URBAN FOREST CONSULTING

CENTRAL VICTORIAN Greenhouse Alliance

COOL IT

ADDRESSING HEAT VULNERABILITY IN REGIONAL VICTORIAN TOWNS

REGIONAL SUMMARY REPORT OCTOBER 2018

CITY OF BALLARAT

Ararat Rural City

CITY OF GREATER BENDIGO

BULOKE SHIRE COUNCIL

CENTRAL GOLDFIELDS SHIRE COUNCIL

GANNAWARRA Shire Council

Mildura Rural City Council

PYRENEES SHIRE

City of Whittlesea

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Contents

1. Project Outline

The Cool It project is a collaborative council project coordinated through the Central Victorian Greenhouse Alliance. The project is funded by the Department of Environment, Land, Water and Planning (DELWP), and is a partnership between the following councils:

- City of Ballarat (lead)
- Ararat Rural City Council
- City of Greater Bendigo
- Buloke Shire Council
- Central Goldfields Shire Council
- Gannawarra Shire Council
- Mildura Rural City Council
- Pyrenees Shire Council
- City of Whittlesea

The two main objectives of the project were to:

1. Provide evidence and background information to inform better decision making for landscape based cooling solutions at each of the nine Councils
2. Provide a proof of concept for a simplified methodology that utilises existing and publicly available data to determine areas where social vulnerability and heat exposure overlap that other Councils can also implement without the need to acquire expensive thermal imagery or other datasets.

The Cool it project used existing spatial data to determine urban areas of 9 Victorian regional and rural Councils that were socially vulnerable to heat impacts. 2016 Census data, Victorian Government data, open data and aerial imagery were used to i) identify parcels of urban areas where populations are most vulnerable to urban heat and heatwaves, and ii) prioritise those parcels of urban areas that are also exposed to more heat due to a combination of high pedestrian activity and hot urban surfaces.

This methodology has been described in a document entitled “Cool It Project Mapping Methodology” for further reference.

The identified heat vulnerable parcels have each been scrutinised further, with knowledge of each Councils strategic and policy position, to recommend specific streets and parks for cooling measures such as tree planting and/or irrigation as well as strengthening existing policy and strategy.

The following regional report summarises the findings from each of the council action plans and makes regional recommendations for further work. Each individual council action plan can be found here.

2. Context and Evidence

The changing climate, densification and urbanisation of towns, and growing inequality pose some significant challenges for regional towns and cities into the future. One of these challenges is the impact of heat on urban populations. Heatwaves have been recognised as posing significant risks to human health and wellbeing, and climate change modelling shows that these heatwaves are likely to occur more often (IPCC, 2012). However, a growing body of research and health statistics shows that prolonged periods of days over 30 degrees, not just heatwaves, can have negative effects on certain

people within our communities (Hughes et al, 2016)(Victorian State Government, 2018.) Medical research shows that those over the age of 65 are one of the largest demographics impacted by heat. Other groups include young children, socio-economically disadvantaged people, older people living alone, those who aren't fluent in English, sick and disabled people (Loughnan et al., 2013).

Therefore, the way we plan, renew, and build our towns and cities is of upmost importance in protecting these people from the impacts of heat. Imperviousness and urban heat are highly correlated (Coseo and Larsen, 2014). Unshaded asphalt and concrete are much hotter than green leafy parks or treed streets. But also, an unirrigated park with little shade provides very little relief from heat.

There are three important factors that influence the amount of heat absorbed by our towns and cities:

- Vegetation
- Water
- Hard surface material types

Most importantly, vegetation is far more effective at cooling if it has access to adequate water. Trees with large, healthy canopies shade a greater area but also act as water pumps, lowering the surrounding air temperatures through evaporative cooling. Investing in improving soil moisture levels in combination with increasing vegetation cover is therefore one of the most effective mechanisms to mitigate heat that local communities are exposed to.

The selection of species can alter the extent of cooling as large trees with spreading canopies provide a greater cooling effect than small or upright trees. Equally, shade quality can be vastly different between trees and should be considered when selecting trees to provide shade.

