Investing in Gippsland's Sustainable Forestry Future

GIPPSLAND FORESTRY HUB
Promoting the Forestry Industry

Australian Government
Department of Agriculture, Water and the Environment

PF OLSEN AUSTRALIA

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Summary

Background

The Gippsland Forestry Hub was established in 2020 and is funded by the Australian Government as part of the *National Forest Industries Plan: Growing a Better Australia – A billion trees for jobs and growth*. The Gippsland Forestry Hub aims to identify opportunities to make the forest and forest products industry in Gippsland sustainable. A 30-year strategic plan was developed that describes four themes of focus, which are:

- Fibre security for a thriving industry
- Innovation for a world class, sustainable industry
- A trusted and reliable source of information
- Contributing meaningfully to Gippsland's community and economy.

PF Olsen Australia were engaged by the Gippsland Forestry Hub to explore opportunities for plantation expansion in Gippsland, constraints to fibre security for a thriving industry, and future market needs. PF Olsen Australia worked with its project partners (Industry Edge and Spatial Vision), and through extensive stakeholder consultation, to develop insights and provide recommendations to the Gippsland Forestry Hub to support it achieving its strategic objectives.

Strategic insights

Gippsland is a highly productive area for growing trees. Evidence of forests dates to the formation of the brown coal deposits that are currently exploited for energy production. Existing native forests include the tallest flowering plants in the world. More than 95% of the commercial forests in the region are certified by independent auditors as sustainably managed.

The forestry industry is seen as a very important part of the Gippsland region. Significant historical expansion of the plantation estate has been due to direct government intervention (e.g. Federal loans to State Government) or the development of favorable policies (e.g. MIS) and local governments recognise the significance of the industry and provide tangible support. Despite this, there are a number of strategic plans developed by regional 'think tanks' that aim to build Gippsland's economy that make little mention of forestry.

Ending native forest logging is expected to continue the reduction in local processing capacity. Loss of scale threatens the ability of manufacturers to compete in an open economy. Products from native forests cannot be created from the existing softwood plantation estate.

The region is not homogenous, which means that the forestry industry must engage with local groups to develop solutions that work with local communities and match local landscapes. Solutions that incorporate new market opportunities, such as carbon and biodiversity, can have a significant positive impact the cashflow of a new plantation however, the value chain need to be transparent and the communications landholder centric – what is in it for them?

There are large areas of private land that is highly suitable for plantations. Although land costs are high, there is great potential to work with current landowners (including institutional agribusiness investors) to integrate plantations on their land.

Through a series of stakeholder workshops, it was evident that continued engagement with key stakeholders is vital to develop a shared vision of forestry industry. Such engagement needs to be supported by a communications/ marketing plan, and a central source of reliable forestry information.

Contents

Background and project aims

The Gippsland Forestry Hub (GFHub) received funding from the Commonwealth under the National Forest Industries Plan to make the forest and forest products sector more sustainable and support the region and its economy.

The GFHub's geographic area of interest includes all of the local government areas of:

- Bass Coast
- Baw Baw
- Latrobe
- South Gippsland
- Wellington
- East Gippsland

The aims of this project were to better understand:

- Opportunities for plantation expansion in Gippsland.
- Constraints to fibre security for a thriving industry.
- Future market needs.

In 2020, the GFHub established a 30 year strategy to focus its efforts around four themes:

- Fibre security for a thriving industry.
- Innovation for a world class, sustainable industry.
- A trusted and reliable source of information.
- Contributing meaningfully to Gippsland's community and economy.

This project addresses particular aspects of the 30 year strategy and provides recommendations for action.

PF Olsen Australia engaged with two partners to address these issues:

- Industry Edge to assist with understanding the current and future woodflows.
- Spatial Vision to address gaps in past analysis of land suitable and available for plantation expansion.

This report is supported by the detailed reports provided by Industry Edge and Spatial Vision (see references).

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Alignment with the Gippsland Forestry Hub Strategy

This project supports the following objectives from the 30 year plan:

Governance:

- Developing clear messaging from the Hub to industry, all levels of government and the broader Gippsland community.

Fibre security for a thriving industry:

- Conduct a gap analysis of available information to determine what information is available and what information is required about current, future and potential supply of fibre for the region.
- Understand the current, future and potential supply and demand balance for fibre supply in the region.
- Analyse and describe the fibre supply implications of the proposed transition from public native forest to private plantation supply for the region's industry, quantitatively and qualitatively.
- Assess and determine the potential of alternative fibre supply solutions for the region, including:
  - Reviewing and assessing policy and regulatory barriers to expansion of fibre supply.
  - Review and undertaking a gap analysis of previous work related to potential land availability and suitability for alternative fibre supply, including plantation expansion and private native forestry.
  - Integration of commercial forestry into farming systems.
  - Further resource expansion options, including on other public and utilities land, and with Traditional Owners in the region.

Innovation for a world class, sustainable industry:

- To understand the requirements of the current processing sector and opportunities and challenges for responding to change.
- To understand the enabling factors to foster innovation and adoption of emerging technologies match to fibre resources.

A trusted and reliable source of information:

- Developing a clearer, more accurate understanding of community awareness, perceptions of and knowledge about the industry in Gippsland.
- Make use of insights to improve community knowledge and perceptions of forestry in Gippsland.
- Engagement with Gippsland's Traditional Owners to understand and respond specifically to those communities' forestry sector perspectives and needs.
- Identifying policy and regulatory barriers to maintaining and expanding the forest and forest products industries in Gippsland.
- Developing and enhancing the sharing of knowledge to ensure local government has a clear understanding of its impact on Gippsland's forestry industry, the risks and benefits, based on facts and science.

Contributing meaningfully to Gippsland's community and economy:

- Understanding the broader role that the forest and forest products sectors have in relation to underpinning a thriving economy and community and identifying new and emerging opportunities to enhance that role.

Approach

Four staged approach to identifying strategic forestry opportunities in Gippsland

Learning from history

- Describe the natural advantages that the Gippsland regions provides for a vibrant forestry industry.
- Summarise key influences on Gippsland forests that has led to the forest estate we see in 2021.
- Understand the role of forestry in the development of Gippsland.
- Determine historic and current incentives and disincentives that have shaped forestry in Gippsland.
- Identify the organisations in Gippsland with the capacity to influence the future forest estate.
- Summarise the successes and failures of past policy initiatives.

Understanding industry needs

- Define current and future demand for softwood and hardwood to Gippsland's processors.
- Assess likely wood flows and estimate the supply 'gap' (if any).
- Analyse and map wood flows across the region. Estimate the value that forestry brings to Gippsland.

Determining land suitability

- Define the physical limits and attributes that support growing trees for harvest across five Gippsland local government areas to identify priority areas for growing trees.
- Define planning zones and other restrictions that limit or exclude land availability for growing trees for harvest in Gippsland.
- Consider the location of Gippsland's process and map distances for producers to take product to market.
- Analyse property size across local government areas.

Seeking stakeholder input

- Seek stakeholder feedback on:
  - A snapshot of the history and contribution of forestry in shaping Gippsland.
  - Land availability analysis (physical and planning).
  - Wood product supply analysis.
  - Future scenarios to garner feedback on strategic priorities:
    - 2030
    - 2050.

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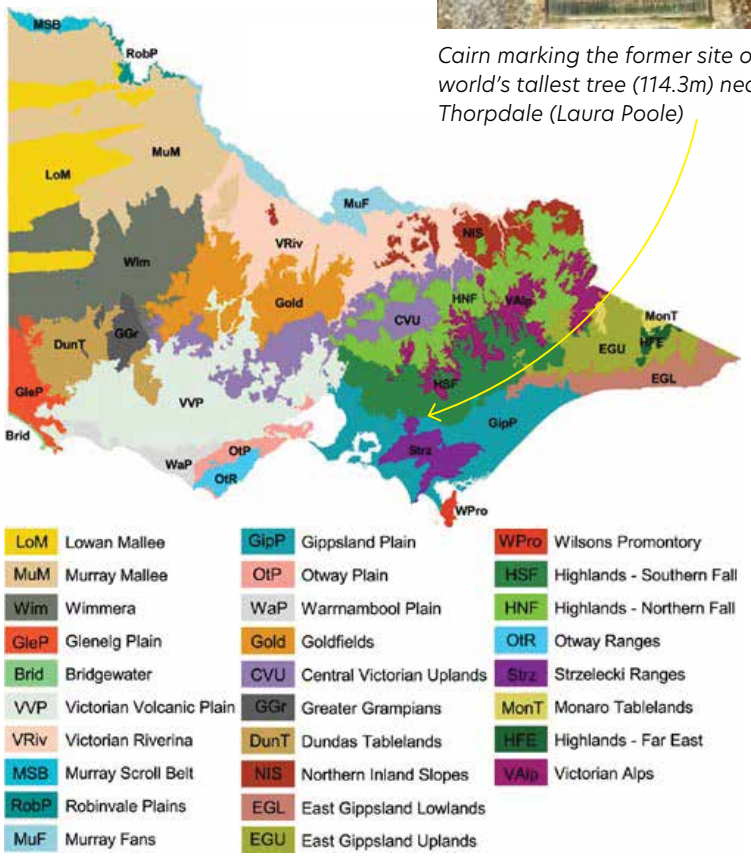
Forests in the Gippsland landscape

Significant natural assets

- The Gippsland region is a highly productive area for growing trees. Evidence of forests dates back to the formation of the brown coal deposits that are currently exploited for energy production.
- It is one of Australia's most productive and historically significant forestry regions. The Hub area covers 8 of the 28 Bioregions identified in Victoria. Bioregions are used to classify unique environments using a range of attributes such as climate, geomorphology, geology, soils and vegetation.
- The region's natural assets and forests are protected and conserved by various organisations including:
  - Department of Environment, Land, Water and Planning.
  - West Gippsland Catchment Management Authority (WGCMA).
  - East Gippsland Catchment Management Authority (EGCMA).
  - Local governments.
- Greater Gippsland provides an ideal mix of the required inputs to produce timber. The physical environment supports some of the most productive forests in the world, due to its reliable rainfall, temperate climate with long growing seasons, and relatively productive soils in comparison to other parts of Australia.
- This has led to the evolution of trees that are renowned as the tallest flowering plants on earth Mountain Ash (*Eucalyptus regnans*), as well as an enormous variety of tree species and associated vegetation communities.

Victoria's bioregion

Cairn marking the former site of the world's tallest tree (114.3m) near Thorpdale (Laura Poole)



Further information about Gippsland's bioregions is available from https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks

What has influenced the shape of Gippsland's forests and its forestry industry?

- The current state of forests and the forestry industry in Gippsland today are a result of government policies, natural events and the decisions and actions of those charged with the management of forests.
- The majority of the natural forests in Gippsland are described as 'open forests', they range from open woodlands to tall wet forests in the higher foothills.
- There are six key activities that have impacted forest development and management in the Gippsland Region:
  - Traditional owner management of Gippsland.
  - Clearing and development of Gippsland for other purposes and the excision of freehold land.
  - Declaration and active management of State Forests for timber and other benefits.
  - Declaration of National Parks and other reserves to conserve and protect forests and places of beauty.
  - Development of a commercial plantation estate.
  - Creation of farmer owned and managed forests.
- Government policies, laws and institutions have been created and modified to manage the forests.
- In parallel, private corporations have utilised timber from the forests and invested in plantations.
- The weather patterns that are present though summer coupled with long dry periods and drought form the perfect conditions to support natural ignition of the huge fuel rich forests in Gippsland.

  These catastrophic conditions have led to some of the most intense forest fires anywhere. Such fires have impacted on forests and the forest industry and raise concern about plantations contributing to fuel loads in the community.

