Independent Forestry Panel

Public submission

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IRONWOOD AUSTRALIA

FUTURE FORESTS SUSTAINABLE REPLANTING SCHEME

It's simple. We plant a tree for every tree we use.

Independent Forestry Panel Submission

Ironwood Australia

Who are we

Ironwood Australia is a family-based timber mill located on the Mid North Coast at Pampoolah NSW. We employ 30 - 35 casual, full-time staff plus contractors.

Ironwood Australia is the most sustainable timber company in Australia, our forest products are predominantly used for infrastructure timber for bridges, wharfs, railways and all heavy building materials such as posts, bearers and joists. We also produce flooring and decking through to feature walls, beams, posts, stair treads, trusses, benches, landscaping and fencing timber products.

Ironwoods carbon cycle starts with our hardwood mill in the supply of these infrastructure products, we then in turn recycle the timber that we replace from the bridge or the wharf offering a third life to the tree. The tree is the soul and heart of our business.

Our waste products like sawdust are sold to chicken farms and mill offcuts are stored soon to be chipped for our new Bio Char Plant which will create energy to run our mill. Eucalyptus hardwoods are respected and valued at Ironwood with nothing going to waste.

Ironwood has engaged a PhD student from the University of Queensland to start testing and creating new products for bridge and wharf timbers for the future transition, we are looking at creating new products from a combination of hardwoods and hemp. Fibre.

We would like to extend an invitation to visit our mill and see how sustainable our practices are and what we are planning for the future of the timber industry.

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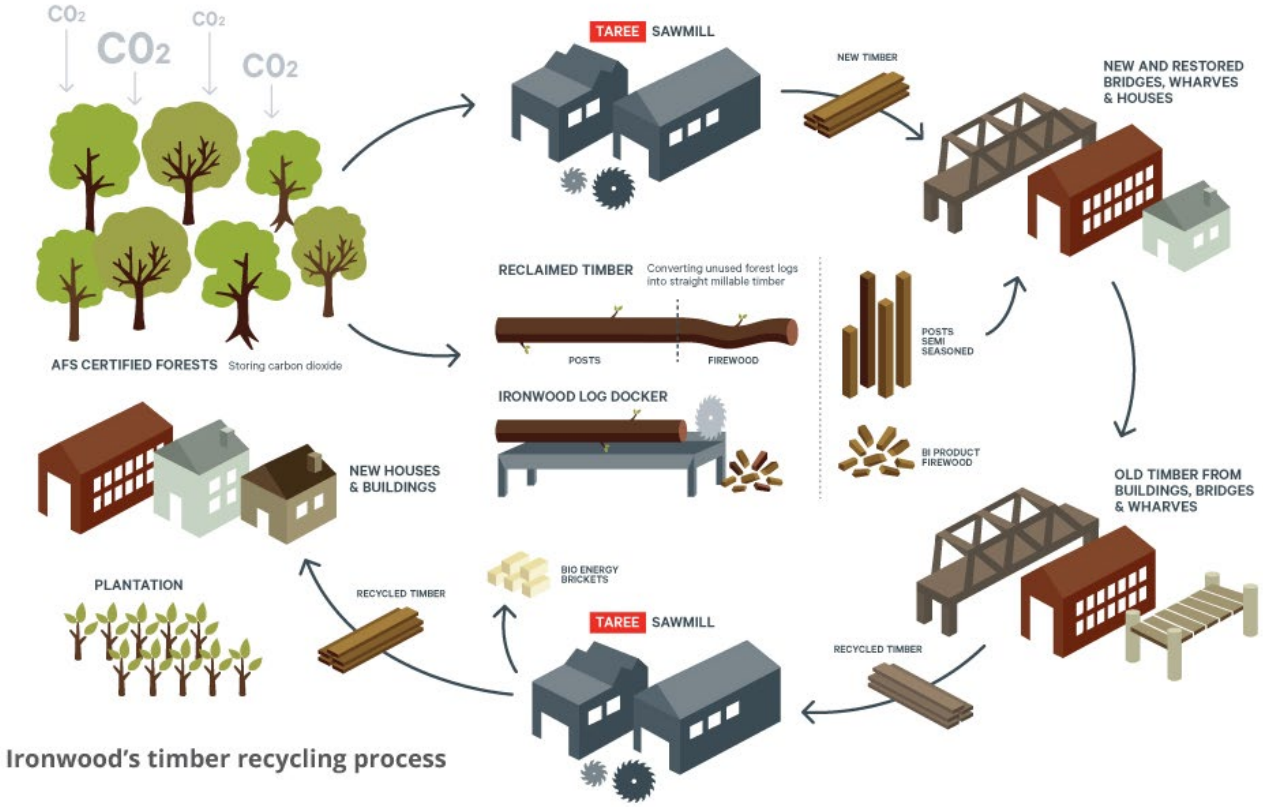

