Meadow Creek Solar Farm Proposed site

King Valley, North East Victoria

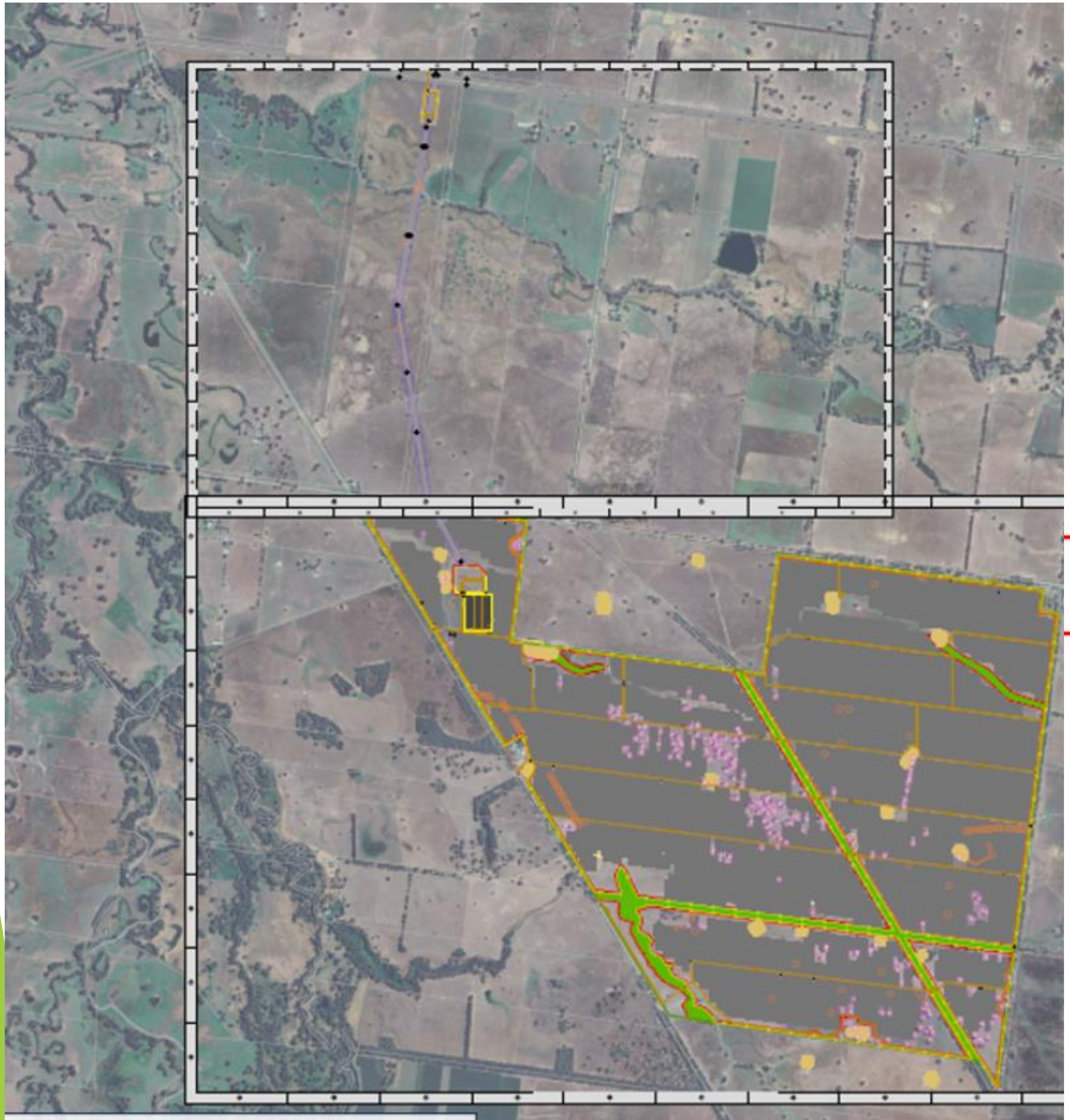
Created by:

Meadow Creek Agricultural Community Action Group

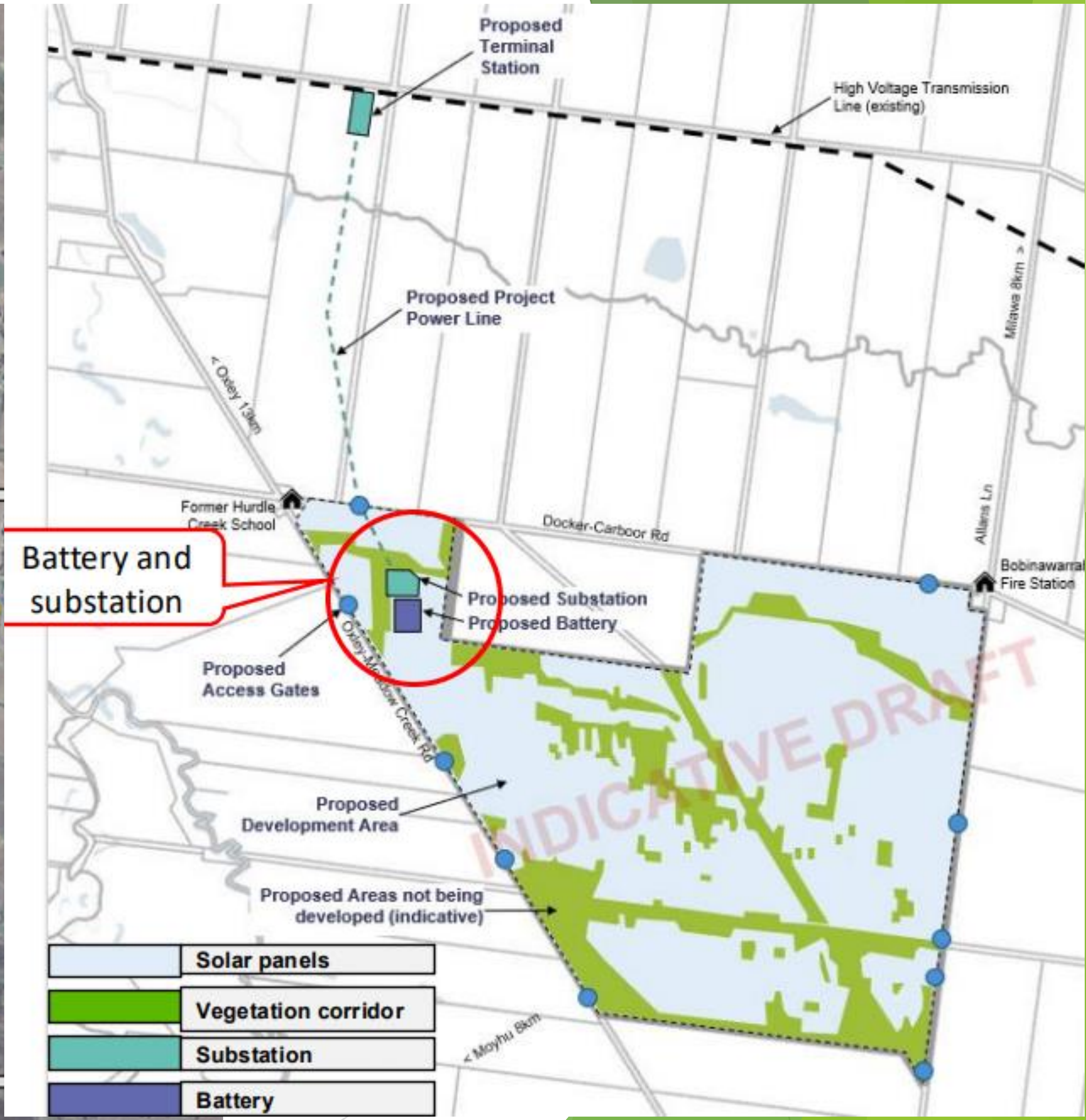
1033 Oxley-Meadow Creek Road, Meadow Creek VIC 3678

