Notice of Meeting

Alexandrina Council Ordinary Meeting

In accordance with sections 83 and 84 of the *Local Government Act 1999*, notice is hereby given that the next meeting of Council will be held in the *Alexandrina Council Community Chambers "Wal Yuntu Warrin", 11 Cadell Street, Goolwa* on Monday, 19 October 2026 commencing at 5:30 PM.

A recording of the Council meeting will be placed on www.alexandrina.sa.gov.au as soon as practicable following the meeting.



Andrew MacDonald PSM
Chief Executive Officer

15 October 2026

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Agenda for the Alexandrina Council Ordinary Meeting
Monday, 19 October 2026

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1. Opening of Meeting

1.1 Welcome

1.2 Presiding Member's Opening Remarks

1.3 Present

1.3.1 Apologies

1.3.2 Leave of Absence

1.3.3 Absent

1.3.4 In Attendance

1.4 Marks of Respect

1.4.1 Council Prayer

Almighty God, we humbly beseech thee to grant thy blessing upon the works of this Council, guide us in our deliberations for the advancement and the true welfare of the people of this district.

1.4.2 Acknowledgement of Traditional Custodians

The Alexandrina Council and its communities acknowledge the Ngarrindjeri, Peramangk and Kaurna people as the traditional custodians of the lands and waters of our Council District.

1.5 Declaration of Interest by Members

If a Council Member has a conflict of interest, for the purposes of Chapter 5, Part 4, Division 1, Subdivision 4 of the *Local Government Act 1999*, in a matter which will be before the Council at this meeting, they are asked to disclose the interest to the Council and provide full and accurate details of the relevant interest at the beginning of the meeting. Members are reminded they must deal with the conflict of interest in accordance with the relevant provisions of Subdivision 4 at the time the item arises for consideration.

2. Confirmation of Minutes

2.1. Ordinary Council Meeting Minutes - 21 September 2026

That the Minutes of the Alexandrina Ordinary Council meeting held on 21 September 2026 be received as a true and correct record.

The public agenda and minutes from this Council meeting can be located on Council's website at Public Council Agendas and Minutes | Alexandrina Council

2.2. Minutes of Heritage Advisory Group - 1 October 2026

That the minutes of the Heritage Advisory Group meeting held on 1 October 2026 be received and noted.

The public agenda and minutes from this Committee meeting can be located on Council's website at Heritage Advisory Group | Alexandrina Council

2.3. Minutes of Agricultural Advisory Group - 6 October 2026

That the minutes of the Agricultural Advisory Group meeting held on 6 October 2026 be received and noted.

The public agenda and minutes from this Committee meeting can be located on Council's website at Agricultural Advisory Group | Alexandrina Council

3. Adjourned Debate

3.1. Adjourned Debate - Report from 20 July 2026 Ordinary Council Meeting - Item 9.2 - Horseshoe Bay Wave Modelling Project Final Report

Decision Report

Responsible Officer: Matt Atkinson (Group Manager Regional Development)

Report Author: Kylie Weymouth (Manager Strategic Development)

Previous Decisions: C236/07/26

Motion as Adjourned

Adjourned debate from 20 July 2026 Ordinary Council Meeting - Item 9.2 - Horseshoe Bay Wave Modelling Project Final Report

Moved Cr Peter Oliver seconded Cr Bill Coomans

That Council:

1. Adopt the *Horseshoe Bay Data Collection and Modelling Study Final Report* as provided at *Attachment 2* contained in the meeting agenda, including the Recommendations and Next Steps.
2. Approve the Administration:
   a. To undertake an economic and cost benefit analysis for Option 1 (Raise existing breakwater height and length); and Option 4b (Buried seawall & existing seawall replacement with nourishment) subject to obtaining external funding; and
   b. To commence a sand nourishment campaign with an external sand source subject to obtaining external funding and development authorisation.

The mover and seconder are taken to have spoken to the substantive (original) motion.

The mover and seconder of the formal motion is taken to have spoken to the substantive (original) motion.

No other Members have spoken to the substantive (original) motion.

Formal Motion

FORMAL MOTION

C236/07/26

Moved Cr Michael Scott seconded Cr Craig Maidment

That the question be adjourned until a future workshop is held on the entire Council coastline prior to considering Horseshoe Bay.

CARRIED

Original Report as Adjourned

The original report (Item 9.2) is contained in ***Attachment 1***.

Officers Comments

Alexandrina Council Coastline Workshop

Council held an Information Session/Workshop on 28 September 2026 to discuss the broader Alexandrina Council coastline, in accordance with the above Formal Motion (C236/07/26).

At the Information Session, the Administration provided Council Members with a recap of the work that was undertaken from 2021, to understand the impacts of potential sea level rise on Alexandrina's 26 kilometres of coastline, being the *Coastal Adaptation Study 2021* and subsequent *Coastal Adaptation Plan 2022*, which sought to prioritise actions to help adapt or mitigate expected impacts.

It was noted that Horseshoe Bay (and the Murray Estuary areas) were identified within the Coastal Adaptation Plan as the areas of greatest vulnerability, where projected sea-level rise would impact on Council and Community assets. Work on both identified areas is occurring simultaneously.

Clarification was sought regarding the ownership of the breakwater and the existing seawall, and which government department was responsible for funding the proposed works. A summary of the response is provided below.

Ownership

As part of the engagement process, Council's Administration sought feedback from the Coast Unit of the Department for Environment and Water (DEW) given their role in the State's coastal planning. Administration sought clarification regarding where responsibilities lie for managing coastal hazards. Feedback from the DEW Coast Unit is provided at ***Attachment 2***.

The response provided from the DEW Coast Unit states that '*the responsibility for undertaking coast protection works at Horseshoe Bay lies with the Alexandrina Council*' and that DEW Coast Unit is available to assist with technical guidance.

Importantly, neither Council nor the Administration have accepted that Council is responsible for these coast protection works. However, on a without prejudice basis and in the interest of keeping this matter moving forward, we have continued with the proposed approval and funding pathway.

Funding

Discussions with Coast Unit staff indicates a high probability that the projects identified as the next steps for Horseshoe Bay will receive grants (either the CPB Grant program, Climate Ready Coasts program, or the Commonwealth Disaster Fund), particularly as the projects and the information supporting them meet the South Australian Coastal Hazard Adaptation Planning Guidelines (CHAP). A link to these guidelines is found here: Coastal Hazard Adaptation Planning Guidelines. Staff at the Coast Unit of DEW have also offered in-kind support in preparing the necessary documentation to undertake the recommended next steps.

Given the significant budget constraints of Council, the recommendations that are subject to the adjourned debate include reference to obtaining external funding for all of the proposed next steps and implementation.

Country Cabinet meeting

On Thursday 8 October 2026, as part of the 2026 Country Cabinet, a Council delegation met with Premier Peter Malinauskas, Environment Minister Emily Bourke, Member for Finniss Lou Nicholson and several State Government staffers at Horseshoe Bay to discuss the storm damage to the seawall and the current mitigation options being considered by Council and the Coast Protection Board.

Council’s delegation included Mayor Parkes, Chief Executive Officer Andrew MacDonald, Group Manager Regional Development Matt Atkinson and Manager Assets Jonathon Smyth.

The Premier and Minister acknowledged the importance of Horseshoe Bay to South Australians and were interested in the findings and next steps. The Coast Protection Board confirmed their collaboration with Council’s team and their support to fund the proposed next steps via one of their recognised grant schemes.

The two (2) preferred options, identified by the Community during the engagement (upgrading and extending the breakwater; and the repair, upgrade and extension of the seawall with sand nourishment) were discussed in detail.

In relation to the breakwater, there was a general acknowledgment that the breakwater was a State Government (Department for Infrastructure and Transport) asset (at least the portion of the breakwater that is seaward of the high water mark), and that the State would be responsible for the asset. Notwithstanding, it was clear that the State would not be likely to act on the community’s preferred option of upgrading the breakwater without the proposed cost/benefit analysis and a comparison with other mitigation options.

In relation to the existing seawall replacement, buried seawall and sand nourishment (Option 4b in the adjourned report (Attachment 1), it was flagged that Council would be seeking funding to implement the proposed mitigation works once the cost/benefit study had been completed and a suitable sand source was identified.

Regarding the seawall repairs, resulting from stormwater surge and the undermining of the existing seawall from king tides and storm surge, Council was encouraged to ensure the design accounts for any upgrades required to mitigate sea-level rise, and to seek funding from available grant schemes for the works.

Summary

It is recommended that Council support the original Motion from the adjourned debate, to enable Administration to proceed with next steps including an economic and cost benefit analysis for Options 1 (raise existing breakwater height and length) and Option 4b (buried seawall and existing seawall replacement with nourishment); and to identify a suitable sand source to commence an interim sand nourishment campaign.

Importantly, all proposed next steps are subject to obtaining external funding.

Dealing with the adjourned question

Members must resume the adjourned question (motion) from the point of adjournment.

At the point of adjournment, the mover (Cr Oliver) and seconder (Cr Coomans) of the substantive motion and the mover (Cr Scott) and the seconder (Cr Maidment) of the formal motion are taken to have spoken to the substantive motion. For any of these Members to speak for a second time to the motion they must seek and be granted leave of the meeting (Note: Cr Oliver as the mover of the substantive motion retains his right of reply).

Members (not including those listed above) may continue debate on the motion and, subject to applicable elements of Meeting Procedure, may move an amendment/seek a variation, as deemed necessary.

Attachments

Attachment 1 – Council Agenda – Item 9.2 - Horseshoe Bay Wave Modelling Project Final Report and Attachments – 20 July 2026

Attachment 2 - Advice from Coast Unit DEW

Attachment 1 - Council Agenda - Item 9.2 - Horseshoe Bay Wave Modelling Project Final Report – 20 July 2026

9.2. Horseshoe Bay Wave Modelling Project Final Report

Decision Report

Responsible Officer: Matt Atkinson (Group Manager Regional Development)

Report Author: Kylie Weymouth (Manager Strategic Development)

Previous Decisions: February 2021 - ACM21878, August 2022 - ACM221628, C291/09/25

Report Purpose

To present to Council the community engagement results and the final report regarding the *Horseshoe Bay Data Collection and Modelling Study* which contains recommendations regarding mitigation options and next steps.

Recommendation

Recommendation Group A

That Council:

1. **Receive and note the contents of the report titled *Horseshoe Bay Wave Modelling Project Final Report.***
2. **Receive and note the *Community Engagement Feedback Report - Planning for the Future of Horseshoe Bay*, as contained in *Attachment 1*.**

Recommendation Group B

That Council:

3. **Adopt the *Horseshoe Bay Data Collection and Modelling Study Final Report* at *Attachment 2*, including the Recommendations and Next Steps.**
4. **Approve the Administration:**
   a. **To undertake an economic and cost benefit analysis for Option 1 (Raise existing breakwater height and length); and Option 4b (Buried seawall & existing seawall replacement with nourishment) subject to obtaining external funding; and**
   b. **To commence a sand nourishment campaign with an external sand source subject to obtaining external funding and development authorisation.**

Background

Council's 2021 Coastal Adaptation Study considered Alexandrina Council's 26 kilometres of coastline to determine the likely effects of predicted sea level rise (based on the South Australian Coast Protection Board adopted sea level rise). Horseshoe Bay was identified as being at high inherent risk of erosion, with extreme risk posed by erosion by the end of the century without mitigation. The subsequent *Coastal Adaptation Plan 2022* (CAP) identified a series of immediate, intermediate and longer-term priority actions. A data collection and modelling study for Horseshoe Bay was identified as one (1) of six (6) priority actions identified in the CAP. Council, supported by a Federal Government grant, undertook this data collection and wave modelling study, in order to better understand the relevant risks and to identify potential mitigation options for Horseshoe Bay.

The objectives of the *Horseshoe Bay Data Collection and Modelling Study* (the Study) were to:

- Confirm the required setback (erosion buffer) for the medium term (2030 - 2050) and longer term (2100);
- Test the effectiveness of viable management options in the model; and
- Assess the economic, social, and environmental trade-offs of viable management options, and to present these options to key stakeholders and the community.

Cape Advisory, in collaboration with Flinders University and Port and Coastal Solutions, formed the project team that undertook the research necessary to inform the project objectives. Research and data collection included:

- a wave buoy that was deployed in Horseshoe Bay and measured waves over summer and winter;
- bathymetry (sea floor mapping) and beach survey;
- a breakwater survey; and
- pre and post storm surveys.

The results indicate that without any intervention present (including the existing sea wall), that the shoreline at Horseshoe Bay is likely to recede up to approximately 12 metres in the middle of the Bay by 2050 and up to 25 metres in the middle of the Bay by 2100, putting a significant amount of private and public infrastructure at risk including, but not limited to, the Bowling Club, Flying Fish Cafe, Surf Lifesaving Club, and Council assets including car parking areas and footpaths.

As such this work is already informing Council's approach to infrastructure and asset management within the Bay. Item 9.3 within this agenda discusses beach access points within Commodore Reserve, refers to the results of this study and looks at future proofing the life cycle of these critical assets in that environment.

An initial screening of viable management options was then undertaken, with five (5) options and two (2) variations of options, for adapting to, or mitigating the effects of the expected shoreline recession, identified. These options, their associated capital and operating costs, their effectiveness, their ease of implementation, their flexibility and their social and environmental/cultural trade-offs were identified and presented to Council at a Council Member Information Session held at the Coorong Lower Lakes Murray Mouth (CLLMM) Research Centre in August 2025.

Council approved a Community Engagement Plan as the basis for communicating the outcomes of the study to key stakeholders and the community, at the 15 September 2025 Ordinary Council Meeting. Community engagement was undertaken between 25 September and 30 October 2025, and the results of the community engagement were presented to Council Members at the 24 November 2025 Information Session.

This report formally provides Council with the engagement results (***Attachment 1***) and outlines the recommended next steps, as identified by the consultant team in the report titled *Horseshoe Bay Data Collection and Modelling Study Final Report* (***Attachment 2***).

Discussion

Community engagement for the Study was undertaken from 25 September until 30 October 2025 to raise awareness of the risks posed by coastal erosion and sea-level rise and in order to understand the social and cultural trade-offs of the different options identified. Information provided included a description of each option, a statement about its effectiveness in mitigating the predicted sea level rise based erosion, the estimated capital and operating costs, and a summary of the pros and cons of each option.

Engagement activities included:

- one to one meetings with directly affected land and/or business owners,
- two community information sessions,
- a Council Committee/Advisory Group information session
- a stall at the Port Elliot Show
- MySay page containing all of the relevant information including an online video recording explaining the study and the options
- an online survey

A total of 88 survey responses were received. The most supported options were:

- Option One - raise the existing breakwater height and extend the length which was supported by 54% of survey respondents support or strongly support; and
- Option 4b - buried seawall and existing seawall replacement with sand nourishment for which 48% of survey respondents support or strongly support.

The Community Engagement Feedback Report (***Attachment 1***) discusses the engagement results in more detail.