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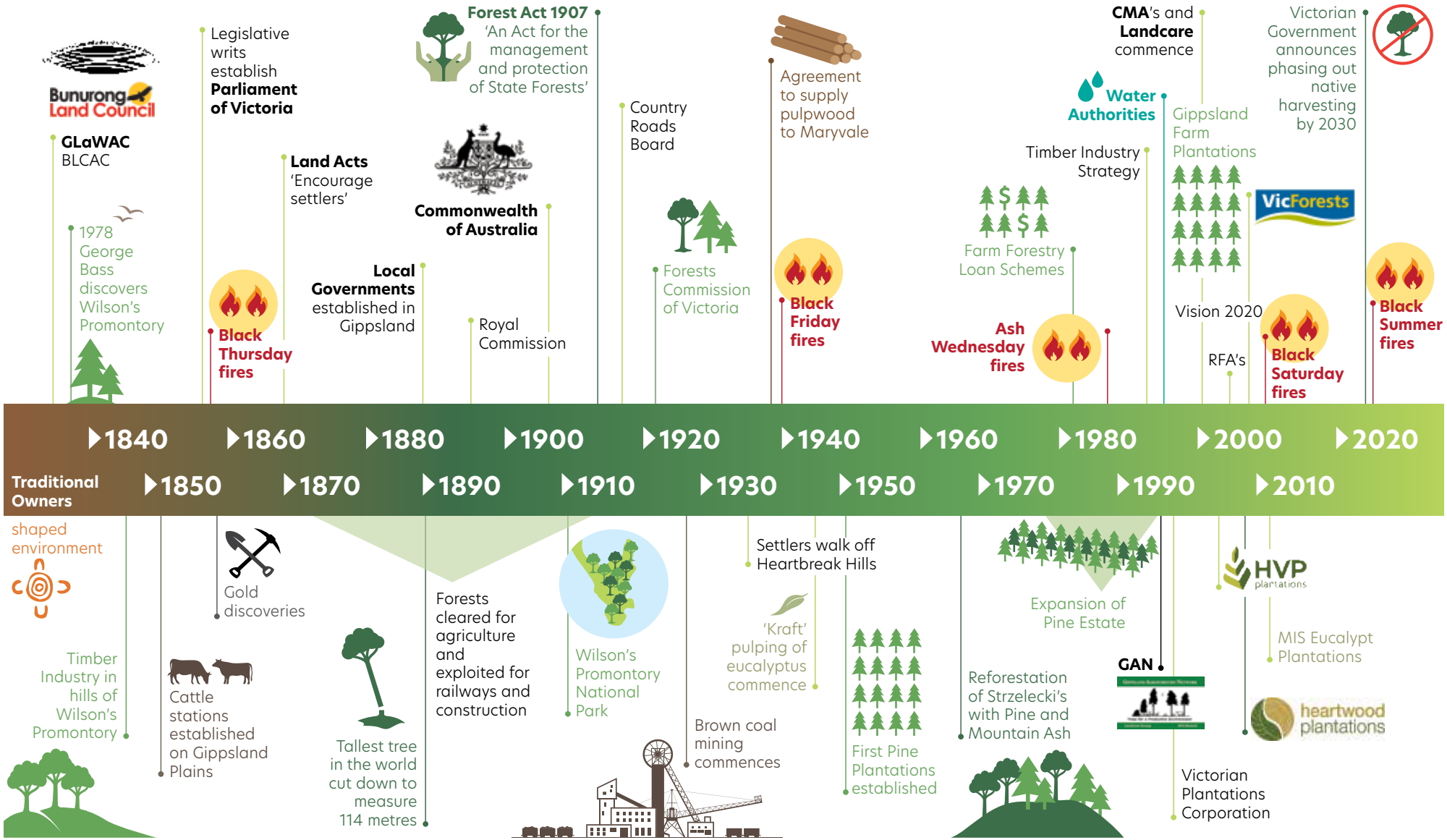
Key events and organisations that have influenced the current forest estate in Gippsland



Governments with influence on Gippsland's Forestry Industry

These are the government organisations that currently influence how land is used, where the forestry industry can operate, and how forests get managed in Gippsland.

Included here are links to websites and policy resources of these key organisations that impact directly Gippsland's Forestry Industry.

Commonwealth of Australia		
Parliament of Australia	www.aph.gov.au	
Department of Agriculture, Water and the Environment	National Forest Industries Plan	www.awe.gov.au/agriculture- land/forestry

State of Victoria		
Victorian parliament	www.parliament.vic.gov.au	
Department of Environment, Land, Water and Planning	Forest Management Plans	www.forestsandreserves.vic.gov.au
Department of Jobs, Precincts and Regions	Victorian Forestry Plan	djpr.vic.gov.au/forestry

Local Government		
Bass Coast Shire	www.basscoast.vic.gov.au	Planning scheme
Baw Baw Shire	www.bawbawshire.vic.gov.au	Planning scheme
South Gippsland Shire	www.southgippsland.vic.gov.au	Planning scheme
Latrobe City	www.latrobe.vic.gov.au	Planning scheme
Wellington Shire	www.wellington.vic.gov.au	Planning scheme
East Gippsland Shire	www.eastgippsland.vic.gov.au	Planning scheme

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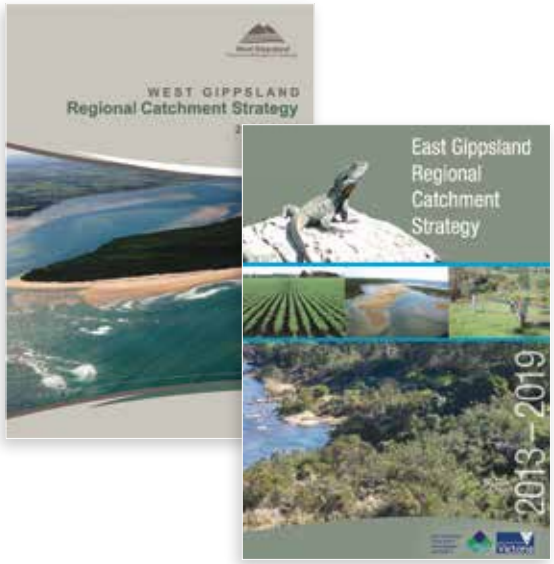
Other organisations with influence on Gippsland's Forestry Industry

These are other organisations that currently influence how land is used, where the forestry industry can operate and how forests get managed in Gippsland.



Catchment Management Authorities Catchment Management Authorities set long term strategies to improve the natural assets of the catchment.	
East Gippsland Catchment Management Authority	egcma.com.au
West Gippsland Catchment Management Authority	wgcma.vic.gov.au

Traditional Owners Registered Aboriginal Parties in Gippsland and details of the government who administers the Aboriginal Heritage Act 2006.	
Bunurong Land Council Aboriginal Corporation	www.bunuronglc.org
Gunaikurnai Land and Waters Aboriginal Corporation	gunaikurnai.org
First Peoples – State Relations	www.firstpeoplesrelations.vic.gov.au

Water Authorities Water authorities are responsible for managing catchments. Some catchments are suitable for commercial plantations.	
Melbourne Water	www.melbournewater.com.au
South Gippsland Water	www.sgwater.com.au
Gippsland Water	www.gippswater.com.au
East Gippsland Water	www.egwater.vic.gov.au
Westernport Water	www.westernportwater.com.au

Other organisations The following organisations influence policy in Gippsland.	
Food and Fibre Gipplsand	www.foodandfibregippsland.com.au
Latrobe Valley Authority	lva.vic.gov.au
Gippsland Agroforestry Network	www.gippslandagroforestry.com.au

Contribution of forestry to Gippsland

Current forest area

1,430,000 hectares of native forests

90,000 hectares of plantations

80% softwood

20% hardwood

Value

It has not been possible to obtain a current value estimate of forestry in Gippsland. The image below from Food and Fibre Gippsland makes no mention of the 90,000,000 trees in commercial plantations.

Managed natural areas

Clearing of native vegetation on freehold land has resulted in a loss of 86% of the pre-European settlement cover (WGCMA, 2003)

About 20% of land within the HVP plantation estate in Gippsland is natural forest.

Of the 1.43m hectares of native forests, 2,560 hectares were harvested in 2020 (0.2%).

Jobs

3,400 people directly employed

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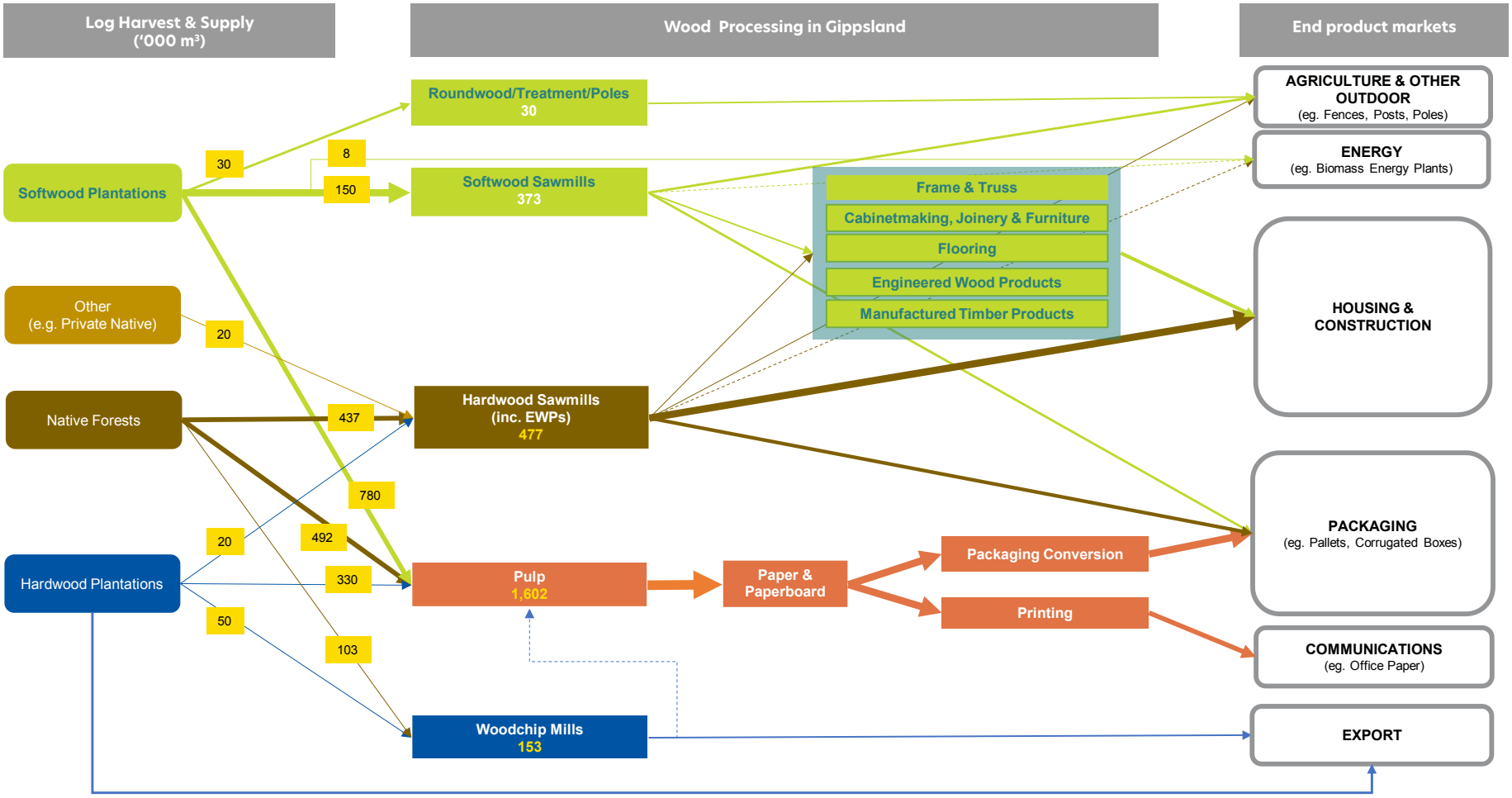
Resource needs of Gippsland's processors

