March 2023

Climate Change Office
Renewables, Climate and Future Industries Tasmania
Department of State Growth
Via email: climatechange@recfit.tas.gov.au

RE: Tasmania's Draft Climate Change Action Plan 2023-25 - Public Consultation

Wine Tasmania welcomes the opportunity to provide input to the Tasmania's Draft Climate Change Action Plan 2023-25, following its 2021 submission to the Tasmanian Climate Change Act. Complementary submissions to the Draft Waste & Resource Strategy and Container Refund Scheme consultation are also referenced as relevant.

The Tasmanian wine sector is significantly impacted by a changing climate and is actively engaged in sustainability and emissions reduction initiatives, including through the sector's tailored environmental framework, the VinØ Program ("vin zero").

Summary of recommendations:

- ***Support and continue to invest in sector-specific sustainability and research projects to support climate change knowledge and adaption, including to benchmark, reduce and offset carbon emissions.***
- ***Support the development of a wine sector specific Emissions Reduction and Resilience Plan.***
- ***Support development of business case calculators to help with carbon reduction investment choices.***
- ***Invest in Tasmanian grown second generation biofuels, specifically biodiesel.***
- ***Improve promotion of existing programs such as Power$mart, the Business Resource Efficiency Program and On-Farm Energy Audit and Capital Grant Program to wine sector businesses.***
- ***Support future climate adaptation and resilience projects relevant to the Tasmanian wine sector, guided by the Tasmanian Wine RD&E Strategy.***
- ***Support for a smoke sensor trial across the Tasmanian landscape to help measure and understand the impacts of smoke on vineyards and inform management decisions.***
- ***Continue the Fuel Reduction Program to reduce major bushfire risks, with fires occurring in spring wherever possible and outside the wine grape harvest (autumn) and continued formal consultation with the wine sector to minimise risks to vineyards.***

Tasmanian Wine Sector

The Tasmanian wine sector is in the top ten of all sectors contributing to the state's economy, representing 10% of total employment in the Tasmanian agriculture, forestry and fishing sector in Tasmania (2,063FTEs). It encompasses agriculture (vineyards), manufacturing (wineries), tourism (cellar doors and inbound tourists), trade, brand and regional employment. Its wine production has grown by 70% over the past five years and strong continuing growth is expected.

This strong position has been strategically built over many years, with a clear unified focus on driving a differentiated reputation to other wine regions and ensuring wine markets and values are developed ahead of increases in wine production. This demand-led strategy is the key contributor to the sector's strong position and in contrast to many other wine regions, where the focus is on growing vineyard area and wine supply.

Tasmania has 185 individual licensed wine producers throughout the state, with just over one million dozen bottles of Tasmanian wine produced annually on average, less than 1% of the country's total but more than 4% of its value. The Tasmanian wine sector continues to be an important and growing contributor to trade and the economy, regional employment, tourism and the overall Tasmanian brand.

Climate change and wine

Wine grapes are the "canary in the coal mine" when it comes to a changing climate[1], and the sector is more susceptible to climate change risk than other forms of agriculture. A small temperature increase of just 1.5 degrees significantly changes the growing conditions of a wine region, applying pressure on its traditional wine styles, quality and value. Rising temperatures will also mean some warmer areas in Australia become too hot to grow wine grapes in the future.

A changing climate impacts the Tasmanian wine sector through the following key areas:

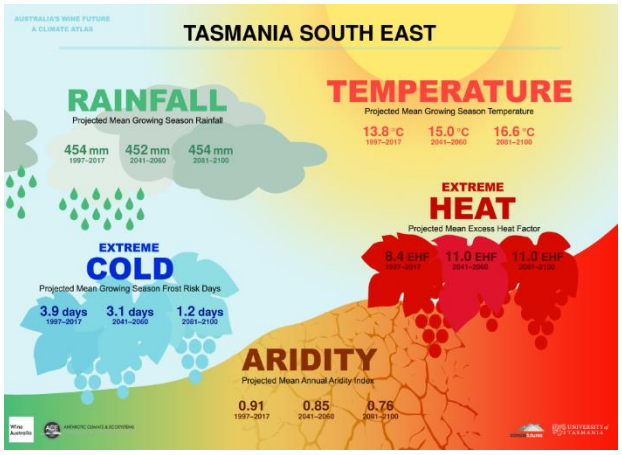
- Increased average temperature, reducing wine quality and changing wine styles;
- Increased extreme temperatures, reducing wine quality and wine grape yields;
- Increased chances of droughts, reducing wine grape yields; and
- Increased frost events, reducing wine grape yields.