Proposed: 1400 acre industrial solar facility (approx. 592,752 solar panels)
1 Gigawatt Hour Battery: 50 x 40 foot containers of lithium-ion battery

Proposed Site



Meadow Creek Solar Farm – site plan (indicative)



DELWP Solar Energy Facilities Design and Development Guidelines

- Identifying suitable locations, page 10
  - A solar energy facility should not lead to:
    1. the loss of productive, state-significant agricultural land
    2. the loss of vegetation, habitat or species of environmental importance
    3. the loss of cultural heritage or landscape values of significance
    4. increased exposure of the area to fire, flood or other natural or environmental hazard
  - A solar facility should be located:
    5. away from the floodplain of a major water course or wetland
    6. where it has ready access to main roads

[Solar energy facilities (planning.vic.gov.au)](planning.vic.gov.au)

Strategic Agricultural Land

- This proposed solar farm is identified as Strategic Agricultural Land
- Refer the Hume regional growth plan which has been adopted in the Wangaratta Planning Scheme and by Victorian State Government
- Australia has 96% non-arable land mass

Strategic agricultural land data

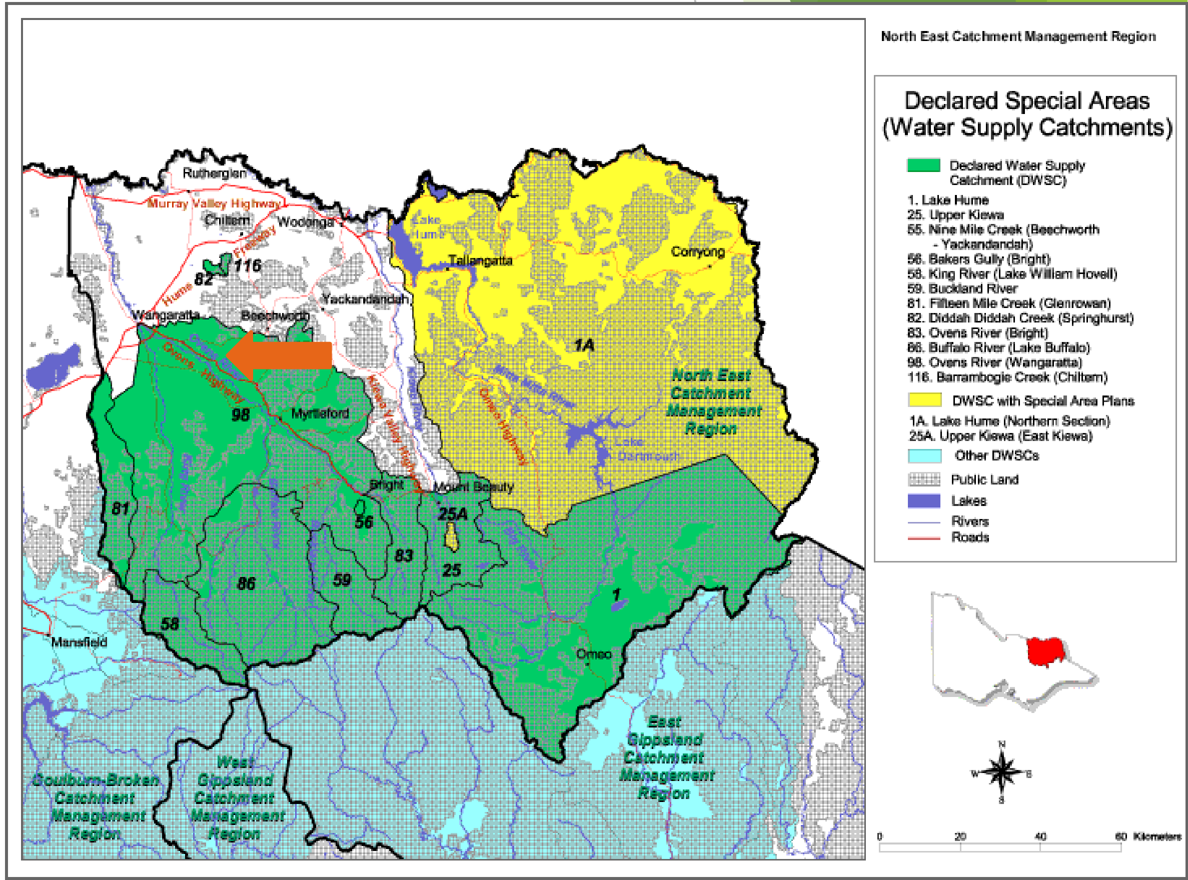
- This farm will produce on average 10 Ton Dry Matter/hectare of highly nutritious stock feed suited to a local dairy farm operation for a lactating dairy cow diet when sown to a fodder crop, without any irrigation requirement
- To calculate the milk production from a fodder crop, a lactating cow on average will produce 1.5Litres of milk per dry matter KG of feed
- Over 1400 acres this equates to 8,490,000 Litres of full cream milk, and on average, Australians consume 92.7Litres per year
- So, this farm produces enough nutritious fodder to provide annual milk supply for 91,585 fellow Australians
- The current use and most common land use in our district is Beef production, as it gets too wet to graze sheep in this region on an average year
- This farm on an average year will produce 400kg/Ha of Beef. This amounts to 226,400kg of premium grass-fed beef at an approximate value of $25/kg. Which is a gross production value of $5,660,000, at retail level

