

COONAWARRA \

INNOVATION INFORMATION PACK

Wednesday 16 January 2019

COONAWARRA \ INNOVATION

Presented by
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1. Background

Over the last three years, Coonawarra's Viticulture & Oenology Committee (VOC) has been striving to undertake projects in the region that reflect the needs of our industry.

Some of the priority issues facing Coonawarra for the immediate future include operating effectively in a changing climate, water, vineyard longevity, rootstock/ clonal information, optimizing wine quality and environmental credentials, to name a few.

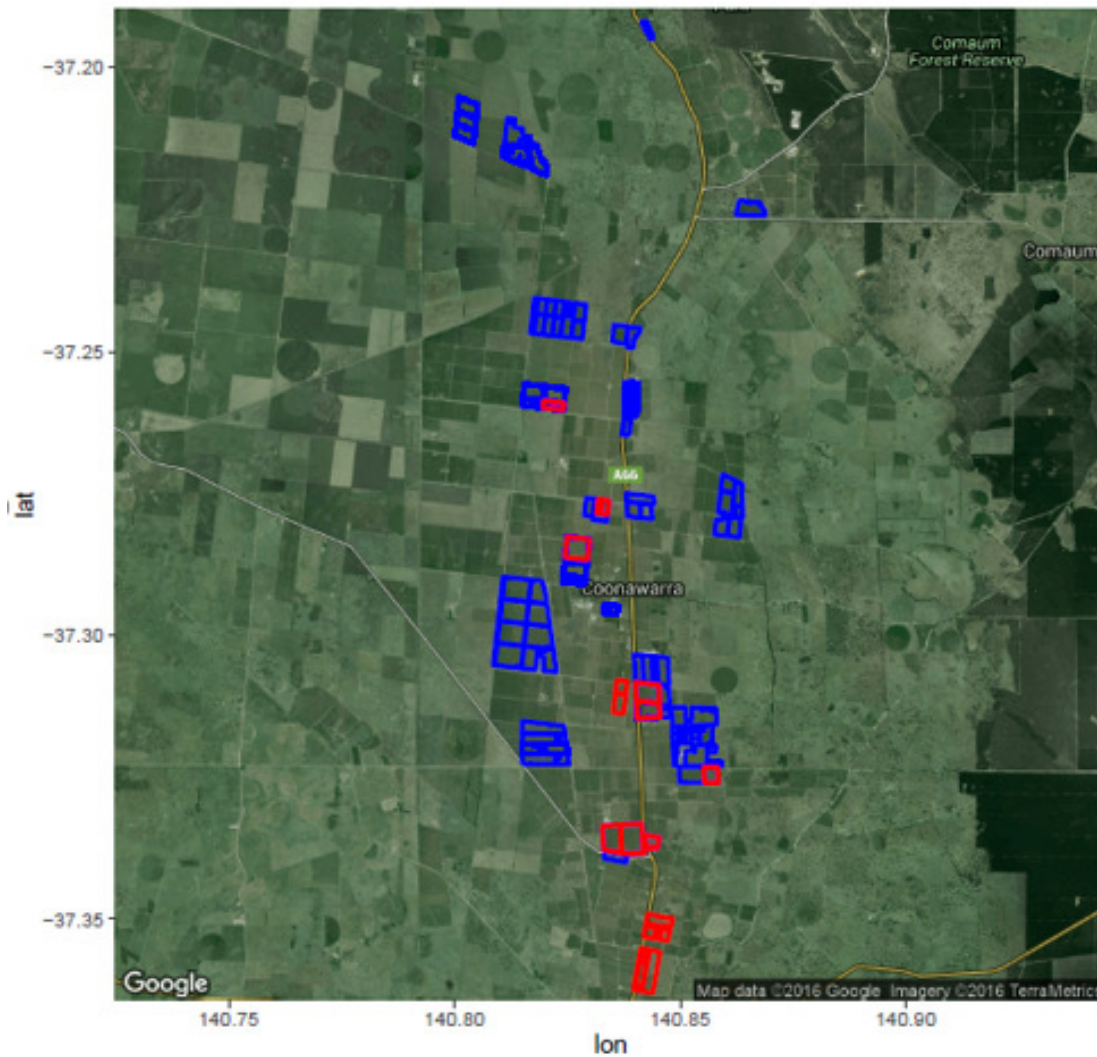
Based on these issues, the VOC has set about trying to address these focus points through a series of projects, partnering with local businesses, Limestone Coast Grape and Wine Council (LCGWC), The University of Adelaide (UoA), CSU, South East Natural Resource Management (SENRM) and Primary Industries Resources South Australia (PIRSA). Although the VOC is a small volunteer subcommittee, who meet bi monthly to discuss the issues relevant to our wine industry, a key success of this committee is the ability to collaborate, to return results that matter to our region. We will always welcome new partnerships and new committee members.

