NOTICE OF MEETING

COUNCIL AGENDA & REPORTS

for the meeting

commencing at 7pm on Monday 12 October 2020

Council Chambers
72 Woodville Road, Woodville

DONNA DUNBAR
ACTING CHIEF EXECUTIVE OFFICER

Dated 7 October 2020

Please advise Alana Martin if you are unable to attend this meeting or will be late. Phone 8408 1115.
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Brief

The City of Charles Sturt recorded an estimated residential population of 117,000 in 2018, with
diverse residential and employment areas. Growth of over 1000 people each year and more
than 480 dwellings is projected to continue in future years. While Council offers a high standard
of services to its residents managing change whilst improving the quality of life for our
residents is one of the great challenges of local government. One way of maximising the
opportunities change can present is through improved coordination and long term planning.

The Your Neighbourhood Plan Framework is the basis of an exciting innovation proposed for the
City which aims to generate a series of place-based plans addressing these and other issues
concurrently, integrating infrastructure with input and funding joined up across Council
portfolios, State agencies and Industry. The Plans are intended to go beyond business as usual
and be a guide and a catalyst for longer term investment across Council, State and private sector
programs.

The purpose of this report is to describe the Your Neighbourhood Plan Framework, the
important Liveability Indicators and the initial proposed Neighbourhood Plan pilot area and to
obtain Council endorsement of the Your Neighbourhood Plan Framework forming Appendix A
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(LMA) OVER A PROPERTY - 8 BUCKNALL COURT TENNYSON

Brief

This report seeks the consent of Council to endorse a development that is at variance with a
Land Management Agreement (LMA), restricting building to be erected on the subject land west
of the line marked as the "Building Prohibition Line", which exists over a parcel of land at 8
Bucknall Court Tennyson. The property is legally described as Allotment 750 in Certificate of
Title Volume 5987 Folio 102 and located in the Residential Zone, Western Edge Policy Area 17.

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1. COUNCIL OPENING

1.1 OPENING PRAYER

Almighty Father from Whom all goodness flows, grant unto us qualities of wisdom justice and tolerance, that we the civic leaders of this community may govern in harmony and concord.

This we ask in Thy name.

We also remember and give thanks for those, our sons and daughters, who gave their lives for Australia.

Lest we forget.

We acknowledge that the land we meet on today is the traditional land of the Kaurna People. We respect their spiritual relationship with this land. We also acknowledge the Kaurna people as traditional custodians of the Kaurna land. We will endeavour, as Council, to act in a way that respects Kaurna heritage and cultural beliefs of the Kaurna people.

1.2 APOLOGIES AND LEAVE OF ABSENCE

2. CONFIRMATION OF MINUTES

2.1 COUNCIL

Brief

Confirmation of the minutes of the previous meeting held on Monday, 28 September 2020.

Recommendation

That the minutes of the previous meeting held on Monday, 28 September 2020 be taken as read and confirmed.
2.2 REPORTS OF COMMITTEES - PART I

2.2.1 CORPORATE SERVICES COMMITTEE

Brief
The Corporate Services Committee was held on Tuesday, 6 October 2020.

Recommendation
That having considered the recommendations of the Committee which has read and considered the reports in the agenda related to items:

4.36 TREE AND STREETSCAPE POLICY REVIEW

Council adopts the recommendations of the Committee as printed in the Minutes of this Committee.
3. REPORTS

3.12 MAYORAL REPORT - AUGUST 2020

TO: Council
FROM: Executive Assistant to the Mayor - Sally Bartlett
DATE: 12 October 2020

Brief
In line with the Code of Practice for Meeting Procedures, Mayor Evans has provided a report for the month of August, detailing her activities, functions and media interactions in her official capacity.

Recommendation
That the report be received and noted.

Attachment

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<td>COVID-19 Update</td>
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<td>10:30 AM</td>
<td>Mayor and CEO Catch Up</td>
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<td>Corporate Services Committee</td>
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<tr>
<td>4/08/2020</td>
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<td>Climate Emergency catch up with Anna Rogers prior to SAG meeting on 10 August 2020</td>
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<td></td>
<td>2:30 PM</td>
<td>Met with Peter Graves to discuss Henley Beach High School Roads2Civil Project</td>
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<td>3:00 PM</td>
<td>Met with Phil Donaldson, Kym Syrus and staff to discuss One Planet Living Program</td>
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<td></td>
<td>4:00 PM</td>
<td>Review of Council agenda</td>
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<td>LG Functional Support Group - COVID-19 Operational Briefing</td>
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<td>Mayor and Manager MMC Catch Up</td>
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<td>Mayor and CEO Catch Up</td>
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<td>GM Corporate Services Catch Up</td>
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<td>Climate Emergency Australia Strategic Advisory Group</td>
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<td>Council Meeting</td>
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<td>11/08/2020</td>
<td>11:00 AM</td>
<td>Catch up with Cr Mitchell</td>
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<td>12:45 PM</td>
<td>Briefing prior to meeting with Lockleys Riding Club</td>
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<td></td>
<td>1:00 PM</td>
<td>Met with Cr van den Nieuwelaar, Sam Higgins and Mark Jones &amp; Gena Ashwell, Lockleys Riding Club to discuss Breakout Creek project</td>
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<td>3:00 PM</td>
<td>Met with Mark Hannan for Breakout Creek project briefing</td>
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<td>Road2Civil Information Session</td>
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<td>Record Farewell Tribute to General Manager Asset Management Services</td>
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<td>15/08/2020</td>
<td>10:45 AM</td>
<td>Greek Orthodox Community of SA - The Assumption of the Virgin Mary</td>
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<td>16/08/2020</td>
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<td>Gym West - Annual General Meeting</td>
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<td>Mayor and Manager MMC Catch Up</td>
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<td>1:00 PM</td>
<td>Met with Paul Sutton and Mr Joe Szakacs MP to discuss CCS Community Plan</td>
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<td>3:30 PM</td>
<td>Met with Council staff and representatives of D&amp;S Group to discuss Fulham Gardens Shopping Centre renovations</td>
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<td>Asset Management Committee Meeting</td>
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<td>18/08/2020</td>
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<td>CAWRA Board Meeting - Out of Session - Tender Evaluation Further Clarification Report</td>
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<td>Webinar - How to Talk about Climate Change - Insights from social research with Rebecca Huntley</td>
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<td>2:00 PM</td>
<td>Met with Cr's Hibeljic and Turelli</td>
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<td>Review of Council agenda</td>
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<td>Breakout Creek Stage 3 - project information presentation - invitation to attend</td>
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<td>LGA - Zoom Briefing with Premier Steven Marshall and Minister for Local Government, Hon Vickie Chapman MP</td>
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<td>United Indians of SA - Arts &amp; Cultural Ganesh Festival 2020</td>
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<td>Grange Primary School - 140 Year Celebration</td>
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<td>CAWRA - Board Interview</td>
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<td>Council Workshop - Coastal Sand Replenishment Program Update</td>
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<td>Council Meeting</td>
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<tr>
<td>25/08/2020</td>
<td>10:00 AM</td>
<td>Sod Turning at WEST development for West Lakes Library and Community Hub</td>
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<td>7:00 PM</td>
<td>LG Reform Briefing with Upper House Members of Crossbench and the Opposition</td>
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<td>Event Cancelled</td>
<td>Workforce BluePrint</td>
<td>Reigniting Economic Growth &amp; Entrepreneurship - Leaders Forum &amp; Dinner</td>
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<td>Invitation Declined</td>
<td>Australian Migrant Resource Centre</td>
<td>Connecting Settlement and Community Services Forum - Consultation and information sharing with young people</td>
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<tr>
<td>Cr Kenzie van den Nieuwelaar</td>
<td>Henley South Tennis Club</td>
<td>Open Day</td>
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<tr>
<td>Cr Tom Scheffler</td>
<td>West Lakes Sports Club</td>
<td>Official Opening of Changerooms</td>
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4. DEPUTATIONS

5. PETITIONS

Nil
6. BUSINESS

6.95 PRESENTATION - COMMUNITY CONNECTIONS AND URBAN PROJECTS - CONNECTING WITH COMMUNITIES DURING COVID-19

TO: City Services Committee

FROM: General Manager City Services - Bruce Williams

DATE: 12 October 2020

Brief

This presentation and report provides an update in relation to both the Community Connections and Urban Projects portfolio's navigation of the COVID-19 pandemic, the innovations in service delivery and provision of economic stimulus and how we re-engaged and connected with our stakeholders and the broader community.

Recommendation

1. That the report be received and noted.

2. That the staff be thanked for their presentation and a copy of the presentation be included in the minutes.

Status

This report relates to or impacts upon the following Community Plan Objectives 2016-2027.

Our Community - A strong and connected community

Provide accessible social infrastructure and services that engage our diverse community
Capitalise on partnerships, build community resilience and sense of belonging
Create opportunities for community leadership and civic participation

Our Leadership - A leading & transformational Local Government organisation

Be bold and innovative in our practices, leadership and decision making
A collaborative, agile and high performing work place

Relevant Council policies are:

Nil

Relevant statutory provisions are:

Nil

Background

The COVID-19 pandemic has had a significant impact across the Community and also to the operations and service delivery of a number of Council service areas.
Key council services that have been affected include libraries, community centres, the Woodville Town hall and a number of recreation services delivered by various sporting groups who lease council property. Functions such as place making and economic development that seek to bring people together have had to significantly readjust their delivery model and find ways to support the arts, hospitality and small business sectors which have been decimated by the economic fall out of Covid 19.

Given the extent of the change, and despite the many constraints imposed, services have been delivered in creative ways giving hope to residents while struggling sectors within our community have been buoyed by the support Council has offered, as we have found new ways to reposition our operations into the future.

Report

Community Connections

With the advent of the COVID-19 pandemic, Community Connections' services and programs began being impacted in early March 2020. Many participants across a range of our programs comprised vulnerable age groups including babies, toddlers and older residents. Many of these programs and services involved group gatherings or in home activities.

As the SA Government (SA Health), restrictions were introduced and gathered momentum, the need to modify and adapt programs and services and to do this quickly, became the new norm. The team worked hard to develop options and alternatives to usual service delivery and program offerings. The safety of the community and our team were of paramount consideration during all of our deliberations.

For the Ageing Well team, the changes were very significant. Almost all existing services and programs were suspended due to the close contact required (in home, in our facilities and in our vehicles and buses). The team worked quickly to determine what services or programs could be offered and developed a completely alternate service model for their clients. This alternate model included well-being phone calls, continuation of shopping but in a modified way and creation of activity packs and DVD's to enable clients to keep connected and active in their homes.

As our facilities closed, and with the restrictions around social distancing and the space available in our offices - the majority of this team moved off site; based in their homes, utilising their own vehicles for client shopping, utilising their telephones to continue to connect with their clients, etc. The team kept connected with each other online and have been outstanding in their care of some of the most vulnerable people in our community.

Library Services ceased delivering face to face programs prior to our facilities being required to close. Again, these programs attract some of the most vulnerable age groups and therefore needed to be suspended for the safety of all. As the requirement for libraries to close and cease face to face service was announced, this team worked through their options and came up with a range of adapted/modified programs and services that enabled the community to continue to access resources from their library and to participate in programs online.

A Call and Collect (and Click and Collect for those more technically able), service model was developed, that enabled a contactless service to be provided. The customer rang the library, requested the books or other materials they were interested in borrowing and these items were sourced, issued to the customer and placed in a labelled bag at the front entrance. This often evolved into a highly personalised service with library staff taking care in selecting items most appropriate to meet the customer request. The feedback from the community has been overwhelmingly appreciative.
In tandem with this service, an expansion of our Home Delivery Service has meant many more vulnerable people have been able to access library resources in a Drop and Go model. This is another contactless service that has been greatly appreciated by the community.

A range of programs have been migrated to online platforms from Libraries and Community Centres, and in the case of Ageing Well, conference calling Bingo sessions. The teams have recorded the sessions to be viewed on demand and have also live streamed programs into preschools and homes.

Community Centres were also very significantly impacted through the closure of the Centres. Most of the activities occurring in Centres are group based, and many of their participants are older residents. With the closures, the Community Development Team repositioned their activity around maintaining their connections with volunteers and groups. They adapted and created some contactless programs and some online programs. By request, some essential food services were able to utilise suitable Centres.

This team also moved out to work from their homes and utilised technology to stay connected with each other and beyond.

Many of these adaptations and innovations have been well received by the community. It is our aim to not just completely revert to the usual service model but to think about how we can continue to deliver some of these into the future.

As our facilities have re-opened and services and programs have recommenced in a face to face setting, many in the community have re-engaged. We have also found that some people still feel reluctant to come into public spaces or group situations, even with the social distancing measures and hygiene protocols in place. We are continuing to connect with some of these people through our modified service delivery. During the pandemic we actively connected and engaged with the community, our customers and clients. We are now undertaking some data gathering to see what worked well, what they liked most, what didn't work so well, and what we might do differently if the situation changes again.

Urban Projects

The Urban Projects portfolio provide a range of services including community consultation, policy planning, Town Hall management, economic development and place making.

Once the extent of the pandemic became clear, staff realised that the way we had provided support for the arts and business communities up until this point would have to fundamentally change. Bringing people together was forbidden, staying apart was required. This was contrary to our objectives and yet our long term partners in the sectors of the arts, main street traders, hospitality and small business were heavily impacted.

Out of these discussions came the view that our job was to bring energy to the recovery and in so doing it energised the team. We knew that the limited resources we had needed to be deployed quickly and that success stories needed to be shared. We needed to give those who had been most impacted a sense of purpose and some optimism going forward. That was our job and the support from The Mayor and Elected Members has been invaluable in achieving this outcome.
Working collaboratively, the economic development, placemaker and town hall teams, together with the assistance of other colleagues such as the Marketing and Communication team, have delivered the following initiatives that were approved by Council at its meeting on 11 May 2020:

**Small Business Support**
This program provides support to businesses to transition their business model to online, increase their digital capability and position themselves for success in the future. This program has been delivered in partnership with the Adelaide Business Hub and other digital business advisory service providers to provide financial and business planning support that enables innovation.

**Friday Night Live**
This program has brought energy into the live music scene in such venues as The Gov and the Woodville Hotel, by partnering with the venues both on-line and on location as restrictions have eased.

**#Shop Local We Are Back in Business**
This project has assisted the recovery by supporting businesses to hold events that invite both their customers and the local community back. Funding has been provided to a maximum of $2,000 for each event, meeting costs of food, local entertainment and business overheads etc. Where possible, businesses in precincts have been encouraged to collaborate to maximise the opportunity.

**Foyer Fridays**
The continued use of the Woodville Town Hall to provide live streamed events featuring bands and performers, together with small audiences that were permitted in accordance with Covid restrictions.

**Open Space Recreation and Property**

**Round 1 - Recovering Clubs**
Funds were predominantly used to purchase Covid related cleaning products and first aid equipment, including hand sanitiser, disinfectants, dispenser stations and associated Covid signage.
Many clubs also used the funds to subsidise ongoing utility and cleaning bills during the height of COVID-19.
Round 1 resulted in 46 applications from local clubs for up to $500 funding for each. A total of $23,000 was approved and paid out to sporting clubs.

**Round 2 - Recovering Clubs**
Many clubs took advantage of this second funding opportunity, and once again subsiding utility bills and Covid related cleaning products and equipment featured highly, along with the purchase of signage, sporting equipment to help limit sharing & allow for essential cleaning between use. Covid marshall kits and the purchase of life jackets for a multitude of paddling / dragon boat clubs also featured extensively in this round.
Round 2 closed on 2 October and saw 51 clubs apply for up to $1k in funding each, resulting in $49,465.65 of the $50K grant budget being allocated to local clubs. A total of 15 of the 51 clubs applying in Round 2, were not funded in Round 1.

A total of 97 applications were received from local clubs across these two funding rounds, equating to $72,465.65 of grant funds delivered or about to be provided to clubs.
A total of 61 different clubs were supported across the 2 rounds, which indicates a significant take up from local clubs, given we are aware of approximately 70+ clubs active within CCS.

Financial and Resource Implications

The Community Connections Portfolio delivered the programs within their annual operating and recurrent budgets without additional funding.

The Urban Projects Portfolio received funding in the form of Operating Projects and recurrent budgets within both the 2019/20 and 2020/21 budgets to deliver the Economic Stimulus Package as follows:

Business support and stimulus $176,500.

- The Business Support grants program and stimulus to improve online marketing, eCommerce and business innovation and development. Establishment of the Adelaide Business Hub Business Support Helpline, $111,500
- The #shoplocal Campaign assisting businesses to bring energy to their COVID-19 recovery targeting customer attraction and events grants as restrictions ease, $45,000
- Online Precinct Marketing Campaigns to assist traders at Henley Beach and Hindmarsh, $20,000

To date the Business Support grant has allocated 62 grants and the #shoplocal campaign has allocated 18 grants to local businesses.

Arts and cultural support and stimulus $271,000.

- Creative Cities Program $72,000
- Live music and streaming program, Live and Local $80,000
- Woodville Town Hall Program of Events $119,000

The Open Space Recreation and Property Portfolio: $100,000 of funding has been endorsed as part of the stimulus package to deliver support to the many varied sporting clubs and groups that assist Council deliver a range of health and well being outcomes for our community.

Customer Service and Community Implications

The impacts on councils customers and the broader community have been profound and will be further borne out during the presentation.

Environmental Implications

There are no environmental implications.

Community Engagement/Consultation (including with community, Council members and staff)

Extensive consultation occurred with businesses, arts groups and recreation providers in the shaping of the stimulus package. Ongoing engagement has been comprehensive and continues to ensure the work undertaken brings energy to the recovery.

Risk Management/Legislative Implications

There are no risk management or legislative implications.
**Conclusion**

Covid 19 has brought numerous challenges in ensuring the services we provide could continue to meet the needs of our community. This was at a time when the world changed and many in our community needed the services or programs more than ever. Services, programs, governance arrangements and funding packages were augmented to meet those most in need.

The presentation associated with this report seeks to share some of those stories, so that we can all reflect and learn more about our role both now and into the future, to ensure that our Council, together with our community, is strengthened by the experience, is best positioned to aide with the recovery and remains resilient into the future.
6.96 REPRESENTATION REVIEW - OPTIONS PAPER

TO: Council
FROM: Manager Governance and Operational Support - Kerrie Jackson
DATE: 12 October 2020

Brief
For Council to consider the Representation Options Paper developed by Kelledy Jones Lawyers and to determine the options to be presented to the Community for the first round of Community Consultation.

Recommendation
1. That Council notes and receives the Representation Options Paper.
2. That Council endorse the 5 Options as detailed in Appendix A to this report for Stage 1 of the public consultation process for the City of Charles Sturt's Representation Review.
3. That Council endorse the Representation Community Engagement Approach as detailed in Appendix B to this report.

Status
This report relates to or impacts upon the following Community Plan Objectives 2016-2027.

Our Leadership - A leading & transformational Local Government organisation
Be bold and innovative in our practices, leadership and decision making
Practise transparent and accountable governance

Relevant Council policies are:
- Nil

Relevant statutory provisions are:
- Local Government Act 1999

Background
Section 12(4) of the Local Government Act 1999 (the Act) requires Councils to ensure that all aspects of the composition of the Council, and the issue of the division, or potential division, of the area of the Council into wards, are comprehensively reviewed at least once in each relevant period that is prescribed by the regulations.

The City of Charles Sturt was last required to conduct a full Representation Review in 2012/13 which, after consultation, resulted in the status quo remaining in effect. For previous reports please refer (CL 08/10/12, Item 6.160) and (CL 13/05/13, Item 6.72).
The Minister for Transport, Infrastructure and Local Government has now determined the next schedule of review periods for Councils as Gazetted on 1 August 2019. The City of Charles Sturt was to complete their Representation Review by June 2021. This has been amended by 4 months, which provides Councils with a 4 month extension to October 2021, however it is anticipated that the review will be finalised by June 2021.

In order to commence a review, a Representation Options Paper must be initiated and prepared by a person who, in the opinion of the Council, is qualified to address the representation and governance issues that may arise with respect to the matters under review. At the Council meeting of 9 June 2020 (CL 9/6/20, Item 6.47) Council endorsed the engagement of Kelley Jones Lawyers to commence and undertake the Representation Review on behalf of the City of Charles Sturt.

**Report**

Kelley Jones Lawyers prepared and presented a Representation Options Paper at the Council meeting of 24 August 2020 (CL 24/8/20, Item 6.76). At this meeting the Council sought an additional Elected Member workshop to allow the members to provide any further information for consideration and inclusion in the Options Paper.

A workshop was held with the Elected Members on Monday 21 September 2020 and Kelley Jones and as a result of this workshop an updated Representation Options Paper has been prepared and is contained in **Appendix A** to this report. The Options Paper addresses the representation and governance issues and examines the advantages and disadvantages of options in respect to a range of issues. A representative from Kelley Jones Lawyers will be in attendance at the Council meeting to present the contents of the Options Paper.

The Options Paper has been prepared in accordance with the requirements of Section 12(5) of the Act and examines the advantages and disadvantages of the various options that are available to Council in respect to its future composition and structure. It contains information pertaining to the review process; elector distribution and ratios; comparisons with other councils; demographic trends; population projections; residential development opportunities which may impact upon future elector numbers; and ward structure options.

The key issues that need to be addressed during the review include:

- election or appointment of the Principal Member (Mayor/Chairperson);
- the number of Councillors;
- how Councillors are elected – from wards, across the whole of the Council area or a combination of both;
- whether the Council should have wards or no wards; and
- the name of the Council and the wards (if any).

Taking these key issues into consideration and the feedback from the Elected Members, Kelley Jones Lawyers has put forward 5 proposed options (refer **Appendix A**) for public consultation, where the community will be invited to make submissions on these options.

The consultation period for this process (stage 1) is six (6) weeks and public notices will be placed in the Government Gazette and the Advertiser to appear on Thursday 15 October 2020. A Community Engagement Approach has been developed to provide the best opportunity to receive submissions from the Community and this is contained in **Appendix B** to this report.
This details that the Representation Review consultation process will be placed on the Council website and submissions will be invited via the YourSay website. The consultation period will run from Tuesday 13 October 2020 and closing on Tuesday 24 November 2020. At the conclusion of this consultation process a report will be presented to the Council meeting of 25 January 2021 for Council to consider and endorse the Representation Review Report for a second round of consultation over a 3 weeks period.

Financial and Resource Implications

$15,000 as an Operating Project has been allocated for the Representation Review and it is anticipated that there will be some savings to this however it will depend on any future requirements for unplanned consultation processes and/or additional Council Member Workshops.

Customer Service and Community Implications

There are no customer service or community implications.

Environmental Implications

There are no environmental implications.

Community Engagement/Consultation (including with community, Council members and staff)

There are two stages throughout a Representation Review that place mandatory requirements on Councils' to engage their communities. This is in line with Sections 12(7) and 12(9) of the Act and invites interested persons to make written submissions to the Council on the subject of the review.

In line with Council’s Public Consultation Policy, a full Community Engagement Approach has been included as Appendix B to this report. This details that the Representation Review consultation process will be placed on the Council website and submissions will be invited via the YourSay website. The consultation period will run from Tuesday 13 October 2020 to Tuesday 24 November 2020. At the conclusion of this consultation process a report will be presented to the Council meeting of 25 January 2021 for Council to consider and endorse the Representation Review Report for a second round of consultation over a 3 weeks period.

It is also noted that Section 12(10) of the Act provides the community opportunity for a hearing of submissions to a Council or Committee meeting as part of the second stage of consultation. This section of the Act has not been identified within any of the Minister's Emergency COVID-19 Notices, and therefore will be monitored by staff as the review progresses. If the current Council and Committee arrangements remain in place, it would be expected that on-line submissions would satisfy this section of the Act.

Risk Management/Legislative Implications

The Local Government Act 1999, Section 12(4) requires Councils to ensure that all aspects of the composition of the Council, and the issue of the division, or potential division, of the area of the Council into wards, are comprehensively reviewed at least once in each relevant period that is prescribed by the regulations.
Conclusion

That Community Engagement Approach as detailed in Appendix B is endorsed for the Representation Review process and the Representation Review Options Paper as detailed in Appendix A is endorsed for the first round of Community Consultation.

Appendices

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City of Charles Sturt

This paper has been prepared for the City of Charles Sturt (Council) for the purposes of section 12(5) of the Local Government Act 1999 (Act) by Kelledy Jones Lawyers.

Disclaimer

This Representations Options Paper has been prepared by Kelledy Jones Lawyers for the City of Charles Sturt's Representation Review for use by the Council and its constituents. The opinions, estimates and other information contained in this Paper have been made in good faith and, as far as reasonably possible, are based on data or sources believed to be reliable. The contents of this Paper are not to be taken as constituting formal legal advice.
1 INTRODUCTION

Councils in South Australia are required to undertake regular reviews of their elector representation arrangements (Representation Review). The City of Charles Sturt (Council) undertook its last Representation Review during the period April 2012 to April 2013.

In accordance with section 12(4) of the Act:

[a] review may relate to specific aspects of the composition of the council, or of the wards of the council, or may relate to those matters generally, - but a council must ensure that all aspects of the composition of the council, and the issue of division or potential division, or the area of the Council into wards, are comprehensively reviewed under this section at least once in each relevant period.

Pursuant to regulation 4 of the Local Government (General Regulations) 2013, the relevant period for the Council to undertake its Representation Review was determined by the Minister, by notice in the Government Gazette (Gazette) on 9 July 2020.

A copy of the Gazette notice is contained in Appendix A of this Paper.

In accordance with the Gazette notice, the relevant period for the Council to undertake its Representation Review is June 2020 to October 2021.

1.1 Review Process

The process for the Representation Review requires the Council to undertake the following steps:

1.1.1 initiate the preparation of this, the Representation Options Paper (Paper), by a person who, in the opinion of the Council, is qualified to address the representation and governance issues that may arise with respect to the matters under review;

1.1.2 conduct the first round of public consultation on the Paper pursuant to section 12(7) of the Act. Consultation must be open for a minimum period of six (6) weeks;

1.1.3 consider the submissions made during the first public consultation and prepare a Representation Review Report that details the representation arrangements it favours, the reasons why and respond to issues raised during the first consultation;

1.1.4 conduct the second round of public consultation, providing an opportunity for people making submissions to be heard personally or through a representative on the Representation Review Report, by either the Council or a Committee of the Council. Consultation must be open for a minimum period of three (3) weeks with opportunities for verbal submissions to follow;
1.1.5 adopt a representation structure;

1.1.6 prepare the final Representation Review Report;

1.1.7 submit the final Representation Review Report to the Electoral Commissioner of South Australia (ECSA) to obtain a certificate of compliance. If the certificate of compliance is not provided, the Council will be required to undertake further actions to meet the ECSA’s requirements; and

1.1.8 place a notice in the Gazette providing for the operation of any proposal in the final Review Report for which the ECSA has provided a certificate of compliance.

If the Council wishes to adopt a representation structure that changes the composition of the Council, or to appoint a Chairperson instead of an Elected Mayor, a poll must be held on that aspect of the Representation Review.

A timeline for the Representation Review is contained in Appendix B of this Paper.

Any changes as a result of the Representation Review take effect for the next general elections to be held in November 2022 unless:

1.1.9 notice in the Gazette of the operation of any proposal occurs after 1 January 2022, in which case the changes will take effect for the periodic election subsequent to November 2022; or

1.1.10 if the general election is held after the expiration of seven (7) months from the day of publication of the notice (and before polling day for the next periodic election after publication) then the proposal will take effect from polling day for that general election.

This Paper has been prepared by Kelley Jones Lawyers and follows the framework included in the publication Undertaking an Elector Representation Review: Guidelines for Councils dated May 2016, prepared by the Electoral Commission of South Australia (ECSA).

1.2 Legislative Requirements

Section 12 of the Act sets out the statutory requirements that the Council must follow in conducting its Representation Review.

The Representation Review Report must also take into account the principles set out in section 26 of the Act, namely:

- that any changes to the Council’s representation should benefit ratepayers;
- arrangements should reflect communities of interest, values and aspirations and avoid significant dislocation within the community;
• encourage local community participation in decisions about local matters; and
• provide effective local governance and foster co-operation with other councils.

The Representation Review Report must also have regard to section 33 of the Act, which lists the matters that must be taken into account, as far as practicable, if the Council proposes to change the ward representation of the Council. These include:

• the desirability of reflecting communities of interest of an economic, social, regional or other kind;
• the population of the area, and of each ward affected or envisaged by the proposal;
• the topography of the area, and of each ward affected or envisaged by the proposal;
• the feasibility of communication between electors affected by the proposal and their elected representatives;
• the nature of substantial demographic changes that may occur in the foreseeable future;
• the need to ensure adequate and fair representation while at the same time avoiding over-representation in comparison to other councils of a similar size and type (at least in the longer term).

A proposal that relates to the formation or alteration of wards of a council must also observe the principle that the number of electors represented by a Councillor must not, as at the relevant date (assuming the proposal was in operation), vary from the ward quota by more than 10 per cent.

A copy of the relevant sections of the Act are contained in Appendix C of this Paper. This Paper contains information relevant to the consideration of these factors.

1.3 Review Considerations

In accordance with section 12 of the Act, this Representation Review is required to consider the composition of the Council and the advantages and disadvantages of the options that are available for elector representation under the Act.

The key areas for consideration are:

• election or appointment of the Principal Member (Mayor/Chairperson);
• the number of Councillors;
• how Councillors are elected – from wards, across the whole of the Council area or a combination of both;
• whether the Council should have wards or no wards; and
• the name of the Council and the wards (if any).

2 COUNCIL BACKGROUND AND PROFILE

The Council was formed by the amalgamation of the City of Hindmarsh Woodville and the City of Henley and Grange of 1 January 1997.

It covers an area of approximately 54.8 km² and has a population of approximately 111,759 (ABS 2016 Census of Population and Housing Charles Sturt (C) (LGA1060)), of which, 86,139 are electors (ECSA - current as at last collection of elector figures statistics for House of Assembly and Council Supplementary Roll 28/2/2020).

Its area contains a mix of residential, industrial and commercial activities, with three (3) significant, ongoing residential developments in Woodville West, Bowden and West Lakes, which continue to drive infill development and population growth.

3 EXISTING COMPOSITION OF COUNCIL

3.1 Background and Profile

The ‘City of Charles Sturt’ was proclaimed on 1 January 1997 as a result of the amalgamation of the former City of Hindmarsh Woodville and the City of Henley and Grange.

The Council has a population of approximately 111,759 people in an area of 54.8 km² (ABS 2016 Census of Population and Housing, as above).

The Council is a mix of residential, industrial and commercial land, with contemporary and highly valued heritage areas. It is also a culturally diverse community.

The ‘City of Charles Sturt’ has been the name of the Council since it was formed, and is named after Charles Sturt, a prominent explorer of early Australia, who was also a resident of the Grange area in the mid-19th century.

Whilst sections 12(1) and (2) of the Act provide that the Council may consider the alteration of its name as part of the Review process, the current name of the Council is an important part of its history. For this reason, supported by the absence of any submissions from Councillors regarding the same, the name of the Council is not proposed to be reviewed as part of this Representation Review.

3.2 Principal Member

The Council’s Principal Member is a Mayor, elected from the Council area as a whole.
3.3 Current Representation Structure

The Council undertook its previous Representation Review during the period April 2012 to April 2013 at which time it determined to retain its eight (8) ward structure, each with two (2) ward Councillors and a Mayor, elected from the whole of the Council area.

The current names of the eight (8) wards are:

- Beverley
- Findon
- Grange
- Henley
- Hindmarsh
- Semaphore Park
- West Woodville
- Woodville.

A copy of the Ward Map is Appendix D of this Paper.

4 COMPOSITION OF COUNCIL

The role of the Mayor and Councillors of the Council are set out in sections 58 and 59 of the Act.

58 Specific roles of principal member

(1) The role of the principal member of a council is -

(a) to preside at meetings of the council;

(b) if requested, to provide advice to the chief executive officer between council meetings on the implementation of a decision of the council;

(c) to act as the principal spokesperson of the council;

(d) to exercise other functions of the council as the council determines;

(e) to carry out the civic and ceremonial duties of the office of principal member.

(2) Subsection (1)(c) does not apply in circumstances where a council has appointed another member to act as its principal spokesperson.
**59 Roles of members of councils**

(1) The role of a member of a council is -

(a) as a member of the governing body of the council -

(i) to participate in the deliberations and civic activities of the council;

(ii) to keep the council’s objectives and policies under review to ensure that they are appropriate and effective;

(iii) to keep the council’s resource allocation, expenditure and activities, and the efficiency and effectiveness of its service delivery, under review;

(iv) to ensure, as far as is practicable, that the principles set out in section 8 are observed;

(b) as a person elected to the council—to represent the interests of residents and ratepayers, to provide community leadership and guidance, and to facilitate communication between the community and the council.

(2) A member of a council may, with the principal member’s authorisation, act in place of, or represent, the principal member.

(3) A member of a council has no direct authority over an employee of the council with respect to the way in which the employee performs his or her duties.

### 4.1 Mayor or Chairperson

In this Representation Review, consideration must be given to the two (2) options for the office of the Principal Member. The Principal Member may be:

- elected by electors from the whole of the Council area as the Mayor; or

- appointed by and from within the Councillors for a period of no more than four (4) years, and given the title of either Chairperson (the title under the Act) or another title as determined by the Council (refer section 51(1)(b) of the Act).

The roles and responsibilities of the Mayor and Chairperson are identical in all respects. The difference between the positions are the manner in which they are elected or appointed, as well as the terms of office and voting rights, including:

- a Mayor is elected for a term of four (4) years, whereas a Chairperson has a term decided by the Council which cannot exceed four (4) years (in other words appointment could be for a shorter period);
• if a candidate running for the position of the Mayor is unsuccessful, they cannot also be considered as a Councillor, in which instance, their expertise will be lost;

• a Mayor does not have a deliberative vote in a matter being considered by the Council, but where a vote is tied, has a casting vote; and

• a Chairperson has a deliberative vote but not a casting vote.

There are advantages and disadvantages to both positions.

In the case of an elected Mayor, the predominant advantage is that it can both reasonably and appropriately be considered that they represent a broader cross section of the community as they are elected from the community as a whole.

One disadvantage is that electing a Mayor requires an election across the whole of the Council area if more than one nomination for the office is received, which is an additional cost to the Council above what is required for the election of Councillors. Further, candidates for the office of Mayor cannot also stand for election as a Councillor, and, accordingly, the experience and expertise of any unsuccessful Mayoral candidates is potentially a loss to the Council.

The advantages to appointing a Chairperson include that the person appointed represents the majority views of the Councillors, which can assist in the decision-making process. Appointing a Chairperson may also result in cost saving to the Council at election time, depending on the number of Councillors.

However, a disadvantage includes that electors may prefer a representative of the community, and not one of the elected Councillors. There is also a perception that the position of Chairperson lacks the status of a Mayor, which may have a detrimental impact on the perception of the Council as a whole.

Which option is most appropriate will be a matter for consideration, and determination, by the Council.

If the final Representation Review Report proposes that the composition of the Council be altered so that the Council will have a Chairperson rather than a Mayor, then the proposal cannot proceed unless it has been passed by a poll of the electors.

4.2 Area and Ward Councillors

The number of Councillors, and their method of appointment, are to be considered as part of this Representation Review.

The Council has three (3) options in determining how Councillors are elected:

• from within wards (‘ward Councillors’);
• from across the whole of the Council area (‘area Councillors’); or
• a combination of wards and Council area.

Currently, the Council elects its Councillors through the ward structure set out at 3.3 above.

There are benefits and disadvantages to both election methods, which are set out here. As part of this Representation Review, the Council is required to consider whether (or not, as the case may be) it should elect ward Councillors or area Councillors.

For the Council’s consideration, the benefits of electing Councillors from wards have been described to include:

• electors within local communities are likely to know the candidates within their ward;
• electors consider that Councillors from a ward will be more aware of local issues and feel they are better represented;
• it can be more accessible for members of the community to approach and talk to ward Councillors;
• if the Council has a large geographic area, or a diverse community, the role of an area Councillor could be unreasonably time consuming;
• less opportunity for special interest groups to ‘gain control’ of the Council;
• the cost (in both time and resources) for candidates conducting an election campaign for a ward, rather than the whole Council area, is more economical and can encourage greater levels of candidacy; and
• lower cost to the Council in conducting elections.

The benefits of electing Councillors from the whole Council area have been described to include:

• an election across the whole Council area provides electors with greater choice in relation to ideas and skills of individual candidates, rather than where a candidate resides;
• voters are able to vote for the best, or preferred, candidates, rather than being restricted to candidates within their ward;
• smaller communities can still have local candidates elected by running a strong campaign;
• Councillors are likely to take a whole of Council approach to matters rather
than, arguably, a narrower ‘ward’ view. That is, a perception that the area Councillor is free from localised ward attitudes and responsibilities;

- postal voting and use of technology in elections makes it easier for people to serve as Councillors to the whole Council area; and

- there is no requirement to maintain a quota of electors to Councillors, as is required with wards.

4.3 Number of Councillors

As the Council is constituted of more than twelve (12) members, as well as being divided into wards, section 12(6)(a) of the Act requires that this Paper examine the question of whether the number of members should be reduced, and the question of whether the division of the area into wards should be abolished.

Section 12(6)(a) specifically provides that:

> (a) if the council is constituted of more than 12 members - examine the question of whether the number of members should be reduced; and

> (b) if the area of the council is divided into wards - examine the question of whether the division of the area into wards should be abolished,

> (and may examine such other relevant issues as the council or the person preparing the paper thinks fit)

It is also to be noted that proposed section 11A of the Statute Amendment (Local Government Review) Bill 2020, would prevent a council from having more than twelve (12) members, inclusive of the Mayor. However, the reforms have yet to be debated in the House of Assembly, and even if subsequently passed in the current form, this provision will have no effect for the Council until the periodic election in 2026.

However, this proposed reform, combined with the wording of the existing section 12(6)(a) of the Act, does indicate the legislative intent that the Council will be required, at the very least, to consider the question of whether the number of members should be reduced as part of its Review.

In doing so, it is important to take into consideration that fewer Councillors will likely
have a direct impact on representation for electors, as well as timeliness of responses.

That is, less Councillors to ‘share’ the workload across the Council area, in circumstances where issues and matters of concern for the community are unlikely to correspondingly be reduced, will have an impact on the ability of those Councillors to provide the existing levels of service that electors currently enjoy.

It is also to be noted that the ‘cost’ to the community, and any suggestion that fewer Councillors may result in reduced costs for the Council, is a ‘blunt’ instrument within which to assess the impact of a reduced number of Councillors. This is particularly so for the Council which has a culturally diverse community and a number of communities of interest. Accordingly, any potential for financial savings needs to be considered in light of the corresponding potential for reduced representation and delays in timely responses.

Other considerations which are relevant to determining the appropriate number of Councillors include:

- whether the current number of Councillors (sixteen (16), not including the Mayor) has an impact on decision-making by the Council; and

- the ratio of Councillors to electors as compared to similar councils, to ensure adequate and fair representation and avoid any suggestion of over representation.

While a comparison of councils is not a precise measure, as no two (2) councils are the same in terms of population, size and composition, a comparison of similar councils, both in size as well as geographically, can assist in providing guidance on comparable levels of representation for the Council in determining this issue.

The following Table represents information regarding composition, size and elector ratio of other similar sized, and demographically adjacent, councils.

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</table>
Of the larger councils in the above comparison, the Council compares favourably, being within 10%, of the three (3) councils with lower elector ratios, and significantly better than the other three (3) larger councils.

City of West Torrens and City of Adelaide have much lower elector ratios as a result of their lower elector base, but have been included in the comparison as they geographically adjoin the Council.

Section 33(2) of the Act requires that the Council ‘must observe the principle that the number of electors represented by a councillor must not...vary from the ward quota by 10 per cent’.

On balance, the Council’s ward quota is also in line with councils of a similar size and, taking into account the projected population growth in the Council area, retaining the existing number of councillors would result in a ward quota of 6,147 in 2036.

If a change in Councillor numbers were to be implemented as part of this Representation Review, this would require a reconsideration of the existing ward structure, including whether to change the number of wards or the number of Councillors per ward.

The Council currently has equal representation for each ward, and adding, or subtracting, one (1) Councillor from any particular ward would result in that ward being in breach of the ward quota principles set out in section 33(2) of the Act.

Further, if the Council were, for example, to add a single area councillor to increase overall representation, this would result in six (6) out of the eight (8) wards being in breach of the ward quota principles.

5 LEGISLATIVE PRINCIPLES AND MATTERS WHICH MUST BE CONSIDERED

The Council is legislatively required to take a number of matters into account under section 33 of the Act, in conducting the Representation Review. We now turn to address these below.

5.1 Demographic Trends

Development trends are a relevant consideration for the Council as part of this Representation Review, being indicative of the potential for an increase in the population of the Council area, and/or of electors to the Council area. This is relevant in considering the issue of wards, and ward boundaries, as section 33(2) of the Act requires that number of electors represented by a Councillor must not, at the relevant date of the Representation Review, vary from the ward quota by 10%.

Council records demonstrate that there were 275 land division approvals granted in the 2019/2020 financial year, resulting in 381 new allotments being created.
In addition to this existing development, significant ongoing infill development is occurring at the following sites, and as part of the following projects:

- Bowden – ‘Life More Interesting’;
- ‘West’ at West Lakes; and
- ‘The Square’ at Woodville West.

According to the Council’s demographic data, in the five (5) years to 2016 (noting that there may, equally, have been significant changes since that time), the Council’s population became older on the whole, with a growing migrant population, including a significant increase in residents born in Vietnam, India, China and the Philippines.

The ABS 2016 Census of Population and Housing data confirms that of the 111,759 residents of the Council area, 74,780 identified their birthplace as Australia, while 30,790 (including those who have been determined as ‘inadequately described’) identified their birthplace as outside of Australia.

The largest rise in population by birthplace remained those born in Australia, which contributed a rise of more than two and a half times the aggregate of the other four (4) identified countries.

5.2 Population Data and Projections

The former Department for Planning, Transport and Infrastructure (DPTI) (now Department for Infrastructure and Transport) prepared population projections for South Australia.

The estimated population projections for the Council area are as follows:

- 2021 121,110;
- 2026 126,777 (+5,337);
- 2031 131,947 (+5,500); and
- 2036 138,292 (+6,435).


Although this projects a significant increase in population for the Council, which will result in an increase in ward quotas and elector ratios overall, the increase in population is not projected to be uniform across the Council area. This is likely to result in discrepancies in ward quotas, across wards, that will need to be taken into account in future Representation Reviews.
However, population projections must always be cautiously considered, based on the date when the data was collected, and applying assumptions about future fertility, mortality and migration.

The data should be interpreted having regard to the Council’s own knowledge about its area, as well as anticipated population changes (for example large housing developments as described in the preceding section).

5.3 Communities of Interest

Communities of interest are factors relevant to the physical, economic and social environment, and include consideration and analysis of:

- neighbourhood communities;
- history/heritage of the Council area and communities;
- sporting facilities;
- community support services;
- recreation and leisure services and centres;
- retail and shopping centres;
- industrial and economic development; and
- environmental and geographic areas of interest.

Local knowledge is always the best tool to identify and determine communities of interest, along with development characteristics of the Council area.

5.4 Elector Representation and Ward Quotas

The elector ratio is the average number of electors represented by a Councillor. The Mayor is not included in the calculations.

The total number of electors used for the calculations in this Paper is 86,139, based on the projections and information provided to the Local Government Association of SA, derived from information provided by ECSA. This was current as at the last elector figures statistics for the House of Assembly and Council Supplementary roll 28/2/2020.

It is, of course, also to be noted there is, to a degree, a number of ‘hidden’ electors in the Council area at any given time. This arises on the basis that electors entitled to vote in the Council area must be registered with the Council as residents, occupiers or owners of rateable property in the Council area.
Not all persons who are eligible to register, do so. For example, owners of businesses, owners of holiday houses and landlords of rateable property may not, at any given time, be registered as electors in the Council area.

In calculating ward quotas, we have used the adjusted actual total elector numbers from 2018 (*ECSA Local Government Election Report 2018*) by the proportional change in overall elector numbers in the Council area.

The below Table indicates the number of electors per ward under the current ward structure, and the difference in the elector ratios between the existing wards.

The current composition of the Council results in elector ratios ranging from 1:5,773 (in Woodville) to 1:5,002 (in Semaphore Park).

The elector ratio within the Council as at 2020 was 1:5,383 (excluding the Mayor), i.e. 86,139 divided by 16 Councillors.

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tbody>
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<td>Beverley Ward</td>
<td>2</td>
<td>9,149</td>
<td>4,575</td>
<td>10,232</td>
<td>5,116</td>
<td>9.01%</td>
<td>- 4.96%</td>
</tr>
<tr>
<td>Findon Ward</td>
<td>2</td>
<td>9,832</td>
<td>4,916</td>
<td>11,139</td>
<td>5,569</td>
<td>10.43%</td>
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<tr>
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<td>2</td>
<td>9,705</td>
<td>4,853</td>
<td>10,661</td>
<td>5,330</td>
<td>7.07%</td>
<td>- 0.98%</td>
</tr>
<tr>
<td>Henley Ward</td>
<td>2</td>
<td>9,368</td>
<td>4,684</td>
<td>10,856</td>
<td>5,428</td>
<td>12.95%</td>
<td>0.84%</td>
</tr>
<tr>
<td>Hindmarsh Ward</td>
<td>2</td>
<td>9,073</td>
<td>4,537</td>
<td>10,972</td>
<td>5,486</td>
<td>17.87%</td>
<td>1.91%</td>
</tr>
<tr>
<td>Semaphore Park Ward</td>
<td>2</td>
<td>9,515</td>
<td>4,758</td>
<td>10,005</td>
<td>5,002</td>
<td>2.49%</td>
<td>- 7.08%</td>
</tr>
<tr>
<td>West Woodville Ward</td>
<td>2</td>
<td>9,207</td>
<td>4,604</td>
<td>10,727</td>
<td>5,363</td>
<td>13.55%</td>
<td>- 0.37%</td>
</tr>
<tr>
<td>Woodville Ward</td>
<td>2</td>
<td>8,974</td>
<td>4,487</td>
<td>11,547</td>
<td>5,773</td>
<td>25.42%</td>
<td>7.25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ward</th>
<th>Underlying change</th>
<th>Variation 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant differences in population growth in the Council’s wards has resulted in changes in the ward quotas between the last two (2) periodic elections.

However, there has been a relatively small change in the proportional difference between the highest and lowest ward quotas over the past two (2) general election processes, from 9.6% in 2014 (between Woodville Ward with the lowest and Findon Ward with the highest) to 15.4% in 2018 (between Semaphore Park Ward with the lowest and Woodville Ward with the highest).

While current ABS statistics forecast the population in most areas of the Council to continue to grow at over 0.8% per annum until 2036, less growth is forecast in the
whole of the Henley Ward, the portion of the Woodville West Ward comprising Royal Park, Hendon and Albert Park, and the portion of Findon Ward in Fulham Gardens.

Based on the information above, all wards currently comply with the ward quota principles, although Woodville Ward and Semaphore Park Ward each currently sit at over 7% variance from the ward quota. With projected population changes, if the Council is to retain its existing structure, these wards may need to be further examined at the Council’s next Representation Review.

Based on projected population growth, existing ward quotas and the comparisons with other councils, it is, currently, difficult to justify the consideration of additional Councillors into the current 16-member structure.

6 WARD STRUCTURE OPTIONS

As part of its review process, the Council is also required to consider alternative ward structure options, with the view to identifying a ward structure that may:

- exhibit a reduction in Councillors;
- provide a more even balance of electors; and/or
- allow for further fluctuations in elector numbers as a consequence of anticipated future residential development.

If, on the basis of the other considerations taken into account by the Council in its Representation Review, the Council considers that a change to the ward structure is desirable, then the matters in section 33(1) of the Act, set out above, are relevant considerations.

The purpose of this Paper is to identify options in relation to which the Council can consult with its community. To this end, the Council is required to consider, and consult with the community, in relation to the following options:

6.1 Principal Member

- That the Council continue with a directly elected Mayor; or
- that the Council change to a Chairperson elected by and from the Councillors.

6.2 Ward structure

Section 12(1)(b) of the Act provides for Council areas to be divided into wards, or for existing ward structures to be abolished.

In addition, section 12(6) of the Act requires that the Council examine the question of whether the division of the area into wards should be abolished.

Given the area of the Council is divided into wards, it is required to consider whether to retain the use of wards in its representative structure:
(a) in the same structure as exists, currently being compliant; or

(b) with a change to the structure, whether in the number of wards, the number of ward Councillors, or the establishment of area Councillors.

6.2.1 No Wards

Arguments **supporting** a no ward structure include:

- Councillors can be challenged to find the right balance between corporate governance duties and their representative role, with the desire to make decisions in the best interests of their ward sometimes outweighing the requirements to make decisions in the interests of the community as a whole;

- potential reduction in electoral accountability – periodic elections are required for all wards of a Council area, with the result that sitting members in some wards are returned unopposed;

- electors have the opportunity to vote for any candidate in the election and judge the performance of all candidates (not just the candidates in their ward);

- less likely that a candidate will get elected standing on a single local issue;

- the lines of communication between the Council and the community may be enhanced, given that members of the community can consult with all members of the Council, rather than feel obliged to consult with specific ward Councillors;

- automatically absorbs any fluctuations in elector numbers and adjusts the elector ratio accordingly. That is, specified quota tolerance limits do not apply, and the Council will not be required to adjust ward boundaries as part of subsequent Reviews; and

- the Council can carry a single casual vacancy and avoid the cost of a supplementary election in certain circumstances.

The primary arguments to retain wards are:

- small, or often overlooked communities, and communities of interest in a localised area, may not be able to obtain direct representation under a no ward structure;

- concern that ‘at large’ elections do not guarantee that Councillors will have any empathy for, or affiliation with, all communities within the Council area, or be a representative of the same;
• the expense of contesting an election across the entire Council area could be prohibitive (in time and resources), and may deter candidates; and

• under a no ward structure more prominent or popular Councillors, or those perceived to have more ‘power’ or ‘control’, may be called upon more frequently by community members, leading to an inequity in demands on time and resources.

6.2.2 Ward Representation and Numbers

As part of this Review, the Council is also required to consider whether it:

• retains the existing number of 16 Councillors;

• decreases the number of Councillors; or

• increases the number of Councillors.

Having an odd or even number of Councillors is also a consideration, as an even number of Councillors could increase the probability that the Mayor may be required to use a casting vote on a decision (assuming all Councillors are present at meetings).

There are also a number of different options to consider regarding how many ward Councillors are elected.

Single Councillor

Wards represented by one (1) Councillor are generally smaller in size and Councilors can focus more on specific local matters. Smaller wards make the ward quotas more challenging to achieve, particularly in sustaining any growth or change within the ward.

Absence by a single ward Councillor, or a casual vacancy, also has the potential to leave the ward without representation. Additionally, if there is a specific ward matter that becomes complex or involved, the workload of one Councillor could become unbalanced, as compared to his or her counterparts.

Two (2) Councillors

Two (2) Councillors representing a ward is the current framework in place, and is the most common representation structure observed across metropolitan councils. It allows workload to be shared and there is representative cover in the event of absenteeism or a vacancy of a Councillor.
Multiple Councillors

Multiple Councillors can often be beneficial for larger wards. Larger wards can sustain growth/change, whilst still remaining within the ward quotas. Larger wards can also retain communities of interests within the ward and absenteeism can also be managed with the workload being shared.

However, workloads may not be shared equally, with a number of members available to assist across the ward in such a structure.

Varying the number of Councillors

Varying ward representation, whilst still subject to the quota tolerances, can have the benefit of keeping communities of interests together. However, it may also create inequality and/or imbalance with the perception that a larger ward would have more influence on decision-making in the Chamber than smaller, perhaps single member wards.

7 OPTIONS

In this section, we consider a number of representation options which give effect to the Council’s statutory obligations as part of its Representation Review.

In doing so, we note that all responses received from Councillors have been in favour of a directly elected Mayor, rather than a Chairperson elected from within. The office of Mayor has served the Council well for many years and there appears to be few advantages to be gained at this time, by adopting the position of Chairperson for the Council. For this reason, an option with a Chairperson has not been included for consideration.

Responses, likewise, have not supported the concept of a mix of ward Councillors and area Councillors, so these options have not been included.

In calculating ward quotas, the actual total elector numbers from 2018, and the projected population of the Council in 2021 from the DPTI data set (modified by a representation factor which estimates the number of electors as a proportion of population) have been used.

Based on these variables we set out the below options for consideration.
### OPTION 1

**Existing Structure - 8 Wards, with 2 Councillors each Ward**

<table>
<thead>
<tr>
<th>Ward</th>
<th>Ward Councillors</th>
<th>Electors</th>
<th>Ward Quota</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beverley Ward</td>
<td>2</td>
<td>10,232</td>
<td>5,116</td>
<td>-4.96%</td>
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<tr>
<td>Woodville Ward</td>
<td>2</td>
<td>11,547</td>
<td>5,773</td>
<td>7.25%</td>
</tr>
</tbody>
</table>

**Ward Quota**

- **Council total**: 16 | 86,139 | 5,383
The existing structure results in a ward quota of 5,247, with ward representation ranging from 1:4,876 to 1:5,628.

Based on the projections available, the existing structure would result in a ward quota of 5,383.

Whilst at its next review, if this structure is to be retained, the ward boundaries will need to be reviewed, the retention of the existing ward structure now may be perceived by the community as a sign of stability within the Council.