Climate is a critical determinant on the quality and style of wine produced from a specific parcel of land. Cooler climates, particularly those located closer to the poles, produce wines that tend to be more refined, elegant and of higher quality and value. This can be seen from the comparison of Growing Season Mean Temperatures of wine regions from around the world below[2]:

Location	**Temperature (°C)**	**Average $/tonne[3]** (where available)
Bushy Park, Tasmania	14.4	$3,237
Reims, France (Champagne)	14.7	~$12,000[4]
Hobart, Tasmania	14.8	$3,237
Blenheim, New Zealand	15.2	$2,365[5]
Dijon, France (Burgundy)	15.4	
Launceston, Tasmania	15.5	$3,237
Yarra Valley, Vic	15.9	$2,471
Coonawarra, SA	16.5	$1,145
Margaret River, WA	17.6	$1,526
Clare, SA	18.4	$1,633
Lisbon, Portugal	19.6	
Berri, SA	20.1	$391
Mildura, Vic	20.3	$427
Griffith, NSW	20.8	$396

[1] *'Wine is like the canary in the coal mine' for climate change - www.smh.com.au/world/europe/wine-is-like-the-canary-in-the-coal-mine-for-climate-change-20200129-p53vrm.html*
[2] *Viticulture and Environment, John Gladstones, 1992*
[3] *Wine Australia's 2022 vintage report - www.wineaustralia.com/market-insights/national-vintage-report*
[4] *https://pepites-en-champagne.fr/en/blog/post/shipment-figures-and-price-per-kilogram-of-grapes-at-the-rise-for-2022*
[5] *Vineyard Monitoring Report Marlborough 2022: www.mpi.govt.nz/dmsdocument/54541/direct*

This shift in climate is further described in *Australia's Wine Future: A Climate Atlas*[6], where, for example, Tasmania's south east is modelled to be warmer and drier over the coming years (right).



Based on this modelling, the future Tasmanian wine sector will be in a climate like Coonawarra in South Australia, impacting on its current cool climate advantage.

There is no scientific doubt that the increase in CO_2 emissions has led and will continue to lead to climate change.

As stated in the IPCC Fifth Assessment Report: *"Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems"*[7].

Continuing human-induced carbon emissions present a significant risk to the future viability of the Tasmanian wine sector.

Draft Climate Change Action Plan 2023-25

Wine Tasmania is supportive of the draft Climate Change Action Plan. Below are further responses on behalf of the Tasmanian wine sector to the questions posed.

Vision and goals

The goal of reducing emissions by 2030 is an admirable vision. Maintaining net zero emissions (or lower) is not only important for Tasmania overall but is also critical in limiting the effects of a changing climate on the important and growing wine sector. It should be noted that the agricultural-themed goal of "improving the management of landscapes" has limited relevance to viticulture, due to minimal opportunities for carbon farming[8] and for carbon reductions through precision agriculture in viticulture.

The goals of providing up-to-date information, a strong policy framework and resilience practices are all supported.

Priority areas

The three priority areas identified - information and knowledge, transition and innovation, and adaptation and resilience, are appropriate to help Tasmania achieve its 2030 emissions reduction target and its vision for action on climate change.

Information and knowledge

Australia's Wine Future: A Climate Atlas provides valuable fine scale projections for the Tasmanian wine region to assist it prepare and plan for future changes. This project was a result of the Tasmanian Climate Futures project, and modelling has now been embedded into the LISTMap to show winegrape suitability, now and into the future, across the island.