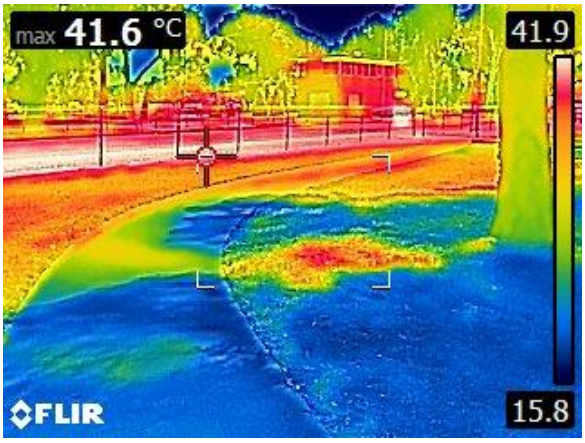
A street tree audit conducted by the CVGA in 2016 discovered that a number of councils face significant challenges with the ongoing maintenance of their green infrastructure. A significant percentage of street trees are in decline, or are expected to need replacing in the next 5 years. Similarly, a recent 202020 project that examined green space across metropolitan LGAs in Australia found that Bendigo and Ballarat are some of the most vulnerable LGAs and have some of the greatest greening opportunities in the country. This vulnerability is based on the exposure to extreme heat, the limited capacity of the population to adapt to this heat, and the fact that green space was in decline across both LGAs.

Furthermore, land use planning and the building industry have key roles to play in ensuring that development incorporates vegetation and water in the landscape as well as provides housing that both protects people from heat but also that does not further contribute to the heat load.

Streetscape Thermal Imagery

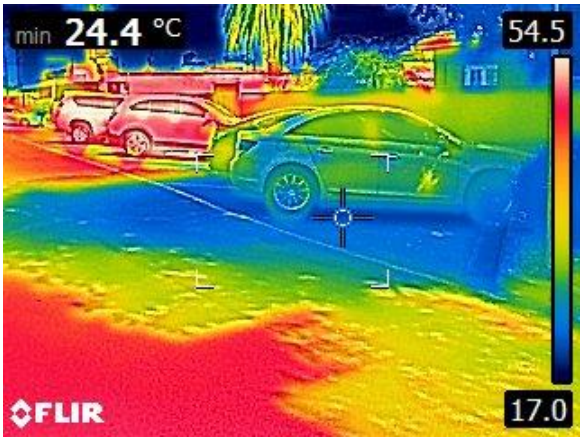
The below images taken within Cool It participating municipalities, demonstrates the significant cooling effect that both shade and irrigated vegetation have on the landscape.

This suburban street in Mildura shows shaded areas measuring 24 degrees Celcius and concrete footpath in the sun recording 38 degrees Celcius.



This park in Gannawarra records 41.6 degrees Celsius on the asphalt road while the irrigated grass in the shade of the trees records between 16 and 20 degrees Celsius.

This road in Buloke demonstrates shaded asphalt is around 30 degrees Celsius while unshaded reaches 40 degrees.



This roadside carpark in Gannawarra records shaded asphalt temperatures of 25 degrees and unshaded cars and asphalt up to 50 degrees.

3. Summary of Results

The project has produced individual council action plans and maps for each participating councils. The following summarises the results at the regional level to inform future work in the region.

3.1 Mapping Results (tables are in Appendix A)

Social Vulnerability:

Each Council had slight but unique differences within the variability and presence of certain indicators for social vulnerability. Generally, the more urban or densely populated an area, the higher the diversity of social vulnerability indicators. Ballarat, Bendigo, Whittlesea and Mildura displayed greater diversity of social vulnerability which included socio-economic disadvantage, those not fluent in English, older lone people and the rental of social housing. The more rural areas like Gannawarra and Buloke have less diversity with indicators only including older people over 65 years of age and socio-economic disadvantage.