Comment was also sought from the Department for Environment and Water (DEW) Coasts Unit who advised that they don't have a preferred option, but that potential options should follow the South Australian Coastal Hazard Adaptation Planning Guidelines (CHAP). A link to these guidelines is found here: Coastal Hazard Adaptation Planning Guidelines.

Recommended Next Steps

It is important to note that this Study identifies that the trigger for commencing an adaptation pathway for Horseshoe Bay is considered to have been reached and therefore that planning needs to commence now.

Based on the outcomes of the data collection, numerical modelling, options assessment and community engagement, an adaptation pathway plan for Horseshoe Bay that involves the progression of the following two adaptation actions in parallel is recommended:

- economic cost benefit analysis and long-term adaptation solution; and
- sand nourishment

Undertaking an economic cost benefit analysis is recommended for the preferred two options (Option 1 and Option 4b) to support a robust and defendable decision prior to any significant capital investment being made, particularly given the significant likely costs of Option 1. This recommendation is consistent with the CHAP.

Economic analysis will allow for a clearer understanding of the costs and benefits of each option, including recreational, environmental and asset protection values.

If at the end of this analysis, Option 1 (existing breakwater) is progressed, a complementary adaptation pathway (such as sand nourishment or seawall) would also need to be implemented in the longer term. This is because the data and modelling undertaken in this study has confirmed that raising and extending the breakwater will not be effective at mitigating the impacts of sea level rise (SLR) based erosion.

In conjunction with the recommendation to undertake an economic and cost benefit analysis for Options 1 and 4b, it is also recommended that an interim sand nourishment trial of the central part of the bay using an external sand source (Option 3b) be commenced in the short term. This option will provide an immediate improvement in resilience to storm and SLR based erosion (shoreline recession) and respond to the significant level of importance the community and user groups place on the existence of a sandy beach. This option offers a flexible solution in the short term.

Given the significant budget constraints of Council, it is recommended that the two recommended options be pursued in collaboration with the DEW Coast Unit that has indicated that they may be able to offer in-kind knowledge-based assistance. It is also intended to apply for the Coast Protection Board's annual grant.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered to have a medium impact. It is intended to seek grant funding and in-kind assistance for the commencement of both recommendations. The economic and cost benefit analysis would need to be undertaken and consultation with the asset owner (understood to be in part, the Department for Transport & Infrastructure) before any decisions are made regarding which adaptation option to pursue.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered low because the recommendation is that action be taken in accordance with the findings of the *Horseshoe Bay Data Collection and Modelling Study Final Report*. Given that the Study identifies that the triggers for action have been reached and that option(s) need to be progressed, it is considered that the risk of not adopting the recommendation is High.

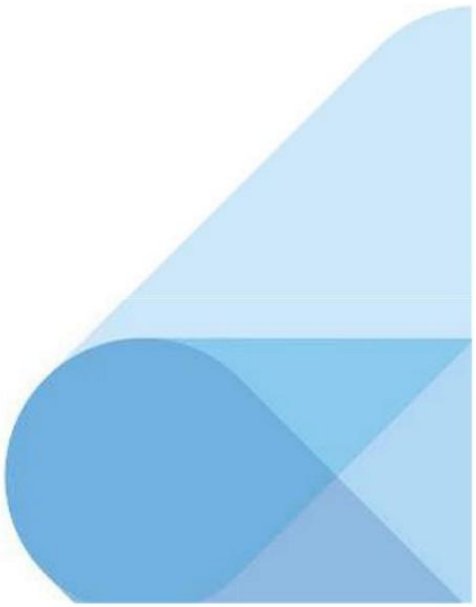
Attachments

Attachment 1 – *Community Engagement Feedback Report - Planning for the Future of Horseshoe Bay*

Attachment 2 - *Horseshoe Bay Data Collection and Modelling Study Final Report*

Community Consultation Feedback Report

Planning for the future of Horseshoe Bay



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1.0 Background

The Alexandrina 25km coastline has significant cultural, social, environmental, and economic value to our local community, the Ngarrindjeri Nation and visitors to the region. Rising sea levels will exacerbate erosion and seawater inundation in many coastal areas.

Horseshoe Bay in Port Elliot is one beach identified as a priority action area in our 2022 Coastal Adaptation Plan

Recent investigations indicate the shoreline will recede by up to 12m by 2050 and 25m by 2100, placing built infrastructure at risk.

An independent coastal engineer appointed by Council has investigated the projected impacts of coastal hazards such as sea level rise and coastal erosion in the Bay.

Options for mitigation have been identified, along with their associated trade-offs, including effectiveness, cost, risk, and environmental impacts. These options include:

- Option 1: Raising the breakwater height and length.
- Option 2: Constructing a submerged breakwater - nature-based or artificial reef - in the near shore,
- Options 3A and 3B: Sand nourishment only (from the eastern side of Horseshoe Bay or from external sources)
- Option 4A and 4B: Replacing and extending the existing seawall (with or without sand nourishment)
- Option 5: Managed relocation of assets.

Cape Advisory also provided initial estimates of possible capital and operational costs for four of the options.

The engagement aimed to:

• Raise awareness of the risks posed by coastal erosion and sea-level rise

• Provide information about each option, its cost and pros and cons

• Understand the level of community and stakeholder support for each option and what is

liked or not liked about each option.

We sought community feedback on these presented options.

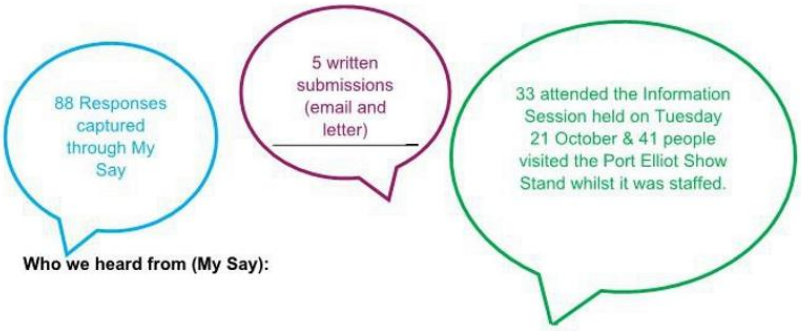
Council had not formed a view regarding the options and is consulting with key stakeholders and the community to understand their views.

The area of Horseshoe Bay that contains built infrastructure is Crown Land under Council Care and Control. The State Government's Coast Protection Board has 'power of direction' over this area and will have the final say.

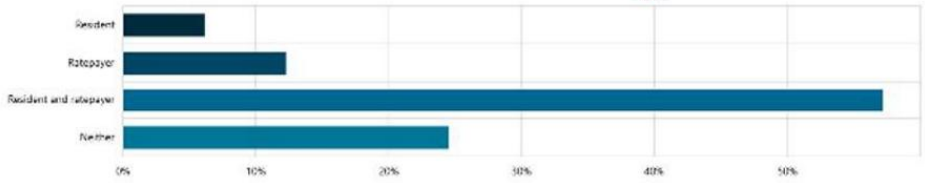
2.0 Engagement Snapshot

During the consultation period from 25 September and 30 October **a total of 93 responses** were received across both the My Say platform and via email/hard copy.

Email and hard copy surveys were consolidated into the My Say platform to streamline data and keep it in one central location.



Who we heard from (My Say):



2.1 Engagement communications

Activity/ Method	Date	Outcome/ Result
My Say project page	25 September	719 total page visits 4 submissions via the online survey 29 summary brochure downloads 31 video presentation views
Local Displays – Council Office, library	25 September	Information published on Goolwa entrance digital display, Strathalbyn office and Port Elliot Library depot
Posters on community boards	25 September	10 posters distributed to community noticeboards and businesses
Corflute posters	25 September	Two large weather-proof posters installed at Horseshoe Bay (one near caravan park beach entrance and one near showers [Surf Life Saving Club end])
Instagram	26 September 20 October 29 October	Over 2k views and over 1.3k accounts reached
Facebook	26 September 8 October 20 October 29 October	Over 9k views, 21 shares, 43 link clicks
Key Stakeholder engagement		One-on-one meetings held on 8 October 2025 with: • Port Elliot Surf Lifesaving Club • Flying Fish Café • Port Elliot Bowls Club And online with the Port Elliot Caravan Park. Department for Environment and Water (DEW) Coast Unit were also provided the opportunity

		to review options and provide feedback in line with Coast Protection Board policy.
Presentation/workshop	8 October	Combined Committee Information Session
Community Drop in Sessions	21 October	Presentations at 4:30 and 6pm. 33 people attended overall.
Port Elliot Show Stand	11-12 October 2025	Stand with information display, survey forms and information. Staffed for half of each day. 41 visits whilst staffed & many surveys taken whilst not staffed.
Public Notice Fleurieu Sun and Southern Argus		

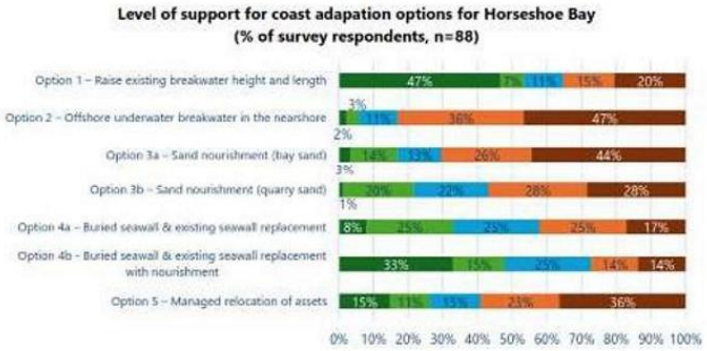
3.0 Consultation Response Overview

3.1 Evaluation

The options that received the highest levels of support through the responses were:

• Option 1 – Raise existing breakwater height and length (54% of survey respondents support or strongly support)

• Option 4b - Buried seawall & existing seawall replacement with nourishment (48% of survey respondents support or strongly support).


Level of support for coast adapation options for Horseshoe Bay
(% of survey respondents, n=88)
Option 1 – Raise existing breakwater height and length
47%
20%
Option 2 – Offshore underwater breakwater in the nearshore
3%
2%
47%
Option 3a – Sand nourishment (bay sand)
3%
44%
Option 3b – Sand nourishment (quarry sand)
1%
28%
Option 4a – Buried seawall & existing seawall replacement
8%
17%
Option 4b - Buried seawall & existing seawall replacement with nourishment
33%
14%
Option 5 – Managed relocation of assets
15%
36%
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Feedback summary:

Options in order of support	Feedback overview[3]
Option 1 Raise existing breakwater height and length	Desired because it will protect the calm area of the bay that is valued by community and tourists as well as the heritage breakwater but needs to be done in conjunction with another option to protect the bay in the long term. Some are concerned about the marine environmental impacts and the cost for little long-term benefit/effectiveness.
Option 4b Buried seawall & existing seawall replacement with nourishment	Liked because limits erosion, protects infrastructure and maintains a useable sandy beach. Seen as the most comprehensive option / 'best of both worlds' as it is effective in the short and long term and retains look and feel of Horseshoe Bay and recreation and tourism value. Some suggest doing along with option 1. Concern with engineered look, long term cost and potential loss of beach replenishment not maintained or if sea-level rise exceeds projections.
Option 4a Buried seawall & existing seawall replacement	Liked because it limits erosion, protects infrastructure and is straightforward to do and for community to understand. However, concerns that it will not maintain a sandy beach in the long term and so will impact on the social environmental and economic value of the beach. Cost without long term benefit. Plus, concerns of impacts during construction and a 'hard' rather than a natural solution.
Option 5 Managed relocation of assets	Viewed by most as defeatist or abandoning Horseshoe Bay's amenity, heritage, community and economy. It's uncosted and a feasibility and bureaucratic challenge. Should be a long-term contingency rather than an immediate priority. Liked by some because it works with nature and the coast's natural trajectory and demonstrates climate change leadership.
Option 3b Sand nourishment (external sand)	Not supported as doesn't address long-term impacts, concerns that cost may exceed that of option 1 over time and of the compatibility of sand and impacts to beach access and amenity during campaigns. Replenishment is seen as a 'natural', feasible, short term easy and flexible measure that could be used to complement other options. External sand seen as preferable to bay sand.
Option 3a Sand nourishment (bay sand)	As above but added environmental concerns regarding the impact of sourcing sand from dunes and the beach in the bay.
Option 2 Offshore underwater breakwater in the nearshore	Not supported due to concerns about beach/dune erosion either side of the structure, impacts of structure on natural wave movement (e.g. for body boarding), is an underwater hazard for boats, and is costly without being effective in short or long term. Small support for ecological or recreation gains from establishing a reef.

4.0 Self-nomination to participate

It is important to acknowledge that involvement in the public consultation process is voluntary, with participants self-nominating to contribute. As a result, the feedback gathered should not be regarded as statistically representative of all perspectives.

5.0 Information Session Feedback

18 filled out the short hard copy survey upon exiting.

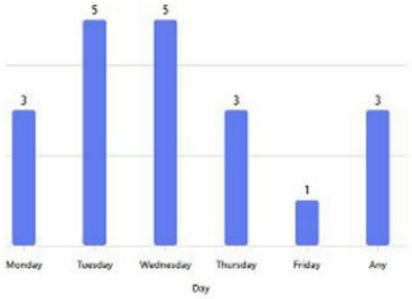
Overall Experience

- **Useful:** 9 responses
- **Informative:** 15 responses
- **Neutral/Other:** No responses

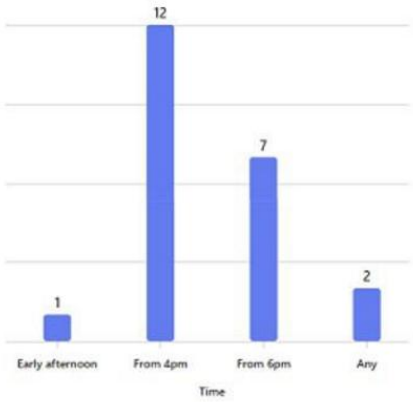
Format Preference

- **Liked the format:** 16
- **Did not like the format:** 1
- **Suggestions for improvement:**
    - Move people closer to the front
    - Use a smaller room to reduce echo
    - Consider carpeted venues like the RSL Hall

Preferred Day



Preferred Time



Additional Feedback

- Acoustic issues made it hard for hearing-impaired attendees
- Suggestion to offer incentives for attendance
- Appreciation for the opportunity
- Emphasis on the importance of being kept informed about future developments

6.0 Consultation images







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Horseshoe Bay Data Collection and Modelling Study

Summary Report



Prepared for Alexandrina Council

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Rev	Date	Description	Prepared	Reviewed
A	03/02/2026	DRAFT for client review	AS	Client
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Prepared for Alexandrina

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Executive Summary

A 2021 Coastal Adaptation Study identified Horseshoe Bay at high inherent risk to erosion, with extreme risk posed by erosion by the end of the century without mitigation. This current study investigates erosion risk and potential mitigation options through the analysis of measured data and numerical modelling tools.