Wood flow

The region utilises the significant majority of the wood fibre generated



Numbers represent thousands of cubic meters

** Details of distribution networks not included*

Resource needs of Gippsland's processors

Future demand

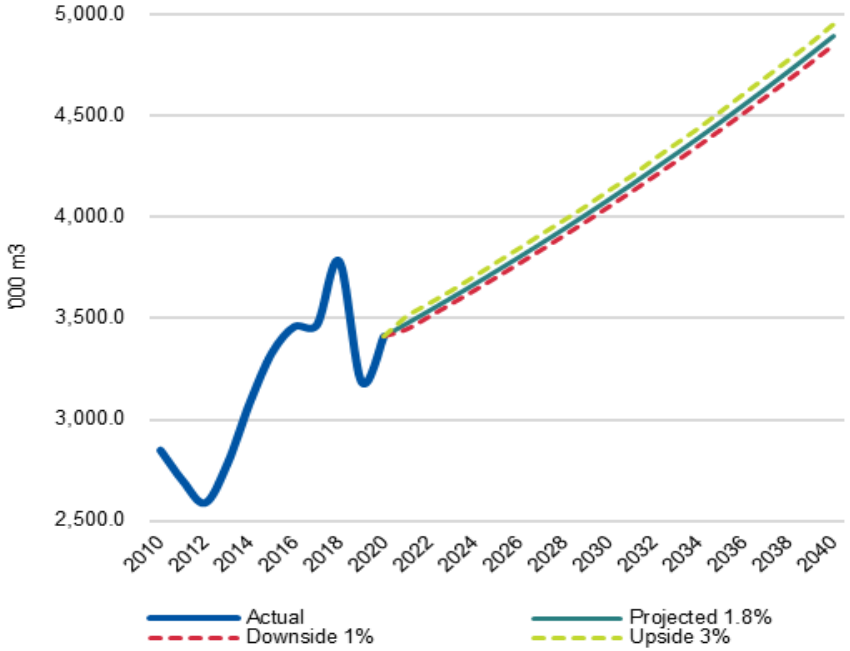
Demand for wood products is closely aligned with new dwellings

Australian Dwelling Approvals by Type: 2000 - 2040 (p) (Number)

Source: ABS Stat and IndustryEdge

Australian Sawn Softwood Consumption Projections: 2010 - 2040 ('000 m³)

Source: ABS Stat and IndustryEdge research and estimates



6b Demand for wood products produced in Gippsland is growing

Gippsland Estimated Wood Demand ('000 m^3)

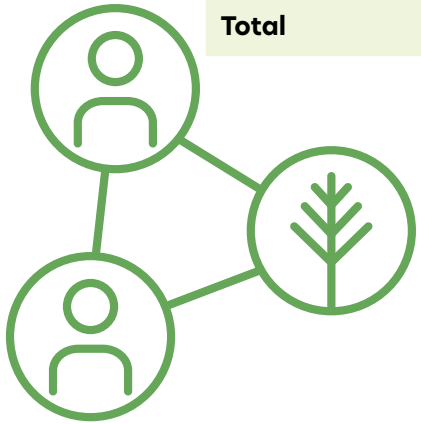
Source: IndustryEdge research and estimates, based on range of information source

Sectors	Sector Total Fibre (2021)	Est. Growth (% pa)	2030-34 (m^3 pa)	2035-39 (m^3 pa)	2040-44 (m^3 pa)	2045-50 (m^3 pa)
Sawnwood						
Packaging/Outdoor	368,000	2.5%	459,582	519,974	588,303	665,611
Appearance	44,000	1.0%	48,122	50,577	53,157	55,868
Structural (inc. Flooring & EWPs)	235,000	2.0%	280,847	310,078	342,351	377,983
Paper & Paperboard	1,602,000	1.5%	1,831,711	1,973,273	2,125,775	2,290,064
Wood Panels						
Export	153,000					
Other	18,000	1.5%	20,581	22,172	23,885	25,731
Total	**2,420,000**		**2,640,842**	**2,876,073**	**3,133,471**	**3,415,257**

By 2050, demand for the products currently produced in Gippsland will expand 41% on 2021 levels.

The greatest growth is expected to be in sawnwood for packaging and outdoor use.

Total demand for wood fibre will grow around 1.0 Mm^3 to 3.415 Mm^3 per annum.



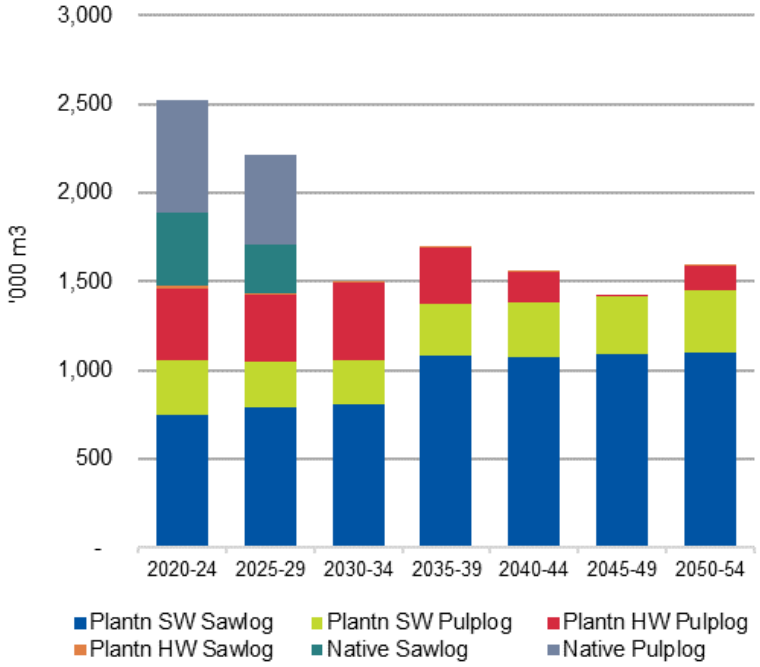
Resource needs of Gippsland's processors

Supply gap

Driver for the supply gap is simple: not enough wood

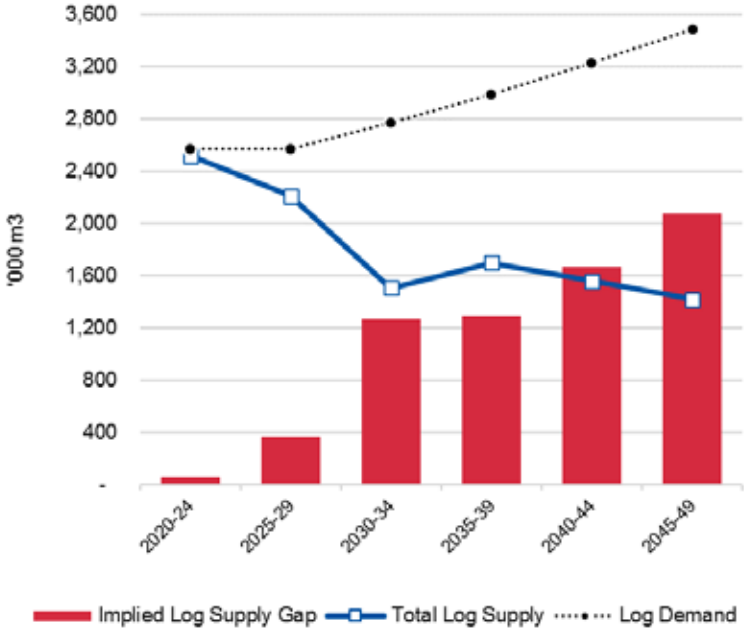
Gippsland Region's Estimated Wood Supply: 2020 - 2054 ('000 m³)

Source: ABARES and IndustryEdge



Gippsland Log Supply, Demand & Implied Gap: 2020 - 2055 ('000 m³)

Source: ABARES and IndustryEdge



Despite growing demand, native hardwood supply is scheduled to cease in 2030.

Plantation supply is insufficient to meet current demand

The supply gap will be around 1.2Mm³ by 2030 and 2.1Mm³ by 2050

6d

Resource needs of Gippsland's processors

Options for processing innovation

Declining resource availability limits options

- Growth in demand and consistency in supply of softwood guarantees continuation – and possible expansion – of pulp, paper and paperboard production – the emphasis will shift further toward **fibre packaging** grades.
- Demand for **timber packaging** will continue to grow and, where suitable, will migrate to softwood resource. Hardwood pallet supply is already limited and there are use cases where softwood pallets are simply not strong enough. Potential to utilise lower quality logs may allow for expansion in processing.
- From 2030, **sawn hardwood products** can continue only where resource is specifically secured from hardwood plantations. This sector must contract.
- Plantation derived **engineered wood products**, like glue laminated timber, cross-laminated timber and laminated veneer lumber are options, including hardwood/softwood hybrids.

Image source: Industry Edge

Resource needs of Gippsland's processors

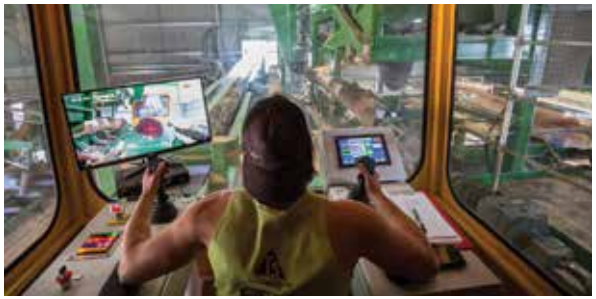
Case studies

Examples of innovation by processors in Gippsland - different solutions for different scales

Australian Sustainable Hardwoods

- Utilise locally grown logs, as well as timber sourced from interstate and internationally
- Broad suite of value-added products, from six manufacturing lines
  - green mill processing
  - dry mill processing
  - 25mm line
  - mouldings
  - reprocessing
  - laminating and mass-timber processing
- Increasing the value of the end product has provided the ability to source logs from further away
- 100% utilisation of the log

Image source: ASH website



Radial Timbers

- Vertically integrated company with a plan to become fibre and energy self-sufficient by growing their own durable hardwood plantations and processing them through their own, unique radial sawmill.

Image source: Radial Timbers website

Amber Creek Sawmill

- Focus on utilising salvaged timber and high value logs from farmer grown timber
- Mass timber framing using locally sourced timber

Image source: Amber Creek Sawmill website

7

Plantation potential in Gippsland

Plantation potential in Gippsland

Plantation suitability analysis

Defining the parameters to identify the most suitable areas for plantations in Gippsland

Biophysical ranges

- Rainfall classification (<400mm, 400-600, 600-800, >800mm)
- Temperature classification (based on number of days below freezing)
- Slope classification (<20%, 20-30%, >30%)
- Soils (Gradational – ideal, Uniform – good, Duplex – moderate, Organic - very poor)

Planning zones

- Land zones and management overlays (exclude land types that will not allow plantations)
- Public land
- Land use (Victorian Land Use Information System)

Distance to processors/other factors

- Distance to processors
- Location of existing plantations
- Land parcel size
- Land prices

Output – a series of maps covering Gippsland

- Biophysical suitability in Gippsland Forestry Hub
  - Biophysical suitability in Bass Coast
  - Biophysical suitability in Baw Baw
  - Biophysical suitability in East Gippsland
  - Biophysical suitability in Latrobe
  - Biophysical suitability in South Gippsland
  - Biophysical suitability in Wellington
- Exclusions and existing plantations
- Considerations and Permit Locations
- Bushfire Management Overlay
- Distance from Native Processing Facilities
- Distance from Plantation based Processing Facilities
- Lot size in Gippsland Forestry Hub
  - Lot size in Bass Coast
  - Lot size in Baw Baw
  - Lot size in East Gippsland
  - Lot size in Latrobe
  - Lot size in South Gippsland
  - Lot size in Wellington

To view all the maps and understand the methodology, refer to the separate report *Plantation land suitability analysis (Spatial Vision, 2021)*