Ironwood Australia website https://ironwood.com.au/

Ironwood Australia Facebook https://www.facebook.com/ironwoodtimberaustralia/

Ironwood Australia Instagram https://www.instagram.com/ironwoodtimber/?hl=en

Sustainability of current and future forestry operations in NSW

Ironwood Taree believes there is a need to have a sustainable and diverse forestry industry to support businesses and maintain employment in our local area. There should be a sustainable landscape in which forests are embedded delivering services in support of milling.

Native forestry in NSW is highly regulated with an aim to balance economic and environmental interests. FCNSW manages over 2 million hectares of public native forests and plantations supplying timber to sawmills across NSW including Ironwood Taree. Around half of native forests are permanently set aside for conversation. With sustainable forest management there is increased biodiversity.

Public native forests undergo selective harvesting, meaning no clear felling occurs, and only 0.5% of the forest is harvested annually. In Australia, native forests and plantations are harvested and regenerated to provide forest products with multiple flow-on benefits and to meet a range of society's needs. On public land, this activity occurs on a relatively small, discrete and well-regulated area of forest, with many forest areas formally or informally reserved for the protection of biodiversity, cultural, social and spiritual values

With the forestry industry contributing $2.9 billion to the NSW economy, employing over 8,900 people directly and indirectly employing thousands through the business that support the timber industry.

Ironwood Taree not only employs 30 - 35 fulltime and casual staff onsite but also sources materials and services locally creating indirect economic benefits by increasing business for local contractors, trades people and service providers. We are in rural/regional area, our business helps to sustain our local community by providing economic stability and supporting local infrastructure.

Some examples of business we support indirectly through the services they provide to us are: Pirtek, Manning Valley Mowers, AE Gibsons & Sons, Carohn & Co, Lear & Smith Electrical, Burson Automotive, CC Components Pty Ltd, CJD Equipment Pty Ltd, Cleavers Tyre Service, Darks Motor Repairs, Gray's Engineering, HKL Landscaping, JR Richards, Kennards Hire, Manning River Steel, Mavin truck Centre, McAlpin & Maurer Auto, Mid Coast Bearing Centre, O'Brien Electrical Trade, Old Bar Auto Electrics, PT Trade Supplies, Petrie's hardware & Trade centre, REECE Plumbing, Rocket Tools, Taree Auto electrics, Taree Pumps & Irrigation, Waggot Engineering Services

There are ongoing discussions about transitioning to hardwood plantations however such a shift is seen as unfeasible due to economic limitations, and a road map is needed for this transition as Plantation timber does not hold as much strength and structural integrity as native timbers. It is all good and well to transition to plantation only harvesting but where are these plantations going to be planted? A Eucalyptus tree grows best where they are endemic to the native landscape, and it grows well there because it is native to that landscape. A native forest has greater carbon storage than plantation timber and a native forest will replant itself 16 times greater than plantation timber.

Environmental and cultural values of forests, including threatened species and Aboriginal cultural heritage values

Public native forestry is regulated through the *Forestry Act 2012, Biodiversity Conservation act 2016*. Moving to reduce harvesting and supply in NSW will mean that timbers are sourced from overseas locations like the Amazon and Papua New Guinea where timber harvesting is largely unregulated, and biodiversity is threatened at an alarming rate. Under the *Forestry Act 2012*, the objectives of FCNSW include, where its activities affect the environment, to conduct its operations in compliance with the principles of ecologically sustainable development contained in section 6(2) of the *Protection of the Environment Administration Act 1991*. This involves the integration of social, economic and environmental considerations in decision-making processes.

In undertaking its native forestry operations, FCNSW must comply with Integrated Forestry Operations Approvals (IFOA), issued jointly by the Minister for the Environment and the Minister for Agriculture, which set out rules to protect species and ecosystems where timber harvesting is occurring, and aim to ensure forests are managed in an ecologically sustainable way. FCNSW must also ensure that its contractors undertake forestry operations in line with IFOAs. The Coastal IFOA, developed in 2018, consolidated the four IFOAs for the Eden, Southern, Upper and Lower Northeast coastal regions of New South Wales into a single IFOA.