Flinders University were engaged to conduct data collection of directional waves, breakwater elevation, bathymetry and beach topographic changes pre and post storm events at Horseshoe Bay (see Appendix A). This data helped characterise the beach's response to storms and provide valuable model validation/calibration data to support numerical modelling performed by Port and Coastal Solutions (see Appendix B). The data collection and modelling exercises found that assets are at risk from present day storms with risk and the number of assets increasing considering the effects of Sea Level Rise (SLR).

Following the characterisation of baseline erosion risk, adaptation options were investigated which mitigate erosion risk. Initially, a long list of options were considered based on the adaption hierarchy of avoid, accommodate, retreat and protect. Through consultation with Alexandrina Council a shortlist of options was developed to perform further analysis, including:

- Option 1: Raise existing breakwater height and length
- Option 2: Submerged breakwater in the nearshore
- Option 3a: Sand nourishment of central part of the bay sourced from the eastern part of the bay
- Option 3b: sand nourishment of central part of the bay from external source
- Option 4a: buried seawall and existing seawall replacement
- Option 4b: buried seawall and existing seawall replacement and sand nourishment
- Option 5: managed retreat

These options were explored to consider their efficacy at reducing erosion risk (including additional numerical modelling), economic viability, benefits and constraints.

Stakeholder and community engagement was undertaken between September and October 2025 to understand community values, priorities and levels of support for the shortlisted options. Engagement activities included a community survey, information sessions, stakeholder meetings and broader community outreach. Feedback indicated the strongest levels of support for Option 1 (raise existing breakwater height and length) and Option 4b (buried seawall with existing seawall replacement and nourishment), reflecting a preference for options that protect infrastructure while maintaining beach amenity and the character of Horseshoe Bay.

Based on the outcomes of the data collection, numerical modelling, options assessment and community engagement Figure 1 below presents an adaptation pathway plan for Horseshoe Bay, with the key recommendations to progress the following two adaptation actions in parallel:

1. **Interim sand management** (while the long-term adaption pathway is resolved)
2. **Economic analysis to support long term adaptation** in line with the South Australian LGA Coastal Hazard Adaptation Guidelines economic analysis of the preferred viable adaptation options is required.

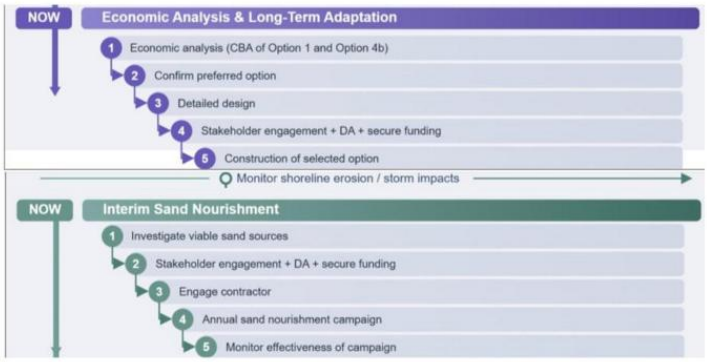


Figure 1: Adaptation Pathway Plan

Is recommended that economic analysis is progressed for the following two options to support a robust and defendable decision prior to significant capital investment.

- **Option 1** Raise existing breakwater height and length
- **Option 4b** Buried seawall & existing seawall replacement with nourishment

This recommendation consistent with Stage 4 (Adaptation actions and pathways) the South Australian LGA Coastal Hazard Adaptation Guidelines. Economic analysis will allow for a clearer understanding of the costs and benefits of each option, including recreational, environmental and asset protection values.

If Option 1 (existing breakwater) is progressed, a complementary adaptation pathway (such as sand nourishment or seawall) would need to be implemented in the longer term, given this study has confirmed this option will not be effective at mitigating the impacts of SLR.

To support this process and maintain flexibility for future adaptation, it is recommended that an interim sand nourishment trial of the central part of the bay using an external sand source (Option 3b) be progressed. This option provides an immediate improvement in resilience to storm and SLR-

induced shoreline recession, while enhancing beach amenity for the community and visitors. The required steps to implement the trial have been summarised in this report.

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1 Introduction

1.1 Background

In 2021, Council finalised the Coastal Adaptation Study (CAS). This investigated how people, the natural environment and built assets might be impacted by rising sea levels over coming decades so that Council and other stakeholders, such as State Government and private landowners, can plan for the future.

The CAS incorporated the following key components:

- Review of key coastal processes influencing our coastline
- Inundation and erosion risks based on projected sea level rise (in year 2020 and 2100)
- Identification of public and private assets at risk
- Consideration of viable adaptation pathways
- High level recommendations for short and longer term actions to support the recommended adaptation pathways

The CAS outlined the following for Horseshoe Bay:

- Currently, the mid-section of the Bay is impacted by coastal erosion resulting in an almost vertical embankment fronting the recreation reserve.
- In the next 20-30 years, most of the Bay is projected to be directly impacted by waves. The reserve in front of the Port Elliot Surf Life Saving Club is likely to be over-topped by sea water during high water and storm events. As sea levels rise, erosion associated with these high water events is likely to cause the shoreline to move inland.
- By 2100, high water and storm events will have an even greater impact on Horseshoe Bay. Most of the Bay is likely to be directly impacted by waves and it is considered very unlikely that the Bay would be able to retain its existing formation. There will be significant impacts on assets and infrastructure including the café, bowling greens, boardwalk, walking paths and stormwater infrastructure.

Subsequently, the CAS identified Horseshoe Bay at High inherent risk to erosion, with an Extreme risk to erosion by the end of the century without mitigation. More specifically an Extreme risk to public infrastructure.

A key recommendation was for metocean data collection, monitoring, and modelling to be undertaken to better understand the existing processes at play and to understand how the Bay will respond to sea level rise over time.

1.2 Project objective

Based on the key recommendation from the CAS, the following project objectives were developed which have been investigated and summarised in this report.

1. Confirm the required setback (erosion buffer) for the medium (2030 - 2050) and longer term (2100).
2. Test viable management options in terms of effectiveness.
3. Assess the economic, social, environmental trade-offs of viable management options and present for consideration to key stakeholders and the community.

2 Measured data

Flinders University were engaged to conduct data collection of directional waves, breakwater elevation, bathymetry and beach topographic changes pre and post storm events at Horseshoe Bay. A summary of this work is provided below with further details of this data collection including instrumentation, deployment, parameter description and key data interpretations provided in Appendix A.

2.1 Instrumentation, deployment and data collection

A Nortek Sig1000 ADCP (Acoustic Doppler Current Profiler) with AST (Acoustic Surface Tracking) detection was used for measurements of directional wave data. The ADCP was deployed at the location presented below in Figure 2.



Figure 2 - Location of the ADCP deployment, -35.535°, 138.686° (WGS84) (image sourced from Miot da Silva, 2024)

The location was selected to capture waves entering the bay, at a location not acutely impacted by reefs and deep enough to avoid exposure during low tide. Approximately 6 months of directional wave data was collected during summer and winter seasons (Table 1). Directional waves timeseries were derived during post-processing from the ADCP acoustic measurements at an interval of 20 minutes.

Table 1 - Description of ADCP deployment (sourced from Miot da Silva, 2024)

Deployment location	Geographic coordinates (WGS84)	Depth (AHD)	Length of deployment	Length of deployment/ length of dataset
Horseshoe Bay, approximately 330 m SW of Commodore Point	-35.535339° 138.686856°	Approx 5m	05 June 2023 to 04 September 2023	92 days/82 days
Horseshoe Bay, approximately 330 m SW of Commodore Point	-35.535312° 138.686841°	Approx 5m	01 Dec 2023 to 04 March 2024	95 days/90 days

To capture breakwater elevations and beach topography, a drone with LIDAR unit attached was used. These surveys were undertaken by Flinders University Chief Pilot Mr Robert Keane (Remote Operating Certificate: 7586). Operations were conducted in accordance with the university's Operations Manual and will follow the universities Operational Procedures as approved by CASA.

The beach topography was surveyed in three occasions: 27th June 2023, 4th July 2023 and 11th July 2023 with survey dates chosen based on occurrence of storm events during the data collection phase of the project. The breakwater survey was performed on 17th April 2023 during a low neap tide.

2.2 Data interpretation

The ADCP deployment site at Horseshoe Bay is sheltered from the offshore wave climate. The average Hs during the winter deployment was 0.93m with a maximum wave height of 2.5m (5th August 2023). Winter Peak Period (Tp) varied between 6.5s and 23.3s (average 13.4 s) with waves longer than Tp=8s (swell waves) dominating the winter sampling period (occurred 99% of the time). The average Hs during the summer deployment was 0.86m with a maximum wave height of 1.89m on the 25th February 2024. Summer Peak Period (Tp) varied between 3.5s and 22.5s (average 11.2 s) with waves longer than Tp=8s being the peak condition 81.5% of the time. Wave directions from both deployments were similar, both indicating a consistent southerly wave direction, however the winter deployment displayed a slightly stronger easterly component. Wave roses from the measured ADCP data are presented below in Figure 2.

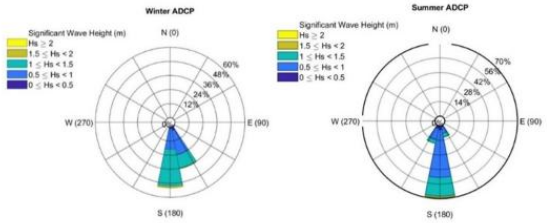


Figure 3 – Measured wave roses from ADCP (sourced from Miot da Silva, 2024)

The three topographic beach surveys performed in the winter of 2023 were timed to capture pre and post storm changes to beach levels. A storm occurred between the 27th June and 4th July surveys on 1st July as well as an additional storm between the 4th July and 11th July surveys on 8th July. These storms were of similar magnitude with a peak Hs of approximately 1.5m and corresponding peak period of 13s for the 1st July storm and 15s for the 8th July storm. On both occasions the storms occurred on mid-tide with peak wave direction was southerly from 170°.

Topographic beach surveys pre and post each storm were compared to assess changes to beach elevation. The total volumetric changes on the beaches are presented in Table 2 and spatial elevation changes are presented in Figure 4. During the June event, deposition occurred on the western and eastern sides of the bay. The central part of the bay experienced erosion, while the upper part of the backshore and base of the foredune remained mostly stable. Conversely, in the July storm erosion occurred on the western and eastern sides of the bay while the central region experienced accretion.

Table 2 – Volume changes during the June and July storm events (sourced from Miot da Silva, 2024)

Storm event	Accretion	Erosion	Net change
June (28/06/2023 to 02/07/2023)	495.71 m^3 ± 213.89	793.86 m^3 ± 289.07	~298 m^3 erosion
July (05/07/2023 to 11/07/2023)	1354.8 m^3 ± 209.79	1,725.61 m^3 ± 317.55	~370 m^3 erosion

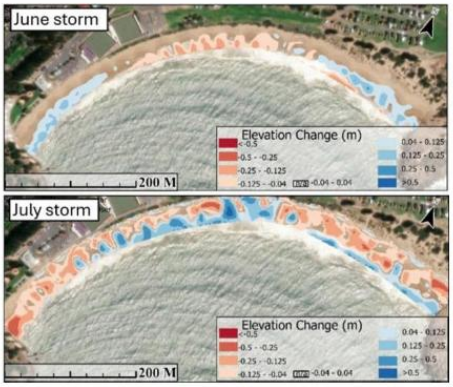


Figure 4 – Elevation changes due to June and July storms (sourced from Miot da Silva, 2024)

3 Numerical modelling

Port and Coastal Solutions Pty Ltd (PCS) were engaged to provide data analysis and numerical modelling services to inform the Horseshoe Bay coastal assessment. A summary of this work is provided below with further details of model setup, model results and assessment of management options provided in Appendix B.

3.1 Modelling approach

To understand the processes which influence the shoreline and beach morphology at Horseshoe Bay three numerical modelling tools were utilised:

- Spectral wave model to assess local wave conditions in the bay by modelling the transformation of waves from offshore conditions and the impact of winds.
- Storm response model to assess cross shore changes in the beach profile during storm events.
- Sea level rise response model to assess how the beach profiles may change through time with rising sea levels.

Summaries of the spectral wave model, storm response and ShoreTrans model setups are presented in *Table 3*,

Table 4 and *Table 5* respectively.

Table 3 – Summary of spectral wave model setup

Model Element	Adopted approach
Software	MIKE Spectral Wave (SW) module.
Model mesh	Flexible mesh (FM) with spatial resolutions varying throughout model domain. Higher resolutions (approximately 30m) are applied in Horseshoe Bay and coarser resolutions offshore (up to 5,000m) (see Figure 5).
Bathymetry	A series of sources were incorporated into the model bathymetry including; Horseshoe Bay bathymetric survey (HydroSurvey, 2023), Horseshoe Bay intertidal zone LIDAR survey (Flinders University, 2023), digitised navigation charts and the Bathymetric Grid of Australia dataset (Geoscience Australia, 2009).
Boundary conditions	Measured wave conditions from the Cape du Couedic wave buoy with any gaps filled by the national CAWCR wave model. Wind conditions were based on the measured data from Cape Jaffa. Water levels sourced from Victor Harbour tide gauge.
Model calibration	Modelled wave conditions calibrated against two months of wave data collected 20th June 2023 and 30th August 2023.
Simulation period	20 years from 2000 to 2020.

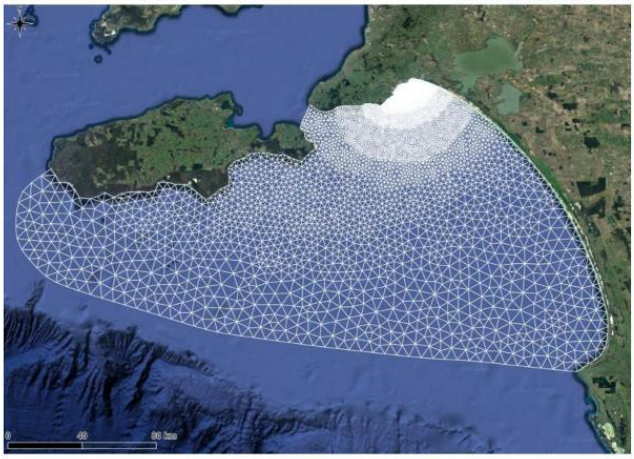


Figure 5 - Spectral wave model mesh (sourced from Symonds, 2024)

Table 4 – Summary of storm response model setup

Model Element	Adopted approach
Software	MIKE Littoral Processes (LITPROF) module.
Cross shore beach profiles	7 profiles at 100m spacing along Horseshoe Bay shoreline. Profiles extend to a depth of approximately -6.5m AHD (see Figure 6).
Bathymetry	Bathymetric and LIDAR survey data.
Simulation period	September 2016 event selected as the highest wave event corresponding to a high water level from the 20 year wave hindcast.
Sea Level Rise (SLR)	0.1m, 0.3m and 1.0m SLR scenarios were modelled to represent the 2030, 2050 and 2100 time horizons as recommended by the South Australian Coast Protection Board.
Validation	Qualitative comparison to estimated recession from 2016 storm.