Past Representation Reviews have demonstrated the preference of communities for no change to an existing ward structure. However, if change is necessary or desirable, a structure which has a logical basis and exhibits ward boundaries which are easily identifiable have been preferred options.

For this reason, it is recommended that if a proposed realigned of boundaries is to be considered, that proposed future ward boundaries are created with existing, long established' suburb boundaries, main roads or prominent geographical and/or man-made features.
OPTION 2

No Wards – 16 Councillors

This structure represents a change for the Council, as it has been divided into the existing ward structure for many years. Feedback received from Councillors is conceptually in favour of the ward structure, on the basis that it provides the best opportunity to represent electors. Retaining the same number of Councillors maintains the representation quota, with each Councillor notionally representing 5,383 electors.

A no ward option would mean that all Councillors would be elected from the Council area as a whole. One potential benefit being the opportunity for more diversity in representation, given that a lower percentage of the vote would be required by candidates to be elected, as compared to the current two (2) Councillor ward system.

To satisfy local needs in a 'no ward' structure, Councillors could be allocated responsibilities for geographic areas, portfolios and/or other communities of interest under such an arrangement.
While this structure represents a similar change as the ‘no wards’ option with 16 Councillor structure, under this option the change in representation quota would be relatively high, with each Councillor responsible for representing 7,178 electors each (being a 33% increase). Under this option, each Councillor would have a proportionally higher number of electors to represent than they currently do, which may, of course, lead to a loss of representation for electors, or delays in receiving timely responses.

Based on the feedback received, changing to a structure with no wards and, at the same time, reducing the number of Councillors, is likely to cause challenges for both Councillors, as well as for the Council’s community, which would expect a continuation of the level of representation it currently receives.
OPTION 4

6 Wards with 2 Councillors each Ward

<table>
<thead>
<tr>
<th>Ward</th>
<th>Ward Councillors</th>
<th>Electors</th>
<th>Ward Quota</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>2</td>
<td>13,483</td>
<td>6,741</td>
<td>-6.09%</td>
</tr>
<tr>
<td>Ward 2</td>
<td>2</td>
<td>14,228</td>
<td>7,114</td>
<td>-0.89%</td>
</tr>
<tr>
<td>Ward 3</td>
<td>2</td>
<td>14,762</td>
<td>7,318</td>
<td>2.83%</td>
</tr>
<tr>
<td>Ward 4</td>
<td>2</td>
<td>14,795</td>
<td>7,397</td>
<td>3.05%</td>
</tr>
<tr>
<td>Ward 5</td>
<td>2</td>
<td>14,567</td>
<td>7,283</td>
<td>1.46%</td>
</tr>
<tr>
<td>Ward 6</td>
<td>2</td>
<td>14,304</td>
<td>7,152</td>
<td>-0.36%</td>
</tr>
</tbody>
</table>

This structure would provide the community with a level of continuity, in so far as the representation in each ward remains at two (2) ward Councillors.

However, the ward quota would increase from 5,247 electors, to an average of 7,178. By comparison, if this were to have been the Council’s ward quota at the prior general election, it would have been higher than all other comparison councils, save for the City
of Onkaparinga. Again, under this option, each Councillor would have a proportionally higher number of electors to represent than they currently do, which may, of course, lead to a loss of representation for electors, or delays in receiving timely responses.

Notwithstanding this, if a ward boundary review were undertaken to implement a structure such as this, it would also present the Council with an opportunity to recast the ward boundaries to reduce the existing and projected variances between the ward quotas of the wards.
OPTION 5
4 Wards with 3 Councillors each Ward

<table>
<thead>
<tr>
<th>Ward</th>
<th>Ward Councillors</th>
<th>Electors</th>
<th>Ward Quota</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>3</td>
<td>22,255</td>
<td>7,418</td>
<td>3.43%</td>
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<td>Ward 2</td>
<td>3</td>
<td>21,212</td>
<td>7070</td>
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<tr>
<td>Ward 3</td>
<td>3</td>
<td>20,688</td>
<td>6,896</td>
<td>-4.03%</td>
</tr>
<tr>
<td>Ward 4</td>
<td>3</td>
<td>21,984</td>
<td>7,328</td>
<td>2.14%</td>
</tr>
</tbody>
</table>

Under this structure, it is proposed to amalgamate four (4) of the existing wards into two (2), creating a four (4) ward structure, with a representation of three (3) Councillors in each ward, within the quota tolerance limits.

The proposed boundaries align with the suburb boundaries or main roads and most suburbs have been retained in their entirety, to assist with retaining community diversity. This structure will sustain growth in the Council area in the longer term and will manage...
tolerances in future residential development.

However, again, as in Options 3 and 4, the ward quota would increase from 5,247 electors, to an average of 7,178. Each Councillor would have a proportionally higher number of electors to represent than they currently do, which may lead to a loss of representation for electors, or delays in receiving timely responses.
8 SUMMARY

These options are presented for the consideration of the Council and the community.

The evidence received as part of this review has demonstrated that wards in the Council area, work well with regards to the representation of electors, particularly with the significant diversity of communities, and communities of interest, in the Council area.

There does not appear to be any significant change in the demographics of the Council area since its last review, which would otherwise suggest that the ward structure should be abolished at this time. However, a review of the ward structure will be required if the Council forms a view that the number of Councillors should be changed.

The Act specifies that the Council must avoid over-representation in comparison to other councils of a similar size and locale, and, where constituted of twelve (12) or more Councillors, examine the question of whether the number of elected members should be reduced. However, by reference to the matters set out above, there is no evidence of any issues of concern in this regard, particularly as compared to other councils by comparison.

Further, the office of Mayor has served the Council well for many years and there appears to be few advantages to adopting the position of Chairperson for the Council at this time. For this reason, it has not been proposed to amend the position that the Mayor is elected from the community as a whole.

Taking the above into account, the purpose of this stage of the review process is to disseminate information regarding the Representation Review process, setting out the key issues for Councillors and the community to consider by way of proposed structure.

Accordingly, following endorsement of this Paper submissions will be invited in respect of the options, being:

- Option 1 – Existing Structure – 8 Wards, with 2 Councillors each (and a Mayor)
- Option 2 – No Wards – 16 Councillors (and a Mayor)
- Option 3 – No Wards – 12 Councillors (and a Mayor)
- Option 4 – Six (6) Wards with 2 Councillors each (and a Mayor)
- Option 5 – Four (4) Wards with 3 Councillors each (and a Mayor)

Public consultation is proposed to run from approximately Tuesday 13 October 2020, for a period of six (6) weeks. Notice of the consultation will be published in the Gazette, as well as the Advertiser.

A copy of this Paper will be available for inspection at the principal office of the Council and on the Council’s website.

Submissions may propose other options in relation to Council representation, including
the number of wards (if these are to be retained), ward boundaries and the number of Councillors.

Feedback from the public consultation will be considered by the Council, which will determine its preferred representation structure to include in preparation of the draft Representation Report.

The preferred structure will then be subject to a second round of public consultation before the Council makes its final decision and submissions to ECSA for certification.
APPENDIX A

LOCAL GOVERNMENT ACT 1999
NOTICE OF DETERMINATION OF RELEVANT PERIOD

Review of Council Compositions and Wards

Pursuant to section 12(4) of the Local Government Act 1999 and Regulation 4 of the Local Government (General) Regulations 2013, I, Stephan Karl Knoll, Minister for Transport, Infrastructure and Local Government in the state of South Australia, hereby revoke the Notice of Determination of Relevant Period published in the Government Gazette on 1 August 2019, pages 2883 to 2885 (inclusive) and determine the relevant period for the next review of council compositions and wards, to be the date as contained in the table listed hereunder.

<table>
<thead>
<tr>
<th>Council</th>
<th>Last Review</th>
<th>Next Review Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide</td>
<td>19/11/2013</td>
<td>June 2020–October 2021</td>
</tr>
<tr>
<td>Adelaide Plains</td>
<td>26/11/2013</td>
<td>June 2020–October 2021</td>
</tr>
<tr>
<td>Alexandrina</td>
<td>26/11/2013</td>
<td>June 2020–October 2021</td>
</tr>
<tr>
<td>Burnside</td>
<td>8/01/2013</td>
<td>June 2020–October 2021</td>
</tr>
<tr>
<td>Charles Sturt</td>
<td>5/09/2013</td>
<td>June 2020–October 2021</td>
</tr>
<tr>
<td>Coorong</td>
<td>18/09/2013</td>
<td>June 2020–October 2021</td>
</tr>
<tr>
<td>Flinders Ranges Council</td>
<td>14/05/2013</td>
<td>June 2020–October 2021</td>
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Dated: 7 July 2020

**HON STEPHAN KNOLL MP**
Minister for Transport, Infrastructure and Local Government
Minister for Planning
APPENDIX C

Excerpts from the *Local Government Act 1999*

Chapter 3 - Constitution of councils

Part 1 - Creation, structuring and restructuring of councils

Division 2 - Powers of councils and representation reviews

12 - Composition and wards

(1) A council may, by notice in the Gazette after complying with the requirements of this section—

(a) alter the composition of the council;

(b) divide, or redivide, the area of the council into wards, alter the division of the area of the council into wards, or abolish the division of the area of a council into wards.

(2) A notice under this section may also—

(a) change the council from a municipal council to a district council, or change the council from a district council to a municipal council;

(b) alter the name of—

(i) the council;

(ii) the area of the council;

(c) give a name to, or alter the name of, a ward,

(without the need to comply with section 13).

(3) A council must, before it publishes a notice, conduct and complete a review under this section for the purpose of determining whether its community would benefit from an alteration to its composition or ward structure.

(4) A review may relate to a specific aspect of the composition of the council, or of the wards of the council, or may relate to those matters generally—but a council must ensure that all aspects of the composition of the council, and the issue of the division, or potential division, of the area of the council into wards, are comprehensively reviewed under this section at least once in each relevant period that is prescribed by the regulations.

(5) A council must, in order to commence a review, initiate the preparation of a paper (a *representation options paper*) by a person who, in the opinion of the council, is qualified to address the representation and governance issues that may arise with respect to the matters under review.

(6) The representation options paper must examine the advantages and disadvantages of the various options that are available to the council under subsection (1) (insofar as the various features of the composition and structure of the council are under review) and, in particular (to the extent that may be relevant)—

(a) if the council is constituted of more than 12 members—examine the question of whether the number of members should be reduced; and
(b) if the area of the council is divided into wards—examine the question of whether the division of the area into wards should be abolished,

(and may examine such other relevant issues as the council or the person preparing the paper thinks fit).

(7) The council must—

(a) by public notice—

(i) inform the public of the preparation of the representation options paper;

and

(ii) invite interested persons to make written submissions to the council on the subject of the review within a period specified by the council (being a period of at least 6 weeks); and

(b) publish a copy of the notice in a newspaper circulating within its area.

(8) The council must ensure that copies of the representation options paper are available for inspection (without charge) and purchase (on payment of a fee fixed by the council) at the principal office of the council during the period that applies under subsection (7)(a)(ii).

(8a) The council must, at the conclusion of the public consultation undertaken under subsection (7)(a), prepare a report that—

(a) provides information on the public consultation and the council's response to the issues arising from the submissions made as part of that process; and

(b) sets out—

(i) any proposal that the council considers should be carried into effect under this section; and

(ii) in respect of any such proposal—an analysis of how the proposal relates to the principles under section 26(1)(c) and the matters referred to in section 33 (to the extent that may be relevant); and

(c) insofar as a decision of the council is not to adopt any change under consideration as part of the representation options paper or the public consultation process—sets out the reasons for the council's decision.

(9) The council must—

(a) make copies of its report available for public inspection at the principal office of the council; and

(b) by public notice—

(i) inform the public of the preparation of the report and its availability;

and

(ii) invite interested persons to make written submissions to the council on the report within a period specified by the council (being a period of at least 3 weeks); and

(c) publish a copy of the notice in a newspaper circulating within its area.

(10) The council must give any person who makes written submissions in response to an invitation under subsection (9) an opportunity to appear personally or by representative before the council or a council committee and to be heard on those submissions.
(11) The council must then finalise its report (including in its report recommendations with respect to such related or ancillary matters as it thinks fit).

(11a) If the report proposes that the composition of the council be altered so that—

(a) the council will have a chairperson rather than a mayor; or

(b) the council will have a mayor rather than a chairperson,

then the proposal cannot proceed unless or until a poll has been conducted on the matter and the requirements of subsection (11c) have been satisfied.

(11b) The council may, with respect to a proposal within the ambit of subsection (11a)—

(a) insofar as may be relevant in the particular circumstances, separate the proposal (and any related proposal) from any other proposal contained in the report (and then it will be taken that the council is reporting separately on this proposal (and any related proposal));

(b) determine to conduct the relevant poll—

(i) in conjunction with the next general election for the council (so that the proposal (and any related proposal) will then, if approved at the poll, take effect from polling day for the following general election); or

(ii) at some other time (so that the proposal (and any related proposal) will then, if approved at the poll, take effect in the manner contemplated by subsection (18)).

(11c) The following provisions apply to a poll required under subsection (11a):

(a) the Local Government (Elections) Act 1999 will apply to the poll subject to modifications, exclusions or additions prescribed by regulation;

(b) the council must—

(i) prepare a summary of the issues surrounding the proposal to assist persons who may vote at the poll; and

(ii) obtain a certificate from the Electoral Commissioner that he or she is satisfied that the council has taken reasonable steps to ensure that the summary presents the arguments for and against the proposal in a fair and comprehensive manner; and

(iii) after obtaining the certificate of the Electoral Commissioner, ensure that copies of the summary are made available for public inspection at the principal office of the council, are available for inspection on a website determined by the chief executive officer, and are published or distributed in any other way that the Electoral Commissioner may direct;

(c) the proposal cannot proceed unless—

(i) the number of persons who return ballot papers at the poll is at least equal to the prescribed level of voter participation; and

(ii) the majority of those persons who validly cast a vote at the poll vote in favour of the proposal.
(11d) For the purposes of subsection (11c)(c), the **prescribed level of voter participation** is a number represented by multiplying the total number of persons entitled to cast a vote at the poll by half of the turnout percentage for the council, where the **turnout percentage** is—

(a) the number of persons who returned ballot papers in the contested elections for the council held at the last periodic elections, expressed as a percentage of the total number of persons entitled to vote at those elections (viewing all elections for the council as being the one election for the purposes of this provision), as determined by the Electoral Commissioner and published in such manner as the Electoral Commissioner thinks fit; or

(b) if no contested elections for the council were held at the last periodic elections, a percentage determined by the Electoral Commissioner for the purposes of the application of this section to the relevant council, after taking into account the turnout percentages of other councils of a similar size and type, as published in such manner as the Electoral Commissioner thinks fit.

(12) The council must then, taking into account the operation of the preceding subsection, refer the report to the Electoral Commissioner.

(12a) The report must be accompanied by copies of any written submissions received under subsection (9) that relate to the subject-matter of the proposal.

(13) On receipt of a report, the Electoral Commissioner must determine whether the requirements of this section have been satisfied and then—

(a) if of the opinion that the requirements have been satisfied—give an appropriate certificate; or

(b) if of the opinion that the requirements have not been satisfied—refer the matter back to the council together with a written explanation of the reasons for not giving a certificate under this subsection.

(14) The validity of a determination of the Electoral Commissioner under subsection (13) cannot be called into question.

(15) If a certificate is given by the Electoral Commissioner under subsection (13)(a)—

(a) the Electoral Commissioner must specify in the certificate a day by which an appropriate notice (or notices) for the purposes of this section must be published by the council in the Gazette; and

(b) the council may then, by notice (or notices) in the Gazette, provide for the operation of any proposal under this section that it has recommended in its report.

(16) If the matter is referred back to the council under subsection (13)(b), the council—

(a) must take such action as is appropriate in the circumstances (and may, as it thinks fit, alter its report); and

(b) may then refer the report back to the Electoral Commissioner.

(17) However, a council must, if it makes an alteration to its report under subsection (16)(a), comply with the requirements of subsections (9) and (10) (as if the report (as altered) constituted a new report), unless the council determines that the alteration is of a minor nature only.
(18) A proposal under this section takes effect as follows:

(a) if the day of publication of the relevant notice under subsection (15) occurs before 1 January of the year in which a periodic election is next due to be held then, unless paragraph (c) applies, the proposal will take effect as from polling day for that periodic election;

(b) if the day of publication of the relevant notice under subsection (15) occurs on or after 1 January of a year in which a periodic election is due to be held (and before polling day for that periodic election) then, unless paragraph (c) applies, the proposal will take effect as from polling day for the periodic election next following the periodic election held in the year of publication;

(c) if a general election (not being a periodic election) is held after the expiration of 7 months from the day of publication of the relevant notice under subsection (15) (and before polling day for the next periodic election after publication) then the proposal will take effect from polling day for that general election.

(18a) Subsection (18) has effect subject to the operation of subsection (11b)(b)(i).

(19) If a council—

(a) subject to subsection (22), fails to undertake a review in accordance with the requirements of this section; or

(b) fails to take appropriate action if a matter is referred back to the council by the Electoral Commissioner under subsection (13)(b); or

(c) fails to publish an appropriate notice in the Gazette by the day specified by the Electoral Commissioner in a certificate under this section,

the chief executive officer must refer the matter to the Electoral Commissioner.

Maximum penalty: $2,500.

(20) On the referral of a matter under subsection (19), the Electoral Commissioner may take such action as, in the circumstances of the particular case, appears appropriate to the Electoral Commissioner and may then, by notice in the Gazette, give effect to a proposal that could have been carried into effect by the council under this section.

(21) The Electoral Commissioner may recover from councils costs reasonably incurred by the Electoral Commissioner in performing his or her functions under this section.

(22) The Minister may exempt a council from the requirement to hold a review under this section on the basis that relevant issues have already been addressed by a proposal under this Chapter.

(23) An exemption under subsection (22) may be granted on conditions determined by the Minister, including a condition that the council carry out a review under this section by a date specified by the Minister.

(24) If—

(a) the area of a council is divided into wards; and

(b) the Electoral Commissioner notifies the council in writing that the number of electors represented by a councillor for a ward varies from the ward quota by more than 20 per cent,

then the council must undertake a review under this section within a period specified by the Electoral Commissioner.
(25) For the purposes of subsection (24)—

(a) if two or more councillors represent a ward, the number of electors represented by each councillor will be taken to be the number of electors for the ward (as at a date determined by the Electoral Commissioner) divided by the number of councillors who represent the ward (ignoring any fractions resulting from the division); and

(b) the ward quota is the number of electors for the area (as at a date determined by the Electoral Commissioner) divided by the number of councillors for the area of the council who represent wards (ignoring any fractions resulting from the division).

Part 2 - Reform proposals

Division 3 - Principles

26 - Principles

(1) The Commission should, in arriving at recommendations for the purposes of this Chapter (but taking into account the nature of the proposal under consideration), have regard to—

(a) the objects of this Act; and

(b) the roles, functions and objectives of councils under this Act; and

(c) the following principles:

(i) the resources available to local communities should be used as economically as possible while recognising the desirability of avoiding significant divisions within a community;

(ii) proposed changes should, wherever practicable, benefit ratepayers;

(iii) a council should have a sufficient resource base to fulfil its functions fairly, effectively and efficiently;

(iv) a council should offer its community a reasonable range of services delivered on an efficient, flexible, equitable and responsive basis;

(v) a council should facilitate effective planning and development within an area, and be constituted with respect to an area that can be promoted on a coherent basis;

(vi) a council should be in a position to facilitate sustainable development, the protection of the environment and the integration of land use schemes;

(vii) a council should reflect communities of interest of an economic, recreational, social, regional or other kind, and be consistent with community structures, values, expectations and aspirations;

(viii) a council area should incorporate or promote an accessible centre (or centres) for local administration and services;

(ix) the importance within the scheme of local government to ensure that local communities within large council areas can participate effectively in decisions about local matters;
(xi) residents should receive adequate and fair representation within the local government system, while over-representation in comparison with councils of a similar size and type should be avoided (at least in the longer term);

(xii) a scheme that provides for the performance of functions and delivery of services in relation to 2 or more councils (for example, a scheme for regional governance) may improve councils' capacity to deliver services on a regional basis and therefore offer a viable and appropriate alternative to structural change; and

(d) the extent and frequency of previous changes affecting the council or councils under this Chapter or the repealed Act.

(2) The Commission should, so far as is relevant, give preference to structural changes that enhance the capacity of local government to play a significant role in the future of an area or region from a strategic perspective.

Part 3 - General provisions

33 - Ward quotas

(1) In addition to the other requirements of this Chapter, the following matters must be taken into account, as far as practicable, in the formulation of a proposal that relates to the boundaries of a ward or wards:

(a) the desirability of reflecting communities of interest of an economic, social, regional or other kind;

(b) the population of the area, and of each ward affected or envisaged by the proposal;

(c) the topography of the area, and of each ward affected or envisaged by the proposal;

(d) the feasibility of communication between electors affected by the proposal and their elected representatives;

(e) the nature of substantial demographic changes that may occur in the foreseeable future;

(f) the need to ensure adequate and fair representation while at the same time avoiding over-representation in comparison to other councils of a similar size and type (at least in the longer term).

(2) A proposal that relates to the formation or alteration of wards of a council must also observe the principle that the number of electors represented by a councillor must not, as at the relevant date (assuming that the proposal were in operation), vary from the ward quota by more than 10 per cent.

(2a) For the purposes of subsection (2)—

(a) if it is proposed that two or more councillors represent a particular ward, the number of electors represented by each councillor will be taken to be the number of electors for the ward (as at the relevant date) divided by the number of proposed councillors for the ward (ignoring any fractions resulting from the division); and
(b) the ward quota will be taken to be the number of electors for the area (as at the relevant date) divided by the number of councillors for the area who represent wards (assuming that the proposal were in operation and ignoring any fractions resulting from the division); and

(c) the relevant date, in relation to a proposal that relates to the formation or alteration of wards of the council, will be taken to be the date on which the proposal is finalised for the purposes of this Chapter.

(3) The 10 per cent tolerance referred to in subsection (2) may be exceeded if, on the basis of demographic changes predicted by a Commonwealth or State government agency, it appears that the ward quota will not, as at the next periodic elections, be exceeded by more than 10 per cent (the relevant date in this case being the date of the next periodic elections).

(4) If under the repealed Act a proposal relating to the formation or alteration of wards did not comply with the corresponding provisions to subsections (2) and (3) and the relevant proposal proceeded (either in its original or an amended form) then, unless otherwise determined by proclamation, the relevant council (or each relevant council) must conduct (and complete) a review of its composition and wards under Part 1 so as to enable appropriate changes in the composition and wards of the council to take effect on or before the date of the second general election of the council after the proposal took effect or, if an earlier date has been fixed by proclamation, on or before that date.
APPENDIX D

Ward Map

[Map of the Ward Map with various wards like Semaphore Park, Woodville, Hindmarsh, Findon, Beverley, and Henley highlighted.]
## APPENDIX B

### Schedule for Representation Review

**June 2020 – June 2021**

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<th>Step</th>
<th>Action</th>
<th>Timeline</th>
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<td>Step 1</td>
<td>Initiate Representation Review by resolution of the Council</td>
<td>Resolution of the Council on <strong>9 June 2020</strong>: That Kelledy Jones Lawyers be appointed to</td>
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<td>commence and undertake the Representation Review on behalf of the City of Charles Sturt</td>
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<td>Step 2</td>
<td>Consider current arrangements and future options</td>
<td>Elected Member briefing <strong>27 July 2020</strong></td>
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<td>Elected member workshop <strong>21 September 2020</strong></td>
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<td>Step 3</td>
<td>Prepare Representation Options Paper</td>
<td>Council meeting of <strong>12 October 2020</strong></td>
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<td>Present to the Council for endorsement and approval for consultation</td>
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<td>Step 4</td>
<td>First public consultation</td>
<td>To be Gazetted – Notice #1, Commencing <strong>Thursday 15 October 2020</strong> to run for six (6) weeks – to <strong>Thursday 26 November 2020</strong></td>
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<td>Step 5</td>
<td>Consider submissions from consultation and prepare draft Representation Review Report. Present to Council for endorsement and approval of second public consultation</td>
<td>Report to <strong>25 January 2021</strong> Council meeting</td>
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<td>Step 6</td>
<td>Second public notification</td>
<td>To be Gazetted – Notice #2, Commencing <strong>Tuesday 26 January 2021</strong> to run for three (3) weeks concluding on <strong>Tuesday 16 February 2021</strong></td>
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<td>Step 7</td>
<td>Hearing of submissions (public hearing to be held by the Council or Council committee)</td>
<td>Prepare report of submissions and public to be heard at Council meeting of <strong>March 2021</strong></td>
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<td>Step 8**</td>
<td>Conduct a poll (if changes to the method of selection of the principal member) (8-10 weeks)</td>
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</tr>
<tr>
<td>9***</td>
<td>Finalise Representation Review Report</td>
<td>Council meeting of <strong>April 2021</strong></td>
</tr>
<tr>
<td></td>
<td>Presented to Council for endorsement and approval to submit to Electoral Commissioner</td>
<td></td>
</tr>
<tr>
<td>10***</td>
<td>Submit final Representation Review Report to the Electoral Commissioner for certification</td>
<td>After Council meeting of <strong>May 2021</strong></td>
</tr>
<tr>
<td></td>
<td>Minimum one (1) month for certification</td>
<td></td>
</tr>
<tr>
<td>11**</td>
<td>Technical description of boundaries (only if amendments occur to internal ward boundaries pursuant to Section 12(23))</td>
<td><strong>May / June 2021 (if required)</strong></td>
</tr>
<tr>
<td>12 **</td>
<td>Repeat of Step 7 if changes which are not minor are required by the Electoral Commissioner</td>
<td><strong>June 2021 (if required)</strong></td>
</tr>
<tr>
<td>13***</td>
<td>Gazettal of Representation Review outcome</td>
<td><strong>To be Gazetted – Notice #3</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>June 2021</strong></td>
</tr>
<tr>
<td>14***</td>
<td>Council to implement changes to representative structure</td>
<td>Council to modify Council voters roll data base before roll closure preceding the next periodic election</td>
</tr>
<tr>
<td></td>
<td>Inform community of changes to representation structure to come into effect as at next elections</td>
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</tr>
<tr>
<td></td>
<td><strong>Completed</strong></td>
<td><strong>June 2021</strong></td>
</tr>
</tbody>
</table>
Community Engagement Approach for
Representation Review Options Paper and Report
October 2020

Contact:
Mary Del Giglio
Senior Governance Officer
8408 1111
mdelgiglio@charlessturt.sa.gov.au
Community Engagement Approach for Representation Review Options Paper and Report

1. Purpose and Objectives

The purpose of this Community Engagement Approach is to outline the various measures that will be undertaken to ensure the community, stakeholders, Elected Members and staff are appropriately engaged while conducting the Representation Review.

The purpose is to also meet the statutory requirements for consultation under the Local Government Act 1999, which not only requires Councils to conduct a Representation Review but also sets out two stages of consultation with our community in accordance with Section 12 of the Act.

Identified Legislative Requirements

- Section 33 (12) - Council considers current arrangements and future options
- Section 12 (5) - Prepare a Representation Options Paper
- Section 12 (7) - Public Notice #1 (at least 6 weeks community engagement/public submissions)
- Section 12 (8)(a) - Prepare Representation Review Report
- Section 12 (9) - Public Notice #2 (at least 3 weeks community engagement/public submissions)
- Section 12 (10) - Hearing of Submissions (Council Meeting)
- Section 12 (12-21) - Submit final Representation Review Report to Electoral Commissioner
- Section 15 - Gazettal of the review outcome

A Representation Review is a matter set out in Part 1 of the Council’s Public Consultation Policy (PCP) and needs to follow the public consultation steps prescribed under the Local Government Act 1999.

2. Project Background

Councils in South Australia are required to undertake regular reviews of their elector representation arrangements (Representation Review). The City of Charles Sturt undertook its last Representation Review during the period April 2012 to April 2013.

Pursuant to Regulation 4 of the Local Government (General Regulations) 2013, the relevant period for the Council to undertake its Representation Review was determined by the Minister, by notice in the Government Gazette on 9 July 2020.

In accordance with the Gazette notice, the relevant period for the Council to undertake its Representation Review is June 2020 to October 2021.

To commence a review, Council must initiate the preparation of a Representation Options Paper.

The Representation Options Paper explores options for changes to the Council’s representative structure and the implications of these options for representation and governance. The Representation Options Paper must examine the advantages and disadvantages of the options available to the Council and, in particular examine, if it is relevant:

- whether the number of members should be reduced, if the Council is comprises of more than 12 members
- if the area of the Council should be divided into wards, or whether the division of the area into wards should be abolished.
After considering all the options and issues in the Representation Options Paper and any written submissions received from the community, Council must prepare a report on its deliberations and endorsed proposal for future composition and structure within a Draft Representation Review Report.

3. Consultation Scope

The City of Charles Sturt’s Representation Options Paper considers and weighs the opportunities available while taking into consideration our Council’s background and culture, size and demography in comparison to other similar Council’s, and projected future growth. This is in addition to the statutory requirements that Council must follow in conducting a Representation Review.

Consideration has been taken regarding:

- election and appointment of a Principal Member (Mayor/Chairperson)
- the number of Councillors
- how our Councillors are elected (from wards or the whole of Council
- whether the Council should have wards or no wards; and
- the name of the Council and the wards (if any).

Our stakeholders will be invited to make comment in relation to Options 1 to 5 as outlined within the Representation Options Paper as follows:

Option 1 Existing Structure – 8 Wards, with 2 Councillors each (and a Mayor)
Option 2 No Wards – 16 Councillors (and a Mayor)
Option 3 No Wards – 12 Councillors (and a Mayor)
Option 4 6 Wards with 2 Councillors each (and a Mayor)
Option 5 4 Wards with 3 Councillors each (and a Mayor)

Submissions may propose other options in relation to Council representation, including the number of wards (if these are to be retained), ward boundaries and the number of Councillors.

Feedback from the public consultation will be considered by the Council, which will determine its preferred representation structure to include with the preparation of the draft Representation Report.

Stakeholders will then be invited to make comment in relation to the preferred structure before the Council makes its final decision and submission to the Electoral Commissioner for certification.

4. Communities of Interest

Stakeholders and people who reside in, own property in, and do business in the City of Charles Sturt form our communities of interest for this project. Key stakeholders and community with an interest in this matter include:

- The City of Charles Sturt community
- Mayor and Elected Members
- Council Administration
- Adjoining Councils
- Relevant State and Federal Government Departments and Agencies
- Local resident and business groups known to Council
- Local sporting and recreational groups
5. **Planning Community Engagement**

**Level of Engagement**

The level of engagement for this project is “consult”. The reasoning for this level of engagement includes the following.

- Single issue or a few issues involved in the matter.
- Multiple issues within a localised community.
- Moderate degree of complexity across a localised or broad community of interest.
- Moderate degree of impact on the community.
- Clear process forward or clear options for the way forward.

**Communication and Engagement Techniques and Promotions**

The following communication and engagement techniques and promotions are proposed for both stages of community engagement.

**Communication Techniques** (applicable to both Stage One and Stage Two engagement)

- Government Gazette Notice
- Article in Advertiser Newspaper
- City of Charles Sturt social media platforms
- City of Charles Sturt website
- City of Charles Sturt e-Newsletter Diamond Bytes
- Your Say Charles Sturt
- Posters

**Community Engagement Techniques (Stage One)**

- Online engagement tools via Your Say Charles Sturt
- Invite Written submissions

**Community Engagement Techniques (Stage Two)**

- Online engagement tools via Your Say Charles Sturt
- Invite written submissions
- Invite submissions in person (or by representative) at a future meeting of Council

6. **Reporting on Community Engagement**

Community feedback received during Stage 1 consultation on the Representation Options Paper will be considered by Council and will assist in formulating a Draft Representation Review Report. Any issues raised as part of the consultation will be responded to in the Draft Representation Review Report and will then outline the preferred representation structure for a second round of consultation. At the conclusion of the second round of consultation a final Representation Review Report expected to be presented to Council in April 2021. The final report will then be submitted to the Electoral Commission for final approval.
7. **Budget**

The resources required to plan, deliver and report on the Representation Review Options Paper and Draft Representation Review Report include the following:

<table>
<thead>
<tr>
<th>Resource Requirement</th>
<th>Budget Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal administration costs associated with drafting the engagement approach and preparation of associated key messages and documents</td>
<td>Covered by operational budget</td>
</tr>
<tr>
<td>Government Gazette Notice Stage 1 and 2</td>
<td>Covered by operational budget</td>
</tr>
<tr>
<td>Advertiser Newspaper Article Stage 1 and 2</td>
<td>Covered by operational budget</td>
</tr>
<tr>
<td>Messenger Newspaper Article Stage 1 and 2</td>
<td>Covered by operational budget</td>
</tr>
<tr>
<td>Use of City of Charles Sturt website, Charles Sturt Your Say site and City of Charles Sturt social media platforms</td>
<td>Covered by operational budget</td>
</tr>
<tr>
<td>Promotional Posters for Community Centres/Libraries</td>
<td>Covered by operational budget</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Covered by operational budget</td>
</tr>
</tbody>
</table>

8. **Timeframe**

The scope for the whole project includes the following steps and timing, with step relating specifically to Community engagement have been highlighted (in blue).

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initiate Representation Review by resolution of the Council</td>
<td>Resolution of the Council on <strong>9 June 2020</strong>: That Kelledy Jones Lawyers be appointed to commence and undertake the Representation Review on behalf of the City of Charles Sturt</td>
</tr>
<tr>
<td>2</td>
<td>Consider current arrangements and future options</td>
<td>Elected Member briefing <strong>27 July 2020</strong>&lt;br&gt; Elected Member workshop <strong>21 September 2020</strong></td>
</tr>
<tr>
<td>3</td>
<td>Prepare Representation Options Paper</td>
<td>Council meeting of <strong>12 October 2020</strong>&lt;br&gt; Presented to the Council for endorsement and approval for consultation</td>
</tr>
<tr>
<td>4</td>
<td>First public consultation</td>
<td>To be Gazetted – Notice #1                                                   &lt;br&gt;Commencing <strong>Thursday 15 October 2020</strong> to run for six (6) weeks – to <strong>Thursday 26 November 2020</strong></td>
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<tr>
<td>Step 6</td>
<td>Second public notification</td>
<td>To be Gazetted – Notice #2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commencing Tuesday 26 January 2021 to run for three (3) weeks concluding on Tuesday 16 February 2021</td>
</tr>
<tr>
<td>Step 7</td>
<td>Hearing of submissions (public hearing to be held by the Council or Council committee)</td>
<td>Prepare report of submissions and public to be heard at Council meeting of March 2021</td>
</tr>
<tr>
<td>Step 8</td>
<td>Conduct a poll (if changes to the method of selection of the principal member) (8-10 weeks)</td>
<td>Not required</td>
</tr>
<tr>
<td>Step 9</td>
<td>Finalise Representation Review Report</td>
<td>Council meeting of April 2021</td>
</tr>
<tr>
<td></td>
<td>Presented to Council for endorsement and approval to submit to Electoral Commissioner</td>
<td></td>
</tr>
<tr>
<td>Step 10</td>
<td>Submit final Representation Review Report to the Electoral Commissioner for certification</td>
<td>After Council meeting of May 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimum one (1) month for certification</td>
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<tr>
<td>Step 11</td>
<td>Technical description of boundaries (only if amendments occur to internal ward boundaries pursuant to Section 12(23))</td>
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<td>Gazettal of Representation Review outcome</td>
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<td></td>
<td></td>
<td>June 2021</td>
</tr>
</tbody>
</table>
Step 14  Council to implement changes

Council to modify Council voters roll data base before roll closure preceding the next periodic election
Inform community of changes to representation structure to come into effect as at next elections

Completed  June 2021

9. Risk Management

The risks with not consulting in line with the Statutory requirements of Local Government Act 1999, may result in not receiving endorsement and a certificate of compliance being issued by the Electoral Commissioner within the relevant period.

In addition to the legislative risks outlined above, the following are also key issues for Council if a community engagement approach is not delivered:

- Balancing individual views with broader community views.
- Community satisfaction.
- Failing to understand community sentiments on a project.
- Impacts associated with project delays.
- Media interest.
- Reputational risks.

10. Approval of the Community Engagement Approach

The community engagement approach requires the approval of Council
6.97 YOUR NEIGHBOURHOOD PLAN FRAMEWORK

TO: Council
FROM: Coordinator City Futures - Sandy Rix
DATE: 12 October 2020

Brief

The City of Charles Sturt recorded an estimated residential population of 117,000 in 2018, with diverse residential and employment areas. Growth of over 1100 people each year and more than 480 dwellings is projected to continue in future years. While Council offers a high standard of services to its residents managing change whilst improving the quality of life for our residents is one of the great challenges of local government. One way of maximising the opportunities change can present is through improved coordination and long term planning.

The Your Neighbourhood Plan Framework is the basis of an exciting innovation proposed for the City which aims to generate a series of place-based plans addressing these and other issues concurrently, integrating infrastructure with input and funding joined up across Council portfolios, State agencies and industry. The Plans are intended to go beyond business as usual and be a guide and a catalyst for longer term investment across Council, State and private sector programs.

The purpose of this report is to describe the Your Neighbourhood Plan Framework, the important Liveability Indicators and the initial proposed Neighbourhood Plan pilot area and to obtain Council endorsement of the Your Neighbourhood Plan Framework forming Appendix A and the pilot area shown in Appendix B.

Recommendation

1. That the report be received.

2. That the 'Your Neighbourhood Plan Framework' (Appendix A), be endorsed as a Strategic Framework policy document to guide neighbourhood plan preparation.

3. That the suburbs of Albert Park and Hendon (Appendix B), be endorsed for the initial 'Your Neighbourhood Plan' Pilot Area.

Status

The Your Neighbourhood Plans aim to cover social, environmental, cultural and economic infrastructure and services in the City of Charles Sturt and therefore relate to many Objectives, Strategies and Indicators from the new Community Plan 2020-2027 and the Corporate Plan 2016-2020. These documents have provided a base for the project Vision and Principles, and the Liveability Domains and Indicators.

The large number of relevant objectives highlights the cross-portfolio nature of the 'Your Neighbourhood Plan' Framework. The Framework encompasses all Council portfolios and aims to increase the links between the activities of each portfolio.
Our Community - A strong and connected community

Provide accessible social infrastructure and services that engage our diverse community
Capitalise on partnerships, build community resilience and sense of belonging
Create opportunities for community leadership and civic participation
Educate and regulate to enable a safe and healthy environment

Our Liveability - A liveable City of great places

An urban environment that is adaptive to a changing and growing City
City assets and infrastructure are developed and well maintained on a strategic and equitable basis
Create valued urban places that bring people together and reflect local character and identity
Drive an integrated, responsive transport system and network
Enhance the quality and diversity of open and public spaces

Our Environment - An environmentally responsible & sustainable City

Continue to implement climate change mitigation and adaptation solutions
Enhance the state of the City’s environment and biodiversity
Lead and educate to reduce the City’s impact on the environment and build resilience

Our Economy - An economically thriving City

Lead regional collaboration to promote the Western Adelaide economy
Support and enable local business prosperity and growth
Facilitate an environment for a diversity of business and industry types

Our Leadership - A leading & transformational Local Government organisation

Be bold and innovative in our practices, leadership and decision making
Adaptive and sustainable management of the City’s finances
A collaborative, agile and high performing work place

Relevant Council policies are:

- Asset Management Policy
- Environmental Sustainability Policy
- City of Charles Sturt Development Plan
- Annual Business Plan and Budget
- Place Making Framework
- City of Charles Sturt Long Term Financial Plan

Relevant statutory provisions are:

- Local Government Act 1999
- Planning Development and Infrastructure Act 2016
- Draft Planning and Design Code
Executive Summary

This report provides an overview of the reasons for creating the Your Neighbourhood Plan Framework and the evolution and content of the Framework which forms Appendix A. The background section touches on the extensive research showing that holistic, place based neighbourhood planning is effective in capturing opportunities and efficiencies in infrastructure and human service provision. This means coordination not just across Council portfolios but with State and Federal agencies and industry.

The report describes the likely content of a Neighbourhood Plan and work done to date. The Vision and Guiding Principles developed over past months are summarised and the selection of a pilot area comprising the Albert Park and Hendon suburbs, is explained. A crucial part of the Your Neighbourhood Plan Framework are the Liveability Indicators to evaluate and measure the current and future status of neighbourhood liveability and what infrastructure and services to focus on. The Implementation program for the Your Neighbourhood Plan Framework completes the report.

Background

In December 2018, Infrastructure Australia released its “Planning Liveable Cities” Reform Series paper, which was the culmination of 18 months of research and interviews with professionals across 6 Australian capital cities. It concluded that growth and infrastructure had become disconnected, leading to communities feeling an ever increasing disappointment with new urban development, particularly housing growth.

The Paper’s recommendations focused on the need for place-based local planning, that coordinates infrastructure providers across tiers of government and industry, offering opportunities for communities to influence future spends on infrastructure to ensure quality of life. This approach has been endorsed by Infrastructure SA in their recently released 20 Year Infrastructure Strategy. The Victorian government has also recently commenced a '20-Minute Neighbourhoods' program, with a similar focus on planning for walkable neighbourhoods.

With a staff vacancy arising in 2019, Urban Projects created a part time City Futures Coordinator role aimed at facilitating long term local planning by creating the Your Neighbourhood Plan Framework. The Framework builds upon the current city-wide thinking for asset, strategic and service delivery planning whilst aiming to go beyond business as usual. In partnership with the local residents and State and private agencies the aim is to create neighbourhood plans across our City that enhance local liveability for current and future residents and businesses.

Report

1. Rationale for Your Neighbourhood Plan Framework

The Neighbourhood Plan Framework shows how to increase liveability through a coordinated approach to asset and service delivery by Council and other tiers of government and industry that are involved in urban development. Liveability is at the heart of the Framework and can be simply defined as 'better urban quality' or 'a community's quality of life'. Neighbourhood Plans will work to respond to community issues, audit all the elements of liveability and identify opportunities to coordinate local improvements over time.

Ideally, community connection with and confidence about the future of their neighbourhood and of their council area, will increase as a result of better neighbourhood planning.
The Plans will also promote a better understanding of what the long term vision is for our
suburbs and in so doing, provide a framework to support grant applications and funding for the
provision of necessary infrastructure in support of the local community’s expectations.

Walkable and liveable suburbs go hand in hand, often characterised by good local shops,
diverse land uses, multiple public transport choices, and great streets. The benefits of these
types of suburbs are in health, environmental, social and economic areas. Research from RMIT
University and related studies, increasingly demonstrates that people walk more when living
within 400 metres of everyday shops and services; that disease from inactivity is reduced by
more walking; more social interaction occurs; neighbourhoods are safer; local shops trade
better; greener walking routes reduce heat extremes; and walking infrastructure provides a
higher return than rail and road projects. And most people love to live in such neighbourhoods.

2. Neighbourhood Plan Content

A Neighbourhood Plan will focus on integrating not only pipes, fibre, roads and storm water
infrastructure, but also community services, cultural experiences and places, public transport,
smart city applications, and City greening, responding to urban heat islands and other climate
extremes.

It will seek to integrate State agency and Federal agency infrastructure and identify the timing
of significant private sector development sites in the City. The Asset Management Plans across
council portfolios and teams will form a key platform for a Neighbourhood Plan, as will
programs such as Living Streets and Place making.

Local streets will figure strongly in many plans as they have the capacity to effect major change
in terms of movement networks, greening to avoid climate extremes such as the heat island
effect, biodiversity, suburb amenity and enjoyment. By presenting local improvements in an
integrated and spatial way, participation and funding from State agencies and industry is more
likely.

The plans are anticipated to be succinct and primarily graphic in format and presentation, with
opportunities shown on maps and other plans, including sequencing of infrastructure and
development over time.

3. Selection of Albert Park /Hendon for Pilot Neighbourhood Plan

An aerial photograph shows the proposed Pilot area in Appendix B. A range of City of Charles
Sturt data sources, including the SEIFA Index and Urban Heat Island Map (Appendix C and D),
open space distribution and local works programs were examined, informing the selection of
Albert Park/Hendon as a priority area for a Neighbourhood Plan Pilot. A brief multi-criteria
analysis, including assessment against the Your Neighbourhood Plan Framework vision and
principles and other strategic documents confirmed the suburbs of Albert Park/Hendon as the
preferred pilot area, subject to Council endorsement.

4. Work to date on the Your Neighbourhood Plan Framework

Led by the Urban Projects team, an initial internal workshop in June 2019 scoped the task and
reviewed research from Infrastructure Australia and other liveability programs. Following the
appointment of the City Futures Coordinator, a cross-portfolio staff workshop in December
2019 generated a shared understanding of different portfolio responsibilities. Draft principles
and a vision were presented and have been refined over time. Data bases for the City were
presented in graphic form, identifying areas of different social, environmental and economic
impacts.
Subsequently a governance framework was confirmed, with a Project Steering Group of General Managers and key Manager membership and a Technical Working Group was established, with membership across all key portfolios, including key specialists from assets, planning and community service providers. Monthly meetings of these groups commenced in December 2019.

Using the Steering and Working Groups for guidance and input gained from staff since the workshop, the 'Your Neighbourhood Plan' Framework document has been produced. Discussion with State agencies has commenced to understand their respective proposed programs in the City of Charles Sturt. An assessment of the likely impacts of the Albert Park DPA and coordination across portfolios for upcoming community engagement for the Living Streets program - the Murray Street, Glyde Street and May Street upgrades - are current areas where an integrated approach is being applied.

5. Your Neighbourhood Plan - Vision and Guiding Principles

The agreed principles, refined over a period of months, are:

- community engagement;
- equity;
- integration; and
- liveability.

Increased liveability for local communities driven by integration and shared resourcing of infrastructure to accommodate future change, is a major objective of these Neighbourhood Plans. The Vision and Principles are detailed in the Your Neighbourhood Plan Framework policy document. The Vision and Principles will apply to all Neighbourhood Plans and can be reviewed at regular intervals.

6. Liveability Indicators and Measuring Neighbourhood Plan Effectiveness

6.1 A 'Liveability' Definition

The way suburbs and cities are planned, designed, built and managed, can enhance or detract from liveability. Danish urban planner Jan Gehl calls liveability 'better urban quality'. The physical characteristics that contribute to the liveability of cities include diverse land use, built form, quality of public spaces, efficiency of transport networks and accessibility to places of work, shops, schools and health services.

Less tangible contributors to city liveability are the broader social characteristics of places such as connectedness and safety. There is a growing consensus that these aspects of suburbs are also an important indicator of liveability. They have been included in the Indicators Table.
6.2 Liveability Indicators To Drive Your Neighbourhood Plan

From well before 2018, research into liveability and liveability indexes has continued to evolve. One of the longest running and most comprehensive liveability studies, is the Healthy Liveable Cities Liveability Index for 21 Australian cities. This Index is the result of eight years of research, led by the Australian Urban Observatory at RMIT University in Melbourne and identifies domains of liveability. The RMIT work is focused on health outcomes, whereas the Your Neighbourhood Plan framework is broader, aiming for a more balanced inclusive approach. A significant finding of the RMIT work was that increased walking, cycling and public transport use co-related with increased reported liveability.

By building on these measures and tailoring them to align with Council’s current indicators in the Corporate and Community Plans, detailed liveability indicators have been generated which will help the community articulate its needs (through engagement) and provide a guide to undertake a technical audit of each Neighbourhood Plan area. They include key infrastructure areas such as street upgrades and community services, where Council can lead real impact on local liveability.

The Detailed Indicators will form the basis for the Neighbourhood Plan proposals and enable measurement of improvements in priority areas supported by the community. The Liveability Domains are summarised below and the respective Domains and Indicators are detailed in the attached ‘Your Neighbourhood Plan’ Framework. The indicators are also informed by the review of other indexes examined for this project, including the World Happiness Index, Mercer Indexes, Property Council (resident assessed) Index and the Australian Early Development (Equality)Index.

### Liveability Domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social Cohesion and Well being</td>
<td>The make-up and connections in the local community are central to making a more liveable place. Social interaction, formal and informal, is so important to all of us to keep in touch and stay healthy. Measures will include the demand for well-designed meeting places and spaces that are safe and pleasant.</td>
</tr>
<tr>
<td>2. Walkability</td>
<td>Walkability is being able to get your daily requirements and meet other locals in your neighbourhood without having to get in a car. It usually means a local hub or strip shopping/community centre provides these services, with a diversity of land use and sufficient density of housing to generate demand for the services. External service providers and developers will be important to achieving change in this domain.</td>
</tr>
<tr>
<td>3. Public Open Space and Recreation</td>
<td>Access and proximity to local open space is a prime liveability indicator with good local parks heavily used by all age groups, particularly children and older people. Distances residents have to walk to get to their local park or playground and their satisfaction levels with the parks will be measured.</td>
</tr>
</tbody>
</table>
4. Street Environment (public realm quality)
Local street quality is so important to the enjoyment and appearance of a neighbourhood. Good planting and larger verges can enhance home values and provide more shade, cleaner air and biodiversity. Walking and cycling paths can be integrated, on-street parking rationalised and traffic calmed.

5. Movement and Transport
Measuring how people move and where they move is important to encouraging more active modes of travel such as walking and cycling. Proximity to public transport, its frequency and reliability will determine its level of use and the liveability of the suburb. If active and public modes of movement can be used more for work and recreation, then household costs, social isolation and pollution will be reduced. State transport agencies will be important action partners in this domain.

6. Local employment and economy
Local jobs mean less car movement, more time with family and more reliability for employers. Measuring these indicators provides another insight into local liveability.

7. Infill/New Development Quality
Every neighbourhood changes over time and our City accommodates a significant portion of metropolitan growth. We need to measure the location and quality of this growth through community and other perspectives to enable growth to enhance neighbourhood liveability.

7. Proposed Implementation Program
The following project phases are envisaged as part of the future program to deliver the Neighbourhood Plan Pilot:

- **Council Briefing and Endorsement** - August 2020
- **Initial Community Engagement** - combined with Living Streets program engagement and then extending - Sept/Oct 2020
- **Audit Pilot Plan Area** - using Working Group members from across Council portfolios, and community contacts - Sept/Oct 2020
- **Inform and Engage Council** - on progress to date, key issues and community priorities; workshop format - November 2020
- **Prepare Draft Neighbourhood Plan** - use overlay options for key areas of character, greening, community services, future development and funding and implementation to best articulate community priorities - October/December 2020
- **Council Endorsement for second formal Community Engagement** - present draft to Council - February/March 2021
- **Community Workshop on Draft Plan** - refine plan - March/April 2021
- **Finalise Draft Plan** - June 2021
- **Check with Community through Open Day or similar** - July 2021
• Council endorsement of Your Neighbourhood Plan for funding and implementation - August 2021.

8. Timing

Subject to Council endorsement, it is proposed to commence consultation on the first Neighbourhood Plan during October-November 2020, integrating with the Living Streets program in Albert Park, with Covid19 challenges being circumvented by including a range of social media engagement models.

Financial and Resource Implications

A Neighbourhood Plan Pilot is to be conducted using limited recurrent budgets. As part of evaluating the pilot a better understanding of costs will be obtained through the evaluation of activities, aimed at developing an effective neighbourhood plan.

Should the program expand across the city, a dedicated budget might be required in which case it will be presented to council for consideration at that time.

The outcomes of the Neighbourhood Planning process will require the coordination of relevant Asset Management Plans, capital works programs and reference to the Long Term Financial Plan. This will ensure that the necessary infrastructure works are affordable and can be resourced appropriately within Council's financial capacity. Where appropriate, partnering with State and Federal agencies and leveraging private sector investment, will assist in the delivery of new assets and infrastructure.

Customer Service and Community Implications

There are no customer service or community implications currently identified.

Environmental Implications

There are no environmental implications currently identified.

Community Engagement/Consultation (including with community, Council members and staff)

The establishment of 'Your Neighbourhood Plans', will be based upon comprehensive community engagement and ongoing partnership on projects, commencing with the Albert Park/Hendon Pilot Project.

Community engagement is envisaged at the beginning of the project to inform, invite participation and establish what characteristics or attributes the community values about its area. A telephone survey is envisaged as part of the initial consultation, as well as application of YourSay options and social mapping. This initial engagement will be aligned with the Living Streets Community engagement, also in Albert Park.

Further engagement is proposed after specific Plan options have been generated; and after preparation of the draft Neighbourhood Plan, before a final plan is prepared. A co-design process may involve the continual involvement of keen community members on key projects.

Outcomes from the engagement process will shape priorities in terms of timing and the nature of public realm work, funding sources and service delivery, subject to Council having capacity and control over the issues identified.
Council members will be kept informed by regular briefing and reporting and Council staff will continue to be engaged through cross-portfolio workshops, similar to those that have already occurred. A Community Engagement Approach document for the Your Neighbourhood Plan Pilot forms Appendix E for information.

Risk Management/Legislative Implications

There are no risk management or legislative implications currently identified.

Conclusion

The Your Neighbourhood Plan Framework policy document provides a great opportunity for Council to maintain its innovative edge, by leading holistic neighbourhood planning in South Australia. The project has great potential to demonstrate more 'joined-up' leadership in strategic planning and infrastructure delivery. By anticipating and identifying growth areas, partnering with external agencies and supporting neighbourhood development, Council can show this leadership to others. Perhaps more importantly, Neighbourhood Plans can offer better quality daily living for local communities and more community confidence in the future. For some areas of our City this will mean stronger 'village suburbia' where there is a village feel, with walkable services and a walkable centre.