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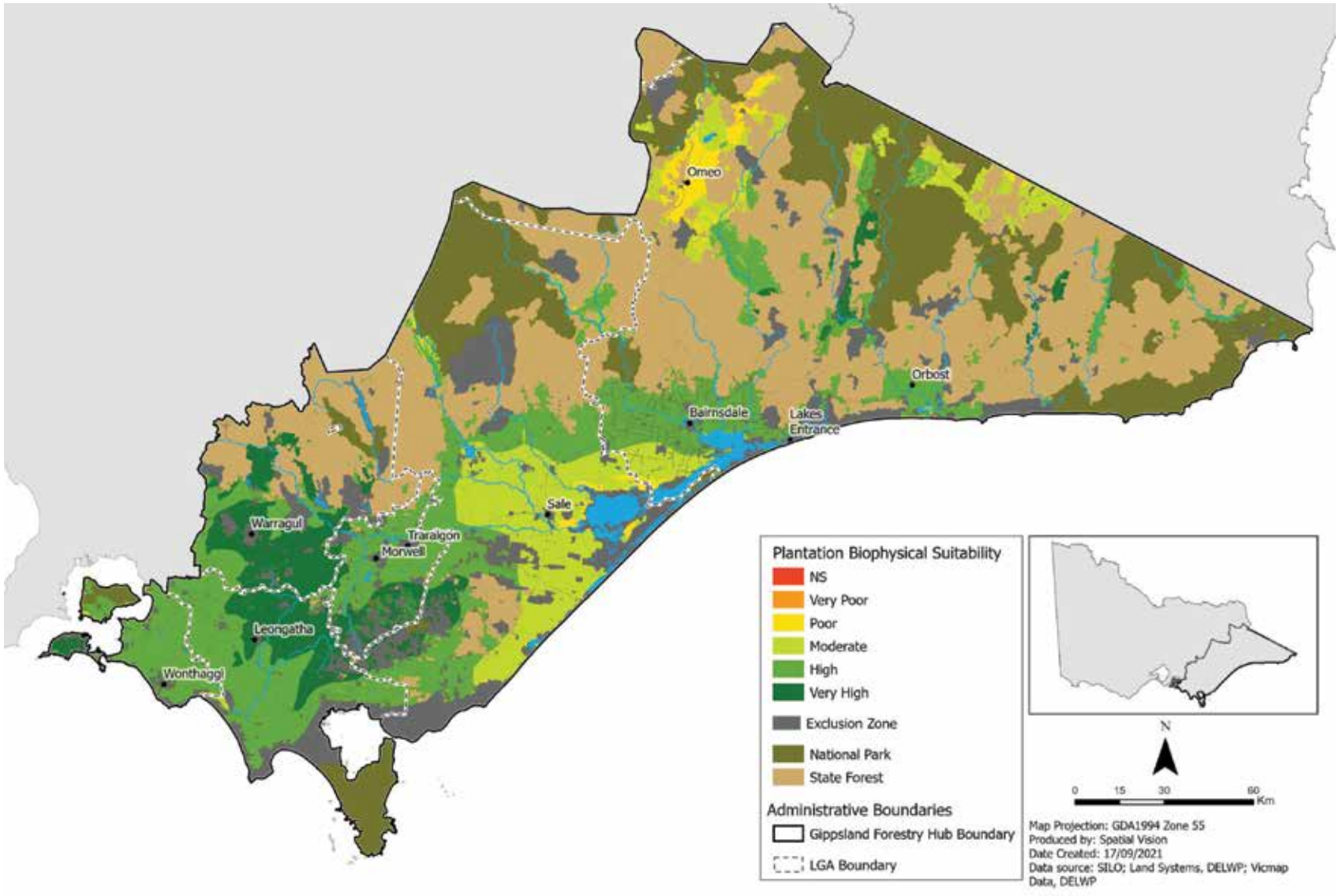
Gippsland Forestry Hub - Land suitability Project

Biophysical Constraints - Suitability

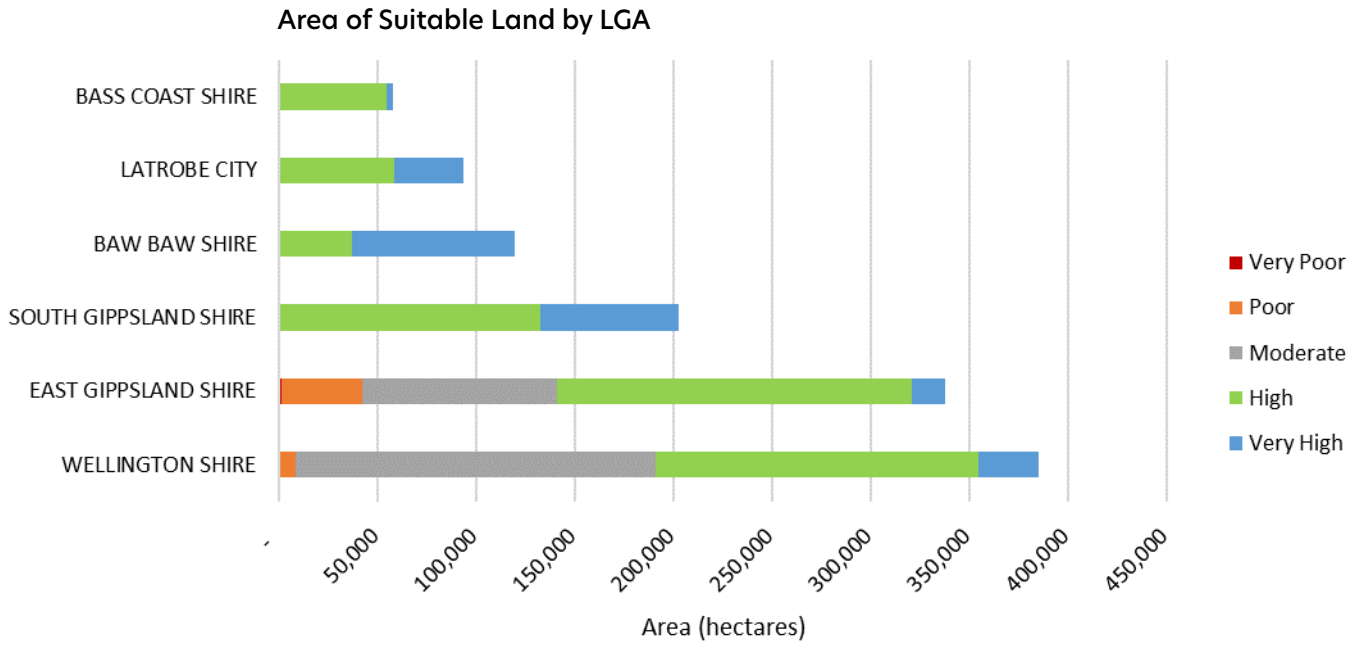
2010 - 2019 Climate Data



Plantation suitability analysis

There are large areas of suitable land for future plantations throughout the Gippsland region.

Key LGA's are Wellington, South Gippsland, and East Gippsland Shires.



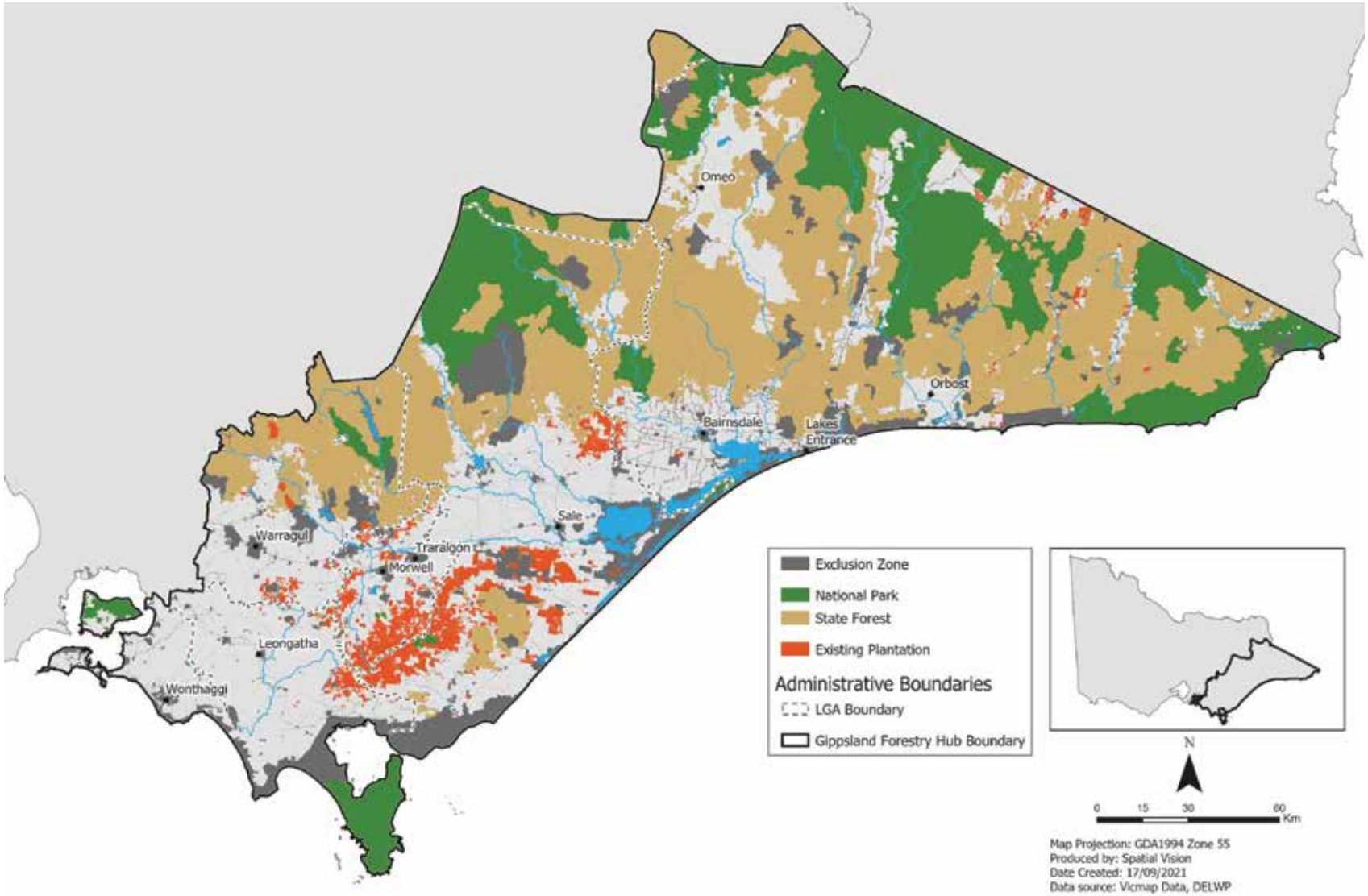
Local Government Area	Area by Suitability Class (ha)					
	Very Poor	Poor	Moderate	High	Very High	Grand Total
Wellington Shire	72	7,947	182,774	163,409	30,550	384,752
East Gippsland Shire	892	41,375	98,308	180,027	17,216	337,818
South Gippsland Shire			276	132,053	70,236	202,565
Baw Baw Shire		5	81	36,609	82,639	119,333
Latrobe City		2	398	58,151	35,070	93,621
Bass Coast Shire			521	53,843	3,632	57,996
Total	**964**	**49,329**	**282,359**	**624,092**	**239,342**	**1,196,086**