Pedestrian Intensity:

Given the datasets were not uniform across each Municipality, there were no identifiable themes across the region in relation to pedestrian intensity. Of note though, none of the Central Business Districts within the larger Municipalities of Bendigo, Ballarat, Whittlesea and Mildura recorded social vulnerability which is to be expected given they are not zoned residential. However, despite not appearing as priorities from the results of this project, the central business districts would likely be areas of high pedestrian intensity and high imperviousness. Both Ballarat and Bendigo have CBD Strategies which should focus on heat mitigation, through the installation on increased tree canopy cover, urban greening and water sensitive urban design.

Imperviousness and tree canopy cover:

Due to the fact that priority areas for the bigger cities like Ballarat and Bendigo were outlying suburbs, imperviousness was not as high as some medium sized towns like Maryborough, Ararat, Donald and Kerang. There were no themes emerging from the imperviousness measurements, because imperviousness is more likely to be correlated with urban density and land use zones rather than social vulnerability when considering different sized towns and cities.

Of more relevance for comparison, were the tree canopy cover statistics. 9 parcels out of the 54 point sampled, recorded tree canopy cover over 20%. These were in Heathcote and Kangaroo Flat (both in Bendigo), Avoca (Pyrenees), Charlton (Buloke), Cohuna (Gannawarra) and Mildura North. Whittlesea, Buloke, Ararat and Central Goldfields have exceedingly low tree canopy cover levels across all of their priority areas, some as low as 3%.

The use of point sampling methodology to determine imperviousness as an indicator of heat is a useful and inexpensive tool as compared to aerial thermal imagery. At this point, satellite thermal imagery is not appropriate for use in regional or rural areas until its land surface measurements can be corrected to account for certain land surface types that show up as irregularities such as soil and brown grass. A current project is underway with RMIT and the Department of Environment, Land, Water and Planning (DELWP) to amend the post processing algorithms to account of the anomalies that certain land surface types create outside of major cities.

3.2. Strategy, Policy and Program Gap Analysis Results

Strategy:

All Councils had varying degrees of policy and strategy in place that support cooling measures indirectly. Whittlesea, Ballarat and Bendigo all have heat and its impacts mentioned within various documents at a high level strategic context. However, none have necessarily prioritised heat as a key challenge or risk for community health and wellbeing going forward. None of the participating Councils are currently rolling out programs and projects that were explicitly and directly mitigating heat. Some open space irrigation regimes and tree planting schedules were indirectly mitigating heat, however, heat mitigation was not at the core of their planning for any assets.

Ballarat and Whittlesea both had good examples of overarching documents that were strong in this area. Ballarat 2040 and Greening Ballarat: A green blue action plan as well as Climate Ready Whittlesea are strong examples of integrated and evidence based strategy.

Community education and connection of services to vulnerable members of the community was far more advanced across the region than expected. This is likely due to the need as set of State Government's Heat Health Plans and Emergency Response Plans for Councils to consider their responses to heatwaves. Be Cool in Gannawarra is an excellent first stage educational campaign about the understanding the impacts of heat. http://www.gannawarra.vic.gov.au/News-Media/Be-Cool-in-Gannawarra

Tree Strategies:

Developing a Tree Strategy (or similar) was the most common desired outcome of using the results from the Cool It project, particularly at an implementation level. Converting these results into programs was the most commonly identified "next step" from this project. Of particular interest was the need to build business cases for increased tree program funding and to further prioritise where to direct constrained tree planting budgets. Whilst water sensitive urban design was recognised as an important component for cooling, it was deemed more of a "nice to have", particularly in the more rural Councils. Most Councils simply acknowledged that there was a much more pressing need for better funding and resources for street and park trees in the first instance.

Buloke was the only Council not to have any budget for tree planting. Gannawarra had been awarded some once-off tree funding for 18/19 and requires guidance on where best to invest that funding. Others have small tree planting budgets e.g. $20,000 and others like Bendigo and Ballarat, require an action/implementation plan to navigate on-ground work in meeting their key strategic objectives, like increasing canopy cover.