The Framework aims to deliver a series of forward 20-year plans, each based on a defined area which will link together new infrastructure, infrastructure renewal and infrastructure maintenance across engineering, transport, social and environmental services. Efficiency dividends are likely from coordinated service delivery - and community confidence dividends from working together with local neighbourhood groups.

Ultimately, the main objectives are to create more liveable neighbourhoods and enhanced quality of life for our residents, liaise productively with other government and industry sectors and in so doing attract the right investment in the right places in our City.

Appendices

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<td>Appendix E - YNP Community Engagement Approach - Albert Park -Hendon</td>
<td>PDF File</td>
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APPENDIX A
Snapshot of Our City

Our City is one of the largest and most diverse in metropolitan Adelaide

Currently 117,382 people live in Charles Sturt: 13.6% aged 70+, 26.5% born overseas, 27.2% non-English speaking background

Local Jobs = 42,162
Top 3 employment sectors: 18.5% in health care & social assistance, 13.4% in retail trade, 11% construction

In 2031 our population will = 126,447

No. Local Businesses = 10,258
Number of Properties = 59,125
Gross Regional Product $5.594 billion
City area = 5,563ha
7 Community centres
1 REGIONAL recreation centre
5 libraries
435.5ha of open space
Accessible open space (beach, dunes, reserves, sportsgrounds)
12km Coast line

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Your Neighborhood Plan
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INTRODUCTION

Your Neighbourhood Plan aims to make your suburb more liveable by coordinating street improvements, housing and community development.

This Plan is about improving the liveability of your neighbourhood based on the things you would like to see happen in the future. More trees in response to climate extremes, great local open space, streets safe for cycling and walking, good quality infill and good shops and community services, all addressed together over time, focused on your suburb.

These elements make a walkable neighbourhood which has many benefits including residents’ health through increased activity levels, increased community contact and well-being, more trade for local shops, less household money spent on driving and transport, less congestion and benefits to the environment through more biodiversity and less pollution.

Council aims to lead better integration of its programs and combine them with State infrastructure plans and private sector development activity, all focused on a neighbourhood area. This place-based approach will build on yours and Council’s priorities for your area and an audit of the neighbourhood for opportunities to make it more liveable.

‘focus on a strong connected community AND quality accessible transport infrastructure’

‘less reliance on cars…link all shared paths together’

‘parks, trees , open space … a greener, cooler, sustainable Council area’

‘more Living Streets not just main streets, bring nature back through verge garden projects’

Our City plays an important role in Adelaide’s future, covering a large area of western metropolitan Adelaide, with diverse residential and employment areas. Residential growth of over 1,150 people each year will require up to 500 new dwellings across the City of Charles Sturt.

Your Neighbourhood Plan 2020 | 3

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This Vision and the Principles reinforce that Your Neighbourhood Plan is your plan, led by your community input, aiming for equity across the City, integrating renewal with a focus on liveability and enjoyment of your neighbourhood.

The Vision and Principles here will assist in assessing which areas of your Council are selected for future Your Neighbourhood Plans, considering levels of liveability.

A. COMMUNITY LED NEIGHBOURHOOD PLANS THROUGH:
   a. discovering and reflecting your neighbourhood’s priorities.
   b. creating meaningful and early engagement opportunities.
   c. to share ideas and experiences.
   d. ongoing engagement to build community capacity.

B. GREATER EQUITY IN INFRASTRUCTURE PROVISION ACROSS COUNCIL BY:
   a. delivering better social services, infrastructure and amenity in neighbourhoods where they are most needed.
   b. Within the context of asset management plans and frameworks build local capacity and prosperity.
   c. creating a shared understanding of infrastructure capacity and responsibility across all tiers of government and the private sector.
   d. producing a targeted infrastructure forward plan across the City.
   e. measuring the progress of integrated infrastructure implementation.
   f. courageous leadership producing innovation in neighbourhood design and funding.

C. INTEGRATION OF PLACE-BASED PLANNING BY:
   a. implementing the Your Neighbourhood Plan in accord with State and Council strategic frameworks, attracting private sector, State and Federal investment.
   b. collaborating on projects across council departments and other tiers of government and other councils.
   c. continue to develop innovative design options and sustainable infrastructure plans.

D. IMPROVED NEIGHBOURHOOD LIVEABILITY BY:
   a. anticipating future global trends in work, housing, recreation and climate at your neighbourhood level.
   b. integrating long-term priorities considering demographics, living and working, service and investment opportunities and urban development.

PRINCIPLES

VISION

Great liveable neighbourhoods through the coordinated design and delivery of social, economic and sustainable infrastructure, services and opportunities.

VISION AND PRINCIPLES
Your Neighbourhood Plan will be strongly aligned with Council’s Community Plan and Corporate Plan. Importantly the Plan will also be strategically aligned with State plans such as Growth State and the 30 Year Plan for Greater Adelaide, including its key targets for containing the urban footprint of Adelaide, offering more ways to move about, encouraging active lifestyles and walkable communities, increasing urban green cover and offering greater housing choice.

Your Neighbourhood Plan will show improvements over the long term, prioritised by your community and Council, in areas such as walking and cycling routes to local services, pedestrian and cyclist safety, more green spaces, community programs and local places to meet and share life.

Importantly Your Neighbourhood Plan will identify ways to partner with the community and share funding of agreed local improvements on an equitable basis with State and private stakeholders.

The Plan will integrate existing Council frameworks and programs including Living Streets, Place Making, Smart City, Asset Management Plans, the Open Space Strategy, Living Green and Adapt West.

Your Neighbourhood Plan may contain graphics showing:
- street renewal integrated with growth through a long-term local program
- improvement areas for coordinated State, Federal and private sector activity
- development concepts of private sector sites in the City as well as areas of INF
- how grant applications and external funding might support future infrastructure
- a set of domains and indicators to measure the livability of a place, identify gaps and other opportunities including how we respond to climate change

These opportunities will be the product of technical assessments and crucially, engagement with your community members.
1. Social Cohesion and Wellbeing
The makeup of the local community is central to making a more liveable place. Measures will include available community services, use of smart technology and local meeting places and spaces where you feel safe.

2. Walkability
Walkability means being able to get your daily requirements in your neighbourhood without having to drive. Measures include diversity of housing types, dwelling densities and public transport networks within 10 minutes walking of your house.

3. Public Open Space and Recreation
Good access and proximity to local open space are central to liveable and walkable neighbourhoods. Distances to local parks and your community satisfaction levels are proposed measures.

4. Street Quality
Local street quality is so important to the function and enjoyment of your neighbourhood. Measures may include larger verges, better footpaths and cycle routes to provide more shade, lower temperatures and better active movement.

5. Sustainable Movement and Transport
Your future transport choices might include more walking and cycling, as well as driving when necessary. Proximity to public transport, its frequency and reliability will be measured.

6. Local Employment and Economy
Local jobs mean reduced journeys to work, more family time at home and more reliability for employers. Local traders also benefit from a more walkable neighbourhood. These indicators will be measured to assess economic activity.

7. Built Form and Sustainable Development
Your neighbourhood will change over time as our City accommodates a portion of metropolitan Adelaide’s growth. We will measure the amount of this growth, including more diverse housing which meet planning policies.

Your Neighbourhood Plan will deliver a series of local plans co-designed with you to make the place you live better. Community wellbeing, walkable neighbourhoods, accessible open space, beautiful streets and access to transport are some of the indicators that will measure long term prioritised improvements.

Seven domains each contain multiple liveability indicators.
A simple methodology is envisaged to deliver Your Neighbourhood Plan. Community engagement is proposed initially identifying your favourite local places and services and what you would like to see in the future. A technical audit will then confirm opportunities for inclusion in Your Neighbourhood Plan. Some areas to consider based on future local growth are changes to streets and greening, new development of housing, how you move around. The domains and their indicators will form a consistent structure for measuring and reporting. A draft plan will be prepared with your neighbourhood community and checked back with Council, the State and the local community before being finalised.

Each neighbourhood plan will be unique, focusing on longer term opportunities and funding opportunities, to achieve greater liveability and community certainty.

### Stage 1: Engage and Audit
1.1 Identify priority areas by data analysis and alignment with Vision and Principles
1.2 Council briefing and endorsement
1.3 Initial Community Engagement – Survey and Priority Shaping
1.4 Neighbourhood audit using indicators
1.5 Response from Government and industry to Audit results
1.6 Workshops to develop options and priorities for Your Neighbourhood Plan

### Stage 2: Draft Plan Preparation
2.1 Incubate and test community priorities
2.2 Develop draft Neighbourhood Plan
2.3 Council endorsement of draft Neighbourhood Plan
2.4 Display draft Neighbourhood Plan for final community feedback

### Stage 3: Finalise Neighbourhood Plan
3.1 Prepare Final Neighbourhood Plan
3.2 Council endorsement of final Neighbourhood Plan

### Stage 4: Implementation
4.1 Implementation of key short term priorities and integration of longer term priorities into Council strategies
4.2 Measurement of Plan impact based on Liveability Indicators
The key recommendations were:

- Bring together a range of stakeholders involved in the success of projects within Australia’s largest cities, with a focus on housing, infrastructure, and design.
- Increase public transport and green space to improve access and connectivity.

The research includes planning processes at State and local levels and funding arrangements. Significant insights were shared by representatives of local government, state government, and industry. The research identified numerous challenges requiring a coordinated and integrated approach to planning and design.

Appendix 1 – Research and Rationale: Integrated Infrastructure for Future Change

Appendix 2 – Liveability Indicators

The RMIT University, Centre for Urban Research report titled ‘How’s your Neighbourhood?’ is an investigative research project from the Government, Department of Infrastructure and Transport. The report was undertaken from 2019 and investigated various city liveability indexes and the Dutch liveability model. The report features a scoring system, which is used to assess the overall quality of life within a particular neighborhood in the Netherlands. The report was co-authored by the Australian Catholic University and the Australian National University. Further research from a State of Australian Cities report conducted by the Australian Government, Department of Infrastructure and Transport, shows that in 2020, the Victorian Government, Department of Infrastructure and Transport, and the City of Melbourne were the top three areas in terms of liveability. The report was undertaken from 2019 and was used to assess the overall quality of life within a particular neighborhood in the Netherlands. The report was co-authored by the Australian Catholic University and the Australian National University.
### 1. Social Cohesion and Wellbeing

<table>
<thead>
<tr>
<th>Measure and Targets</th>
<th>Link to Council Strategy</th>
<th>Desired Outcome</th>
</tr>
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<tbody>
<tr>
<td>1.1 Proximity of Community and Recreation facilities</td>
<td>Corp/Com/Ind1-5</td>
<td>20 minute or less walking access to community fac.</td>
</tr>
<tr>
<td></td>
<td>Corp/Com/Ind1-5</td>
<td>Our community is satisfied with the level of community services.</td>
</tr>
<tr>
<td>1.2 Use and satisfaction with Community facilities</td>
<td>Corp/Liv/Ind2</td>
<td>Schools are accessible to the local community.</td>
</tr>
<tr>
<td>1.3 Proximity of Education facilities</td>
<td>Corp/Liv/Ind2</td>
<td>Health services are accessible to the local community.</td>
</tr>
<tr>
<td>1.4 Proximity of health and social services</td>
<td>Corp/Liv/Ind2</td>
<td>Health services are accessible to the local community.</td>
</tr>
<tr>
<td>1.5 Smart City access</td>
<td>Corp/Ind/dl</td>
<td>Digital technology is installed to support the future needs of local households, local businesses and use of local public places.</td>
</tr>
<tr>
<td>1.6 Housing diversity</td>
<td>Corp/Liv/Ind2</td>
<td>Diverse demographic and socio-economic local neighbourhoods.</td>
</tr>
<tr>
<td>1.7 Housing Affordability</td>
<td>Corp/Liv/Ind2</td>
<td>Housing opportunities for all.</td>
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### 2. Walkability

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<tr>
<th>Measure and Targets</th>
<th>Link to Council Strategy</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Walking access to mix of services</td>
<td>Corp/Com/Ind1-5</td>
<td>Daily living requirements within walking distance.</td>
</tr>
<tr>
<td>2.2 Street connectivity</td>
<td>Corp/Liv/Ind2/Strat2</td>
<td>Permeable movement network with options to get to daily living/transport destinations.</td>
</tr>
<tr>
<td>2.3 Threshold dwelling density</td>
<td>Corp/Liv/Ind2/Strat1</td>
<td>Neighbourhood population sufficient to support local businesses and services.</td>
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## Liveability Index

**Domain and Indicators**

**Measure and Targets** (measure to be reviewed every census period unless otherwise specified)

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<thead>
<tr>
<th>Measure and Targets</th>
<th>Desired Outcome</th>
</tr>
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<tbody>
<tr>
<td><strong>Link To Council Strategy</strong></td>
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### 3. Public Open Space and Recreation

- **3.1 Proximity and access to local open space**
  - % of dwellings within 300 metres of local open space; (target 95%)
  - Cory/Liv/Ind14.15 Increased use of open space leading to healthier and more active communities

- **3.2 Satisfaction with local open space**
  - community satisfaction with quality and access to open space
  - level of use of open space
  - measure by local survey, target to exceed Community Survey
  - Cory/Liv/Ind14.15 Increased use of open space through design and content meeting community needs

- **3.3 Proximity to park larger than 1.5 ha**
  - % of dwellings within 800 metres of larger open space > 1.5 ha; (target 90%)
  - Cory/Cmp/Ind3 Accessible sports grounds used more often by the local community

- **3.4 Distance to sports facilities**
  - % of dwellings within 1000m – target 90%
  - Cory/Cmp/Ind3 Accessible sports grounds

### 4. Street Environment

- **4.1 Verge planting potential**
  - % of street length of planted verges to total street length; target is increase planted verge lengths by 10% over 5 years
  - Cory/Liv/Ind4.5 Greater biodiversity, cooling effect, street amenity and community involvement, widespread adoption of verge planting guidelines

- **4.2 Urban green cover**
  - our tree canopy cover is improving
  - Cory/Tec/Ind12.4.5.6.7.8 Greater shade and amenity, reduced local temperatures, greater biodiversity positive impact on property values

- **4.3 Local roads and footpaths**
  - importance and satisfaction with roads and pedestrian and cycle networks; measure by local survey; target: satisfaction level exceeding Community Survey level
  - Cory/Cmp/Ind8 Wider more attractive cycling and walking routes for all abilities and better local stormwater systems

- **4.4 Area market demand**
  - rate of property value increase (target is to meet Greater Adelaide average value increase)
  - Cory/Liv/Ind11 Improved local property values from improved street environment

- **4.5 optimum on-street parking level**
  - street design includes review of on-street parking spaces to increase safety for walkers and cyclists and greening. Target: 10 % reduction in on-street parks with street renewals
  - Cory/Liv/Ind8 Greener streets; reduced number of vehicles/house-hold

- **4.6 Use of recycled materials in street renewal**
  - % of materials recycled; target: increase % each 5 years
  - Cory/Tec/Ind17 Reduced environmental impacts, reduced costs, increased recycling stabilities

- **4.7 Quality and timing of maintenance**
  - current practice as a baseline; measure improved capacity to respond to seasonal maintenance need; target: reduced complaints
  - Cory/Liv/Ind 14-17 Maintenance activities are optimised, responding to strategic objectives and performance indicators to achieve consistently high public realm quality
5. Sustainable Movement and Transport

5.1 Proximity to public transport stops and patronage
- % of dwellings within 400m of a bus stop with a regular service every 30 minutes on a weekday 7am-7pm.
- % of dwellings within 800m of a rail station (target 95%).

5.2 Cycling and walking frequency
- % of dwellings using non-car modes in the week.
- Target increase percentage each ABS census (to exceed Adelaide Metro average).

5.3 Cycling access
- % of dwellings within 400m of a cycling path – Target 100%.

5.4 Private car ownership
- Motor vehicles per household (target: reduce by 5% per ABS Census).

6. Local employment and economy

6.1 Local employment
- % of employed persons living and working in the same SA3; (target increase, measure every 5 years, REMPLAN).

6.2 Level of employment
- % of workforce in full-time employment (to exceed Adelaide Metro average).

6.3 Local economic growth
- % of local businesses in the same SA3; (target increase, measure every 5 years, REMPLAN).

7. Built Form and Sustainable Development

7.1 New development activity
- % of new DA’s and dwellings which is deemed to satisfy; or is performance assessed; target is increase in support for new development; measure every 5 years.

7.2 New dwelling development to meet current prescribed planning outcomes
- % of new development which is deemed to satisfy, or is performance assessed; target is increase in support for new development; measure every 5 years.

7.3 Renewable energy and sustainable waste uptakes
- Households with solar power access; measure ABS, 5 yearly.
- Increase Transfer Station diversion/recovery rates.
- Increase % of food waste recycled and % of kerbside collections.

Link to Council Strategy Desired Outcome

Corresponding strategy and desired outcome are not specified in the image.
Community Engagement Approach for Albert Park-Hendon Your Neighbourhood Plan Pilot

September 2020

Contacts:

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8408 1111, ghouse@charlessturt.sa.gov.au

Kath Mardon, Community Engagement Officer - Engineering
8408 1270, kmardon@charlessturt.sa.gov.au
Community Engagement Approach – Albert Park-Hendon Neighbourhood Plan Pilot

1. Purpose and Objectives

The purpose of this Community Engagement Approach is to articulate the process and measures that will be undertaken to ensure our community, stakeholders, The Mayor and Elected Members are appropriately informed and engaged in relation to the intent of seeking meaningful feedback to create a neighbourhood vision and prioritised actions to shape an Albert Park-Hendon Neighbourhood Plan, while integrating the Albert Park Living Streets program.

The Albert Park-Hendon Neighbourhood Plan is a pilot of the Your Neighbourhood Plan project which aims to create more liveable places, based on local community preferences, by integrating all relevant Council portfolio activities with State and private initiatives. The Living Streets program is an important early part of the Albert Park/Hendon Neighbourhood Plan Pilot, with funds allocated to renew Glyde Street, Murray Street and May Street in Albert Park.

The project is a matter set out in Part 3 of Council’s Public PCP and accordingly the public consultation steps for this project have been determined by Council on a discretionary basis.

The objectives of this Community Engagement Approach are to ensure:

- That our Charles Sturt community has easy access to the appropriate information.
- That our Charles Sturt community is given opportunities to provide feedback.
- That the process builds positive relationships between Council and the community, and positions Charles Sturt as an organisation that is providing sound management decisions.
- That information is provided to the Charles Sturt community of the decision and reasoning for the decision.

2. Project Background

The City of Charles Sturt has more than 100,000 residents and covers a large area of western metropolitan Adelaide, with diverse residential and employment areas. Growth of over 1000 people each year and some 500 dwellings is projected to continue in future years. Council offers a high standard of services to its residents across many portfolio areas, however challenges including limited rate income, changing community needs; such as less people working and more people working from home, require a more integrated approach to making all of our suburbs the best places to live and work.

By anticipating future trends in the neighbourhoods that make up our City, listening to the community and coordinating services and infrastructure we can achieve synergies and savings across our projects and offer opportunities for State and private sector investment and alignment. This is what the Your Neighbourhood Plan Pilot project aims to deliver with the Living Streets program of street upgrades being an early deliverable.

This community engagement approach recognises the integration of the pilot Your Neighbourhood Plan and Living Streets Project for Albert Park.

Your Neighbourhood Plan

The ‘Your Neighbourhood Plan’ Plan project has identified Albert Park-Hendon as an ideal pilot area. The project is timely, anticipating the impacts of recent changes in our communities using a valid evidence base. It will add value by coordinating our projects and maintenance programs internally and with others, providing opportunities to share funding for infrastructure improvements.
It will produce a process for Council projects and the community to make our neighbourhoods great places to live in the future. City greening, which contributes to resilience against climate extremes, and every-day services within a walkable distance are strong contributors to more liveable neighbourhoods according to recent community feedback.

The core liveability domains for ‘Your Neighbourhood Plan’, with measurable indicators for each domain, will be:

- Social cohesion and Well-being
- Walkability
- Public Open Space and Recreation
- Street Environment (public realm quality)
- Movement and Transport
- Local employment and economy
- Infill / new development quality (private realm)
Fig1 - Pilot Area, Albert Park-Hendon Your Neighbourhood Plan (Albert Park and Hendon suburbs)
Living Streets

A number of streets in the suburb of Albert Park are reaching the end of their useful life and are listed for reconstruction in the next 4-10 year Roads Program.

- Glyde Street
- Murray Street
- May Street (Top priority for reconstruction in early-mid 2021 as road has failed)

While planning for a road reconstruction we also like to investigate traffic safety, greening potential and amenity of the street at the same time to ensure:
- resident concerns have been captured for current and future demand; and integration with Your neighbourhood Plan covering the same area.

The Albert Park consultation area for Living Streets is bounded by Port Road, West Lakes Boulevard and Gordon Street, which is predominately made up of residential properties, with a small number of businesses and industry.

To integrate the future upgrade of infrastructure for liveability and local needs of those living within this area, the following elements could form part of the plan which would significantly contribute to improvement of the local neighbourhood:

- wider verges, planted and maintained by the community and council together
- widened footpaths
- renewed assets
- improved traffic safety
- street furniture
- public art
- smart cities infrastructure
- changing the road alignment
- landscaping and tree planting giving more shade, biodiversity, clean air and cooler areas
- lighting to create safer spaces
- updated community services
- more walkable streets, to services, shops and the train station
3. Consultation Scope

Consultation will be undertaken in a number of stages to ensure we gather the meaningful feedback from the Albert Park and Hendon community to shape the future Your Neighbourhood Plan and gain quick wins through the Living Streets project.

Three stages of community engagement are planned. Stage 1 engagement will relate to the suburbs of Albert Park and Hendon (Refer Figure 1 above) and the purpose will be to raise awareness of the Neighbourhood Plan project and gather what the local community value about their local area, what is important to them and what improvements they would like to see now and in the future. From this information we will begin to develop a vision and concept opportunities for Albert Park and Hendon, integrating the specific opportunities identified for several streets within Albert Park earmarked as part of our Living Streets Project (Refer Figure 2 above).

Stage 2 engagement will seek community input and comment on the proposed Neighbourhood Vision and preferred concepts and areas to be addressed in the Neighbourhood Plan.

Stage 3 engagement will offer the opportunity for the community and Council to review the draft Your Neighbourhood Plan and provide feedback before it is finalised.

We aim to ‘involve’ our residents in all stages of this integrated project consultation, where they will have the ability to contribute in different ways. Ultimately this community will ‘shape their own plan’.
* Given the current COVID-19 situation, we are always assessing the way in which we undertake consultation. Enabling the requirement to still seek feedback in multiple ways, our face to face techniques may be replaced with online methods using techniques that replicate personal interactions. Opportunities for face to face engagement will be determined at each stage of planning.

**Communities of Interest**

Key stakeholders and communities of interest for this project include:

**External**
- Local child care centre
- Local Catholic Primary School (Our Lady Queen of Peace)
- Local Churches
- Local sporting and recreation groups
- Local businesses operating within the precinct or on the boundaries of the precinct
- Ratepayers and occupiers within the locality
- Stakeholder Groups (identified within the area)
- DPTI and other agencies (Department for Planning, Transport and Infrastructure, Renewal SA, SAHA, Health SA, Department for Education, Federal agencies)
- Mayor and Elected Members
- The broad Charles Sturt Community
- The development industry and utility providers

**Internal**
- Placemaking and Economic Development in Urban Projects
- Engineering, Strategy & Assets
- Urban Design
- Open Space, Property & Recreation
- Community Connections

**Project Area Demographic (2016, REMPLAN)**

Population – Albert Park and Hendon – 2858
Persons/hectare – 17
Diversity – 49 Aboriginal, 2105 born Oceania, 2601 (89.7%) Australian citizen
Major age cohorts – 25-29; 40-44; 50-54
Household size – 660, 2 person, 625, 4 person, 470, 3 person
Housing tenure – 41.3% mortgage, 27.4% owned outright, 24.3% rented, 213 State housing.
Car ownership – 42% 2 cars, 26.6% 1 car, 13.3% 3 cars
Opportunity – 4.2% looking for work; 36.8% not in labour force; 45.7% Yr 12 or equivalent

**Planning Community Engagement and Timeframe**

The scope for community engagement includes the following steps and timing.

<table>
<thead>
<tr>
<th>Step</th>
<th>Title</th>
<th>Description</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prepare Approach</td>
<td>Prepare a community engagement approach in relation to the matter.</td>
<td>September 2020</td>
</tr>
<tr>
<td>2</td>
<td>Authorise Approach</td>
<td>Obtain authorisation of the Community Engagement approach from the Council</td>
<td>October 2020</td>
</tr>
<tr>
<td>3</td>
<td>Community Engagement Stage 1</td>
<td>We will Inform the community of the project in ways in which they can participate in shaping the project by gathering values related to liveability</td>
<td>October 2020 – December 2020</td>
</tr>
</tbody>
</table>
indicators, ideas, issues and opportunities and develop a neighbourhood vision in line with the Your Neighbourhood Plan project and Living Streets feedback

The engagement activities/techniques suggested but not limited to may include:

- Raise awareness of the project with the Albert Park/Hendon community and invite participation. (Include an opening Video)
- Telephone survey of a sample of the Albert Park/Hendon community, undertaken by an independent market research company, to understand community values for Albert Park and Hendon related to liveability indicators.
- Your Say Charles Sturt Website and use of online community engagement tools (potentially discussion forum, gather, social map and/or form)
- Social Mapping (how & where do you walk/cycle/drive and play in the area)
- Hard copy feedback form (send only to those who request one or those we would value feedback from who haven’t responded)
- SOL activity (strengths, opportunities, limitations, develop a Community Resource Bank)
- Identify key community members – Living Street / Neighbourhood Plan Champions
- Corflute signage inviting participation
- Elected member involvement
  Collate and analyse community feedback and information about their area.

<table>
<thead>
<tr>
<th>4</th>
<th>Community Engagement Stage 2-</th>
<th>Develop a draft Neighbourhood vision and draft concept plan options and prioritise through:</th>
<th>February 2021 – June 2021</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Co-Design Workshop(s) (online via zoom or face to face with community and Council officers)</td>
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<td></td>
<td>• Local Primary school Workshop – OLQP</td>
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<td></td>
<td></td>
<td>• Engage with State agencies and industry, other external stakeholders on vision and concepts.</td>
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<td></td>
<td></td>
<td>• Look at preferred areas to be addressed in the Neighbourhood Plan.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Audit the Pilot Area against the Liveability indicators for the Your Neighbourhood Plan.</td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Activity</td>
<td>Summary</td>
<td>Timeline</td>
</tr>
<tr>
<td>------</td>
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<tr>
<td>5.</td>
<td>Incubate and Test Community Ideas</td>
<td>From the list of options, priorities, opportunities and draft concept plans created in response to community surveys, workshops and other input and considering current assets and their condition, identify what concepts can be implemented/tested in the short term.</td>
<td>February 2021 to June 2021</td>
</tr>
<tr>
<td>6.</td>
<td>Incorporate Draft Living Streets Concept plans</td>
<td>Include Living Streets Concept designs – costs, timing, partnering in implementation</td>
<td>February 2021 to June 2021</td>
</tr>
<tr>
<td>7.</td>
<td>Develop Draft Neighbourhood Plan</td>
<td>Develop a blueprint (plan) for collaborative and deliverable opportunities considering costs, timing, partnering in implementation.</td>
<td>July 2021</td>
</tr>
</tbody>
</table>
| 8.   | Community Engagement Stage 3 | Community and council to review the final plans and concepts and provide feedback  
   - Your Say Charles Sturt website  
   - Local neighbourhood event inviting community to view and comment on draft plan (Your Neighbourhood Plan and Living Streets plans) and how they might be involved in implementation  
   - Written submissions  
   - Online Survey | August 2021 |
| 9.   | Finalise Plan | Finalise plan incorporating community responses | August 2021 |
| 10.  | Council Endorsement | Seek Committee/Council endorsement of the Neighbourhood Plan | September 2021 |
| 11.  | Communicate Decision | Summarise feedback received during all stages of engagement and communicate any changes made to the final concept design made as a result of this by:  
   - Direct Mail to those captured as affected stakeholders within the locality  
   - Social media platforms  
   - Electronic copies of the Neighbourhood Plan are published on Council’s website, e-newsletter and Your Say Charles Sturt.  
   - Any additional methods identified by the project team. | October 2021 |

Levels of Engagement

The level of engagement for this project is at **Involve** given the:

- Multiple issues/areas of interest involved in the matter.
- Moderate or high degree of interest/impact on the community.
Communication and Engagement Techniques and Promotions

The following communication and engagement techniques and promotions are proposed:

- Letter/brochure to key stakeholders
- Your Say Charles Sturt Website
- Telephone survey of a sample of the Albert Park/Hendon community by an independent market research company
- Corflute signage
- Photomontages
- School Workshop
- Online survey
- Co-Design Workshop (via zoom and face to face)
  - Storyboard
  - Social Mapping
- Asset Mapping
- Local neighbourhood event

4. Reporting on Community Engagement

All submissions received electronically, verbally and written will form the Community Engagement Feedback report which will be prepared detailing the outcomes and key themes along with the project next steps.

A report will be presented to the relevant Committee that summarises the community engagement process, community feedback and how this has informed the final concept plan.

Following a decision, a community engagement summary providing a link to the full feedback report will be communicated to key stakeholders and the community by direct mail.

5. Budget

The resources required to plan, deliver and report on the public consultation of the proposed Albert Park-Hendon Your Neighbourhood Plan include the following:

<table>
<thead>
<tr>
<th>Resource Requirement</th>
<th>Budget Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal administration costs associated with drafting and preparation of associated key messages and documents</td>
<td>Covered by recurrent operational budget</td>
</tr>
<tr>
<td>Use of Council’s Your Say Charles Sturt website, e-newsletter and social media platforms</td>
<td>Covered by recurrent operational budget</td>
</tr>
<tr>
<td>Telephone survey</td>
<td>Covered by recurrent operational budget</td>
</tr>
<tr>
<td>Consultation Events – staff time and hire (if applicable)</td>
<td>Covered by recurrent operational budget</td>
</tr>
<tr>
<td>Printing /Postage and return of consultation material</td>
<td>Covered by recurrent operational budget</td>
</tr>
<tr>
<td>Total</td>
<td>Covered by recurrent operational budget</td>
</tr>
</tbody>
</table>

6. Risk Management

The key issues and risks for Council if a community engagement approach is not delivered, or not delivered well, include:

- Balancing individual views with broader community views.
- Community satisfaction.
- Failing to understand community sentiments on a project.
- Impacts associated with project delays.
- Media interest.
- Reputational risks.

7. Approval of the Community Engagement Approach

Seek Council approval for the community engagement approach.
6.98 SHADE SAIL AT VARIANCE WITH LAND MANAGEMENT AGREEMENT (LMA) OVER A PROPERTY - 8 BUCKNALL COURT TENNYSON

TO: Council

FROM: Manager Planning and Development - Julie Vanco

DATE: 12 October 2020

Brief

This report seeks the consent of Council to endorse a development that is at variance with a Land Management Agreement (LMA), restricting building to be erected on the subject land west of the line marked as the "Building Prohibition Line", which exists over a parcel of land at 8 Bucknall Court Tennyson. The property is legally described as Allotment 750 in Certificate of Title Volume 5987 Folio 102 and located in the Residential Zone, Western Edge Policy Area 17.

Recommendation

1. That the report be received and noted.

2. That Council endorse the proposed development contained in the Appendix A which is at variance with the Land Management Agreement at 8 Bucknall Court Tennyson.

3. That the Mayor and Chief Executive Officer be authorised to sign and seal any documentation required to give effect to this decision by way of a supplementary deed.

Status

This report relates to or impacts upon the following Community Plan Objectives 2016-2027.

Our Community - A strong and connected community

Educate and regulate to enable a safe and healthy environment

Our Liveability - A liveable City of great places

An urban environment that is adaptive to a changing and growing City

Our Environment - An environmentally responsible & sustainable City

Continue to implement climate change mitigation and adaptation solutions

Our Leadership - A leading & transformational Local Government organisation

Be bold and innovative in our practices, leadership and decision making

Relevant Council policies are:

• Nil
Relevant statutory provisions are:

- City of Charles Sturt Development Plan Consolidated 13 February 2020
- Development Act 1993
- Development Regulations 2008

Background

A Land Management Agreement (LMA), is an agreement between two or more parties, registered against the land and is still applicable to the new owner upon transfer of a title.

Section 57(2) of the Development Act states that: "A council may enter into an agreement relating to the development, management, preservation or conservation of land within the area of the council with the owner of the land".

The LMA, titled Estcourt House, which is the subject of this report, was entered into by the then owner of the land and the Council in 1999 under the Development Act 1993, at the time that the land was originally sub-divided and set out building restrictions over the land to ensure development occurred in an orderly manner. The LMA effects the subject land as well as 12 other allotments within the Building Envelope plan. The LMA sets out building restrictions over the land to ensure development occurs in an orderly manner with an aim to achieve and preserve amenity on the land.

The LMA prevents construction on the allotment west of the Building Prohibition Line of the building envelope.

The design guidelines which impact the proposed development include:
3. Setbacks
   (ii) Subject to the following limitations, the shaded area within the dashed line (the Building Envelope) represents the maximum extent to which any structure may extend within an allotment. A structure need not extend to the limits expressed by this Building Envelope.
   (iii) Porches, porticos, bay windows, verandahs, patios, pergolas, eaves and other similar elements may be erect on allotment outside of the designated building envelope plan, except in the case of the western extent of the building envelopes of allotments 22-26 inclusive, where only paving and landscaping may extend beyond the limit of the building envelope.
   (iv) No buildings may be erected west of the "Building Prohibition Line" indicated on the Building Envelope Plan.
The owner has lodged an application for a shade sail encroaching within the Building Prohibition Line. Given the existence of the LMA, these structures require Council's consent given their location despite meeting provisions of the Development Plan.

A copy of the LMA is provided as Attachment 1.

**Report**

The subject site is located within the Residential Zone, Western Edge Policy Area 17. The desired character sought for this policy area is to continue to accommodate predominantly detached and semi-detached dwellings (8.5 metres) in height. Three storey (12 metres) buildings will be appropriate in some limited circumstances. Development will be designed to minimise its visual impact on the seaside character by adopting design and techniques to reduce the bulk and scale of buildings. This will include the use of light colours and materials and to maintain the appropriate building setback from the Coastal Open Space Zone. Current relevant provisions from the Development Plan are provided as Attachment 2.
The proposed shade sail encroaches within the LMA prohibition zone of some 52m2 or 7m from the building alignment, which is situated directly on the Building Prohibition Line itself. Therefore, any structure erected west of the building alignment will encroach into the prohibition zone.

The structure is attached to the rear of the existing dwelling and also to a 3.2m high post (north side) and a 2.2m high post (south side). The proposed shade sail is open sided and lightweight in construction. The shade sail will incorporate material colours and finishes that integrate with the existing dwelling in that the posts will be cream like the house and the sail will be light grey in colour.

The proposal meets the Development Plan requirements and was thus approved by Council staff under delegated authority as a Category 1 form of development. The Certificate of Title and application information is provided as Attachment 3 and 4 respectively. The report seeks support from Council to allow for the structure to be erected west of the Building Prohibition Line, which is consistent with current Council Development Plan provisions, as a variance to the LMA.

**Financial and Resource Implications**

There are no financial or resource implications.

**Customer Service and Community Implications**

There are no customer service or community implications.

**Environmental Implications**

There are no environmental implications.

**Community Engagement/Consultation (including with community, Council members and staff)**

There is no requirement for community engagement or consultation.
Risk Management/Legislative Implications
There are no risk management or legislative implications.

Conclusion
In summary, the legally binding agreement in the form of a Land Management Agreement limits development by setting a building setback requirement in the form of Building Prohibition Line. The proposal does not meet the Building Prohibition Line requirement. The encroachment is considered reasonable due to its compliance with the current Development Plan requirements. The proposal is consistent with the desired character for the policy area. It is thus recommended that the development which is at variance with the LMA be supported.

Appendices

<table>
<thead>
<tr>
<th>#</th>
<th>Attachment</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Land Management Agreement - LMA028</td>
<td>PDF File</td>
</tr>
<tr>
<td>2</td>
<td>Charles Sturt Council Development Plan</td>
<td>PDF File</td>
</tr>
<tr>
<td>3</td>
<td>Certificate of Title - 252 1904 20 - 8 Bucknall Court Tennyson - CT 5987 102</td>
<td>PDF File</td>
</tr>
<tr>
<td>4</td>
<td>252 1904 20 - 8 Bucknall Court Tennyson - FOR ASSESSMENT - Julian, Centenera (Mr)(2)</td>
<td>PDF File</td>
</tr>
</tbody>
</table>
APPLICATION TO NOTE - DEVELOPMENT ACT 1993
LAND MANAGEMENT AGREEMENT

CITY OF CHARLES STURT of 72 Woodville Road, Woodville SA 5011 HEREBY
APPLIES pursuant to the provisions of Section 57(5) of the Development Act 1993
for the notation of the attached Deed dated the 9th day of July 1999 and
made between CITY OF CHARLES STURT aforesaid as the Council of the one part
and EPIC FEAST PTY LTD (ACN 008 263 447) of 212 Old Port Road, Hindmarsh
SA 5007 as the Owner of the other part as a Land Management Agreement
pursuant to Section 57(2) of the said Act. The said Deed binds that PORTION OF
THE LAND comprised in Certificate of Title Register Book Volume 5333 Folio 830
being the whole of the land in allotments 17-26 inclusive and Bucknall Court as
depicted in the Amended Plan of Division attached to the said Deed and marked
with the letter "A", and operates to control the management, preservation and
conservation of the said portion of the said land.

DATED the 9th day of July 1999.

THE COMMON SEAL OF THE
CITY OF CHARLES STURT
was hereunto affixed in the
presence of:

Mayor

Chief Executive Officer
The Owner HEREBY CONSENTS to the notation of the attached Land Management Agreement.

THE COMMON SEAL of EPIC FEAST PTY LTD (ACN 008 263 447) was hereunto affixed in the presence of:

Director

Director/Secretary
THIS DEED is made the 11th day of 3rd 1999

BETWEEN: CITY OF CHARLES STURT 72 Woodville Road, Woodville S.A. 5011
(hereinafter with its successors and assigns called "the Council") of
the one part

AND: EPIC FEAST PTY LTD (ACN 008263447) of 212 Old Port Road,
Hindmarsh S.A. 5007 (hereinafter with its successors and assigns
called "the Owner") of the other part

WHEREAS:

A. The Owner is the proprietor of an estate in fee simple in the whole of the
land comprised in Certificate of Title Register Book Volume 5333 Folio 830
(hereinafter called "the Land");

B. Situated on portion of the Land is a building known as "Estcourt House",
which building is a place entered in the State Heritage Register pursuant to
the Heritage Act, 1993

C. By Development Application numbered 252/DO50/98 (hereinafter called "the
Development Application") Hunter Johnson Homes Pty Ltd applied to the
Council for approval to divide the Land in accordance with a plan of division
into 11 allotments and a road.
D. On or about the 22nd day of February, 1999 the applicant for approval in respect of the Development Application was changed from Hunter Johnson Homes Pty Ltd to the Owner.

E. On or about the 7th day of April, 1999 the Owner amended the Development Application by lodging with the Council an amended plan of division. A copy of the amended plan of division relating to the Development Application is annexed hereto and marked with the letter "A" hereinafter called "the Amended Plan of Division").

F. On the 21st day of April, 1999 the Owner amended the Development Application by including in the proposed development a proposal to construct certain fencing work at the rear of Allotments numbered 17-21 inclusively as depicted on the Amended Plan of Division.

G. The Council and the Owner wish to ensure that that portion of the Land comprising Allotments numbered 17 to 26 inclusively and Bucknall Court as depicted on the Amended Plan of Division (hereinafter called "the Subject Land") is developed with high standards of design to achieve, preserve and conserve a high level of residential amenity.

H. The Council and the Owner also wish to preserve and conserve a high level of residential amenity on the Subject Land by establishing standards relating to the number and type of dwellings that may be erected on the Allotments
numbered 17 to 26 inclusively on the Amended Plan of Division.

I. Pursuant to the provisions of section 57(2) of the Development Act, 1993 (hereinafter called "the Act") the Owner has agreed with the Council to enter into this Deed relating to the future management, preservation and conservation of portion of the Land, being the Subject Land, subject to the terms and conditions that follow.

NOW THIS DEED WITNESSETH

1. Interpretation

1.1 The parties acknowledge that the matters set out in clauses A to I inclusively are true and accurate and agree that they shall form part of the terms of this Deed.

1.2 In the interpretation of this Deed and the "Design Guidelines: Estcourt House Subdivision" annexed to this Deed and marked with the letter "B" unless the context shall otherwise requires or admits:

(a) words and phrases used in this Deed and the said Guidelines which are defined in the Act, shall unless otherwise defined by the provisions of this Deed, have
the meanings ascribed to them by the Act;

(b) references to a statute or subordinate legislation or to the Development Plan made pursuant to the Act, shall include all statutes, subordinate legislation and Development Plans amending, consolidating or replacing the statute or subordinate legislation or Development Plan referred to;

(c) the term "the Owner" where the Owner is a company includes its successors, assigns and transferees and where the Owner is a person, includes his or her heirs, executors, administrators and transferees and where the Owner consists of more than one person or company the terms includes each and every one or more of such persons or companies jointly and each of them severally and their respective successors, assigns, heirs, executors, administrators and transferees of the companies or persons being registered as the proprietor of an estate in fee simple in the Land subject however to such encumbrances, liens and interests as are registered and notified by memoranda endorsed on the Title thereof;
(d) the term "person" shall include a corporate body;

(e) the term "the Land" shall include any part of parts of the Land:

(f) the term "the Subject Land" is that portion of the Land comprised in Allotments 17-26 and Bucknall Court as depicted on the Amended Plan of Division and shall include any part or parts of the Subject Land;

(g) the term "dwelling" shall mean a building or part of a building used as a self-contained residence;

(h) the term "building" shall mean a building or structure or a portion of a building or structure;

(i) the term "Amended Plan of Division" refers to the amended plan of division annexed to this Deed and marked with the letter "A";

(j) "the Guidelines" refers to the guidelines entitled "Design Guidelines : Estcourt House Subdivision" annexed to this Deed and marked with the letter "B";
(k) the term "Building Envelope Plan" refers to the plan described in the Guidelines as the "Building Envelope Plan" and which plan is annexed to this Deed and marked with the letter "C";

(l) the term "Heritage South Australia" refers to that Division of the South Australian Government Public Service responsible for administering the Heritage Act, 1993;

(m) the term "storey" refers to a space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not -

(1) a space that contains only -

(i) a lift shaft, stairway or meter room;

or

(ii) a bathroom, shower room, laundry, water closet, or other sanitary compartment, or
(iii) accommodation intended for not more than three vehicles per dwelling; or

(iv) a combination of the above; or

(2) where the floor level below the space is more than one metre below ground level;

(3) a mezzanine;

(n) the term "mezzanine" shall mean an intermediate floor within a room;

(o) words importing the singular number or plural number shall be deemed to include the plural number and the singular number respectively;

(p) words importing any gender shall include every gender; and

(q) any clause headings or marginal notes are for reference purposes only and shall not be resorted to in the interpretation of this Deed.
1.3 If any provision of this Deed shall be found by a Court of competent jurisdiction to be invalid or unenforceable in law then in such case the parties hereby request and direct such Court to sever such provision from this Deed.

1.4 The law governing the interpretation and implementation of the provisions of this Deed shall be the law of South Australia.

2. Design Guidelines

The Owner shall ensure that any development of the Subject Land is undertaken in accordance with the Guidelines.

3. Consultation with State Heritage Branch

3.1 The Owner shall prior to the lodging of any application for provisional development plan consent for building development on the Subject Land with the Council or any other relevant authority pursuant to the provisions of the Act submit plans of the proposed development with Heritage South Australia for their consideration.
3.2 Subject to clause 3.3 of this Deed, the Owner shall not lodge any application for provisional development plan consent for building development on the Subject Land with the Council or any other relevant authority for the purposes of the Act without having had regard to the comments, if any, of Heritage South Australia of the said building development.

3.3 If the Owner has not received any comments from Heritage South Australia in relation to plans for building development submitted to them for comment in accordance with clause 3.1 of this Deed within fourteen (14) days of submitting the said plans it will be presumed that Heritage South Australia does not desire to make any comments in relation to the plans for the purposes of clauses 3.1 and 3.2 of this Deed and the Owner shall be at liberty to lodge an application for provisional development plan consent for the building development on the Subject Land with the Council or any other relevant authority for the purposes of the Act at its discretion.

4. Building prohibition line

The Owner shall not cause, suffer or permit to be erected any building (excluding any fencing work referred to in clause 1 of the Guidelines, which
said clause has the general heading of "Fencing") on the Subject Land west of the line marked as the "Building Prohibition Line" on the Building Envelope Plan.

5. Landscape area

The Owner shall, within six (6) months of the completion of a dwelling on any of the Allotments numbered 17-26 inclusively as depicted on the Amended Plan of Division establish landscaping on the relevant portions of the said Allotment upon which the said dwelling has been constructed in accordance with clause 6 (i) of the Guidelines.

6. Beach Frontage Area Fencing

The Owner shall within six (6) months of the completion of a dwelling on any of the Allotments numbered 22 to 26 inclusively as depicted on the Amended Plan of Division construct fencing on the relevant side boundaries (being the northern and southern boundaries) of the said Allotment upon which the said dwelling has been constructed in accordance with clause 1(xi) of the Guidelines. Such fencing shall not cross the area identified as "right of way" as depicted on the Building Envelope Plan and shall not extend into the areas marked "X" as depicted on the Building Envelope Plan.
7. **Number of dwellings per allotment**

7.1 The Owner shall not cause, suffer or permit to be erected on any of the Allotments numbered 17-22 inclusive and Allotment 26 on the Amended Plan of Division more than one dwelling per allotment.

7.2 The Owner shall not cause, suffer or permit to be erected on any of the Allotments numbered 23-25 inclusive on the Amended Plan of Division more than one dwelling per allotment or one pair of semi-detached dwellings per allotment.

8. **Operation of this Deed**

The parties expressly declare and agree that the provisions of this Deed shall not be binding or impose any obligation upon them unless and until the date the Registrar-General deposits the Amended Plan of Division in the Lands Titles Registration Office pursuant to the provisions of the Real Property Act, 1886.

9. **Rescission**

In the event that any development authorisation obtained for the Development Application lapses or expires by virtue of the provisions of the
Act without being implemented by the Owner or in the event that the Registrar-General does not deposit the Amended Plan of Division in the Lands Titles Registration Office the Council agrees to rescind this Deed at the request of the Owner and the reasonable costs of and incidental to the preparation, stamping and registration of the Deed of Rescission should be borne by the Owner.


The parties to this Deed declare and agree that:

10.1 The Council and any employee or agent of the Council authorised by the Council may at any reasonable time enter the Subject Land for the purpose of exercising any powers of the Council under this Deed or pursuant to law.

10.2 If the Owner is in breach of any provision of this Deed, the Council may, by notice in writing served on the Owner, specify the nature of the breach and require the Owner to remedy the breach within such time as may be nominated by the Council in the notice (being not less than twenty-eight (28) days nor greater than eight (8) weeks from the date of the service of this notice; and if the Owner fails so to remedy the breach, the Council or its servants or agents may carry out the
requirements of the notice and in so doing may enter and perform any necessary works upon the Subject Land and recover any costs thereby incurred from the Owner.

10.3 If in a notice referred to in clause 10.2 hereof the Council requires the removal of a building or any other items the subject of the breach of any provision of this Deed from the Subject Land the Council and its servants or agents are hereby authorised and empowered by the Owner to enter and remove the building or any other items as the case may be specified in the said notice from the Subject Land and to dispose of it in any manner determined by the Council provided that if the building or any other items as the case may be specified in the said notice shall have any monetary value then the Council shall use its best endeavours to realise that monetary value and shall after the disposal account to the Owner and pay to him the realised value less all expenses incurred.

10.4 This Deed may not be varied except by a Supplementary Deed signed by the Council and the Owner.

10.5 Any Supplementary Deed created pursuant to clause 10.4 of this Deed must be noted against the relevant Certificate of Title or Certificates of Title as the case may be for the Subject Land
by the Registrar-General at the cost of the party requesting the amendment contained in the Supplementary Deed.

10.6 Any development authorisation for development on the Subject Land issued by the Council pursuant to the Act which is development which does not conform with the Guidelines will constitute a waiver by the Council of compliance by the Owner with the obligations imposed on the Owner under clause 2 of this Deed with respect to the development the subject of the relevant development authorisation.

10.7 This Deed contains the whole agreement between the parties in respect of the matters referred to herein.

10.8 Notice for the purposes of this Deed shall without prejudice to any other means of giving such notice be deemed to be served on the Council if it is in writing and signed for or on behalf of the Owner and either delivered by hand or sent by post to the Council to the last known address of the Council. Such notice shall be deemed to have been given at the time of such delivery or upon the date five (5) days after such posting.

10.9 Notice for the purposes of this Deed shall without prejudice to any other means of giving notice be deemed to be served on
the Owner if it is in writing and signed for or on behalf of the Council and either delivered by hand or sent by post to the Owner to the last known address of the Owner. Such notice shall be deemed to have been given at the time of such delivery or upon the date five (5) days after such posting.

10.10 The Council may delegate any of its powers under this Deed to any person.

10.11 The requirements of this Deed are at all times to be construed as additional to the requirements of the Act and any other legislation affecting the Subject Land.

10.12 Each party shall bear its own costs of and incidental to this Deed but the Owner shall pay all stamp duty and registration fees applicable to it.

10.13 Each party shall do and execute all such acts documents and things as shall be necessary to ensure that this Deed is noted against the Certificate of Title for the Land by the Registrar-General pursuant to the provisions of Section 57(5) of the Act.
IN WITNESS WHEREOF the parties hereto have executed this Deed.

THE COMMON SEAL of the
CITY OF CHARLES STURT
was hereunto affixed in the presence of:

[Signatures]

Mayor

Chief Executive Officer
THE COMMON SEAL of EPIC FEAST PTY LTD (ACN 008263447) was hereunto affixed in the presence of:

Director

Director/S   

[Signature]

Director/Secretary
SOUTH AUSTRALIAN WATER CORPORATION being a person with a legal interest in portion of the Land by virtue of an easement over that portion of the Land marked "B" in Certificate of Title Register Book Volume 5333 Folio 830 being an easement that has vested in SOUTH AUSTRALIAN WATER CORPORATION from the MINISTER FOR INFRASTRUCTURE pursuant to clause 2 of Schedule 1 of the South Australian Water Corporation Act, 1994 HEREBY CONSENTS to the Owner entering into this Deed.

SIGNED for and on behalf of the SOUTH AUSTRALIAN WATER CORPORATION by Manager Property, being a person duly authorised by an Instrument of Authority dated 5 July 1996 in the presence of:

[Signature]

Witness

Address: C/- South Australian Water Corporation
GPO Box 1751
ADELAIDE SA 5001
Tel:

Print name of Manager Property

Print name of witness

Print Title/Position

Address: C/- South Australian Water Corporation
GPO Box 1751
ADELAIDE SA 5001
Tel: 08 22 1673
R.M.B.L. INVESTMENTS PTY LTD being a person with a legal interest in the Land by virtue of a Mortgage (Registered No. 8644604) HEREBY CONSENTS to the Owner entering into this Deed.

THE COMMON SEAL of
R.M.B.L. INVESTMENTS PTY LTD
(ACN 004 493 789)
was hereunto affixed by order of the Board of Directors in the presence of:

[Signature]
Director

[Signature]
Director/Secretary

who certify that the Seal has been affixed in accordance with the Articles of Association of the said R.M.B.L. Investments Pty. Limited (ACN 004 493 789).
THE OWNER HEREBY CERTIFIES pursuant to Section 57(4) of the Act that no other person has a legal interest in the Land.

THE COMMON SEAL of EPIC FEAST PTY LTD (ACN 008 263447) was hereunto affixed in the presence of:

Director

Director/Secretary
1 FENCING

General

(i) Fencing shall be constructed on all property boundaries with the following exceptions:
   (a) The western property boundary of Allotments 22-26 inclusive (in which case there shall be
       no fence).
   (b) The common property boundaries in respect of Allotments 22, 23 and 24 and Allotments
       25 and 26 between the western boundary of the right-of-way and the western boundary of
       Allotments 22-26 inclusive.

(ii) Fencing construction shall be consistent with the materials and colours used on the
     associated dwelling unless otherwise specified.

(iii) Gates within fencing shall be consistent with the materials and colours used on the
      associated fence.

(iv) Specific fencing requirements for particular allotment frontages are detailed in the following
     clauses.

Primary Frontage

(v) The primary frontage is the frontage of allotments adjacent Bucknall Court.

(vi) Fencing to primary frontages shall be:
     (a) 900-1500 mm high;
         and either:
     (b) Open metal railings or open timber palings in vertical orientation; or
     (c) Short stone, brick or rendered masonry wall with or without open metal railing, or open
         timber paling inserts.

Secondary Frontage

(vii) Where an allotment has more than one public road frontage, then all frontages other than the
      primary frontage are referred to as secondary frontages, and are identified with the symbol
      "S" on the attached Building Envelope Plan.

(viii) Fencing to secondary frontages shall be:
       (a) Up to 1800 mm high; and
       (b) Masonry, brush, timber or colourbond steel fencing.
Beach Frontage

(ix) Allotments 22-26 inclusive abut Tennyson Beach. The following boundaries within these allotments which are located 5000 mm or greater west of the western most building alignment permitted within these allotments are referred to as beach frontages. The beach frontages are identified with the symbol “B” on the attached Building Envelope Plan, namely:

(a) All allotment boundaries with the exception of the boundaries identified in Clause 1(i)(a) and (b) above.
(b) The western boundary of the right-of-way and its extension through Lots 22 and 26.
(c) The northern and southern boundary of the right-of-way within Allotment 24.