The Tasmanian wine sector has recently completed carbon emissions benchmarking. Whilst figures across individual wine businesses vary, the Tasmanian wine sector is significantly less carbon-intensive than Australian wine sector averages.

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[6] *Australia's Wine Future: A Climate Atlas* - www.wineaustralia.com/climate-atlas
[7] *IPCC Fifth Assessment Report, 2014* - www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf
[8] *What are the realistic expectations for making money out of carbon credits in vineyards?* www.awri.com.au/wp-content/uploads/2021/09/SoilCinvineyards.pdf

There is a great opportunity for Tasmania to become the first net zero wine region, and this is continuing to be explored. To this end, Wine Tasmania has developed a simplified calculator, enabling wine producers to simply calculate their emissions footprint, benchmark against others in the Tasmanian wine sector, target reductions in key sources and support offset initiatives.

The Tasmanian wine sector has its own tailored sustainability program, VinØ[9], which helps wine businesses measure, monitor and mitigate environmental practices and impacts. This includes a dedicated module on Carbon Emissions in recognition of its importance to Tasmanian wine businesses.

Recommendation:

- ***Support and continue to invest in sector-specific sustainability and research projects to support climate change knowledge and adaption, including to benchmark, reduce and offset carbon emissions.***

Transition and innovation

Wine Tasmania is supportive of proposed Emissions Reduction and Resilience Plans (ERRP's) for individual sectors, noting that there would be benefit in further segmenting agricultural plans. Given the diversity of emission profiles and management, as well as the significant impact of a changing climate on viticulture, Wine Tasmania proposes a wine specific ERRP. With Wine Tasmania's input and relevant progress to date, this could be delivered by the end of 2023 and could be fed into the Agriculture ERRP in late 2024.

The Tasmanian wine sector is also focused on waste management and reduction, as highlighted through Wine Tasmania's recent submission to the Draft Waste & Resource Strategy, including through composting, water conservation, reuse and reducing waste.

When it comes to specific investment in transition and innovative technologies, wineries[10] and vineyards[11] already invest in solar power to reduce both electricity costs and carbon emissions. Efficiencies are also being gained through initiatives such as variable speed drives on irrigation pumps, floatation settling in wineries, or electrification of suitable vehicles. Due to limited commercial progress in vineyard technologies, electrification of tractors and heavy machinery is not yet progressing.

Business case calculators are becoming more and more important for individual businesses when deciding on new capital investment to reduce carbon emissions. There is an opportunity for the Tasmanian Government to invest in business case information and calculators in addition to the Power$mart Businesses program, the Business Resource Efficiency Program and the On-Farm Energy Audit and Capital Grant Program.

Second generation Biodiesel production from existing wood waste is encouraged as a priority in the yet to be released Bioenergy Vision for Tasmania[12]. Tasmanian grown and produced biodiesel is a simple and effective carbon reduction initiative, driving growth in the forestry sector, utilising a waste stream, and fuelling existing tractor and transport fleets with renewable fuels[13]. Vineyard-suitable electric or hydrogen fuelled tractors do not currently exist and are years away from commercial implementation.

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[9] *VinØ program: https://winetasmania.com.au/vin%C3%B8-looking-after-the-land*
[10] *Moores Hill: www.mooreshill.com.au/how-renewable-energy-changed-our-business/*
[11] *Ossa: https://ossa.wine/our-founders/*
[12] *Draft Bioenergy Vision For Tasmania: https://recfit.tas.gov.au/__data/assets/pdf_file/0014/321503/Draft_Bioenergy_Vision_for_Tasmania_December_2021.pdf*
[13] *Australia's Bioenergy Roadmap Report: https://arena.gov.au/knowledge-bank/australias-bioenergy-roadmap-report/*

Recommendations:

- ***Support the development of a wine sector specific ERRP.***
- ***Support development of business case calculators to help with carbon reduction investment choices.***
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Adaptation and resilience

A particular risk for the Tasmanian community and the wine sector is the increased prevalence and intensity of bushfires in the future. For the wine sector, smoke is a major threat to production - grapevines that are exposed to smoke can be at risk of producing a wine that is affected by smoke taint and is unpalatable and therefore unsaleable.