7a

Gippsland Forestry Hub - Land suitability Project

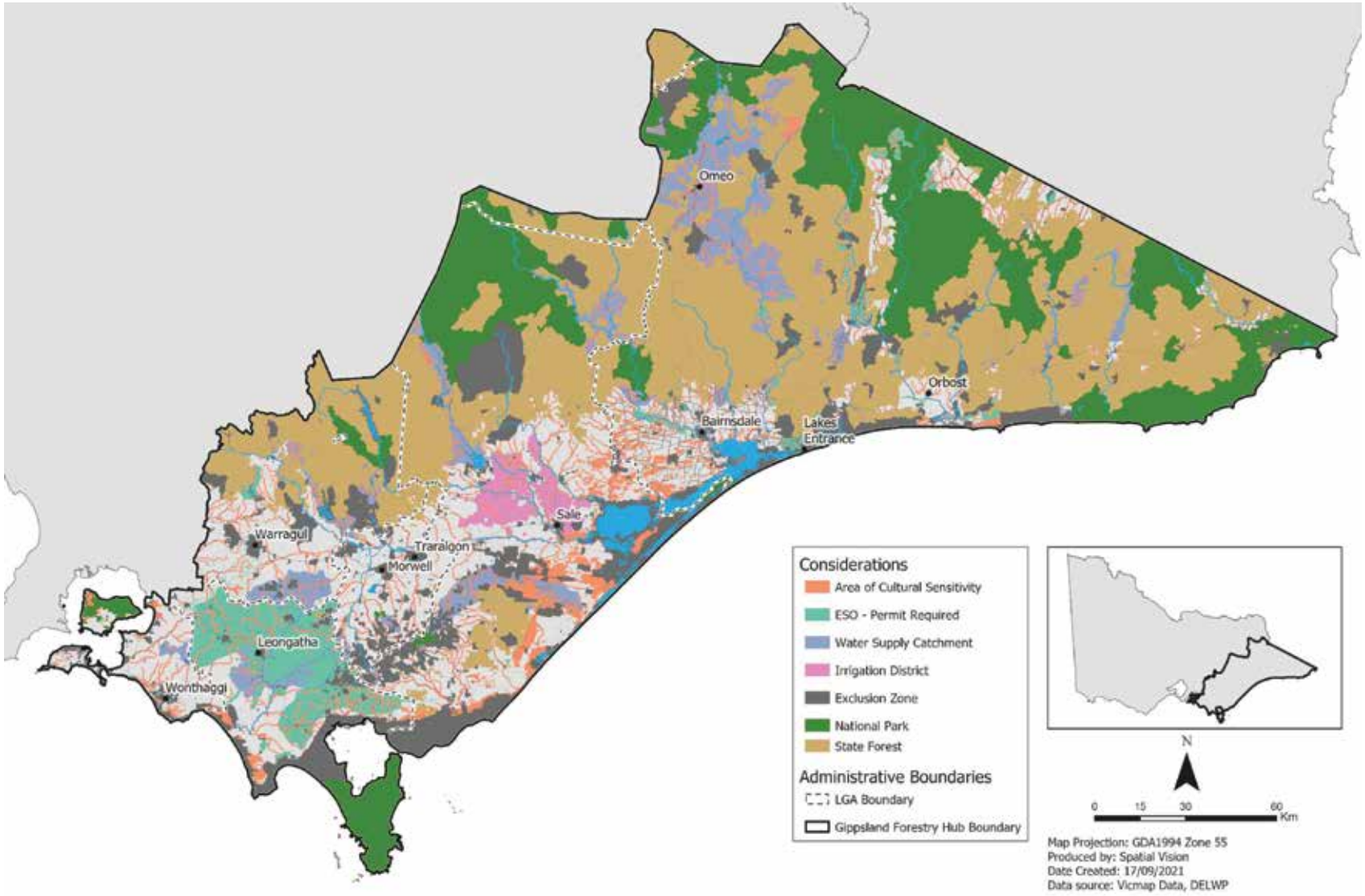
Combined Exclusion Zones

Areas excluded from potential future plantations are coloured according to the legend



Gippsland Forestry Hub - Land suitability Project

Considerations and Exclusion Zones

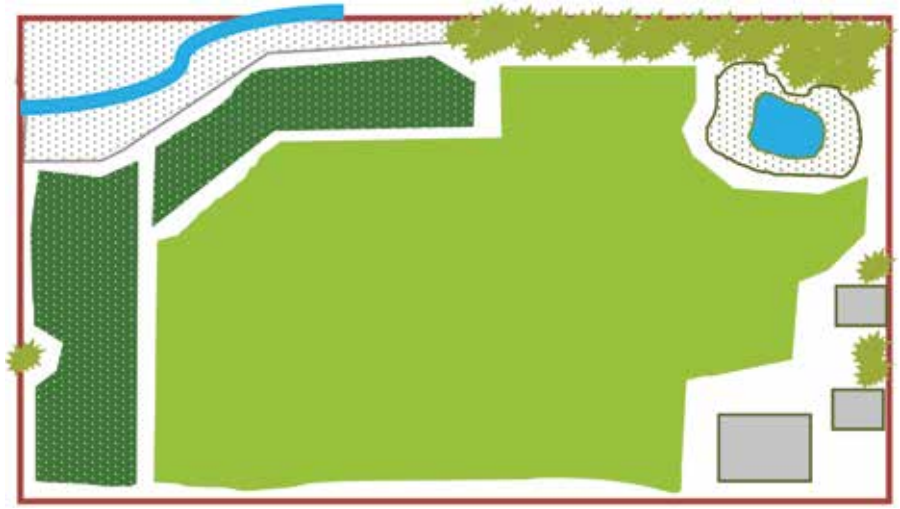


7b

Plantation potential in Gippsland

Plantation configurations and integration

- As shown in the maps on previous pages, the Gippsland region is diverse. This diversity means that there is no one plantation solution; there will need to be a range of solutions that are most suited to the local area as well as respecting the desires of the individual landowners.
- We recommend that a project be conducted to explore and describe the most appropriate plantation configurations for the different parts of Gippsland.
- Plantation integration is discussed in Section 7d.

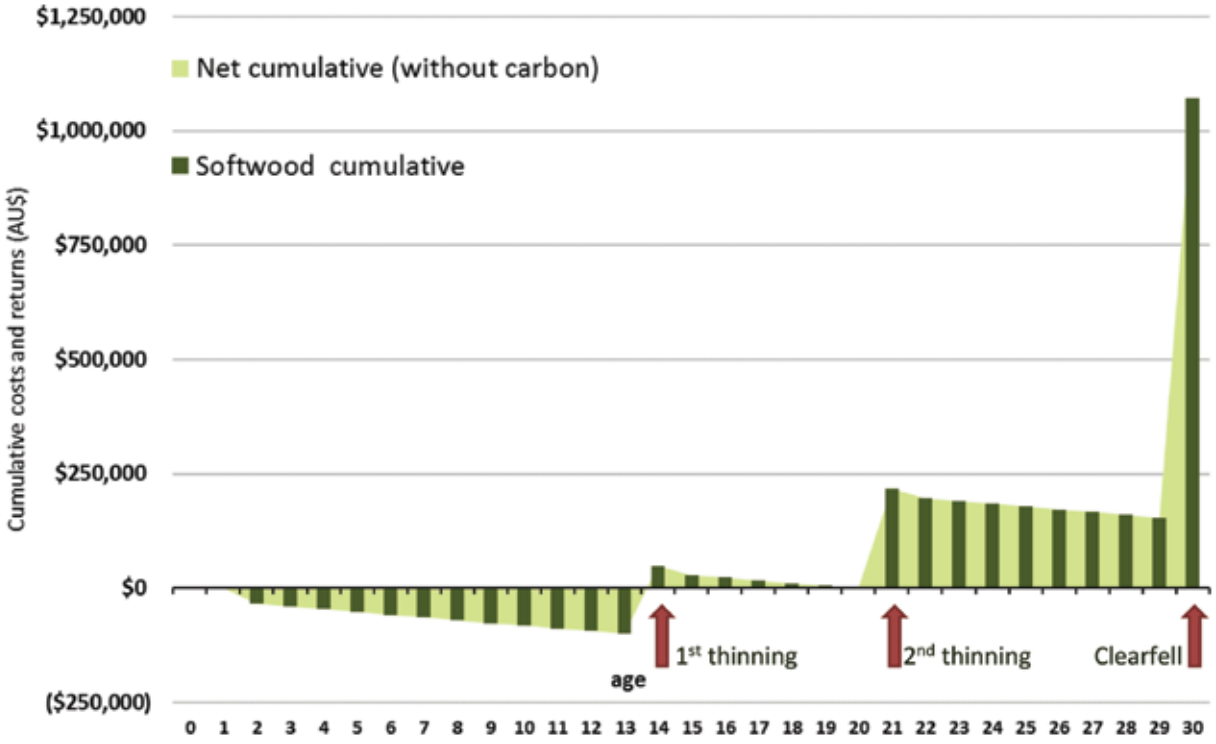


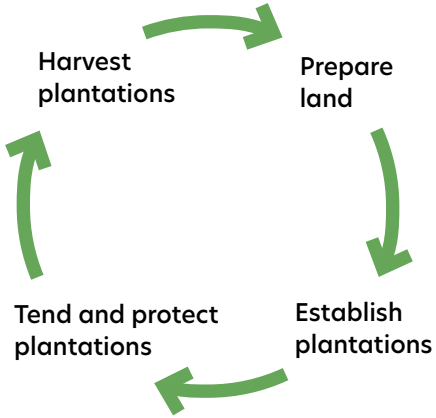
Plantation potential in Gippsland

Plantation investment cycles

- The investment cycle for plantations consists of significant inputs of time and cost in the establishment phase, followed by long periods of management focused on tending and protection. The establishment phase is followed by thinning (in the case of long rotation softwood plantations), and final harvest. Thinning events provide some returns, but the main return occurs at final harvest.

- A typical cashflow for a 100 hectare softwood plantation is shown in the graph below. The net cashflows include all costs related to establishing and harvesting the plantation (site preparation, planting, maintenance, harvesting and haulage). However they are before forest and harvest management fees and do not include the cost of land purchase and associated land costs (e.g. rates and insurance).





7d

Plantation potential in Gippsland

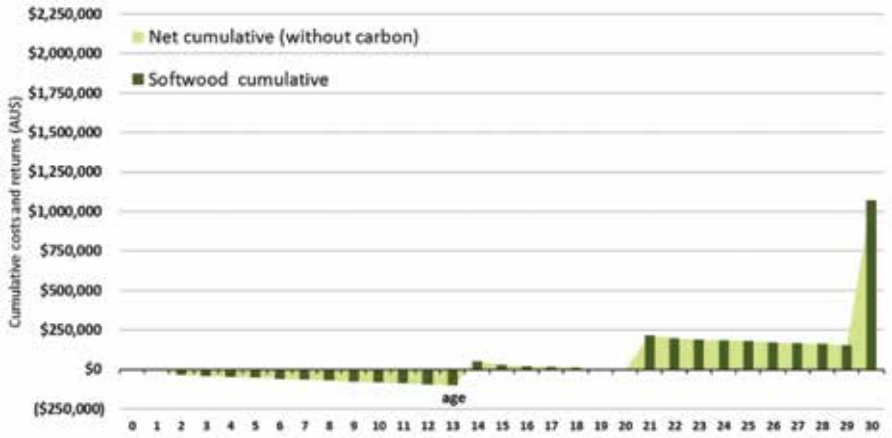
Incentives for new plantations in Gippsland

Our review of the history of Gippsland's forestry industry show that direct government intervention and leadership have promoted the significant expansion of the industry. These policies overcame the capital required for access to land and for the establishment of tree crops that have a long lead time before returns are realised.