2. Purpose of forum

The purpose of convening this forum is to provide a briefing on the progress of the following projects demonstrating the innovation occurring in Coonawarra.

1. Irrigation Optimisation Project;
2. Rootstock Trial Project;
3. Berry shrivel in Cabernet Sauvignon Project;
4. Biodiversity Improvement Project; and
5. Cabernet Sauvignon Characteristics Project.

2.1 Project Locations



2.2 Project Progress

1. Irrigation Optimisation Project

- Project start: 2015 - 2024
- Partnerships: SENRM, PIRSA, University of Adelaide (Wine Australia)
- Project Cost: VOC contribution of \$10,000pa and in kind Wynns Coonawarra Estate and Katnook Estate resourcing and site usage.
- Overview of project: The investigation into remote sensing technologies to accurately detect water stress within vineyards to aid in optimal irrigation scheduling.
- Project targets:
 - Validate the performance of thermal imaging to provide regional-scale vine water status, and to inform irrigation scheduling and irrigation efficiencies.
 - Compare thermal water stress indices, CWSI and I_g , with traditional vine water status metric, g_s and Ψ_s .
 - Determine whether the cultivars, Shiraz and Cabernet Sauvignon, can be discriminated based on remotely-sensed thermal indices of water stress.
- Progress Update: Yellow paper is being finalised and Wine Australia is continuing to fund the Project.



Source: Cath Kidman

2. Rootstock Trial Project

- Project start: 2009 & ongoing
- Project cost: \$36,348 with VOC contribution of \$9,000 (sources EDG & Vine Health Australia) with in kind Wynns Coonawarra Estate trial site and resource assistance.
- Partnerships: VHA, LSCGWC, CSU, Endeavor Wine group.
- Overview of the project: Compare performance of low-mod vigour rootstocks on principle soil type, 'Terra Rossa' and scion variety for Coonawarra - Cabernet Sauvignon.
- Project Targets:
 - Enhance awareness of ability of rootstocks to reflect desired quality and style of the region compared to own roots.
 - Assist growers in choosing rootstocks.
 - This is the only rootstock trial in South Australia and knowledge will be available across Australia.
- Progress Update:
 - This trial was designed so that wines could be made from each rootstock to provide real information about the effects of rootstock on wine attributes. 2017 (rain), 2018 (frost) did not provide grapes for winemaking, currently we are on target to make wines from 2019.



3. Berry Shivel in Cabernet Sauvignon Project

- Project start: 2018 – ongoing.
- Project cost: VOC contribution of \$5,000.
- Partnerships: LCGWC, University of Adelaide
- Overview of the project: The investigation of berry shivel in Cabernet Sauvignon is looking at what impacts canopy management practices and row orientation have on the disorder.
 - Initiated in 2018 this Wine Australia incubator project was presented to the 2018 Cabernet Symposium held in Coonawarra where many growers expressed a need for this work to continue.
 - The causes of shivel are not fully understood, shivel effects grape growers by reducing yield and can impact quality especially as wineries are targeting fresher styles for their wines.



