forest management will also need to change substantially in most regions.

Figure 10. Wisconsin DNR Degraded Stand Management Field Day in Neptune, Wisconsin

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Appendix A: Notes

Below are a few short notes on terminology, units of measurement and some apparent elephants in the room that will provide some additional context for my report.

Terminology

- The practice of establishing and managing forests on individual private landholdings or privately managed leasehold land is called a host of different terms depending on who you are talking to and where you are in the world.
- In Australia, the management of these planted forests is generally referred to as farm forestry, whilst private native forestry is seemingly the term most commonly used for the management of privately held native forests. Agroforestry is often used interchangeably with farm forestry but sometimes is used as a catch-all term spanning the management of both planted and native stands.
- From my observations in both the USA and Canada, the delineation between what we in Australia consider plantation or farm forestry and what we term native forestry is far less pronounced. My guess is that there would be several factors that have contributed to this difference.
- In the USA, both planted and native forests owned by individuals and families, are broadly referred to as family forests, however there are some regional differences. As an example of the regional differences, the member organisation for family forest owners in Washington is called the Washington Farm Forestry Association.
- Some family forest owners also referred to their forests as tree farms, likely because of the prevalence of the ATFS, the country's largest certification scheme which is recognised by the Programme for the Endorsement of Forest Certification and has naming origins that date back to branding decisions made by Weyerhaeuser in the 1940s (Sharp, 1949).
- In the Maritimes in Canada, these small forests are ubiquitously referred to as woodlots. The people who own them are called woodlot owners and the practice of managing them is called woodlot forestry.
- In both the USA and Canada, an occasional owner called their family forest "their woods" or simply "the wood", almost reverentially—I think of this as being equivalent to an Australian speaking or writing about the bush.
- For consistency, I referred to all forests, both planted and native, owned by individuals and families in the USA and Canada as family forests throughout the report.

Units of measurement and currency

- I converted all area figures and unit cost rates from acres to hectares and all volume figures from board or cubic feet to cubic metres.
- I kept all dollar values in their local currency to preserve their local context in the turbulent foreign exchange market. I also find that a lot of Australian forest industry participants who buy inputs, machinery and parts from overseas, export forest products, or both, have a good understanding of the exchange rate with the US dollar.
- At the time of my trip in August and September 2025, 1.00AUD was buying around 0.65USD and 0.90CAD.

Tariffs and duties

- I first spoke with the Family Forest Research Center about my potential trip whilst preparing my fellowship application on Friday 16 August 2024, some two and a half months before the Presidential election on 5 November 2024.
- The various tariffs that were announced and introduced by the US Administration in 2025 received wide ranging media coverage around the globe, including here in Australia.
- Canadian forest products have not been spared, and they currently face historically high tariffs, however this year's events are ultimately another episode of the long-running Canada–U.S. lumber trade dispute, the modern version of which has been ongoing since 1982 (Johnston & Parajuli, 2017).
- At the time I was in Canada, the combined anti-dumping and countervailing duty rate for softwood lumber imported into the USA from Canada was 47.65% for the Canfor Corporation, 26.47% for West Fraser Mills Ltd. and 35.19% for all other companies (Global Affairs Canada, 2025).
- Nowhere were the implications of this starker for me than it was when watching log trucks and curtain siders carrying finished forest products cross the Saint John River that separates New Brunswick and Maine at the Van Buren–St. Leonard Border Crossing.
- Less than 4 kilometres away by road on the Canadian side, the J.D. Irving Limited Scierie Grande Rivière sawmill produces around 825,000 m^3 of dimensional lumber per year and employs 285 people across two shifts.
- It is impossible to fully consider forestry in Canada in isolation from the trade dispute, especially in New Brunswick where approximately 80% of all forest product exports go to the USA.
- However, for the purposes of this report I limited my analyses to the programs that support family forest owners in Nova Scotia and New Brunswick.

Previous studies

- A review of the reports published by Gottstein and Churchill Fellows reveals that several similar trips have been taken over the years by Australians heading to all four corners of the globe to learn more about family forestry.
- In the National Library in Canberra there is a copy of the proceedings of the New South Wales Division of the Institute of Foresters of Australia's 1963 symposium on private forestry. The proceedings include a record of the discussions that took place and the six papers submitted to the symposium, including a paper by NSW Forestry Commission farm-forestry extension officer R. M. Black who outlined government and industry programs and policies that support small-scale forest growers in Sweden, Norway, France, Spain, the Netherlands, West Germany, Great Britain, Argentina, the USA, India and New Zealand.
- In the Department of Agriculture, Fisheries and Forestry library there is also a copy of a 1991 Report of the National Plantations Advisory Committee titled *Integrating forestry and farming – commercial wood production on cleared agricultural land*. The report includes summaries of a host of different policies and programs that relate to farm forestry observed of an overseas study mission to South Africa, Portugal, Brazil and Chile undertaken by B.N. Richards, I.S. Ferguson, M.J. Hall, P. Hancock and S. Gilbert.
- I acknowledge that I am one of many Australians who has headed abroad to observe different approaches to forest management and wood production by private landholders managing small-scale forests, and ultimately some of my observations might not be new.
- I hope that readers can consider this report, in the context of all the previous publications on this matter, as a contemporary update based on some current programs and initiatives in the USA and Canada that I observed and thought were noteworthy.

Appendix B: List of organisations visited

Mississippi

- Mississippi Forestry Association
- Mississippi State University Forestry Extension
- Enviva Biomass, Lucedale
- United States Department of Agriculture, Natural Resources Conservation Service, Wiggins Service Center
- Mississippi Forestry Commission
- Noxubee County Forestry Association

Wisconsin

- Wisconsin Department of Natural Resources
- Aldo Leopold Foundation
- Midwest Hardwood Company

Washington

- Washington Farm Forestry Association
- Northwest Natural Resource Group
- Washington Farm Forestry Association, Upper Puget Sound Chapter
- Washington State Department of Natural Resources, Small Forest Landowner Office

New Brunswick

- Department of Natural Resources and Energy Development
- South East New Brunswick Forest Products Marketing Board
- Madawaska Forest Products Marketing Board
- York-Sunbury-Charlotte Forest Products Marketing Board

Nova Scotia

- Association for Sustainable Forestry