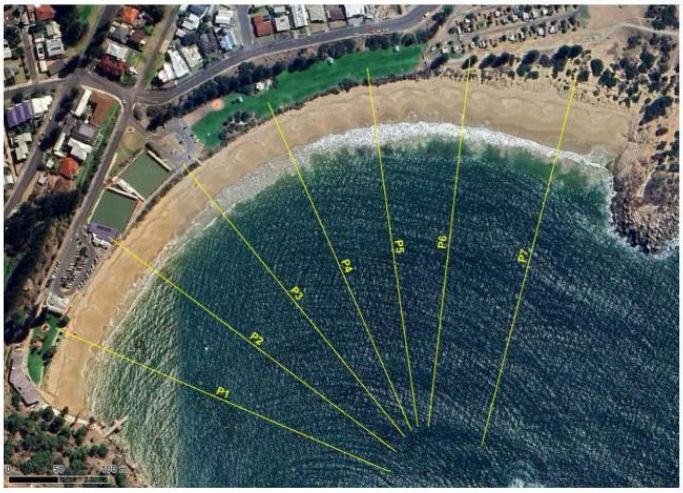


Figure 6 – Cross shore profile locations used for storm and sea level rise response models (sourced from Symonds, 2024)

Table 5 – Summary of sea level rise response model setup

Model Element	Adopted approach
Software	ShoreTrans[1].
Cross shore beach profiles	7 profiles at 100m spacing along Horseshoe Bay shoreline. Profiles extend to a depth of approximately -6.5m AHD (same profiles as storm response model).
Inner depth of closure	As per Hallermeier (1981)[2].
Representation of structures	Profiles P1 to P3 were modelled with and without the representation of a seawall.

[1] McCarroll, R.J., Masselink, G., Valiente, N.G., Scott, T., Wiggins, M., Kirby, J-A., and Davidson, M., 2021. A rules-based shoreface translation and sediment budgeting tool for estimating coastal change: ShoreTrans, Marine Geology 435.
[2] Hallermeier, R.J., 1981. A Profile Zonation for Seasonal Sand Beaches from Wave Climate, Coastal Engineering. 4: 253-277.

3.2 Baseline modelling results

Baseline modelling results provide insight into the present day and future hazard exposure without intervention. Key outcomes from this modelling are presented below:

- Results from the 20-year spectral wave model (see Figure 7) show that wave heights vary across the Bay due to the relative exposure of the Bay to the waves from the south. The smallest waves are at the western end, where the Hs was below 1 m for 96% of the time, and the largest waves are at the eastern end where the wave heights are only slightly smaller than at HB01, with an Hs of less than 1 m occurring for 73% of the time (66% at HB01) and an Hs of more than 1.5 m occurring for 3% of the time (6% at HB01).
- Storms modelled using the storm response model are predicted to erode sand from the profile above 0.5 m AHD and this sand is deposited further offshore in the profile between 0.5 m and -5 m AHD. There is predicted to be an increase in the elevation of the offshore bar around -1 to -2 m AHD. The growth of an offshore bar during a large storm event is a typical natural response of a beach as the increase in elevation of the offshore bar promotes wave breaking which in turn acts to limit the wave heights closer to the beach.
- The modelled shoreline recession rates due to the storm event and SLR as well as the combined recession due to both are shown for all 7 profiles in Table 6. The table shows the following:
    - 2030: the short-duration storm event recession rates range from 4 to 6 m, while the long-term SLR recession rates range from 1 to 3 m, resulting in combined recession rates of 5 to 9 m. The lowest recession rates are predicted at the western and eastern ends of the Bay, while the highest recession rates are in the middle of the Bay (profiles P4 and P5);
    - 2050: the short-duration storm event recession rates range from 5 to 8 m, while the long-term SLR recession rates range from 3 to 5 m, resulting in combined recession rates of 9 to 13 m. As for the 2030 shoreline recession predictions, the lowest recession rates are predicted at the western and eastern ends of the Bay, while the highest recession rates are in the middle of the Bay (profile P4); and
    - 2100: the short-duration storm event recession rates range from 8 to 12 m, while the long-term SLR recession rates range from 10 to 13 m, resulting in combined recession rates of 18 to 25 m. As with the other shoreline recession predictions, the lowest recession rates are predicted at the western and eastern ends of the Bay (lowest at the western end), while the highest recession rates are in the middle of the Bay (profile P4).
- The cross-shore profile response to SLR was also modelled with the existing seawall still in place for profiles P1 to P3 (assuming that the seawall is maintained so no erosion occurs landward of it). Profile deepening was modelled approximately half a meter by 2050 and over a meter by 2100, results for each time horizon and profile a presented in

- Table 7.
- The combined predicted recession rates from a short-term storm event and long-term SLR translation have been mapped relative to the existing shoreline position to show predicted shoreline positions following a large storm event in 2030, 2050 and 2100. The shoreline position between the cross-shore profile locations has been assumed to maintain a similar crenulate bay shape as the existing shoreline (in accordance with the crenulate bay theory). The shoreline positions assume that no seawalls or infrastructure are present which would prevent shoreline recession. The predicted future shoreline positions are shown in Figure 8.

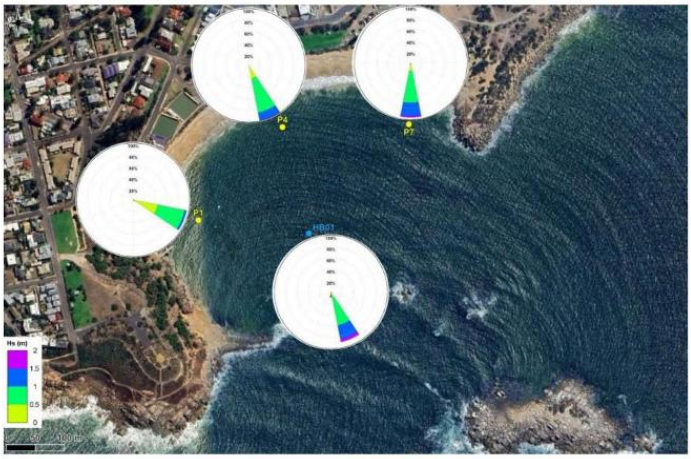


Figure 7 - Modelled wave conditions in Horseshoe Bay from 20 year hindcast (sourced from Symonds, 2024)

Table 6 - Modelled shoreline recession rates at the cross-shore profile locations along Horseshoe Bay.

Profile	2030 Shoreline Recession (m)			2050 Shoreline Recession (m)			2100 Shoreline Recession (m)		
	Storm	SLR	Comb.	Storm	SLR	Comb.	Storm	SLR	Comb.
P1	3	1	4	4	4	8	8	10	18
P2	4	3	7	5	5	10	9	11	20
P3	4	3	7	6	5	11	9	13	22
P4	5	3	8	7	5	12	12	13	25
P5	5	3	8	7	4	11	13	10	23
P6	4	1	5	5	3	8	9	10	19
P7	4	1	5	5	3	8	11	10	21

Table 7 - Modelled profile deepening due to SLR at profiles with a seawall present.

Profile	Profile Deepening (m)		
	2030	2050	2100
P1	-0.13	-0.47	-0.89
P2	-0.12	-0.39	-1.28
P3	-0.09	-0.39	-1.15

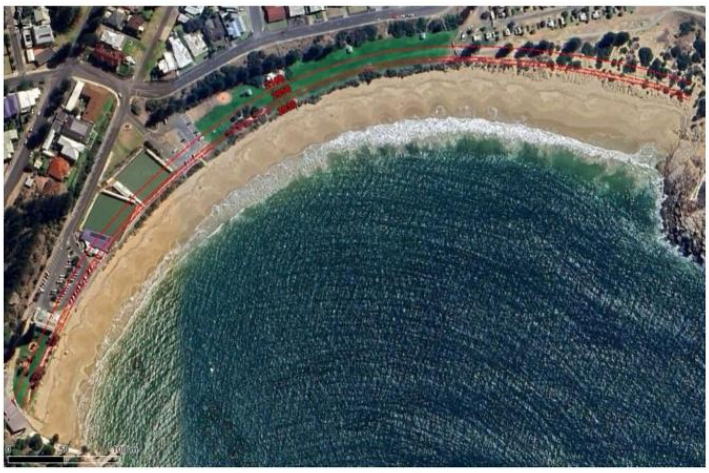


Figure 8 - Predicted shoreline recession lines for 2030, 2050 and 2100 shown for all of Horseshoe Bay (sourced from Symonds, 2024) .

4 Options overview

The data collection and numerical modelling exercises highlight the erosion risk in Horseshoe Bay. No underlying erosion trends were identified, however the risk posed by storms and sea level rise poses significant risk to assets. Given this characterisation of erosion risk, adaptation options focused on mitigating risk from storms and sea level rise were prioritised.

4.1 Options selection approach

Initially, a long list of adaptation options were considered to mitigate erosion risk. Adaptation options are different strategic approaches to managing coastal hazard risks. These typically include:

- **Avoid -** identify future 'no-build areas' and use planning tools to prevent new development in areas at risk.
- **Accommodate -** continue to use the land but accommodate risks by adopting risk-tolerant land uses, asset design and operations, and building methods.
- **Retreat -** withdraw, relocate or abandon assets that are at risk, ecosystems enabled to retreat landward.
- **Protect -** use 'hard' structures (e.g. sea walls) or 'soft' solutions (e.g. dunes and vegetation) to protect land from the sea.
- **No Regrets –** this is typically a temporary options whereby further time is allowed prior to implementing a specific adaptation action. This is often an appropriate option when costly adaptation actions are being considered and further detail is required prior to implementation.
- **Do Nothing -** assumes that risk is accepted and that no further action will be taken. This risk treatment option provides a basis for comparison of all other risk treatment options.

Following the consideration of all viable options in these categories, an options short list was progressed for economic, and performance evaluation through numerical modelling.

The shortlist of options discussed in the following sections are:

- **Option 1**: raise existing breakwater height and length
- **Option 2**: submerged breakwater in the nearshore
- **Option 3a:** sand nourishment of central part of the bay sourced from the eastern part of the bay
- **Option 3b**: sand nourishment of central part of the bay from external source
- **Option 4a**: buried seawall and existing seawall replacement
- **Option 4b**: buried seawall and existing seawall replacement and sand nourishment
- **Option 5**: managed retreat

4.2 Options short list

4.2.1 Option 1 – raise breakwater height and length

The intent of this option is to protect a greater extent of the bay from high wave energy by increasing the height and length of the existing breakwater.



Figure 9 – Option 1, raise breakwater height and length

Modelling outcomes:

Changes to wave climate:

- Significant reduction in Hs at P1-P4
- Mild reduction in Hs at P7

Shoreline recession due to storms

- Significant reduction to storm induced recession at P1-P4 across all time horizons

Shoreline recession due to SLR

- Mild reduction to SLR induced recession at P2 and P3

Cost (30 year NPV): $18.5M - $17.9M (capital), $0.6M(operational)

Benefits:

- Significant reduction in wave heights along the western and central areas of Horseshoe Bay.
- Limits interference onshore (change to amenity, access)

Constraints:

- Constructability challenging
- Approvals likely to be challenging (heritage and environmental constraints)
- Highest cost option
- Doesn't improve longer term impact (recession) due to sea level rise

4.2.2 Option 2 – submerged breakwater in the nearshore

The intent of this option is to reduce exposure to wave energy and increasing beach widths in the central extent of the bay by constructing an offshore, submerged breakwater.



Figure 10 – Option 2, offshore breakwater in the nearshore

Modelling outcomes:

Changes to wave climate:

- Mild reduction in Hs at P1-P7

Shoreline recession due to storms

- Mild reduction to storm induced recession across all profiles

Shoreline recession due to SLR

- Mild reduction to SLR induced recession at P2-P7

Cost (30 year NPV): $9.6M 9.3M (capital), $0.3M (operational)

Benefits:

- Minor reduction in wave heights
- Nature based opportunity
- Limits disruption shoreline itself (amenity, construction)
- Potential snorkelling/diving attraction

Constraints:

- Likely not as effective at reducing recession
- Not as effective as sand nourishment and / or breakwater extension at limiting erosion
- Challenging design and construction
- Increase erosion risk west and east of the structure

4.2.3 Option 3a – Sand nourishment from eastern side of bay

The intent of this option is to increase the volume of sand in the central part of the Bay by borrowing sand from the eastern part of the bay to increase capacity for erosion during storms. In this case the beach profile on the eastern side of the bay would retreat by 10m to provide the source of sand.



Figure 11 – Option 3a, sand nourishment from eastern side of the bay

Modelling outcomes:

Shoreline recession due to storms

- Significant reduction to storm induced recession at profiles P2 – P4.

Shoreline recession due to SLR

- Significant reduction to SLR induced recession at P2-P4

Cost (30 year NPV): $0.35 M – $1.5M (1 campaign every 1 to 5 years)

Benefits:

- Reduces recession rates in the short term
- Moderate reduction in recession rates in the longer term due to SLR
- Lower comparable longer-term costs
- Flexible moving forward
- Increase beach width in high use area
- Retains beach amenity
- Promotes environmental value of foreshore and dunes

Constraints:

- Decreased resilience to storms at the borrow site
- Ongoing approval processes
- Disruption on the beach during campaigns

4.2.4 Option 3b – sand nourishment from external source

The intent of this option is to increase the volume of sand in the central part of the bay by sourcing sand from outside of the system.

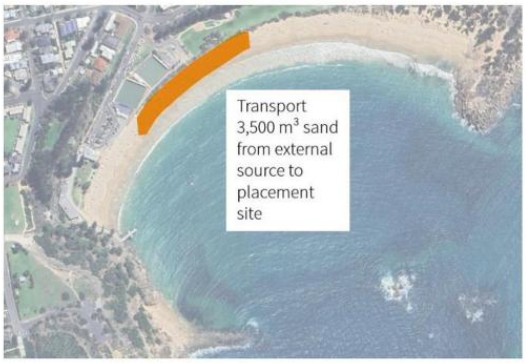


Figure 12 – Option 3b, sand nourishment external sand source

Modelling outcomes:

Shoreline recession due to storms

- Significant reduction to storm induced recession at profiles P2 – P4.

Shoreline recession due to SLR

- Significant reduction to SLR induced recession at P2-P4

Cost (30 year NPV): $1.25 M – $5.4M (1 campaign every 1 to 5 years)

Benefits:

- Reduces recession rates in the short term
- Moderate reduction in recession rates in the longer term due to SLR
- Lower comparable longer-term costs
- Flexible moving forward
- Increase beach width in high use area
- Retains beach amenity
- Promotes environmental value of foreshore and dunes
- Adds sediment volume to the system

Constraints:

- More expensive to source sand from outside of the system
- Ongoing approval process
- Disruption on the beach during campaigns

4.2.5 Option 4a - buried seawall & existing seawall replacement

The intent of this option is to hold the line against beach erosion by extending the vertical seawall by 200m. In this case it is assumed that risk to infrastructure from shoreline recession is removed, however profile deepening and beach recession is increased.



Figure 13 – Option 4a, buried seawall & existing seawall replacement

Modelling outcomes:

Profile deepening

- Significant profile deepening at P4 and P5.