DELWP Guideline: A solar energy facility should be located <u>away</u> from the floodplain of a major water course or wetland

Special Water Supply Catchment Area

- A Special Water Supply Catchment Area means land declared to be a special area and classified as a special water supply catchment area under Division 2 of Part 4 of the Catchment and Land Protection Act 1994.
- Run-off from this farm flows into the Sheep Station Creek, the Hurdle Creek and the King River
- These waterways supply Oxley and Wangaratta's domestic water requirements
- These waterways feed the Ovens River and in turn the Murray River

https://vro.agriculture.vic.gov.au/dpi/vro/neregn.nsf/pages/dwsc-ne



Evidence of Run-off through proposed Meadow Creek Solar Farm

Run-off into King River & Hurdle Creek

Proposed Site

Proposed Site

Evidence of Run-off through proposed Meadow Creek Solar Farm

Run-off via Sheep Station Creek

Bushfire Prone Area

- CFA call outs in our district are common during the summer period
- Local CFA Brigades have received NO training in managing solar farm fires
- An industrial 1400 acre solar facility covered with electrical components will undoubtedly burn, and the fire intensity will be bolstered by the 'heat island effect'
- Without the ability to effectively control weeds and prolific spring growth, the summer fire load will be extreme and when it burns it will be an environmental catastrophe given the proposed location
- There are approximately 800 residential homes within 10km of the proposed solar farm, along with many farm entities
  - Milawa township: 160
  - Oxley township: 232
  - Moyhu township: 110
  - Areas in between: 281
  - Totalling: 783

Proposed Site

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Liability Insurance

- Local farm entities and contractors will not be able to purchase adequate insurance to cover for an estimated $750 million industrial solar facility
- Estimates from insurance brokers for $50 million liability cover will cost neighbours $30,000 per annum
- Although the solar facility is worth $750 million, an insurance above $50 million is not achievable due to our high risk climate
- There are many intensive farming operations neighbouring the proposed site
- Local, Steven Prince from Ovens Valley Insurance Brokers in Myrtleford said:
  - “If the neighbouring property owner is deemed to have caused a fire, say with a grinder, a chainsaw, a slasher or a hot exhaust, and it spread to the solar farm they would be liable for any damage plus any loss of earnings.”
  - “This could equate to hundreds of millions of dollars, and in turn bankruptcy.”
  - “There have already been incidents of solar panels on solar farms causing grassfires so it’s not impossible.”

Lithium-ion Battery

- The Solar Facility is proposing 50 x 40 foot containers of lithium-ion battery
- Capacity of 250mw/500mwh will be one of the largest in Australia
- Lithium-ion batteries can catch alight without warning and are extremely complicated to extinguish
- Lithium-ion battery fires release dangerous toxic fluoride gases, with unknown consequences as the technology is relatively new (refer link)
- Our local CFA Brigade has no training or knowledge regarding lithium-ion battery fires
- Is it responsible to propose such a large toxic battery in a Special Water Catchment Area?

Toxic fluoride gas emissions from lithium-ion battery fires | Scientific Reports (nature.com)

High Value Terrestrial Land

King River

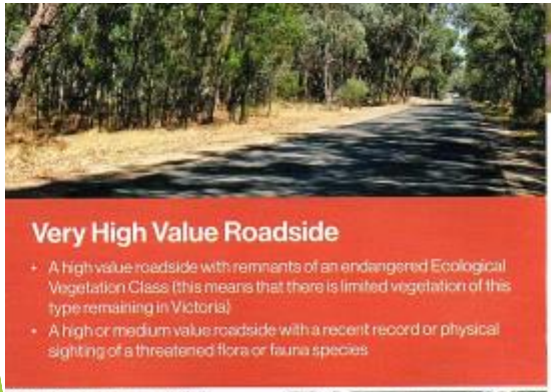
- Potential removal of irreplaceable large old hollow bearing trees which are 100's of years old and the consequent impact on 54 species that are dependent on tree hollows, with some species already categorised as threatened
- These old trees are large carbon stores, and climate modifiers - their removal is counter productive. Solar sites need to be on low productivity agricultural land without loss of large hollow bearing trees
- Endangered Sloane froglet has been found on the proposed site
- Regent honeyeater, goanna, king fisher, wallaby and koala are found in the area along with many other native species
- The 'heat island effect' will have a negative impact on flora and fauna

