



**ASX Announcement 452** 

# Updated Feasibility Model Demonstrates Strong Economics

100% owned Carpenters Project forecast to deliver significant returns over a 20-year life

#### **HIGHLIGHTS**

- Carpenters Project is a 200ha development with forecast production >45,000t avocados over life of model
- Strong equity IRR of 14.6% and Project NPV of \$15.5m (post-company tax)
- Total development cost of \$34.7m through to 2028; \$5.0m funded to-date
- Projected lowest quartile cost of production based on forecast operating cost
- Average projected EBITDA margin exceeding 36%

## **Disclaimer and Cautionary Statement**

The updated financial feasibility modelling referred to in this release is a preliminary technical and economic study of the Carpenters Project in the Southern Forests Region, Western Australia ("Carpenters" or "the Project").

The updated financial feasibility modelling results (outcomes, targeted IRR and forecast financial information) contained in this release are based on preliminary technical and economic assessments. Further evaluation work will continue throughout the development of the Project to provide assurance of an economic development case. This includes reassessment of market and site conditions prior to final investment decision for each stage of planting. The updated financial feasibility modelling has been completed to a level of accuracy of +/- 20%. While the Company considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the updated financial feasibility modelling will be achieved. The updated financial feasibility modelling is based on the material assumptions outlined elsewhere in this release.

The updated financial feasibility modelling underpinning the targeted IRR is based on and fairly represents information and supporting documentation prepared and compiled by, on behalf of the Company, Pendulum Capital who has decades of experience in developing and managing large-scale, highly profitable agriculture projects, including greenfield rehabilitation and planting programs.

The Company has concluded it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this release. This includes a reasonable basis to expect that the Company will be able to fund or source the balance of funding of ~\$29.7 million for the proposed 200ha development of Carpenters upon successful delivery of key development milestones and as and when required. The detailed reasons for these conclusions are outlined in this release, but there is no certainty that the Company will be able to source the funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares. It is also possible that the Company could pursue other strategies such as a sale, partial sale or joint venture of the Project. If it does, this could reduce the Company's proportionate ownership of the Project.

Given the level of accuracy of the updated financial feasibility modelling, investors should not make any investment decisions based solely on its results.

Alterra Limited (ASX: 1AG) (**Alterra** or **the Company**) is pleased to announce it has completed a review of financial feasibility modelling completed in 2021 (refer ASX announcement 14 January 2021) ("Initial Feasibility") on the 100% owned Carpenters Avocado Project ("Carpenters"). The updated financial feasibility modelling underscores the strong and robust economics of the Carpenters Project.

Mr Mark Clements, Chairman of Alterra, commented: "The results of the updated financial feasibility modelling confirm our expectation that the Carpenters Project has the potential to become one of the largest contiguous avocado orchards in Western Australia, delivering rare scale, coupled with abundant water capture and storage potential.

"The updated financial feasibility modelling sets out strong economics for a long-life Project with a production target of over 45,000t of avocados, over \$283 million in revenues and substantial earnings and cashflows to Alterra over a 20-year life.

"Led by our Chief Operating Officer, Ben Norrish, the Carpenters Project presents exciting development potential to become an investment grade agricultural asset that will deliver reliable results in to the future."



## **OVERVIEW**

The Carpenters Project is Alterra's 100% owned flagship avocado development project located in Western Australia's southwest, in the premium horticultural corridor between Pemberton and Manjimup – a region highly regarded for its favourable climate, reliable rainfall, excellent Karri-loam soils, and quality water. Alterra considers the site highly suited to avocado production with potential for up to or in excess of 200ha of planted avocado orchard, which once developed will likely be one of Australia's largest contiguous avocado projects in Australia.

The Carpenters site, encompassing a total of 700ha, possesses significant water storage potential including two distinct dam sites, and is held in a 30 + 10 + 10 year lease executed in April 2020 by a wholly owned subsidiary of Alterra.