(x) Fencing to beach frontages shall be:
(a) Up to 1800 mm high; and
(b) Brush or open black, powder-coated steel mesh fencing and matching steel uprights.

Between Properties

(xi) Fencing between properties shall be 1800 mm high and constructed of brush.

2 VEHICULAR ACCESS AND CAR PARKING

(i) Driveways shall not be more than 3000 mm wide in the case of single driveways or 6000 mm wide in the case of double driveways.

(ii) Driveways and garages / car ports shall preferably be located on the northern side of east-west allotments, other than for allotments 17 and 26 which may be accessed directly from Estcourt Road.

(iii) Car parking for at least 2 vehicles must be provided on site, one of which must be covered. Spaces may be in tandem (one behind the other).

3 SETBACKS

(i) Minimum building setbacks for dwellings (not inclusive of garages and carports) from property boundaries are identified on the attached Building Envelope Plan by a number together with a dashed line, which represents the setback distance in metres from the adjacent property boundary.

(ii) Subject to the following limitations, the shaded area within the dashed line (the Building Envelope) represents the maximum extent to which any structure may extend within an allotment. A structure need not extend to the limits expressed by this Building Envelope.

(iii) Porches, porticos, bay windows, verandahs, patios, pergolas, eaves and other similar elements may be erected on allotment outside of the designated building envelope plan, except in the case of the western extent of the building envelopes of allotments 22-26 inclusive, where only paving and landscaping may extend beyond the limit of the building envelope.

(iv) No buildings may be erected west of the “Building Prohibition Line” indicated on the Building Envelope Plan.

(v) Building on an allotment boundary is permissible where the setback distance is indicated to be “0” (zero). Where such an opportunity to build on an allotment boundary is not taken, then the minimum setback distance becomes 600 mm. Building on an allotment boundary shall not exceed 50% of the total length of that boundary.
(vi) The principal facade of a dwelling, but not a garage or carport, may not be setback more than 6500 mm from an allotment’s primary frontage.

(vii) Garages and carports shall be set back a minimum 5000 mm from the primary frontage and in any event must be set back an equal or greater distance than the face of the dwelling (incorporating any verandahs or porches), except where:
(a) The garage forms an integral part of the dwelling (i.e. the roof of the garage is integrated with the roof of the dwelling); and
(b) Is not set forward more than 1500 mm beyond the face of the dwelling; (incorporating any verandahs or porches); and
(c) Is an enclosed structure (not a carport).

4 GARAGES

(i) Only single or double width garages are permissible.

(ii) Double width garage frontages shall be divided by a central pillar of not less than 150 mm width, unless a fashion panel door finish or similar is provided to the satisfaction of Council.

5 OPEN SPACE

(i) Private open space shall constitute not less than 20% of the area of the allotment.

(ii) Private open space does not include the area between the primary frontage and the front building alignment, and shall have:
(a) a minimum dimension of 2500 mm; and include
(b) a single area of at least 25 m² in area, with a minimum dimension of 4000 mm.

(iii) An area of open space shall be preferably provided on the northern side of an allotment.

6 LANDSCAPING

(i) Landscaping of the area between the primary frontage and the front building alignment shall be established.

7 HEIGHT

(i) Buildings on Allotments 17-25 inclusive shall not exceed two storeys.

(ii) A building on Allotment 26 may be greater than two storeys subject to the approval of Council under the Development Act.

(iii) The height of the doorstep to Estcourt House establishes the height datum to which the height of the built form on all allotments relate. The height datum of the doorstep is established at 10.20 metres.

The maximum roof heights and wall heights of dwellings relative to the height datum for all allotments is identified in the following table.

<table>
<thead>
<tr>
<th>Allotment Number</th>
<th>Maximum Height Relative to Height Datum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Roof</td>
</tr>
<tr>
<td>17 – 20 inclusive</td>
<td>19.5 metres</td>
</tr>
<tr>
<td>23 – 26 inclusive</td>
<td>19.5 metres</td>
</tr>
<tr>
<td>21</td>
<td>17.5 metres</td>
</tr>
<tr>
<td>22</td>
<td>17.5 metres</td>
</tr>
</tbody>
</table>
8 PRIVACY

(i) In relation to allotments 17–21 inclusive, all buildings of two storey or greater than 5000 mm in height above the natural ground level, shall be designed to minimise overlooking. In this respect, windows of upper building levels which face east, shall be designed to incorporate:

(a) lifted minimum sill heights of no less than 1600 mm above the finished floor level of the upper floor;

or

(b) permanent louvre, balcony or other screening devices affixed to windows or walls on sensitive building elevations;

or

(c) skillion (lean-to roofs) or other building design features;

or

(d) other building design features which achieve the objectives of protecting privacy of development on land to the east and enabling distant views to West Lakes and the eastern suburbs of the metropolitan area.

(ii) Any design technique referred to in (a) to (d) above are to be an integral element of the building(s) to prevent or minimise the potential for downward views into yards or habitable windows of neighbouring residential properties.

9 LAND USE

(i) Allotments 17-26 inclusive shall only be used for residential purposes.

10 BUILDING FORM

(i) Subject to subclause (ii) and clause 15, all buildings on all allotments shall be detached dwellings.

(ii) Semi-detached dwellings may be constructed on allotments 23, 24 and 25.

(iii) Subject to subclause (ii) there shall be no more than one dwelling on each allotment.

11 BUILDING BULK, SCALE AND MASSING

(i) Buildings shall be constructed to minimise their bulk, scale and massing. Design features such as façade articulation, setbacks, recesses and/or detailing, and the use of bay, bow or oriel windows and verandahs and balconies may be used.

(ii) Buildings shall be constructed to minimise their roof mass. Design features such as chimneys, castellation, turrets, balconies, balustrades, gables, pediments, dormer windows, clerestorey windows may be used. Single roof faces shall span no more than 3,000 mm vertical distance without its mass being minimised with a design feature.

(iii) In respect of semi-detached building forms on Allotments 23, 24 and 25, the roofs shall not be continuous. Separation of roof forms may be achieved through hipped-roof construction.
12 MATERIALS

(i) Exposed galvanised or zincalume surfaces will not be permitted for any structure.

(ii) Dwelling facades shall be predominantly of face brick, stone and/or rendered masonry and glass. Timber or fibre-cement panelling shall be limited to infill panels or upper storeys and shall not constitute more than 50% of the surface area of any facade, exclusive of the area of any fenestration.

(iii) Roofs shall be colourbond metal, slate or materials which give the appearance of slate.

13 ROOF PITCH

(i) The roof pitch shall be generally between 30° and 40°, other than for minor areas of roofing or areas which are not visible from public vantage points.

14 ANCILLARY BUILDINGS

(i) All outbuildings or ancillary building shall complement the form, materials and colours of the dwelling.

15 SOLAR ACCESS

(i) Where dwellings are constructed on allotments 18-25 inclusive to within 1500 mm of their northern property boundary, then portion of that northern facade shall be set back a distance of not less than 3000 mm from the northern allotment boundary for a length of not less than 4000 mm. This setback requirement is identified with the symbol “C” on the attached Building Envelope Plan.

(ii) Windows of eastern or western facades shall be protected by an eave, verandah or pergola, the width of which is at least 30% of the height of the wall in which it is situated, other than for gable walls where protrusions over gable ends shall be at least 20% of the height of a non-gabled wall.

(iii) Windows of northern facades shall be protected by an eave, verandah or pergola, the width of which is at least 20% of the height of the wall in which it is situated, other than for gable walls where protrusions over gable ends shall be at least 20% of the height of a non-gabled wall.

(iv) Dwellings shall have a day living area incorporating a window facing between 20° west and 30° east of true north and include ceiling and wall insulation to at least the level recommended in AS 2627.1-1993.

(v) Habitable rooms shall have windows:
   (a) totalling in area at least 10% of the room’s floor area; and
   (b) located to face an area of open space which is clear to sky an open verandah, an open pergola, or an open carport; or
   (c) with a horizontal distance between any facing building, measured perpendicular to the face of the window, of at least 1000 mm.
LEGEND:
1. Setback in metres
2. Secondary frontage
3. Beach frontage
4. Courtyard facade
5. Building Prohibition line
6. Landscape area
7. Right of way

ESTCOURT HOUSE SUBDIVISION
BUILDING ENVELOPE PLAN

DATE: 21/MAY/1999
DRAWN: MRS
SCALE: 1500

DRAWING NUMBER: AP0864-1E
REVISION: E
PLAN OF PROPOSED LAND DIVISION

PT. SEC 951
F. P. 14272
F. P 4390

ESTCOURT ROAD

MAWSON
CLOSE

D. P 32488

D. P 27747

D. P 45275

D. P 106775

D. P 119019

D. P 106775

D. P 106775

D. P 106775

DEVELOPMENT NUMBER: 252/000533
COUNCIL: CITY OF CHARLES STURT
CURRENT ZONING: M1
IRRIGATION AREA:
DIVISION:
HUNDREDS: YATALA
TOWNSHIP/AREA: TENNYSON
ALLOTMENT 100 in DP 45275
of PART SECTION 106

TITLE REFERENCE: CT Sec 951
TOTAL AREA: 1.38 ha
Bearing Datum
○○ Division Adopted
Derived From: DP 45275

EXISTING ALLOTMENTS

PROPOSED ALLOTMENTS

RESERVE REQUIRED: 12.5%
RESERVE PROVIDED
APPRAISAL LENGTH OF NEW ROAD: 30 meters

PORTION OF ALLOTMENT 24 MARKED B IS SUBJECT TO EASEMENT TO THE MINISTER FOR INFRASTRUCTURE VIDE T 4057054
ALLOTMENT 24 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENTS 23 AND 24 MARKED C
ALLOTMENT 23 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENT 24 MARKED A
ALLOTMENT 22 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENTS 23 AND 24 MARKED A
ALLOTMENT 21 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENT 24 MARKED A
ALLOTMENT 20 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENT 24 MARKED A
ALLOTMENT 19 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENT 24 MARKED A
ALLOTMENT 18 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENT 24 MARKED A
ALLOTMENT 17 IS TOGETHER WITH A RIGHT OF WAY ON FOOT ONLY OVER THE PORTION OF ALLOTMENT 24 MARKED A

DATA SHOWN HEREIN IS APPROXIMATE ONLY AND SUBJECT TO CALCULATION FROM APPROVED OUTER BOUNDARY SURVEY DATA

FYKE SURVEYS PTY LTD

NOTE: Authority for level: PSM 1553/1505 L. 3.05m: 9.05m: 9.05m

NOTE: Sheet Size: 594mm x 841mm

NOTE: Sheet: 341

NOTE: Sheet: 341

NOTE: Sheet: 341

NOTE: Sheet: 341
OBJECTIVES

1. Development of a high architectural standard and appearance that responds to and reinforces positive aspects of the local environment and built form.

2. Roads, open spaces, paths, buildings and land uses laid out and linked so that they are easy to understand and navigate.

PRINCIPLES OF DEVELOPMENT CONTROL

1. Buildings should reflect the desired character of the locality while incorporating contemporary designs that have regard to the following:
   (a) building height, mass and proportion
   (b) external materials, patterns, colours and decorative elements
   (c) roof form and pitch
   (d) façade articulation and detailing
   (e) verandas, eaves, parapets and window screens.

2. Where a building is sited on or close to a side or rear boundary, the boundary wall should minimise:
   (a) the visual impact of the building as viewed from adjoining properties
   (b) overshadowing of adjoining properties and allow adequate sunlight access to neighbouring buildings.

3. The external walls and roofs of buildings should not incorporate highly reflective materials which will result in glare to neighbouring properties, drivers or cyclists.

4. Structures located on the roofs of buildings to house plant and equipment should be screened from view and form an integral part of the building design in relation to external finishes, shaping and colours.

5. Balconies should:
   (a) be integrated with the overall form and detail of the building
   (b) include balustrade detailing that enables line of sight to the street
   (c) be recessed where wind would otherwise make the space unusable
   (d) be self-draining and plumbed to minimise runoff.

6. Transportable buildings and buildings which are elevated on stumps, posts, piers, columns or the like, should have their suspended footings enclosed around the perimeter of the building, and the use of verandas, pergolas and other suitable architectural detailing to give the appearance of a permanent structure.
Development Adjacent Heritage Places

7 The design of multi-storey buildings should not detract from the form and materials of adjacent State and Local heritage places listed in Table ChSt/7 – State Heritage Places or in Table ChSt/6 – Local Heritage Places.

8 Development on land adjacent to a State or Local heritage place, as listed in Table ChSt/7 – State Heritage Places or in Table ChSt/6 – Local Heritage Places, should be sited and designed to reinforce the historic character of the place and maintain its visual prominence.

Overshadowing

9 The design and location of buildings should enable direct winter sunlight into adjacent dwellings and private open space and minimise overshadowing of:

(a) windows of main internal living areas

(b) ground level private open space

(c) upper-level private balconies that provide the primary open space area for dwelling

(d) solar collectors (such as solar hot water systems and photovoltaic cells).

10 Except where specified in a zone, policy area or precinct, development should ensure that:

(a) north-facing windows to habitable rooms of existing dwelling(s) on the same allotment, and on adjacent allotments, receive at least 3 hours of direct sunlight over a portion of their surface between 9 am and 3 pm on the 21 June.

(b) ground level open space of existing buildings receives direct sunlight for a minimum of 2 hours between 9 am and 3 pm on 21 June to at least the smaller of the following:

   (i) half of the existing ground level open space

   (ii) 35 square metres of the existing ground level open space (with at least one of the area’s dimensions measuring 2.5 metres).

(c) where overshadowing already exceeds the requirements contained in part (b), the area overshadowed should not increase by more than 20 per cent.

Visual Privacy

11 Development should minimise direct overlooking of habitable rooms and private open spaces of dwellings through one or more of the following measures:

(a) off-setting the location of balconies and windows of habitable rooms with those of other buildings so that views are oblique rather than direct

(b) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms

(c) screening devices (including fencing, obscure glazing, screens, external ventilation blinds, window hoods and shutters) that are integrated into the building design and have minimal negative effect on residents’ or neighbours’ amenity

(d) other than within the Urban Core Zone, sill heights of not less than 1.5 metres or permanent screens having a height of 1.5 metres above finished floor level.

12 Permanently fixed external screening devices should be designed and coloured to complement the associated building’s external materials and finishes.
Relationship to the Street and Public Realm

13 Buildings (other than ancillary buildings, group dwellings or buildings on allotments with a battle axe configuration) should be designed so that their main façade faces the primary street frontage of the land on which they are situated.

14 Buildings, landscaping, paving and signage should have a coordinated appearance that maintains and enhances the visual attractiveness of the locality.

15 Buildings should be designed and sited to avoid extensive areas of uninterrupted walling facing areas exposed to public view.

16 Building design should emphasise pedestrian entry points to provide perceptible and direct access from public street frontages and vehicle parking areas.

17 The ground floors of mixed use buildings should comprise non-residential land uses.

18 In mixed use areas, development facing the street should be designed to activate the street frontage(s) by:

(a) including features that attract people to the locality such as frequent doors and display windows, retail shopfronts and outdoor eating or dining areas

(b) minimising the frontage for fire escapes, service doors, plant and equipment hatches

(c) avoiding undercroft or ground floor vehicle parking that is visible from the primary street frontage

(d) using colour, vertical and horizontal elements, roof overhangs and other design techniques to provide visual interest and reduced massing.

19 Where zero or minor setbacks are desirable, development should incorporate shelter over footpaths to enhance the quality of the pedestrian environment.

Outdoor Storage and Service Areas

20 Outdoor storage, loading and service areas should be:

(a) screened from public view by a combination of built form, solid fencing and/or landscaping.

(b) conveniently located and designed to enable the manoeuvring of service and delivery vehicles

(c) sited away from sensitive land uses.

21 Adequate access should be provided to the rear of any site for servicing purposes, especially where a building does not extend to the rear boundary.

Building Setbacks from Road Boundaries

22 Except in areas where a new character is desired, the setback of buildings from public roads should:

(a) be similar to, or compatible with, setbacks of buildings on adjoining land and other buildings in the locality

(b) contribute positively to the function, appearance and/or desired character of the locality
23 Except where specified in a particular zone, policy area or precinct, the main face of a building should be set back from the primary road frontage in accordance with the following table:

<table>
<thead>
<tr>
<th>Setback difference between buildings on adjacent allotments</th>
<th>Setback of new building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 2 metres</td>
<td>The same setback as one of the adjacent buildings, as illustrated below:</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Greater than 2 metres</td>
<td>At least the average setback of the adjacent buildings.</td>
</tr>
</tbody>
</table>

24 Except in areas where a new character is desired or where specified in a zone, policy area or precinct, the setback of development from a secondary street frontage should reflect the setbacks of the adjoining buildings and other buildings in the locality.

25 All setbacks from the road frontage should be additional to the road widening setback established under the *Metropolitan Adelaide Road Widening Plan Act 1972*.

26 No development should be undertaken which would impair, disfigure, or interfere with the amenity, aesthetic appearance or scenic beauty of any of the following:

- (a) the River Torrens
- (b) land within 60 metres of the top of the bank of the River Torrens
- (c) the landscape visible from the River Torrens.
Western Edge Policy Area 17

Refer to the Map Reference Tables for a list of the maps that relate to this policy area.

OBJECTIVES

1. Development that contributes to the desired character of the policy area.

DESIRED CHARACTER

This policy area encompasses most of the coastal strip of land generally west of Military Road. It will continue to accommodate predominantly detached and semi-detached dwellings up to two storeys (8.5 metres) in height. Three storey (12 metre) buildings will be appropriate in some limited circumstances adjacent to the Neighbourhood Centre Zone – Henley Square Policy Area 12.

The net residential density of new dwellings will be <35 dwellings per hectare (ie low density). This equates to a minimum average site area per dwelling of around 300 square metres.

Front property boundary setbacks of new dwellings will not be constrained by prevailing adjacent setbacks, which can be particularly large and unduly limit development potential. Instead the default will be a 5 metre front setback for the dwelling façade and 5.5 metres for garages/carports.

The consolidation of existing land holdings to form larger development sites adjacent to arterial roads will be encouraged. This will facilitate and improve waste collection, the reduction of driveway crossovers, pedestrian safety, and the safety and efficiency of arterial road traffic movements.

Buildings will face the street. Front yards will be primarily landscaped areas open to public views, with private open space provided to the rear and side of a dwelling site. Low and semi-transparent front fencing will allow views to and from front yards and the adjacent street.

On-site car parking facilities, and particularly double garages, will be designed and sited to minimise their impact on the streetscape. Under-croft parking may be appropriate, subject to design measures to minimise their visual impact on the streetscape.

Development will be designed to minimise its visual impact on the seaside character by adopting design techniques to reduce the bulk and scale of buildings. This will include the use of ‘flat’ roof forms and parapets, façade articulation and modelling, use of light colours and coloured materials for external cladding, and careful siting and design of stair wells, lifts and roof decks. The maintenance of appropriate building setbacks from the Coastal Open Space Zone boundary, and the establishment of a landscaped setting within this setback area, will assist in mitigating flood and erosion risks to development, providing space for any future coast protection works, and maintaining a more open seaside character.

The building of habitable rooms above garages along Seaview and Military Roads is appropriate subject to a high standard of design, which minimises visual impacts on the streetscape, increases the potential for passive surveillance of and addresses the street.

Vehicle access to sites will not interfere with the growth and retention of existing Norfolk Island Pines within the adjacent verge of the public road reserve.

PRINCIPLES OF DEVELOPMENT CONTROL

1. Development should not be undertaken unless it is consistent with the desired character for the policy area.
2 Residential development should achieve maximum net residential densities of up to 35 dwellings per hectare.

3 A dwelling should have a minimum site area (and in the case of group dwellings and residential flat buildings, an average site area per dwelling), frontage to a public road and depth of not less than that shown in the following table:

<table>
<thead>
<tr>
<th>Dwelling type</th>
<th>Site area (square metres)</th>
<th>Minimum dimensions (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detached</td>
<td>300 minimum</td>
<td>8 - frontage</td>
</tr>
<tr>
<td>Semi-detached</td>
<td>300 minimum</td>
<td>8 - frontage</td>
</tr>
<tr>
<td>Group dwelling Residential flat building</td>
<td>300 average</td>
<td>16 - frontage for regular site 8 - frontage for irregular site</td>
</tr>
<tr>
<td>Row dwelling</td>
<td>300 minimum</td>
<td>8 - frontage 25 - depth</td>
</tr>
<tr>
<td>All other dwelling types</td>
<td>300 minimum</td>
<td>9 - frontage</td>
</tr>
</tbody>
</table>

4 Dwellings on allotments that have a primary road frontage along the western side of Seaview Road, should be setback from this road a minimum of 5 metres.

5 Development should be carried out in accordance with ‘Building Envelope Requirements’ of the zone except where the following variations may apply:

   (a) the rear setback for single storey buildings may be reduced in the following circumstances:

      (i) in the case of a carport - nil metres
      (ii) in the case of a garage/outbuilding - 0.9 metres
      (iii) where the rear boundary adjoins a service lane - nil metres

   (b) the rear setback for 2 storey buildings may be reduced in the following circumstances:

      (i) where the rear boundary adjoins a service lane - nil metres
      (ii) where a site has a frontage to the coast and adjoins that part of Seaview Road shown on Overlay Maps ChSt/2, ChSt/6, ChSt/11, ChSt/17, ChSt/22 and ChSt/23 – Transport, no closer than an associated garage
      (iii) where a site has a frontage to the coast elsewhere - 5 metres

   (c) 3 storey (12 metres) buildings may be appropriate provided the building height is no greater than 10.2 metres and only where located within either of the following areas:

      (i) bounded by Henley Beach and Seaview Roads, Esplanade and the Neighbourhood Centre Zone - Henley Square Policy Area 12
      (ii) bounded by Neighbourhood Centre Zone - Henley Square Policy Area 12, Military Road to North Street, North Street, Seaview Road, Marlborough Street and Esplanade.

6 Building work on allotments that have frontage to a coastal reserve or zone should only exceed the setbacks identified on Concept Plans ChSt/14, 15, 16 and 17 – Building Restriction Areas, where it complies with the following:

   (a) it is not integral to the structural or functional requirements of an associated dwelling
(b) it is readily removable or sacrificial in the event of coastal inundation, coastal erosion or the 
construction of coast protection works

(c) it is designed and sited to minimise their visual impact on the seaside character.

7 Sheds, garages, carports and similar outbuildings, whether freestanding or not, should be setback 
within the following parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum setback from primary road frontage</td>
<td>Western side of Seaview Road (non-arterial part):</td>
</tr>
<tr>
<td>(a)</td>
<td>2 metres where the building width is greater than 50 per cent</td>
</tr>
<tr>
<td>(b)</td>
<td>1 metre where the building width is 50 per cent or less than</td>
</tr>
<tr>
<td>(c)</td>
<td>at least 5.5 metres for a single garage/carport.</td>
</tr>
<tr>
<td>Eastern side of Seaview Road (non-arterial part) and other roads:</td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>where the finished ground floor level of the associated</td>
</tr>
<tr>
<td>(b)</td>
<td>dwelling is 1.5 metres or less above the level of the adjacent</td>
</tr>
<tr>
<td>(c)</td>
<td>kerb - 5.5 metres or behind the main face of the dwelling,</td>
</tr>
<tr>
<td></td>
<td>whichever is the greater</td>
</tr>
<tr>
<td></td>
<td>where the finished ground floor level of the associated</td>
</tr>
<tr>
<td></td>
<td>dwelling is greater than 1.5 metres above the level of the</td>
</tr>
<tr>
<td></td>
<td>adjacent kerb - 5.5 metres.</td>
</tr>
<tr>
<td>Minimum setback from secondary road frontage</td>
<td>(a) if located on the boundary with the adjoining allotment - not</td>
</tr>
<tr>
<td>(excluding Seaview Road - western side)</td>
<td>less than the average of the setbacks of the adjoining</td>
</tr>
<tr>
<td></td>
<td>buildings</td>
</tr>
<tr>
<td></td>
<td>(b) where the development is for a carport, or a garage setback</td>
</tr>
<tr>
<td></td>
<td>a distance of 0.6 metres or more from the boundary with the</td>
</tr>
<tr>
<td></td>
<td>adjoining allotment - in line with the associated dwelling.</td>
</tr>
</tbody>
</table>

8 Tourist accommodation facilities may be appropriate on land south of Estcourt Road to and including 
the site of Estcourt House.

9 Development south of Estcourt Road to and including the site of Estcourt House should not be higher 
than the existing Estcourt House building and generally not exceed 2 storeys provided the existing 
landform of the coastal dune that contributes to the landscape significance of this portion of the coast is 
maintained.
Certificate of Title - Volume 5987 Folio 102

Parent Title(s)  | CT 5714/311
Creating Dealing(s) | RTC 10628737
Title Issued | 23/05/2007
Edition | 5
Edition Issued | 07/08/2019

Estate Type
FEE SIMPLE

Registered Proprietor
JULIAN RAMON CENTENERA
HELEN CENTENERA
OF 8 BUCKNALL COURT TENNYSON SA 5022
AS JOINT TENANTS

Description of Land
ALLOTMENT 750 DEPOSITED PLAN 73352
IN THE AREA NAMED TENNYSON
HUNDRED OF YATALA

Easements
SUBJECT TO RIGHT(S) OF WAY ON FOOT ONLY OVER THE LAND MARKED A (RTC 8761844)
SUBJECT TO PARTY WALL RIGHT(S) OVER THE LAND MARKED D (RTC 10628737)
SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED E FOR SEWERAGE PURPOSES TO SOUTH AUSTRALIAN WATER CORPORATION (223LG RPA)
TOGETHER WITH RIGHT(S) OF WAY ON FOOT ONLY OVER THE LAND MARKED B (RTC 8761844)
TOGETHER WITH PARTY WALL RIGHT(S) OVER THE LAND MARKED C (RTC 10628737)

Schedule of Dealings

Dealing Number | Description
8721942 | AGREEMENT UNDER DEVELOPMENT ACT, 1993 PURSUANT TO SECTION 57(2)
13148333 | MORTGAGE TO PERPETUAL CORPORATE TRUST LTD. (ACN: 000 341 533)

Notations

Dealings Affecting Title | NIL
Priority Notices | NIL
Notations on Plan | NIL
Registrar-General's Notes | NIL
Administrative Interests | NIL
APPENDIX D
1 Development Application Form
Development Act 1993

The completed form must be accompanied by all required documents as specified in the requirements checklists (Planning Consent and Building Rules Consent).

Applications submitted that do not include the prerequisite information listed in the “Requirements Checklists” will be returned for resubmission by the applicant once they are complete.

1. Application Details:
   1.1. Application Type:
   Development Approval

1.2. Location of Proposed Development:
   Location Address: 8 Bucknall Court Tennyson

1.3. Certificate of Title:
   Volume: 
   Folio: 
   Copy of CT supplied? No

1.4. Cost of the Proposed Development: *(Please note: Council may require written justification to verify costs).*
   $8,000.00

1.5. Detailed Description of Proposed Development:
   Other - Shade Sail

1.6. Demolition Proposal:
   Please refer to separate Demolition Proposal Form if applicable.

1.7. Does a regulated or significant tree exist on the site or on adjoining land which might be affected (including damage to tree roots) by the proposed development?
   No

1.8. Regulated or Significant Tree Proposal Details:
   Please refer to separate Regulated or Significant Tree Proposal Form if applicable.

1.9. Additional Description of Proposed Development Information:
   Shade Sail for the backyard.
2. Details of Parties:

**Please note:** All correspondence will be emailed to the applicant at the nominated email address below. In the event that the addressee will be the first named. If additional copies of the decision and stamped postage contact the applicant. Council will only be providing one copy to the applicant.

2.1. Applicant Details:

| Name: | 
| Company: | 
| Postal Address: | 
| Email Address: | 
| Phone 1: | 
| Phone 2: | 

2.2. Contact Person (other than the applicant):

| Same as the Applicant Details? | 
| Name: | 
| Email Address: | 
| Phone 1: | 
| Phone 2: | 

2.3. Owner(s) of Subject Land Details:

Same as Applicant Details

2.4. Builder Details:

| Licence Number: | R149474 |
| Name: | Shadeform |
| Email Address: | joe@shadeform.com.au |
| Phone 1: | 83542116 |
| Phone 2: | 
| Postal Address: | 212 Grange Road FLINDERS PARK SA 5025 |

3. Has the Construction Industry Training Fund Act 1993 Levy been paid if the development cost is over $40,000?

N/A

Site Declarations – New Dwellings, Dwelling Additions and Carports / Garages:

4. If the proposed building includes a garage / carport, does it gain driveway access from:

- 

4.1. Is there a tree on council land in the way of works, or within 2m of the proposed works?

| Approximate height of tree: | metres |
| Approximate Trunk Circumference: | metres |

** All trees will be assessed by Council’s Technical Arboriculture Officer; if the tree is required to be removed all removal costs will be charged back to Applicant. All removal works will be done by Council’s Arboriculture Team.

5. Current Land and Property Use (*eg dwelling, shop, industry, warehouse*):

5.1. What is the current land and property use:

Residential
5.2. What is the historic use of land:

Residential

5.3. Are there any easements on the land?


5.4. Is there a brush fence within 3 metres of the proposed building work?

Yes

6. Building Classification Details:

6.1. Existing Building Classification(s):

Class 10 (a) - Non-habitable Outbuilding (garage, carport, verandah)

6.2. Building Classification Sought:

Class 10 (a) - Non-habitable Outbuilding (garage, carport, verandah)

7. Commercial/Industrial Applications:

7.1. Number of employees:


7.2. Number of males:


7.3. Number of females:


8. Application Fees:

Please click [here](#) to view the application fees.

**Please note:**

1. Fees will be determined once the application has been received and you will be advised accordingly.
2. Ensure that no credit card details are included in any supporting documentation to avoid it becoming publicly available.

9. Decision Notification Distribution:

Decision Notices and associated documentation will be distributed by email to the applicant's email address included on this form. Council's preferred method of communication is by email in line with reducing our impact on the environment.

10. Powerline Clearance Declaration:

No

If determined by the Assessing Officer that a Powerline Clearance Declaration is required, your application will be referred to the Technical Regulator and you will be charged the applicable fee of $222 or higher depending on the development cost.

Accepted

Accepted By: Applicant

**Note:** By accepting this charge and paying the applicable fee, your application will now be referred to the Technical Regulator resulting in a **minimum 6 week delay**.
11. Development Privacy Policy:
I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the 'Development Regulations 2008 and Development Act 1993 and where public notification is required may be available on Council’s website. Information included within this application will be publicly available on Council’s website within the Development Application Register and On Line Development Application Tracking System.

Details provided by the applicant, written representations and other technical reports form part of the reports attached to Council agendas. The agenda, minutes and accompanying report is made available on Council’s website. Information, including names and addresses recorded in these documents can therefore be searched by the various website search engines.

<table>
<thead>
<tr>
<th>Accepted</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted By:</td>
<td>Applicant</td>
</tr>
</tbody>
</table>

12. Council Privacy Policy:
By submitting this form, I consent to the City of Charles Sturt collecting, retaining and using my personal information provided in line with Council's Privacy Policy.

<table>
<thead>
<tr>
<th>Accepted</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted By:</td>
<td>Applicant</td>
</tr>
</tbody>
</table>

Please note:
1. That in accordance with the Development Regulations 2008, Regulation 98 – Register of Applications, the name and address of the applicant (or of each applicant) and information included with this application will be publicly available on Council's website within the Application Tracking System and Register.
2. Lodgement of the application will not take place until all relevant information has been received and fees have been paid.

Please note that fees will be determined once the application has been received and you will be advised accordingly. Lodgement of the application will not take place until all relevant information has been received and fees have been paid.
7 Powerline Clearance Declaration of Applicant Form
Pursuant to Clause 2A(1) of Schedule 5 of the Development Regulations 2008

Please Note: All documentation will be distributed by email to the applicant's email address included on this form.

To complete the Powerline Clearance Declaration of Applicant form online with the Development Application form, please click here.

Please complete all mandatory fields marked with (*).

Note: If your development involves the construction of a ‘building’ (as defined in Section 4(1) of the Development Act 1993), including swimming pools, but excluding fences less than 2.0m in height, this form is required to be completed in accordance with Section 86 of the Electricity Act 1996 to ensure clearance of powerlines both aboveground and underground.

For further information please refer to the ‘Building Safely Near Powerlines’ brochure prepared by the Technical Regulator.

1. Applicant Details:

   Name*: [Company/Dr/Ms/Mr/Ms/Ms] [Julian Geneniera]
   Postal Address*: (please provide full postal address) [8 BUCKNAIL COURT. TENNISON, S.A., 5022]
   Email*: [for]
   Phone 1*: [blank]

2. Development Details:
   2.1. Development Application Number: [cg 252/1111/19]
   252/ / 
   2.2. Date of Application*:
   2.3. Location of Proposed Development*: (please provide full address)

City of Charles Sturt 72 Woodville Road, Woodville, South Australia 5011 T 08 8408 1111 F 08 8408 1122 www.charlessturt.sa.gov.au
2.4. Detailed Description of Proposed Development:

<table>
<thead>
<tr>
<th>Residential and General Applications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ New Dwelling</td>
<td></td>
</tr>
<tr>
<td>☐ Dwelling Addition/Alteration</td>
<td></td>
</tr>
<tr>
<td>☐ Carport</td>
<td></td>
</tr>
<tr>
<td>☐ Verandah</td>
<td></td>
</tr>
<tr>
<td>☐ Domestic Garage</td>
<td></td>
</tr>
<tr>
<td>☐ Swimming Pool</td>
<td></td>
</tr>
<tr>
<td>☐ Fence</td>
<td></td>
</tr>
<tr>
<td>☐ Demolition (please complete the separate Demolition Proposal Form)</td>
<td></td>
</tr>
<tr>
<td>☐ Regulated or Significant Tree (please complete the separate Regulated or Significant Tree Proposal Form)</td>
<td></td>
</tr>
<tr>
<td>☐ Staged Development List Stages (provide details in 2.5 below):</td>
<td></td>
</tr>
<tr>
<td>☐ Signs Number of Signs:</td>
<td></td>
</tr>
<tr>
<td>☐ Amended Applications Previous DA Number: 252/ List Amendments (provide details in 2.5 below):</td>
<td></td>
</tr>
<tr>
<td>☐ Other, eg Change of Land Use (provide details in 2.5 below):</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commercial Applications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Mixed Use Development</td>
<td></td>
</tr>
<tr>
<td>☐ Warehouse or Industry</td>
<td></td>
</tr>
<tr>
<td>☐ Shop Fit Out Tenancy Number: Name of Shop:</td>
<td></td>
</tr>
</tbody>
</table>

2.5. Additional Description of Proposed Development Information:

3. Declaration:

I, being the applicant, or on behalf of the applicant, for the development described above, declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of section 86 of the Electricity Act 1996. I make this declaration under Clause 2A(1) of Schedule 5 of the Development Regulations 2008.

☐ Accept

Accepted By:  
Applicant  ☑  Authorised Person

Authorised Person (if applicable):

4. Privacy Policy:

By submitting this form, I consent to the City of Charles Sturt collecting, retaining and using my personal information provided in line with Council's Privacy Policy.

☐ Accept

Signed:  
Date: 10/8/2020
DISCLAIMER - 20-0912

This disclaimer is relevant to Graeme Moulston & Associates Engineering Pty. Ltd. standard drawings or concept drawings as provided by Shadeform and remain subject to approved final shop drawings and final connection details.

The information shown on these "Standard Drawings" is for the sole use of Shadeform or its licensed agents.

The information shown on these "Standard Drawings" is indicative only and does not infer any shade sail structure constructed in accordance with these drawings is structurally adequate. To ensure any shade sail structure adequate it must be design checked by Graeme Moulston & Associates Engineering Pty Ltd and a structural certification (Form 15 or equivalent) issued.

To allow Graeme Moulston & Associates Engineering Pty Ltd to conduct a structural check of a proposed shade sail structure, accurate information provided by the client or agent regarding the: location, number and location of the attachment points to existing structures, relevant information regarding the existing structure, such as type of construction, number, location and height of any posts, topographic features in the vicinity of proposed shade sail structure that may affect wind condition, and any other relevant information deemed necessary to allow an accurate check of the proposed shade sail structural to be conducted.

In the event inaccurate information regarding the proposed shade sail structure is provided to Graeme Moulston & Associates Engineering Pty Ltd, Graeme Moulston & Associates Engineering Pty Ltd will not take any responsibility for damage to property or person and to the shade sail structure as a result of shade sail failure.

Graeme Moulston & Associates Engineering Pty Ltd will not take any responsibility for failure of shade sail structure or damage caused to property or person as a result of poor installation or any shade sail structure, or inferior quality materials and fixings.

Graeme Moulston & Associates Engineering Pty Ltd will not take responsibility for damage caused to property or person where the structure the shade sail has been attached has failed due to poor workmanship, or inferior quality materials, installation and fixings that do not comply with the relevant Australian Standards, Building Codes and regulations, and BCA requirements.

Where any existing structure proposed to support a shade sail structure shows significant variations to that originally provided it is the responsibility of the client or Shadeform employee or licensed agent to notify Graeme Moulston & Associates Engineering Pty Ltd immediately before further work proceeds.

It is the responsibility of the client or agent to provide the necessary information to Shadeform, or Graeme Moulston & Associates Engineering Pty. Ltd. such that an accurate assessment of wind condition at the proposed shade sail site can be made. If such information is not provided Graeme Moulston & Associates Engineering Pty. Ltd. does not take responsibility for any failure of shade sail structure and associated damage to property or person.

Where post footings are to be used in a shade sail structure a site and soil assessment undertaken by a suitably qualified engineer is recommended.

Any certification by Graeme Moulston & Associates Engineering Pty Ltd does not relieve the shade sail installer of his/her responsibility to ensure that the works are carried out with reasonable care, skill and diligence.

Graeme Moulston & Associates Engineering Pty Ltd will not be held responsible for a failure of a shade sail structure installed by persons that are not a "trained" Shadeform employee or licensed agent.

Graeme Moulston & Associates Engineering Pty Ltd will not be held responsible for structural distortion encountered during the tensioning process.

Yours faithfully,

Graeme Moulston
FIE Aust CPEng NER AREC Engineer IntPE (Aus)
SHADE SAIL

CLIENT:
Centenara
Site Address: 8 Bucknell Court,
Tennyson SA 5022
J12708

FABRIC OPTIONS:
Fabric: Mehrer, Ferrari
Colour: TBC

POSTS:
2 @ 165 Ø x 3.5 CHS
Colour: TBC

AREA:
Approx: xx.0 m²

NOTES:

Proposed Shade Sail
West Elevation View 1:100

Proposed Shade Sail
South Elevation View 1:100

SHADE SAIL

Rope Track at 2800mm above paving level - below tiles

165 CHS post and Ht
3200mm in foreground
Above paving Level Approx
1300mm below Ground

165 CHS post and Ht
2200mm in foreground
Above paving Level Approx
1300mm below Ground

Attach sail/rope track to curved balcony edge at 2800mm above paving

165 CHS post and Ht
2200mm in foreground
and 3200mm in background Above paving level Approx 1300mm below Ground

City of Charles Sturt
Development Plan Consent

Date
July 20

Drawn
JT

Scale

Sheet 2 of 3
SHADE SAIL

CLIENT:
Centenera
Site Address: 8 Bucknall Court,
TENNYSON SA 5022
J12708

FABRIC OPTIONS:
Fabric: Mehler, Ferrari
Colour: TBC

POSTS:
2 x 165 Ø x 3.5 CHS
Colour: TBC

AREA:
Approx: xx.0 m²

NOTES:

City of Charles Sturt
Development Plan Consent

 SHADEFORM
Tel. 08 8354 2116
Fax. 08 8354 2118
212 Grange Road
FLINDERS PARK SA 5025

REV
A
DESIGN CONCEPT ONLY - Sail over Rear Paved Area

Date
July 20

Drawn
JT

Scale

Sheet
3 of 3

All dimensions and levels to be verified on site by the client prior to approval/commencement of works.
Any discrepancies on this drawing must be reported immediately to Shadeform.
Copyright of this drawing is vested in Shadeform.
Reproduction or reuse of this design/drawing is an infringement of Copyright.
STRUCTURAL CERTIFICATION DESIGN

RE: As a Certified Structural Engineer, Graeme Moulston of Graeme Moulston Structural Engineering Pty Ltd is certifying the following Shade Structure, independently designed by Shadeform for the owner, Centenera, located at:

Residential Dwelling - 8 Bucknall Court, Tennyson SA 5022
Shade Sail 1 - 25m² - to cover paved area at rear of dwelling

It is recommended that the structure, especially all welds and bolted connections, be checked annually by a Qualified Engineer for corrosion & wear and also that the shade fabric or membrane condition be checked annually by a competent person for deterioration in its integrity.

Canopy material is noted for calculation purposes only and is NOT included in this certification.

Engineers Certification for shade designed by Shadeform as per Regulation 88 – SA Development Regulation

I am satisfied that the design details of the above-mentioned structure satisfy the following Current Australian Standards and are in accordance with the Current Building Code of Australia, including particularly:

AS/NZS: 1163: 2016 (Cold-Formed Structural Steel Hollow Sections (RHS/CHS),
AS/NZS: 1554.1: 2014 (Structural Steel Welding AS/NZS: 3679.1: 2016 (Structural Steel Hot Rolled Br & Section),
AS/NZS: 3678: 2016 (Structural Steel Hot Rolled Plates, Floor Plates & Slabs).
AS/NZS: 4600: 2016 (Cold Formed Steel Structures), AS/NZS: 2312.1: 2014 (Or Similar being a Corrosion Protection),
(Protection of Structural Steel against Corrosion, by use of Protective Coating-Paint Coating) (Or Similar being a Corrosion Protection),
AS: 4500: 2012 (Wind Load for Housing),
DR AS: 4100: 2019 (Steel Structures),
AS: 3600: 2018 (Concrete),
AS: 2741: 2002 (R2014) (Shackles),

This design meets loading parameters for Vr = 45m/s and is structurally sound
Building Class (10A), Importance Level (1), Terrain Category (TC3)

Documentation for Certification:
Drawing by: Shadeform - 212 Grange Rd, Flinders Park, SA, 5045
Project No: J12708
Drawing No: 1 – 3 Incl. (Rev A) Dated July 20
Certified by: Graeme Moulston & Associates Engineering Pty Ltd,
Job No: (20-0714), Drawing 01 – 03 Incl Dated 28th July 2020

Yours Faithfully,

Graeme Moulston
FIEAust CEng NER APEC Engineer IntPE (Aus)

COMPETENT PERSON DETAILS:
Graeme Moulston FIEAust CEng NER APEC Engineer IntPE (Aus) of Graeme Moulston & Associates Engineering Pty Ltd,
P.O. Box 213 Mudgeeraba, Queensland 4213
FIE Aust CEng 5590 / NSW 31385 & RPEQ 4431
NZ Engineer Licence 1158382
Phone: (07) 55 306 214 Fax: (07) 55 253 774
Email: info@gcma.com.au

Dated: 29 July 2020
City of Charles Sturt
Development Plan Consent
Granted Subject to Conditions
Pursuant to the Development Act 1993
**Proposed Shade Sail**

**Site Plan View 1:200**

- **Dimensions:**
  - PROPOSED SHADE SAIL: 7000mm x 7400mm
  - RESIDENCE: 2200mm x 3200mm
  - Boundary Fence: 3200mm
  - Attach Sail to post RL 2200mm
  - Attach Sail to rope track on balcony edge RL 2800mm

**Shade Sail**

**Client:**
Contemera
Site Address: 8 Bucknell Court,
TENNYSON SA 5022
J12708

**Fabric Options:**
Fabric: Mehler, Ferrar
Colour: TBC

**Posts:**
2@ 165 Ø x 3.5 CHS
Colour: TBC

**Area:**
Approx: 50 m²

**Notes:**

City of Charles Sturt Development Plan Consent
Granted Subject to Conditions
Pursuant to the Development Plan 3

Tel. 08 8354 2116
Fax. 08 8354 2118
212 Grange Road
FLINDERS PARK SA 5025

SHADEFORM

Date: July 20

Drawn: JT

Scale: -

Sheet: 1 of 3
## PRECONTRAIN®
### 502S & 702S

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Yarn</td>
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<td>1100 dtex PES HT CR treatment</td>
<td>1100 dtex PES HT</td>
<td>1100 dtex PES HT CR treatment</td>
<td>1100 dtex PES HT</td>
<td>EN ISO 2098-2</td>
</tr>
<tr>
<td>Weight</td>
<td>560 g/m²</td>
<td>570 g/m²</td>
<td>750 g/m²</td>
<td>850 g/m²</td>
<td>860 g/m²</td>
<td></td>
</tr>
<tr>
<td>Width</td>
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<td>290 / 270 cm</td>
<td>279 cm</td>
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<td>280 / 280 daN / 5 cm</td>
<td>280 / 280 daN / 5 cm</td>
<td>280 / 280 daN / 5 cm</td>
<td>280 / 280 daN / 5 cm</td>
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<td>12 / 10 daN / 5 cm</td>
<td>12 / 10 daN / 5 cm</td>
<td>12 / 10 daN / 5 cm</td>
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<td>EN ISO 2111</td>
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<td>Formula 8 weldable fluorescent varnish</td>
<td>Formula 5 weldable fluorescent varnish</td>
<td>Formula 5 weldable fluorescent varnish</td>
<td>Silicone acryl varnish</td>
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<td></td>
<td>15 %</td>
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<td>CSFM T19</td>
<td>UL/CE 4102-1</td>
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<td>14 dBA</td>
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<td>14 dBA</td>
<td>14 dBA</td>
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<td>ISO 14001</td>
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</table>

The technical data here above are average values with a +/- 5% tolerance.
Foundation Maintenance and Footing Performance: A Homeowner’s Guide

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

**Soil Types**

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870, the Residential Slab and Footing Code.

**Causes of Movement**

**Settlement due to construction**

There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expansion of moisture from the soil or because of the soil’s lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

**Erosion**

All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

**Saturation**

This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume – particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

**Seasonal swelling and shrinkage of soil**

All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expansion rates, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

**Shear failure**

This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.

In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

### GENERAL DEFINITIONS OF SITE CLASSES

<table>
<thead>
<tr>
<th>Class</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Most sand and rock sites with little or no ground movement from moisture changes</td>
</tr>
<tr>
<td>S</td>
<td>Slightly reactive clay sites with only slight ground movement from moisture changes</td>
</tr>
<tr>
<td>M</td>
<td>Moderately reactive clay or silt sites, which can experience moderate ground movement from moisture changes</td>
</tr>
<tr>
<td>H</td>
<td>Highly reactive clay sites, which can experience high ground movement from moisture changes</td>
</tr>
<tr>
<td>E</td>
<td>Extremely reactive sites, which can experience extreme ground movement from moisture changes</td>
</tr>
<tr>
<td>A to P</td>
<td>Filled sites</td>
</tr>
<tr>
<td>P</td>
<td>Sites which include soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormally moist conditions or sites which cannot be classified otherwise</td>
</tr>
</tbody>
</table>
Tree root growth
Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

### Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

### Effects of Uneven Soil Movement on Structures

#### Erosion and saturation

Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the beams they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

#### Seasonal swelling/shrinkage in clay

Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footing will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.

As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

#### Movement caused by tree roots

In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

#### Complications caused by the structure itself

Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

#### Effects on full masonry structures

Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shearing or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of shrink/swell effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Uphaving caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.
The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking at any floor level which should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures
Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation cause a footing to fail away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures
Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage
Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem. Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking
In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870.

AS 2870 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/Cure

Plumbing
Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage
In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a graded drain system connected to the stormwater collection system is usually an easy solution.

It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

Protection of the building perimeter
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving

<table>
<thead>
<tr>
<th>Description of typical damage and required repair</th>
<th>Approximate crack width limit (see Note 3)</th>
<th>Damage category</th>
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</thead>
<tbody>
<tr>
<td>Hairline cracks</td>
<td>&lt;0.1 mm</td>
<td>0</td>
</tr>
<tr>
<td>Fine cracks which do not need repair</td>
<td>&lt;1 mm</td>
<td>1</td>
</tr>
<tr>
<td>Cracks noticeable but easily filled. Doors and windows stick slightly</td>
<td>&lt;5 mm</td>
<td>2</td>
</tr>
<tr>
<td>Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weatherfreeness often impaired</td>
<td>5–15 mm (or a number of cracks 3 mm or more in one group)</td>
<td>3</td>
</tr>
<tr>
<td>Extensive repair work involving breaking-out and replacing sections of walls especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted</td>
<td>15–25 mm but also depend on number of cracks</td>
<td>4</td>
</tr>
</tbody>
</table>
should extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsurface drainage is needed this can be installed under the surface drain.

Condensation
In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden
The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

Existing trees
Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs
State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation
Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation
Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

This BTF was prepared by John Lower FAIB, MIAIA, Partner, Construction Diagnosis.
Lightweight – strong – versatile

VALMEX® FR 580 is a high-value technical textile for various applications, primarily for permanent and temporary tensioned structures, tents and sun shading. It has been developed by Mehler Texnologies to provide architects, engineers and manufacturers with a coated fabric displaying similar characteristics as the premium VALMEX® MEHTOP F quality range on short-span shaped tensile architecture creations.

The weight of 580 gr/sqm enables applications that require very light as well as robust fabrics. VALMEX® FR 580S is a PVC coated Polyester low-wick base fabric, finished with PVDF lacquer on its top side. It is treated fungicide and UV stabilized. The flame retardancy has been verified by the major fire tests like DIN 4102: B1, NFP 92507: M2 and D.M. 26.06.84 (UNI 9177): CL: 1.

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<td>Tear strength (warp/weft)</td>
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Different widths and several colours available on request.

Our commitment to environmental responsibility and sustainability

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</table>

* low-nick
TO: Council

FROM: Env Mgmt Officer (Energy and Sustainability) - Anna Rogers

DATE: 12 October 2020

Brief

This report has been prepared to update Council on the progress and implementation of the AdaptWest in Action - regional climate change adaptation plan, for 2020/21.

Recommendation

That the report be received and noted.

Status

This report relates to or impacts upon the following Community Plan Objectives 2016-2027.

Our Community - A strong and connected community

Capitalise on partnerships, build community resilience and sense of belonging
Create opportunities for community leadership and civic participation
Educate and regulate to enable a safe and healthy environment

Our Liveability - A liveable City of great places

An urban environment that is adaptive to a changing and growing City
City assets and infrastructure are developed and well maintained on a strategic and equitable basis
Enhance the quality and diversity of open and public spaces

Our Environment - An environmentally responsible & sustainable City

Continue to implement climate change mitigation and adaptation solutions
Enhance the state of the City’s environment and biodiversity
Lead and educate to reduce the City’s impact on the environment and build resilience

Our Economy - An economically thriving City

Support and enable local business prosperity and growth

Our Leadership - A leading & transformational Local Government organisation

Be bold and innovative in our practices, leadership and decision making

Relevant Council policies are:

- Environmental Sustainability Policy
- Living Green to 2020 Refresh - 3.2 Adapting to Climate Change
- AdaptWest Western Adelaide Region Climate Change Adaptation Plan (2016)
Relevant statutory provisions are:

- Climate Change and Greenhouse Emissions Reduction Act 2007

Background

Following the adoption of the AdaptWest Western Adelaide Climate Change Adaptation Plan in October 2016 by the Cities of Charles Sturt, Port Adelaide Enfield and West Torrens, the AdaptWest program has produced or guided important climate adaptation projects such as the urban heat mapping study, tree canopy cover data and analysis, and coastal and inundation modelling - with climate change scenarios. In 2017/18, the regional partnership supported the program by recruiting the AdaptWest Regional Coordinator who seeks to identify opportunities for and progress regional collaboration for climate change adaptation in western Adelaide.

Recent updates and reports to Council have included:

- CL 22 July 2019 – AdaptWest in Action – Action Planning
- CL 9 December 2019 – Item 6.134 – AdaptWest in Action Progress Update
- CL 9 December 2019 – Item 7.07 – Notice of Motion – Declare a State of Climate Emergency
- CL 10 March 2020 – Item 6.18 – AdaptWest – Western Adelaide Region Coastal and Inundation Modelling Report
- CL 10 August 2020 – Item 6.67 – AdaptWest Climate Change Adaptation – Regional Partnerships Progress Report

Report

AdaptWest in Action 2020/21 – October 2020 Progress Report

At its meeting on 10 August, Council noted the AdaptWest in Action 20/21 regional climate change adaptation work plan. An update on progress from the AdaptWest Regional Coordinator is provided in Appendix A for noting.

AdaptWest Residential Building Retrofit for Climate Adaptation – Final Report

The Residential Building Retrofit for Climate Adaptation project was part funded through the Natural Disaster Resilience Program (NDRP) in March 2019. Stage 1 of this project aimed to determine the capacity to deliver targeted building upgrades to provide heat refuges to vulnerable households in the AdaptWest region. The final report is provided in Appendix B.

The rationale for the project links strongly to the values in the AdaptWest Western Adelaide Climate Change Adaptation Plan, which seeks to build a strong and connected community in the face of a changing climate. It is recognised that caring for people with vulnerabilities is an important part of building a strong and connected community. It highlights that improving community resiliency, building community connectivity, while delivering broader societal benefits, is a key climate adaptation response.