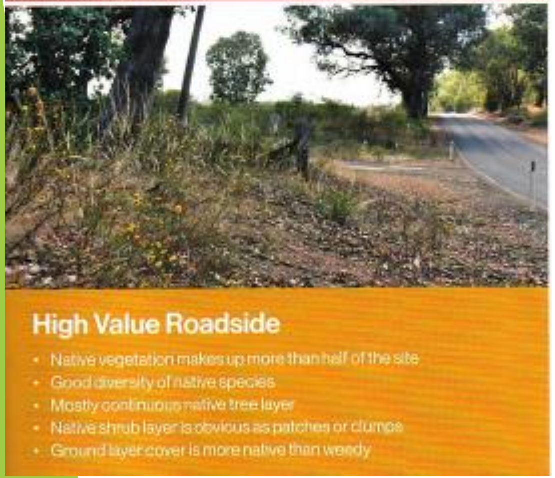
Regent honeyeater

Sloane froglet

Very High Conservation Value Roadside

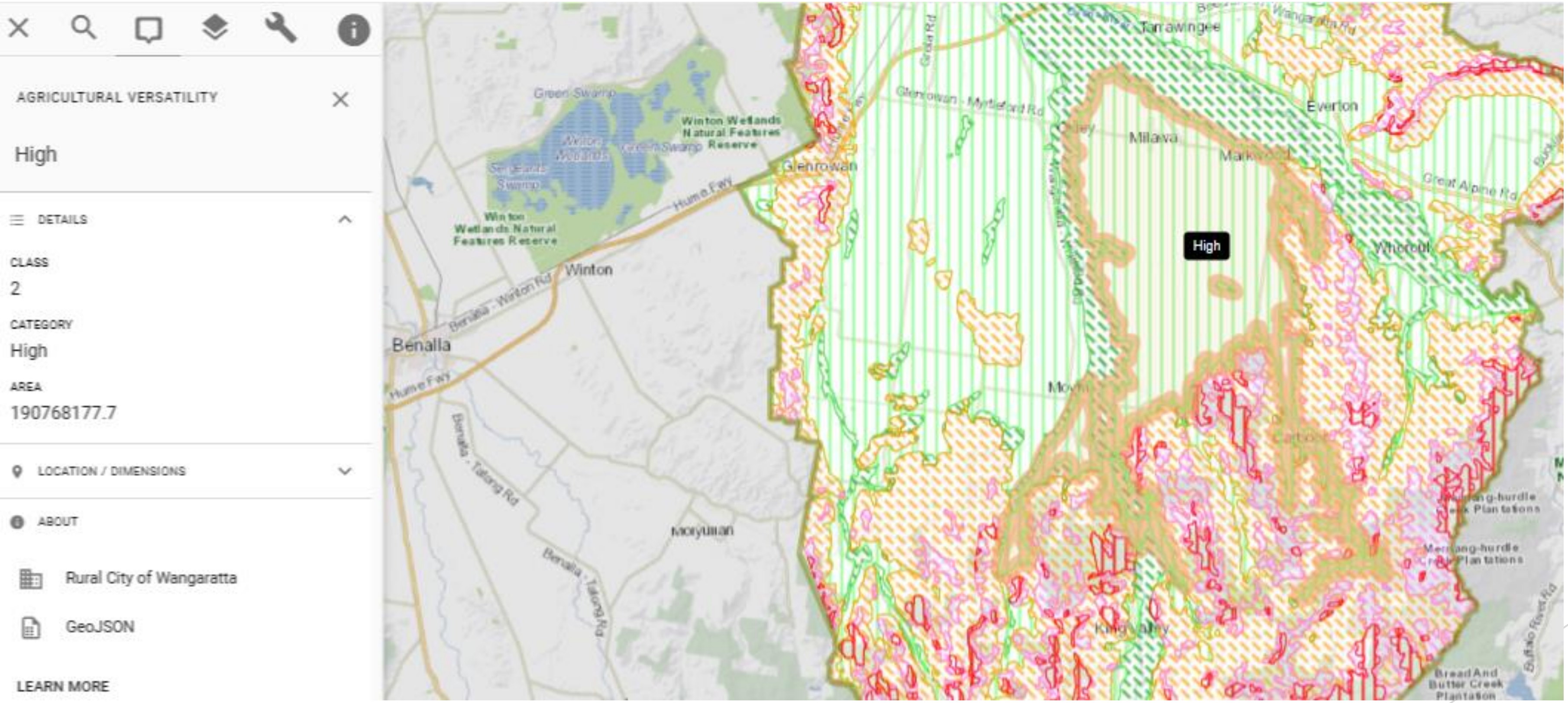
- MCSF has the North and East boundaries of the farm as **Very High Value Roadside** (red)
- There are 2 unused Government roads that run through the farm which are Very High Value Roadside