The NSW Environment Protection Authority (EPA) is responsible for regulating native forestry in New South Wales. Under the *Protection of the Environment Administration Act 1991*, one of the objectives of the EPA is to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development. This includes monitoring FCNSW's compliance with IFOA conditions, including by maintaining and enforcing a compliance program.
NSW forests host numerous threatened species, including the koala, which is supported by current forest management techniques. Planned and supervised selective harvesting ensures minimal impact on koala populations, and forests are managed to protect critical habitats like riparian zones, rainforest and old growth forests.

The Swadling family has been in the timber industry since 1864, Ironwood Taree has been in operation for over 15 years at the Pampoolah site, and the mill was previously owned and run by Roy cross for over 40 years who supplied power poles for infrastructure. Ironwood has a long history of providing employment in rural and regional area.

We supply Australian Hardwood species Ironbark, Tallowwood, Spotted Gum used in the construction of heritage buildings and bridges, this resource is a vital part of ensuring these buildings and bridges are restored, repaired and rebuilt to heritage specifications.

In Australia, forested landscapes are likely to have been actively and adaptively managed by Aboriginal and Torres Strait Islander peoples for over 60,000 years. Aboriginal cultural heritage values are increasingly considered, with initiatives promoting Aboriginal forest management models. At Ironwood Taree 10% of our workforce is of indigenous background.

Demand for timber products, particularly as relates to NSW housing, construction, mining, transport and retail

Ironwood Taree provides Australian Hardwood timber for infrastructure like bridges, wharfs, jetties and walkways throughout the Sydney region and Australia. A reduction in native forestry operations would heavily impact the availability of hardwood timber, essential for infrastructure, transport and mining.

Ironwood Taree supply's high value durable Australian hardwoods used in structural applications for the housing industry both commercial and residential applications. We also provide turnouts for TfNSW railway projects, bridge girders and bridge components for TfNSW to repair and replace bridges across NSW. Durable hardwood timbers, used in utility poles, marine piles, and high-quality housing products, is a significant resource in the Mid North Coast NSW.

We export our Australian Hardwood products to New Zealand with Hardwood Timber NZ spending for the last financial year at $464K

As a reduction in our Quota Licence from FSCNSW would impact heavily on our ability to continue to supply Australian Hardwoods for railways, bridges, wharfs, jetties, and replacement of heritage listed buildings, bridges, wharfs and jetties. Companies that we provide essential infrastructure timbers are

Polaris Marine Constructions, Clement Marine, SMC Marine Pty Ltd, Harbour Constructions, Select Civil, Transport for NSW, and Sydney Trains.

Over the last financial year FY23-FY24 annual spending from these companies:

SMC Marine Pty Ltd - $792K

Polaris Marine Constructions - $612K

Swadling's Timber & Hardware - $591K

Clement Marine - $399K

Harbour Constructions - $267K

The demand for hardwood timber for infrastructure has increased steadily over the last 4 years for example Polaris Marine annual spend with us in FY2020-Fy2021 was $357K this has doubled by FY2023-FY2024.

If the timber industry is shut out of state managed forests where are these important infrastructure hardwood timbers going to be supplied from? We cannot condone the use of imported timbers from tropical regions in areas like the Amazon rainforest and Papua New Guinea as the forests in these countries are highly unregulated unlike state forests in NSW.

Wharf Decking for Infrastructure

The future of softwood and hardwood plantations and the continuation of private native forestry in helping meet the timber supply needs

Our investment is everyone's future. We want to continue to use Australia's beautiful timbers to build homes and infrastructure. We are committed to supplying timber and caring for our environment long past our own careers.

Because we hold these strong beliefs in the future of timber, we want our initiative to become an industry wide practice. We aim to become a global leader in sustainable timber supply process by showing our industry that good practice is possible.

Our core company belief is that timber is the smartest environmentally low impact and sustainably viable material to use in construction. By replanting Australian timber across private land today, we are guaranteeing supply within our country for tomorrow.

Private Native Forestry (PNF) is seen as crucial for meeting hardwood timber demand but cannot replace public native forests. The industry must be geographically diverse, this supports a range of businesses and communities while allowing certain sites to regenerate. Ironwood Taree has on site a mixed species Durable Eucalyptus Plantation containing approximately 5,500 stems. Our vision for the future is one where our great grandchildren benefit from us planting trees. Future forest was born from this idea and what has followed is an initiative that has grown beyond our humble first intentions.