Planning:

Many Councils are undergoing a planning scheme review, which provides a perfect opportunity to incorporate some documented evidence and context into Municipal Strategic Statements about the future impacts of heat on regional and rural populations. There are significant gaps and differences in land use planning and supporting guidelines across the region. Bendigo and Whittlesea have recently had ESD Local Policies approved by the State Planning Minister, which pave the way for mandating better performing housing and buildings with lower environmental impact. Both already have a framework through SDAPP (which includes urban ecology) for encouraging better outcomes for development, which could be adopted across the region for those who do not have such guidelines.

The protection of private realm urban trees and indeed vegetation is relatively poor across the region. There are scant overlays (VPO's and ESO's) that protect minor amounts of vegetation and trees on private land, however no Council within the Cool It Project had adequate planning mechanisms in place to protect not only "significant" but also "canopy" trees on private land. Protection is directed towards indigenous vegetation. Bendigo is undergoing a significant review and is likely to undertake further work particularly in protection of existing private trees but also provisions for mandating the planting of canopy trees in setbacks. There is a clear role for a regional or rural Council to undertake a review of planning mechanisms appropriate for vegetation protection and share learnings. It is worth noting that DELWP are currently funding a research project that measures tree canopy cover change for urban metro Melbourne and the impacts that certain planning mechanisms have on tree protection. These results will be of interest, particularly to the larger regional Councils who have greater capacity to enforce planning provisions.

Developer guidelines for appropriate landscape outcomes are either non-existent, not enforced or not strong enough. City of Greater Shepparton, alongside Moira and Campaspe (none of whom are part of the Cool It Project) developed a clear set of developer landscape guidelines that could be adopted across the Victorian region. Bendigo has undertaken significant work in this field as well, however, outcomes are still not always ideal. Again, there is a clear opportunity to collaborate amongst Councils to determine a standard suite of documents and processes for improving landscape outcomes, particularly in subdivisions. There is also a key opportunity for working with developers to reduce heat impacts from new developments.

In terms of future tree cover in the private realm, again there were no Councils who have mandated the planting of canopy trees in any setbacks (front, side, rear) for residential development. Brimbank, Moreland and Knox are just three Victorian examples of where planning schemes have been amended to mandate the planting of canopy trees.

Communication:

Most Councils mentioned strong existing networks for sharing information, educating and engaging with the community. These networks are valuable and should be strengthened with clear consistent messaging about the impacts of heat and what Council and the community can do about it.

Capacity Building:

Regardless of the size of Council, all talked about the inability to convert high level visionary thinking down to on-ground works, particularly in relation to infrastructure works. There is a clear opportunity for capacity building within regional and rural Councils to raise awareness about the impacts of infrastructure on urban heat and the responsibility of good integrated decision making to mitigate these impacts. Ideally, infrastructure planning would be integrated to include consideration of urban vegetation, urban water/stormwater, heat and health and wellbeing.

Finally, there are some strong champions in each of the Councils who are well aware of the issues and are willing to champion the results of the Cool It Project and embed key recommendations into their existing strategic and operational frameworks. The CVGA has a clear role in supporting these champions and facilitating, if possible, inter- Council knowledge sharing and capacity building. There are some great examples of work across Victoria that should be showcased to other Councils e.g. Be Cool in Gannawarra, Ballarat's Blue Green Infrastructure Action Plan, Bendigo's Vision for a Water Sensitive City, Landscape Plan Guide for Development Proposals in Shepparton, Moira and Campaspe as some examples.

4. Recommendations

4.1 Facilitation and Capacity Building

4.1.1. Hold a Council forum to present the results of the Cool It Project and how Councils can utilise various recommendations within their own policy and operational frameworks. This would have the benefit of sharing information, recognising other pieces of work going on around the region and forming collaborations.