On 29 July 2021, the Company engaged leading investment management and corporate advisory firm, Pendulum Capital Pty Limited (**Pendulum**) to project manage the planting program for Stage 2 of the Project. On 21 August 2021, the Company announced that the Board and the technical team had worked alongside Pendulum to develop a strategy to optimise development plans for the Project with a strict focus on costs whilst managing site conditions to ensure the long-term performance and sustainability of the Project.

On 31 December 2021 highly experienced agribusiness executive and investor Greg Harvey was appointed Executive Director of the Company and in March 2022 Ben Norrish, who was previously the General Manager of Jasper Farms (AustOn Group, OTTP), Western Australia's largest avocado producer and has extensive expertise and experience in large-scale avocado orchard development and operations in WA, commenced as Chief Operating Officer of the Company.

The revised development strategy for Stage 2 and 3 includes:

- Higher density plantings
- High performance micro-sprinklers in line with industry standards in the district
- Reduced spring 2021 planting to approximately 7ha (circa 5,000 trees) due to heavy rain on site over winter, bringing the total planted area to approximately 12ha
- Enhanced drainage and infrastructure on site to service growth in 2022 and beyond
- Commencing preparations to plant up to 50,000 trees across 85ha in spring 2022.



Alterra Ltd ASX 1AG Page 2 of 9



The Carpenters project will be serviced by a major dam currently under construction (Dam 1). Dam 1 construction continues to advance, albeit progress slowed owing to labour constraints and unseasonably heavy rainfall interrupting the construction schedule in 2021. Construction is funded entirely by the Lessor.

The updated feasibility study modelling underpinning the targeted IRR is based on and fairly represents information and supporting documentation prepared and compiled by the Company in conjunction with Pendulum Capital who has decades of experience in developing and managing large-scale, highly profitable agriculture projects, including greenfield rehabilitation and planting programs.

## **OUTCOMES**

Based on 200ha of planted avocados, at an average yield over the life of model of 15.8t/ha (17.0t/ha at maturity), updated financial feasibility modelling demonstrates Carpenters has the potential to deliver strong financial returns, despite the inflationary pressures experienced within the industry in the current financial year impacting key supplier pricing and thus forecast capital and operating costs in the updated financial feasibility model.

The base case returns a Project IRR of 12.9% and Equity IRR of 14.6% (post-company tax, pre-equity tax) over the life of the Project, with a Project NPV<sub>10.2% nominal</sub> of \$15.5m (post-tax).

**Table 1: Financial Returns** 

	Base Case	Low Case <sup>A</sup>	High Case <sup>B</sup>
Project NPV <sup>C</sup> <sub>10.2% nominal</sub>	\$15.5m	\$1.8m	\$35.4m
Project IRR <sup>D</sup>	12.9%	9.3%	17.7%
Equity IRR <sup>D</sup>	14.6%	10.1%	20.2%
ROE <sup>E</sup>	22.0%	11.8%	44.8%

- A. Low Case = Base Avocado Price -7.5%, Strong irregular fruit bearing (WAV achieved Life of Model A\$4.69/kg real)
- B. High Case = Base Avocado Price +7.5%, Moderate irregular fruit bearing (WAV achieved Life of Model A\$6.07/kg real). Every second tree removed at Tree Age 6
- C. Post-company-tax, measured at 1 April 2022
- D. Life of Model
- E. FY22 FY41, includes negative profit years, contributed capital only (excludes Revaluation Surplus)

The development funding cost through to 2028 is \$34.7m (of which A\$5.0m has been funded to-date), after which the Project generates positive cash flows and becomes financially self-sufficient. This includes A\$22.0m Lessee Capex, \$0.3m of Lessor Capex (total Capex \$22.3m) and \$12.4m net operating and other costs, with a balance of \$29.7m to fund.

Total Capex of \$32.0m is incurred over the life of model - \$22.0m during the development funding period, with the balance of \$10.0m primarily relating to machinery replacement.