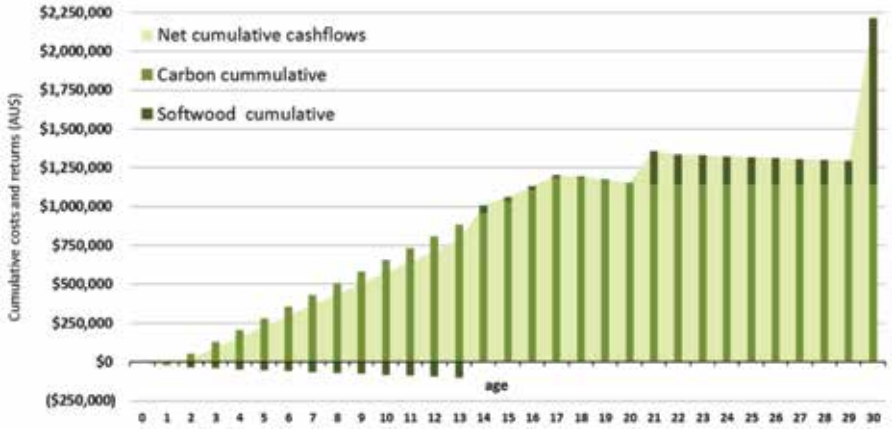
Examples of government intervention are:

- **Federal loans** to State Governments to incentivise the establishment of softwood plantations.
- Development of **favourable policies and tax incentives** such as the Managed Investment Schemes (MIS) that accelerated investment in plantations. The structure of these schemes lead to business failures, which disenfranchised investors.
- More recently, **new markets** are emerging that potentially monetise the additional benefits that plantations and forests provide; carbon and impact investment.
- **Carbon**
  - Carbon returns early in the life of a new tree crop brings forward positive cashflows derived from the plantations.
  - Changes to the Clean Energy Regulator's plantation methodology may provide opportunities for landholders to:
    - register projects where the plantation would otherwise be converted to grazing or cropping land.
    - broaden the range of species permitted under the rules.

Net cashflows (no carbon)



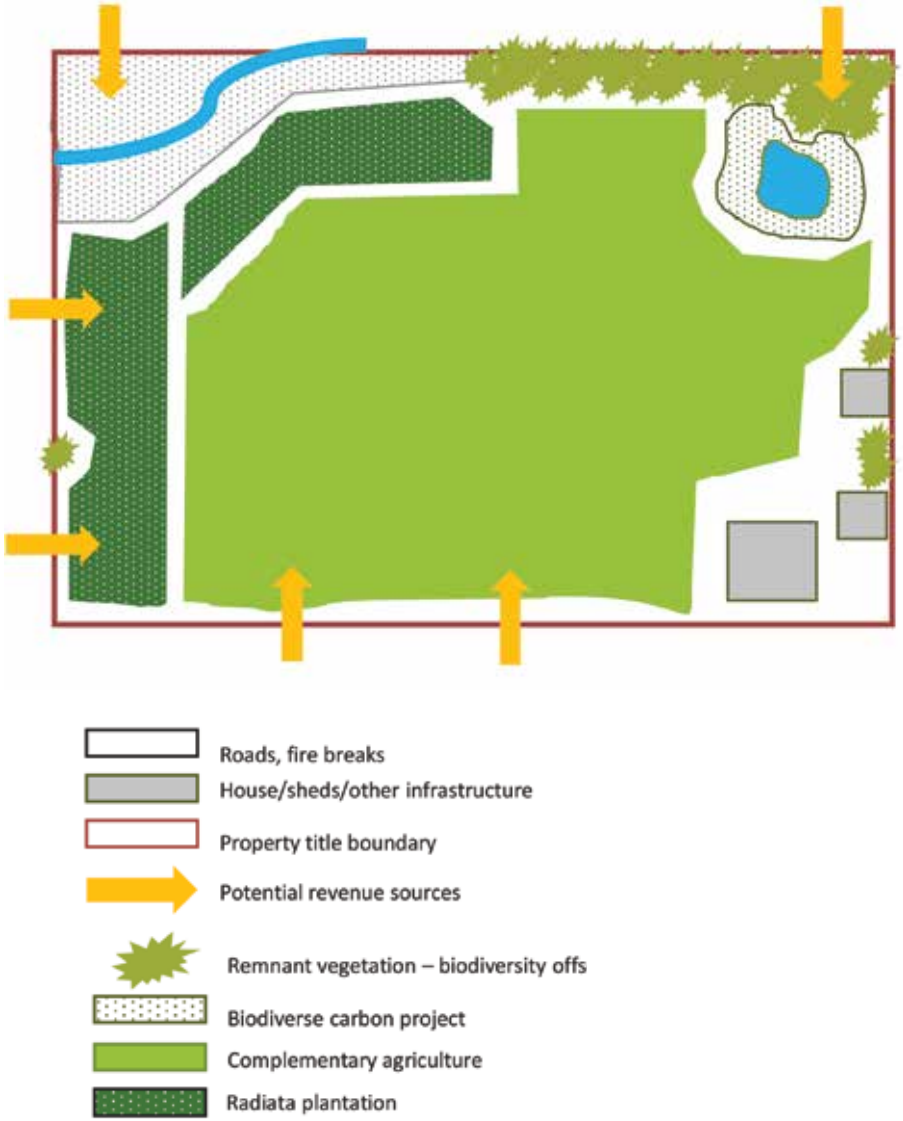
Net cashflows (with carbon)



- To demonstrate the point, we present the expected cashflows from two softwood plantation scenarios:
  - without carbon (before management and land costs)
  - with carbon (including registration and verification of ACCUs, and an estimated price is $20/CO2-e tonne).
- Carbon revenues can significantly bring forward cashflows and may make an attractive investment for a landowner.

▶ **Integrating forestry with agriculture and impact investment**

- Increasing emphasis of the natural capital benefits that plantations and forests provide can attract 'impact investors' who provide financial returns to recognize the following services:
  - water quality
  - biodiversity
  - carbon
  - bioenergy
  - social benefits.
- The figure shows the opportunity to integrate forestry with other agricultural enterprises and the likely flows of income possible from this integrated approach which:
  - Diversifies income
  - Can be designed to maximise the benefits of shelter for animals and corps
  - Create social license for plantations by avoiding 'boundary to boundary' land use change.
- Applying a 'highest and best land use' approach, within a required risk of return framework over the longer period where the impact investor aims to generate multiple returns from the land. This approach will also be attractive to landholders wishing to demonstrate the sustainability credentials to their customers, particularly those in emerging or 'green label' markets.



7e

Plantation potential in Gippsland

Disincentives for new plantations in Gippsland

Despite the incentives, new plantations in Gippsland face additional barriers. The barriers and disincentives are financial, political, administrative, and social.

The disincentives are:

- **Policy**
  - State government
    - Unstable State government policy settings that reduce confidence in the ability to sell the harvested trees in the future which undermine investment
  - Lack of integrated policies at Federal Government level
    - Forestry Industry Plan – the formation of Forestry Hubs to incentivize growth of forestry in key areas of Australia
    - Complicated carbon rules that require 'Ministerial Notifications' and permissions to progress to registration of carbon plantation projects that reinforce the perception that forestry competes with, rather than complements agriculture
  - Lack of consultation and co-ordination across statutory agencies and councils
- **Planning rules**
  - Planning rules that put additional requirements for undertaking plantation projects which are not required by other types of agriculture.
- **Perceptions of high risk borne by land holders include:**
  - Landholders' knowledge
    - opportunity costs of changing land use struggle to compete with beef or other higher value production in the short term
    - no access to current market prices and access to 'spot' pricing
    - inflexible supply arrangements where 'stumpage' rates are not assured on establishment
  - Advisors and financer's knowledge
    - lack of knowledge of, and therefore confidence in, the forestry business models that are possible
    - Fire risk , costs of insurance and community concerns about living close to plantations
    - difficulty in sourcing trusted advice regarding forestry investments and how to minimize risks.

Plantation potential in Gippsland

Potential of carbon projects

Gippsland's rich soils, high rainfall and welcoming climate for growing trees suggest that carbon projects should be bountiful in the region. However, there are currently only four 'vegetation' projects registered in the whole of Gippsland and three of the four are for permanent (i.e. not for harvest) environmental plantings (see image).

Modelling of carbon yields estimates across sample sites in Gippsland that carbon yields in the order of 150 – > 300 CO2-e tonnes per hectare before permanence and risk of reversal buffers are applied. Yields reflect underlying productivity (MAI) of the land on which the plantations are established.

Thus, Gippsland has the potential to become a significant source of carbon credits if the carbon price is sufficiently high to support establishing new plantations, and where rules allow.

Plantation carbon projects can be registered under:

- The Clean Energy Regulator approved methodologies to generate Australian Carbon Credit Units (ACCUs') from trees for harvest are:
  - Plantation methodology
  - Farm forestry methodology

Current CER registered carbon projects in Gippsland

Source: http://www.cleanenergyregulator.gov.au/maps/Pages/erf projects/index.html

- International standards can also be used to accredit plantation projects so long as 'additionality requirements' are met. These include:
  - Gold Standard – Land use and forests activity requirements
  - VERRA - available methodologies include:
    - VM0003 Methodology for Improved Forest Management through Extension of Rotation Age, V1.2
    - VM0005 Methodology for Conversion of Low-productive Forest to High-productive Forest v1.2
    - VM0035 Methodology for Improved Forest Management through reduced Impact Logging v1.0

8

Stakeholder insights and key themes

A series of workshops were held to present preliminary findings and explore participants points of view

Diverse participation

Broad range of backgrounds and industries represented:

Agriculture Victoria
AgriSolutions
AKD Softwoods
ANC Forestry Group
Austimber Harvesting and Haulage
Australian Sustainable Hardwoods
East Gippsland Shire Council
Food and Fibre Gippsland
Forest Stewardship Council
Forest Strategy Pty Ltd
Frontier Impact Group
Gippsland Agroforestry Network
Gippsland Forestry Hub
Gippsland Water
Green Triangle Forest Industry Hub
Gunaikurnai Traditional Owner Land Management Board
Haar Architecture
Heartwood Plantations
HVP Plantations
IndustryEdge
Landcare Midway
National Australia Bank
nem Australasia
Opal Australian Paper
Radial Timbers Australia
Responsible Wood
Timber Towns Victoria
University of Melbourne VicForests
Victorian Department of Jobs Precincts and Regions
Victorian Forest Products Association
Wellington Shire
Wood Products Victoria

Workshops

53 participants

6 workshops

2 hours each workshop

Summary of themes

"It seems that farmers are becoming more enthusiastic and that there's a new generation of farmers coming through. They do have some interest and some enthusiasm in wanting to understand more about how to engage with putting trees on their land for a variety of purposes."

"I think a lot of farmers could be inspired if there were some more clarity for them and more support around how to actually proceed with putting trees on their farms."

"Sometimes landowners, the farmers, they like to do things on their own without too much external control in their way."

"I think we need to get better at that storytelling, so we can make sure that next generation is well aware of how valuable our resource really is."