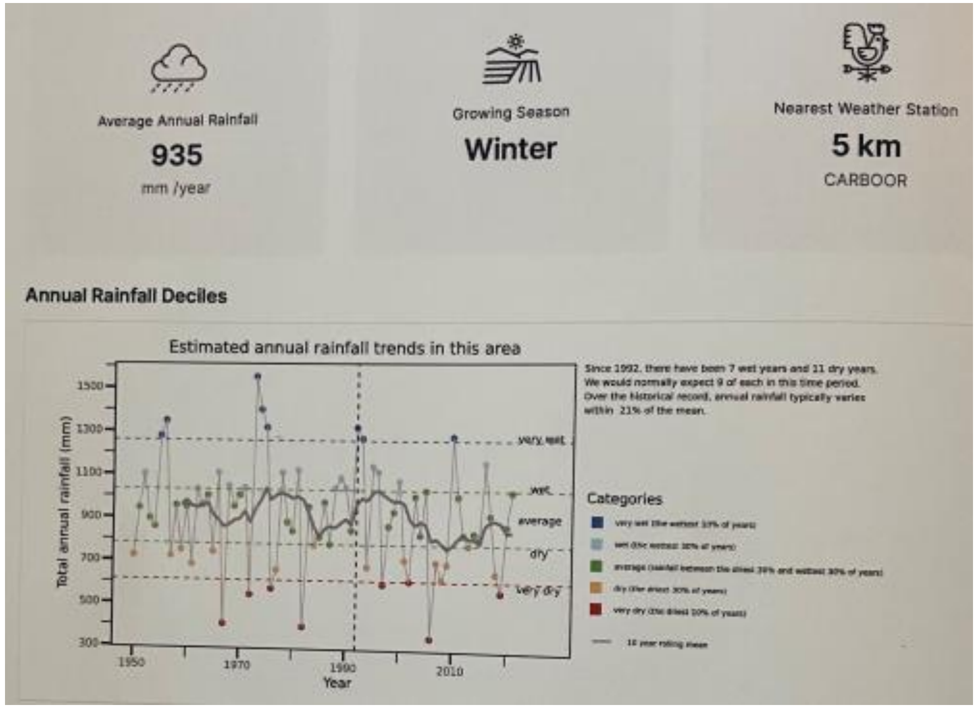
High Agricultural Versatility

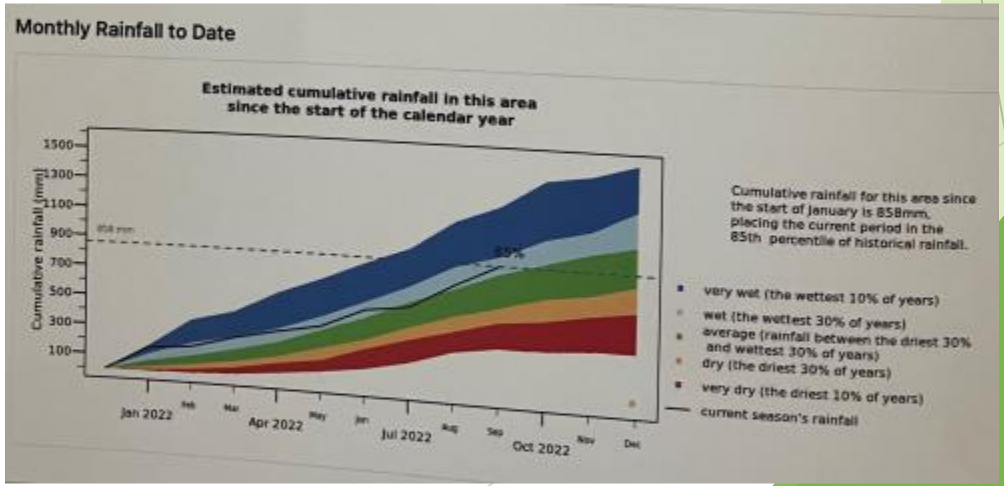
MCSF is classed as High Agricultural Versatility
[Wangaratta Online Mapping (pozi.com)]



BOM Rainfall Data

- Meadow Creek area has a renowned extremely reliable high average rainfall
- The season has never failed to produce a crop on rainfall alone (no irrigation required)
- So when Australia enters its next crippling drought and irrigators have little or no water allocation, our King Valley farms will still have their water entitlement delivered from the sky, in the form of rain each and every year.





Most expensive farming land in Victoria

- The King Valley region has the most secure farming conditions and is envied by fellow farmers from all around Australia
- Throughout the most severe drought our farms are still producing high yielding crops without the requirement of irrigation
- In fact, our area enjoys a drier than average winter when it occurs, as a typical wet winter is very challenging for livestock, hence why sheep are not farmed local to the proposed site
- Our area delivers priceless mountain views, historic stands of eucalypts, majestic streams, creeks and rivers, in conjunction with highly productive farms


Proposed site
Landscape value of high significance

Land Value Data: $ per Hectare

The **Land Value Data** demonstrates the King Valley area as having the 2nd most expensive land in Victoria.
Topping the data was Bass Coast which is in close proximity to Melbourne and the ocean, and is likely not priced on its agricultural value

- 1. Bass Coast $35,024 (Take note of location)
- **2. King Valley and surrounds $32,967**
- 3. La Trobe $27,171
- 4. Alpine $24,963
- 5. South Gippsland $24,171
- 6. Macedon Ranges $22,825
- 7. Ballarat $21,458
- 8. Moyne $20,878
- 9. Colac Otway $20,132
- 10. Indigo $20,016
- 11. Corangamite $19,866
- 12. Benalla $19,149
- 13. Southern Grampians $14,199
- 14. Ararat $14,130
- 15. Wagga Wagga $14,123
- 16. Moorabool $13,384
- 17. Greater Hume $13,374
- 19. Bendigo $13,316
- 20. Strathbogie $13,306
- 22. Federation $12,214
- 23. West Wimmera $11,628
- 24. Campaspe $11,217
- 25. Shepparton $11,162
- 26. Moira $11,138
- 27. Horsham $11,137
- 29. East Gippsland $9,803
- 30. Loddon $8,026
- 31. Buloke $7,536
- 32. Narrandera $4,962
- 33. Murrumbidgee $3,818
- 34. Swan Hill $3,397
- 35. Edward River $2,638
- 36. Mildura $1,453
- 37. Hay $578

Data reference: Rural Bank Australian Farmland Values report. Rural Bank Australian Farmland Values report.

2022 King Valley Sales farm data Average $ per Hectare

Farm listed	Sum of Sale Price	$ per Ha
1371 Boggy Creek Road, Myrrhee (225ha)	$ 5,324,999.00	$ 23,666.66
1570 Moyhu - Meadow Creek Road, Meadow Creek	$ 25,000,000.00	
17 Bussells Lane, Whorouly (54.94ha)	$ 2,280,000.00	$ 41,499.82
1884 Wangaratta - Kilfeera Road, Hansonville (68.39ha)	$ 2,200,000.00	$ 32,168.45
2 School Road, Hansonville (130ha)	$ 4,000,000.00	$ 30,769.23
250 Oxley Meadow Creek Road, Oxley (41.37ha)	$ 2,750,000.00	$ 66,473.29
26 Boggy Creek Road, Moyhu (79ha)	$ 2,900,000.00	
301 Boggy Creek Road, Moyhu (205ha)	$ 5,450,000.00	$ 26,585.37
44 Kneebone Lane, Everton (119ha)	$ 3,800,000.00	$ 31,932.77
53 Larkins Road, Edi (124.81ha)	$ 5,600,000.00	$ 44,868.20
56 Kneebone Lane, Everton (120.19ha)	$ 5,200,000.00	$ 43,264.83
714 Whorouly Road, Whorouly (48.91ha)	$ 1,880,000.00	$ 39,085.24
Glenrowan - Moyhu Road, Moyhu (40ha)	$ 1,200,000.00	$ 30,000.00
Lot 1 Wangaratta - Kilfeera Road, Hansonville (28.73ha)	$ 990,000.00	$ 34,458.75
Lot 1, 2708 Wangaratta - Whitfield Road, Moyhu (86.38ha)	$ 2,450,000.00	$ 28,363.05
Lot 2 Evans Lane, Myrrhee (64.75ha)	$ 1,580,000.00	$ 24,401.54
Lot 2 Wangaratta - Whitfield Road, Docker (53.64ha)	$ 1,520,000.00	$ 28,337.06
12 Bobby Lane, Bowmans Forest (151.76ha)	$ 5,340,000.00	$ 35,187.14
Grand Total	$ 79,464,999.00	