Forecast avocado production totals 45,577t over the life of model, with peak annual production of 4,326t. Annual EBITDA reaches \$9.0m at orchard maturity (average of two years) at a margin of 36.5%, while life of model projected EBITDA margin is 37.0%, as displayed in Table 2.

**Table 2: Financial Performance** 

	Life of Model	Annual at maturity (avg over 2yrs)
Revenue	\$283.7m	\$23.2m
EBITDA	\$104.9m	\$9.0m
EBITDA Margin	37.0%	36.5%

Based on forecast operating costs, Carpenters projects as a lowest cost quartile Australian producer<sup>1</sup>. At a long term price of \$4.95/kg, forecast real margins per hectare and per kg at orchard maturity are \$29,771/ha and \$1.64/kg respectively (margin 33% - 36%).

Alterra Ltd ASX 1AG Page 3 of 9

<sup>&</sup>lt;sup>1</sup> Ref: Pinnacle Agribusiness 2016, 'Australian Avocado Industry Benchmarking Program', Hort Innovation, [with benchmark top 12% tier costs \$15.34/tray indexed at 3.0% p.a. for seven years since 2015 data collection = \$17.62/tray [\$3.20/kg]. Average = \$3.73/kg).



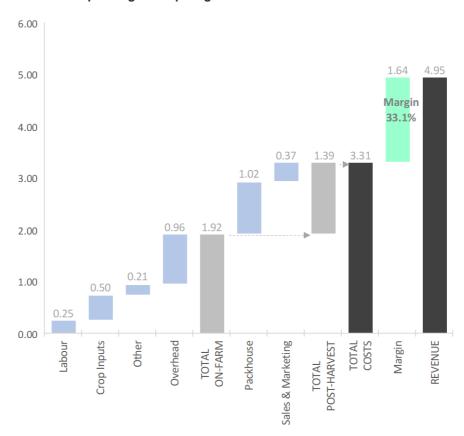
Post-harvest costs, including packing, transport, sales and marketing, are a significant expense, accounting for 44.1% of total costs (refer Table 3 and Figure 1).

Table 3: Benchmarking Costs of Production<sup>A</sup>

	Per Hectare	Per Kg
Revenue	\$82,089	\$4.95
On-Farm Costs	\$29,266	\$1.92
Post-harvest Costs	\$23,052	\$1.39
Total Costs	\$52,318	\$3.31
Margin	\$29,771	\$1.64
Margin %	36.3%	33.1%

A. Expressed as real dollars for purpose of benchmarking. Average of 2 years at maturity.

Figure 1: Carpenters Forecast Operating Costs per kg

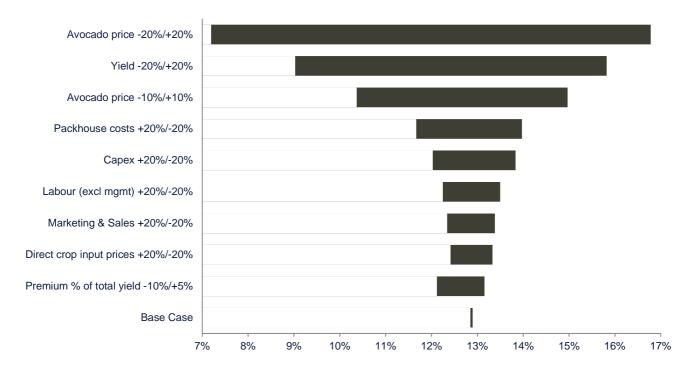


Sensitivity analysis indicates that the Project is robust to movements in key economic drivers. Avocado price and yield (t/ha) are the only drivers that cause a significant shift to the Project IRR given a 20% decrease to the underlying assumption. A Project IRR of 10% or greater is maintained under all sensitivity scenarios, with the exception of a 20% reduction to the avocado price or yield (refer Figure 2).