Table 8 - Modelled profile deepening due to SLR at P4 and P5 if seawall is extended

Profile	Profile Deepening (m)		
	2030	2050	2100
P4	-0.09	-0.28	-1.46
P5	-0.11	-0.36	-1.73

Cost (30 year NPV): $3.8M $3.6M (capital), $0.2M (operational)

Benefits:

- Holds the line (limits recession)
- Straightforward approvals, design and construction

Constraints:

- Loss of useable beach over time resulting in an impact to beach amenity

- Impact environmental values
- Deepening of profile of the seawall means construction costs beyond 30 years will become significant
- Disruption during construction
- Significant impact to tourism (loss of usable beach)

4.2.6 Option 4b - buried seawall & existing seawall replacement with sand nourishment

Whilst this option wasn't modelled, the cost, benefits and constraints have been included for comparison purposes.

Cost (30 year NPV): $4.6M - $7.6M $3.6M (capital), $1 – 4 M (operational)

Benefits:

- Holds the line (limits recession)
- Straightforward approvals, design and construction of seawall
- Increase beach width in high use area
- Retains beach amenity
- Promotes environmental value of foreshore and dunes
- Adds sediment volume to the system

Constraints:

- Disruption during construction and annual sand placement
- Ongoing approval processes

4.2.7 Option 5 – managed retreat

Whilst this option wasn't modelled, it was requested by Council to be included for comparison purposes inline with Adaptation Planning Guidelines. Benefits and constraints of this option have been summarised however costing would need to be informed by more detailed economic analysis. The intent of this option is to withdraw, relocate or abandon assets that are at risk from coastal erosion to mitigate risk.

Benefits:

- Allows for a natural ecosystem response to erosion pressures.
- Long term economic benefit when the value of assets does not outweigh defence strategies.

Constraints:

- Lack of South Australian precedence to perform retreat.
- Very high initial economic and social cost to withdraw, relocate or abandon assets.
- Requires community buy-in.

4.3 Options summary

A summary of the shortlisted adaptation options is presented in Table 9 below.

Table 9 – Summary of shortlisted adaptation options

Option	Cost (30 year NPV)	Effectiveness	Implementation	Social	Environmental	Flexibility
Option 1 - Raise existing breakwater height and length	**$18.5M**	• Effective at reducing recession due to storm erosion and SLR (doesn't reduce completely) • Does not improve recession on most eastern extent	• Heritage structure • Approvals will be challenging • Challenging constructability	• Limits disruption to beach • Need to consider navigational impacts of increase by 100m • Heritage structure	• Potential seagrass loss	Medium flexibility
Option 2 - Offshore breakwater	**$9.6M**	• minor reduction in wave • heights along the Horseshoe Bay shoreline • limited change in either the short-duration storm event recession rates or the long-term SLR recession rates	• Would require more detailed numerical modeling and physical modeling to confirm design parameters	• Limits disruption to beach • Maintains beach amenity • Need to consider navigational impacts	• Presents a nature-based opportunity • Limits impact to onshore flora and fauna	Medium flexibility
Option 3a - Sand nourishment (source within bay)	**$0.35-$1.5M**	• Effective at reducing recession due to storm erosion and SLR (doesn't reduce completely) • Decreases resilience to storm and SLR driven recession on the eastern side of the bay	• Ongoing planning (annually or biannually)	• Disruption on beach during back passing works	• Promotes onshore flora and fauna	Highly flexible
Option 3b - Sand nourishment (external source)	**$1.25 M – $5.4M**	• Effective at reducing recession due to storm erosion and SLR (doesn't reduce completely) • Adds sediment volume to the system				
Option 4a - Seawall	**$3.8M**	• Effective at preventing recession, creates last line of defense. • Deepening of profile of the seawall means constructions costs beyond 30 years will become significant	• Straightforward approvals process.	• Loss of beach • Amenity impact • Disruption during construction	• Loss of beach, direct impact to local flora and fauna (e.g. loss of vegetation, impact to shorebirds)	Last line of defense (i.e. not flexible)

Option	Cost (30 year NPV)	Effectiveness	Implementation	Social	Environmental	Flexibility
Option 4b – Seawall with sand nourishment	$4.6M - $7.6M	• Effective at preventing recession, creates last line of defense whilst providing sand buffer in from of the seawall.	• Ongoing (annual) approvals required for sand nourishment	• Maintains usable beach and amenity • Disruption during construction and annual sand placement	Direct impact to local flora and fauna	Last line of defense (i.e. not flexible)
Option 5 – Managed retreat	Detailed economic analysis required to confirm	• Effective at mitigating risk to physical assets within 2100	• Challenging process.	• Relocation of assets	Allows/promotes natural Bay processes	Medium flexibility

5 Stakeholder and Community Engagement

The following summary has been prepared by URPS as the lead engagement specialists through the project, full summary of feedback on options prepared by Council in Appendix C.

Stakeholder and community engagement was undertaken from 25 September until 30 October 2025 on the series of coastal adaptation options for Horseshoe Bay identified by the study.

The engagement aimed to:

- Raise awareness of the risks posed by coastal erosion and sea-level rise
- Provide information about each option, its cost and pros and cons
- Understand the level of community and stakeholder support for each option and what is liked or not liked about each option.

The engagement included:

- A survey to capture community feedback (88 responses)
- Informative summary brochure about erosion risk, study and options
- 2 community information sessions
- Information displays at Port Elliot Show and in the Goolwa Council Offices
- 4 one on one meetings with directly impacted stakeholders
- Combined Council and Committee information workshop
- Promotion through Council's MySay consultation website, signage and email
- Department for Environment and Water (DEW) Coast Unit were also provided the opportunity to review options and provide feedback in line with Board policy.

The options that received the highest levels of support through the responses were:

- **Option 1** – Raise existing breakwater height and length (54% of survey respondents support or strongly support)
- **Option 4b** - Buried seawall & existing seawall replacement with nourishment (48% of survey respondents support or strongly support).

Level of support for coast adapation options for Horseshoe Bay (% of survey respondents, n=88)

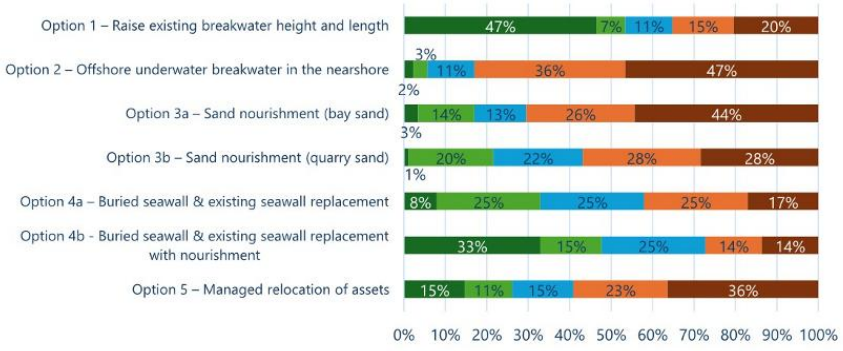


Table 10: Overview of feedback provided per option

Options in order of support	Feedback overview[3]
Option 1 Raise existing breakwater height and length	Desired because it will protect the calm area of the bay that is valued by community and tourists as well as the heritage breakwater but needs to be done in conjunction with another option to protect the bay in the long term. Some are concerned about the marine environmental impacts and the cost for little long-term benefit/effectiveness.
Option 4b Buried seawall & existing seawall replacement with nourishment	Liked because limits erosion, protects infrastructure and maintains a useable sandy beach. Seen as the most comprehensive option / 'best of both worlds' as it is effective in the short and long term and retains look and feel of Horseshoe Bay and recreation and tourism value. Some suggest doing along with option 1. Concern with engineered look, long term cost and potential loss of beach replenishment not maintained or if sea-level rise exceeds projections.
Option 4a Buried seawall & existing seawall replacement	Liked because it limits erosion, protects infrastructure and is straightforward to do and for community to understand. However, concerns that it will not maintain a sandy beach in the long term and so will impact on the social environmental and economic value of the beach. Cost without long term benefit. Plus, concerns of impacts during construction and a 'hard' rather than a natural solution.
Option 5 Managed relocation of assets	Viewed by most as defeatist or abandoning Horseshoe Bay's amenity, heritage, community and economy. It's uncosted and a feasibility and bureaucratic challenge. Should be a long-term contingency rather than an immediate priority. Liked by some because it works with nature and the coast's natural trajectory and demonstrates climate change leadership.
Option 3b Sand nourishment (external sand)	Not supported as doesn't address long-term impacts, concerns that cost may exceed that of option 1 over time and of the compatibility of sand and impacts to beach access and amenity during campaigns. Replenishment is seen as a 'natural', feasible, short term easy and flexible measure that could be used to complement other options. External sand seen as preferable to bay sand.
Option 3a Sand nourishment (bay sand)	As above but added environmental concerns regarding the impact of sourcing sand from dunes and the beach in the bay.
Option 2 Offshore underwater breakwater in the nearshore	Not supported due to concerns about beach/dune erosion either side of the structure, impacts of structure on natural wave movement (e.g. for body boarding), is an underwater hazard for boats, and is costly without being effective in short or long term. Small support for ecological or recreation gains from establishing a reef.

[3] This is a summary of a summary prepared by Alexandrina Council of the feedback received on each option.

In response the options presented DEW Coasts provided the following feedback :

- At this stage, DEW Coasts Unit does not have a preference for any of the options outlined. DEW Coast Unit encourages council to continue to work through the CHAP process with each viable option to ascertain which option is best from an economic, environmental and community perspective.

- The next step should be for council to undertake a cost benefit analysis of the viable options (please refer to section 4.6 Economic analysis in the CHAP guidelines and Economic Analysis for Coastal Adaptation - Technical Compendium).

- The responsibility for undertaking coast protection works at Horseshoe Bay lies with the Alexandrina Council. DEW Coasts is available to assist with technical guidance and Alexandrina Council are encouraged to apply for the CPB Grant program when ready to implement an adaptation method. However, as you are aware some projects with large capital costs may be outside the scope of the Board's available funding. Funding may also be available through the Climate Ready Coasts program or the Commonwealth Disaster Fund. We would also recommend engaging with Department of Infrastructure and Transport in regard to the breakwater.

- Any proposed development (e.g. protection works) in the Coastal Areas Overlay of the Planning and Design Code, would require the planning authority to refer the application to the Coast Protection Board (the Board) for direction. The Board would consider any development application referred to it against its Policy Document. The assessment would include consideration of potential impacts on coastal processes and impacts on the local coastal environment.

6 Recommended adaptation pathways

Figure 14 below presents an adaptation pathway plan for Horseshoe Bay, with the key recommendations to progress the following two adaptation actions in parallel:

1. **Interim sand management** (while the long-term adaption pathway is resolved)
2. **Economic analysis to support long term adaptation** in line with the South Australian LGA Coastal Hazard Adaptation Guidelines economic analysis of the preferred viable adaptation options is required.

Further detail is provided below of each of these required adaptation actions. The trigger has been exceeded for these actions and planning should progress as soon as funds and resources are available.

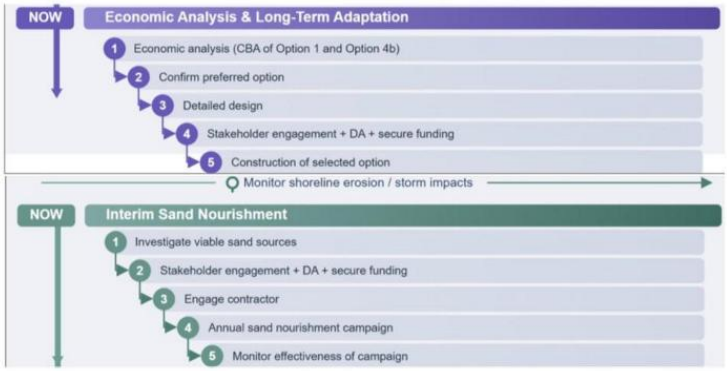


Figure 14: Adaptation pathways plan

Interim sand nourishment

Whilst the economic analysis to support the longer-term adaptation pathway is progressed, it is recommended that **Option 3b** is progressed (sand nourishment trial of the central part of the bay from an external borrow site).

This option provides the greatest flexibility for future adaptation while providing a significant improvement to resilience against both storm driven and SLR induced shoreline recession. In addition, the option improves beach amenity for the community and tourists by widening the recreational beach width.

To progress a sand nourishment trial from an external source, the following next steps are required:

- Confirm budget allocation and/or grant funding application requirements (e.g. the Coast Protection Board's annual Coast Protection Grant Program) to complete works.

- Identify and engage key stakeholders, including but not limited to the EPA, Coast Protection Board and local business owners.
- Approach the market to identify suitable contractors to undertake the works.
- Sand source investigation to find a suitable sand source and associated pricing. Considerations for this investigation should include:
    - Sediment size and grading (consistent with the existing environment)
    - Sediment density
    - Sediment shape (which influences comfort for beach users)
- Develop and submit a Development Application (DA) for the works
- Develop a monitoring plan to assess the effectiveness of the trial
- Place nourishment prior to the winter months, with monitoring undertaken throughout winter to measure effectiveness.

Economic analysis of viable preferred options

Based on the data collection, numerical modelling, options investigation outcomes and consultation, it is recommended that economic analysis is progressed for the following two options to support a robust and defendable decision prior to significant capital investment.

- **Option 1** Raise existing breakwater height and length
- **Option 4b** Buried seawall & existing seawall replacement with nourishment

This recommendation consistent with Stage 4 (Adaptation actions and pathways) the South Australian LGA Coastal Hazard Adaptation Guidelines. Economic analysis for coastal adaptation planning is a powerful tool for understanding the relationships between coastal hazards, adaptation actions, and their costs and benefits for the community, business and government. The process will support:

- Quantifying recreational and environmental values and allow for direct comparisons with built asset values
- Providing a more robust understanding of the benefits of asset protection compared to lost recreational and amenity values
- Identifying the distribution of benefits from adaptation actions across stakeholder groups, locations and time. This makes it useful for identifying and designing funding models which equitably distribute the costs of adaptation among beneficiaries.

Further information on how economic analysis for coastal adaptation is undertaken is described in the Coastal Hazard Adaptation Planning Technical Compendium.

Planning and design of the option would need to progress once the economic analysis is completed. This would require coastal engineering support to confirm the appropriate design parameters (including length, crest height and toe depth) of either the seawall or offshore breakwater. A sustainable sand source would also need to be confirmed to support a long-term sand nourishment program.

If Option 1 (existing breakwater) is progressed, a complementary adaptation pathway (such as sand nourishment or seawall) would need to be implemented in the longer term, given this study has confirmed this option will not be effective at mitigating the impacts of SLR.

7 Reference

McCarroll, R.J., Masselink, G., Valiente, N.G., Scott, T., Wiggins, M., Kirby, J-A., and Davidson, M., 2021. A rules-based shoreface translation and sediment budgeting tool for estimating coastal change: ShoreTrans, Marine Geology 435.

[1]Hallermeier, R.J., 1981. A Profile Zonation for Seasonal Sand Beaches from Wave Climate, Coastal Engineering. 4: 253-277.