Note: 1570 Moyhu – Meadow Creek Road that made $25,000,000 has been removed from average calculations as it distorts figures

Contaminants in soil from existing solar panels

- "Soil Analysis Panel Run Off" is from beneath the solar panels.
- "Soil Analysis Control" is taken from the same site uphill from the solar panels where the run-off doesn't reach.
- Take particular notice of the **Lead levels** that have **increased by over 10 times (22ppm to 254ppm)**
- On these comparative tests it calculates to a **1154% increase in Lead**
- The Gallium levels have also increased significantly
- Two other different test site results have showed substantial increases in both Lead and Gallium levels

RESULTS OF SOIL ANALYSIS

2 samples supplied by WB Hunter Pty Ltd on 31/05/2023. Lab Job No. P1351.
Samples submitted by David Verhulst. Your Job: P 7-94845.
365 Honour Ave CORONA NSW 2646

	Method	Soil Analysis Run Off	Soil Analysis Control
	Job No.	*P1351/3*	*P1351/4*
Silver (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	<1	<1
Arsenic (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	5	5
Lead (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	254	22
Cadmium (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	<0.5	<0.5
Chromium (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	14	14
Nickel (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	6	5
Selenium (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	0.5	<0.5
Mercury (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	<0.1	<0.1
Aluminium (%)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	0.74	0.76
Gallium (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	6.14	3.79
Indium (mg/kg)	1:3 Nitric/HCl digest - APHA 3125 ICPMS	<0.1	<0.1

All services undertaken by EAL are covered by the EAL Laboratory Services, report was issued on 14/06/2023.

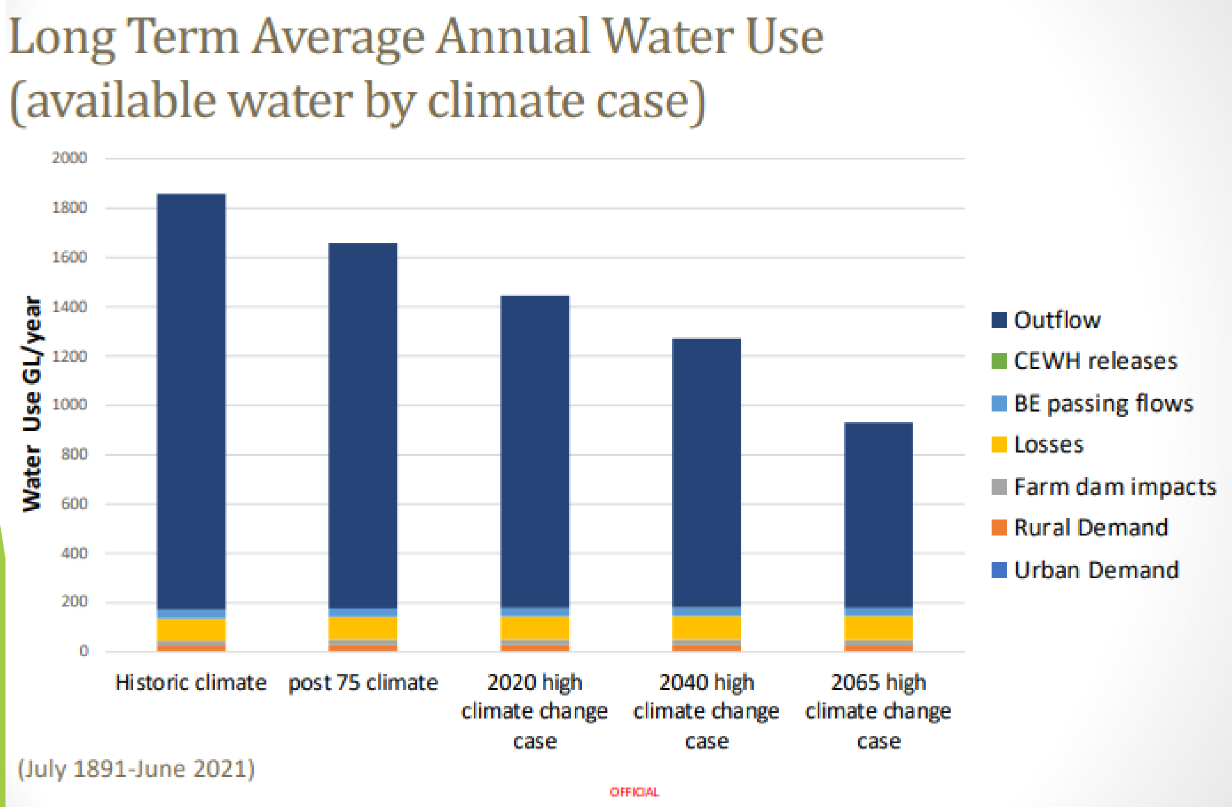
Evidence of existing solar panel degradation Bobinawarrah site 14/10/2023