Planting started in 2018 and has continued into 2023. Species planted are:

Syncarpia glomulifera – Turpentine
Corymbia maculata – Spotted Gum
Corymbia intermidia - Bloodwood
Eucalyptus propinqua – Grey Gum
Eucalyptus cloeziana – Gympie Messmate
Eucalyptus microcorys - Tallowwood
Eucalyptus siderophloia – Grey Ironbark
Eucalyptus pilularis – Blackbutt
Eucalyptus acmenoides – White Mahogany

Future Forest Plantation – Location Pampoolah NSW

We are actively seeking to purchase more land to continue planting eucalyptus plantations for our Future Forest program. Our Future Forest ethos is ‘We plant a tree for every tree we use’, we offer our customers the opportunity to sponsor planting of our plantation based on the m3 of timber used in their projects we plant trees on their behalf for each project. For example, if a customer buys 6m3 of timber we will have planted 5 trees on their behalf. We are actively looking for properties to purchase to continue our Future Forest program but the low availability of land available for plantations is a hinderance.

Plantations have potential for expansion, but they are limited by land availability, low financial returns and long growth cycles needed to produce commercial timber. Where are the intended plantations going to be planted? Are they going to cut down native forests to plant more plantations? A road map needs to be created and a lot of planning needs to be invested into the idea of plantation timber as just planting

plantations on any available land is not going to work, for example Durable Eucalyptus species like Ironbark, Blackbutt, Spotted Gum and Tallowwood that we use to create infrastructure products all have different specific requirements to grow like soil type, climate, frost, rainfall etc with each species only growing in specific locations. One species may grow well in a particular area but grow poorly in another area, you cannot just go and plant trees just anywhere and expect them to grow and produce viable timber that can be used in structural applications. If you look at the drone shot above of Ironwood's plantation the areas where our trees have low growth compared to other areas. The same mixed species have been planted throughout the plantation and they are growing at different rates with a difference in growth from as little as 500m apart.

Many of the current plantations planted by forestry are undermanaged with little to no maintenance, plantations must be thinned and pruned regularly to produce useable sawlogs. Who is going to manage the plantations so that they produce useable sawlogs? Because just planting trees and leaving them to grow is not practical nor viable for the future of the timber industry. However in private native forests sawlogs are a natural occurrence and do not need human intervention except for weed management.

Signage throughout our plantation.

The role of state forests in maximising the delivery of a range of environmental, economic and social outcomes and options for diverse management, including Aboriginal forest management models

The greatest benefits to the community will be realised when State Forest management is focused on the longer-term future rather than annual profitability. State forests contribute to a range of outcomes including economic development, regional employment, and environmental sustainability. Timber industries are a critical employer in regional areas, providing stability to local economies.
Consider how diverse forest management, including Aboriginal models, can balance economic and environmental goals. Proposals for diverse management models include Aboriginal forest management practices, which could enhance both cultural heritage and sustainable practices.

Aboriginal involvement in public land management – by increasing the extent of Aboriginal-owned and managed land, along with greater participation in decision making, planning processes and on ground land management – including through whole-of-Country planning processes – to ensure cultural values are identified and protected.

The revitalisation of Indigenous fire management practices in Australia has been highlighted as an effective way to manage and improve the health of the landscape and improve Indigenous wellbeing outcomes. As well as reducing bushfire risk, promoting regeneration and supporting habitat, cultural burning can reduce smoke pollution and greenhouse gas emissions. Indigenous cultural burning remains underused – it is currently applied over less than 1% of the land area of Australia's south-eastern states and territory.
The biggest threats to koala populations and other native species in native forests are out of control bushfires.

Bushfire November 2019 – Pampoolah NSW 2430

Opportunities to realise carbon and biodiversity benefits and support carbon and biodiversity markets, and mitigate and adapt to climate change risks, including the greenhouse gas emission impacts of different uses of forests and assessment of climate change risks to forests

Forestry management in NSW is aligned with ecological sustainability, contributing to carbon sequestration and biodiversity protection.

One of the most pressing issues for integrated management is climate change. As a pressure affecting all landscapes and seascapes, climate change should be considered and included in all management planning of sufficient scale, as well as adoption of new adaptive management measures. The management of carbon requires greater integration with management of all other natural capital assets. Restoration of vegetation, soil, biodiversity and carbon is an integrated process, which cannot be achieved by considering each of

these in isolation. Thus, schemes that encourage co-benefits across different types of natural capital are more likely to succeed at landscape scales. Sustainable forestry practices, such as thinning and ecological burning, are critical in reducing the risk of catastrophic bushfires, which are exacerbated by climate change.