Examples of documents that could be shared with Partner Councils to help guide some of their work:

- Shepparton Development Guidelines
- SDAPP Suite of tools Bendigo
- Whittlesea Climate Adaptation
- Ballarat Green Blue Action Plan
- Bendigo's Vision for a Water Sensitive City
- City of Greater Bendigo's Tree Policy and Whittlesea's Street Tree Management Plan
- Hindmarsh Shire Council Street and Reserve Tree Strategy

4.1.2. Develop a set of key messages that are consistent and appropriate for regional and rural Councils to use and embed in Strategy, Policy, programming and ongoing communication.

4.1.3. Establish a Cool It Working Group that includes relevant staff from across Council (e.g. arborist, urban designer, infrastructure design, infrastructure maintenance, communications, community development, etc.) with the aim of creating cross division linkages to enhance cooling outcomes in project delivery. The working group should meet periodically and provide input into capital works, asset renewal planning or budget bids that are relevant. This group could help to internally communicate the benefits and cost savings of a healthy tree population.

4.1.4 Develop or support an ongoing platform for rural and regional Councils to talk about heat and appropriate solutions that are developed or trialled, similar to a Greening the West forum e.g. Greening Regional Victoria. Innovations from Bendigo, Ballarat, Geelong and Shepparton could and should be shared with smaller municipalities e.g. building stormwater harvesting facilities, technical specifications for permeable paving, back of kerb channelling, materials trials and procurement, working with developers etc.

4.1.5. Encourage all participant Councils to publish Cool It project results on their websites and include a page with information on what the community can do in their own backyards to increase cooling.

4.2 Advocacy

4.2.1 Utilise the Cool It Working Group or Greening Regional Victoria group (as appropriate) to facilitate a forum or workshop with other institutional landholders across North and Central Victoria to discuss the Cool It project and what it means for them. Example landholders and service providers include VicRoads, Department of Health, DELWP, Department of Human Services, Bendigo Health, Ballarat Health, Regional Projects Victoria, Coliban Water, and Central Highlands Water. This forum is a good opportunity to showcase Melbourne Water's commitment to urban cooling, health and wellbeing in Melbourne and seek to replicate similar commitment in regional Victoria. VicRoads should be prioritised as a key participant as they were identified by many as a key hurdle to greening streets.

4.2.2 Present results of the Cool It Project to regional Integrated Water Management Forums to prioritise the use of water in cooling and regional Water Authorities. This will require buy-in from DELWP who run the forums.

4.2.3 Regional Development Victoria: notify RDV of the Cool It project and acknowledge RDV's potential in benchmarking the impacts of regional infrastructure projects on heat and health and wellbeing. Their funding process should have the capacity to consider projects that mitigate community heat impacts and strengthen cooling measures where appropriate.

4.2.4 Ensure that Cool It Project results and recommendations are referenced or inform the DELWP Regional Climate Change Adaptation work currently being undertaken.

4.2.5 Advocate for small changes to Health and Wellbeing State Government Act relevant to North and Central Victoria where heat impacts are larger than metro Melbourne. Impacts of climate change in central and northern Victoria must take into account the consequences of increased heat, not just heatwaves, coupled with the urban heat island effect in towns and cities. Overall tree canopy cover in many of these towns and cities is not high, posing a significant problem for cooling.

4.2.6 Seek to expand the remit of Heat Health Plans across North and Central Victoria so as to include proactive measures for heat mitigation and adaptation, not just reactive. Consider advocating for change within the State Government guidelines so that the Plans can be tied back to proactive, preventative actions that Council can deliver through existing programs i.e. trees, water, HACC programs, education etc. The Plans should also broaden the terminology around heat i.e. not just about heatwaves per se.
https://www2.health.vic.gov.au/about/publications/policiesandguidelines/Heatwave-Planning-Guide-Development-of-heatwave-plans-in-local-councils-in-Victoria

4.3 Projects requiring grant funding

4.3.1 Seek grant funding where possible to facilitate regional and rural Councils coming together to talk about heat, its impacts and what to do about it

4.3.2 Seek grant funding to set up a Greening Regional Victoria style advocacy group

4.3.3 Heat impact statistics: seek to replicate the health data collection conducted by City of Greater Bendigo with Bendigo Health to extract key heat health and wellbeing impacts such as admissions to hospitals and mortality.