By 2030 harvest date of Cabernet Sauvignon may be:
(c.f. 1961-1990 baseline)

15 to 23 days earlier in Coonawarra

6 to 13 days earlier in the Riverland

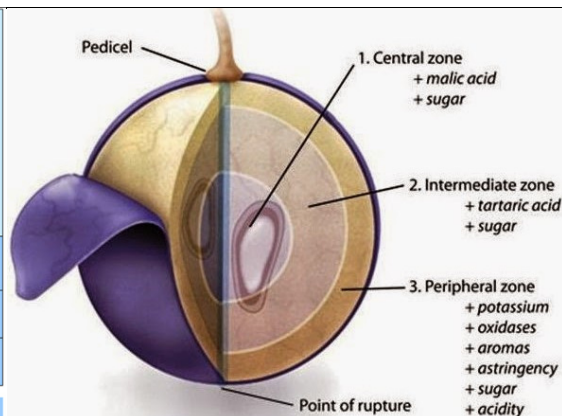
10 days earlier to 4 days later in Margaret River

Model used: VineLOGIC Vineyard performance simulator (CRC Viticulture)

Source: Left to Right

Vinay Pagay &

<http://urbinavinos.blogspot.com.au/2014/12/parts-of-grapevine-and-yearly-growth.html>



4. Biodiversity Improvement Project

- Project start: 2019.
- Project cost: TBC – in funding application phase with VOC contribution of \$3,000 pa for 2 years committed to Federal application and further funding sought for SAWIA application.
- Partnerships: SENRM, Retallack Viticulture, potential for SAWIA.
- Overview of the project: Enhancing Ecosystem Services in Coonawarra through the planting of local native plant species which create habitat for predatory insects, reduce reliance on pesticides in vineyards and beautify the region. This project builds on a 2007 University of Adelaide thesis which identified predatory wasp species endemic to Coonawarra and which could be of benefit to the local industry.
- Project Targets
 - Identify impacts to pests Light Brown Apple Moth (LBAM), visually attractive, planting with significance and meaning to environment.
 - Targeting touristic rail corridor - large area (not token gesture).
 - Revegetating the habitat to pre-European species – increasing planting sustainability for long-term.



Source: Rymill Coonawarra

5. Cabernet Sauvignon Characteristics Project

- Project start: 2018.
- Project cost: VOC contribution of \$7,000 over 5 years.
- Partnerships: ARC training centre, University of Adelaide, CSIRO.
- Overview of the project: Characterising the distinct flavours of Cabernet Sauvignon Wine identifying factors in vineyard and winemaking.
- Progress Update:
 - 2016 Vladimir Jiranek of UoA coordinated a regional presentation from PhD students in Coonawarra on the research they had completed. VOC sought for UoA to study how Coonawarra could foster research into a better understanding of how to manipulate Cabernet Sauvignon wine characteristics.
 - Tastings have occurred and will continue to identify the vineyard and winemaking practices that influence the characteristics.