The role of forests and wood products in mitigating climate change through carbon markets is recognized, although greater recognition is needed to fully leverage these benefits.

Ironwood Taree is exploring and intending to invest in Bio Char plant with the aim to generate electricity to power our timber mill and to make bio char from hardwood woodchip, benefiting the environment by locking carbon up in the Bio Char for up to 1000 years creating a sustainable future for our eco system.

Sustainable biochar production is a powerful and simple tool that can:

- Produce products that allows carbon capture and storage
- Reduces agricultural waste
- Produces clean renewable energy
- Removes CO2 from the atmosphere

Biochar has proven to improve the quality of soil and yield in agricultural and horticultural farming. It is widely used as a feed additive for animal health, can be used in construction materials such as concrete or asphalt as well as cleansing of air and water, it helps regulate humidity, absorbs toxins and fosters beneficial microbial life.

Biochar is an essential part of the next industrial revolution, creating a more sustainable future and posting for greater economic prosperity, increase job opportunities and continued quality of life for humanity.

Hardwood timber can make a high CORG content char, $Corg$ is the organic carbon content of the biochar produced. It is expressed in dry weight of organic carbon over dry weight of biochar.

Using waste timber to produce Bio Char has the total potential reduction of CO2e as 325,073 tonnes over 10 years. This currently does not account for the CO2e in the upstream process of harvesting the timber, or the downstream process of making the biochar and the CO2e in transporting the biochar to the end point

Every tonne of timber that is not used or goes to landfill emits half its weight as Carbon Dioxide.

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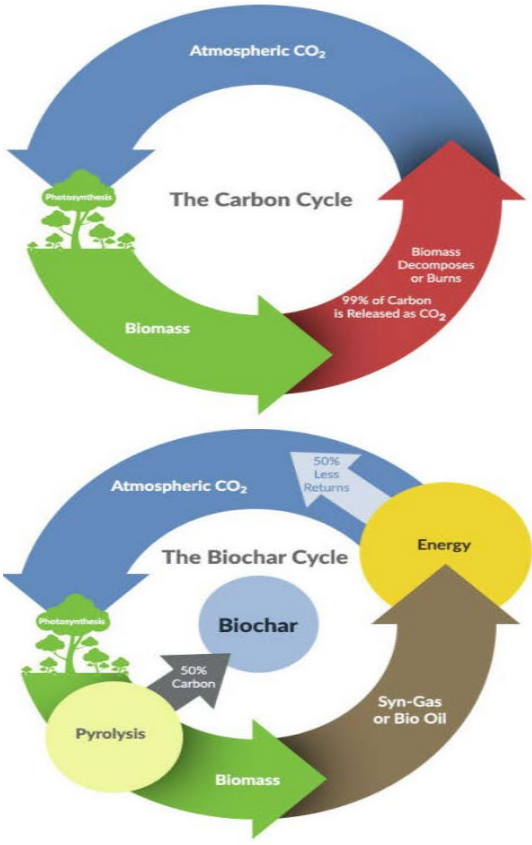
Year	Annual Production Biochar Forecast (units)	Estimated Greenhouse Gas Emission – reduction the proposed product (tonnes CO2e Stored	Estimated Greenhouse Gas Emission – reference product – hardwood timber (tonnes CO2e)	Reduction Potential (%)
	Tonnes	Must me a number	Must be a number	This number/amount is calculated
2025	6942	18,743	11,443	30,186
2026	7533	20,339	12,416	32,755
2027	7554	20,395	12,452	32,847
2028	7533	20,339	12,416	32,755
2029	7533	20,339	12,416	32,755
2030	7533	20,339	12,416	32,755
2031	7533	20,339	12,416	32,755
2032	7533	20,339	12,416	32,755
2033	7533	20,339	12,416	32,755
2034	7533	20,339	12,416	32,755



Over 99% of CO_2 captured by biomass re-enters our atmosphere as part of the natural carbon cycle.

Pyrolysing wasted plant biomass into biochar **intercepts the cycle** and converts carbon into a form that is typically stable for **centuries to millennia**.

References

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ANZBIG – Australian New Zealand Bio Char Industry Group

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Bio Char Life Cycle Assessment Information