Alterra Ltd ASX 1AG Page 4 of 9



Figure 2: Base Case Feasibility Model Sensitivity Analysis – Project IRR



## PARAMETERS AND ASSUMPTIONS

Some key parameters have changed since the Initial Feasibility, as summarised in the table below:

**Table 4: Key Parameters** 

Assumption	Initial Feasibility	Updated Feasibility Modelling
Planting Schedule	Stage 1 (2020): 5ha Stage 2 (2021): 52ha Stage 3 (2022): 160ha Stage 4 (2023): 83ha	Stage 1 (2020): 5ha Stage 2 (2021): 7.5ha Stage 3 (commencing 2022): 85ha Stage 4 (commencing 2024): 102.5ha
	TOTAL 300ha	TOTAL 200ha
Planting Density	Stage 1: 500 trees/ha Stage 2 - 4: 476 trees/ha (7m x 3m)	Stage 1: 500 trees/ha Stage 2: 714 trees/ha (7m x 2m) Stages 3 - 4: 555 trees/ha (9m x 2m)
	Removal of every second tree to occur at tree age 6	Removal of every second tree to occur at tree age 5
Irrigation System	All Stages: Drip	Stage 1: Drip Stage 2 - 4: Sprinkler
Primary Water Source	Short-term: Dam 2 (37ML capacity) Long-term: Dam 1 (4.1GL capacity)	Short-term: Dam 2 (37ML capacity) & pumping from Lessor's adjacent property Long-term: Dam 1 (up to 3.0GL capacity) & Dam 2 (up to 1.0GL capacity)

As announced on 20 August 2021, the Stage 2 (2021) planting size was revised due to unfavourable site conditions making completion of land preparation tasks ahead of the planting date very challenging. Total hectares planted has also since been revised following careful consideration of site conditions across the Carpenters property.

Planting density and irrigation system design have also been optimised following extensive consultation with experienced avocado growers in the region and having consideration of the prior experience of Mr Norrish.

Alterra Ltd ASX 1AG Page 5 of 9



Stage 3 planting is scheduled to commence in 2022 subject to the finalisation of funding and the Stage 4 planting is planned for 2024 subject to a final investment decision that will be made post-conclusion of the Stage 3 planting, informed by market and site conditions at the time, which are continually being re-assessed.

Key assumptions underpinning the feasibility model are as follows.

Table 5: Key Assumptions:

Assumption	Updated Feasibility Modelling <sup>A</sup>
Long Term Avocado Price (from April 2026)	\$4.95/kg WAV
First Yield	Summer 2023/2024 (Stage 1)
Yield	Average all production years: 15.8t/ha (17.0t/ha avg at peak)
Packout Grade (at orchard maturity)	86.6% premium grade (includes premium bulk)
Capex	Lessee Capex: A\$30.9m / Lessor Capex <sup>B</sup> : \$1.2m Total: \$32.0m
Key Opex (at orchard maturity)	
Labour	\$3,985/ha
Crop Inputs	\$7,620/ha
Packing/Sales/Marketing	\$1.39/kg
Model Cessation	March 2041 quarter (18 crops for Stage 1)
Discount Rate (post-tax, nominal)	10.2%
Inflation	2.0%
Tax Rate	25%
Terminal Multiple	10.0 x EBITDA

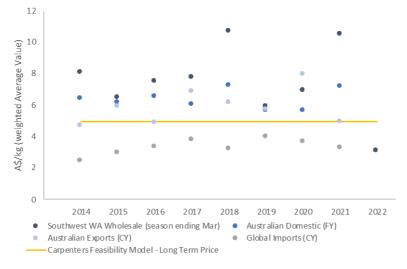
A. Costs and revenues expressed in real dollars for ease of benchmarking. Feasibility Model expresses nominal values.

# **Long Term Avocado Price**

The base case feasibility model assumes a long term weighted average value avocado price of \$4.95/kg<sub>real</sub> from June 2026 quarter for the remainder of the model life for the October – February marketing window that Pemberton-Manjimup producers supply into. This coincides with a period of historically lower national supply (on average), owing to the seasonal nature of harvesting throughout Australia, and increased national demand around summer.