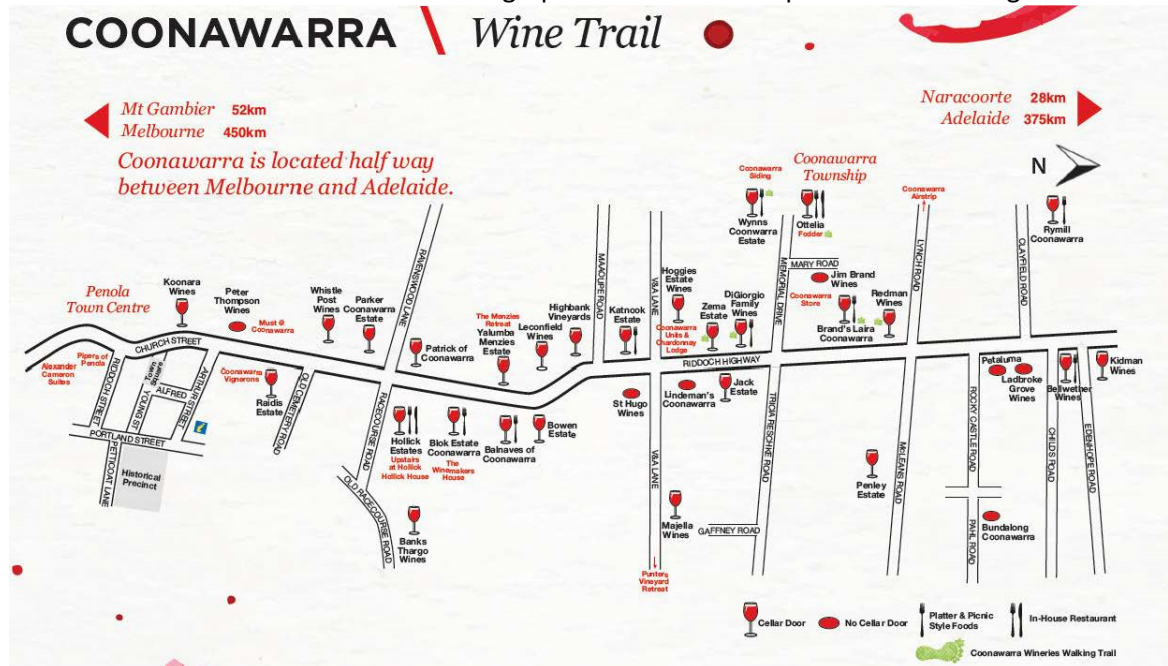
Source: Cath Kidman



Source: Bellwether Wines

3. Future of VOC

- Funding is essential to continue the not for profit work
- Why do we do this?
 - Coonawarra Strip.
 - Maintain and attract demand for the grapes and wine that is produced in the region.