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Appendix A – Data Collection Summary

Horseshoe Bay data collection and summary



Assoc. Prof. Graziela Miot da Silva

with contributions from Mr Rob Keane (chief pilot), Mr Jason Van Gent and Mr Marcio DaSilva (LiDAR surveys and data post-processing)

Beach and Dune Systems (BEADS) lab

College of Science and Engineering,

Flinders University

1. Introduction

Flinders University was engaged by Wavelength Consulting Pty to conduct data collection of directional waves, breakwater elevation, bathymetry and beach topographic changes pre and post storm events at Horseshoe Bay. This document provides an overview of the methodology employed in data collection campaigns, QA/QC and some key interpretation from the data. Flinders Ports was sub-contracted to conduct the bathymetric survey and the methodology employed in this component of the project is detailed in Appendix A.

2. Instrumentation and deployment

2.1 Acoustic Doppler Current Profiler (directional waves)

A Nortek Sig1000 ADCP (Acoustic Doppler Current Profiler) with AST (Acoustic Surface Tracking) detection was used for measurements of directional wave data. The ADCP was mounted on a custom-made frame (Figure 1A) which was anchored to the seafloor by a total weight of about 25 kg to minimize movement due to wave forcing. The instrument height was 0.5 m above seafloor, and the frame was connected to an anchor by a rope for later retrieval with a grappling hook. Antifouling patches manufactured by the supplier (Nortek) were placed on the transducers to prevent biological growth that could interfere in the acoustic measurements.

The ADCP was connected to an external battery canister to maximize the frequency of data collection for 3 months deployments in each summer and winter data collection campaigns (Table 1). Flinders University RV Bungaree (Figure 1B) was used for the ADCP deployments and launched from the Victor Harbor boat ramp on both occasions.

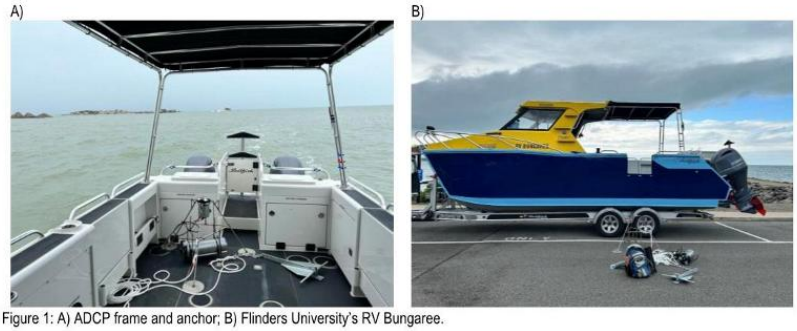


Figure 1: A) ADCP frame and anchor; B) Flinders University's RV Bungaree.

The instrument's clock was synchronised and set to South Australia time (UTC + 09:30 hours in winter and UTC + 10:30 hours in summer). Pre-deployment tests were conducted following the manufacturer's recommendations, including checks of the pressure sensors and transducers, compass check and calibration and pitch/roll checks. The instrument was allowed to collect data prior to each deployment to check battery connections and recorder functionality. Water depth, date, time and the site's geographical coordinates were noted during the deployments.

2.1.1 Site selection criteria for ADCP deployment

The site selection for the deployment of the ADCP frame considered the following criteria:

- Exposure to waves entering the bay (in consultation with Port and Coastal Solutions who is setting up the hydrodynamic model for Horseshoe Bay);
- Bottom characteristics such as presence of reefs and seagrass. A sandy bottom patch was located using the vessel's sonar where the frame was placed;
- Site must be deep enough to avoid exposure during low tide, interactions with swimmers and physical stress during high wave energy conditions.

Figure 2 shows the deployment location which was fairly the same in both summer and winter deployments.

Table 1: Description of ADCP deployment

Deployment location	Geographic coordinates (WGS84)	Depth (AHD)	Length of deployment	Length of deployment/ length of dataset
Horseshoe Bay, approximately 330 m SW of Commodore Point	-35.535339° 138.686856°	Approx 5m	Winter 05 June 2023 to 04 September 2023	92 days/82 days
Horseshoe Bay, approximately 330 m SW of Commodore Point	-35.535312° 138.686841°	Approx 5m	Summer 01 Dec 2023 to 04 March 2024	95 days/90 days



Figure 2: Location of the ADCP mooring. Image: Google Earth

2.2 Drone-based LiDAR (beach topography and breakwater elevation)

A DJI Matrice 300 RTK drone with a True View 410 LiDAR unit (see Figure 3B) was used to survey the breakwater and beach/dune topography for positioning and elevation above Australian Height Datum (AHD).

3. Data Collection and Supply

3.1 Directional waves

Approximately 6 months of directional wave data were collected during summer and winter seasons (Table 1). Directional waves timeseries were derived during post-processing from the ADCP acoustic measurements at interval of 20 minutes at 4Hz (4096 samples), every 1 hour.

Ocean currents data were also measured and provided however not explored here as they are not part of the project's scope.

The wave parameters provided are described in Table 2.

Table 2: Wave parameters provided.

Parameter	Description
Hm0	Significant Wave Height (m) calculated from the energy spectrum; Hm0 = $4\sqrt{\Sigma M0}$.
Hmax	Maximum Wave Height (m)
H10	Mean 1/10 Wave Height (m)
H3	Mean 1/3 Wave Height (m)
Hmean	Mean Wave Height (m)
Tm02	Mean Period (s)
Tp	Peak Period (s)
Tmax	Mean Zero-crossing Period (s) mean period associated with the largest wave (Hmax) in a record, where the period is calculated from the zero-crossing technique.
Tz	Mean Zero-crossing Period (s) calculated from the zero-crossing technique.
T10	Mean Zero-crossing Period (s) mean period associated with the 1/10 largest waves (H10) in a record, where the period is calculated from the zero-crossing technique.
T3	Mean Zero-crossing Period (s) mean period associated with the 1/3 largest waves (H3) in a record, where the period is calculated from the zero-crossing technique.
DirTp	Peak Direction (degrees) direction of the wave corresponding to the peak period. The direction is reported as "from".
SprTp	Directional Spread (degrees) measure of the directional variance. The estimate is calculated for the peak frequency.
MeanDir	Mean Direction (degrees). Weighted average of all the directions in the wave spectrum. It is weighted according to the energy at each frequency. The direction is reported as "from".

3.2 LiDAR surveys

These surveys were undertaken by Flinders University Chief Pilot Mr Robert Keane (Remote Operating Certificate: 7586). Operations were conducted in accordance with the universities Operations Manual and will follow the universities Operational Procedures as approved by CASA.

Data quality was managed as follows:

- Drone flight using RTK with <2cm positional accuracy
- Base station for post-processing of images and point cloud
- Ground control targets were used to validate the data precision and accuracy
- Data was checked and duplicated prior to leaving the field

3.2.1 Beach surveys

Beach topography surveys were conducted via drone-based photogrammetry, with a pre-specified flight path to measure the change post storm events. Beach surveys extended from the low tide waterline to the back of the foredune.

The beach topography was surveyed in three occasions: 27th June 2023, 4th July 2023 and 11th July 2023. Surveys started at dawn as soon as there was sufficient sunlight for LiDAR and safe drone operations, and when the number of beachgoers was reduced.

Beach survey dates were chosen based on occurrence of storm events during the data collection phase of the project. The storm identification was based on the following criteria:

- Wave height forecast from WillyWeather above 3 meters
- Co-occurrence with spring high tide

3.2.2 Breakwater survey

The main criteria for defining the breakwater survey date were calm winds and low tide. The breakwater was surveyed in the morning of the 17th April 2023, during low neap tide. There was a gentle breeze and low swell during the survey (Figure 3).

LiDAR-based data was provided as a LAS point cloud and TIFF (Datum GDA2020, Coordinate system MGA Zone 54).

A) B)

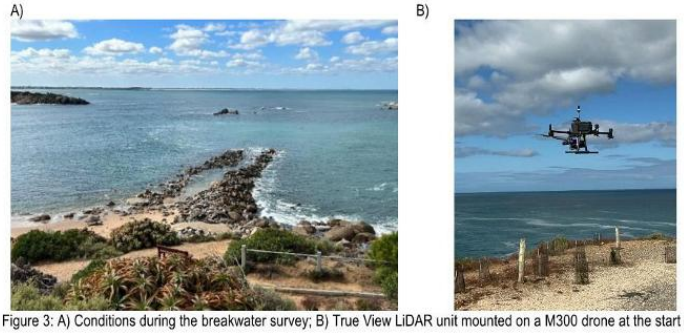


Figure 3: A) Conditions during the breakwater survey; B) True View LiDAR unit mounted on a M300 drone at the start of the survey.

The final dataset containing wave data, beach and breakwater surveys and bathymetry was provided to Wavelength via Dropbox shared folder on 07/10/2023.

4. Key data interpretation

Wave data was processed with Nortek's software (Ocean Contour) and analysed/plotted using Matlab R2022b or output directly from Ocean Contour. Data quality checks were performed using Ocean Contour, namely timeseries of tilt, heading and pressure, signal levels for individual beams, vertical velocities and correlation data. Prior to interpretation, data considered of poor quality were discarded.

4.1 Wave data (winter and summer deployments)

The wave data measured by the ADCP in Horseshoe Bay were compared to two other datasets for validation against offshore conditions (Figure 4):

(i) The Centre for Australian Weather and Climate Research (CAWCR) wave hindcast dataset (Durrant et al., 2014) at a grid point at 45 m water depth (35.860S, 138.55E), to represent offshore wave conditions adjacent to the bay without main obstacles (e.g islands, reefs) that are not resolved by the model. The CAWCR dataset uses the third-generation wave model WAVEWATCH III (Tolman, 2009) at a spatial resolution of 4 approximately 7 km in the Australian nearshore region, and was validated at most wave buoys nation-wide, including at Cape de Couedic (Greensdale et al. 2018). The CAWCR data is also used for comparison of measured data with long term wave statistics. Data was obtained via National Map (https://nationalmap.gov.au/).

(ii) Measured wave data from the Cape de Couedic (CdC) wave buoy, located SW of Kangaroo Island (36.07S, 136.62E), representing open ocean measured conditions. There is no data (Hs) availability at CdC during the winter deployment prior to 1st August, so the 3 datasets can only be compared after that date. The dataset is complete during the summer deployment. Data was obtained via the AODN portal (https://portal.aodn.org.au).



Figure 4: Location of offshore data sources for comparison with the ADCP measurements. Image: Google Earth.

Figure 5A shows significant wave height (Hs) timeseries measured and modelled during the winter deployment at the three sites shown in Figure 4. The ADCP data is of poor quality between the 10th and 20th June. Upon QA/QC steps during post-processing, it was observed that the instrument tilt increased during these 10 days, perhaps due to storm activity that could have tilted the frame, or by boating traffic that could have displaced the mooring. Tilt returned to acceptable values after the 20th June. The same occurred during the summer deployment from 14th to 19th January (Figure 6).

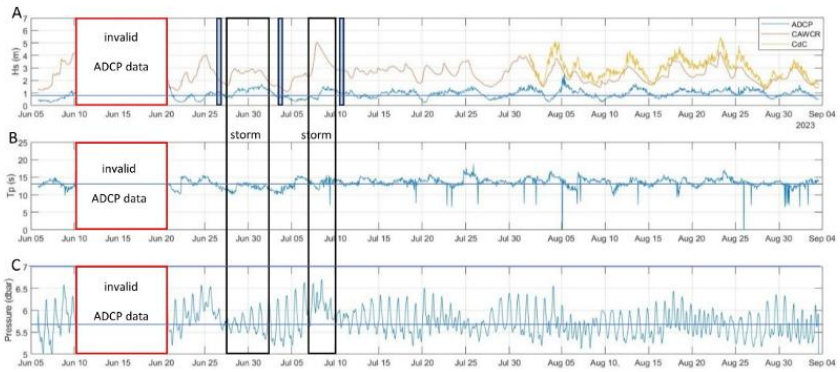


Figure 5: Winter deployment timeseries data. Blue horizontal lines in A-C indicate the average value. Red rectangles indicate poor quality, discarded data, and the June and July storm events are indicated by the black rectangles. A) Significant wave heights measured by the ADCP (blue line) and by the CdC wave buoy (yellow line), and CAWCR model output (orange line). Blue-filled rectangles indicate when beach topographic surveys were conducted pre/post storm events, the beach survey on the 4th July is post June and pre July storms; B) Peak Period (Tp) data measured by the ADCP; C) Pressure data measured by the ADCP, displaying water level variability influenced by tidal and metocean forcing (waves, winds). The July storm event sustained the highest water levels measured during the winter deployment.

The ADCP deployment site at Horseshoe Bay is sheltered from the offshore wave climate, and Hs during the winter deployment did not exceed 2.5m in the bay (5th August 2023), while maximum offshore wave heights were double (5.06 m from the CAWCR model and 5.4m measured in CdC). Average Hs at the ADCP location was 0.93 metre during the winter deployment (Figure 5A).

Winter Peak Period (Tp) varied between 6.5s and 23.3s (average 13.4 s). Waves longer than Tp=8s dominated the winter sampling period (occurred 99% of the time) (Figure 5B).

Figure 6A shows significant wave height (Hs) timeseries measured and modelled during the summer deployment at the three sites shown in Figure 4. The ADCP data is of poor quality between the 14th and 19th January.

Maximum Hs measured during the summer was 1.89 m on the 25th February 2024. Offshore Horseshoe Bay, maximum Hs were 2.38 m at CdC and 2.45 m at the CAWCR grid point. Average Hs at the ADCP location was 0.86 metre during the summer deployment (Figure 6A).

Summer Peak Period (Tp) varied between 3.5s and 22.5s (average 11.2 s). Waves longer than Tp=8s occurred 81.5% of the time (Figure 6B).

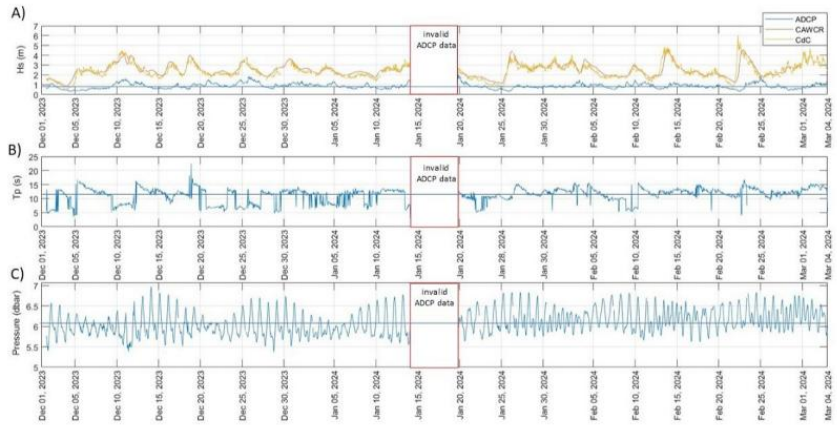


Figure 6: Summer deployment timeseries data. Blue horizontal lines in A-C indicate mean values. Red rectangles indicate poor quality, discarded data. A) Significant wave heights measured by the ADCP (blue line) and by the CdC wave buoy (yellow line), and CAWCR model output (orange line). B) Peak Period (Tp) data measured by the ADCP; C) Pressure data measured by the ADCP, displaying water level variability influenced by tidal and metocean forcing (waves, winds).