The long term price adopted of \$4.95/kg is at the very lower end of the range of average annual prices recorded since 2014 for (i) local regional wholesale (with the exception of the 2021-22 season) (ii) national wholesale, and (iii) Australian exporters. This sits above the range of annual global import prices, reflecting the premium that Australian fruit typically attracts on international markets<sup>2</sup>.

Figure 3: Annual Avocado Prices 2014 - 2022 (A\$)3



<sup>^</sup>Premium price converted to WAV (Weighted Average Value) using a factor of 0.95x.

Alterra Ltd ASX 1AG Page 6 of 9

B. Lessor Capex to be initially funded by Lessee by way of an interest-bearing loan to Lessor, offset against a portion of future rent

 $<sup>^{2}\,</sup>$  Ref: ITC Trade Map, www.trademap.org, (accessed 2 May 2022)

<sup>&</sup>lt;sup>3</sup> Ref: ITC Trade Map, MarketWest, Avocados Australia, Confidential Industry Data



## Yield

The base case feasibility model adopts an average yield at orchard maturity (from c.tree age 8) of 17.0t/ha, and an average over the life of model of 15.8t/ha. This is consistent with yields achieved over an extended period by Alterra's local partner in the region. First yield is forecast for Tree Age 3 (three years post-planting).

According to the avocado industry representative body, Avocados Australia, the 7-year regional average yield for Western Australia is 13.7t/ha<sup>4</sup>.

## **Capital Expenditure**

A total of \$32.0m capex is forecast to be incurred over the life of the Project. This includes \$1.2m of 'Lessor Capex', relating primarily to Dam 2 design and construction, which the Lessor is ultimately responsible for and the Company is to fund in the short-term by way of a loan to the Lessor, offset against a portion of future rent.

Plant & Equipment, the Irrigation & Fertigation System, and Tree costs (seed and planting) are the key Capex items, totalling \$11.6m (36%), \$6.2m (19%) and \$3.9m (12%) respectively. Dam 1 construction continues to progress and is funded by the Lessor.

Total Capex (including replacement capex, excluding lessor capex) over the life of the model is forecast to be \$154,300 per hectare. Total Capex to first fruit is forecast to be \$85,200/ha (weighted average Stages 1-4).

Table 6: Capex Breakdown

	Total \$m	\$'000/ha
Plant & Equipment	11.6	57.8
Irrigation & Fertigation System	6.2	31.2
Trees and Planting	3.9	19.4
Buildings	3.3	16.7
Land Preparation	1.2	6.1
Siteworks & Fencing	0.8	3.8
Power	0.7	3.3
Other	3.2	15.9
Sub-total	30.9	154.3
Lessor Capex (dams, clearing) <sup>A</sup>	1.2	5.8
Total Capex	32.0	160.1

A. Lessor Capex to be initially funded by Lessee by way of an interest-bearing loan to Lessor, offset against a portion of future rent

# **Operating Expenditure**

## Crop Inputs

Crop Inputs include fertilisers, fungicides, insecticides, herbicides, plant growth regulator, biologicals, amendments, mulch and compost. Crop Input costs (average of 2 years at maturity) total \$10,800/ha nominal (\$7,620/ha real).

## Packing/Sales/Marketing

Includes costs to pack, transport, and market avocados, plus the HAL industry levy. Packhouse costs total \$1.97/kg (real \$1.39/kg) and sales/marketing is 7.5% of sales revenue (average of 2 years at maturity).

Alterra Ltd ASX 1AG Page 7 of 9

<sup>&</sup>lt;sup>4</sup> Ref: Avocados Australia, '2019 OrchardInfo Report', November 2019



## Labour

Labour includes farm management, farm hands, seasonal casual labour (e.g. planting, pruning, picking), administrative support, and ad-hoc contractors, totalling \$5,640/ha (real \$3,985/ha) (average of 2 years at maturity).