Appendix A – Coonawarra Organisational Structure

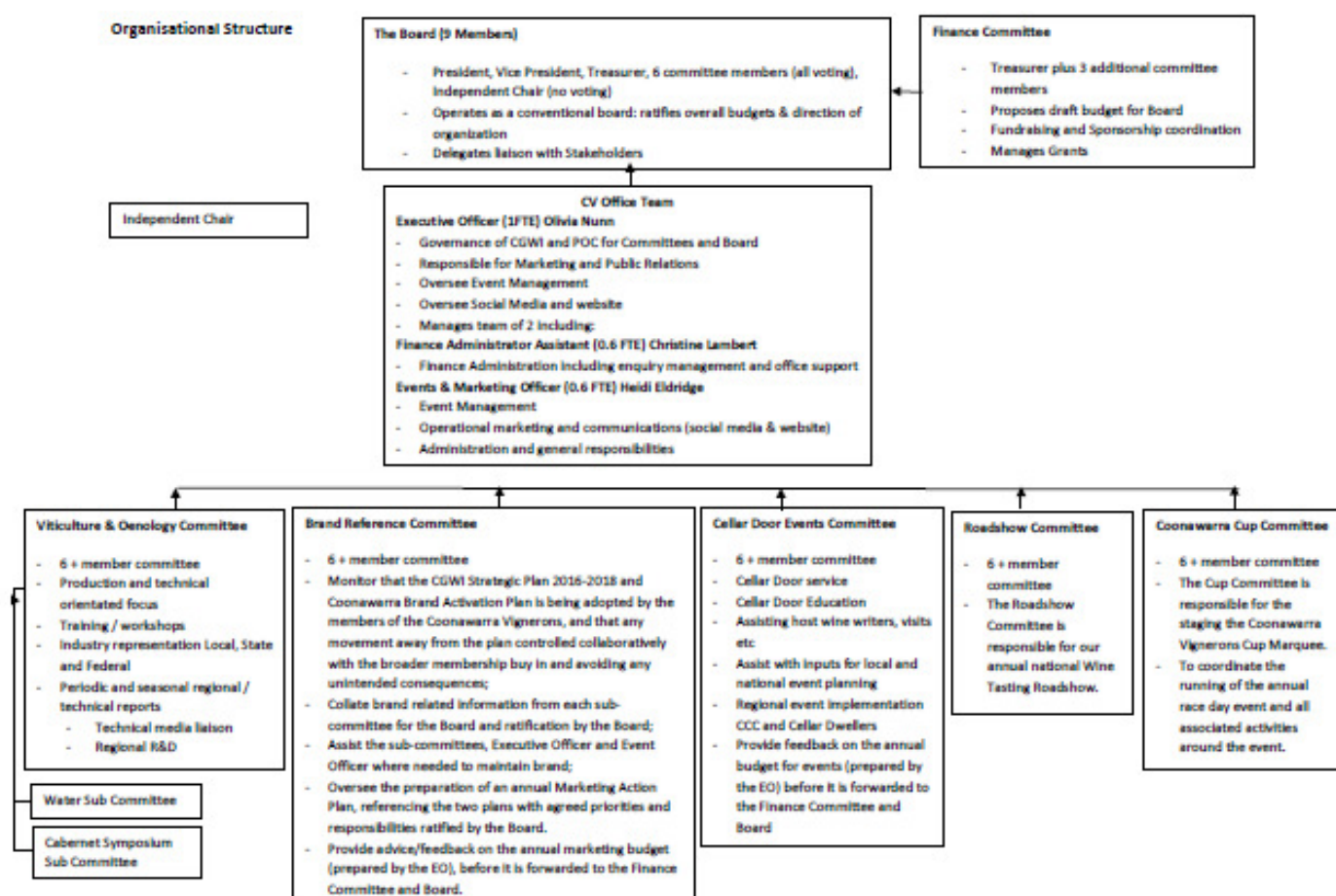
In reference to the Organisational Structure the non-executive Coonawarra Vignerons Board operates as a conventional board, ratifying the overall budgets; direction of the organisation and, managing the staff employed.

The elected, volunteer members of the Board include a: President, Treasurer, Vice President and up to six (6) other voting members, independent chair (currently being sourced) and the Executive Officer who is a salaried staff member who does not have voting power.

The VOC is one of six volunteer committees of Coonawarra Vignerons. Refer to our structure below.

Refer to Appendix B for the Terms of Reference for VOC and the update shared at the October General Meeting.

Refer to the Coonawarra Grape & Wine Incorporated Constitution for further information.



Appendix B – VOC Terms of Reference and October Progress Report

VOC

The VOC assists with the implementation of the approved *CGWI Strategic Plan 2016-2018*.

The VOC is representative of CGWI member companies who pay a base membership fee.

Members

Chris Brodie (Chair), Cath Kidman (Transitioning Chair), Sally MacLeod (Board), Christian Fraser, Luke Trotter, Sean Murphy, Martin Wirper, Gavin Hogg (leave of absence), Rae Clark.

Attending: Kerry DeGaris

Terms of Reference

1. VOC reviews the viticulture and oenology priorities with a focus on production and technical regional requirements.
2. VOC is responsible for assisting with training and workshops.
3. VOC provides industry representation to Local, State and Federal stakeholders.
4. VOC facilitates periodic and seasonal regional and technical reports including technical media liaison and regional R&D.
5. The VOC reports to the Board and provides monthly minutes.

It is noted that VOC has related working groups (water resources, unconventional gas mining, irrigation optimisation project and Cabernet Symposium) with the following terms of reference:

1. Each Sub-committee will facilitate the delivery of a specific project on behalf of the Board or a primary committee.
2. Each Sub-committee will report to the Board or a primary Committee on the progress and completion of the specific project.
3. Each Sub-committee will help facilitate the project to be delivered in a timely and cost-effective manner, as required and according to any contractual agreements.