The original funding application stated:

“This proposal seeks to increase community resiliency in the face of extreme heat through developing a program of measures that seek to upgrade, retrofit and improve the thermal performance of individual households that exhibit a high exposure to heat islands and with corresponding social vulnerability. It recognises that households exhibit differing adaptive capacity due to home tenure status, income and key health risk factors.”
The funding application drew on the 2016 census data which shows that the AdaptWest region can be characterised as having a higher proportion of persons who could be considered more vulnerable to heat, than for Greater Adelaide as a whole. These statistics include:

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Adapt West Region (%)</th>
<th>Greater Adelaide (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons aged over 65 years</td>
<td>17.3</td>
<td>17.2</td>
</tr>
<tr>
<td>City of Charles Sturt (19%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents born overseas</td>
<td>30.5</td>
<td>26.3</td>
</tr>
<tr>
<td>Persons who have a severe or profound disability requiring help with day to day core activities</td>
<td>6.5</td>
<td>5.9</td>
</tr>
<tr>
<td>Median household incomes</td>
<td>Lower compared with Greater Adelaide</td>
<td></td>
</tr>
<tr>
<td>Residents in rented dwellings</td>
<td>33.8</td>
<td>28</td>
</tr>
<tr>
<td>Residents renting social housing</td>
<td>9.4</td>
<td>6.2</td>
</tr>
<tr>
<td>People who are homeless</td>
<td>1383 people / 6201 (counted as at 2016 Census) live in the AdaptWest region (22.3%)</td>
<td></td>
</tr>
</tbody>
</table>

This project sought to address the issue, that there is a large proportion of Australian homes which are not constructed to be resilient to extremes of temperature. This results in homes that are difficult to heat and cool, that do not maintain occupant comfort, are drafty, and as a result, exhibit unnecessarily high power bills when heating and cooling is used.

A key part of Stage 1 was a literature review. This was conducted via a desktop review of 17 national and international programs considered by AdaptWest and The Energy Project (project consultant) as potential delivery models or information sources for this project.

The following key learnings from the literature review directly informed a proposed delivery model:

- Low-income housing stock is often poorly constructed and maintained leading to practical limitations in the opportunity to cost-effectively improve the building envelope.
- The installation of split system air-conditioner(s) improve:
  - thermal comfort (in summer & winter)
  - liveability
  - mobility and mental health
- Air-conditioning use has been shown to reduce heat-related morbidity and mortality.
- While air-conditioning can increase energy consumption, the replacement of existing inefficient air-conditioners and heaters with efficient split system air conditioners can considerably reduce energy consumption and costs.
- Coupling air-conditioning systems with solar power can deliver improved thermal comfort without high electricity bills.
• Including a bill check to ensure households are receiving appropriate tariffs is a simple, effective opportunity.
• Respectful community engagement is critical to project success.
• Partner with organisations that are already trusted by participants.

A targeted delivery model through a partnership with three Community Housing Providers (CHP) was explored in detail. Unity Housing, Anglicare and Community Housing Limited have all received significant stock transfers from the South Australian Housing Authority within the AdaptWest region.

The outcomes of the project to date include the following:

• A substantial literature review that can continue to be used in the design interventions in vulnerable households.
• The development and preliminary costing of proposed interventions for vulnerable households.
• The development of collaborative relationships with three Community Housing Providers within the AdaptWest region that may further develop if funding for implementation becomes available.
• The evidence presented in the Final Report highlights the scale of the problem and provides detail of the issues with tangible solutions.
• This AdaptWest project may be considered the basis for a ‘shovel ready project’, that could leverage stimulus funding linked to COVID-19.

AdaptWest submission – The Parliament of South Australia, Natural Resources Committee, Inquiry into Urban Green Spaces

The Parliament of South Australia Natural Resources Committee asked for submissions to the Inquiry into Urban Green Spaces. The purpose of this Inquiry was:

1. To inquire into urban green spaces, and in particular the benefits, opportunities, challenges associated with urban strategic planning, biodiversity, water management, primary production, climate change impact projections.

2. To investigate as to what extent of resources are allocated to urban green spaces in comparison to similar projects being undertaken interstate and internationally, in relation to coastal management, water resources and wetlands, green streets and flourishing parklands, biodiversity sensitive and water sensitive urban design, controlling pest plants and animals, nature education and fauna, flora and ecosystem health in the urban environment.

3. Any other matter.

The AdaptWest Regional Coordinator submitted a response to highlight the work that is being undertaken in the region and the key concerns relating to Urban Green Space. The key issues identified were:

• Opportunities for a reduction in urban heat through recent investment in heat mapping study (such as tree planting and Water-Sensitive Urban Design (WSUD) interventions, mapping and quantifying the role urban tress have in reducing heat islands, and the correlation of social housing and land surface temperatures to scope mitigation measures for vulnerable households)
• Urban infill pressures, noting that as a region we need to see the development of dwellings that are climate responsive, are resilient to climate change impacts, that reduce climate related cost of living pressures, while increasing thermal comfort and resiliency
• Loss of green space
• Loss of canopy cover
• Hot spots and heat islands and their relationship with vulnerable communities
• Challenges associated with the Planning and Design Code reform
• Opportunities for collaboration at a local, state and federal level

The submission is found in Appendix C.

Financial and Resource Implications
There are no financial or resource implications for the purposes of this update report.

Customer Service and Community Implications
There are no customer service or community implications for the purposes of this update report, however it is intended that staff will engage with key stakeholders to raise awareness of the key opportunities identified in the Residential Building Retrofit for Climate Adaptation Report (Appendix B).

Environmental Implications
The AdaptWest program seeks to prepare the region to adapt to a changing climate, including ecosystems, environmental features and community wellbeing.

Community Engagement/Consultation (including with community, Council members and staff)
There is no requirement for community engagement or consultation.

Risk Management/Legislative Implications
The AdaptWest Plan was prepared using an ‘Integrated Vulnerability Risk Assessment’ (IVA) methodology. Implementation of the Plan has clear links to Council’s risk and emergency management programs, particularly in terms of mitigating the acute risks and impacts associated with climate extremes such as a severe flooding event or storm, or a particularly hot or dry season. The AdaptWest climate change adaptation program keeps council focused also on preparing for the longer term trends and risks of climate change such as sea level rise, longer term changes to rainfall patterns and increased frequency and duration of heatwaves.

The activities outlined in this project report seek to address risks associated with urban heat particularly for vulnerable residents and the challenge of urban greening.

Conclusion
The challenge of climate change is a key focus for the City of Charles Sturt and its response is strengthened with the partnership with the Cities of Port Adelaide Enfield and West Torrens to progress the common regional issues and opportunities for climate change adaptation as outlined in the AdaptWest plan.
## Appendices

<table>
<thead>
<tr>
<th>#</th>
<th>Attachment</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appendix A - AdaptWest October 2020 regional update</td>
<td>PDF File</td>
</tr>
<tr>
<td>2</td>
<td>Appendix B - Residential Building Retrofit for Climate Adaptation – NDRP Stage 1 - The Energy Project</td>
<td>PDF File</td>
</tr>
<tr>
<td>3</td>
<td>Appendix C - AdaptWest Natural Resources Committee Inquiry into Urban Green Spaces_FINAL</td>
<td>PDF File</td>
</tr>
<tr>
<td>Priority action item from AdaptWest plan</td>
<td>AdaptWest in Action Plan - 20/21 Project</td>
<td>Commentary</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Increase Urban Greenness</td>
<td>Advocacy for increased urban canopy retention at point of development</td>
<td>On-going project to work with internal and external stakeholders primarily concerned with canopy loss due to infill development.</td>
</tr>
<tr>
<td>Natural Resources Committee Inquiry into Urban Green Spaces</td>
<td>AdaptWest provide input into the Parliament of South Australia’s Natural Resources Committee’s Inquiry into Urban Green Spaces</td>
<td>AdaptWest Steering Committee Meeting held 13/7/20 resolved that due to the tight timeframes, AdaptWest Regional Coordinator will submit the AdaptWest response to the Natural Resources Committee Inquiry, and a report will be prepared to council for noting retrospectively.</td>
</tr>
<tr>
<td>Canopy retention policy to preserve street scape and open space canopy</td>
<td>Undertake gap and alignment analysis, with AdaptWest Urban Greening working group</td>
<td>Preliminary questions developed and forwarded through to members of the AdaptWest urban greening working group.</td>
</tr>
<tr>
<td>Plan and Design climate resilient buildings, places and spaces</td>
<td>Stage 2 of NDRP project (pending funding)</td>
<td>Stage 2 – An advocacy project designed to highlight the project outcomes from Stage 1 of the NDRP project back into council programs, State Government and Community Housing Providers.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Develop advocacy plan to address issues with National Construction Code (NCC)</td>
<td>Develop advocacy and submission for the NCC to improve climate change resilience and adaptation-based measures within the Building Code of Australia.</td>
</tr>
<tr>
<td>Education and awareness raising</td>
<td>Develop resource - 'Designing and Constructing your Home'</td>
<td>Develop a climate-adaptive or resilient home resource targeted at residents who are aiming to build new homes in the Western Adelaide Region.</td>
</tr>
<tr>
<td>Build Community Connectedness</td>
<td>Undertake climate change survey</td>
<td>AdaptWest is aiming to undertake a survey of community values to climate change</td>
</tr>
<tr>
<td>Use risk assessment approaches to prioritise adaptation responses</td>
<td>Risk and governance assessment</td>
<td>Outcomes of the risk and governance assessment communicated back to executive and EM teams.</td>
</tr>
<tr>
<td>Climate Champions program with Red Cross</td>
<td>Examining the Red Cross hosting the climate champions program in AdaptWest.</td>
<td>Have had a preliminary meeting with the Red Cross to better understand the program offering for the 20/21 financial year</td>
</tr>
</tbody>
</table>
AdaptWest

Attention: Jeremy Miller

Report: Residential Building Retrofit for Climate Adaptation – NDRP Stage 1

9 July 2020
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1 Executive Summary

AdaptWest is a climate change adaptation plan for the Western Adelaide region and is a partnership between the City of West Torrens, City of Charles Sturt and City of Port Adelaide Enfield.

Adopted by the three councils in 2016, the Plan has identified a number of climate change variables and the impact of these on the region’s climate and communities. Extreme heat is one such variable identified as having significant impact on vulnerable members of the community.

The Residential Building Retrofit for Climate Adaptation is partly funded through the Natural Disaster Resilience Program (NDRP). Stage 1 of this project has aimed to determine the capacity to deliver targeted building upgrades to vulnerable households in the AdaptWest region.

As a key part of this project a literature review was conducted as a desktop review of 17 national and international programs considered by AdaptWest and The Energy Project as potential delivery models or information sources for this project. A mix of technical and funding programs were reviewed. The following key learnings from the Literature Review have directly informed the proposed delivery model:

- Low-income housing stock is often poorly constructed and maintained leading to practical limitations in the opportunity to cost-effectively improve the building envelope.
- The installation of split system air-conditioner(s) improve:
  - thermal comfort (in summer & winter)
  - liveability
  - mobility and mental health
- Air-conditioning use has been shown to reduce heat-related morbidity and mortality.
- While air-conditioning can increase energy consumption the replacement of existing inefficient air-conditioners and heaters with efficient split system air conditioners can considerably reduce energy consumption and costs.
- Coupling air-conditioning systems with solar power can deliver improved thermal comfort without high electricity bills.
- Including a bill check to ensure households are receiving appropriate tariffs is a simple, effective opportunity.
- Respectful community engagement is critical to project success.
- Partner with organisations that are already trusted by participants.

Table 3 shows the recommended interventions along with estimated required funding based on the recommended interventions as well as expected average requirement per household.
Table 3: Estimated required funding for AdaptWest deliverables.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cost/dwelling (all msrs)</th>
<th>% of households</th>
<th>Cost/dwelling (average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy review</td>
<td>$200</td>
<td>100%</td>
<td>$200</td>
</tr>
<tr>
<td>Split system</td>
<td>$2,500</td>
<td>85%</td>
<td>$2,125</td>
</tr>
<tr>
<td>Solar power</td>
<td>$4,000</td>
<td>80%</td>
<td>$3,200</td>
</tr>
<tr>
<td>Ceiling fans (two of)</td>
<td>$1,000</td>
<td>90%</td>
<td>$900</td>
</tr>
<tr>
<td>Draught proof</td>
<td>$200</td>
<td>90%</td>
<td>$180</td>
</tr>
<tr>
<td>Insulation</td>
<td>$2,250</td>
<td>15%</td>
<td>$338</td>
</tr>
<tr>
<td>Management</td>
<td>$1,015</td>
<td></td>
<td>$694</td>
</tr>
<tr>
<td>Total</td>
<td>$11,200</td>
<td></td>
<td>$7,600</td>
</tr>
</tbody>
</table>

A targeted delivery model through a partnership with three Community Housing Providers (CHP) was explored in detail. Unity Housing, Anglicare and Community Housing Limited have all received significant stock transfers from the South Australian Housing Authority.

The outcomes of the project to date include the following:

- A substantial literature review that can continue to be used in the design interventions in vulnerable households.
- The development and preliminary costing of proposed interventions for vulnerable households.
- The development of collaborative relationships with three Community Housing Providers that may bear fruit if funding for implementation becomes available.
- The evidence presented in this report highlights the scale of the problem and provides detail of the issues with tangible solutions. This information will be beneficial for the sector.
- The AdaptWest project may be considered a ‘shovel ready project’, that could leverage the current stimulus funding linked to COVID-19.
2 Introduction

AdaptWest is a climate change adaptation plan for the Western Adelaide region and is a partnership between the City of West Torrens, City of Charles Sturt and City of Port Adelaide Enfield.

Adopted by the three councils in 2016, the Plan has identified a number of climate change variables and the impact of these on the region’s climate and communities. Extreme heat is one such variable identified as having significant impact on vulnerable members of the community.

The Residential Building Retrofit for Climate Adaptation is partly funded through the Natural Disaster Resilience Program (NDRP). Stage 1 of this project aims to determine the capacity to deliver targeted building upgrades to vulnerable households in the AdaptWest region. Those upgrades would be designed to reduce exposure of vulnerable residents to extreme heat. Stakeholder participation in this project is anticipated from the AdaptWest member councils and identified private and public sector partners.

This project is an offshoot of the climate change adaptation plan and builds on the heat mapping work, which includes SEIFA index, reflecting the interest in the relationship between heat island and low income / vulnerable households.

The Energy Project has been engaged by AdaptWest to deliver key aspects of this project, including:

- A literature review examining the effectiveness of residential building upgrade / retrofit schemes both within Australia and internationally.
- Model the economic viability of the scheme;
- Model and bench test scheme implementation plan; and
- Prepare a report and presentation to AdaptWest Councils.

1 Project Brief – AdaptWest - Natural Disaster Resilience Program (NDRP).
3 Context

3.1 The Case for Action

'Climate change' is defined as any long-term significant change in the "average weather" of a region or the earth as a whole\(^2\).

Climate modelling recently conducted for this region indicates the following projections:

1. An increase in the average annual temperatures during summer/autumn temperatures of up to 2°C by 2070; and
2. Sequences of 3 or more consecutive days with average temperatures of at least 32°C are forecasted to increase from 1 in 20 days to 1 in every 3-5 days under a low emissions scenario or every year under a high emissions scenario by 2070.

More Australians die from heatwaves than any other natural disaster and key risk factors for heat-related health impacts are often twice as prevalent for people on low incomes, compared to those with medium to high incomes\(^3\).

During heatwaves, the highest mortality rates exist for people on low incomes, people over 80 years of age and people with health issues. Low income housing in Adelaide, is typically found in areas with the highest land surface temperatures, so those most vulnerable to heat-related health impacts, such as heat stress and heat stroke, often live in areas where exposure to heat is greatest\(^4\).

Members of the community who are typically more vulnerable to extreme heat events are those who are unable to significantly vary the thermal comfort of their homes. National research highlights the barriers low income households face in maintaining healthy thermal comfort levels within their homes. These barriers include\(^5\):

- Less capacity to pay the upfront costs required for new energy efficient measures such as efficient air conditioning and roof insulation; and
- Many low income households live in private rental accommodation, where there is little financial incentive for landlords to improve rental building thermal performance.

In addition, the western Adelaide region is also characterised by the following\(^6\):

\(^4\) Ibid.
\(^5\) Ibid.
\(^6\) Data supplied by AdaptWest.
1. Higher proportion of residents who could be considered more vulnerable than for Greater Adelaide as a whole;
2. 17.3% of the overall population is aged over 65 years, with 19% in the City of Charles Sturt and 18% in the City of West Torrens;
3. 6.5% of residents have a severe or profound disability requiring help with day to day core activities;
4. One third of residents in the region live in rented dwellings, with 9.4% renting social housing; and
5. The median household incomes are lower in the three council areas compared with Greater Adelaide.

<table>
<thead>
<tr>
<th>Case Study: Community need for extreme heat support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telecross REDi service</strong>&lt;sup&gt;7&lt;/sup&gt;</td>
</tr>
<tr>
<td>The South Australia Red Cross provides a telephone support service to assist vulnerable people during extreme weather events. This service began in 2009 after Adelaide experienced 8-9 days of weather over 35°C in November. Registered program participants receive a daily phone call during declared heatwaves. Callers ask people how they are coping and remind clients of important measures to assist them through the extreme weather. If a call goes unanswered or if someone is in distress, an emergency procedure is activated to ensure the safety and wellbeing of the client.</td>
</tr>
<tr>
<td>Those ‘particularly at risk include people who live alone, have a disability, are experiencing mental illness, are housebound, frail, aged, recovering from an illness or accident, or have an ongoing illness, such as diabetes or a heart condition’.</td>
</tr>
<tr>
<td>During a three-day heatwave in January 2018, the service made more than 1450 phone calls to registered participants. Of these, 240 people required further assistance, including 17 ambulance callouts, and five hospital admissions.</td>
</tr>
<tr>
<td>Regional stakeholders have identified there is a heavy reliance on the service, and it is already stretched in its ability to extend its reach&lt;sup&gt;8&lt;/sup&gt;.</td>
</tr>
</tbody>
</table>

---


3.2 Region

The AdaptWest project encompasses three council regions. These are the City of Charles Sturt, the City of West Torrens and the City of Port Adelaide Enfield. The locations in relation to Adelaide and suburbs of each region are illustrated in the maps below.

Figure 1: Map of City of Port Adelaide Enfield  
Figure 2: Map of City of West Torrens  
Figure 3: Map of City of Charles Sturt

3.3 The role of Councils

Participation of the three local councils in the AdaptWest project is underpinned by the core purpose and objective of Local Government, which is ‘to build and enhance community development and well-being’.

---

9 https://www.lgprofessionalssa.org.au/resources/events/FINAL%20REPORT%2009122015_V2%20FINAL.pdf
“Local Government, as the third tier of Government in Australia, is the closest to the community, with many daily ‘touch points’ for industry, business and community. This makes it ideally placed to identify and deliver community outcomes, as it has the unique capacity to more deeply understand and deliver what it is the community needs”\(^\text{10}\).

The role of Local Government in energy security was comprehensively explored by the *City of Onkaparinga in their Energy Futures Strategy 2010-2014*\(^\text{11}\). This Strategy outlines the following roles for the Onkaparinga Council.

**Leadership**

*Council will provide leadership by using energy efficiently, reducing greenhouse gas emissions, and supporting innovation and developments in the city that help achieve relevant energy targets, including increasing renewable energy consumption and generation.*

**Owner/custodian**

*Council will manage its assets to reduce energy consumption, peak demand and greenhouse gas emissions and to harness renewable energy generation opportunities.*

**Regulatory**

*Council will use its role as a local planning authority to promote energy efficiency and renewable energy in the built environment and to ensure that energy supply projects are appropriately located and their impacts adequately assessed.*

**Information provider**

*Council will work with government agencies, community and business to generate and distribute information on energy management issues and opportunities in the city.*

**Advocate**

*Council will advocate for the energy security needs of its communities and the city in the development of state based energy policy, in infrastructure regulation processes and in state based planning.*

**Initiator/facilitator**

\(^{10}\) Ibid.

Council will bring together stakeholders or join with other stakeholders to help ensure energy security for the city.

Agent

Council will provide a service on behalf of another party that funds the service, when the associated funding conditions accord with council’s own energy security objectives.

Part funder

Council will contribute funds or resource as one of a number of parties towards relevant energy security initiatives in the city.

Direct service provider

Council will undertake services, capital works and projects that promote the efficient use of energy, reduce peak demand and greenhouse gas emissions in accordance with Council’s adopted service levels, plans and strategic directions.

The specific role for Councils in this project is explored further in Section 7.

3.4 Low income households\textsuperscript{12}

Low-income households are defined by the Australian Bureau of Statistics, Socio-Economic Indexes for Areas (SEIFA) as people with a stated annual household equivalised income between $1 and $25,999. Equivalisation is a process in which household income is adjusted by an ‘equivalence scale’, based on the number of adults and children in the household. The SEIFA variables using equivalised household income are calculated from the Census 2016 Equivalised Total Household Income variable (HIED).

3.5 Overview of the low-income housing market and context

Housing for low income and disadvantaged households is traditionally the jurisdiction of the State, with funding coming from the Commonwealth; Local Government is not usually an active participant.

The State Government receives the bulk of capital each year via the National Housing and Homelessness Agreement for public housing (SA Housing Authority stock). The stock transfer program (STP) with the Community Housing Provider’s (CHP) is separate and ancillary to this process.

The housing tenure type across the thee councils is predominantly non-rental. Rental properties account for approximately 30% of all residential dwellings, with a mix of private and social housing

landlords. The graph below demonstrates the number of rental dwellings across Western Adelaide. Eligibility for social housing rental properties is usually a low-income household.

Graph 1: Housing Tenure Type Western Adelaide (source ABS).

The breakdown of rental properties for the three council regions is provided in table 1 overleaf.
### Household data for the Cities of West Torrens; Charles Sturt; and Port Adelaide Enfield

<table>
<thead>
<tr>
<th></th>
<th>City of West Torrens</th>
<th>City of Charles Sturt</th>
<th>City of Pt Adelaide Enfield</th>
<th>Combined total</th>
<th>Adelaide metro area</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>60,105</td>
<td>117,382</td>
<td>126,120</td>
<td>303,607</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of dwellings</td>
<td>26,876</td>
<td>51,203</td>
<td>53,634</td>
<td>131,713</td>
<td></td>
</tr>
<tr>
<td>Total rental properties</td>
<td>8,557</td>
<td>14,561</td>
<td>17,286</td>
<td>40,405</td>
<td>28%</td>
</tr>
<tr>
<td>Renting: Social Housing</td>
<td>1,508</td>
<td>4,000</td>
<td>5,740</td>
<td>11,248</td>
<td>6.2%</td>
</tr>
<tr>
<td>Renting: Private</td>
<td>6,931</td>
<td>10,339</td>
<td>11,311</td>
<td>28,581</td>
<td>21.4%</td>
</tr>
<tr>
<td>Renting: Not stated</td>
<td>118</td>
<td>222</td>
<td>235</td>
<td>575</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Table 1: Source - Australian Bureau of Statistics, Census of Population and Housing, 2016 (Enumerated data). Compiled by profile.id.

#### 3.6 Heat load mapping

In 2017, the Cities of West Torrens, Charles Sturt and Port Adelaide Enfield, in partnership with the Adelaide Mount Lofty Ranges Natural Resources Management Board, developed an Urban Heat Map. This map ‘identifies where heat builds up across the region during hot weather, and where hotspots and ‘heat islands’ (areas where built structures and impervious materials have replaced natural surfaces) overlap with vulnerable members of the community’

The map provides a ‘snapshot' of surface temperatures, to better understand how materials, urban design, different land uses and even housing density can impact or improve the liveability of private homes during our often long, dry and hot summer periods. The Western Adelaide Region is ‘experiencing longer, hotter and more frequent heatwaves which have the potential to impact the health and well-being of the community’.

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14 Ibid.
An example of the heat map is illustrated overleaf.

![Image of Urban Heat Map example for Western Adelaide.](image)

**Legend:**
- Dark purple – high social vulnerability
- Red & yellow lines/blocks – heat islands
- Red dots – hot spots

**Figure 4:** Urban Heat Map example for Western Adelaide.

### 3.7 Household energy consumption

Household energy consumption is influenced by a range of factors including the size, age and health of both the dwelling and the people in it, the equipment and appliances in use, the knowledge and information available to the household and their behaviours. The Australian Energy Regulator’s Energy Bill Benchmarking program commissioned research into the drivers of electricity consumption in 2014. The results of a nationwide survey and matching billing data confirmed the findings of regression analyses by the ABS that the strongest indicator of annual consumption is the number of people in the household\(^\text{15}\). The graph below displays typical annual electricity consumption for Adelaide households of varying household size.

Graph 2: Annual Household Electricity Consumption Adelaide\textsuperscript{16}. 

\textsuperscript{16} Australian Energy Regulator 2014, ‘Electricity bill benchmarks for residential customers’,
https://www.aer.gov.au/system/files/ACIL\textregisteredAllen\textregisteredEnergy\textregisteredEnergy\textregisteredbenchmarks\textregisteredreport\textregistered2017\textregistered20-
\textregisteredupdated\textregistered05\textregisteredJune\textregistered2018.pdf.
4 Literature Review - Residential building upgrade / retrofit schemes

4.1 Summary

The literature review was conducted as a desktop review of 17 national and international programs considered by AdaptWest and TEP as potential delivery models or information sources for Stage 1 of this project. A mix of technical and funding programs were reviewed against the following criteria:

- Technical specifications – measures that were implemented;
- Program recipients;
- Program co-benefits;
- Lessons learned; and
- Barriers to program implementation.

The following table summarises key points for each program.

<table>
<thead>
<tr>
<th>Program</th>
<th>Key points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical Programs</strong></td>
<td></td>
</tr>
<tr>
<td>NSW Aboriginal Housing Office</td>
<td>- Aboriginal residents in Western NSW.</td>
</tr>
<tr>
<td>air conditioning &amp; solar program</td>
<td>- Installation of 900 air-conditioning &amp; solar PV systems, draft-proofing &amp;</td>
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<tr>
<td></td>
<td>ceiling fans.</td>
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<td></td>
<td>- Co-benefit: Improved thermal comfort without high electricity bills.</td>
</tr>
<tr>
<td>NSW Office of Environment &amp; Heritage – Home Energy</td>
<td>- Community Housing tenants.</td>
</tr>
<tr>
<td>Action</td>
<td>- Installation of 850 solar PV systems, high efficiency heat pump hot</td>
</tr>
<tr>
<td></td>
<td>water systems, ceiling insulation, LED lighting upgrades &amp; draft</td>
</tr>
<tr>
<td></td>
<td>proofing.</td>
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<tr>
<td></td>
<td>- Co-benefits: Improved energy efficiency and thermal comfort.</td>
</tr>
<tr>
<td>Program</td>
<td>Key points</td>
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<tr>
<td>--------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tbody>
</table>
| The Retailer Energy Efficiency Scheme (REES)                  | • All SA households and businesses. Home energy audits for vulnerable households.  
• Installation of free or low-cost energy efficient activities.  
• Co-benefits: Improved energy efficiency & potentially lower energy expenditure.  
• Barriers: The cost of uptake of an activity is the largest barrier to the delivery of some approved activities. Retailers generally choose activities that achieve a high energy saving per activity/unit in relation to the cost in delivering the activity. |
| The Bottom Line – Building Code Energy performance trajectory project  
Australian Sustainable Built Environment Council & Climate Works Australia | • All new buildings (and new building work in existing buildings) in Australia.  
• Improve the energy requirements of the National Construction Code.  
• Opportunity for local council advocacy into National Construction Code & State planning reforms. This could be initiated by aligning AdaptWest project with the NCC activities highlighted as areas for improvement.  
• Co-benefits: Delivery of up to $150 in savings per household per year. Potential reduction in energy consumption for heating and cooling between 28 to 51%.  
• Barriers: The need for collaboration between state, territory and federal governments. |
| LIEEP (Low Income Energy Efficiency Project) - ManyMak       | • Remote Indigenous households in East Arnhem Land, Northern Territory.  
• Replace existing electric hot water units with a mix heat pump HWS & solar HWS; or install R3.5 bulk ceiling insulation to dwellings with existing air conditioning.  
• Co-benefits: Project findings suggest a saving of approximately 2 kWh per day (per household) averaged over the year.  
• Retrofitting and maintaining loose ceiling batts was costly and difficult.  
• Respectful community engagement was critical to project success.  
• Barriers: Information failure, capital constraints, participant knowledge & passive solar design of older housing stock. |
| LIEEP - Energy Saver                                         | • 160 low income households South East Melbourne.  
• Install insulation; draught proofing or window treatments. Servicing or replacement of cooling appliances or installation of an in-home display. Behaviour change information and support.  
• Co-benefits: Improved energy efficiency, credibility of the council amongst households & knowledge and capacity for council and program recipients.  
• Most effective strategy was home retrofit & behaviour change support.  
• Partner with organisations that are already trusted by participants.  
• Barriers: Involving and communicating with vulnerable households, developing trust, and overcoming resistance to participate. Ensuring tenant security of tenure was protected. |
<table>
<thead>
<tr>
<th>Program</th>
<th>Key points</th>
</tr>
</thead>
</table>
| LIEEP - Energy Efficiency in the 3rd Age     | • Low income older people in Illawarra NSW.  
• Tailored retrofits (e.g. ceiling insulation, new hot water service, reverse cycle air conditioning, lights, fridges and IHDs). iPad training on how to access information online.  
• Co-benefits: Improved energy efficiency, summer benefits from reverse cycle air conditioning & winter heating costs expected to be significantly reduced.  
• Well-managed handovers from contractor to household are critical, inc. equipment training for participants.  
• Barriers: Lack of participant awareness &/ or desire for retrofit benefits.                                                                 |
| LIEEP - Beat the Heat                        | • Approximately 200 low income, private rental households in Adelaide.  
• Improved thermal comfort at a minimum cost through retro-fitting of ceiling insulation &/or energy efficient reverse cycle air conditioning in the main living space.  
• Low usage of the in-home display, with only 50% of respondents engaging with them.  
• Co-benefits: Residents halved their air conditioning energy consumption with replacement AC. Improved thermal comfort (summer & winter), home was more liveable & mobility and mental health improved.  
• Approach community housing sector for multiple households as a time effective method. Provide very clear and simple guidelines on project eligibility.  
• Barrier: slow initial participant recruitment and lag in timing between referral, installation and the home energy efficiency visit post installation. |
| Climate Safe Rooms – Building resilience to extreme weather | • Low-income Victorian households for residents at risk from heatwaves and extreme cold.  
• Free home energy efficiency and comfort upgrade worth up to $10,000.  
• Project works are currently in progress, with data monitoring in place until mid-2021.                                                                 |
| Household Retrofit Trials                    | • Class 1 (typically standalone single dwellings of a domestic or residential nature) dwellings in Victoria.  
• Building shell improvements and cooling upgrades (room refrigerative and ducted evaporative).  
• Project results are energy efficiency results only, no value was reported on comfort or health improvements.                                                                 |
| Pathways to climate adapted and healthy low-income housing | • Multi-level focus on the interactions between housing, residents, neighbourhood & regional climate was vital for understanding the nature of climate change vulnerability and options for adaptation.  
• Air-conditioning use has also been shown to reduce heat-related morbidity through reduction in health services use.  
• Local studies suggest air conditioning in a bedroom has an enormous preventive effect for specific cohorts.                                                                 |
| Alternative Technology Association (ATA) Renters Guide | The guide provides methods for reducing energy consumption and costs.                                                                                                                                         |

The guide provides methods for reducing energy consumption and costs.
<table>
<thead>
<tr>
<th>Program</th>
<th>Key points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Funding Programs</strong></td>
<td></td>
</tr>
<tr>
<td>Citizens Own Renewable Energy Network Australia Inc (CORENA)</td>
<td>• Interest-free loans to landlords for solar PV &amp;/or energy efficiency improvements (has rent increase conditions).</td>
</tr>
<tr>
<td></td>
<td>• Interest-free loans to non-profit community organisations across Australia for solar installation.</td>
</tr>
<tr>
<td>Energiesprong</td>
<td>• Originating in the Netherlands, government-funded innovation program.</td>
</tr>
<tr>
<td></td>
<td>• Whole house refurbishment and new built standard and funding approach that focuses on heating.</td>
</tr>
<tr>
<td></td>
<td>• Uses social housing sector in each market as the launching market for solutions, with a view to later scale to the private home-owner market.</td>
</tr>
<tr>
<td>Ways to finance deep energy retrofits from around the world</td>
<td>• An auction-based approach to increasing the uptake of energy efficiency (British government). Bidders compete on price to win funding to deliver energy savings.</td>
</tr>
<tr>
<td></td>
<td>• Utilities financed retrofits (USA). Free or highly subsidised measures address the rental property conundrum - the split incentive. Included one-stop-shops or technical assistance for residents. Targets multifamily-specific issues such as common areas or metering.</td>
</tr>
<tr>
<td>Gridmates (US)</td>
<td>• Energy community engagement platform designed for raising funds.</td>
</tr>
<tr>
<td></td>
<td>• Combination of combined smart grid technologies, analytics, social media and crowdfunding technologies.</td>
</tr>
<tr>
<td>TechRepublic (US)</td>
<td>• A web platform seeking to eliminate energy poverty by crowdfunding energy.</td>
</tr>
<tr>
<td></td>
<td>• To give electricity to someone, users pick a dollar amount, find out how much impact it will have in terms of hours of energy, and then donate via PayPal.</td>
</tr>
</tbody>
</table>

Table 2: Summary of Literature Review Key Points.
4.2 Technical Programs

4.2.1 NSW Aboriginal Housing Office (AHO) air conditioning and solar program

Energy poverty has been a long-standing concern for Aboriginal residents in Western NSW. Climatic conditions are such that residents rely heavily on air-conditioning to survive the unrelenting summer heat. This, together with household populations on average that are much larger than for the non-Indigenous population, coupled with the fact that social housing historically has not been constructed with adequate provision for energy efficiency, has ensured that energy bills are very high.

To address the issues the AHO rolled out approximately 900 air-conditioning and solar power systems for households in western NSW. The program also included draft-proofing measures and the installation of ceiling fans.

4.2.2 NSW Office of Environment & Heritage – Home Energy Action

The NSW Office of Environment and Heritage’s (OEH) $50 million Home Energy Action Program includes a Community Housing stream which provides co-funding for energy efficiency and solar power projects.

A highlight of this program was St George Community Housing’s project which included the supply and installation of approximately 850 solar power systems as well as a number of energy efficiency measures in existing and new dwellings including high efficiency heat pump hot water systems, ceiling insulation, LED lighting upgrades of common and tenanted areas, and draft proofing.

Low-income housing stock is often poorly constructed and maintained leading to practical limitations in the opportunity to cost-effectively improve the building envelope. Ceiling insulation is an example of one “easily” retrofit however very few households were found to have uninsulated ceilings.

4.2.3 The Retailer Energy Efficiency Scheme

The Retailer Energy Efficiency Scheme (REES) is a South Australian Government energy efficiency scheme available to all SA households and businesses to access discounted or free energy efficiency activities from energy retailers participating in the scheme. Low income households may also be eligible for an in-home energy audit.

The purpose of REES is to assist SA households and businesses to become more energy efficient and potentially lower their energy expenditure.

17 https://www.escosa.sa.gov.au/industry/rees/overview
The type of energy efficient activities available is at the discretion of the retailers. Primary retailers are set energy efficiency, energy audit and priority group energy efficiency targets. Retailers determine 'how and when energy efficiency activities and energy audits are offered to customers (minimum specifications apply). They also determine whether activities are provided free of charge, whether a co-payment or other incentive is offered to take up the activity. Overall, retailers have significant discretion as to how they achieve targets.

The activities retailers can choose from that are relevant to thermal comfort, include installation of wall, floor and ceiling insulation, window glazing, building sealing activities (doors, windows, vents etc) and air conditioning installation (ducted & non-ducted).

The main retailers in South Australia offer a variety of activities:

- AGL offers LED A bulbs, AV and IT standby power controllers, water saving showerheads, chimney balloons, gas hot water replacement and in-home energy audits for priority group households.
- Energy Australia may offer insulation, upgrades to heating and cooling systems, hot water systems and lights.
- Origin Energy offers energy efficient lighting, standby controllers, water saving showerheads, chimney balloons and in-home energy audits for priority group households.

Recent results from the REES program highlight the following:

In 2018 59% of REES activities were delivered to priority households. The graph overleaf demonstrates household tenure within the priority group and the number of REES activities conducted per group.

---

18 Retailed electricity or gas to 5,000 or more South Australian residential customers. Secondary retailers are not set a priority group target.
21 Households eligible for federal and state government concessions, participating in a retailer hardship program or referred by a registered financial counsellor.
Graph 3: Breakdown of priority group households by tenure for REES activities in 2018.

All but one retailer (Energy Australia and their priority group energy efficiency target) met their individual targets during 2018.

The cost of uptake of an activity is the largest barrier to the delivery of some approved activities. Retailers generally choose activities that achieve a high energy saving per activity/unit in relation to the cost in delivering the activity\textsuperscript{22}.

There are 28 approved REES activities, in 2018 eight were utilised. These were:

- Residential lighting
- Commercial lighting
- Standby power controllers
- Showerheads
- Insulation
- Water heaters
- Retire fridge/ freeze
- Draught proofing

Retailers participating in REES could be potential AdaptWest program partners, particularly if the project targets retailer hardship customers. For example, Origin Energy is partnering with the NSW Office of Environment and Heritage to install solar power systems in two aboriginal communities.

4.2.4 The Bottom Line – Building Code Energy performance trajectory project\textsuperscript{23}

This is a project delivered by the Australian Sustainable Built Environment Council (ASBEC) and ClimateWorks Australia and is an industry-led initiative to improve the energy requirements of the National Construction Code. The Code is a policy instrument to influence the energy efficiency of new buildings and major renovations.

Whilst the project is focused on energy efficiency, consideration to the flow on effects to households is recognised, “Energy efficient homes can also provide a comfortable refuge that improves health and wellbeing, particularly … on extremely hot days” (p. 7).

The most cost-effective opportunities (based on current energy prices, technology costs and detached dwellings located in climate zone 5)\textsuperscript{24} identified in the report relevant to thermal comfort are:

\textsuperscript{23} https://www.asbec.asn.au/research-items/bottom-line-household-impacts-building-code/
• Reduced air leakage, a low-cost solution to prevent the loss of conditioned air and infiltration of hot external air. Typical examples observed in other TEP projects include: external self-closing door seals (permanently fixed), exhaust fan draft stopping (or equivalent) and foam window seals;
• Increased roof insulation for detached housing; and
• Installation of ceiling fans in bedrooms to reduce the need for air-conditioning.

Non cost-effective options, based on current economic assumptions, and relevant to thermal comfort include:

• Installation of roller shutters and larger eaves in certain orientations. Low cost external blinds could also be considered;
• Solar PV - installation was considered to be a better cost-effective option than others mentioned in the report, however on-site renewables do not deliver the same comfort, health and resilience benefits as energy efficiency measures. TEP notes the exception to this is a combination of solar PV installation and split system air conditioning as a very effective method to improve comfort in both summer and winter without driving up energy costs.

Affordability outcomes have also been identified from this project. The combination of reduced air leakage and the installation of ceiling fans and roof insulation could deliver up to $150 in savings per household per year. Combined cost effective measures could reduce energy consumption for heating and cooling between 28 to 51% depending on the dwelling locations and housing type.

The overarching barrier to achieving successful implementation of the recommendations made in ASBEC report is the need for collaboration between state, territory and federal governments. The report highlights 4 specific areas for improvement:

• Harmonised residential energy requirements in the Code by 2022;
• Introduction of market transformation initiatives to reduce cost of key energy saving technologies:
• Introduction of renewable energy requirements in the Code; and
• Improved Code compliance.
4.2.5 Low Income Energy Efficiency (LIEEP)\textsuperscript{25}

This program ran between 2013 and 2016 as part of the Commonwealth government’s climate change strategy. Grants were provided to 20 government, business and community organisations to trial approaches to improve the energy efficiency of low-income households and to assist them in managing their energy consumption. The three AdaptWest Councils were not involved in any LIEPP projects.

Energy Consumers Australia commissioned GEER Australia to review the final reports of 20 program service providers to extract key findings and learnings to help inform future actions\textsuperscript{26}. Of the 20 project participants 15 unique LIEEP initiatives were conducted.

4.2.6 Initiatives identified relevant to AdaptWest:

\textit{ManyMak}\textsuperscript{27}

ManyMak was a program implemented in remote Indigenous households in East Arnhem Land, Northern Territory.

Participating households were provided with a major retrofit and the installation of an in-home display (IHD) to monitor energy consumption and cost in real time. The major retrofit consisted of either:

\begin{itemize}
  \item Replacing existing electric hot water units with a mix of Quantum 340L heat pump HWS and Solahart 302J solar HWS; or
  \item Installing R3.5 bulk ceiling insulation to 47 dwellings with existing air conditioning.
\end{itemize}

Based on the data collected during the project, this initiative suggests a saving of approximately 2 kWh per day (per household) averaged over the year.

The final project report offered several lessons that may be relevant to the AdaptWest project. These are:

\begin{itemize}
  \item The cost and difficulties of retrofitting and maintaining loose ceiling batts did not provide a strong recommendation in this climate zone for further rollout as a retrofit to older buildings. But is supported for new builds where air conditioning is likely to be installed;
\end{itemize}

\footnotesize\textsuperscript{27} https://www.energy.gov.au/sites/default/files/indigenous_essential_services_manymak_energy_efficiency_project.pdf
• Community engagement was critical to project success. This included ensuring respectful community engagement by external contractors and making budget provisions for the time this takes;
• Well-designed community engagement, as the basis for behaviour change outcomes can achieve buy-in and trust;
• Energy efficiency improvements can be made using technology approaches, but they must be suited to local conditions, maintained and repaired;
• Understand the hierarchy of needs and where the project purpose sits within participant priorities;
• Link energy education to key motivators for change i.e. health and safety co-benefits; and
• Provide recipients with a full explanation of the motivators and drivers for the initiative.

Barriers identified impacting on program success were:

• Information failure;
• Capital constraints;
• Remoteness/accessibility;
• Split incentives for organisations with different roles and responsibilities supporting households in isolation;
• Varied understanding of the ability to use a temperature set point for air-conditioning and thermal inefficiency and;
• Passive solar design of older housing stock.

_Energy Saver_28

This project targeted 160 low income households including local council Home and Community Care (HACC)29 clients in South East Melbourne. The program was rolled out in partnership with local councils. Councils were responsible for identifying and recruiting program participants. Three different models were used to deliver the project across the six councils:

1. Five councils appointed an Energy Liaison Officer (ELO) to work within the council HACC team;
2. One council outsourced the HACC service to a private provider who supervised the ELO; and
3. One council used their HACC home maintenance team to provide retrofits.

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29 HACC services are for people who need help to continue living at home because they are frail and older or a younger person with a moderate to severe disability.
Program participants received one of the following:

- Retrofit only;
- Behaviour change information and support;
- Retrofit + behaviour change information and support; or
- No support – control group.

Households provided with retrofits received installation of insulation; draught proofing or window treatments. Some households received servicing or replacement of cooling appliances or installation of an in-home display.

Relevant recommendations from the final project analysis includes the following:

- Focus on strategies which provide home retrofit plus behaviour change support as this is the most effective pathway;
- Focus on a range of outcomes (EE, energy bill costs, indoor temps, household health and wellbeing);
- Participant eligibility should take into account the client’s current income, value of assets and access to cash to support the most vulnerable households first;
- Partner with organisations that are already trusted by participants; and
- Implement a delivery method with discreet stages (e.g. participant engagement and needs assessment, development of household action plans (inc behavioural change information) and offer and deliver program activities.

This study helped improve credibility of the council amongst households who received retrofits and increased knowledge and capacity for council and program recipients.

The project also presented several challenges. These included:

- Involving and communicating with vulnerable households, developing trust, and overcoming resistance to participate;
- Managing vulnerable households and private sub-contractors who are often time poor and profit driven (work was often invasive of people’s homes and lives); and
- Ensuring tenant security of tenure was protected.

Energy Efficiency in the 3rd Age\(^\text{30}\)

This project was implemented to assist low income older people in Illawarra NSW. The objectives of the initiative included trialling and evaluating a number of different approaches in various locations that assist low-income households to be more energy efficient.

Tailored retrofits (e.g. ceiling insulation, new hot water service, reverse cycle air conditioning, lights, fridges and IHDS), iPad training on how to access information online and energy saving courses for HACC and other community workers were provided.

4% of homes had a reverse cycle air conditioner installed, predominantly to provide winter warmth. However, summer cooling was also recognised as a benefit as long as recipients were provided with information on how to efficiently use the system to minimise high consumption during summer.

The installation of the “heating upgrades” during the 2015-16 summer period, prompted many participants to voice their anticipation of the new reverse cycle air conditioner to improve their summer thermal comfort. This anecdotal feedback provided some confirmation that summer use is likely to increase energy consumption for these households. However, it is expected the winter heating costs will be significantly reduced.

Some households with high air conditioning use associated with health needs were provided with the Daikin US7 (Model number FTXZ25NV1B) split system. This system is this first in Australia to be awarded a 7-star energy rating with an AEER (Annualised Energy Efficiency Ratio for cooling, including consideration of standby power) of 5.9, and an ACOP (Annualised Coefficient of Performance for heating) of 5.77. This model also has humidification and dehumidification functions.

Recommendations from this project include the following.

Low-income older Australians have a “waste not, want not” approach and a deeply held reluctance to throw anything away while it still works. Retrofits are likely to be well received and provide a positive impact if the following is addressed:

- Participants are made clearly aware of the retrofit benefits and these are well understood;
- The retrofit is desired by the participant to fulfil a role or need in their life; and
- Appropriate methods are used procure and implement the change.

Well-managed handovers from contractor to the household should be implemented to allow participants the opportunity to become familiar with the systems controls and operation. This includes a hands-on demonstration of the retrofit at the participants own pace and an opportunity to operate the system themselves.
**Beat the Heat**

Beat the Heat was a project delivered in Adelaide to approximately 200 low income, private rental households. The project was led by Uniting Communities who partnered with a progressive property manager. The project focused on the provision of improved thermal comfort at a minimum cost through the installation (retrofitting) of ceiling insulation and/or energy efficient reverse cycle air conditioning (RCAC) in the main living space. Of the 209 dwellings, 23 had ceiling insulation installed (~10%) and 119 has RCAC installed (32 of these replaced an existing old unit).

Participants were provided with a home energy visit, installation of a new RCAC and ceiling insulation and an in-home display or a 12-month rent freeze where needed. It is important to note there was low usage of the in-home display, with only 50% of respondents engaging with them.

For households where an air conditioner was replaced, the residents experienced an overall 54% of reduction in energy consumption for their air-conditioning. Replacing air conditioning units with a more efficient model resulted in an average saving of approximately $88 of avoided electrical energy costs per summer.

Recipients reported improvements to their thermal comfort and other benefits including their home was more liveable, their sleep improved, they had an incentive to get up, their children were happier, and their mobility and mental health improved. An unintended benefit of the project was improvement in participant winter thermal comfort,

The success of this project required effective approaches for informing participants about energy efficiency and promoting energy efficiency. Strategies used included:

- Making personal contact with participants;
- Making the process of installation and maintenance of equipment easy for participants;
- Providing energy efficiency appliances at no or low cost; and
- Making it easy for participants to know and understand the energy cost of using equipment and appliances in their home.

The project presented several challenges, including slow initial participant recruitment and lag in timing between referral, installation and the home energy efficiency visit post installation. It is believed this impacted on participant satisfaction and their willingness to engage in the energy efficiency component of the project.

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The final Beat the Heat project report discusses several lessons learned. This includes approaching the community housing sector for multiple households as a time effective method; personal contact worked best for recipient recruitment; a single point of contact for recipients was valuable and the need to provide very clear and simple guidelines on project eligibility was a major learning.

4.2.7 Climate Safe Rooms – Building resilience to extreme weather\(^\text{32}\)

The Climate Safe Rooms program is funded by the Victorian Governments Climate Change Innovation grants ($300k) and offers free home energy upgrades for low-income households where at least one resident receives home care support services for an existing chronic health condition that puts them at risk from heatwaves and extreme cold.

A Climate Safe Room is a room in the home that has been modified to ensure it does not become uncomfortably hot in summer or too cold in winter.

Participants in the project receive a free home energy efficiency and comfort upgrade worth up to $10,000. This may include:

- Draught proofing;
- Ceiling or underfloor insulation;
- Secondary glazing, window coverings or external blinds;
- Efficient light replacement
- A high efficiency split system air-conditioner;
- A solar power system, to offset the running costs of the air-conditioner;
- Non-intrusive monitoring devices to measure health outcomes and energy bill savings.

Participant homes are given energy audit, a room is then made more energy efficient and highly efficient RCAC is installed, together with a small solar system to generate the electricity needed to operate the air-conditioner and offset the AC running costs\(^\text{33}\).

Project works are currently in progress, with data monitoring in place until mid-2021.


4.2.8 Household Retrofit Trials

This project is conducting trials to test the effectiveness of modifying or retrofitting existing appliances or circumstances to improve household energy efficiency. The project is targeting 60 class 1 dwellings in Victoria with 21 different energy efficient appliance upgrades. The project is funded by Sustainability Victoria.

The upgrades relevant in this project to AdaptWest are building shell improvements (ceiling and wall insulation, draught sealing, cavity wall sealing, double glazing and external shading) and cooling upgrades (room refrigerative and ducted evaporative). Two main types of existing cooling found in trial group dwellings were refrigerative room units and ducted evaporative.

All inefficient refrigerative units were upgraded to a high efficiency unit. No upgrades were applied to evaporative cooler where the unit was the main source of cooling. Evaporative coolers use significantly less energy to cool than refrigerate air conditioners as they rely on the evaporation of water to provide the cooling effect. Cooling capacity is dependent on outside air temperature and humidity.

Project results are based on energy efficiency results only, no value was reported on comfort or health improvements.

The average House Energy Rating (HER) of the 60 dwellings was 1.81 Stars (the average HER for houses constructed between 1990 and 2005 is 3.14 Stars). Reasons for this include high levels of air leakage, inefficient building shells and considerably less energy efficient lighting and appliances (including cooling units). The HER increased to 5.05 once all upgrades were applied.

4.2.9 Pathways to climate adapted and healthy low-income housing

The following information is an excerpt from the projects final report.

This project was undertaken by the CSIRO Climate Adaptation Flagship in partnership with two organisations responsible for providing social housing in Australia. The project was based on the premise that interactions between people, housing, and neighbourhood are dynamic and best viewed as a complex, coupled social-ecological system.

This project was developed with the rationale that a multi-level focus on the cross-scale interactions between housing, residents, neighbourhood, and regional climate was vital for

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35 Houses typically standalone single dwellings of a domestic or residential nature. They can also be horizontally attached to other Class 1 buildings such as terrace houses, row houses, or townhouses. In these situations they must be separated by a wall that has fire-resistant and sound insulation properties. https://www.google.com.au/search?q=class+1+dwellings+victoria&ie=&oe=
understanding the nature of climate change vulnerability and options for adaptation. The climate change hazards that were explored were increasing temperatures and more frequent and severe heatwaves in the context of heat-related health risks to housing occupants, and changes in radiation, humidity, and wind, in relation to material durability and service life of housing components and the implications for maintenance.

The availability and use of air-conditioning in the home has been found to be strongly protective against heat-related mortality in a number of case-control studies undertaken (Bouchama et al. 2007, Kaiser et al. 2001, Kilbourne et al. 1982, Naughton et al. 2002, Vanden Torren et al. 2006).

Air-conditioning use has also been shown to reduce heat-related morbidity through reduction in health services use. A time series analysis conducted in Israel which used electricity consumption as a proxy measure for air-conditioning use, estimated that air-conditioning use attenuated the effect of extreme temperatures on emergency department visits by approximately 4% for every 1000 Megawatt hours consumed (Novikov et al. 2011).

[Local research suggests that air conditioning in a bedroom has an enormous preventive effect for people aged 65 and over, who live alone, have a lower socio-economic status with a pre-existing disease (renal, cardio, diabetes).]

Ownership and use of air-conditioning was protective against hospital admission during hot weather in California after controlling for potential confounding factors i.e. household income and socioeconomics (Ostro et al. 2010). A recent Australian study by Farbotko and Waitt (2011) concluded that residential air-conditioning is a potentially maladaptive technology for reducing the risk of heat stress in low income households. They argue that while it has the potential to provide relief during hot weather, it comes with a double burden in the form of increased electricity usage and the risk that it won’t be available when it is needed the most due to power outages, which are also associated with extreme heat. While for these reasons it may be the intervention of last resort, air-conditioning is likely to represent the only solution in energy inefficient homes or for highly vulnerable people. For example, with regard to the latter, Summers et al. (2012) advise that Australian households that contain people with Multiple Sclerosis, where heat frequently exacerbates their symptoms, will spend between 4 and 12 times more on keeping cool than the average Australian household.

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37 The estimated figure for SA household annual energy consumption is 3,000 MWh.
39 TEP notes this can be managed to an extent by selecting energy efficient split systems to cool a specific living area rather than the whole house.
[The Healthy Homes project in Victoria aims to improve heating and thermal performance in the homes of people with existing health issues. Early results indicate a ‘greater level of comfort in the home with the added benefit of reduced cost to run the home. The ancillary benefit is a reduced impact on health services’\(^{40}\).