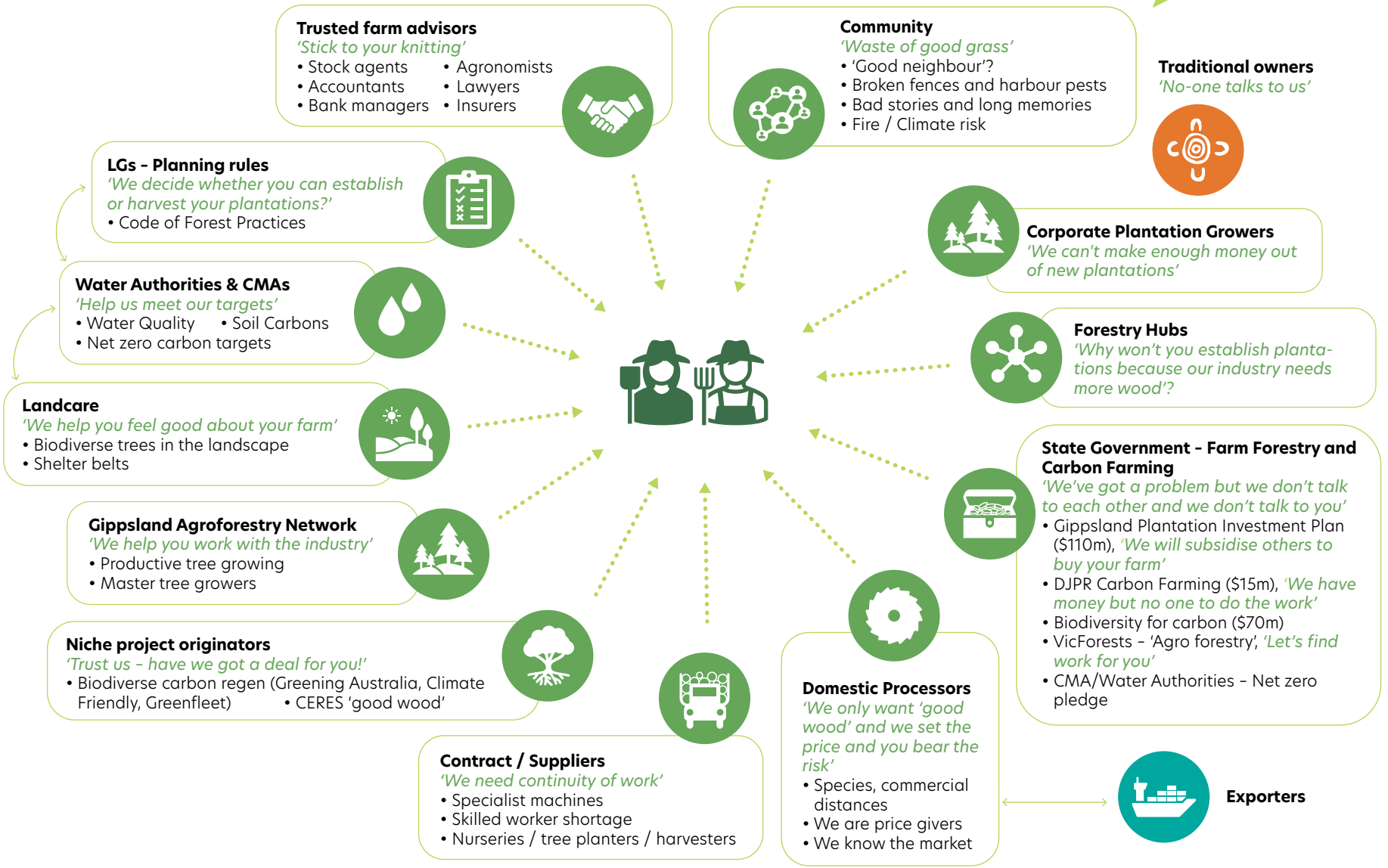
"No one wants to go to work and not make any money. With agriculture, long term, we'd love to see if there was a long-term sustainable profit yield that you could make out of timber, I'm sure 90% of farmers would jump at it"

8a

Stakeholder insights and key themes

What are farmers currently hearing?

Messages relating to the value that trees bring landholders are neither co-ordinated, consistent nor landholder centric.



Stakeholder insights and key themes

Communicating with landholders

Landholder centric, informed engagement by trusted advisors telling a consistent story

- We recommend adopting landholder centric communications which are effective, consistent, and less confusing.
- Key role of GFHub and trusted advisors.
  - We propose that the landholders' trusted advisors, the GFHub and community, become the key points of communication.
  - The role of the GFHub is to interpret, educate and advocate (with other industry bodies) the value of forestry in Gippsland.
  - Provide a value proposition (marketing pitch) directed at farmers to encourage them to plant more trees.
  - The GFHub actively engages with regional institutions to embed the forestry industry in their strategic plans.
  - It aligns its work with leading advocacy and industry leaders (e.g. Latrobe Valley Authority, Food & Fibre Gippsland) to promote more trees for harvest.
- A landholder centric approach will benefit from consistent and co-ordinated policies by state and federal governments that have bipartisan support .

"I've often said that the tops of the hills can be plantation, the sides of the hills can be carbon, and the gulleys in there can be biodiversity, and there should be strong support for that."

"There seems to be a void or a scarcity just in information in terms of what forestry is, what it can offer, particularly the various value streams to the landowner which are much, much more sophisticated now than what they were 10 or 20 years ago."

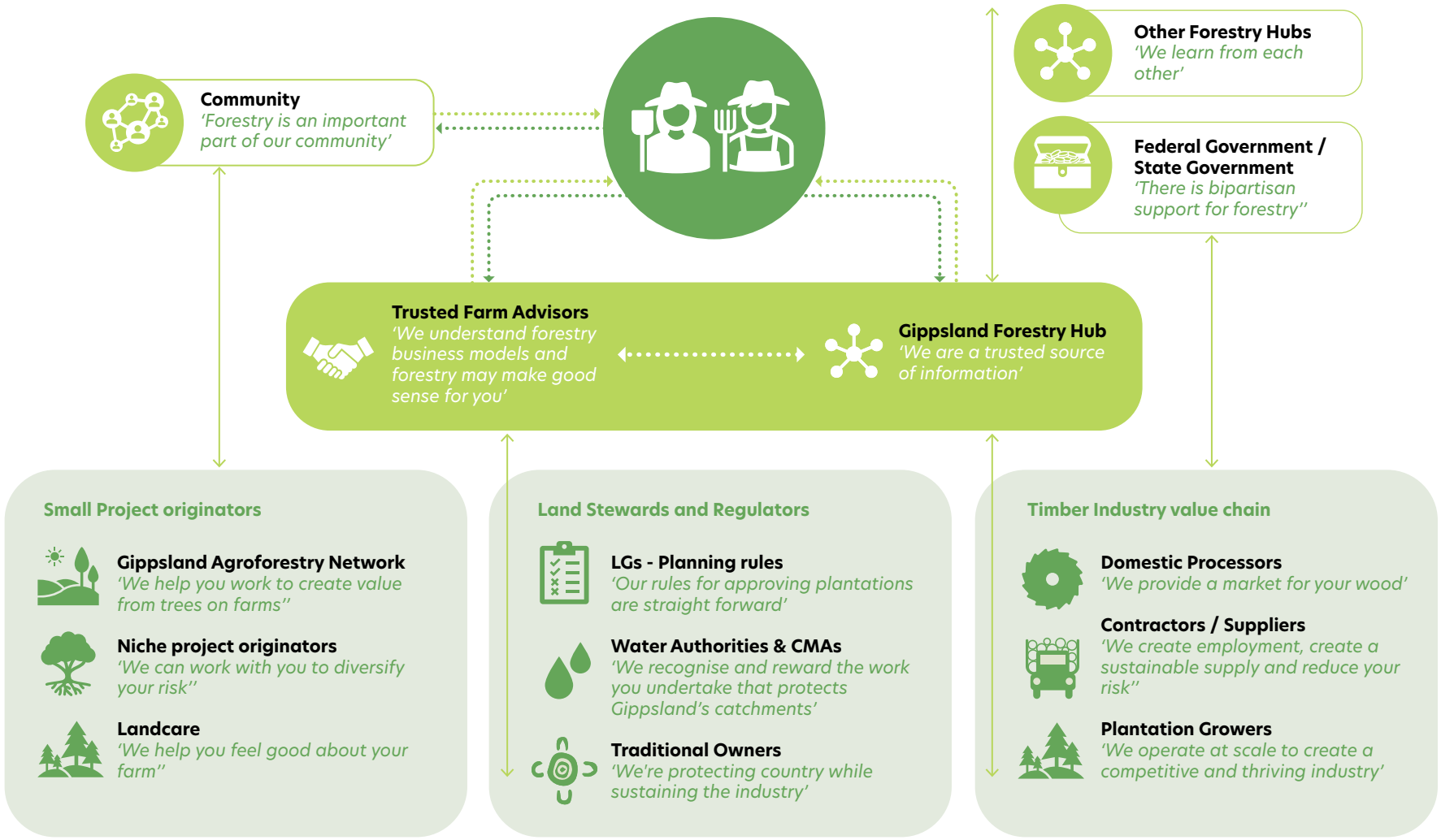
"There needs to be a holistic view presented to the public around why it's important to have a sustainable, strong, ongoing forestry industry because the public doesn't necessarily always put all of the different factors together."

"I think going forward, the strategy would be to work with farmers and explain to them the benefits that trees have on their farm. It helps increase the animal welfare, as well as you've got a bit of profit in the years to come as well from the trees."

8c

Stakeholder insights and key themes

Adopting landholder centric conversations



Stakeholder insights and key themes

Suggested roles and responsibilities of all parties

Unifying the message and focusing roles of stakeholders to support more trees in Gippsland

Gippsland Forestry Hub

- GFHub funding model transcends political cycles
- Actively engaging regional institutions to embed the forestry industry in their strategic plans
- Trusted source of information
- Liaises directly with industry
- Raises awareness of the benefits of forestry and listens to the community
- Educates advisors re forestry business models
- Co-ordinates industry and government information

Trusted Farm Advisors

- Forestry business models are transparent and understood
- Cashflows support monthly or annual income
- Risks are understood and managed

Growers, contractors and processors

- Price transparency
- Confidence and security of the market
- Support local industry (e.g. repairs, maintenance, employment, traineeships'
- Demonstrate their value to the community (e.g. fire management, trail maintenance)

Local Government and Catchment Amanagement Authorities

- Guides for establishing plantations
- Establish plantations on own land
- LGA's with CMA's to prioritise the right tree in the right place

State and Federal Governments

- Co-ordinated and consistent policy that generates confidence in the forestry industry
  - Forestry
  - Carbon
  - Water
  - Agriculture
- Confidence in long term supply through stable policy
- Encouragement of a thriving bio-economy

Gippsland Agroforestry Network, Landcare and niche project originators

- Trees for harvest and biodiverse trees in the landscape
- Shelter belts
- Landholder education

Community

- Demand locally grown products that support Gippsland's bioeconomy
- Employment
- Fire risk management
- Social and lifestyle benefits, e.g. trails, training, stewardship

9

SWOT Analysis

Strengths

- The Gippsland region is a highly productive area for growing trees. Evidence of forests dates back to the formation of the brown coal deposits that are currently exploited for energy production. Existing native forests include the tallest flowering plants in the world.
- Government forest policy helped the development of a significant industry that learned how to work with eucalypts and turn Bleached Eucalypt Kraft Pulp into high quality printing paper.
- Significant historical expansion of the plantation estate has been due to direct government intervention (e.g. Federal loans to State Government) or the development of favorable policies (e.g. MIS).
- Manufacture of strong long fibre kraft pulp from local pine plantations underpins the manufacture of packaging paper.
- Stability in the local industry has enabled innovation in log transport, harvesting and silviculture techniques, sawing and utilization of solid timber.
- More than 95% of the commercial forests in the region are certified as sustainably managed by independent auditors.
- There are a lot of forestry industry skills and knowledge in the region.
- Local governments recognise the significance of the industry and provide tangible support.
- Tree planting on farms is supported and done well by the various Landcare networks that operate throughout Gippsland.
- The Gippsland Agroforestry Network is one of the oldest and most active networks in Australia, with members who have deep experience.

Weaknesses

- The region is not homogenous, which means that the forestry industry must work with local groups to develop solutions that work with local communities and match local landscapes.
- Historical attempts to expand plantations on farms have not resulted in an ongoing legacy of planted commercial trees on farms. Despite positive cash flows from plantations, farmers prefer not to have pine trees in their paddocks. This has resulted in a net decline in planted area.
- There is not a shared vision for the forestry industry.
- There is not a good history of the industry working collaboratively across all sectors in the region. Private Forestry Gippsland (2000-2010) failed due to lack of regional support.
- It is difficult for farmers to get information about planting and managing trees.
- Farmers are put off by the complex regulations they need to navigate to manage plantations.
- Government policy for trees on farms is fragmented and confusing. Trees planted for conservation cannot be managed for commercial timber. Commercial timber crops are not recognised for the other values they contribute while they are growing.
- The relevance and importance of the Forestry Industry is not reflected in important regional policy documents like CMA regional strategies and planning schemes.