Achievements & Work In Progress

Achievements	Work In Progress
<ul style="list-style-type: none">• Weather station network and ease of use improved on CV Website.	<ul style="list-style-type: none">• Increasing members' usage
<ul style="list-style-type: none">• Irrigation Optimisation (previously called remote sensing technologies) a project initiated to assess benefits of using aerial imaging to improve water use efficiency and grape quality. Significant assistance from Adelaide University (Vinay Pagay) and Treasury Wine Estates (Cath Kidman). A large amount of data was gained in 2018/19 from the trial based on Wynns vineyard. A paper has been submitted to the Australian Journal of Grape & Wine Research, & reports made to PIRSA and SENRM. Funding has been secured for 4 years, the eventual aim is to produce an app to easily schedule & control irrigation using information from plant based sensors (leaf temp). 2017 results showed significant water savings with no effect on grape quality or yield.	<ul style="list-style-type: none">• In 2018/19 the trial has been expanded to two sites investigating Shiraz and Cabernet across three irrigation treatments and different soils.
<ul style="list-style-type: none">• Coonawarra rootstock trial, in association with LCGWI, Vine Health Australia and Wynns – Due to frost in early Nov 2018 no 2018 wines were made.	<ul style="list-style-type: none">• Plans and funding are in place for 2019 wines.• Future, small lot wines, trials in other, warmer, regions.

Achievements	Work In Progress								
<ul style="list-style-type: none"> Reviewing pest & disease advisory service and propose to have Peter Magarey speak at the next General Meeting if members see value in providing additional guidance with pest management. 	<ul style="list-style-type: none"> Pre-season workshops with Peter Magarey & Geoff Furness, meeting topics to reflect needs of members. <ul style="list-style-type: none"> Reduce applications Improve effectiveness Use weather station network 								
<ul style="list-style-type: none"> Coonawarra Cabernet Project. Post-doctoral study with Australian Research Council, Adelaide University. CGWI funding of \$10,000pa - \$7,000 invoiced in 2018. The aim is to identify distinctive Cabernet characteristics and how to manipulate them in the winery and vineyard. This is a four-year project. The University of Adelaide as appointed Dr Dimitra Capone as the lead researcher. 	<ul style="list-style-type: none"> Wine is being sourced and work is underway. 								
<ul style="list-style-type: none"> Water Allocation Plan (WAP) <ul style="list-style-type: none"> The SENRM / DEWNR has established a reference group to review the science behind the cuts planned in our current water allocation plan. Pete Balnaves is representing Coonawarra. <table border="1"> <tr> <td>Reduction, 30/6/16</td><td>3.75%</td></tr> <tr> <td>Reduction, 30/6/18</td><td>3.75%</td></tr> <tr> <td>Reduction, 30/6/20</td><td>3.75%</td></tr> <tr> <td>Reduction, 30/6/22</td><td>3.75%</td></tr> </table> DEWNR do not identify in the water allocation plan recognising aquifer recovery by reversing cuts. 	Reduction, 30/6/16	3.75%	Reduction, 30/6/18	3.75%	Reduction, 30/6/20	3.75%	Reduction, 30/6/22	3.75%	<ul style="list-style-type: none"> Pete Balnaves is representing Coonawarra.
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Reduction, 30/6/20	3.75%								
Reduction, 30/6/22	3.75%								
<ul style="list-style-type: none"> Grapes for sale register continued to be used in 2018 <ul style="list-style-type: none"> In operation for the last two vintages 	<ul style="list-style-type: none"> Welcome suggestions to improve. 								
<ul style="list-style-type: none"> Unconventional Gas Exploration - Monitoring against the Policy Statement monthly. 	<ul style="list-style-type: none"> Ongoing monitoring. 								
<ul style="list-style-type: none"> Coonawarra Cabernet Symposium – 2018 Committee delivered on 5 July 2018 as per the event page set up with ticketing and pricing hosting 115 and all speakers well received. Next symposium in three years, 2021 https://coonawarra.org/event/coonawarra-cabernet-symposium/ 	<ul style="list-style-type: none"> Encourage members to monitor speakers and recommend a speaker for future reference. 								
<ul style="list-style-type: none"> Vine improvement measures as follows with no further progress since the last meeting: <ul style="list-style-type: none"> Virus monitoring protocol Clones, rootstocks, alternative varieties Alternative varieties workshop, LCGWI – note expecting update from key speaker 	<ul style="list-style-type: none"> Continual progress of the measures. 								
<ul style="list-style-type: none"> Endeavour Drinks are contributing to helping fund the Coonawarra Cabernet trial and the Coonawarra rootstock trial over four years from 2018 to 2021 and support is on track. 	<ul style="list-style-type: none"> Sponsorship model to be advanced. 								
<ul style="list-style-type: none"> Coonawarra improvement projects, continues to be Small projects to improve Coonawarra. Identified 	<ul style="list-style-type: none"> Reviewing funding streams to further explore with Mary. 								