4.2.10 Alternative Technology Association (ATA) Renters Guide\(^{41}\)

ATA, now known as Renew is a national, not-for-profit organisation that advocates for people to live sustainably in their homes and communities. The guide provides methods for reducing energy consumption and costs. Cooling specify solutions presented in the guide are:

- Draught proofing
- Install insulation
- Heavy lined window treatments
- Shade to windows and external walls
- Solar installation
- Tax offsets & incentives for landlords
- Adapt behaviours to seasons

4.3 Funding Programs

4.3.1 Citizens Own Renewable Energy Network Australia Inc (CORENA)\(^{42}\)

CORENA funds its projects from private donations. Current projects are:

*Landlord-tenant scheme and in Uralla (NSW)*

An interest-free loan to the landlord for solar PV and/or energy efficiency improvements on the condition the rent will increase by no more than half of what the tenant will save on power bills, so both tenant and landlord benefit.

*Quick Win Projects*

Interest-free loans to non-profit community organisations in all parts of Australia. The solar installation and efficiency measures are cost neutral because participants can easily pay back the loan over time out of the savings on their power bills.

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Ethical Enterprise projects are for worthy endeavours that don’t qualify for our Quick Win projects (Quick Win loans are strictly for non-profit organisations).

4.3.2 Energiesprong

Originating in the Netherlands as a government-funded innovation program, Energiesprong is a whole house refurbishment and new built standard and funding approach that focuses on heating. The program uses the social housing sector in each market as the launching market for solutions, with a view to later scale to the private home-owner market.

An Energiesprong renovation (or new built) is financed in two ways: through energy cost savings from tenants and by reduced maintenance and repairs costs for housing associations. Both are part of the business case. The objective is that tenants have the same monthly expenses – they pay the housing association an energy service plan instead of the bill of the energy supplier. The housing association can now use this new income stream to pay for the renovation.

4.3.3 Ways to finance deep energy retrofits from around the world

An auction-based approach to increasing the uptake of energy efficiency.

The British government is currently virtually ignoring most of the domestic market, instead seeking opinions from industry on how to design an auction-based approach to increasing the uptake of energy efficiency measures by the UK’s 5 million small and medium sized enterprises.

In an auction, bidders would compete on the basis of price to win funding to deliver energy savings. This would make the winning bidders responsible for engaging businesses to participate in the program as well as providing capital to deliver the measures.

Utilities are financing retrofits in the USA

Utilities across the US spent $7.9 billion (AU$11.4 billion) on energy efficiency programs in 2017. Investments specifically targeted at affordable multifamily buildings have grown significantly in recent years. These programs have shown that several barriers can be overcome if tackled the right way:

- Free or highly subsidised measures address one of the biggest barriers to efficiency in rental properties - the split incentive.

43 https://energiesprong.org/about/ https://www.energiesprong.uk/

• Whole-building incentives based on energy savings thresholds encourage deeper retrofits and help owners make more cost-effective investments and benefit from greater bill savings.

• One-stop-shops or technical assistance overcome the problem of residents’ low capacity to manage retrofits by offering a single point of contact for everything.

• Programs targeting multifamily-specific issues such as common areas and measures or metering make it much easier to get people on board (major and minor retrofits, various criteria – all based on EE and saving money).

4.3.4 Gridmates (US)\textsuperscript{45}

An energy community engagement platform designed for raising funds. A combination of combined smart grid technologies, analytics, social media and crowdfunding technologies to bring community engagement to your fingertips.

4.3.5 TechRepublic (US)\textsuperscript{46}

A web platform seeking to eliminate energy poverty by crowdfunding energy. Instead of giving cash to a charity, the organization wants to make donating more intentional. To give electricity to someone, users pick a dollar amount, find out how much impact it will have in terms of hours of energy, and then donate via PayPal.

\textsuperscript{45} \url{https://www.gridmates.com/}

\textsuperscript{46} \url{https://www.techrepublic.com/article/how-gridmates-is-crowdsourcing-electricity-to-help-eliminate-energy-poverty/}
5 Proposed Delivery Model – Technical Measures

5.1 Key learnings from the Literature Review

The following key learnings from the Literature Review have directly informed the proposed delivery model:

- Housing stock constructed for people on a low income is often poorly constructed and maintained leading to practical limitations in the opportunity to cost-effectively improve the building envelope.
- The installation of split system air-conditioner(s) improve:
  - thermal comfort (in summer & winter)
  - liveability
  - mobility and mental health
- Air-conditioning use has been shown to reduce heat-related morbidity and mortality.
- While air-conditioning can increase energy consumption the replacement of existing inefficient air-conditioners and heaters with efficient split system air conditioners can considerably reduce energy consumption and costs.
- Coupling air-conditioning systems with solar power can deliver improved thermal comfort without high electricity bills.
- Including a bill check to ensure households are receiving appropriate tariffs is a simple, effective opportunity.
- Respectful community engagement is critical to project success.
- Partner with organisations that are already trusted by participants.

Limited direct options for state and federal government funding in the present environment require a targeted, innovative approach to achieve the project objective of a sustainable funding model.

This section provides detail on the measures that are recommended for each dwelling, if the project were to progress to the implementation phase or be funded by another party. Costs are provided in Section 4.4. More detail on responsibilities is provided in Section 6.

These measures could be implemented in any typical low-income households. This would most likely be achieved by engaging a delivery partner. The delivery partner would have the required insurances and proven ability to sub-contract work to suitably qualified contractors.
5.1.1 Energy review

At least in the pilot stage an initial household energy review could be conducted to identify:

- Any existing issues with heat stress. Scope out main interventions to be installed in detail;
- The best refuges within the dwelling. This is likely to be a combination of the main living area and main bedroom;
- The main areas of energy consumption and key opportunities to make savings

In addition, an energy bill check could identify whether customers can benefit from a different tariff (with the existing or a new supplier in conjunction with the householder using www.energymadeeasy.gov.au.)

Lessons learned from previous national energy-related programs highlight the importance of providing accurate, appropriate and timely educational materials to program participants.

An information pack containing instructions on how to use the installed equipment, heat stress avoidance measures and tips to avoid high energy consumption from appliance use would be useful for program participants, along with a practical demonstration of the system and its controllers.

Consideration of participants energy knowledge would need to be factored into the content of the information pack. Where language and/ or cultural barriers exist, additional support would be required from appropriate sources.

5.1.2 Split system air-conditioner

Each participating household would need to be considered for an energy efficient split system air-conditioner installed in the identified refuges (usually the living area / main bedroom).

The split system capacity will generally not exceed 5kW. The more efficient split systems will achieve a coefficient of performance of 5, meaning that power input is likely to be 1kW (significantly less due to thermostat control and inverter operation). Run for six hours per day estimated energy consumption is up to 6kWh.

Mounting the split systems compressor out of direct sunlight can improve performance and efficiency in hot weather.

5.1.3 Solar power

It would be ideal to prioritise the installation of a solar power system. This will:

- Reduce energy poverty;
- Incentivise householders to use air-conditioning to manage heat stress; and
• Ensure households energy bills do not increase significantly as a result of interventions.

The recommended size for solar power systems is between 2 and 5kW in capacity, based on household size (number of bedrooms) as a proxy for number of occupants and thus energy consumption.

5.1.4 Ceiling fans

Ceiling fans provide a first stage of cooling with low power consumption and can be very effective overnight in warm weather. For this reason, they should be installed in the bedroom.

5.1.5 Draught proofing

Reducing air leakage between the inside and outside is critical in maintaining comfort and reducing energy consumption and simple draught proofing measures in each household could prevent this

Eligible draught proofing measures include:

• Permanently fixed door seals, preferably self-closing; and/or
• Exhaust fan draught excluders.

5.1.6 Insulation

Each participating household will be eligible to have ceiling insulation fitted where there is none. Where there are gaps in existing ceiling insulation these will be topped up. Based on previous experience, it is expected that 85% of dwellings will already have ceiling insulation.

5.2 Measures requiring further consideration

The following measures require further consideration due to cost implications:

• Security screens for doors and windows; to allow overnight passive cooling.
• External shading; to reduce direct (and indirect) radiant heat gain.
• Wall and floor insulation; difficult to retrofit.

5.3 Intervention costs

Table 3 shows estimated required funding based on the recommended interventions as well as expected average requirement per household.
Table 3: Estimated required funding for AdaptWest deliverables.

For a household requiring all interventions the cost estimate is $11,200. However, not all households will require all interventions. Based on the percentage of households requiring the intervention the average cost estimate is $7,600 per dwelling.

For example, for 1,000 households funding of approximately $7.6 million would be required.

Project funding is covered in Section 6.
6 Proposed Delivery Model – Community Housing Providers

In the past 2-3 years, the South Australian Housing Trust (administered by the South Australian Housing Authority [SAHA]) has head leased (for 20 years) older style SAHT housing to five Community Housing Providers (CHPs) as a mechanism of stock transfer to enable better housing and wellbeing to existing tenants. In broad terms, this enables the now CHP’s tenants to access federal government rent assistance (Commonwealth Rental Assistance [CRA]) and thus provide additional funds through increased rental returns for property upgrades and new housing supply. For note: this has no impact on the out of pocket rental cost to tenant; it simply enables such tenants to access CRA and then pass this to the CHP to invest in upgrading their existing housing and/or new supply of social and affordable housing.

In terms of capital upgrading to existing SAHT houses, as a guide, CHP’s (as approved by SAHA) will be investing circa $20-$30k per house over the twenty-year head lease on capital improvements.

This funding provides the AdaptWest project with an opportunity, if CHPs can use some of this funding to improve thermal comfort and reduce energy costs. In addition, CHP’s have a range of potential models of co-investment in renewables (mainly PV), associated co-share of utility saving and potential blended finance packaging with sector specific financing authorities.

As this project is in the Cities of West Torrens, Charles Sturt and Port Adelaide Enfield it would be practical to partner with three of the five CHP’s that have the SAHT stock transfer (20-year head lease) properties in the project area. These are:

- Unity Housing – approximately 800 properties from Port Road to the Adelaide Airport, primarily in the Cities of West Torrens and Charles Sturt;
- Anglicare – approximately 750 properties in Woodville from Port Road, across to Hansen Road and down to Grand Junction Road in the Cities of Charles Sturt and Port Adelaide Enfield (approximately half each); and
- Community Housing Limited (CHL) – approximately 800 properties in the Inner North, Blair Athol to Clearview (all in Port Adelaide/ Enfield).

The remaining two CHP’s are Junction Housing (inner southern suburbs) and Housing Choices (inner North East). Both regions are not within the AdaptWest location boundary.

Preliminary discussions and scoping activation are underway with the three CHPs. These three CHP’s also have other houses in the project area as part of their core community housing stock. It is estimated that across the SAHT stock transfer portfolio and core CHP stock, these three CHP’s would control some 3,000 older style houses in the project area which broadly corresponds to circa $75M of capital works.
over 20 years. All tenants broadly align with the target cohort of aged, those with disabilities, mental health challenges, lifestyle choice challenges etc who are likely to be more impacted by heat elevation (and conversely, extreme cold periods). The greater portion of these tenants are single (adult) households with low to very low incomes and are significantly vulnerable to increased living cost (rent, utilities, health care, food, etc).

The CHP’s:

- Are all not-for-profit organisations with public benevolent institution status enabling a mechanism for tax deductible donations as a contributing funding source;
- Are a highly regulated safe haven for corporate investment and other public and/or philanthropic contributions;
- Operate at scale to enable pilots and then rollout to capitalisation funding if the pilots can be substantiated;
- Are advanced in housing condition (asset) auditing and capital works scoping (and budgeting) but would benefit from energy auditing;
- Have internal infrastructure in place to survey tenants on household composition, needs, preferences, priorities, cost impacts etc;
- Have a range of policy benchmarks of living cost for the target cohort;
- Have their own community sector financing authority (lending at a modest margin over bond rates – potentially more favourable than other environmental financing mechanisms);
- Hold large balance sheets to underpin blended finance lending if such a model can be established; and
- In many cases, are undertaking some elements of what will be proposed as AdaptWest capital items and therefore AdaptWest may complement core investment as an added value rather than requiring a full funding solution.

Within the proposed delivery model outlined above, the role of the AdaptWest councils is likely to be limited to the investigation of options covered in this report and providing these to the CHPs that operate in Western Adelaide to consider further within their funding models and capacity.
7 Funding and Responsibilities

7.1 Funding

As per Section 4 an average cost estimate for the implementation of recommended measures is $7,600 per dwelling. This could change substantially in line with tenant preferences (as per a proposed tenant survey) and CHP preferences.

For 1,000 households funding of approximately $7.6 million in project funding would be required. On top of this and estimated 5% equivalent to $380,000 of funding would be required to facilitate the project.

7.2 Responsibilities

The AdaptWest brief calls for “long-term effective funding models that ensure optimal delivery pathways independent of grants / election cycles”.

Such funding models are difficult to identify; however, the CHP delivery model provides such a pathway for potential funding, or part-funding for the project outcomes.

If the project is to be funded completely by CHPs uptake is likely to be limited as is the role of AdaptWest and the Councils.

A key consideration is the role of Councils, as identified in Section 2.3. The involvement of the three Councils in the AdaptWest project is a natural alignment of community need and Council purpose.

Existing and potential roles for Council are outlined below:

1. All three councils were involved in the commissioning of an urban heat map for the region. This resource identifies the location of heat build-up, hot spots and heat islands across the region during hot weather, and where they overlap with vulnerable members of the community. Thus, providing an initial cohort of program participants. Role: Initiator/facilitator.

2. Executive Management are members of the project Steering Committee, whose remit is to guide the project purpose, objectives and methodology. This provides Councils with an opportunity to support vulnerable constituents through the development of this program. Role: Initiator/facilitator.

47 Areas where built structures and impervious materials have replaced natural surfaces.
3. Councils may consider providing in-kind support to operationalise this project. This support could work towards finalising project design and producing educational materials. *Role: Initiator/facilitator,*

<table>
<thead>
<tr>
<th>Community Housing Provider</th>
<th>Councils (through AdaptWest)</th>
<th>(Other) Funding Partner</th>
<th>Delivery partner</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initiate project – heat mapping, feasibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undertake tenant survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finalise project design</td>
<td>Finalise project design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commit funding</td>
<td>Commit funding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Produce educational materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engage contractor</td>
<td></td>
<td></td>
<td>Implement – undertake energy review, install equipment</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>Evaluation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 4: Responsibility matrix*
8 Project Stakeholder Engagement

A workshop was held in early 2020 with Council representatives and the project steering committee and Community Housing Providers. The purpose of this workshop was to:

- present the findings of the project literature review;
- present the recommended interventions and associated costs;
- discuss the role of Councils and CHP’s;
- gauge the level of interest in surveying CHP tenants to understand tenant preferences; and
- gauge CHP interest in working together to deliver solar power and air-conditioning to vulnerable households located in the West.

The workshop was well attended and included representatives from Anglicare SA, CHL, Unity Housing, City of Charles Sturt, City of Port Adelaide, City of West Torrens and The Energy Project (as workshop facilitator).

The premise of the project was well received, with CHP representatives recognising that more needs to be done in supporting vulnerable households with climate change impacts, such as extreme heat.

All three CHPs have either implemented or included some supportive measures in their future capital works programs. These include retrofit installations of reverse cycle air conditioners, ceiling fans, insulation, some solar and the provision of energy audits and education programs.

The CHPs indicated that they already have a good understanding of tenant preferences for upgrades and that as such a survey was not required.

Whilst workshop participants clearly understood the benefits of the AdaptWest project, the CHP’s articulated multiple challenges in progressing the project to an implementation phase. The primary barrier is a significant lack of funding for future capital works and ongoing maintenance programs. The CHP’s are also managing a number of issues that impact significantly on current budgets and resources. These include:

- working through the backlog of legacy maintenance issues from acquired housing stock;
- conducting mandatory maintenance upgrades that must take priority;
- tenant mental health issues that prevent ongoing maintenance;
- providing housing to ageing tenants, with no money and significant social isolation who need housing for life and have homes that are difficult to retrofit; and
- the impact of climate change on an ageing population reliant on social/community housing.

A question raised was “how quickly can the work be done, with the above list of constraints?”.

A list of next steps was developed by workshop participants these included:

- follow up meetings with individual CHPs to understand current housing stock and asset management strategies;
- sharing research specifically related to heat mapping data, climate resilience and health; and
- maintaining dialogue between organisations and Councils.
Follow up meetings were held in March and April 2020 with Anglicare SA and Unity Housing. A summary of outcomes from the meetings is presented below:

- The workshop was viewed as informative and the evidence presented in the draft report is useful, it highlights the scale of the problem and provides detail of the issues with tangible solutions;
- Exploration of the ‘one room as a refuge’ is being explored with air-conditioning and solar installations highlighted as suitable options;
- Elevating resident well-being, and specifically heat stress as a safety issue that requires the same high level of attention as other OHSW issues;
- Air-conditioning is no longer viewed as a luxury item, rather a necessity for resident well-being and safety;
- There is potential to partner with local Councils for Federal health funding;
- An immediate focus needs to on the elderly and residents with medical issues;
- The social value bank approach may be applicable to this project and could provide persuasive evidence for future funding (see explanation below); and
- The AdaptWest project may be considered a ‘shovel ready project’, that could leverage the current stimulus funding linked to COVID-19.

The social value bank is a methodology that seeks to demonstrate the social value of community-focused activity. The Australian Social Value Bank (ASVB) is a specific social measurement impact tool that calculates the net social value of programs, using Australian data and globally endorsed best practice methodologies. Local users of ASVB include Unity Housing and Anglicare SA.

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49 energy related interventions are allocated to a specific room in the house as determined by the resident.
9 Summary

AdaptWest is a climate change adaptation plan for the Western Adelaide region and is a partnership between the City of West Torrens, City of Charles Sturt and City of Port Adelaide Enfield.

Adopted by the three councils in 2016, the Plan has identified a number of climate change variables and the impact of these on the region’s climate and communities. Extreme heat is one such variable identified as having significant impact on vulnerable members of the community.

The Residential Building Retrofit for Climate Adaptation is partly funded through the Natural Disaster Resilience Program (NDRP). Stage 1 of this project has aimed to determine the capacity to deliver targeted building upgrades to vulnerable households in the AdaptWest region.

As a key part of this project a literature review was conducted as a desktop review of 17 national and international programs considered by AdaptWest and The Energy Project as potential delivery models or information sources for this project. A mix of technical and funding programs were reviewed. The following key learnings from the Literature Review have directly informed the proposed delivery model:

- Low-income housing stock is often poorly constructed and maintained leading to practical limitations in the opportunity to cost-effectively improve the building envelope.
- The installation of split system air-conditioner(s) improve:
  - thermal comfort (in summer & winter)
  - liveability
  - mobility and mental health
- Air-conditioning use has been shown to reduce heat-related morbidity and mortality.
- While air-conditioning can increase energy consumption the replacement of existing inefficient air-conditioners and heaters with efficient split system air conditioners can considerably reduce energy consumption and costs.
- Coupling air-conditioning systems with solar power can deliver improved thermal comfort without high electricity bills.
- Including a bill check to ensure households are receiving appropriate tariffs is a simple, effective opportunity.
- Respectful community engagement is critical to project success.
- Partner with organisations that are already trusted by participants.

Table 3 shows the recommended interventions along with estimated required funding based on the recommended interventions as well as expected average requirement per household.
A targeted delivery model through a partnership with three Community Housing Providers was explored in detail. Unity Housing, Anglicare and Community Housing Limited have all received significant stock transfers from the South Australian Housing Authority.

The outcomes of the project to date include the following:

- A substantial literature review that has can continue to be used in the design interventions in vulnerable households.
- The development and preliminary costing of proposed interventions for vulnerable households.
- The development of collaborative relationships with three Community Housing Providers that may bear fruit if funding for implementation becomes available.
- The evidence presented in this report highlights the scale of the problem and provides detail of the issues with tangible solutions. This information will be beneficial for the sector.
- The AdaptWest project may be considered a ‘shovel ready project’, that could leverage the current stimulus funding linked to COVID-19.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cost/dwelling (all msrs)</th>
<th>% of households</th>
<th>Cost/dwelling (average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy review</td>
<td>$200</td>
<td>100%</td>
<td>$200</td>
</tr>
<tr>
<td>Split system</td>
<td>$2,500</td>
<td>85%</td>
<td>$2,125</td>
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<tr>
<td>Solar power</td>
<td>$4,000</td>
<td>80%</td>
<td>$3,200</td>
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<tr>
<td>Ceiling fans (two of)</td>
<td>$1,000</td>
<td>90%</td>
<td>$900</td>
</tr>
<tr>
<td>Draught proof</td>
<td>$200</td>
<td>90%</td>
<td>$180</td>
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<tr>
<td>Insulation</td>
<td>$2,250</td>
<td>15%</td>
<td>$338</td>
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<tr>
<td>Management</td>
<td>$1,015</td>
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<td>$694</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$11,200</strong></td>
<td></td>
<td><strong>$7,600</strong></td>
</tr>
</tbody>
</table>

Table 3: Estimated required funding for AdaptWest deliverables.
10 Appendix A: Typical Correspondence with CHP’s.

Unity Housing

Matthew Woodward
Chief Executive Officer
Unity Housing Company
81 Osmond Terrace
NORWOOD SA 5067

4th July 2019

Dear Matthew,

RE: ADAPTWEST - CLIMATE CHANGE INITIATIVE

The Energy Project has been engaged jointly by three Councils (Charles Sturt, West Torrens and Port Adelaide Enfield) to scope a key piece of AdaptWest which is a Climate Change initiative addressing the western sector of Adelaide.

We are seeking Unity’s interest in being involved in this project as a key stakeholder due to its significant housing provision in the Western Metropolitan area.

The first stage of AdaptWest has involved heat load mapping of the Western sector to identify critical localities and resident groups most at risk.

We are now scoping solutions addressing increasing heat load on low income and vulnerable residents, particularly those with disabilities, mental health issues, frail aged etc. who typically reside in older style social housing.

We identify Unity (and others) as key players in this region with this exact tenant group, at scale. This is an opportunity to participate in a partnership approach with these local Councils as a lead housing provider in the Western Sector on a national/international best practice basis.

The current vision is to address 1,000 older style homes with circa $10M in environmental retrofitting to make a substantial impact on community wellbeing.

Ultimately, we aim to identify needs based retrofit capital works (environmental) in older houses which reduce heat load, reduce tenant cost and enhance sustainability. Equally, this involves finding contributory funding (by corporates, government (Commonwealth and State), philanthropic, environmental funders, council’s etc) to ensure such works benefit tenants at no net cost to the housing provider.

Overall, this project will involve an energy audit, tenant consultation, environmental works packaging, funding, implementation oversight and performance monitoring.
In the first instance, we are seeking lead housing providers to be involved, and this is envisaged to require:

- Working with Unity to define its objectives that address your strategic asset management planning and enhanced tenancy satisfaction/performance targets,
- Consultation with tenants (via Unity) to identify needs, and responsive works that will benefit their life and sustainability,
- Identifying an environmental capital works package of best response, determine a budget and define an operational model for savings capture and funding payback. Models will be transparently discussed with Unity as to acceptability and deliverability,
- Undertaking this process in August-September 2019 with results available at the end of the year.

This is not envisaged to be a time burden for Unity, but rather an engagement to define objectives, adapt existing SAMP audits, manage tenant engagement (in effect a survey) via Unity’s internal systems as a value add and discuss options of models which may achieve these objectives.

The Energy Project is assisted by Otay Property with industry engagement.

We look forward to your consideration of this opportunity.

Yours sincerely

Jake Bugden
Director, The Energy Project
APPENDIX C
Dear Mr Teague,

Re: AdaptWest response - Natural Resources Committee Inquiry into Urban Green Spaces.

AdaptWest welcomes the opportunity to provide input into the Parliament of South Australia’s Natural Resources Committee’s Inquiry into Urban Green Spaces (Inquiry).

The Natural Resources Committee resolved:

1. To inquire into urban green spaces, and in particular the benefits, opportunities, challenges associated with urban strategic planning, biodiversity, water management, primary production, climate change impact projections.
2. To investigate as to what extent of resources are allocated to urban green spaces in comparison to similar projects being undertaken interstate and internationally, in relation to coastal management, water resources and wetland, green streets and flourishing parklands, biodiversity sensitive and water sensitive urban design, controlling pest plants and animals, nature education and fauna, flora and ecosystem health in the urban environment.
3. Any other matter.

Introduction and background - AdaptWest

AdaptWest is the Western Adelaide Climate Change Adaptation Plan and is the product of collaboration between the Cities of Charles Sturt, West Torrens, and Port Adelaide Enfield and the stakeholders who have a role or interest in the Western Adelaide Region. The plan was formally adopted by the AdaptWest member councils in 2016 with a Regional Coordinator appointed in 2018 to focus on the implementation of the plan, AdaptWest in Action. A 3-year implementation action plan was recently adopted.

As a region, Western Adelaide is already experiencing extreme and hazardous climatic events such as flooding from intense rainfall and storm surge as well as extreme temperatures and heatwaves. Recent storm events have resulted in interruptions to electricity supply and key transport routes, damage to built infrastructure such as jetties and coastal paths and erosion of beaches and dunes. Extreme temperatures and extended heatwaves have resulted in increased hospital admissions and heat related illnesses and deaths.

To meet these challenges the AdaptWest Plan identifies 7 key priorities for action, being:

- Building strong and connected communities
- Preparing our businesses and industry to be aware and resilient
- Protecting our coastal assets and environment
- Enhancing open and green spaces to cool our urban environment
- Managing stormwater to protect and enhance where we live and work
- Increasing the resiliency of transport and essential services
- Improving residential dwellings to be resilient to climate change.

**Figure 1 - Impact of climate variables on Western Adelaide by 2070**

<table>
<thead>
<tr>
<th>Climate Variable</th>
<th>Description (change by 2070)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Temperature</td>
<td>Winter → Spring: An increase in average annual temperatures of up to 2°C (1-2.5°C) is projected in winter and 2°C (1-3°C) in spring across the Region by 2070</td>
</tr>
<tr>
<td></td>
<td>Summer → Autumn: An increase in average annual temperatures of up to 2°C (1-3°C) is projected in summer-autumn across the Region by 2070</td>
</tr>
<tr>
<td>Average Rainfall</td>
<td>Winter → Spring: Average winter rainfall predicted to decrease by up to 20% (5-20%) and spring rainfall by up to 20% (10-40%) below 1990 levels by 2070</td>
</tr>
<tr>
<td></td>
<td>Summer → Autumn: Average summer rainfall predicted to decrease by up to 10% (2 to 10%) and autumn by up to 5% (2 to 10%) below 1990 levels by 2070</td>
</tr>
<tr>
<td>Extreme Heat</td>
<td>Sequences of three or more consecutive days with average temperatures of at least 32°C are projected to increase from 1 in 20 years under the baseline period to one in every 3-5 years under a low emissions scenario in 2070 and every year under a high emissions scenario by 2070</td>
</tr>
<tr>
<td>Rainfall Intensity</td>
<td>Climate models suggest that for each degree of global warming, extreme daily rainfall may increase by 7%</td>
</tr>
<tr>
<td>Sea Level Rise</td>
<td>Global mean sea level rise for 2046–2065 relative to 1986–2005 could be 0.26 m for more moderate emissions outlooks and up to 0.48 m by 2081–2100</td>
</tr>
<tr>
<td>Sea Surface Temperature</td>
<td>By 2046–2065 warming of the ocean could result in a 1.4°C rise in global sea surface temperatures under a medium emissions outlook relative to 1986–2005 and a 1.8–2.2°C rise by 2081–2100</td>
</tr>
<tr>
<td>pH Ocean Acidity</td>
<td>Projections for decreasing pH range from 0.05 to 0.32 pH units by 2100, with a best estimate more likely to be in the order of a 0.2 pH unit decrease</td>
</tr>
</tbody>
</table>
Figure 2 - Snap-shot of climate related impacts to Western Adelaide – Building a resilient region

Project Successes to date

| Urban Heat Mapping | Aerial remote mapping was undertaken during a hot week in February 2017. Successive passes of the region were flown both day / night to build a highly detailed map of hot spots and heat islands in the region. In addition, NDVI (Normalized Difference Vegetation Index) was captured that shows a measure of photosynthetic health and vegetation distribution. |
| Natural Disaster Resilience Program (NDRP) funded Residential Building Retrofit for Climate Adaptation project | Stage 1 of this project aimed to determine the capacity to deliver targeted building upgrades to vulnerable households in the AdaptWest region. Those upgrades would be designed to reduce exposure of vulnerable residents to extreme heat. Stakeholder participation in this project is anticipated from identified private and public sector partners. This project builds on the heat mapping work, which includes SEIFA index, reflecting an interest in the relationship between heat island and low income / vulnerable households. |
Research with Macquarie University - *Urban trees and people’s yards mitigate extreme heat in western Adelaide*

This study used the urban heat map and previously acquired LiDAR data to assess the role and effect of trees and other vegetation in front and back yards (private open space) to reduce day and night-time heat during extreme heatwave. [https://researchers.mq.edu.au/en/publications/urban-trees-and-peoples-yards-mitigate-extreme-heat-in-western-ad](https://researchers.mq.edu.au/en/publications/urban-trees-and-peoples-yards-mitigate-extreme-heat-in-western-ad)

**Cool Seal trail project outcomes**

- Hendon and Albert Park – City of Charles Sturt project

Application and analysis of ‘Cool Seal’ which is a heat reflective road sealing product designed to mitigate the local urban heat island effect.

**Strategic Communications Plan**

Development of Strategic Regional Adaptation Communications Plan for Western Adelaide. Currently scoping the implementation of the plan in 20/21 FY.

**Climate Change Governance and Risk assessment project**

Project to analyse the governance and corporate risk exposure and response to climate change across the AdaptWest regional councils.

**3-year action plan endorsed by councils**

On-going implementation of the AdaptWest 3-year Action Plan – *AdaptWest in Action*

**Acquisition of LiDAR for Western Adelaide**

LIDAR (Laser Imaging, Detection, and Ranging) is a remote sensing technique that that was used capture a 3D digital terrain model of Western Adelaide. This model can be used to analyse a variety of environmental features including canopy structure and density.

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**AdaptWest – urban green spaces – challenges and opportunities – key issues**

**Heat mapping**

The AdaptWest region undertook extensive urban heat mapping of the Western Adelaide Region in 2017. This mapping demonstrates where there is an excessive build up of heat (hot spots and heat islands) in the region by measuring land surface temperature. Examples of the practical application of this investment include tree planting and WSUD interventions, mapping and quantifying the role urban tress have in reducing heat islands, and the correlation of social housing and land surface temperatures to scope mitigation measures for vulnerable households. The resource has been a key communications and research tool highlighting the multiple impacts of heat related climate change exposure. There is a need to maintain and undertake further heat mapping so that time periods can be compared against the 2017 baseline, so that we know whether we are reducing the heat exposure within our city and to what extent intervention strategies are proving effective.

**Urban Infill**

Policies associated with residential urban infill have a clear impact on the ability for our community to adapt positively or negatively to climate change.
Built form, energy efficiency and green infrastructure are key drivers for both mitigation and adaptation. As a region we need to see the development of dwellings that are climate responsive, are resilient to climate change impacts, that reduce climate related cost of living pressures, while increasing thermal comfort and resiliency. There is a need to undertake strategic engagement (currently unfunded) with both the development industry and end user / occupiers of residential development to ensure that climate adaptation is considered in design and decision making. This necessarily would consider the value in retaining existing canopy and green spaces, material choice to minimise heat island, minimising hard surfaces and discharge to urban stormwater systems, flood and inundation mitigation, and energy efficient design optimisation.

Loss of green space at point of development.
The loss of established gardens to housing pressures is a feature of urban infill. This loss will usually see front and backyard green space replaced by hard surfaces (for example driveways and roofs) as allotments are subdivided. This increases impermeable surfaces, meaning less opportunity for rainfall to soak into the ground, leading to increased run off into storm water systems and associated downstream system impacts. Hard surfaces are also seen to increase urban heat island as heavy weight materials retain heat absorbed during the day which is then radiated at night. This negatively impacts on the ability for the environment to shed excess heat overnight and increases reliance on air conditioning to maintain thermal comfort.

Loss of canopy at point of development.
Western Adelaide has one of the lowest overall urban canopy cover percentages of any Australian metropolitan region. Much of the existing canopy cover is held in private open space, with minimum controls available to mitigate its removal. In many cases, when an existing house is redeveloped, the site is completely cleared of all existing vegetation and levelled to allow for new construction works. While the claim could be made that councils can replace this loss with public planting, there are limits to the number of new trees that can be planted in public open space. Furthermore, the loss of trees from around our homes is from where they provide the most benefit in ameliorating extreme heat and providing cooling benefit to the household. In addition, the loss of mature trees accelerates the loss of habitat, biodiversity and contributes to the loss of ecological services (pollution control, flood control, wind breaks etc) that the trees provide.

Hot spots and heat islands – vulnerable communities.
More Australian die from heat waves than any other natural disasters. Climate Change projections for Western Adelaide anticipate that the duration and intensity of hot days will increase over time. These impacts will disproportionally affect socially and economically disadvantaged communities, who due to the nature of the homes commonly available to this cohort, have little or no capacity to regulate against adverse temperature impacts, nor the economic advantage to use extensive air-conditioning to control internal temperatures within the home. There are many hundred homes that fulfil the above criteria in Western Adelaide, housing a diverse population. There is an unfunded need to urgently upgrade and retrofit homes to
make them more resilient to climate change impacts and reduce the vulnerability of residents. This body of work could attract economic stimulus measures engaging with local business, contractors and suppliers to undertake an extensive and on-going uplift of existing housing stock, improving the quality of life of some of the regions most vulnerable residents.

Challenges associated with Planning and Design Code reform.
The State Planning Reform provides an opportunity to respond to climate change induced threats by re-setting a strategic framework, so that protecting our communities and adapting to a hotter and drier climate, are clearly positioned as primary objectives.

These issues are complex, and the AdaptWest Councils are keen to ensure they translate into practical reforms as the planning reform process now moves to addressing the Planning and Design Code. Failure to do so would put future generations at risk, with disproportional impacts on vulnerable community members.

AdaptWest support the following, and have sought their inclusion in reforms:

1. Apply the region’s urban heat mapping as an overlay in the Planning and Design Code, to inform all new development
2. Increase protection for trees and green spaces that provide canopy contribution in both private and public open space including Deemed to Satisfy provisions
3. Incorporate integrated hazard mapping as part of planning assessment (including overlays for coastal, sea-level rise, flooding, heat exposure and fire risk)
4. Ensure that policy for urban infill zones incorporates a requirement for sustainable design
5. Adopt of a clear set of planning policies and regulations including Deemed to Satisfy provisions for the incorporation of Water Sensitive Urban Design (WSUD) at all levels of development
6. Consider solar access impacts in the assessment of all new developments
7. Improve energy efficiency compliance requirements to account for future climate projections and require construction of climate resilient buildings
8. Incorporate climate change considerations into housing stock for vulnerable residents, including the need for effective protection during extended heat waves
9. Rezoning for urban renewal should only be considered in suitable locations and when accompanying good design and infrastructure coordination mechanisms are provided

We recognise that, in securing these outcomes, mechanisms including careful spatial planning through the development of more detailed Regional Plans must be established to resolve and reconcile tensions between competing community desires and needs.

Opportunities for collaboration

- Work to set, implement and strengthen canopy targets through both Green Adelaide, planning policy in the Planning and Design Code and regulation
- Measures to improve the protection of existing canopy that falls outside of significant or regulated trees to mitigate and adapt to extreme heat conditions
• Support for targets set under Green Adelaide for increasing canopy cover and the contribution that trees within private open space have in meeting these targets
• Ensure that species diversity is prioritised and promoted to safeguard that our canopy will be resilient to future projected climate change
• Recognise the role of WSUD, permeable surfaces and associated soil health in mitigating extreme heat conditions and providing storm water management service
• Work together to set and implement planning policies to require Water Sensitive Urban Design (WSUD)
• Support and advocate for changes in the National Construction Code to better address heatwave impact through material choice, energy efficiency, permeable surfaces, deep root zones and green infrastructure
• Acknowledge the need for coastal zone provisions regarding sea level rise to be reflected in the Planning and Design Code, with relevant coastal hazards to be mapped in a spatial overlay and the use of consistent, easily interpreted requirements such as building setbacks and site and finished floor levels
• Include heat maps and canopy coverage as overlays in the Planning and Design Code
• Provide support to the ongoing work of AdaptWest in reducing the vulnerability of residents in Western Adelaide using green infrastructure, WSUD implementation, building standards and coastal risk issues, heat island mitigation and energy efficiency measures
• Work with the Western Adelaide region to set relevant targets in relation to the above with associated strategic actions that are strengthened over time and within:
  ○ State Planning Policy Reforms
  ○ Coast Protection Agencies
  ○ Green Adelaide Agenda
  ○ The strategic plans Western Region Councils

AdaptWest would welcome the opportunity to further discuss this submission with the Natural Resource Committee.

Regards,

Jeremy Miller
AdaptWest Regional Coordinator
TO: Council
FROM: Env Mgmt Officer (Energy and Sustainability) - Anna Rogers
DATE: 12 October 2020

Brief
This report has been prepared to update council on the newly released *Climate Change Science and Knowledge Plan for South Australia* by the South Australian Government.

Recommendation
That the report be received and noted.

Status
This report relates to or impacts upon the following Community Plan Objectives 2016-2027.

Our Community - A strong and connected community
Capitalise on partnerships, build community resilience and sense of belonging
Educate and regulate to enable a safe and healthy environment

Our Liveability - A liveable City of great places
City assets and infrastructure are developed and well maintained on a strategic and equitable basis
Enhance the quality and diversity of open and public spaces
An urban environment that is adaptive to a changing and growing City

Our Environment - An environmentally responsible & sustainable City
Continue to implement climate change mitigation and adaptation solutions
Enhance the state of the City’s environment and biodiversity
Lead and educate to reduce the City’s impact on the environment and build resilience

Our Economy - An economically thriving City
Support and enable local business prosperity and growth

Our Leadership - A leading & transformational Local Government organisation
Be bold and innovative in our practices, leadership and decision making
Relevant Council policies are:

- Environmental Sustainability Policy
- Living Green to 2020 Refresh - 3.2 Adapting to Climate Change
- AdaptWest Western Adelaide Region Climate Change Adaptation Plan (2016)
- Biodiversity Action Plan
- Open Space Strategy
- Asset Management Plans

Relevant statutory provisions are:

- Climate Change and Greenhouse Emissions Reduction Act 2007

Background

South Australia is becoming hotter and drier, with rising sea levels and an increased risk of more frequent and intense heatwaves, bushfires, storms, and floods.

Responding to our changing climate requires South Australia to prepare and adapt. To do this well, we need to be equipped with the best science and knowledge. The South Australian Government has released a plan to grow the evidence base to support climate change action across a wide range of sectors.

Report

The South Australian government has released its *Climate Change Science and Knowledge Plan for South Australia*. A copy of the plan is provided in **Appendix A**.

This plan seeks to grow the scientific evidence base to understand the changes in our climate, as well as their expected impacts and the opportunities to mitigate them. The plan identifies the key data sets that will be required for decision-making in relation to climate change risk assessment, mitigation, planning and adaptation responses in South Australia.

The plan has four key focus areas, being:

- **Knowledge integration, delivery and translation** - underpinning the other three focus areas by ensuring climate change science and information is available, accessible and applicable for climate change risk assessment, mitigation, and adaptation planning.

- **Climate change projections and impact studies** - actions under this focus area will coordinate and collate science and information on projected climate change and its impacts in South Australia, and provide guidance on the most appropriate data to assist decision-making.

- **Mapping of climate change hazards and environmental change** - actions under this focus area will provide spatial information regarding climate-related hazards (such as bushfire, flooding, storm surge and extreme heat) and environmental change, including guidance on the use of this information for climate risk assessment.

- **Greenhouse gas emissions reduction information** - actions under this focus area will provide information to support efforts to mitigate climate change through greenhouse gas reduction activities, including state emissions inventories, carbon farming initiatives, and coastal conservation and restoration to improve carbon sequestration in coastal environments.
The plan has been developed in consultation with South Australia's emergency management, health, infrastructure, primary production and natural resources sectors, identifying their key climate change science and knowledge needs. Local Government was also represented in consultations and continues to be a key partner in growing climate change knowledge and data. The contribution of the urban heat mapping undertaken by the AdaptWest partnership to the knowledge pool is an example of this.

This is a whole-of-government plan. Its implementation will be led by the Department for Environment and Water and will build on partnerships with all levels of government and centres of expertise in the environmental and natural resource sciences, including SARDI, the Bureau of Meteorology, CSIRO, Geoscience Australia, and Cooperative Research Centres.

Providing high-quality accessible information is a critical component of the South Australian Government's Directions for a Climate Smart South Australia, which outlines the government’s agenda for climate-smart planning and action. The plan also aligns with and supports work under-way to develop a South Australian Government Climate Change Strategy.

Financial and Resource Implications
There are no financial or resource implications.

Customer Service and Community Implications
There are no customer service or community implications for the purposes of this report.

Environmental Implications
There are no environmental implications for the purposes of this report, however gaining access to scientific data around key climate risks will help to focus efforts for assisting environmental resilience.

Community Engagement/Consultation (including with community, Council members and staff)
There is no requirement for community engagement or consultation.

Risk Management/Legislative Implications
There are no risk management or legislative implications for the purposes of this report, however climate change risk is a key consideration for council and its decision making, and having access to a strong scientific evidence base is key to this.

Conclusion
Working collaboratively with the South Australian Government and other key partners on the implementation of the Climate Change Science and Knowledge Plan for South Australia will help to build capacity, improve decision making and grow the knowledge base about climate change impacts and adaptation opportunities.
## Appendices

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<tr>
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<th>Attachment</th>
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<tr>
<td>1</td>
<td>Appendix A - Climate Change Science and Knowledge Plan for SA</td>
<td>PDF File</td>
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Foreword

The South Australian government is committed to providing accessible information to help prepare our state for a new climate future.

The scientific evidence base shows that the climate of South Australia is changing. Our state is becoming hotter and drier, with rising sea levels and an increased risk of more frequent and intense heatwaves, bushfires, storms, and floods.

We know climate change will challenge the resilience of our natural resources, our infrastructure, our financial security and economic competitiveness, and the health and well-being of our people. Our recent experience of catastrophic bushfires highlights the need to act decisively and effectively with the best available science and information.

Making decisions for our state’s future requires us to understand the change, as well as its expected impacts. That’s why the South Australian government is committed to improving the evidence base to help the state make the best decisions, find innovative solutions, and take action to respond and adapt to our changing climate.

The Climate Change Science and Knowledge Plan for South Australia provides a framework for renewed effort and action. This plan will underpin South Australia’s responses to climate change and support a climate-smart state. It ensures we will continue to grow the best evidence base for South Australia to respond today and into the future.

A climate smart South Australia is pivotal to the Growth State: Our Plan for Prosperity and the Government’s 2036 vision for a better future for all.

Providing high-quality, accessible information is a critical component of Directions for a Climate Smart South Australia, which sets the pathway for climate-smart planning and action.

David Speirs MP
Minister for Environment and Water
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About the plan

The Climate Change Science and Knowledge Plan for South Australia seeks to improve the evidence base to support South Australia’s responses to climate change.

Providing high-quality, accessible information is a critical component of the Directions for a Climate Smart South Australia, which sets the pathway for climate-smart planning and action.

The plan identifies the accessible science and information that will be required to implement a whole-of-government climate change strategy and to ensure the needs of all sectors are addressed.

Through this plan, the South Australian government provides vital information on climate change risk assessment, mitigation, planning and adaptation responses in South Australia. It fosters a shared understanding of our critical datasets and gaps, and enables our community of practice to work together towards addressing these gaps.

Implementation of this plan will help decision-makers identify, apply, and use science and knowledge to make the best decisions, find innovative solutions, and take action. Implementation will include:

- identifying the science and information needed by government, business and industry to understand impacts and risk, and support climate change planning and response activities
- coordinating, curating and communicating climate change science and knowledge
- making existing data, science and information more accessible
- prioritising new science and information-generating activity according to demand
- facilitating new science required for decision-making.

This plan was developed following consultation with South Australia’s emergency management, health, infrastructure, primary production and natural resources sectors.

The potential use of climate change technical information is broad. We cannot predict how information will be applied by different sectors. Similarly, sector needs can be quite specific. This plan forms a broad baseline of evidence for everyone to draw from and add to for their specific knowledge needs.

As the South Australian government authority on the state’s environment and natural resources, the Department for Environment and Water (DEW) is the lead agency for the implementation of this plan.

While DEW provides leadership for this plan, its implementation will require the support of the community of practice with responsibility for climate change risk assessment, mitigation, planning and adaptation responses in South Australia. This community of practice includes lead state and federal agencies, local government, the research sector and other sector partners and stakeholders.
The need to prepare and adapt

Responding to our changing climate requires South Australia to prepare and adapt. To do this well, we need to be equipped with the best science and knowledge.

South Australia is becoming hotter and drier, with rising sea levels and an increased risk of more frequent and intense heatwaves, bushfires, storms, and floods.

Average temperatures in South Australia are now nearly 1°C warmer than in 1960. The state’s daily maximum temperature is projected to rise by as much as 2.1°C by 2050.

The Bureau of Meteorology’s Annual Climate Statement for 2019, stated 2019 was both the warmest and driest year on record for Australia. For South Australia, the overall mean temperature was 1.45°C above average, making it the State’s second-warmest year on record and warmest since 2013. Rainfall for South Australia was 65% below average, the State’s driest year on record.

There has been a persistent decline in rainfall in the state’s southern agricultural areas. In 2019, large areas of the South Australian pastoral districts received less than 30mm. Rainfall is predicted to continue to decline in most parts of the state, which will impact water security, agricultural yields and the environment, as well as increasing fire risk.

Sea levels rose 17cm from 1901 to 2000. Sea levels are projected to rise by a further 22 to 25cm by 2050, exacerbating shoreline erosion and putting at risk coastal communities and infrastructure.

The climate change projections of CSIRO and the Bureau of Meteorology indicate more heatwaves and storm events, greater rainfall intensity, more time spent in drought, and an acceleration in the rate of sea level rise over the coming decades.

Increased temperatures and more frequent extreme weather (including heatwaves, floods and storms) will impact on the built and natural environments and communities. Vulnerable members of the community are particularly susceptible, including the elderly, the very young, those who live in remote or vulnerable coastal communities, and low-income households.

These trends will impact sectors such as the agriculture, food, wine, and forestry industries, which are a vital part of the state’s economy, generating about $22.5 billion in 2016-17. These sectors will increasingly be impacted by climate change, and they will need to continue to respond and adjust with innovative solutions to ensure their resilience.

Many of our high-value export industries, particularly in agriculture and mining, require access to sufficient, secure water resources to maintain a competitive advantage. Current projections of the impact of climate change on water resources indicate that supply from existing state-based resources is likely to decline. This will increasingly challenge the state’s ability to meet current and emerging demands for water resources for different industry sectors while maintaining critical environmental values.

Similarly, the state’s $7.6 billion tourism industry is a significant component of South Australia’s economy. Tourism in South Australia is vulnerable to climate change impacts. Our internationally recognised outdoor event program and nature-based attractions are at risk from extreme hot weather conditions, increasing extreme weather events, bushfires, and sea level rise.

The ability to access credit and insurance will increasingly become conditional on the ability to demonstrate an understanding of climate-related risks and a plan to manage them. South Australian businesses will have an advantage in understanding, reporting and acting on their climate-related risks when they have ready access to technical information and expert advice on climate change and its likely impacts within South Australia.

By understanding the impacts of climate change on our communities, industries and environment, we can better prepare and adapt for the future.
Figure 1: Changes in average temperature (global, Australia, and South Australia), 1910 to 2018

Key points from Figure 1
• The average temperature in South Australia is rising at a higher rate than the worldwide land area average.
• In the 10 years to 2018, the average temperature of South Australia was approximately 0.95°C higher than the average temperature of the 30 years to 1990.
• Nine of the 10 hottest years on record in South Australia have occurred since 2005.

Average temperatures in South Australia are projected to continue to rise, by as much as 2.1°C by 2050, under a high emissions scenario (RCP8.5)*

*What are ‘emissions scenarios’ and ‘RCPs’?
A range of scenarios are used to describe possible future trends in emissions of greenhouse gases into the atmosphere. These scenarios are based on assumptions about future socio-economic trends and their likely implications for emissions. Under a high scenario, emissions of greenhouse gases are not subject to widespread national or international regulations. A low emissions scenario is one in which all nations make early and substantial efforts to reduce emissions.

RCP stands for ‘Representative Concentration Pathway’. The RCPs range from high (RCP8.5) through to intermediate (RCP4.5) to low (RCP2.6) scenarios. We use the RCPs to model climate change and build scenarios about the impacts.
Sector information needs:

Individual sector information needs

In preparing this plan, we listened to representatives from five key industry sectors from metropolitan and regional communities to understand their climate change information requirements. This section shares a summary of each sector’s needs, based on their feedback.

Emergency management sector

Key points of feedback:

- improved understanding of the likelihood of ‘compounding events’ (that is, when two or more extreme weather-related events coincide), to inform risk reduction strategies
- information to better identify and communicate the changing risks and vulnerabilities of communities and risk reduction strategies
- analysis of emergency response system vulnerabilities, cross-dependencies, and cascading events during major incidents
- better understanding of the impact of climate and vegetation changes on future fire behaviour
- improved understanding of changing preparedness and response requirements for extreme weather events such as storms, heatwaves and floods
- projected changes in soil dryness, vegetation, and fire weather behaviour before and after prescribed burns
- information on changes in fire season length and implications for emergency services
- Information to assist climate-sensitive development in areas that are at high risk from natural hazards, floods and fires.

Coastal infrastructure

Key points of feedback:

- comprehensive data on coastal elevation, erosion and inundation risks and the impact of sea level rise in the coastal zone
- risks to critical infrastructure such as waste-water management schemes in low-lying areas in the coastal zone
- location of protection infrastructure: optimal locations for protection infrastructure, such as sea walls and flood levees
- modelling and mapping of areas at risk of coastal erosion
- data to inform the management and restoration of coastal environments, including beach sand management, seagrass and shellfish reefs.

Infrastructure sector

Urban infrastructure

Key points of feedback:

- information to support development of climate-smart buildings that reduce demand for water and energy and mitigate impacts of rising temperatures
- metropolitan scale stormwater run-off analysis in response to climate change and urban infill
- changes to performance of water sensitive urban design under projected future average rainfall and high-intensity rainfall
- city-scale urban water management analysis: quantifying benefits of urban irrigation, green infrastructure for city cooling.

Coastal infrastructure

Key points of feedback:

- comprehensive data on coastal elevation, erosion and inundation risks and the impact of sea level rise in the coastal zone
- risks to critical infrastructure such as waste-water management schemes in low-lying areas in the coastal zone
- location of protection infrastructure: optimal locations for protection infrastructure, such as sea walls and flood levees
- modelling and mapping of areas at risk of coastal erosion
- data to inform the management and restoration of coastal environments, including beach sand management, seagrass and shellfish reefs.

Health sector

Key points of feedback:

- surge event impact assessment: tailored climate data on specific extreme weather events, such as heatwaves, to assess the preparedness of hospital infrastructure and other health services
- change in disease patterns and community health–specific issues of concern such as legionella, mosquito-borne diseases, food-borne diseases and weather-borne asthma events
- health infrastructure risk assessment: data to enable the sector to better understand priority areas of vulnerability, the timing of potential impacts, and to explore mitigation options
- how to identify climate vulnerable communities and individuals, how they can adapt and build resilience
- how the demands on health sector staff will change through time, and how to address through strategic and operational workforce planning
Natural resources sector

Terrestrial and marine biodiversity

Key points of feedback:

- develop a climate change impact assessment and response framework for biodiversity conservation, which considers species, ecosystems and landscapes
- likely changes to ecological communities under different climate scenarios, and the implications for conservation and ecosystem services
- impacts of sea level rise on coastal ecosystems (particularly saltmarsh, mangrove and tidal flats), and feasible adaptation responses
- impacts of annual and seasonal rainfall and runoff changes on water dependent ecosystems, and feasible adaptation responses
- likely responses of pest plant and animal species, and the implications for biodiversity conservation, including when and where changes may occur
- priority knowledge gaps on the likely response of species, ecosystems and landscapes to climate change and viable adaptation responses
- how to integrate landscape and biodiversity planning with bushfire risk reduction to ensure complementary response strategies
- strategies to preserve the conservation function of land-based and marine protected areas, considering predicted changes in the distribution of plants and animals due to climate change
- information to support initiatives to sequester carbon in landscapes and coastal environments
- information on carbon credits and co-benefits that could result from soil and landscape carbon sequestration activities.

Water resources

Key points of feedback:

- water security options analysis, including supply and demand side impacts
- changes in water demand profile: how the demand for water for potable, industrial, agricultural and environmental uses changes as conditions become warmer and drier
- water resource modelling: integration of climate projections into water resource modelling for water allocation and security planning.
Our four areas of focus

This plan organises the state’s climate change science and information needs into four areas of focus. The actions described in these focus areas guide current and future investment in climate change science and knowledge. Some are new actions requiring new effort, while others are existing or continuing activities.

The four focus areas are guided by common information needs brought up repeatedly across multiple sectors during cross-sectoral consultation.