4.1.1 Comparison with long term offshore data

The winter 2023 Hs distribution, when compared with 43 years of winter data from the CAWCR hindcast model (1st Jan 1980 to 1 st Nov 2023, June to August only) at the offshore CAWCR grid point (Figure 4), shows the effect of wave exposure, refraction and diffraction, which causes significant reduction in Hs as waves propagate from offshore into the Bay. Low probability, extreme events when Hs can reach 6 to 7 metres offshore are absent from the 2023 winter dataset (Figure 7A). This is similar to the summer dataset (Figure 7B, December to February only).

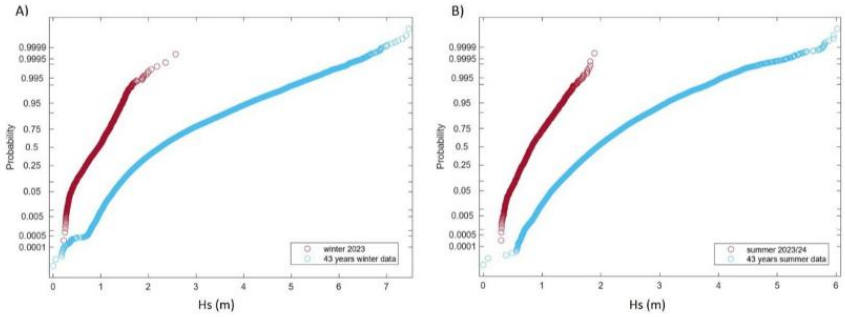


Figure 7: Hs comparison with long term offshore CAWCR hindcast. The winter and summer datasets measured by the ADCP are shown in red, and the long term offshore data is shown in purple in both A and B respectively.

Figure 8 B-C show that during the winter deployment, waves approached the ADCP mooring site mostly from the S (direction range 130 to 187 degrees, Figure 8B), in contrast with a more SW approach from offshore (direction range 144 to 285 degrees, Figure 8A). This demonstrates the significant shallow water transformation processes as waves refract and diffract around the breakwater and numerous reefs and islands present in the bay (Figure 1). During the summer

deployment (Figures 8D to F), the most frequent direction of wave approach inside the bay (Figure 8E) was also from the South but with a secondary SSW component not typically seen in winter. The most frequent Hs values measured by the ADCP were between 1 m and 1.5 m in winter (Figure 8B), and between 0.5 m and 1 m in summer (Figure 8E).

The highest values of peak wave periods (Tp) were from Southerly waves during both winter and summer measurements (Figures 8C and F). The longest Tp occurred during the winter deployment (>22 s), while the summer deployment saw a larger component of locally generated waves (Tp <8s) approaching from SSW to SSE.

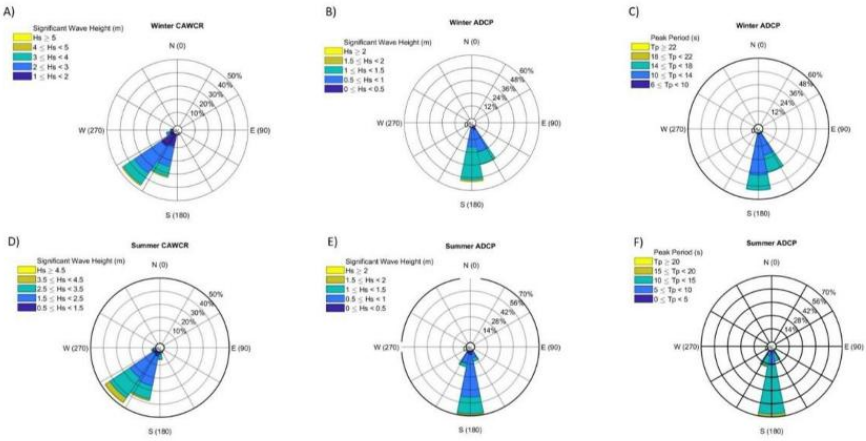


Figure 8: Wave roses. Winter deployment: A) Modelled data from the CAWCR model at an offshore grid location (35.860S, 138.55E); B) Measured data at the ADCP location; C) Tp wave rose. Summer deployment: D) Modelled data from the CAWCR model at an offshore grid location (35.860S, 138.55E); E) Measured data at the ADCP location; F) Tp wave rose.

4.2 Storm events (winter deployment)

Two winter storm events were identified: from 28th June to 2nd July and from the 8th to 10th July (named June and July storms respectively, herein, shown within the black rectangles in Figure 5). During the June storm, mean wind speeds at 9am ranged from 9 km/h to 15 km/h while during the July storm wind speeds were higher and ranged from 6km/h to 22 km/h, the latter occurred on the 8th of July (the highest wind speed observed in the month of July). Wind directions were mostly from WNW, offshore at Horseshoe Bay (Bureau of Meteorology, June and July 2023 Victor Harbor daily weather observations, available at http://www.bom.gov.au/climate/dwo/202307/html/IDCJDW5069.202307.shtml). The June storm event occurred during neap tide and the July storm occurred during spring tide (Figure 5C), causing increased water levels with wave run up reaching the base of the foredune (Figure 9).

A) B)



Figure 9: Increased water levels during the July storm event. A) looking east towards the more wave-exposed sector of the bay; B) looking west towards the sector with urban development. Pictures were taken on the 8th July at around 3pm during high tide.

Figure 10 shows wave conditions during both June and July storm events, via polar distribution of wave energy (A and C, respectively) and wave spectra (B and D, respectively). The wave climate within the bay during these storm events is typically bimodal (Figures 10B and D), with a peak around high frequency (0.18 Hz or ~6 seconds wave period) and a peak of low frequency (0.08 Hz or ~12 seconds wave period). The wave energy is higher in the low frequency (longer wave periods) component of the wave spectra. Average Hs was 1.26 m during the June storm and 1.09 m during the July storm event.

During both storm events, the longer (~12 s) and more energetic waves approached the ADCP location from the South. The direction of the shorter waves was slightly more variable, and these waves approached the ADCP location from a SSE direction in June and SSW in July (Figures 10 A and C, respectively).

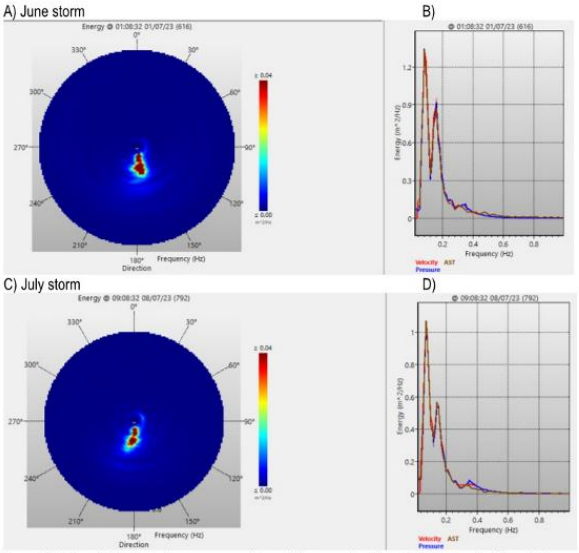


Figure 10: Polar distribution of wave energy (A and C, respectively) and wave spectra (B and D, respectively) representative of the June and July storm events.

4.2 Beach topographic changes

DEMs (Digital Elevation Models) from LiDAR drone surveys were processed in ArcGIS Pro 3.1. Data was processed to 1 metre resolution for volume calculations, and three surveys were used to create surface differences between 27/06/2023 to 04/07/2023 and 04/07/2023 to 11/07/2023 (pre and post June and July storm events).

Surface changes are shown in Figure 11 with relief maps showing the DEMs from the surveys, and elevation changes (metres) captured during the June storm and July storm events (Figures 11A and 11B respectively). Total erosion, accretion, and net changes are calculated for the beach area, with RMSE included as error bounds.

During the June event, highest deposition occurred in the eastern side of the bay, followed by deposition on the western side. The central part of the bay experienced erosion likely associated with swash dynamics, while the upper part of the backshore and base of the foredune remained mostly stable (Figure 11A). Figure 11B shows elevation changes captured during the July storm event. Despite lower average Hs than in June, the July storm caused not only higher values of elevation change (both erosion and deposition) but it is also evident that the higher water levels during the July

event caused changes in upper parts of the beach, with some localised erosion associated with swash dynamics at the top of backshore and base of the foredune. Both storm events caused net erosion in the bay (Table 3).

Table 3: Total volume changes during the June and July storm events

Storm event	Accretion	Erosion	Net change
June (28/06/2023 to 02/07/2023)	495.71 m³ ± 213.89	793.86 m³ ± 289.07	~298 m³ erosion
July (05/07/2023 to 11/07/2023)	1354.8 m³ ± 209.79	1,725.61 m³ ± 317.55	~370 m³ erosion

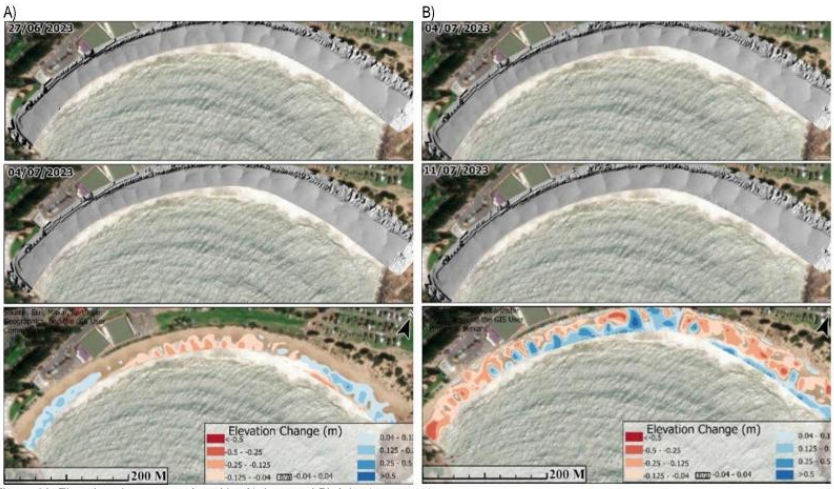


Figure 11: Elevation changes produced by A) June and B) July storm events.

4.2.1 Cross-shore changes:

Seven cross-shore profiles were generated at 100 metre intervals (Figures 12 B-H), and display changes post June and July storm events. Volume changes along these profiles were calculated at 1 metre transect width and include error margins sourced from error survey reports attached to the data provision file, which were collected with RTK GNSS and produced RMSE of 2 cm. These values are used to propagate error between surveys and establish error bounds for volume changes between surveys.

Table 4 shows volume changes for each cross-shore profile 1 to 7 (see Figure 12A for location). Both maximum and minimum erosion occurred in the eastern, more exposed sector of the bay (-0.05 m³ in the June event and -4.12 m³ in the July storm, both in profile 7). Minimum deposition of sediments occurred in profile 3 during the June storm (0.15 m³), while maximum occurred in profile 4 (6.2 m³) likely associated with swash dynamics at the crest of a beach cusp, during the July event.

With exception of profiles 2 and 4, all other profiles experienced net erosion during the July storm event, with the maximum erosion occurring in both extremities of the bay (-2.21 m³ in profile 1 and -~1.6 m³ in profiles 6 and 7). In contrast, net erosion was less pronounced and more focused on the central part of the bay during the June event (profiles 3, 4 and 5). Maximum net deposition occurred in profile 4 during the July event, and minimum occurred in profile 2 during the June event (Table 4).

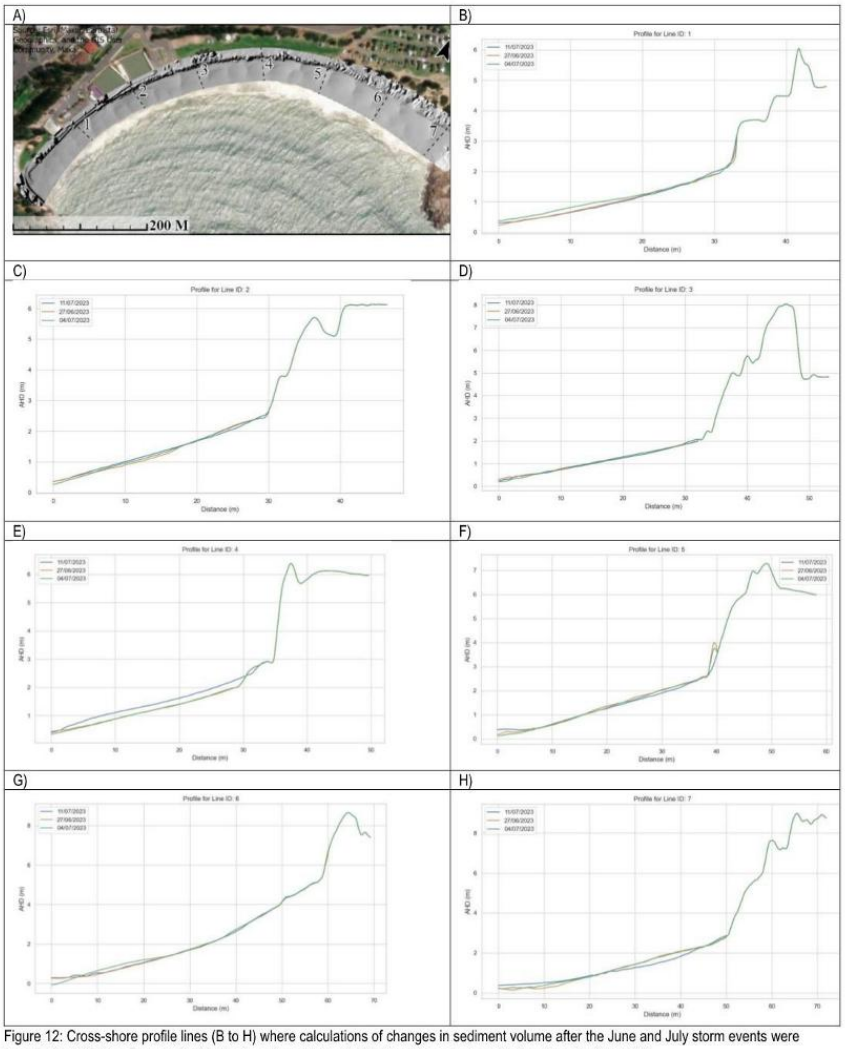


Figure 12: Cross-shore profile lines (B to H) where calculations of changes in sediment volume after the June and July storm events were based. The 27th June (orange line) is the baseline survey. Profile Line ID's correspond to locations in Figure 12A.

Table 4: Erosion, deposition and net volume change (m^3) across profiles 1 to 7 (see Figure 10A for location). Bold numbers indicate net erosion, rows highlighted in blue indicate the July storm event.