4.3.4 Development and developers: consider standardising and rolling out the 2017 Landscape Plan Guide for Development Proposals that has been developed for Shepparton, Moira and Campaspe across all regional and rural Councils in Victoria so they have a framework to demand better landscape outcomes through all types of development

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Appendix A: Mapping Results

Ararat

SA1 (all in Ararat)	SV Count	PI Count	Impervious	Tree Canopy	SV Rank	PI Rank	Imp Rank	Rank Score	Priority
2138618	2	5	50%	6.8%	2	1	2	5	1
2138611	2	4	61%	11.2%	2	2	1	5	1
2138622	3	4	43%	3.4%	1	2	3	6	2
2138606	3	2	34%	10.9%	1	4	4	9	3
2138602	3	3	25%	13.4%	1	3	6	10	4
2138607	2	2	29%	13.4%	2	4	5	11	5
2138710	2	5	DNM		2	1			

DNM = Did not measure

Ballarat

SA1	Suburb name	SV Count	PI Count	Imperviousness	Tree Canopy	SV Rank	PI Rank	Imp Rank	Rank Score	Priority
2100449	Sebastapol	3	4	50.3%	17.3%	1	2	2	5	1
2100828	Wendouree	2	3	58.9%	14.4%	2	3	1	6	2
2100335	Ballarat North	2	6	49%	15.4%	2	1	4	7	3
2100424	Redan	2	4	50%	16.3%	2	2	3	7	4
2100805	Wendouree	3	4	46.6%	13.2%	1	2	5	8	5
2100825	Wendouree	3	3	46.2%	18%	1	3	6	10	6
2100438	Sebastopol	3	4	21.1%	11.5%	1	2	8	11	7
2100427	Redan	3	3	42.1%	9.2%	1	3	7	11	8

Bendigo

SA1	Suburb	SV Count	PI Count	Imperviousness	Tree Canopy	SV Rank	PI Rank	Imp Rank	Rank Score	Priority
2102203	Kangaroo Flat	2	9	46.30%	20.4%	2	1	1	4	1
2102230	Kangaroo Flat	2	6	46.30%	20.4%	2	3	1	6	2
2102505	White Hills	2	5	41.90%	15.8%	2	4	2	8	3
2102221	Golden Square	2	6	33.80%	19.9%	2	3	5	10	4
2101801	North Bendigo	2	3	40%	13.3%	2	6	3	11	5
2101908	Eaglehawk	2	3	39.30%	20%	2	6	4	12	6
2101914	Eaglehawk	2	3	39.30%	20%	2	6	4	12	7
2102910	Heathcote	2	7	29.10%	24.5%	2	2	8	12	8
2101916	California Gully	2	4	31%	11.2%	2	5	6	13	9
2102901	Heathcote	2	4	29.10%	24.5%	2	5	7	14	10
2101836	Long Gully	3	5	21.10%	11.5%	1	4	9	14	11

Buloke

SA1	Town	SV Count	PI Count	Imperviousness	Tree Canopy	SV Rank	PV Rank	Imp Rank	Rank Score	Priority
2140014	Sealake	2	3	32.40%	13.7%	1	2	2	5	1
2140001	Donald	1	3	58.20%	6.1%	2	2	1	5	1
2140008	Charlton	1	4	22.10%	24.8%	2	1	6	9	3
2140013	Donald	1	2	29.40%	13.1%	2	3	3	8	2
2140006	Wycheproof	1	4	16.90%	9.8%	2	1	7	10	4
2140007	Charlton	1	2	22.10%	24.8%	2	3	5	10	4
2140005	Wycheproof	2	1	24.9%	15.2%	1	4	4	9	3
2140018	Birchip	0	4	14.9%	11.1%	5	1	8	13	5
2140004	Birchip	0	2	14.9%	10.6%	5	3	8	15	6