The common information needs identified included:

- improved discoverability, delivery and access to existing climate change information
- tailoring of information to more sector-specific variables, for example, the likely change in flood risk in specific locations
- standard datasets, projections, emission scenarios and model outputs to consider when planning adaptation measures, designing new infrastructure, or informing impact assessments
- likely change in occurrence of extreme weather events, including for concurrent events relevant to multiple sectors
- capacity building and ongoing engagement as necessary to assist sectors to develop appropriate response measures
- uptake and integration of social sciences and socio-economic data to inform climate response planning
- coordinated and integrated mapping of where hazard-prone areas occur for risks such as bushfire, flooding, storm surge and extreme heat to guide development.

This plan describes the broad evidence base South Australia requires to support climate change adaptation, mitigation and risk assessment. It does not target all individual sector-specific needs, which in many cases will need to be addressed by subject-matter experts working within the relevant sector.

Focus area one reflects the need to make information more discoverable and accessible, and includes knowledge integration, delivery and translation. Focus area one underpins the other three focus areas by ensuring climate change science and information is available, accessible and applicable for climate change risk assessment, mitigation, and adaptation planning.

The other three focus areas describe actions required to provide the science and information, categorised by information type.

Implementation of these actions will require the support of the community of practice with responsibility for climate change risk assessment, mitigation, planning and adaptation responses in South Australia.
Focus area 1: Knowledge integration, delivery and translation
Focus area 1 underpins the other three focus areas by ensuring climate change science and information is available, accessible and applicable for climate change risk assessment, mitigation, and adaptation planning.

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<tr>
<th>Themes:</th>
<th>Identified needs:</th>
<th>Action required:</th>
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<tbody>
<tr>
<td>1. Science and information delivery</td>
<td>Access to the most current and appropriate information is required for industry, public and the South Australian government. An effective online information delivery platform is needed to improve the ability of planners and decision-makers to discover, access and apply scientific and technical information for climate change response planning.</td>
<td>1. Develop an South Australian-focused online delivery platform for climate change science and information, making existing and new products more readily accessible.</td>
</tr>
<tr>
<td>2. Knowledge integration, translation and communication</td>
<td>There is a need for the South Australian government to advise on the most appropriate science and information for use in climate change risk assessment, and the planning of adaptation and mitigation responses. The South Australian government will assist in the integrating of information, ensuring users have a clear pathway to relevant information, fostering understanding and improving the capability of users to apply the information to planning and decision-making.</td>
<td>2. Consolidate and integrate climate change science and information so it can be more readily used and applied. 3. Translate climate change science and information to foster its uptake and use in planning, risk assessment and decision-making among a range of users. 4. Improve decision-maker awareness and uptake of climate change science and information to support climate change risk assessment, and the planning of adaptation and mitigation responses. 5. Ensure climate change status and condition is reported through SA’s Trend and Condition Report Cards.</td>
</tr>
<tr>
<td>3. Integrating social sciences into climate response planning</td>
<td>The informing of climate change responses requires an evidence base that is drawn from not only the physical sciences, but also social sciences and socio-economic data. Social sciences inform strategies for transitioning and managing change, providing an understanding of ways to effect change to practices, behaviour, attitudes, social systems and governance regimes. Strategies informed by social science products will help to foster the implementation of proposed adaptation and mitigation actions and the transition towards more resilient practices.</td>
<td>6. Identify social science and socio-economic data to inform strategies that drive community adaptation and social and behavioural change to improve the resilience of communities, industries and the environment. Scope and specify new social science requirements.</td>
</tr>
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</table>
4. Analysis methods and case studies

Robust methods to use and apply information for the analysis and evaluation of climate risks and impacts are essential to understand the implications of climate change. Analysis frameworks, methods and decision support tools are required for climate change response planning that takes into account climate projections and impacts as well as the potential for management, operational changes or investments to mitigate future risks.

An agreed set of methods in common practice among climate change assessors and adaptation planners is required. By compiling a catalogue with clear explanations and case study examples to show how these methods have been applied, the South Australian government will help to promote their uptake and use among a larger user base.

7. Curate a collection of established methods of analysis, risk assessment, and climate change adaptation planning. Develop guidance documentation describing how to apply these.

5. Register of science and information needs

The South Australian government will take a central role in coordinating, curating and advising on climate change science and knowledge, to identify knowledge gaps and demand for information from climate change response planners. A register of climate change science and information needs will:

1. identify knowledge gaps that are barriers to planning and that could be addressed by undertaking new science or research
2. provide guidance on the specific research questions and type of research required to address these
3. prioritise knowledge gaps and research needs, and identify possible research providers with specific expertise related to the identified priority research needs.

8. Build and maintain a register of South Australia’s science and information needs, identifying knowledge gaps that are barriers to effective climate change planning and decision-making.

9. Assist in scoping and specifying new science where it is required.

6. Engagement with business and industry

Businesses are increasingly required to understand their exposure to physical, transitional and liability risks related to climate change by regulatory authorities and financing bodies. Robust technical information is required with relevance to the locations of their business operations.

South Australian businesses will have an advantage in understanding, reporting and acting on their climate-related risks if they have ready access to climate change science, technical information and expert advice on climate change and its likely impacts within South Australia.

10. Engage with relevant industry and business organisations to ensure they can readily access information.
Focus Area 2: Climate change projections and impact studies
Actions under this focus area will coordinate and collate science and information on projected climate change and its impacts in South Australia, and provide guidance on the most appropriate data to assist decision-making.

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<th>Themes:</th>
<th>Identified needs:</th>
<th>Action required:</th>
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<tr>
<td>1. Climate change projections for South Australia</td>
<td>Climate projections produced from a sophisticated and standardised method are essential to provide a foundation of reliable scientific evidence that increases levels of confidence in policy decisions on climate change responses. Climate modelling information must be available and easily accessible and enable users to identify and locate the climate change projection data that is most suited to their needs. As climate modelling continues to improve, climate change projections for South Australia require periodic updating. The South Australian government is engaged with national and interstate programs developing projections for Australia, based on the latest generation of climate models.</td>
<td>1. Make climate change projections data and information accessible. Provide guidance on use of datasets for climate change planning and risk assessment. 2. Develop climate change projection data products tailored for use in climate change risk and impact analysis and adaptation planning. 3. Extend, update and improve scale of climate change projection data products in collaboration with interstate and national agencies, for example, through the NSW and ACT Regional Climate Modelling project (NARCLiM 2.0) and Climate Change in Australia (CCIA).</td>
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<tr>
<td>2. Climate change impacts in South Australia</td>
<td>To inform risk assessments and adaptation planning, decision-makers require targeted assessments on the likely impacts that will result from the projected changes in climate. This includes impacts affecting health, emergency management, infrastructure, agriculture and natural resources. Climate change impact studies are often specific to the concerns of individual sectors, and are typically undertaken within, or commissioned by, the organisations concerned in each case. It is the role of state government to ensure the underpinning climate information is available, and provide guidance in its application to sector-specific impact studies.</td>
<td>4. Identify and collate available science and information on climate change impacts in South Australia and create a catalogue of these information resources to support policy, planning and decision-making. 5. Provide guidance to potential users of climate change impacts studies, highlighting and translating existing science. 6. Provide guidance on the risks of compounding/ cascading impacts, with particular emphasis on emergency management planning and property damage risks.</td>
</tr>
<tr>
<td>3. Standard climate change scenario information for planning</td>
<td>There is a cross-sectoral requirement for consistent, reliable and accessible advice on future climate scenarios. Guidelines are required to enable agencies to assess risks and plan adaptation measures according to a common range of future climate scenarios. A benchmark suite of climate change projections for South Australia and supporting information is needed to provide a common basis for government, businesses and communities to develop adaptation plans and undertake more detailed modelling and planning.</td>
<td>7. Develop guidelines on recommended standard climate change scenario information for use in climate risk assessments and adaptation planning. 8. Provide guidance on the use of climate change projection information for planning and modelling.</td>
</tr>
<tr>
<td>4. Changes in extreme weather events</td>
<td>Several sectors, particularly the emergency management, health and infrastructure sectors, need to understand the changes in the frequency and severity of extreme weather events in South Australia for climate change risk assessment and adaptation planning. Users require a tool to search and filter climate datasets according to their case-specific needs, to extract the historic and projected frequency statistics relating to weather events of a specified type and magnitude.</td>
<td>9. Develop a climate data filter and search tool to enable frequency statistics for extreme weather events to be determined from historic and projected future climate datasets.</td>
</tr>
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</table>
Climate change projections for South Australia

The South Australian government is committed to delivering information on climate projections and possible climate change impacts so we can understand the risks to our communities, industries and environment, and to build resilience to and minimise the impacts of climate change.

There are currently three sources of information providing downscaled projections of future climate change in South Australia: SA Climate Ready (CSIRO/Goyder Institute), Climate Change in Australia (CSIRO/BoM) and the NSW/ACT NARCLiM project.

SA Climate Ready

The South Australian government’s current suite of climate change projection data for South Australia is known as SA Climate Ready. Data is available for six climate variables (rainfall, maximum and minimum temperature, evapotranspiration, solar radiation and vapour pressure deficit) for 200 locations across the state. These are based on two emission scenarios (high emissions – referred to as RCP8.5, and intermediate emissions – RCP4.5) and they project South Australia’s climate to the year 2100.

SA Climate Ready provides two distinct types of information with differences in their potential applications:

• projected climate trend information at a regional scale, useful for conveying the probable direction and approximate magnitude of change in mean annual and seasonal daily temperature minima and maxima, and changes to mean annual and seasonal rainfall
• detailed, daily time-step future climate scenario datasets at the scale of individual weather station locations, enabling more detailed investigation of the likely impacts of changes in local climate on systems, communities and assets.

The SA Climate Ready datasets have been used for a variety of purposes, including assessment of climate change impacts on water resources and infrastructure.

NARCLiM project

The NSW Government’s NARCLiM project provides gridded climate projection datasets, useful for modelling likely changes to landscapes, agriculture and ecosystems over large areas, to inform climate impacts and risk assessments, landscape management, native vegetation planning and biodiversity conservation.

The spatial extent of the NARCLiM climate projections covers all the most populous parts of South Australia, however, the South Australia coverage is based on a 10km grid, which is too coarse for some applications.

The South Australian government has established a partnership with the NSW government for NARCLiM version 2.0, which will provide updated climate projections, including:

• higher-resolution downscaling, with a 1 to 2km spacing for high priority parts of the model domain
• continuous climate projections that simulate past and future climate from 1950 to 2100
• use of the most current global climate models
• use of the latest global greenhouse gas emissions scenarios.

NARCLiM 2.0 will be complete in 2022.

Climate Change in Australia (CCIA)

CSIRO and the Bureau of Meteorology (BoM) provide projected climate change information via the Climate Change in Australia project. This project is a principal source of climate change data and its information products are used widely in climate change planning and risk assessment across Australia.

The CCIA technical reports and website provide a wealth of information on the likely future changes in climate for each of 15 regions across Australia, defined by climatic characteristics and natural resource planning region boundaries. Climate change projection data from CCIA is also available in a downscaled form, as a 5km grid covering the whole of Australia. This is less locally specific than the SA Climate Ready datasets, but is more extensive.
**Figure 2: Stages of analysis for applying climate projections to planning and design activities in South Australia**

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<th>FUTURE RELEASE</th>
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<tr>
<td>Stage 1</td>
<td>IPCC CMIP5 AR5 (2014)</td>
<td>IPCC CMIP6 AR6 (2021)</td>
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<td>SA Climate Ready</td>
<td>NARClM</td>
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<tr>
<td></td>
<td>Climate Change in Australia (CCIA)</td>
<td>NARClM 2.0</td>
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| Stage 2 | | |
|---------| | |
| | SA Climate Ready summary projections | NARClM 2.0 data products & summaries (2022) |
| | SA Climate Ready detailed datasets | NARClM 2.0 gridded data (2022) |
| | CCIA summary projections & tools | |
| | CCIA application ready data | |

| Stage 3 | | |
|---------| | |
| | Quantitative climate risk assessments | Climate change impacts modelling |
| | Climate data filter and search tool to extract statistics for extreme weather events | Understanding climate change impacts and mitigation options for: |
| | | • Flooding |
| | | • Bushfires |
| | | • Public health |
| | | • Infrastructure |
| | | • Agriculture |
| | | • Water security |
| | | • Ecosystems |
| | | • Biodiversity |
| | | • Economy |
| | | • Fisheries and aquaculture |
| | | • State security |

| Stage 4 | | |
|---------| | |
| | Infrastructure design implications with regard to flood & storm risks, extreme heat, water demands, carbon neutrality | Evaluating impacts on water supply systems & options to mitigate water security risks |
| | Public health impacts and implications for healthcare response planning | Agricultural production impacts and business adaptation options |
| | Urban planning impacts: considerations to build liveable and resilient urban environments | Implications of extreme weather for workplace operations /policies |
| | Impacts on biodiversity and management response options | Climate impact implications for emissions management options |
| | Legal and financial impacts | |
| | Emergency management risk assessment and planning | |

**Key points Figure 2:**

Climate projection datasets typically require a number of stages of analysis and/or application to case-specific climate impact modelling to derive information for use in planning and design activities.
The importance of ‘downscaling’ climate projections

Clear differences can be seen (Figure 3, adjacent) between the results of a global scale climate model (above) and a downscaled result from a regional model (below) in these two projections of change in annual rainfall for south eastern Australia in 2060-79 compared with 1990-2009. In this example, some areas, such as the SA Riverland and parts of the Mid North of SA, show an opposite direction of projected future rainfall change in the output of the regional model compared with the output of the global climate model illustrated here. Note, this illustration shows the result of only one global climate model; the majority of climate models project a decline in rainfall for most of the agricultural regions of southern Australia.
Climate change impact studies in South Australia

Climate science provides us with vital information on the characteristics of current and future climates. However, targeted impact studies are required to understand the implications of projected climate conditions on the economy, communities and the environment.

The climate projections of the SA Climate Ready project and the NARCLIM project have been used for a variety of purposes, including assessment of climate change impacts on water resources, infrastructure and the environment.

Impacts on water supply

SA Climate Ready climate projection datasets have been used to investigate the likely impacts of future rainfall changes on the annual flow of water into the Mount Bold Reservoir – Adelaide’s largest public water supply reservoir. Their findings project significant declines in average inflows to the reservoir.

A large range of future rainfall scenarios under climate change were considered, which resulted in declines of up to 55 per cent (median 24 per cent) in the period 2036–65, and up to 75 per cent (median 33 per cent) in the period 2056–85, compared to inflows during 1986–2005 (Westra et al. 2014).

Impacts on wetlands

Rainfall projections from SA Climate Ready data were applied to hydrological models to predict future changes in groundwater levels and consequent changes to surface water levels at Middlepoint Swamp, a wetland of ecological significance in the South East of South Australia.

The results predicted surface water level in the swamp to fall by up to 1 metre by 2030, almost completely drying the wetland. The assessment helped to identify a number of management options to address climate change risks through water allocation planning.

Impacts on heatwaves

The NSW government’s Office of Environment and Heritage applied downscaled climate projections from the NARCLIM regional climate modelling project to understand the likely impacts of climate change on the frequency, intensity and duration of heatwaves in NSW.

The study showed statistically significant increases in the number of heatwave events are projected for most of NSW and the ACT in the near future (2030), with even bigger increases projected for the far future (2070). In the far future, the number of heatwaves is projected to increase by 2.5 to 4.5 events per year, with somewhat larger increases in the central and northern parts of NSW.

The duration of heatwaves and the number of days of extreme heat was also found to increase. In the near future, the longest heatwave of the year will last 1.5 to 3.5 more days on average over most regions. Increases are even greater in the far future, with the longest heatwave of the year projected to be 2 to 11 days longer on average, with the largest increases in the north-east and the smallest changes in the southern part of NSW.

Other studies have shown the existence of temperature thresholds; that is, a particular daily temperature (usually maximum temperature) above which there are marked increases in mortality and morbidity (Loughnan et al. 2010; Williams et al. 2011, 2018). These temperature thresholds vary significantly across regions and climatic zones due to the population’s ability to acclimatise.

Impacts on infrastructure design

Better planning and design now will save costly retrofitting of major infrastructure in the future. SA Climate Ready rainfall projections were applied to hydrological models to estimate future changes to the depth of groundwater beneath the Torrens Road to River Torrens roadway project.

This major infrastructure project includes a lowered motorway section, below the existing surface of South Road, intercepting the level of water table.

Investigations were required to determine the risk of local groundwater rising above historically observed levels, under projected future rainfall patterns. The modelling found that groundwater levels at the site of the lowered roadway are very likely to fall in future due to rainfall changes, resulting in a low level of risk to the lowered roadway.
Current and emerging issues for investigation

Through consultation across a range of sectors and levels of government, a number of issues related to climate change impacts have emerged that are of immediate interest among state and local governments within South Australia.

Impacts of changing climate on the natural environment

Managing, conserving, and sustaining our natural environment is vital for the wellbeing of all South Australians and our economy.

Climate change is already having a direct impact on native wildlife, ecosystems and habitats, and these effects will increase in the future, driving changes in the distribution of species and the ecosystems and habitats they live in. The impacts of climate change will also exacerbate existing threats such as habitat loss, pest plants and animals, drought, and bushfire. This will have implications for the natural environment and its ability to continue to provide the social and economic benefits that we currently enjoy.

The national parks estate conserves 32 per cent of the South Australia’s native vegetation and is key to protecting our native biodiversity. While our parks continue to be the cornerstone of nature conservation, 68 per cent of the state’s native habitat exists outside the national parks estate.

Land managers – both public and private – need to know how to manage biodiversity in the context of a changing climate. Courses of action could include improving resilience through managing existing threats, or through novel management such as species translocation (both plants and animals) where appropriate.

Additional information needs

Climate change will alter both habitat availability and suitability, exacerbating existing impacts on native plants and animals and potentially accelerating the rates of decline and extinction. It will also cause increasing wildlife welfare issues linked to intense heat waves, droughts, and fire events. It is estimated that the 2019-20 summer bushfires killed or displaced nearly three billion native animals across Australia, and had a significant impact on populations of nationally threatened species, including the Kangaroo Island Dunnart and Glossy Black Cockatoo in South Australia.

Responding to this challenge and identifying opportunities to support our wildlife, ecosystems and habitats to adapt will require us to forecast these potential changes and understand how this may differ across different parts of the state.

To manage the impacts of climate change on native wildlife, ecosystems and habitats and to reduce the likelihood of future wildlife welfare crises, we need improved forecasting and delivery of pre-emptive responses. In some instances it may be sufficient to improve the quality of existing habitat, whereas other responses may require the protection of specific refuges from drought or fire or even the active movement of wildlife to more suitable habitats. For example, the northern extent of the range of the nationally threatened Pygmy Bluetongue Lizard is expected to become unsuitable within the next 50 years. Opportunities and mechanisms to increase the number of populations in the southern part of their range are actively being pursued.

This forecasting and pre-emptive response capacity also needs to consider how current threats such as invasive plants and animal species, habitat degradation, land use change, and fire regimes may change under future climates and how this will further impact biodiversity and wildlife. Improving the resilience of our wildlife, ecosystems and habitats will ensure that our unique environment continues to contribute to our economy and our wellbeing.

There is a community expectation that animal welfare will be managed in extreme events such as fire, heatwaves and flood. This means understanding how extreme events will impact wildlife, with a view to better predicting what support will need to be mobilised to minimise welfare issues and to understand population loss. This was highlighted by the number of rescued koalas and the associated care and welfare issues in Queensland, New South Wales, Victoria and South Australia after the 2019-20 summer fires.
Changes to bushfire frequency and severity

Climate change is projected to lead to drier and hotter conditions for much of South Australia, and a greater likelihood of extreme weather. There is a need for improved understanding of how these changes will affect the risk presented by bushfires, and the appropriate responses for bushfire fuel load management, wildlife conservation, and development planning.

The implications of climate change and altered fire frequency and severity will vary across landscapes with different vegetation structures. An understanding of the implications of climate change impacts on bushfire characteristics will be essential to our ability to plan and adapt to protect life and property, achieve positive outcomes for biodiversity, and maintain ecosystem services.

See Focus Area 3 ‘Mapping of climate change hazards and environmental change’, Theme 4: Bushfire hazard mapping for more information.

Impacts of heatwaves on human health

Heatwaves and days of extreme high temperature have impacts on public health. Extreme heat events are responsible for more fatalities in Australia than all other natural hazards combined (Coates et al. 2014). Among the five major cities in Australia, Adelaide experiences the most days with temperatures above a threshold that makes heat-related deaths more likely (Longden, 2018).

During the 2009 extreme heatwave, admissions to hospitals in South Australia increased by 8 per cent, ambulance call-outs by 16 per cent and emergency presentations by 2 per cent. While no increase in mortality had been observed in earlier heatwaves, in 2009, total mortality increased by 10 per cent (excess death of 32 people), and in 15-to 64-year-olds mortality increased by 37 per cent during the heatwave (Nitschke et al, 2017).

To enable operational and resource planning to respond to these events, health sector and emergency management planners need to know the likely future changes in the frequency and intensity of heatwaves or of days with a maximum temperature above a critical threshold. Further, the variables which indicate vulnerability to ill health during heatwaves are mainly of a socio-economic nature, such as living alone, age, income/education, access to air-conditioning, no social interaction and pre-existing medical conditions. The addressing of the additional risks to communities from increases in heatwaves therefore requires social science and socio-economic data, in addition to the products of physical sciences.

Increase in exceptionally hot days in Adelaide

The frequency of days of very high or extreme temperatures has increased markedly in Adelaide over the past 20 years and is projected to increase further.

The number of days above 40°C in central Adelaide is projected to increase from an average of two to three days per year historically, to around six days per year by 2030. (CSIRO-BoM 2015). In the first half of 2019, Adelaide experienced nine days above 40°C.

The occurrence of days of 42°C or more in central Adelaide has been markedly higher in the 10 years from 2010 than in earlier decades (temperatures recorded at the BoM Adelaide Kent Town monitoring station).

The occurrence of extreme hot days is projected to increase over future decades, however, we are already seeing a rate of increase in Adelaide greater than projected.

In the summer of 2018–19, Adelaide experienced six of these exceptionally hot days, equal to the total number experienced through the whole of the 1990s.
Impacts of hot days on business operations

In 2019, South Australia’s mean daily maximum temperature was 2.30°C above average, the highest on record, exceeding the previous highest of +2.02°C in 2013.

Hot weather and the resulting heat stress on workers are known to result in productivity losses and economic impacts in Australia (Zander et al. 2015; Dunne et al. 2013), affecting businesses and government operations at a local, state and national level. Many organisations and businesses have workplace extreme heat policies, which limit working practices above a certain temperature threshold. For those organisations with employees who commonly work outside, the increase in hot weather is already resulting in considerable losses in productivity and business profitability.

In local government operations, on days of very high temperature, the capacity of the workforce of councils is compromised and the ability to deliver essential community services is reduced. This impacts on a range of services, such as road repairs, street maintenance and community support services. Among South Australian local government organisations, the historic and current extent of work interrupted by extreme heat has not been quantified, however several Adelaide metropolitan councils are evaluating the costs of these impacts.

Total grazing pressure

In the pastoral regions of South Australia, grazing by domestic, native and introduced herbivores influences, and is influenced by, the availability of native fodder. Overwhelmingly, however, these dynamics are driven by the distribution of rainfall in space and time. Climate change will have a strong influence on these spatial and temporal patterns of rainfall. The response of herbivores (both domestic and wild) will also have an impact on productivity, economic viability and sustainability of soil, water and native ecosystems. There is a need to understand how total grazing pressure and climate change will interact, and the implications this will have for ecosystems and pastoral stocking rates.

The ability to predict the response of vegetation to a plausible range of climate, land management and wildlife management scenarios will assist in the development of pastoral, land and wildlife management strategies, including business planning for pastoral enterprises.

Climate sensitive cities and urban water management

Many of the science and information needs affecting the creation of climate sensitive towns and cities are related to the supply, use and demand for water.

There is a growing requirement to minimise the effects of increasing summer peak temperatures in urban areas with urban cooling measures, such as increased green space and shading, as well as ‘blue space’ (i.e. open water bodies) in the urban landscape. Information is needed to inform the most reliable water supply mix to meet the urban demands into the future. Issues to be addressed by new and existing science include:

- impacts of climate change on urban water demand
  - changes to domestic and municipal water use
  - future water demand to mitigate urban heating effects of climate change
- effects of climate change on urban water supply from all water sources. For example, River Murray, Mt Lofty Ranges reservoirs, stormwater, groundwater, wastewater, roof runoff
- future optimum water mix for Adelaide
- cooling our cities and urban environments effectively, including:
  - the most effective urban cooling measures
  - optimising urban green and blue space for its cooling effect
- cooling effects of different surfaces, including irrigated vegetation, grass and waterbodies
- optimising water application for greening and cooling
  - appropriate tree selection according to projected climate conditions and optimum cooling effect.
- available water for the urban environment to support living ‘green infrastructure’.

What is ‘green infrastructure’?

- Green infrastructure refers to standalone and strategically networked environmental features. It includes planted and indigenous street trees, wetlands, parks, green open spaces, grasslands, and woodlands.
- Green infrastructure provides services and functions in the same way as conventional infrastructure. Benefits include reduced urban heat, lower building energy demand and improved storm-water management.
Focus area 3: Mapping of climate change hazards and environmental change
Actions under this focus area will provide spatial information regarding climate-related hazards (such as bushfire, flooding, storm surge and extreme heat) and environmental change, including guidance on the use of this information for climate risk assessment.

| Themes: Coastal inundation and erosion risk mapping | Identified needs: Coastal inundation and flooding risk maps are essential for identifying coastal areas at high risk of flooding under future sea level rise scenarios; informing the planning of flood mitigation measures; and planning and development regulations for these high-risk areas. Assessment of the increased risk of coastal erosion due to sea level rise is a priority for coastal management planning, particularly for highly vulnerable locations. For some parts of the state’s coastline, there is lower-quality or no LiDAR (Light Detection and Ranging) elevation data. New LiDAR data capture is required for these areas to enable a complete assessment of inundation and erosion risks due to sea level rise to the whole state’s coastline. High-resolution (1m), high accuracy (0.1m vertical, 0.5m horizontal) elevation datasets (LiDAR, cloud point data) exist for parts of the state’s coastline. Regional authorities require assistance from the South Australian government to apply these data sets to generate coastal inundation and flooding risk maps. | Action required: 1. Develop mapping products to determine implications of sea level rise for coastal flooding and erosion in high-risk locations in South Australia. 2. Investigate coastal erosion modelling and mapping for highly vulnerable locations. 3. Procure high resolution, high accuracy elevation data capture for remaining priority sections of the South Australian coast. |
Changes in coastal inundation risks

South Australia has 5,067km of coastline. It is a crucial drawcard for our tourism industry, is home to hundreds of species of birds and animals, and provides thousands of jobs. Sea level rise is a key consideration for future planning for our coasts.

The amount of sea level rise depends on the amount of climate change. Sea levels rose by 17cm from 1901 to 2000, and are projected to rise by a further 22 to 25cm by 2050.

The 1-in-100-year storm tide level is the localised sea level caused by a combination of a high spring tide and a storm surge. It has a statistical probability of occurring once in a hundred years, based on historic local sea level variations. With only a moderate rise in mean sea level, a 1-in-100 year coastal inundation event on the Adelaide coastline becomes much more extensive, resulting in much larger areas of Port Adelaide and West Lakes at risk of flooding during extreme storm tide events (Figure 4, below).

This kind of information informs the future development of protection infrastructure, which will help to reduce the amount of area flooded in these events.

Figure 4: 1-in-100 year storm tide level mapping

### Themes:  Identified needs:  Action required:

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| **2. Urban heat mapping** | The Metropolitan Adelaide Urban Heat Mapping project makes datasets from local government climate change adaptation planning groups accessible via a central on-line map. Heat maps for the whole of the Adelaide metropolitan area can be viewed through the South Australian government's [Urban Heat Mapping Viewer](#).

The maps require periodic updating so the effectiveness of urban heat mitigation measures can be assessed from the changes observed in urban heat islands over time. The future capture of new heat mapping data requires coordination to ensure decision-makers’ requirements are addressed and that there is consistency of technical specifications across datasets. | 4. Develop a single coordinated method for heat mapping across South Australia's urban areas.
5. Coordinate future repeat captures of urban heat data for Adelaide. Repeat capture at two-to-five-year intervals for comparison.
6. Coordinate data capture and urban heat map preparation for regional urban centres. |

| **3. Flood risk mapping** | Most South Australian flood risk studies are based on historical rainfall records. Only a handful include scenarios incorporating future climate risks, such as higher sea levels or altered rainfall.

There is a need for an agreed position on sharing flood risk data and reports from flooding studies between state and local governments.

To manage flooding in high-risk river catchments, stormwater infrastructure is designed to cope with runoff events up to a designated size (specified by average return interval). Information is required on how the magnitude of catchment flows will change under a likely future climate with changes in the size or intensity of rain events. Agreed guidelines are required for incorporating climate change impacts into hydrological modelling for stormwater design and flood risk management.

There is a need to identify catchment areas most at risk of increases in flooding. These will guide the priorities for new modelling studies that include projected future climate rainfall scenarios to understand how flood risks may change under future rainfall patterns. | 7. Collate, archive and provide data from flood risk studies.
8. Develop guidelines for incorporating climate change impacts into hydrological modelling for stormwater design and flood risk management.
9. Establish a flood risk study to demonstrate application of the agreed climate change impacts guidelines.
10. Identify river catchments and urban areas most likely to suffer from increased flood risks due to projected changes in climate and sea level. |
Urban heat mapping

The frequency of exceptionally hot days in Adelaide has increased markedly in the past 10 years. As cities warm and the need for climate adaptation strategies increases, a more detailed understanding of the cooling effects of building material and land cover will be necessary to guide management decisions.

Extreme heat has profound impacts on human and animal health, energy consumption and costs, sport, leisure and tourism events, and infrastructure functioning. The severity of heat experienced in cities during hot weather varies across the urban landscape. Areas with a larger thermal mass of non-climate-sensitive structures, (such as concrete or bitumen) exhibit higher surface temperatures compared to parklands or vegetated areas.

Options to mitigate heat in urban areas include climate-sensitive design of infrastructure, urban greening, and targeted use of water for irrigation of urban green areas. Investments in these initiatives require suitable information to identify where in the urban landscape the greatest heat stress risks exist.

Heat mapping provides critical data for making better decisions related to urban planning, infrastructure and municipal water use, including water requirements for living green infrastructure, like street trees and green spaces.

The following suburban Adelaide heat mapping examples (Seaton, right, and Adelaide Oval and Riverside precinct, below) illustrate how surface materials affect temperatures.

Source: DEW Urban Heat Mapping Viewer

Figure 5: Seaton, South Australia, a cooler suburban environment

Tree-lined streets and lighter coloured roofs are cooler, and show as pale blue. Dark coloured roofs and streets with minimal or no vegetation are hotter, and show as orange or red.

Figure 6: Heat characteristics of built materials in Adelaide Oval and Riverside precinct

The Torrens River and the white roofs of the oval stands and the festival centre buildings show as cool blue. The dark coloured roofs of the Convention Centre and the synthetic court surfaces at Memorial Drive, are hotter and show as red.

= cooler  = hotter
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<tr>
<td>4. Bushfire hazard mapping</td>
<td>A statewide analysis of the current and future impacts of climate change on bushfire hazard in South Australia is required to better prepare for and mitigate the exposure of communities to natural hazards such as bushfire, flooding, coastal inundation and extreme heat. This analysis is needed to inform fire management, including emergency services resources planning, fuel management strategies and development planning regulations for bushfire prone areas. Specific knowledge gaps to be addressed include: • how projected changes in climate will affect high fire danger conditions in South Australia • how native vegetation structure will change with a changing climate.</td>
<td>11. Investigate the impacts of climate change on fire risk factors including: o changes in vegetation structure and bushfire fuel characteristics o effects of drier conditions and increasing extreme weather on fire hazards and fire behaviour. 12. Investigate the implications of climate change impacts on bushfire characteristics and how they will affect biodiversity values and ecological processes.</td>
</tr>
<tr>
<td>5. Regional water security</td>
<td>Water supplies in much of regional South Australia are sourced from local groundwater and surface water resources, which are vulnerable to changes in rainfall patterns and higher temperatures. Investigations already undertaken into the likely impacts of climate change on some of South Australia’s regional water resources indicate a high degree of vulnerability in many cases. An updated statewide water resource risk assessment is required, together with new studies to quantify likely impacts of climate change. Just as important is an analysis of how changes to water infrastructure or water resource management can be used to overcome the impacts of climate change. A research partnership with the University of Adelaide has been established to enable this type of analysis to address some of the state’s priority water resource knowledge gaps.</td>
<td>13. Initiate statewide mapping of climate change risks to water supply, considering regional water demands and the vulnerability of regional water resources to climate change. 14. Analyse climate change vulnerability of water supplies in South Australia. Identify opportunities for improved water security outcomes through infrastructure and resource management changes or alternative water sources.</td>
</tr>
</tbody>
</table>
Bushfire history and hazard mapping

South Australia has experienced a number of major bushfire events in recent years. Fire history maps display statewide fire scar mapping for major bushfires that have occurred within South Australia and for prescribed burning activities that have occurred on land managed by state government agencies. The maps are publicly available through the Fire Management Maps interactive online mapping site and through the South Australian government Data Directory (data.sa.gov.au). Future improvements to fire history maps will be the inclusion of data on fire severity and intensity. These will enhance the utility of the maps for fire risk assessment by enabling comparisons of changes in the severity and intensity of fires over time.

The South Australian government maintains a map of the state’s Bushfire Protection Areas for land-use and development planning. This shows the level of bushfire risk rated as high, medium, general or excluded, and determines the planning approvals and requirements under the Australian Building Code and Australian Standard for the construction of dwellings in bushfire risk areas. These were updated in 2019, and now include grassfire hazard areas, urban interface areas, and 24 new council areas, including cropping areas north of Goyder’s Line.

A bushfire risk assessment model is to be developed by the South Australian government. This will draw information from bushfire histories and incorporate data relating to vegetation, communities, buildings and land use, together with modelled average return intervals of fire of a particular size within each region.

The model will provide ratings of fire exposure, likelihood and vulnerability. This project will produce spatial products indicating fire likelihood and consequence ratings and a risk layer combining those ratings. The model and bushfire risk layers will contribute to the information sources for statewide maps of Bushfire Protection Areas.

Rising risk of bushfire under climate change

Australia experienced widespread severe fire weather throughout 2019, national annual accumulated Forest Fire Danger Index was the highest since national records began.

South Australia has a large percentage of its population in areas of bushfire risk, particularly within the Adelaide Hills. Fire seasons in the Mount Lofty Ranges Fire Ban District are starting earlier and lasting longer. An overall increase in the length of the fire danger period is expected. The frequency of days with a fire danger index rating of severe and above is increasing and is predicted to have risen by approximately 60 per cent by 2030 (NRAMLR, 2018).
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<tr>
<th>Themes:</th>
<th>Identified needs:</th>
<th>Action required:</th>
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<tr>
<td>6. Mapping the implications of climate change on species, ecosystems, landscapes and seascapes</td>
<td>Regular updating of land cover and ecosystem mapping will improve our understanding of how South Australia’s biodiversity responds to climate change in the context of other pressures and our capacity to manage these. This is critical to developing measures of the resilience of the state’s native biodiversity. Information is required to identify which species, ecosystems, landscapes and seascapes in South Australia should be prioritised for further research with respect to climate adaptation. Examples are species most threatened with extinction or most vulnerable to climate change. Key knowledge gaps remain at the landscape level, particularly for the northern parts of the state, where there are inherent differences in climate responses and land use compared with southern South Australia. This information is important to understand impacts on ecosystem services and production, as well as on biodiversity. Monitoring of a range of environmental indicators is required to evaluate whether the responses observed are consistent with those predicted by environmental response modelling. Where predictions align with observations, we can have increased confidence in our understanding and responses. Where predictions and observations are contrary, it indicates that our understanding requires improvement.</td>
<td>15. Map the coverage of information and identify priority knowledge gaps relating to the risks of impacts to species and ecosystems, and implications for management across South Australia. 16. Further develop approaches to the mapping of environmental change to better understand the vulnerability of species, ecosystems, landscapes and seascapes in response to climate change in the context of other pressures. 17. Identify, monitor and evaluate indicators of the response of biodiversity to climate change and the effectiveness of our interventions for priority species or ecosystems.</td>
</tr>
<tr>
<td>7. Environmental change mapping</td>
<td>To track the success of or constraints to adaptation responses, regular and consistent monitoring of human-induced changes in the landscape such as new infrastructure and changes in agricultural and peri-urban land use are needed.</td>
<td>18. Develop a statewide land-use data map that builds on current databases for planning and impact assessments relating to climate change.</td>
</tr>
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</table>
Focus area 4: Greenhouse gas emissions reduction information
Actions under this focus area will provide information to support efforts to mitigate climate change through greenhouse gas reduction activities, including state emissions inventories, carbon farming initiatives, and coastal conservation and restoration to improve carbon sequestration in coastal environments.

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<th>Themes:</th>
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<tr>
<td>1. State Greenhouse Gas Inventory</td>
<td>The Commonwealth Government prepares an annual update to the State and Territories Greenhouse Gas Inventory (STGGI), which provides an analysis of the emissions from a range of sources and sectors within each of Australia’s states and territories. The State Government prepares state reports on greenhouse gas emissions every two years. An on-line summary of the South Australian emissions information in the STGGI report is required to improve accessibility of this information to potential users, assist organisations to understand how South Australia is tracking in relation to its emissions reduction targets, and enable a comparison with other jurisdictions. This information will help identify where opportunities exist to reduce or offset emissions in South Australia.</td>
<td>1. Develop an annually updated summary of South Australia’s emissions information reported in the STGGI, to improve accessibility and provide further analysis of the data.</td>
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<tr>
<td>2. Emissions reductions</td>
<td>There are opportunities to reduce emissions across the economy through innovative design and planning and adoption of new technology. Improved understanding of where these opportunities exist, and the likely scale of emissions reductions that can be achieved, will support decision-making in planning and design of government and business operations and infrastructure.</td>
<td>2. Identify technical knowledge gaps that are barriers to major emissions reduction opportunities in South Australia. Agencies collaborate to address knowledge gaps.</td>
</tr>
<tr>
<td>3. Carbon farming</td>
<td>Carbon farming projects can have positive environmental and economic co-benefits and, conversely, negative environmental impacts. Carbon farming opportunities are evaluated with consideration to existing environmental constraints, potential impacts, and the collective costs and benefits. The South Australian government facilitates carbon farming projects across the state through policy development and the provision of specialist advice to other government agencies and regional staff. As a holder and manager of landscape information, the South Australian government is able to provide information for potential project proponents to understand the opportunities for carbon farming. Improved methods are required to quantify environmental, economic or social co-benefits (such as biodiversity improvements) associated with carbon farming activities.</td>
<td>3. Provide information and advice to support identification and development of carbon farming projects. 4. Assist the establishment and uptake of research that identifies and measures carbon farming co-benefits.</td>
</tr>
</tbody>
</table>
### 4. Blue carbon

‘Blue carbon’ is the carbon captured and stored in coastal ecosystems including seagrass meadows, saltmarshes and mangroves. Carbon can be captured and stored through restoration and protection of coastal and marine ecosystems, such as mangroves, saltmarsh and seagrass.

Blue carbon offsets emissions and provides co-benefits such as a potential revenue source through carbon credits, protection of important fish habitats, enhanced biodiversity, improved water quality, and protection for coastal infrastructure against sea level rise.

How to measure the greenhouse gas reduction and carbon sequestration potential of blue carbon projects is an emerging science. The Blue Carbon Strategy for South Australia 2020–2025 sets a path for the South Australian government to establish a statewide, evidence-based program of projects and research geared towards blue carbon ecosystem protection and restoration.

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<td><strong>4. Blue carbon</strong></td>
<td>‘Blue carbon’ is the carbon captured and stored in coastal ecosystems including seagrass meadows, saltmarshes and mangroves. Carbon can be captured and stored through restoration and protection of coastal and marine ecosystems, such as mangroves, saltmarsh and seagrass. Blue carbon offsets emissions and provides co-benefits such as a potential revenue source through carbon credits, protection of important fish habitats, enhanced biodiversity, improved water quality, and protection for coastal infrastructure against sea level rise. How to measure the greenhouse gas reduction and carbon sequestration potential of blue carbon projects is an emerging science. The Blue Carbon Strategy for South Australia 2020–2025 sets a path for the South Australian government to establish a statewide, evidence-based program of projects and research geared towards blue carbon ecosystem protection and restoration.</td>
<td>5. Initiate further research and data gathering to inform the development of blue carbon projects, and quantify the potential carbon gains and other environmental benefits.</td>
</tr>
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</table>
Greenhouse gas emissions

Building our blue carbon knowledge base

Marine and coastal ecosystems are particularly significant in the global carbon cycle, reducing carbon dioxide (CO₂) concentrations in the atmosphere and providing long-term sinks for carbon. ‘Blue carbon’ refers to carbon stored and sequestered in coastal ecosystems including seagrass meadows, saltmarshes and mangroves.

Protecting and restoring blue carbon ecosystems is important due to their carbon sequestration and storage potential, and because these ecosystems can become sources of greenhouse gas emissions if degraded or cleared.

Vegetated tidal wetlands and coastal ecosystems have a high productivity and a much higher rate of storing carbon per unit area than any terrestrial vegetation, through their biomass and soil carbon stocks and long-term accumulation of carbon in sediments. The high carbon sequestration potential occurs in addition to other acknowledged ecosystem services provided by coastal ecosystems, such as shoreline protection, food, nursery habitat for fish, biodiversity and water quality.

Blue carbon initiatives consider not only the carbon sequestration and climate change mitigation potential, but the overall protection, restoration and sustainable use of coastal and marine ecosystems. The role of coastal Blue Carbon ecosystems in climate adaptation and mitigation is increasingly recognised.

The Blue Carbon Strategy for South Australia 2020-2025 sets a path for the South Australian government to establish a state-wide, evidence-based program of projects and research geared towards blue carbon ecosystem protection and restoration.

Research has been undertaken by the University of Adelaide and Flinders University, facilitated by the Goyder Institute and in collaboration with DEW, to better understand carbon stocks and sequestration rates in three types of coast environments: mangroves, salt marsh and seagrass meadows in South Australia.

Information and advice for carbon farming

Carbon farming enables land managers to earn carbon credits by undertaking carbon offset projects that reduce greenhouse gas emissions, or store (sequester) carbon in plants and soils. Carbon farming can reduce emissions through production processes, while increasing productivity and sequestering carbon in the landscape. As well as helping to offset emissions and secure revenue through carbon credits, carbon farming activities can enhance biodiversity, provide soil protection, reduce salinity and improve farm productivity.

As a holder and manager of landscape information, the Department for Environment and Water provides advice and spatial data relating to carbon farming activities and opportunities. An example of this is the development by the department of the Guide to Carbon Planting in SA (DEWNR, 2018), which provides a range of information including spatial data and summary maps that may help guide decisions by landholders, industry groups, non-government organisations, and others involved with carbon farming. The guide also provides information on the potential environmental risks and opportunities of carbon planting in South Australia. This includes land use policy considerations and how to interpret the provided spatial data layers.

Carbon farming opportunities exist on private and public land through a range of mechanisms including planting and restoring vegetation, increasing soil carbon and livestock management techniques.
Figure 7: South Australia’s Greenhouse Gas Emissions 1990 to 2017

Source: States and Territories Greenhouse Gas Inventory dataset, maintained by the Commonwealth Government. All data sets are published on http://ageis.climatechange.gov.au

Key points, Figure 7:

- South Australia’s emissions (see above) are from a range of sources: energy industries, transport, agriculture, industrial processes, waste and other energy generation.

- To achieve net zero emissions by 2050, the total of our emissions need to equal the total of the carbon taken up by the state’s carbon sinks — environments that capture carbon dioxide and store carbon in vegetation and soils.

- This can be achieved by both decreasing emissions and increasing land use sinks.

- Emissions from electricity generation have declined markedly since 2008 as the contribution of renewable energy sources in South Australia has increased.

- Emissions from transport have risen since 1990. In 2017, transport emissions were greater than those from any other category.

- Emissions from agriculture are moderately lower than in 1990, however emissions in this category have not declined in that past ten years and in 2017 this was the second highest category of emissions in South Australia.

- ‘Fugitive emissions’ in South Australia primarily comprise the greenhouse gas emissions from the extraction and distribution of natural gas. This category has declined since 1990 but remains a significant source of emissions.

- Emissions from the treatment and disposal of waste have remained fairly constant over the past 20 years.
Linking with other plans and strategies

There are other plans and strategies in place that will intersect with the work undertaken to implement this plan. Information needs across sectors will be addressed through a cross-sectoral and collaborative approach.

South Australia’s climate change strategy

The Climate Change Science and Knowledge Plan for South Australia is a key mechanism for implementing the Directions for a Climate Smart South Australia, which sets the pathway for climate-smart planning and action across the South Australian government.

This plan supports the Premier’s Climate Change Council’s climate change strategy for South Australia. As the strategy is implemented, further plans and strategies will be developed across the South Australian government, seeking to address climate change risk assessment, adaptation planning and mitigation. These plans and strategies are likely to create further requirements for technical information, which will be addressed as the need arises. Actions described by the plan will be adapted to reflect these developments as required.

A climate-smart South Australia is pivotal to the Growth State: Our Plan for Prosperity and the government’s 2036 vision for a better future for all.

State emergency management planning

State and national emergency management planning has adopted an emphasis on shared responsibility, community resilience, risk reduction and recovery. Ensuring that planning and development decisions are based on sound evidence and data will reduce risk and therefore minimise the need for emergency service responses. These principles are communicated in the National Strategy for Disaster Resilience, the National Disaster Risk Reduction Framework, and South Australia’s Disaster Resilience Strategy. The State Emergency Management Committee (SEMC) has communicated a need for climate change data and information to inform the identification of risks, risk reduction and disaster recovery plans.

The SEMC Strategic Plan 2017–22 sets out the priority themes and tasks for the emergency management sector in South Australia. This includes a number of strategic tasks that will drive the prioritisation of climate information needs, including the integrating of climate change consideration into the State Emergency Management Plan and incorporating climate change projections into the State Strategic Risk Assessment.

The South Australian State Emergency Management Plan (SEMP) sets out the state’s emergency management arrangements and aims to ensure effective plans are in place to protect our communities and people. It acknowledges that climate change will continue to increase the frequency and severity of extreme weather events, leading to greater impacts upon the South Australian people and government.

In view of the range of strategies in the emergency management sector that express the importance of understanding and managing the risks of climate-related events, there will be a continuing strong demand from South Australia’s emergency management agencies for technical information on climate change and climate-related hazards.
Implementation of the plan

The Climate Change Science and Knowledge Plan for South Australia is a plan for whole of government, and the broader climate change community of practice.

The Climate Change Science and Knowledge Plan for South Australia provides clear focus areas for the provision and coordination of climate change science and information over the next five years.

Implementing this plan will grow our evidence base to help climate change risk assessment, planning and adaptation responses for South Australia. It forms underpinning information to support the climate change strategy of the South Australian government.

While DEW provides leadership for this plan, it will be implemented through the community of practice with responsibility for climate change risk assessment, planning and adaptation responses in South Australia. This community of practice includes lead government agencies, industry, and other sector partners and stakeholders.
Partnerships and collaboration

The South Australian government recognises that a collaborative approach is needed to address information needs across sectors.

The South Australian government will build on our partnerships with all levels of government and centres of expertise in the environmental and natural resource sciences, including SARDI, the Bureau of Meteorology, CSIRO, Geoscience Australia, and Cooperative Research Centres (CRCs).

South Australia’s three universities and associated research institutions have significant expertise and capacity to address knowledge gaps and grow the South Australian climate change science and knowledge base. The research sector will continue to play a crucial role in addressing new information needs through research partnerships with government and industry.


Loughnan, M, Nicholls, N & Tapper, N, 2010, ‘When the heat is on: Threshold temperatures for admissions to hospital in Melbourne, Australia’, *Applied Geography* 30, 63–69.


Appendix 1
South Australia’s climate change data: current status and additional requirements (January 2020)

The South Australian government maintains the state’s evidence base of critical datasets for use in climate change modelling, and decision-making. Some available datasets need extending or updating and a number of derived products are required for use in the South Australian context.