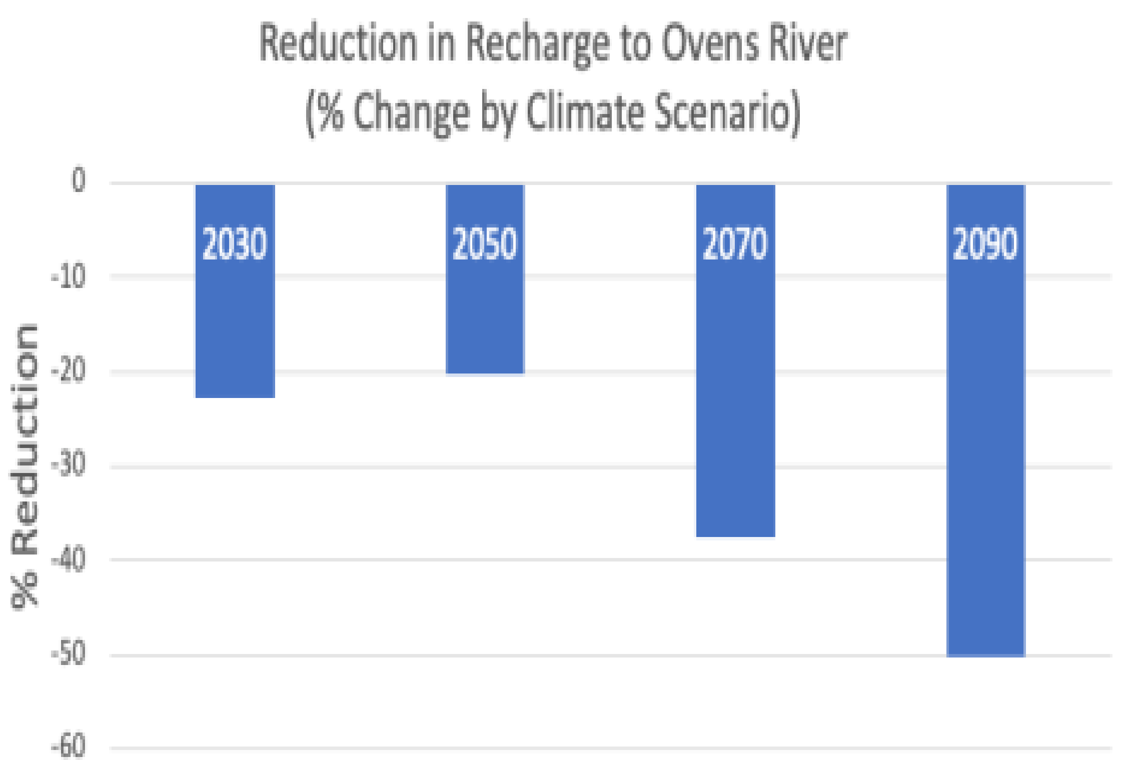
Run off corroding galvanised post

Solar panel breaking down after 10 years

Climate Change induced Rainfall reduction

- Projected outflow for 2065 from the ovens catchment is almost halving due to climate change according to Ovens Murray Coast Climate Projections (DELWP 2019)
- Ground water recharge is projected to halve by 2090
- The government forecasts heighten the need to ban solar facilities on prime agricultural land, as the forecasts paint a bleak future for irrigators





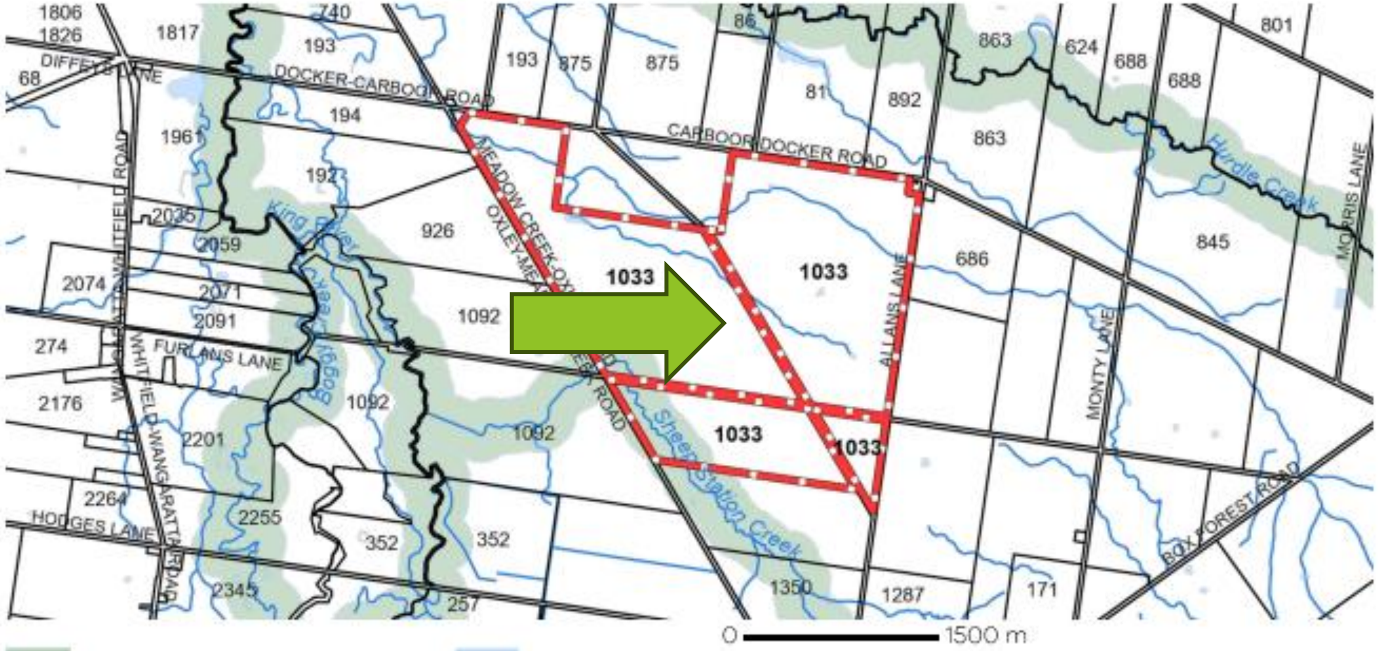
Ovens Murray Coast Climate Projections (DELWP, 2019) Geoff Vietz, Streamology