Central Goldfields

Township	SA1_7DIG16	SV Count	PI Count	Impervious %	Tree Canopy	SV Rank	PI Rank	Impervious Rank	Rank Score	Priority Rank
Maryborough	2101618	3	7	70.7%	9.3%	3	2	1	6	1
Maryborough	2101603	3	6	61.8%	10.4%	3	3	2	8	2
Maryborough	2101615	3	9	46.0%	13.5%	3	1	5	9	3
Dunolly	2101705	3	4	50.0%	10.5%	3	4	4	11	4
Maryborough	2101606	4	0	50.2%	13.4%	1	14	3	18	7
Maryborough	2101602	3	2	45.3%	13.9%	3	6	6	15	5
Maryborough	2101604	3	2	44.6%	11.6%	3	6	7	16	6
Maryborough	2101605	4	1	36.9%	19%	1	11	8	20	8

Gannawarra

Township	SA1	SV Count	PI Count	Imperviousness	Tree Canopy	SV rank	PI rank	Impervious Rank	Rank Score	Priority
Kerang	2140202	2	5	63%	14%	3	3	1	7	1
Kerang	2140204	2	6	48%	17%	3	2	2	7	1
Kerang	2140208	2	7	42%	15%	3	1	3	7	1
Cohuna	2140122	4	5	34%	26%	1	3	4	8	2
Leitchville	2140105	2	7	29%	17%	3	1	5	9	3
Cohuna	2140103	4	3	26%	17%	1	4	6	11	4
Quambatook	2140101	3	6	25%	17%	2	2	7	11	4

Mildura

Township	SA1	SV Count	PI Count	Impervious (%)	Tree Canopy	SV rank	PI rank	Impervious Rank	Rank Score	Priority Rank
Mildura - South	2147012	4	2	73	11%	1	3	1	5	1
Merbein	2139608	4	3	65	16%	1	2	2	5	1
Mildura - South	2147008	4	3	64	14%	1	2	3	6	2
Red Cliffs	2139913	2	4	55	18%	3	1	4	8	3
Mildura - North	2146910	4	3	50	21%	1	2	5	8	3
Mildura - North	2146943	4	2	35	18%	1	3	6	10	4
Red Cliffs	2139907	3	4	34	7%	2	1	7	10	4
Merbein	2139611	3	4	34	19%	2	1	8	11	5

Pyrenees

Township	SA1_7DIG16	SV Count	PI Count	Impervious %	Tree Canopy	SV Rank	PI Rank	Impervious Rank	Rank Score	Priority Rank
Beaufort	2101401	2	10	28.80%*	12.9%	4	1	2	7	1
Avoca	2101301	3	3	25.60%*	20.3%	1	3	3	7	1
Avoca	2101306	3	4	26.60%*	18.3%	1	2	4	7	1
Beaufort	2101402	2	1	38.76%	19.3%	4	4	1	9	2
Beaufort	2101412	3	0	25%	17.8%	1	5	5	11	3
Avoca	2101302	2		DNM		4				-
Beaufort	2101413	1		DNM		7				-
Avoca	2101303	1		DNM		7				-
Avoca	2101403	0		DNM		9				-

Whittlesea

SA1	Suburb name	SV Count	PI Count	Imperviousness	Tree Canopy	SV Rank	PI Rank	Imp Rank	Rank Score	**Priority**
2122306	Thomastown	3	2	74.4%	5.9%	1	2	1	4	1
2121705	Bundoora	3	3	69.1%	12.3%	1	1	2	4	2
2122303	Thomastown	3	1	65.5%	12.5%	1	3	3	7	3
2122323	Thomastown	3	1	64.3%	9.2%	1	3	4	8	4
2121929	Lalor	3	3	58.7%	7%	1	1	6	8	5
2122301	Thomastown	3	0	63.1%	11.3%	1	4	5	10	6
2121915	Lalor	3	1	58.1%	8.3%	1	3	7	11	7
2122322	Thomastown	3	2	58%	10.5%	1	2	8	11	8