Achievements	Work In Progress
plantings along Riddoch Highway and more recently identified a project to enhance Coonawarra's biodiversity - Mary Retallack gave a presentation at Mildura ASVO seminar about the value of using certain native shrubs & grasses to attract beneficial insects which feed on Light Brown Apple moth & other pests. These areas can also be used as a barrier to deter people wandering through the vineyard.	<ul style="list-style-type: none"> Creating further projects to improve Coonawarra and approaching schools to look at competition for ideas and also look at art projects as part of May festival.
<ul style="list-style-type: none"> Coonawarra Digital Project - CSIRO, Dr Everard Edwards is trialling different technologies to monitor a range of vineyard attributes. 	
<ul style="list-style-type: none"> Disease Control and Monitoring - Peter Magarey gave a presentation on more effective early season control of mildews, the Vignerons have agreed to subscribe to the online service he provides using weather station data to provide mildew alerts. 	<ul style="list-style-type: none"> Improving Mildew controls We are awaiting Peter Magarey's response to the request for the online service utilising the weather stations in region for mildew alerts.
<ul style="list-style-type: none"> Rail & wine trail discussions to advance continue and will work with Wattle Range to look at timing of plans as to consider three tiers of government support. 	<ul style="list-style-type: none"> Olivia to continue to be involved in Rail Trail dialogue.
<ul style="list-style-type: none"> Phylloxera Controls – CV Office assisted with organisation of Tour Operator Training and Refresher for Cellar Doors on 25 and 24 October 2018. Raised the need for border control signage for wider biosecurity and this is being advanced by PIRSA. 	<ul style="list-style-type: none"> Vinehealth's Phylloxera Training Session with Tour Operators and Cellar Doors Reviewing signage progress with Vinehealth next week.
<ul style="list-style-type: none"> Labour attraction - Finding and retaining suitable staff is an issue across the area due to low unemployment and many industries sustaining reasonably buoyant economic conditions. TAFE is working with some high schools closer to Adelaide to encourage more vocational wine industry training which may help encourage & sustain interest in working in the wine industry. 	<ul style="list-style-type: none"> Explore if there is interest in expanding the training to include our region?
<ul style="list-style-type: none"> Community pitstop health check remains on the agenda. 	<ul style="list-style-type: none"> Monitor opportunities.

Budget

- Board approved contribution to disease and control monitoring.
- Key focus on seeking grants to continue and expand on projects in particular enhancing Coonawarra biodiversity.

Key points/actions for Members

- Water Allocation Plan (WAP) update - Further to our May GM, we noted member involvement and awareness is required. The water plan is currently being reviewed with several meetings attended by Pete Balnaves.
- Unconventional Gas Exploration continues to be monitored.
- Identify needs for additional information and workshop topics
- Coonawarra Improvement project ideas and volunteers welcome to action.
- Welcome any new Committee members to join.