## **FUNDING**

The development of Carpenters is dependent on structuring and securing a funding solution which will maximise the benefits for all stakeholders. The primary aim of the updated feasibility modelling was to demonstrate that the Project has positive economics and strong potential to be a long-life avocado producer of world class potential.

The technical and economic outcomes of the updated feasibility modelling provide a strong platform for the Company to structure and secure a funding solution through one or a combination of sources, including debt and/ or equity markets, Government agencies (including funding/grants) and free cash flow generated by the Project.

Based on the updated feasibility modelling, there are reasonable grounds on which the funding assumptions are based, which include the following:

- 100% ownership;
- Premium avocado growing location;
- Abundant water capture and storage potential;
- Development would be significant to the Southern Forest region of Western Australia (likely to be the largest contiguous avocado orchard);
- · Board and management team have extensive experience in agri-business and marketing; and
- The Company has secured and contributed \$5.0m in equity funding (including c.\$0.7m in R&D funding) to-date for the Project.

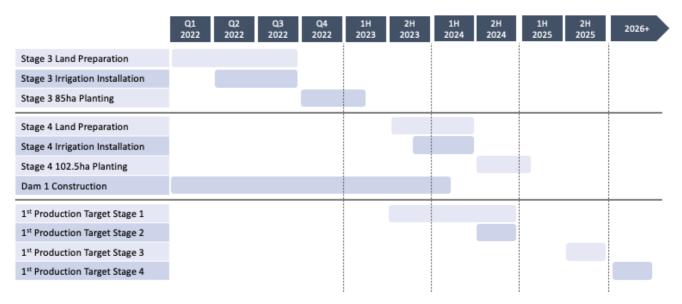
The Company has already had preliminary engagement with various financial institutions, non-bank lenders and government agencies with respect to the potential development at Carpenters and these entities have expressed interest, particularly as the Project establishes a cash flow profile.

Alterra is working towards finalising Stage 3 funding and will continue its endeavours to secure funding for the Stage 4 planting subject to a final investment decision that will be made post-conclusion of the Stage 3 planting, informed by market and site conditions at the time, which are continually being re-assessed. However, there is no certainty that this will eventuate and the Company will be able to secure a funding solution as and when required.

## **INDICATIVE TIMETABLE**

The Company is targeting first commercial production in 2H23. The indicative development timetable from land preparation to production is set out below:

Figure 4: Development Timeline



Alterra Ltd ASX 1AG Page 8 of 9



## **CONCLUSION AND NEXT STEPS**

The Updated Feasibility Study provides strengthened expectation that the Carpenters Project will be commercially viable.

The Company has advanced the Stage 3 land preparation works preceding the planting with the installation of the Irrigation and Fertigation System whilst Dam 1 construction continues and funding is finalised.

This announcement has been authorised by the Board of Directors of Alterra.

- FNDS -

## **Further information:**

Greg Harvey, Executive Director

**P:** (+61) 08 9204 8400 **E:** gharvey@alterra.com.au



#### **About Alterra Limited**

Alterra is developer of the Carpenters avocado project located between Manjimup and Pemberton in Western Australia's south-west.

Stage 2 (2021) (7ha) is complete following an initial Stage 1 (5ha) planting in 2020. The Company has optimised the development schedule for Carpenters with the planting of Stage 3 (85ha) due to commence in 2022.

Alterra is also a 15% shareholder in Carbon Conscious Investments Limited, which manages large scale projects registered with the Clean Energy regulator that generate Australian Carbon Credit Units.

Alterra continues to assess horticultural opportunities fitting within strategy.

Visit alterra.com.au for more information.

# **Forward Looking Statements**

This announcement contains forward-looking statements that involve risk and uncertainties. Indications of, and guidelines or outlook on, financial position and returns, performance, targets, timelines, estimates and assumptions in respect of production, prices, operating and other costs, capital expenditures and development timelines are forward looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as at the date of this announcement are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed or anticipated in these statements.

Alterra Ltd ASX 1AG Page 9 of 9