The Tasmanian wine sector is focused on minimising, managing and preventing risks presented by smoke. Smoke from any fire (bushfire, fuel reduction, regeneration or fire on private properties) can present a risk, with bushfires being the greatest risk. There have been cases of smoke tainted wine from major bushfires in 2019, 2016 and 2013. The Tasmanian wine sector is supportive of the Tasmanian Government's formal Fuel Reduction Program (FRP) to reduce the risk of and severity of major bushfires. The FRP has an Engagement Agreement with the wine sector and is proactive in discussions and consultation with the wine sector.

Private landholders who are undertaking fuel reduction, agricultural or waste burns on their property have no requirement to consult with or minimise the impact on neighbouring vineyards of smoke from fires they have lit on their land.

In terms of managing and mitigating risks presented by smoke, the Tasmanian wine sector is delivering the following, some of which has support from the Tasmanian Government:

- Tasmanian Wine Grape Testing Rebate Program, providing small-scale grants of up to $1,000 per business to offset costs of smoke taint testing for vineyards exposed to bushfire smoke.
- "Beating smoke taint with sparkling wine" research project by the Tasmanian Institute of Agriculture, funded through the Tasmanian Government's Agricultural Innovation Fund.
- Identification of key research, development and extension priorities, including adaption to a changing climate through the Tasmanian Wine RD&E Strategy[14].
- Formal Engagement Agreement with the State Government Fuel Reduction Program Partners, together with regular communications and joint events.
- Regular communication with the Tasmanian Fire Service regarding fires on private land, the permit approval process and wine sector engagement.
- Growing broader community awareness of the risk smoke can pose to vineyards.

Wine Tasmania has also collaborated with the TasFarm Innovation Hub on its Irrigation Field Day in January 2023, providing information on managing drought, water, irrigation, innovative technologies and resilience in a changing climate.

[14] *Tasmanian Wine RD&E Strategy: https://winetasmania.com.au/who-we-are-and-what-we-do#:~:text=Wine%20Tasmania%20has%20also%20released*

Recommendations:

- ***Support future climate adaptation and resilience projects relevant to the Tasmanian wine sector, guided by the Tasmanian Wine RD&E Strategy.***
- ***Support for a smoke sensor trial across the Tasmanian landscape to help measure and understand the impacts of smoke on vineyards and inform management decisions.***
- ***Continue the Fuel Reduction Program to reduce major bushfire risks, with fires occurring in spring wherever possible and outside the wine grape harvest (autumn) and continued formal consultation with the wine sector to minimise risks to vineyards.***

Final Comments

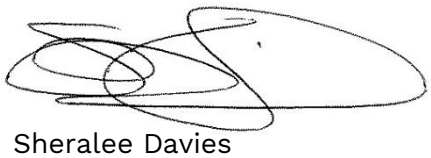
The Tasmanian wine sector encourages the Tasmanian Government's leadership on climate preparedness, adaption and practices, with a particular focus on agriculture and ensuring its future sustainability. Given the significant impact of a changing climate on the Tasmanian wine sector, it understands the need to measure, manage and mitigate its own emissions and Wine Tasmania would welcome further targeted discussions with the Tasmanian Government and Renewables, Climate and Future Industries Tasmania on behalf of the sector.

Wine Tasmania

Wine Tasmania is the peak body representing Tasmania's wine producers, with a focus on promoting Tasmania as a cool wine region like no other on the planet, with demand for its wines continuing to exceed production. Wine Tasmania voluntary membership represents more than 98% of Tasmanian wine production, with 125 state-wide producer members and 38 associated member businesses. All activities undertaken by the industry body are designed to generate value for our members in line with Wine Tasmania's Strategy.

Please contact me if you would like to discuss any further details.

Yours sincerely,



Sheralee Davies
Chief Executive Officer

Supporting material:

- *Wine Tasmania submission to the Tasmanian Climate Change Act*
- *Wine Tasmania submission to the Draft Waste & Resource Strategy*
- *Wine Tasmania submission to the Container Refund Scheme discussion paper*