SWOT Analysis

Opportunities

- Price signals for plantation grown trees should be much clearer as the State exits native forest logging.
- There is a workforce of skilled and knowledgeable contractors who could be deployed to improve the management of trees on farms.
  - Local organisations have demonstrated their capacity to innovate, for example
  - Radial sawing techniques
  - Long rotation hardwood plantations
  - Sawing trials of plantation grown shining gum by Australian Sustainable Hardwoods.
  - Use of farm grown blue gum in local construction
  - Improved design of log truck trailers by local manufacturers
  - Environmental and safety improvements for harvesting steep country
- Water authorities are keen to explore better use of the land they manage for commercial plantations.
- Local governments are interested to learn whether the roadsides and reserves they manage can be better utilised through an urban forestry model.
- Traditional Owners are involved in managing reserves in Gippsland.
- Existing industries are keen to explore more innovative use of wood fibre and their constituent parts to replace fossil fuels.

Threats

- Loss of scale threatens the ability of manufacturers to compete in an open economy.
- The area of commercial plantation in Gippsland declined by more than 8,000 hectares between 2009 and 2019. Mainly former Managed Investment Scheme blue gum plantations but also farmer owned radiata pine plantations.
- Closure of native forest logging is likely to continue the reduction in local processing capacity. Since 2005, a major pine sawmill and many hardwood sawmills have closed as access to resource has declined.
- The effects of climate change are likely to vary across Gippsland, both spatially and temporally.
  - Fires are an ever-present threat to forests and plantations throughout Gippsland.
  - Severe wind storms have blown plantations over. Frequency of such storms are predicted to increase.
- Knowledge is being lost by the industry because there is not a central repository, Private Forestry Gippsland and the Victorian Association of Forest Industries files are not available.

10

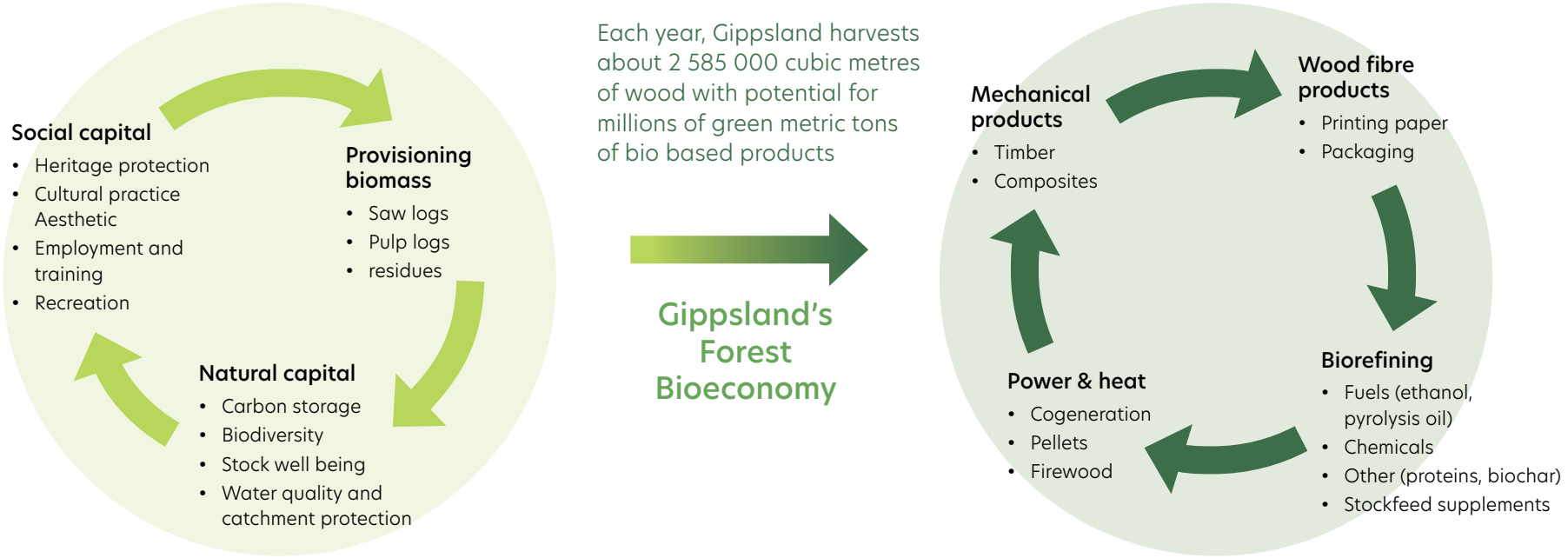
Beyond 2021 – Gippsland's transition to a forest bioeconomy

Building a vision for Gippsland Forestry

The Gippsland region is ideally suited to underpin a circular forest bioeconomy whereby the value of products, materials, and resources are maintained within the region for as long as possible, and the generation of true waste is minimized. Having economic drivers for good management will underpin the sustainable management of forests. It is important that every hectare of land is applied for its best use and trees are recognised for their multiple benefits, including timber production, carbon storage, water catchment protection, biodiversity, shade and shelter.

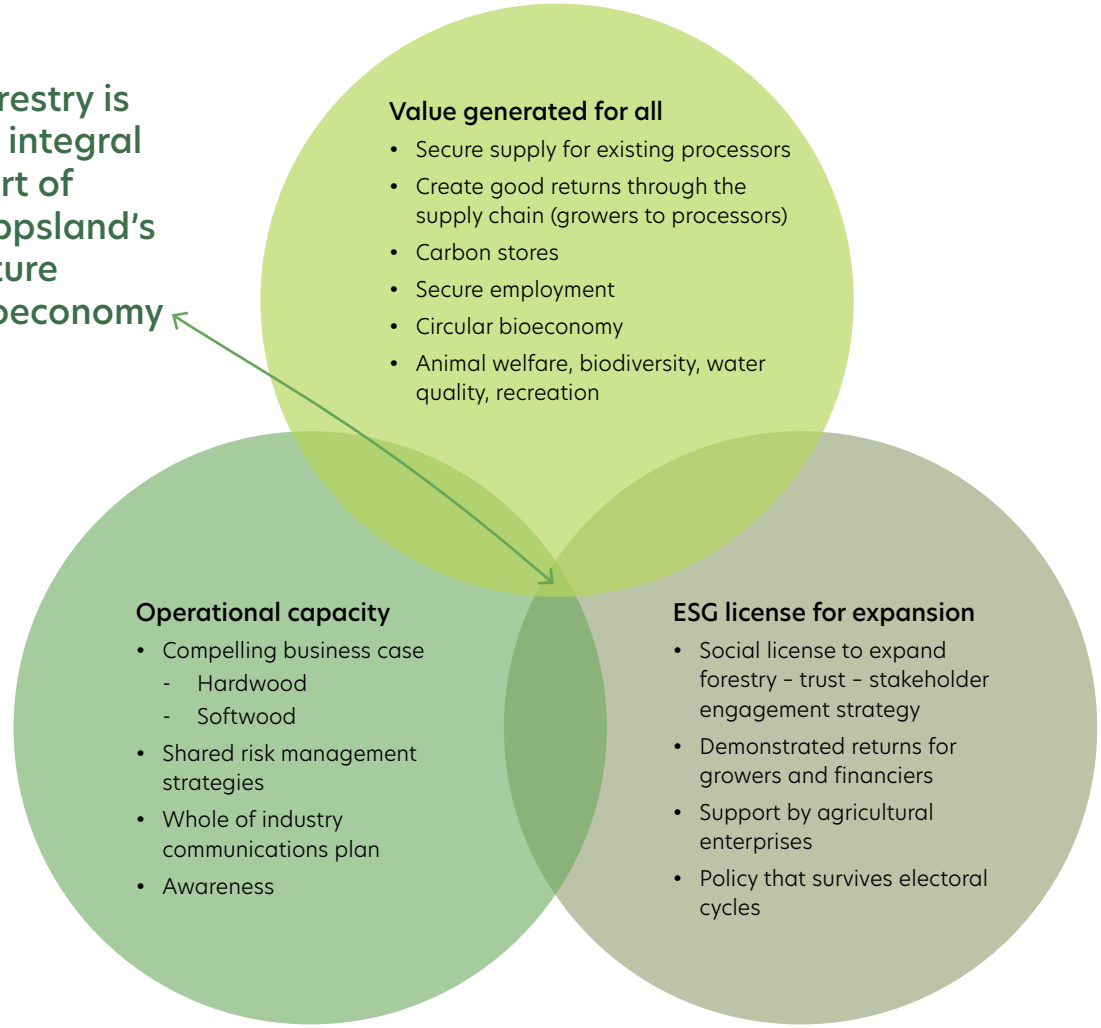
Need a whole of Gippsland message

"Planted trees grow wood, store carbon, improve animal welfare, protect water quality, enhance biodiversity and provide local jobs."



Building the value of the forestry industry in Gippsland

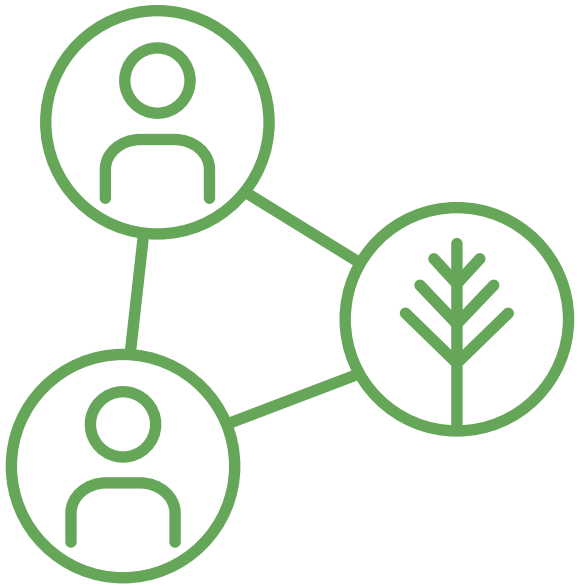
Forestry is an integral part of Gippsland's future bioeconomy



11

Actions for a thriving timber industry

Recommendations - aligned with the four Gippsland Forestry Hub Strategy themes



Fibre security for a thriving industry:

- Develop catchment by catchment vision for tree planting/establishment.
- Engage with water authorities, local government and institutional agriculture companies to explore the potential of plantations on land they own, manage or control.
- Develop a number of farm forestry case studies to highlight exemplary activity and demonstrate what is possible.

Innovation for a world class, sustainable industry:

- Embrace the developing circular bioeconomy and understand how the forestry industry can contribute.

A trusted and reliable source of information:

- Develop a central source of information for farmers, local government, advisors, forestry industry:
  - Seek out the records of previous forestry bodies (e.g. Victorian Association of Forest Industries and Private Forestry Gippsland).
  - Present information in a landholder centric fashion – what is in it for them?
- Determine the actual value of forestry in Gippsland in a way that it can be regularly updated and well presented.
- Develop a value proposition (marketing pitch) directed at farmers to encourage them to plant more trees.

Contributing meaningfully to Gippsland's community and economy:

- Develop a shared vision that responds to emerging markets and changing community expectations that is inclusive of all stakeholders in Gippsland:
  - Form strategic alliances with key stakeholders such as (Latrobe Valley Authority, Food and Fibre Gippsland, Catchment Management Authority, Local Governments).
  - Work with Traditional Owners to align and integrate strategies to create shared opportunities across the region.
  - Develop a strategic communications/ marketing plan that raises awareness of the value of forestry to the region and to individual landholders.
  - Promote the value of forests in Gippsland – beyond the forestry industry.
  - Support local organisations to help share the vision, including the Gippsland Agroforestry Network, Landcare, and similar community based organisations.
- Develop a plan to become a self-funded regional forestry group in order to live beyond government funding.

References

Industry Edge (2021), *Regional fibre security for a thriving forestry and wood products industry*, prepared as part of this project, available from the Gippsland Forestry Hub website, https://gippslandforestryhub.com.au/

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