Tourism in the King Valley

- The King Valley wine region currently attracts 590,000 visitors annually, generating $268M in economic output and accounts for 1,267 jobs across the King Valley and broader Hume region
- The King Valley is the single largest GI growing Prosecco in Australia, with King Valley Prosecco accounting for 45% of all Prosecco Sales in this country
- Based on the Activating the “King Valley Prosecco Road Masterplan” (McKinna 2018) these above numbers are expected double within the next 10 years
- Disruption to the environment bringing negative media attention relating to sustainability in the King Valley region would be detrimental to these wine businesses
- This particular farm is on a scenic tourist path that links the Milawa Gourmet Region to the King Valley Food and Wine region, which is also a designated cycle route

Aboriginal Cultural Heritage Sensitivity

- The proposed site has areas of Aboriginal Cultural heritage along Sheep Station Creek
- This area was home to Bangerang nation people
- Bobinawarrah is home to the Indigenous Dreamtime Story – Bobinawarra the inland Pelican
- [Bobinawarrah Pelican - Meadow Creek Solar Factory - Indigenous Dreamtime Story (youtube.com)]



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Biosecurity

- Planning stage contractors are already displaying complete disregard for our districts biosecurity, despite being engaged by a local farmer just days prior, to explain the importance of strict Biosecurity measures that are required for the safety and integrity of our agricultural industry
- The contractor had listened intently and appeared to have genuine engagement and agreed with the farmer that his contracting team’s biosecurity measures were non-existent and that he would follow Biosecurity protocol from that point onward
- Community members then discovered the contractor in a local paddock with a hire car from NSW that was caked in dry mud, clearly from another farm
- The contractor blatantly lied about his commitment to Biosecurity! And when questioned why he would risk Biosecurity on our farms after he’d being made aware of this just days before, He responded with ‘It was an oversight’
- Community members asked for a copy of the Biosecurity plan that the contractor had to follow, but were told that the contractors employer did not want our community to view the plan
- This response offended our community and is deeply concerning

Lack of Biosecurity

Photos taken on 21-September-2023 at local Bobinawarrah farm

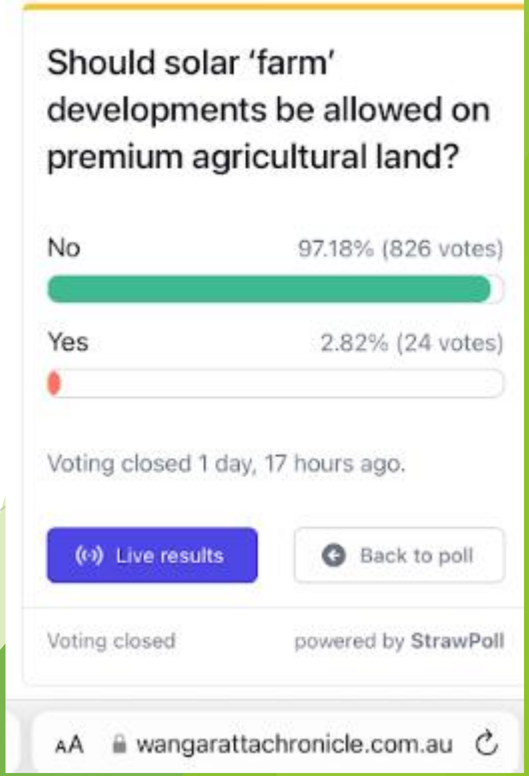
Biosecurity sign ignored
Vehicles in background

Hire car from NSW
Unwashed travelling with dry mud into local paddock

Contractor truck parked on local road disrupting traffic for hours with no hazard markers

Social Licence to Operate (SLO)

- The term ‘social licence to operate’ (SLO) describes a “level of acceptance or approval continually granted to an organisation’s operations or project by the local community”
- Meadow Creek Solar Farm Proponents have shown extremely poor community engagement and <u>do not</u> have a SLO in our community, evident through a local questionnaire whereby 128 community members were asked if they were FOR/AGAINST the proposed solar farm
- An alarming 124 community members were against the proposal
- A local newspaper poll had very convincing results with 826 votes, 97.18% saying ‘NO’ to solar developments being allowed on premium agricultural land
- Local community members describe the Proponents for MCSF as
  - “Deceitful, untrustworthy, dishonest, greedy”
  - “Proponents evasive and unable to answer some questions satisfactorily”
  - “Completely oblivious to local community and land owners”



https://www.planning.vic.gov.au/__data/assets/pdf_file/0025/621970/community-engagement-and-benefit-sharing-in-renewable-energy-development.pdf

Decommissioning

How long will the solar farm operate for and what will decommissioning the site involve?

The solar farm would have an operational life of around 30 years. As the project nears its project end life, a decommissioning strategy will be prepared. Decommissioning the site would involve removing all infrastructure from the site, including any in ground structures or footings and rehabilitating the land back to its original use.

- There is no plan on decommissioning this site (refer MCSF website)
- Proponent claims a 30 year lifespan, and that the site will be rehabilitated to its original state after this period. Given the removal of old stand eucalypts, and soil degradation and 1400 acres of industrial development, this will not be achievable
- Research undertaken by our community group has found that an industrial energy facility on farm land will have lease options well beyond the '30 year' term, and more likely for as long as solar energy is a viable source of power
- There is no financial estimate for decommissioning, and there is no bond paid to secure this process
- The owner of the operating facility will likely be a $2 shelf company. This creates great unease in our community.
- Who cleans the site up if the site burns or is unviable and the company files for bankruptcy?

https://www.meadowcreeksolarfarm.com.au/community

Our Community

Will, 4, Jess, Isla, 6, Anna, 8, John, and Jack, 10, Conroy oppose the Meadow Creek proposal. Picture by Kurt Hickling

NOT IN OUR NEIGHBOURHOOD PLEASE: Members of the Meadow Creek Agricultural Community Action Group expressed their concern at the drop-in session at Milawa yesterday. PHOTO: Kurt Hickling

UNITED IN PROTEST: Residents from across the King Valley who are united in their fight to stop development of a proposed major solar factory at Meadow Creek. PHOTO: Kurt Hickling

SOMEONE IS LISTENING: One Nation MP Rikki-Lee Tyrell (front row second from left) with King Valley residents opposed to the Meadow Creek Solar Farm.