<table>
<thead>
<tr>
<th>Category</th>
<th>Why good information matters</th>
<th>Data product</th>
<th>Current status</th>
<th>Additional requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate change information delivery</td>
<td>An effective information delivery platform is needed to improve the ability of planners and decision-makers to discover, access, and apply scientific and technical information for climate change response planning.</td>
<td>South Australia-focused online delivery platform</td>
<td>Climate change technical information for South Australia is currently delivered via a variety of web-based platforms. In many cases, data is difficult for potential users to locate or access.</td>
<td>Develop an South Australia-focused online delivery platform for climate change science and information, making existing and new products more readily accessible.</td>
</tr>
<tr>
<td>Climate change projections for South Australia</td>
<td>Information on the likely direction and extent of climate change at the local scale allows us to understand the change in risks and impacts and the amount of change we need to plan to adapt to.</td>
<td>SA Climate Ready NARCLiM projections Climate Change in Australia Project (CCIA) Application Ready Datasets</td>
<td>Downscaled future climate scenarios at daily or sub-daily time steps for primary climate variables to the year 2100.</td>
<td>Extend, update and improve scale of climate change projection data products for example through NARCLiM 2.0 and CCIA.</td>
</tr>
<tr>
<td>Observed climate change evidence base for South Australia</td>
<td>Detailed data of past and current weather and climate conditions is essential to our understanding of how climate variability and the emerging changes in climate in South Australia are affecting us.</td>
<td>BoM rainfall and temperature time series data and trend maps. BoM Atmospheric high-resolution Regional Reanalysis for Australia dataset (BARRA)</td>
<td>Annual time series covering the whole of Australia is available for download from BoM website. Gridded data from 1990 to 2019 for South Australia (at 1.5km) and Australia (at 12km).</td>
<td>Derived analyses to identify correlations between historic weather conditions and weather-driven impacts, such as bushfires, floods, or crop yields.</td>
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<tr>
<td>Sea level</td>
<td>Accurate monitoring of sea levels on South Australian coastlines enables the assessment of emerging coastal inundation and erosion risks and verifies whether sea level rise is in line with projections.</td>
<td>BoM Australian Baseline Sea Level Monitoring Project</td>
<td>Monthly sea level datasets for South Australian monitoring stations.</td>
<td>Continued maintenance and monitoring of South Australian sea level monitoring stations. Reinstatement of the Port Stanvac sea level monitoring station that was removed in 2009.</td>
</tr>
<tr>
<td>Sea surface temperature</td>
<td>Sea surface temperature variations affect marine ecosystems in a range of ways, including changes in species range, spread of invasive species and changes to disease risks.</td>
<td>Integrated Marine Observing System (IMOS) sea surface temperature mapping for Australian coastal waters.</td>
<td>All coastal waters updated at daily intervals.</td>
<td>Projections of sea surface temperature.</td>
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<tr>
<td>Coastal inundation and erosion</td>
<td>Our coastal areas will be impacted by rising sea levels and extreme weather events. To manage risks to settlements and costs of repair we need better information on inundation and impact scenarios.</td>
<td>High-resolution (1m grid) ground elevation data from airborne LiDAR (Light Detection and Ranging) sensors</td>
<td>South East and Eyre Peninsula coastlines, Adelaide metro coast, parts of Kangaroo Island, Middle Beach and Victor Harbor.</td>
<td>Complete LiDAR coverage for all South Australian coasts. Erosion modelling for high-risk and high-vulnerability locations.</td>
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<td>Inundation layers for sea level scenarios</td>
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<td>Inundation layers for sea level scenarios.</td>
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<td>Coastal erosion risk mapping</td>
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<td>Coastal erosion risk mapping</td>
<td>Update erosion vulnerability maps.</td>
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<tr>
<td>Coastal sand dune mapping</td>
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<td>Coastal sand dune mapping</td>
<td>Update dune drift hazard maps for high priority coasts.</td>
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<tr>
<td>Flood</td>
<td>Flooding impacts from extreme weather events will affect communities and catchments. To be informed about scenarios and manage risks, the best available water flow data and flood studies must be sought out and made transparent.</td>
<td>Flood risk studies and mapping</td>
<td>Flood risk studies and mapping Data held by councils for some catchments and hazard sources (riverine and stormwater). Inconsistent coverage and many areas where flood risk is unknown.</td>
<td>Establish climate scenario standards for flood risk studies. Identify and fill gaps in flood risk mapping including high-resolution ground elevation data.</td>
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<tr>
<td>Dam Risk Register</td>
<td></td>
<td>Dam Risk Register</td>
<td>Covers prescribed water resource areas.</td>
<td>Update and expand to cover all flood relevant areas. Ensure compatibility with other South Australian government datasets (such as environmental and licensing).</td>
</tr>
<tr>
<td>Levee Bank Register</td>
<td>Various datasets statewide, with regional variation in data completeness.</td>
<td>Levee Bank Register</td>
<td>Validate, complete and expand to cover all flood relevant areas.</td>
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<td><strong>Bushfire</strong></td>
<td>An increase in the number of hotter and drier days will lead to more days of extreme fire danger. Increased landscape dryness will cause those bushfire that do occur to be more intense and difficult to control. Planning and responding to protect life, property and environment will require up-to-date analysis and maps.</td>
<td><strong>Fire history</strong> derived fire frequency and last fire occurrence spatial data.</td>
<td>Statewide, with regional variation in data completeness.</td>
<td>Integration of data from national fire mapping / hotspot detection services, such as Sentinel and North Australia Fire Information (NAFI), to improve fire history data coverage.</td>
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<td><strong>Ecological Fire Management Thresholds of Potential Concern (TPC)</strong></td>
<td>Various datasets statewide, with regional variation in data completeness.</td>
<td>Update TPC data with latest vegetation cover, fire history, and ecological datasets.</td>
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<td><strong>Fire severity</strong></td>
<td>Not statewide. Fire severity currently assessed on a project-by-project basis.</td>
<td>Statewide approach needed e.g. use remotely sensed imagery (satellite, aerial, drone) to map fire severity regularly. Routine capture of prescribed burns severity.</td>
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<td><strong>BoM Atmospheric high-resolution Regional Reanalysis for Australia dataset (BARRA)</strong></td>
<td>Gridded data from 1990 to 2019 for South Australia (at 1.5km) and Australia (at 12km).</td>
<td>Analyse data to derive indicative weather conditions for various hazards and historic weather events.</td>
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<td><strong>Bushfire protection areas (BPA) mapping</strong></td>
<td>Statewide BPA layer, last updated 2014, 2019–20 update in progress.</td>
<td>Complete 2020 release, including additional council areas, grassfire risk zones, and urban interface zones. Stage 2 work will add future climate factors to Bushfire risk ratings.</td>
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<td><strong>Fire response models for priority wildlife species</strong></td>
<td>Limited information for a few priority species (e.g. Mallee Emu-wren)</td>
<td>Assessment of species most at risk of changes in fire regime, and research to better understand fire resilience of these species.</td>
</tr>
<tr>
<td><strong>Urban heat</strong></td>
<td>Our cities will be hotter. We need a consistent way to monitor where urban heat is worse, where impacts will be felt most and where we are reducing heat with tree cover or strategic use of water.</td>
<td><strong>Urban Heat mapping</strong></td>
<td>Adelaide metropolitan area captured in separate flights between 2016 to 2018 by Adapt West, Resilient East, Resilient South.</td>
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<td>Single coordinated method across South Australia’s urban areas needed, including regional centres. Repeat capture at two-to five-year intervals to determine impact of planning decisions and management decision.</td>
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<td><strong>Urban tree mapping</strong></td>
<td>LiDAR data (2018) for part of the Adelaide metropolitan area is available and planned for recapture in 2023. Sections of the north and south have not been captured.</td>
<td>Coordinate and complete capture for the remaining metropolitan areas. Process and classify LiDAR data into low, medium and tall vegetation classes and generate tree canopy layers. Analyse tree canopy mapping to improve understanding of heat mitigation, rainfall interception and urban greening (biodiversity) impacts.</td>
</tr>
<tr>
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<tr>
<td>Environmental change</td>
<td>Consistent ways of recording changes in the landscape are needed as they a) may constrain potential opportunities for agriculture or natural systems in the face of climate change or b) reflect successful adaptation of industries and communities.</td>
<td>Land Use mapping shows economic or other uses of land resources (e.g. horticulture, residential, conservation).</td>
<td>2019 Generalised Land Use mapping released in late 2019. Statewide coverage from various years, variation in currency.</td>
<td>Current land use required with annual update.</td>
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<td>SA Land Cover mapping describes biophysical surfaces (e.g. trees, water, built urban).</td>
<td>Five yearly, statewide coverage 1987–2015.</td>
<td>Annual statewide coverage.</td>
</tr>
<tr>
<td>Biodiversity</td>
<td>Climate change will drive changes in the distribution of species, as well as which species occur together to form ecosystems.</td>
<td>Spatial data assessment of the nature of change posed by climate change on different ecosystems across the state.</td>
<td>There is currently no consistent assessment of the implications of climate change on the ecosystems of South Australia.</td>
<td>Spatial data assessment of the nature of change posed by climate change on different ecosystems across the state. Information to determine effective future on-ground actions for biodiversity conservation through landscape planning and operational programs.</td>
</tr>
<tr>
<td>Total grazing pressure</td>
<td>Future changes in temperature and rainfall will affect pasture growth and biomass. There is a need to understand how total grazing pressure and climate change will interact, and the implications this will have for South Australian ecosystems and socio-economic values.</td>
<td>Vegetation cover maps of pasture growth rates and biomass.</td>
<td>National vegetation cover maps derived from satellite imagery are processed and made available every month.</td>
<td>Evaluate and extend existing products/interfaces to national vegetation cover mapping for use by South Australian audiences.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Density maps and population estimates for domestic, native and introduced herbivores.</td>
<td>Monitoring programs and systems vary across regions and species.</td>
<td>Analyse what social, economic and environmental values are impacted by grazing and how they may change under climate change.</td>
</tr>
<tr>
<td>Soil moisture</td>
<td>Soil moisture mapping provides an indication of the likely effects of drier and warmer conditions on the health of native vegetation and food crops, allowing land managers to make informed management choices.</td>
<td>National soil moisture mapping</td>
<td>BoM Australian Landscape Water Balance soil moisture model (5km grid). Finer-resolution soil data and short-term dynamic forecasting products are in development.</td>
<td>Improve regional soil moisture sensor networks and soil characterisation data to inform landholder decision-making at local scales.</td>
</tr>
<tr>
<td>Soil erosion</td>
<td>Protecting the fertility and productive potential of soils depends on adequate vegetation cover. However future biomass production under climate change may be insufficient to protect soils in some annual cropping systems.</td>
<td>Maps of wind erosion risk and water erosion risk.</td>
<td>Soil erosion risk from wind and water under warming and drying scenarios have been modelled and mapped for the agricultural zone of South Australia. Days protected from soil erosion indicator is published annually.</td>
<td>Other agricultural land uses and areas of South Australia are yet to be considered with regard to assessing risks to sustainable land management under climate change.</td>
</tr>
<tr>
<td>Category</td>
<td>Why good information matters</td>
<td>Data product</td>
<td>Current status</td>
<td>Additional requirements</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Agricultural pests and disease</td>
<td>Changes to climate are an additional risk for biosecurity. The timing and spectrum of current pests and diseases are also likely to change.</td>
<td>Surveillance data sets for priority pests and diseases affecting primary industries and/or natural ecosystems.</td>
<td>Separate data sets for animal health, plant health and invasive species, varying in scale, scope and information management system. Some data is commercially sensitive. Data collection and analysis is resource-demanding, mostly focused on national and state priority lists.</td>
<td>More coordinated approach to data collection and analysis that includes routine early detection of new pests and diseases, rather than just a target list of known threats.</td>
</tr>
<tr>
<td>Tracking primary industry production</td>
<td>Reporting yield and quality of production from key primary industries provides a measure of physical impacts of the changing climate including shocks such as droughts and extreme events.</td>
<td>Reports and maps of production in yield/hectare or fish catch.</td>
<td>PIRSA crop and pasture reports. <a href="https://pir.sa.gov.au/primary_industry/crops_and_pastures/crop_and_pasture_reports">https://pir.sa.gov.au/primary_industry/crops_and_pastures/crop_and_pasture_reports</a></td>
<td>Improved linking of climate data to production data. Links to soil erosion and water availability. Opportunities to update and improve simulation modelling of crops and pastures to place recent production in historical context and simulate impacts of future climates.</td>
</tr>
<tr>
<td>Tracking primary industry value chains</td>
<td>Tracking the value chains of land-based and aquatic primary industries provides information on relative importance and trends. The data allows a measure of the impact of past droughts and extreme events on the economic output.</td>
<td>Reports and maps showing trends in economic value from key primary industries.</td>
<td>PIRSA scorecards <a href="http://www.aginsight.sa.gov.au">www.aginsight.sa.gov.au</a> currently provide detail on location of dairy, field crops, forestry, horticulture, seafood and wine.</td>
<td>Higher spatial resolution where feasible. Linking climate and total factor productivity to climate data.</td>
</tr>
<tr>
<td>Information for new and emerging primary industries</td>
<td>As climate changes there will be opportunities for new and emerging aquatic and land-based primary industries.</td>
<td>Maps that match climate and soil to new opportunities for land-based industries and ocean conditions for aquatic industries.</td>
<td>AgriFutures Australia has an emerging industries program and <a href="http://www.agrifutures.com.au/publications-resources/farm-diversity-search">www.agrifutures.com.au/publications-resources/farm-diversity-search</a></td>
<td>Interaction with South Australian stakeholders. Links to South Australian climate change projections.</td>
</tr>
</tbody>
</table>
6.101 LOCAL GOVERNMENT ASSOCIATION NOMINATIONS - DOG AND CAT MANAGEMENT BOARD

TO: Council
FROM: Senior Governance Officer - Mary Del Giglio
DATE: 12 October 2020

Brief
The Local Government Association is seeking nominations for one member on the Dog and Cat Management Board for a term of up to three years, commencing immediately upon appointment. Nominations must be forwarded with a current CV to the Local Government Association by close of business Friday 30 October 2020.

Recommendation
1. That Council nominates ____________________________ as the Local Government Member on the Dog and Cat Management Board and that the nomination/s be passed on to the Local Government Association for consideration.

OR

2. That Council does not nominate a Local Government Member on the Dog and Cat Management Board.

Status
This report relates to or impacts upon the following Community Plan Objectives 2016-2027.

Our Leadership - A leading & transformational Local Government organisation

Be bold and innovative in our practices, leadership and decision making
A collaborative, agile and high performing workplace
Practise transparent and accountable governance

Relevant Council policies are:
• Dog and Cat Management Policy
• Urban Animal Management Plan

Relevant statutory provisions are:
• Dog and Cat Management Act 1995
• Council By Law No. 5 - Dogs and Cats

Background
The Local Government Association (LGA) is seeking nominations from suitably qualified council members or employees of a council, to fill the position of local government representative on the Dog and Cat Management Board for a three year term, commencing immediately upon appointment by the Minister.
The Board is represented by four LGA nominated positions, currently being held by Mr Rocky Warren (Mid Murray Council), Mayor Dr Moira Jenkins (City of Victor Harbour), Councillor Shiralee Reardon (City of Salisbury) and one vacancy left by the resignation of Mrs Gemma Rusell (DC of Yankallila).

The Dog and Cat Management Board (DCMB) is established under Part 2 of the Dog and Cat Management Act 1995. Section 21 of the Act sets out the functions of the Board as follows:

21—Functions of Board

(1) The Board has the following functions:

(a) to plan for, promote, and provide advice about, the effective management of dogs and cats throughout South Australia;

(b) to oversee the administration and enforcement of the provisions of this Act relating to dogs and cats, including—
   (i) monitoring the administration and enforcement of this Act by councils; and
   (ii) issuing guidelines and providing advice to councils about—
       (A) planning for the effective management of dogs and cats;
       (B) training for authorised persons;
       (C) the appropriate level of administration and enforcement in the circumstances prevailing in the area;
       (D) the issuing of orders or related directions under this Act;
       (E) the standard of facilities used for the detention of dogs and cats under this Act;
       (F) the keeping and inspection of registers under this Act and the issuing of certificates of registration and registration discs;
       (G) any other matter related to the administration or enforcement of the provisions of this Act relating to dogs and cats; and
   (iii) otherwise providing support and assistance to councils; (ba) to accredit dogs as assistance dogs;

(bb) to keep and maintain registers for the purposes of this Act;

(c) to inquire into and consider all proposed by-laws referred to it under this Act, with a view to promoting the effective management of dogs and cats, and, to the extent that the Board considers it appropriate, the consistent application of by-laws throughout South Australia;

(d) to advise the Minister or the LGA, either on its own initiative or at the request of the Minister or the LGA, on the operation of this Act or issues directly relating to dog or cat management in South Australia;

(e) to undertake or facilitate research relating to dog or cat management;

(f) to undertake or facilitate educational programs relating to dog or cat management;

(g) to keep this Act under review and make recommendations to the Minister with respect to the Act and regulations made under the Act;

(ga) to fix fees and charges for the purposes of this Act;

(h) to carry out any other function assigned to the Board by the Minister or by or under this Act.

(2) The Board’s functions may extend to providing the following services as the Board thinks fit:

(a) the accreditation of training programs for dogs and owners;

(b) the accreditation of procedures for testing the behaviour of dogs;

(c) the carrying out of any other function relating to responsible dog and cat ownership or the effective management of dogs and cats.
The Board may fix a fee for providing a service under subsection (2).

The Board works closely with key partner organisations and State Government to improve dog and cat management in South Australia. Using its research and expertise, the Board has ensured that South Australia’s regulatory and legislative framework has been reviewed and amended to improve the management of dogs and cats.

Council most recently nominated Councillor Thomas as the Local Government Member (refer CL 25/02/19, Item 6.29).

Report

Appointments to the Dog Cat Management Board are for a period of three years, commencing immediately upon appointment by the Minister.

The selection criteria (refer Appendix A) reflects Section 12(2) of the Dog and Cat Management Act 1995, which requires LGA nominees, together, to have the following attributes:

(a) practical knowledge of and experience in local government, including local government processes, community consultation and the law as it applies to local government;
(b) experience in the administration of legislation;
(c) experience in financial management;
(d) experience in education and training.

The Dog and Cat Management Board meets twelve times a year, generally on the Tuesday of the fourth week of each month between 1pm and 5pm. Meetings are held in their offices in Waymouth Street, Adelaide as well as at metropolitan and regional councils.

Nominations addressing the ‘selection criteria’ provided in Appendix A for the Dog and Cat Management Board must be forwarded to the LGA by a Council using the Nomination Form in Appendix B along with a current CV of the nominee/s by close of business Friday 30 October 2020.

Financial and Resource Implications

The sitting fee for Board Members is currently $206 per four hour session attended, plus certain travel expenses.

Customer Service and Community Implications

There are no customer service or community implications.

Environmental Implications

There are no environmental implications.

Community Engagement/Consultation (including with community, Council members and staff)

There is no requirement for community engagement or consultation.

Risk Management/Legislative Implications

There are no risk management or legislative implications.
Conclusion

That Council consider nominating a Local Government Member/s to the Dog and Cat Management Board.

Appendices

<table>
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<tr>
<th>#</th>
<th>Attachment</th>
<th>Type</th>
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<tbody>
<tr>
<td>1</td>
<td>APPENDIX A - Dog and Cat Management Board Nominations - Selection Criteria</td>
<td>PDF File</td>
</tr>
<tr>
<td>2</td>
<td>APPENDIX B - Dog and Cat Management Board Nominations - Nomination Form</td>
<td>PDF File</td>
</tr>
</tbody>
</table>
APPENDIX A
# LGA Appointments and Nominations to Outside Bodies — Call for Nominations

## Dog and Cat Management Board

<table>
<thead>
<tr>
<th>Governing Statute (if applicable)</th>
<th>Section 12(1)(a) Dog and Cat Management Act</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose/Objective</strong></td>
<td>Public face for the management of companion dogs and cats in South Australia and provides policy leadership to councils. The Board also plays a key role as an advocate and intermediary, working with vets, breeders and pedigree organisations, animal rescue and shelter organisations and assistance dog organisations to ensure South Australia’s dog and cat laws meet the objects of the Dog and Cat Management Act.</td>
</tr>
<tr>
<td><strong>Administrative Details</strong></td>
<td>12 meetings per year with a fee of $206/session</td>
</tr>
</tbody>
</table>
| **Selection Criteria (to be addressed by applicant)** | • Local government knowledge and experience  
  • practical knowledge of and experience in local government, including local government processes, community consultation and the law as it applies to local government  
  • experience in the administration of legislation  
  • experience in financial management  
  • experience in education and training. |

*In accordance with the LGA Appointments and Nominations to Outside Bodies Policy, selection for appointment or nomination to this Outside Body may include the conduct of interviews and checking of referees by the LGA. By applying, the applicant accepts that the LGA may request an interview and/or the details of referees.*

## Liability and indemnity cover

*The LGA requires that persons appointed to Outside Bodies be appropriately insured throughout the period of their appointment and seeks to collect details of the insurances provided by the Outside Body on an annual basis.*

## For more information contact

LGA Nominations Coordinator at nominationscoordinator@lga.sa.gov.au or 8224 2000
LGA Appointments and Nominations to Outside Bodies — Nomination Form

Instructions

This form:

- Must be submitted by a council
- Must be emailed in PDF format to nominationscoordinator@lga.sa.gov.au
- Receipt of nomination will be acknowledged by return email
- CV and response to selection criteria (if applicable) may be emailed separately by the nominee and will be treated confidentially

This nomination form fulfils the requirements of the LGAs Appointments and Nominations to Outside Bodies Policy, available here.

SECTION 1 to be completed by Council, SECTION 2 to be completed by Nominee.

Please refer to the Call for Nominations information sheet (Form: PART A) for details of the Outside Body and the selection criteria to be met by the nominee.

SECTION 1: COUNCIL to complete

<table>
<thead>
<tr>
<th>Dog and Cat Management Board</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Council Details</strong></td>
</tr>
<tr>
<td>Name of Council submitting the nomination</td>
</tr>
<tr>
<td>Contact details of council officer submitting this form</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Council meeting minute reference and date</td>
</tr>
<tr>
<td><strong>Nominee Full Name</strong></td>
</tr>
<tr>
<td>elected member [ ] OR employee of council [ ] OR employee of local government entity [ ]</td>
</tr>
</tbody>
</table>

Note: by submitting this nomination council is recommending the nominee is suitable for the role.
# SECTION 2: NOMINEE to complete

## Dog and Cat Management Board

<table>
<thead>
<tr>
<th>Nominee Details</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Name</td>
<td></td>
</tr>
<tr>
<td>Home / Postal Address</td>
<td></td>
</tr>
<tr>
<td>Phone</td>
<td>Mobile</td>
</tr>
<tr>
<td>Email</td>
<td></td>
</tr>
</tbody>
</table>

**Why are you interested in this role?**

**CV**

- [ ] attached
- [ ] forwarding separately

**Response to selection criteria (if applicable)**

*Nominee to provide response to selection criteria (of no more than 2 pages) for consideration by the LGA Board of Directors.*

- [ ] attached
- [ ] forwarding separately

**Do you agree for your details to be retained on the LGA Nominees Database for a period of 12 months in order to be considered for other vacancies to Outside Bodies?**

- [ ] Yes
- [ ] OR
- [ ] No

If Yes, please list any fields of interest or Outside Bodies of interest:

- ________________________________

**Undertaking:**

*The LGA Board resolved in January 2015 to ensure that appointees to external Boards and Committees remain current local government members or officers. If you leave local government for any reason during the term of your appointment, are you prepared to resign your appointment if requested to do so by the LGA?*

- [ ] Yes
- [ ] No

**Signature of Nominee:** ________________________________
TO: Council

FROM: Senior Governance Officer - Mary Del Giglio

DATE: 12 October 2020

Brief


Recommendation

1. That Council nominates ______________________ as the Local Government Member on the South Australian Heritage Council and that the nomination be passed on to the Local Government Association for consideration.

OR

2. That Council does not nominate a Local Government Member on the South Australian Heritage Council.

Status

This report relates to or impacts upon the following Community Plan Objectives 2016-2027.

Our Leadership - A leading & transformational Local Government organisation

Be bold and innovative in our practices, leadership and decision making
A collaborative, agile and high performing work place
Practise transparent and accountable governance

Relevant Council policies are:

- City of Charles Sturt Development Plan

Relevant statutory provisions are:

- Heritage Places Act 1993
- Development Act 1993

Background

The Minister for Sustainability, Environment and Conservation has written to the LGA requesting nominations for a local government representative on the South Australian Heritage Council for a term of up to three years commencing on 2 April 2021.

The South Australian Heritage Council is a statutory corporation to which the provisions of Section 5(1)(b) of the Heritage Places Act 1993 apply.
The South Australian Heritage Council is an independent body whose main functions are to:

- Provide strategic advice to the Minister for Sustainability, Environment and Conservation
- Administer the Heritage Places Act 1993
- Provide strategic advice to the Minister for Planning on heritage related matters in the administration of the Development Act 1993
- Administer the South Australian Heritage Register

The current local government representative is Mr David Stevenson of Regional Council of Goyder. Mr Stevenson’s term expires on 1 April 2021 and he is eligible for re-appointment.

The Heritage Places Act 1993 requires the LGA to provide a panel of three nominees from which the Minister will select the appointee. In accordance with Section 36A of the Acts Interpretation Act 1915 the panel of nominees must include at least one male and one female.

**Report**

Appointments to the South Australian Heritage Council are for a term of three years, commencing on 2 April 2021.

No mandatory qualifications are required, however, local government and heritage conservation knowledge and experience are highly desirable, in addition to a demonstrated administrative and strategic experience in heritage matters. Refer Appendix A for the full selection criteria.

The South Australian Heritage Council meetings are generally held every six weeks at 81-95 Waymouth Street, Adelaide. Meetings usually run for three hours between 9.30am and 12.30pm.

Nominations, addressing the Selection Criteria provided in Appendix A for the South Australian Heritage Council must be forwarded to LGA by a Council using the Nomination Form in Appendix B along with a current CV by close of business Monday 2 November 2020.

**Financial and Resource Implications**

The sitting fee for members is currently $206 per session attended. Support for travel costs are provided for any members needing to travel from outside Adelaide.

**Customer Service and Community Implications**

There are no customer service or community implications.

**Environmental Implications**

There are no environmental implications.

**Community Engagement/Consultation (including with community, Council members and staff)**

There is no requirement for community engagement or consultation.

**Risk Management/Legislative Implications**

There are no risk management or legislative implications.
Conclusion
That Council consider nominating a local government representative to the South Australian Heritage Council.

Appendices

<table>
<thead>
<tr>
<th>#</th>
<th>Attachment</th>
<th>Type</th>
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<tbody>
<tr>
<td>1</td>
<td>APPENDIX A - South Australian Heritage Council - Selection Criteria</td>
<td>PDF File</td>
</tr>
<tr>
<td>2</td>
<td>APPENDIX B - South Australian Heritage Council - Nomination Form</td>
<td>PDF File</td>
</tr>
</tbody>
</table>
## South Australian Heritage Council

<table>
<thead>
<tr>
<th>Governing Statute (if applicable)</th>
<th>Section 5(1)(b) Heritage Places Act 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose/Objective</strong></td>
<td>Ensures that South Australian places and related objects with heritage significance are protected through entry in the South Australian Heritage Register (Register). This mechanism promotes public understanding and appreciation of the State’s heritage.</td>
</tr>
</tbody>
</table>
| **Administrative Details**      | • a term of up to three years  
  • meetings held every six weeks  
  • a sitting fee of $206/session |
| **Selection Criteria (to be addressed by applicant)** | • Local government knowledge and experience  
  • person with knowledge of or experience in heritage conservation (5(1)(b))  
  • Demonstrated administrative and strategic experience in heritage matters |

### Liability and indemnity cover

*The LGA requires that persons appointed to Outside Bodies be appropriately insured throughout the period of their appointment and seeks to collect details of the insurances provided by the Outside Body on an annual basis.*

### For more information contact:

LGA Nominations Coordinator at nominationscoordinator@lga.sa.gov.au or 8224 2000
APPENDIX B
LGA Appointments and Nominations to Outside Bodies — Nomination Form

Instructions

This form:

- Must be submitted by a council
- Must be emailed in PDF format to nominationscoordinator@lga.sa.gov.au
- Receipt of nomination will be acknowledged by return email
- CV and response to selection criteria (if applicable) may be emailed separately by the nominee and will be treated confidentially

This nomination form fulfils the requirements of the LGAs Appointments and Nominations to Outside Bodies Policy, available here.

SECTION 1 to be completed by Council, SECTION 2 to be completed by Nominee.

Please refer to the Call for Nominations information sheet (Form: PART A) for details of the Outside Body and the selection criteria to be met by the nominee.

SECTION 1: COUNCIL to complete

<table>
<thead>
<tr>
<th>South Australian Heritage Council</th>
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<tbody>
<tr>
<td>Council Details</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Name of Council submitting the nomination</th>
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<tbody>
<tr>
<td>Contact details of council officer submitting this form</td>
</tr>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Email:</td>
</tr>
</tbody>
</table>

| Council meeting minute reference and date |

<table>
<thead>
<tr>
<th>Nominee Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>elected member</td>
</tr>
</tbody>
</table>

Note: by submitting this nomination council is recommending the nominee is suitable for the role.
### SECTION 2: NOMINEE to complete

#### South Australian Heritage Council

<table>
<thead>
<tr>
<th>Nominee Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Name</strong></td>
<td><strong>Gender</strong></td>
</tr>
<tr>
<td><strong>Home / Postal Address</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Phone</strong></td>
<td><strong>Mobile</strong></td>
</tr>
<tr>
<td><strong>Email</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Why are you interested in this role?</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>attached [ ] OR forwarding separately [ ]</td>
</tr>
</tbody>
</table>

**Response to selection criteria (if applicable)**

Nominee to provide response to selection criteria (of no more than 2 pages) for consideration by the LGA Board of Directors.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>attached [ ] OR forwarding separately [ ]</td>
<td></td>
</tr>
</tbody>
</table>

**Do you agree for your details to be retained on the LGA Nominees Database for a period of 12 months in order to be considered for other vacancies to Outside Bodies?**

Yes [ ] OR No [ ]

If Yes, please list any fields of interest or Outside Bodies of interest:

- ________________________________

**Undertaking:**

The LGA Board resolved in January 2015 to ensure that appointees to external Boards and Committees remain current local government members or officers. If you leave local government for any reason during the term of your appointment, are you prepared to resign your appointment if requested to do so by the LGA?

Yes [ ] No [ ]

Signature of Nominee: ________________________________
6.103 REVIEW OF CONFIDENTIAL ORDERS

TO: Council

FROM: Senior Governance Officer - Mary Del Giglio

DATE: 12 October 2020

Brief
To conduct a review of items from Council and Committee meetings that remain under a confidentiality order.

Recommendation
1. That having read and considered the remaining Confidential Orders, the following recommendations are endorsed:

1.1 That Council hereby orders in accordance with Section 91(7) of the Local Government Act 1999 that the existing confidentiality order on the reports and minutes to the original report of COUNCIL – 11.1 WASTE AND RECYCLING CONTRACTS - UPDATE AND STRATEGIC DIRECTION from 14/06/2016 be kept confidential under waste and recycling contracts established under the Council Solutions Waste Project process have been executed by all participating Councils, based on the 'Reasoning' in Appendix A.

1.2 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report, appendices and minutes of this item of COUNCIL - 11.6 ST CLAIR RECREATION CENTRE FACILITY MANAGEMENT from 13/08/2018 be kept confidential until the end of the first term of the Management Agreement being 2 years, based on the 'Reasoning' in Appendix A.

1.3 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of COUNCIL – 11.01 PUBLIC CONSULTATION POLICY JUDICIAL REVIEW from 11/02/2019 be kept confidential until the conclusion of the judicial review process, based on the 'Reasoning’ in Appendix A.

1.4 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report, appendices and minutes of this item of COUNCIL – 11.02 LOCAL RESPONSE TO CHINESE NATIONAL SWORD from 08/04/2019 be kept confidential until Council’s position has been determined and all associated contracts and arrangements executed, based on the ‘Reasoning’ in Appendix A.

1.5 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report, appendices and minutes of this item of COUNCIL – 11.06 COUNCIL SOLUTIONS WASTE SERVICES TENDERS from 12/08/2019 be kept confidential until all contracts across all services have been signed and executed by all participating Councils, based on the ‘Reasoning’ in Appendix A.
1.6 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of COUNCIL – 11.09 LOCAL RESPONSE TO CHINESE NATIONAL SWORD from 26/08/2019 be kept confidential for a period of five years, based on the ‘Reasoning’ in Appendix A.

1.7 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of COUNCIL – 11.10 REQUEST FOR VARIATION from 23/09/2019 be kept confidential until May 2021, based on the ‘Reasoning’ in Appendix A.

1.8 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of COUNCIL – 11.11 UPDATE - REQUEST FOR CONTRACT VARIATION from 11/11/2019 be kept confidential until May 2021, based on the ‘Reasoning’ in Appendix A.

1.9 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of COUNCIL – 11.12 PUBLIC CONSULTATION POLICY LEGAL APPEAL AND COAST PARK MEDIATION from 25/11/2019 be kept confidential until the conclusion of the Judicial Review process, based on the ‘Reasoning’ in Appendix A.

1.10 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of COUNCIL – 11.14 SOUTH ROAD AND HINDMARSH CEMETERY RIVER TORRENS LINEAR PARK PATH BRIDGE CONSTRUCTION from 09/12/2019 be kept confidential until final completion of the future construction contract is awarded, based on the ‘Reasoning’ in Appendix A.

1.11 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of COUNCIL – 11.01 MATERIALS RECOVERY FACILITY - PROJECT UPDATE from 10/02/2020 be kept confidential until the contract for the design and construction of the MRF has been executed as it contains commercially sensitive information and procurement strategies. And that the minutes be released concurrently with the City of Port Adelaide Enfield’s release of their minutes relating to these matters, based on the ‘Reasoning’ in Appendix A.

1.12 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and appendices of this item of AUDIT COMMITTEE – 9.01 MATERIALS RECOVERY FACILITY - PROJECT UPDATE from 30/03/2020 be kept confidential until the contract for the design and construction of the MRF has been executed as it contains commercially sensitive information and procurement strategies. And that the minutes be released concurrently with the City of Port Adelaide Enfield’s release of their minutes relating to these matters, based on the ‘Reasoning’ in Appendix A.
1.13 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report, appendices and minutes of this item of COUNCIL – 11.02 CENTRAL ADELAIDE WASTE AND RECYCLING AUTHORITY AND MATERIALS RECOVERY FACILITY UPDATE from 09/06/2020 that the report be released on completion of the construction of the MRF, Appendix A be released on completion of the construction of the MRF; Appendix B be released in 3 years time as requested by the CAWRA Board; Appendix C be released in 12 months time as requested by the CAWRA Board and the minutes be released once the MRF commences operation.

1.14 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report, appendices and minutes of this item of COUNCIL – 11.03 ST CLAIR RECREATION CENTRE - FACILITY MANAGEMENT - RENEWAL OF MANAGEMENT AGREEMENT from 16/06/2020 be kept confidential until the Management Agreement between the YMCA SA and Council for the remaining three (3) years is executed.

1.15 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report, appendices and minutes of this item of COUNCIL – 11.04 MATERIALS RECOVERY FACILITY - PRUDENTIAL REPORT AND GRANT FUNDING UPDATE from 13/07/2020 that the report, minutes and Appendix B be kept confidential until such time as the MRF becomes operational and Appendix A be kept confidential for a period of five years due to the commercially sensitive information contained within, noting confidentiality reviews are undertaken quarterly. And that in any event, the item remain in confidence until such time as the City of Port Adelaide Enfield has made its decision and that if the decision varies from the City of Charles Sturt, a further report to be presented to Council to enable an alternative to be put in place.

1.16 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report, appendices and minutes of this item of COUNCIL – AGENT ENGAGEMENT AND INCOME ESTIMATES REGARDING DISPOSAL OF 318 SEAVIEW ROAD, HENLEY BEACH from 10/08/2020 be kept confidential until such time as the property is settled following sale.

1.17 That Council hereby orders in accordance with Section 91 (7) of the Local Government Act 1999 that the existing confidentiality order on the report and minutes of this item of COUNCIL – 11.08 CITIES POWER PARTNERSHIP - REQUEST FOR FEEDBACK RELATING TO A SUSTAINABLE ECONOMIC RECOVERY from 28/09/2020 be kept confidential until the Cities Power partnership issue the principles and signatories to national media - expected to occur in early October 2020.

Status
This report relates to or impacts upon the following Community Plan Objectives 2016-2027.
Our Leadership - A leading & transformational Local Government organisation

Be bold and innovative in our practices, leadership and decision making
Adaptive and sustainable management of the City’s finances
A collaborative, agile and high performing work place
Practise transparent and accountable governance

Relevant Council policies are:

- Code of Practice for Public Access to Council and Committee Meetings

Relevant statutory provisions are:

- Local Government Act 1999

Background

Council and Committee meetings are to be held in public except in special circumstances. Section 90 of the Local Government Act 1999 and Section 56A of the Development Act 1993 detail the provisions for when a Council or Committee may order that the public be excluded from attendance at a meeting for the purposes of receiving, discussing or considering in confidence information.

The Council or Committee may also order that some or all of the documents and minutes associated with the item also be kept confidential. In the event that this occurs, the Council or Committee must also specify the duration of the order or the circumstances in which the order will cease to apply, the event which will trigger release of the item from confidentiality, or a period after which the order must be reviewed.

In some instances, the Council or Committee may delegate the power to revoke the order to an employee of the Council (such as the Chief Executive Officer). In any event, in accordance with Section 91(9) of the Local Government Act 1999, any order that operates for a period exceeding 12 months must be reviewed at least once every year.

Council has adopted a best practice approach in reviewing all remaining confidentiality orders on a quarterly basis in the form of an overview report to Council.

Report

Council and Committee items that remain in confidence are recorded in a ‘Register of Remaining Confidential Orders’ (refer Appendix A) detailing the following information for each order:

- Relevant Council/Committee that the confidentiality order applies;
- The initial report date;
- Item number;
- The report title;
- Relevant section 90(3) confidentiality provision that applies to the report (reason for holding the matter in confidence);
- A summary of the initial confidentiality order made (containing the initial trigger event or date);
- Review and recommendation relating to the confidentiality order;
- Recommendation based on challenging the requirement for each confidentiality order (rather than just reporting whether trigger event has been met);
• Reasoning behind the recommendation.

The aim of this report is to review and amend the relevant section 91(7) orders where appropriate, based on the reasoning provided in Appendix A next to each item. It is recommended that these orders be remade to ensure a clear and accurate record for the public as to the exact confidential status of each item and all its aspects (eg. minutes, report, appendices). This report does not seek to amend any other component of the Council or Committee resolutions relating to these items.

Since the last review of the Confidential Orders was presented to Council on 11 May 2020 (refer CL 11/05/2020, Item 6.38) there have been 3 items where the confidentiality order has been released as a result of the trigger event occurring.

The following items have now been made public.

<table>
<thead>
<tr>
<th>Meeting and Date</th>
<th>Item</th>
<th>Report Title</th>
<th>Reason for Confidential Order</th>
<th>Trigger Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>20/04/2020</td>
<td>9.01</td>
<td>West Beach Rock Wall Variation</td>
<td>90(3)(d)(i)(ii) 90(3)(k)</td>
<td>Until the Northern Beach Accessway tender has been awarded and contracts executed.</td>
</tr>
<tr>
<td>10/08/2020</td>
<td>11.06</td>
<td>Chief Executive Officer Presentation for</td>
<td>90(3)(a)</td>
<td>Until after the final review report is brought back to Council at the last meeting in September 2020.</td>
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<tr>
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<td></td>
<td>Performance Review 2019/20</td>
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<tr>
<td>14/09/2020</td>
<td>11.07</td>
<td>Chief Executive Officer Performance</td>
<td>90(3)(a)</td>
<td>Until the contract of employment documents have been updated and signed by the Mayor and CEO.</td>
</tr>
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<td>Review 2019/20</td>
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**Financial and Resource Implications**

There are no financial or resource implications.

**Customer Service and Community Implications**

Members of the community have an expectation that the operation of Council is underpinned by accountability, integrity, openness and transparency. This report aims to further achieve this in the way confidentiality orders are reviewed.
Environmental Implications
There are no environmental implications.

Community Engagement/Consultation (including with community, Council members and staff)
There is no requirement for community engagement or consultation.

Risk Management/Legislative Implications
The purpose of this report is to ensure that all of Council’s confidentiality orders meet the legislative requirements defined under section 90 and 91 of the Local Government Act 1999. The confidentiality provisions that may apply under section 90(3) of the Local Government Act 1999 are provided as Appendix B.

Conclusion
In addition to the legislative requirements detailing the review of confidential orders for Council and Committee meetings, Council undertakes a quarterly reporting approach to ensure a regular review of existing confidential orders, it is recommended that the section 91 (7) confidentiality orders relating to each item be reviewed, which will establish whether the minutes, reports or appendices of each item should be released to the public or remain in confidence (detailed in Appendix A).

Appendices

<table>
<thead>
<tr>
<th>#</th>
<th>Attachment</th>
<th>Type</th>
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<tbody>
<tr>
<td>1</td>
<td>APPENDIX A - Confidential Orders - Register of Remaining Confidential Orders</td>
<td>PDF File</td>
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<tr>
<td>2</td>
<td>APPENDIX B - Extract from Local Government Act 1999 - Section 90</td>
<td>PDF File</td>
</tr>
<tr>
<td>Council / Committee</td>
<td>Report Date</td>
<td>Item No.</td>
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<tr>
<td>Council</td>
<td>14/6/2016</td>
<td>11.1</td>
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<p>| Council             | 13/08/2018  | 11.6     | St Clair Recreation Centre Facility Management | 90(3)(d)(i)(ii) and 90(3)(k) | That the Report, Appendices and Minutes be kept confidential until the end of the first term of the Management Agreement being 2 years. |
|                     |             |          |              |             |                                    | <strong>Recommendation:</strong>       |
|                     |             |          |              |             | It is recommended that the Report, Appendices and Minutes be kept confidential until the end of the first term of the Management Agreement being 2 years. |
|                     |             |          |              |             |                                    | <strong>Reasoning:</strong>             |
|                     |             |          |              |             | The recommendations are designed to allow Council the flexibility to further assess the relative viability of establishing a facilities management subsidiary with partner councils in the short to medium term once greater certainty is gained around operation income and expenditure of the facility are known. For this reason it is recommended that the item remains in confidence until the first term of the YMCA management agreement has completed (i.e. in two years’ time). |</p>
<table>
<thead>
<tr>
<th>Council / Committee</th>
<th>Report Date</th>
<th>Item No.</th>
<th>Report Title</th>
<th>Section No.</th>
<th>Initial Confidentiality Order Made</th>
<th>Review and Recommendation</th>
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</thead>
<tbody>
<tr>
<td>Council</td>
<td>11/02/2019</td>
<td>11.01</td>
<td>Public Consultation Policy Judicial Review</td>
<td>90(3)(h) and 90(3)(i)</td>
<td>That the report and appendices of this item be kept confidential until the conclusion of the judicial review process.</td>
<td>Recommendation: It is recommended that the report and appendices of this item be kept confidential until the conclusion of the judicial review process. Reasoning: Judicial review is still ongoing.</td>
</tr>
<tr>
<td>Council</td>
<td>08/04/2019</td>
<td>11.02</td>
<td>Local Response to Chinese National Sword</td>
<td>90(3)(b)(i)(ii)</td>
<td>That the report, appendices and the minutes of this item be kept confidential until Council’s position has been determined and all associated contracts and arrangements executed.</td>
<td>Recommendation: It is recommended that the report, appendices and the minutes of this item be kept confidential until Council’s position has been determined and all associated contracts and arrangements executed. Reasoning: This report and recommendations deal with a number of commercial considerations that remain subject to consideration by Council and negotiation with external parties. The resulting contracts and arrangements have not yet been executed. The report and recommendations must therefore remain in confidence.</td>
</tr>
<tr>
<td>Council</td>
<td>12/08/2019</td>
<td>11.06</td>
<td>Council Solutions Waste Services Tenders</td>
<td>90(3)(b)(i)(ii) 90(3)(k)</td>
<td>The report, appendices and the minutes of this item to be kept confidential until all contracts across all services have been signed and executed by all participating Councils.</td>
<td>Recommendation: It is recommended that the report, appendices and the minutes of this item be kept confidential until all contracts across all services have been signed and executed by all participating Councils. Reasoning: This report and recommendations deal with a number of commercial considerations and negotiation with external parties. The resulting contracts and arrangements have not yet been executed. The report and recommendations must therefore remain in confidence.</td>
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<td>Council</td>
<td>26/08/2019</td>
<td>11.09</td>
<td>Local Response to Chinese National Sword</td>
<td>90(3)(b)(i)(ii) 90(3)(k)</td>
<td>That the report and appendices of this item be kept confidential for a period of five years due to the commercially sensitive information contained within, noting confidentiality reviews are undertaken quarterly.</td>
<td><strong>Recommendation:</strong> It is recommended that the report and appendices of this item be kept confidential for a period of five years due to the commercially sensitive information contained within, noting confidentiality reviews are undertaken quarterly. <strong>Reasoning:</strong> The five year period has not yet expired.</td>
</tr>
<tr>
<td>Council</td>
<td>23/09/2019</td>
<td>11.10</td>
<td>Request for Variation</td>
<td>90(3)(b)(i)(ii)</td>
<td>The report, appendices and/or the minutes of this item to be kept confidential until May 2021.</td>
<td><strong>Recommendation:</strong> It is recommended that the report and appendices of this item be kept confidential until May 2021. <strong>Reasoning:</strong> The date trigger of May 2021 has not been reached.</td>
</tr>
<tr>
<td>Council</td>
<td>11/11/2019</td>
<td>11.11</td>
<td>Update – Request for Contract Variation</td>
<td>90(3)(d)(i)(ii)</td>
<td>The report, appendices and/or the minutes of this item to be kept confidential until May 2021.</td>
<td><strong>Recommendation:</strong> It is recommended that the report and appendices of this item be kept confidential until May 2021. <strong>Reasoning:</strong> The date trigger of May 2021 has not been reached.</td>
</tr>
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<td>Council</td>
<td>25/11/2019</td>
<td>11.12</td>
<td>Public Consultation Policy Legal Appeal and Coast Park Mediation</td>
<td>90(3)(i)</td>
<td></td>
<td>The report, appendices and/or the minutes of this item to be kept confidential until the conclusion of the Judicial Review process. Recommendation: It is recommended that the report and appendices of this item be kept confidential until the conclusion of the Judicial Review process. Reasoning: Judicial review is still ongoing.</td>
</tr>
<tr>
<td>Council</td>
<td>09/12/2019</td>
<td>11.14</td>
<td>South Road and Hindmarsh Cemetery River Torrens Linear Park Path Bridge Construction</td>
<td>90(3)(d)(i)(ii)</td>
<td></td>
<td>The report, appendices and/or the minutes of this item to be kept confidential until final completion of the future construction contract is awarded. Recommendation: It is recommended that the report and appendices of this item be kept confidential until final completion of the future construction contract is awarded. Reasoning: To keep the tenderers financial information confidential until the end of their contract which is typically 12 months after we award practical completion. We expect to be able to release information to the public in August/September 2021.</td>
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<tr>
<td>Council / Committee</td>
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<tr>
<td>Council</td>
<td>10/02/2020</td>
<td>11.01</td>
<td>Materials Recovery Facility – Project Update</td>
<td>90(3)(b)(i)(ii) 90(3)(k)</td>
<td>The report and minutes of this item be kept confidential until the contract for the design and construction of the MRF has been executed as it contains commercially sensitive information and procurement strategies. And that the minutes be released concurrently with the City of Port Adelaide Enfield’s release of their minutes relating to these matters.</td>
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**Recommendation:**
It is recommended that the report of this item be kept confidential until the contract for the design and construction of the MRF has been executed as it contains commercially sensitive information and procurement strategies. And that the minutes be released concurrently with the City of Port Adelaide Enfield’s release of their minutes relating to these matters.

**Reasoning:**
The contract for the design and construction of the MRF have now been executed by CAWRA, but consultation with the City of Port Adelaide Enfield has not yet been undertaken. It is recommended that the report and minutes remain confidential until arrangements have been made with the City of Port Adelaide Enfield for their concurrent release.
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Audit Committee</td>
<td>30/03/2020</td>
<td>9.01</td>
<td>Materials Recovery Facility – Project Update</td>
<td>90(3)(b)(i)(ii) 90(3)(k)</td>
<td>The report and minutes of this item be kept confidential until the contract for the design and construction of the MRF has been executed as it contains commercially sensitive information and procurement strategies. And that the minutes be released concurrently with the City of Port Adelaide Enfield’s release of their minutes relating to these matters.</td>
<td><strong>Recommendation:</strong> It is recommended that the report of this item be kept confidential until the contract for the design and construction of the MRF has been executed as it contains commercially sensitive information and procurement strategies. And that the minutes be released concurrently with the City of Port Adelaide Enfield’s release of their minutes relating to these matters. <strong>Reasoning:</strong> The contract for the design and construction of the MRF have now been executed by CAWRA, but consultation with the City of Port Adelaide Enfield has not yet been undertaken. It is recommended that the report and minutes remain confidential until arrangements have been made with the City of Port Adelaide Enfield for their concurrent release.</td>
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| Council             | 09/06/2020  | 11.02    | Central Adelaide Waste and Recycling Authority and Materials Recovery Facility Update | 90(3)(b)(i)(ii) 90(3)(d)(i)(ii) | The report be released on completion of the construction of the MRF; Appendix A be released on completion of the construction of the MRF; Appendix B be released in 3 years time as requested by the CAWRA Board; Appendix C be released in 12 months time as requested by the CAWRA Board and the minutes be released once the MRF commences operation. | Recommendation:  
It is recommended that the report be released on completion of the construction of the MRF, Appendix A be released on completion of the construction of the MRF; Appendix B be released in 3 years time as requested by the CAWRA Board; Appendix C be released in 12 months time as requested by the CAWRA Board and the minutes be released once the MRF commences operation.  
Reasoning:  
Construction of the MRF has not been completed and the time triggers have not been satisfied. The report and appendices must therefore remain in confidence. |
| Council             | 16/06/2020  | 11.03    | St Clair Recreation Centre – Facility Management – Renewal of Management Agreement | 90(3)(d)(i)(ii)   | The report, appendices and/or minutes of this item be kept confidential until the management Agreement between the YMCA SA and Council for the remaining three (3) years is executed. | Recommendation:  
It is recommended that the report, appendices and/or minutes of this item be kept confidential until the management Agreement between the YMCA SA and Council for the remaining three (3) years is executed.  
Reasoning:  
The Management Agreement between the YMCA SA and Council for the remaining three years is yet to be executed. |
<table>
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<tr>
<th>Council / Committee</th>
<th>Report Date</th>
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<th>Section No.</th>
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</thead>
<tbody>
<tr>
<td>Council</td>
<td>13/07/2020</td>
<td>11.04</td>
<td>Materials Recovery Facility – Prudential Report and Grant Funding Update</td>
<td>90(3)(b)(i)(ii) 90(3)(k)</td>
<td>That the report, minutes and Appendix B be kept confidential until such time as the MRF becomes operational and Appendix A be kept confidential for a period of five years due to the commercially sensitive information contained within, noting confidentiality reviews are undertaken quarterly. And that in any event, the item remain in confidence until such time as the City of Port Adelaide Enfield has made its decision and that if the decision varies from the City of Charles Sturt, a further report to be presented to Council to enable an alternative to be put in place.</td>
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</tbody>
</table>

**Recommendation:**
It is recommended that the report, minutes and Appendix B be kept confidential until such time as the MRF becomes operational and Appendix A be kept confidential for a period of five years due to the commercially sensitive information contained within, noting confidentiality reviews are undertaken quarterly. And that in any event, the item remain in confidence until such time as the City of Port Adelaide Enfield has made its decision and that if the decision varies from the City of Charles Sturt, a further report to be presented to Council to enable an alternative to be put in place.

**Reasoning:**
The MRF is not yet operational and the trigger date has not yet been satisfied. The report and appendices must therefore remain in confidence.
<table>
<thead>
<tr>
<th>Council / Committee</th>
<th>Report Date</th>
<th>Item No.</th>
<th>Report Title</th>
<th>Section No.</th>
<th>Initial Confidentiality Order Made</th>
<th>Review and Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council</td>
<td>10/08/2020</td>
<td>11.05</td>
<td>Agent Engagement and Income Estimates Regarding Disposal of 318 Seaview Road, Henley Beach</td>
<td>90(3)(b)(i)(ii)</td>
<td>That the report, minutes and Appendix A, be kept confidential until such time as the property is settled following sale.</td>
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<td><strong>Recommendation:</strong> It is recommended that the report, minutes and Appendix A, be kept confidential until such time as the property is settled following sale.</td>
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<td><strong>Reasoning:</strong> Note: This item was deferred until after the further report to Item 6.69 had been determined. Council resolved to defer the matter until February 2021 (refer CL 28/09/20, Item 6.89) to allow time for a strategic report of Council owned building/property assets in Henley Beach and environs to be presented by staff.</td>
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<td><strong>Recommendation:</strong> That the report and minutes be kept confidential until the Cities Power Partnership issue the principles and signatories to national media – expected to occur in early October 2020.</td>
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<td><strong>Reasoning:</strong> The Cities Power Partnership has not yet released the principles and signatories to national media. The report must therefore remain in confidence.</td>
</tr>
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</table>


APPENDIX B
Extract from the Local Government Act 1999

Part 3—Public access to council and committee meetings

90—Meetings to be held in public except in special circumstances

(1) Subject to this section, a meeting of a council or council committee must be conducted in a place open to the public.

(2) A council or council committee may order that the public be excluded from attendance at a meeting to the extent (and only to the extent) that the council or council committee considers it to be necessary and appropriate to act in a meeting closed to the public in order to receive, discuss or consider in confidence any information or matter listed in subsection (3) (after taking into account any relevant consideration under that subsection).

(3) The following information and matters are listed for the purposes of subsection (2):

(a) information the disclosure of which would involve the unreasonable disclosure of information concerning the personal affairs of any person (living or dead);

(b) information the disclosure of which—
   (i) could reasonably be expected to confer a commercial advantage on a person with whom the council is conducting, or proposing to conduct, business, or to prejudice the commercial position of the council; and
   (ii) would, on balance, be contrary to the public interest;

(c) information the disclosure of which would reveal a trade secret;

(d) commercial information of a confidential nature (not being a trade secret) the disclosure of which—
   (i) could reasonably be expected to prejudice the commercial position of the person who supplied the information, or to confer a commercial advantage on a third party; and
   (ii) would, on balance, be contrary to the public interest;

(e) matters affecting the security of the council, members or employees of the council, or council property, or the safety of any person;

(f) information the disclosure of which could reasonably be expected to prejudice the maintenance of law, including by affecting (or potentially affecting) the prevention, detection or investigation of a criminal offence, or the right to a fair trial;

(g) matters that must be considered in confidence in order to ensure that the council does not breach any law, order or direction of a court or tribunal constituted by law, any duty of confidence, or other legal obligation or duty;

(h) legal advice;

(i) information relating to actual litigation, or litigation that the council or council committee believes on reasonable grounds will take place, involving the council or an employee of the council;

(j) information the disclosure of which—
   (i) would divulge information provided on a confidential basis by or to a Minister of the Crown, or another public authority or official (not being an employee of the council, or a person engaged by the council); and
   (ii) would, on balance, be contrary to the public interest;
(k) tenders for the supply of goods, the provision of services or the carrying out of works;
(m) information relating to a proposed amendment to a Development Plan under the Development Act 1993 before a Development Plan Amendment proposal relating to the amendment is released for public consultation under that Act;
(n) information relevant to the review of a determination of a council under the Freedom of Information Act 1991.

(4) In considering whether an order should be made under subsection (2), it is irrelevant that discussion of a matter in public may—
(a) cause embarrassment to the council or council committee concerned, or to members or employees of the council; or
(b) cause a loss of confidence in the council or council committee; or
(c) involve discussion of a matter that is controversial within the council area; or
(d) make the council susceptible to adverse criticism.

(5) A person who, knowing that an order is in force under subsection (2), enters or remains in a room in which a meeting of the council or council committee is being held is guilty of an offence and liable to a penalty not exceeding $500 and if such a person fails to leave the room on request it is lawful for an employee of the council or a member of the police force to use reasonable force to remove him or her from the room.

(6) Subsection (5) does not apply to—
(a) a member of the council or the council committee; or
(b) any other person permitted to be in the room by the council or the council committee.

(7) If an order is made under subsection (2), a note must be made in the minutes of the making of the order and specifying—
(a) the grounds on which the order was made; and
(b) the basis on which the information or matter to which the order relates falls within the ambit of each ground on which the order was made; and
(c) if relevant, the reasons that receipt, consideration or discussion of the information or matter in a meeting open to the public would be contrary to the public interest.

(7a) A council committee meeting will be taken to be conducted in a place open to the public for the purposes of this section even if 1 or more committee members participate in the meeting by telephone or other electronic means in accordance with any procedures prescribed by the regulations or determined by the council under section 89 (provided that members of the public can hear the discussion between all committee members and subject to the qualification that a council may direct a committee not to use telephone or other electronic means for the purposes of its meetings).
(8) The duty to hold a meeting of a council or council committee at a place open to the public does not in itself make unlawful informal gatherings or discussion involving—

(a) members of the council or council committee; or

(b) members of the council or council committee and staff, provided that a matter which would ordinarily form part of the agenda for a formal meeting of a council or council committee is not dealt with in such a way as to obtain, or effectively obtain, a decision on the matter outside a formally constituted meeting of the council or council committee.

Examples—

The following are examples of informal gatherings or discussions that might be held under subsection (8):

(a) planning sessions associated with the development of policies or strategies;

(b) briefing or training sessions;

(c) workshops;

(d) social gatherings to encourage informal communication between members or between members and staff.

*Personal affairs* of a person includes -

(a) that person’s—

(i) financial affairs;

(ii) criminal records;

(iii) marital or other personal relationships;

(iv) personal qualities, attributes or health status;

(b) that person’s employment records, employment performance or suitability for a particular position, or other personnel matters relating to the person, but does not include the personal affairs of a body corporate.
7. MOTIONS ON NOTICE

Nil

8. QUESTIONS ON NOTICE

Nil

9. MOTIONS WITHOUT NOTICE

[As previously identified and agreed by the Presiding Member]

10. QUESTIONS WITHOUT NOTICE

11. BUSINESS - PART 11 - CONFIDENTIAL ITEMS

Nil

12. REPORTS OF COMMITTEES - PART 11 - CONFIDENTIAL ITEMS

Nil

13. MEETING CLOSURE