Profile	Period	Erosion (m^3)	Deposition (m^3)	Net Change (m^3)	Error Margin (m^3)
1	27/06/2023 to 04/07/2023	-0.18	2.31	2.11	±0.92
1	04/07/2023 to 11/07/2023	-2.71	0.46	**-2.21**	±0.92
2	27/06/2023 to 04/07/2023	-0.47	0.61	0.14	±0.93
2	04/07/2023 to 11/07/2023	-0.43	1.17	0.74	±0.93
3	27/06/2023 to 04/07/2023	-0.72	0.15	**-0.57**	±1.07
3	04/07/2023 to 11/07/2023	-0.92	0.57	**-0.34**	±1.07
4	27/06/2023 to 04/07/2023	-0.41	0.16	**-0.25**	±1.00
4	04/07/2023 to 11/07/2023	-0.21	6.2	5.99	±1.00
5	27/06/2023 to 04/07/2023	-1.08	0.49	**-0.61**	±1.17
5	04/07/2023 to 11/07/2023	-2.31	1.26	**-1.07**	±1.17
6	27/06/2023 to 04/07/2023	-1.21	3.28	2.06	±1.39
6	04/07/2023 to 11/07/2023	-2.98	1.43	**-1.54**	±1.39
7	27/06/2023 to 04/07/2023	-0.05	1.97	1.93	±1.44
7	04/07/2023 to 11/07/2023	-4.12	2.51	**-1.6**	±1.44

4.3 Summary of key data interpretation

Summer and winter wave measurements show that the dominant wave direction approaching the ADCP mooring location is from the South. During winter, most of the peak wave energy come from swell waves (Tp>8s) while during summer some less energetic, locally generated waves (Tp<8s) are present (~18% of the record).

Two storm events were identified, one occurring in June and another in July of 2023. The June event saw the biggest wave heights in average, however the July event was associated with spring high tides and increased water levels at the beach, producing more significant changes in elevation (both erosion and deposition). The bay experienced net erosion in both events, but more pronounced in July as waves reached the base of the foredune due to higher water levels. The July event, where high wave energy and spring high tide were combined, occurred only once during the 3 months of winter wave data collection. Nonetheless, the July event is a conservative (e.g. relatively low wave energy) proxy of the coastal processes that Horseshoe Bay will face in future higher sea level and increased storminess scenarios.

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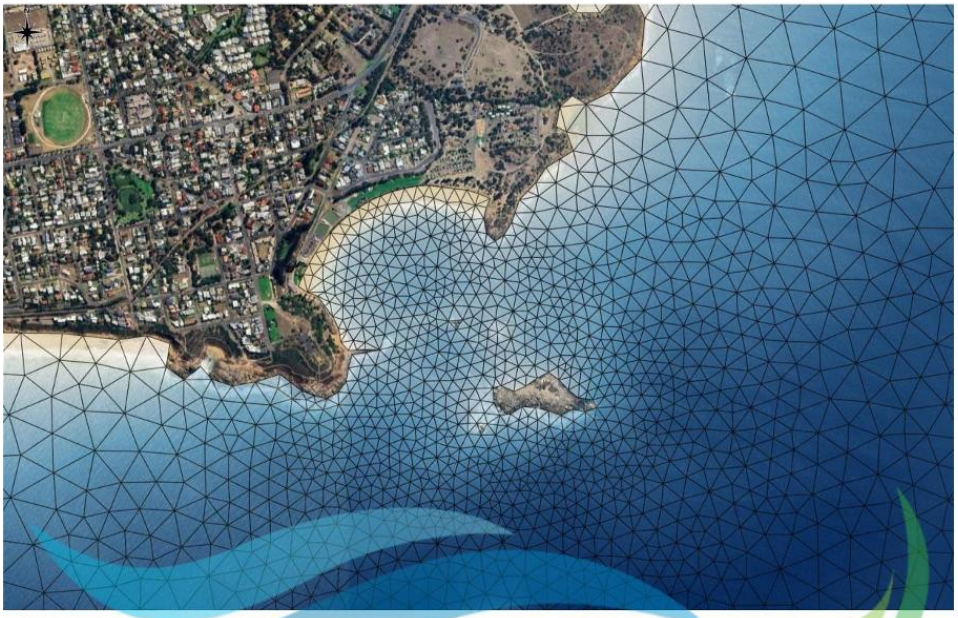
Appendix B – Numerical Modelling Report

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Horseshoe Bay Coastal Assessment

Coastal Processes Modelling

Version 2.0



Wavelength

Technical Report
September 2024

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Horseshoe Bay Coastal Assessment

Coastal Processes Modelling

Version 2.0

September 2024

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Executive Summary

Wavelength Consulting Pty Ltd, on behalf of Alexandrina Council (Council), commissioned Port and Coastal Solutions Pty Ltd (PCS) to provide data analysis and numerical modelling services to inform the Horseshoe Bay Coastal Assessment. The aims of this data analysis and numerical modelling assessment were to:

- undertake numerical modelling to predict future shoreline changes and help to inform setback buffers; and
- test different management scenarios and their relative impact on future shoreline erosion.

This report has presented results from an analysis of existing metocean, bathymetric and topographic data along with results from numerical modelling. The numerical modelling has included a combination of wave and beach response models which have been used to predict future shoreline changes and to test possible management scenarios and their effectiveness of limiting future shoreline erosion.

A detailed Spectral Wave (SW) model was setup for the area, this included bathymetric and topographic data for Horseshoe Bay collected as part of the project. The SW model was calibrated using wave data collected within Horseshoe Bay for the project, with the model shown to be able to provide a good representation of the measured waves. The SW model was used to simulate the wave conditions at Horseshoe Bay over a 20 year period and the results from the model were used to show how wave conditions vary through the Bay.

Results from the SW model were used as inputs for a combination of storm response and sea level response models. The models were used to predict the storm demand and sea level rise (SLR) translation at 7 cross-shore profiles spaced every 100 m along the Horseshoe Bay shoreline for 2030, 2050 and 2100. The results predicted combined shoreline recession rates of 5 to 9 m for 2030, 9 to 13 m for 2050 and 18 to 25 m for 2100. The recession due to storm demand was larger than the recession for SLR for 2030 (1 to 3 m for SLR compared with 4 to 6 m for storm demand) and 2050 (3 to 5 m for SLR compared with 5 to 8 m for storm demand) while for 2100 the SLR recession was slightly larger (10 to 13 m for SLR compared with 8 to 12 m for storm demand). The highest recession rates were predicted to occur in the middle of the Bay, with the lowest recession rates predicted at the western and eastern ends of the Bay. The combined predicted recession rates for storm demand and SLR translation were mapped to show predicted shoreline positions for 2030, 2050 and 2100.

The sea level response model was also used to predict changes to the cross-shore profile if the existing seawalls were maintained. The model predicted that by 2030 there would be deepening of the beach profile adjacent to the seawall of up to 0.15 m, while by 2100 the deepening would be between 0.89 and 1.28 m.

The numerical models were used to test four possible management scenarios, these are detailed below along with a summary of the key results from the modelling:

- Option 1, Breakwater Extension: this option assumed that the existing breakwater at the western side of the entrance to Horseshoe Bay was extended from approximately 100 m in length to 200 m in length and the crest elevation was built up to 5 m AHD along the full length of the breakwater. The option was predicted to result in a significant reduction in wave heights along the western and central areas of Horseshoe Bay. The short-duration storm event recession rates for this option at profile locations in the western and central areas of the bay (profiles P1 to P5) were predicted to almost all be reduced by 2 m or more compared to the existing case, while the long-term SLR recession rates were predicted to remain similar to those for the existing case;

- Option 2, Submerged Breakwater: this option assumed that a 300 m long submerged breakwater was located between -4.5 and -5.5 m AHD in the middle of Horseshoe Bay (from profiles P2 to P6). The submerged breakwater had a crest height of -2.5 m AHD and a crest width of 15 m. The option was predicted to result in a minor reduction in wave heights along the Horseshoe Bay shoreline. The modelling predicted that the option resulted in limited change in either the short-duration storm event recession rates or the long-term SLR recession rates compared to the existing case;
- Option 3, Seawall Extension: this option assumed that the existing seawall located at the western end of the beach (covering profiles P1 to P3) was extended approximately 200 m to the east north-east to cover the beach at profiles P4 and P5. The results showed similar profile deepening along the extended section of seawall to the predicted deepening along the existing seawall at the western end of the beach (profiles P1 to P3) for SLR in 2030 and 2050 (in the order of 0.1 and 0.3 m respectively). However, increased deepening was predicted relative to the existing seawall at the western end of the beach (profiles P1 to P3) for SLR in 2100, with deepening of 1.5 to 1.7 m predicted along the extended section of seawall compared to deepening of 0.9 to 1.3 m predicted along the existing section of seawall; and
- Option 4, Nourishment: this option assumed that 3,500 m^3 of sand was borrowed from a 175 m section of beach at the eastern end of the bay (between profiles P6 and P7) and 2,400 m^3 of sand (assuming losses of 30% from the borrow site) was used to create a back beach berm along a 300 m length in the western and central areas of the beach (between P2 and P5). The short-duration storm event recession rates for this option were reduced by 2 m or more compared to the existing case at the nourishment locations (except for the eastern most nourishment area), while the long-term SLR recession rates were also predicted to be reduced by 2 m or more (except for the eastern most nourishment area). The modelling predicted that the borrowing of sand from the eastern end of the bay would be unlikely to result in a significant increase in shoreline recession due to storm events and SLR, although the borrowing would result in some artificial deepening and landward migration of the beach profile.

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1. Introduction

Wavelength Consulting Pty Ltd, on behalf of Alexandrina Council (Council), commissioned Port and Coastal Solutions Pty Ltd (PCS) to provide data analysis and numerical modelling services to inform the Horseshoe Bay Coastal Assessment. The study relates to shoreline alignment at Horseshoe Bay as over recent years increased storm damage has occurred in the bay. As a result, Council is seeking to identify a long-term solution for the Bay.

The aims of this data analysis and numerical modelling assessment are to:

- undertake numerical modelling to predict future shoreline changes and help to inform setback buffers; and
- test different management scenarios and their relative impact on future shoreline erosion.

1.1. Project Overview

Council recently completed a Coastal Adaptation Study for Horseshoe Bay (Western et al., 2019). As part of this study future erosion was predicted for 2050 and 2100, with erosion rates of approximately 8 m predicted for 2050 and 26 to 29 m for 2100. Based on this, a range of infrastructure and assets were identified as potentially being at risk in the future. The study recommended that additional data should be obtained and numerical modelling should be undertaken to better understand the system and allow more detailed shoreline recession rates to be calculated.

1.2. Horseshoe Bay

Horseshoe Bay is located approximately 70 km south of Adelaide within Encounter Bay. It is a sandy bay which is approximately 600 m wide with rock headlands located at both the western and eastern ends of the Bay. Pullen Island is located at the entrance to the Bay as well as shallow areas of rock reef known as the Twins and the Sisters (Figure 1). The alignment of the Bay combined with the headlands, Pullen Island and shallow areas of rock reef result in the Bay being reasonably sheltered from the dominant south-westerly swell waves which occur in the adjacent Great Australian Bight.

The shoreline at Horseshoe Bay has been substantially modified over time, this started with the installation of a breakwater and jetty in the 1850s. From the 1930s onwards a series of seawalls were constructed in the western half of the Bay, these were mainly designed to prevent erosion of infrastructure (Figure 1). The middle section of the shoreline is characterised by a grassed reserve (Commodore Reserve) while at the eastern end of the Bay there is some remaining natural dune present.

1.3. Report Structure

The report herein is set out as follows:

- available data are described to characterise the site conditions in **Section 2**;
- the setup of the numerical modelling tools is detailed in **Section 3**;
- results from the numerical modelling is presented in **Section 4**;
- an assessment of potential management options is detailed in **Section 5**; and
- a summary of the assessment is provided in **Section 6**.

Unless stated otherwise, levels are reported to Australian Height Datum (AHD). The AHD level at Horseshoe Bay is 0.59 m above the Lowest Astronomical Tide (LAT) level.

Wind and wave directions are reported as the direction coming from in degrees clockwise from True North. Current direction is quoted as direction going to.

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Figure 1. Map of Horseshoe Bay showing key features.

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2. Site Conditions

This section provides a summary of the metocean and beach conditions at Horseshoe Bay based on available data and literature. The location of the available metocean data used for study are shown in Figure 2 and the beach profile at Horseshoe Bay is shown in Figure 3.

2.1. Water Levels

Horseshoe Bay is located within Encounter Bay, where tidal ranges are less than 1 m on spring tides, indicating a micro-tidal system. A summary of the tidal planes at Victor Harbour (located 5.5 km west south-west of Horseshoe Bay) relative to LAT and AHD is provided in Table 1, with AHD being 0.59 m above LAT.

Table 1. Tidal Planes at Victor Harbour (Source: AusTides).

Tidal Plane	Elevation (m LAT)	Elevation (m AHD)
Highest Astronomical Tide (HAT)	1.6	1.01
Mean Higher High Water (MHHW)	1.2	0.61
Mean Lower High Water (MLHW)	1.0	0.41
Mean Sea Level (MSL)	0.7	0.11
Mean Higher Low Water (MHLW)	0.5	-0.09
Mean Lower Low Water (MLLW)	0.3	-0.29
Lowest Astronomical Tide (LAT)	0	-0.59



Figure 2. Summary of metocean data locations.



Figure 3. Location of measured beach profile data (615002) and wave and current data in Horseshoe Bay.

As Victor Harbour is located close to Horseshoe Bay, the measured water levels at Victor Harbour can be considered to provide a reasonable indication of historical extreme water and surge events at Horseshoe Bay. Results from previous analysis of 18 years of measured water level data at Victor Harbour by PCS (2020) are summarised in Table 2 and shown in Figure 4 and Figure 5. The results show that:

- the highest measured water level occurred in May 2016, with a water level of 1.54 m AHD. The second highest water level was 1.40 m AHD in January 2007;
- the highest water levels were typically associated with a surge height in excess of 0.5 m along with a predicted water level of more than 0.4 m AHD;
- the largest surge event occurred in July 2007 with a surge height of 1.17 m and a total measured water level of 1.16 m AHD. Two of the five largest surge events occurred in 2016, with peak surges of 0.97 and 0.92 m occurring in May and September, respectively; and
- there was a negative correlation between the peak in the surge events and the predicted water level, with the majority of the largest surge events having occurred when the predicted water levels were close to mid tide (around 0 m AHD). This suggests that it is unlikely that the peak of a large surge event would coincide with high water.

Table 2. Five highest measured water levels and five largest surges at Victor Harbour (2000 to 2018).

Time	Measured Water Level (m AHD)	Predicted Water Level (m AHD)	Surge Height (m)
Highest Water Level Events			
9/05/2016 14:30	1.54	0.75	0.79
21/01/2007 1:30	1.40	0.54	0.87
5/05/2015 13:30	1.36	0.70	0.66
6/06/2003 15:30	1.34	0.48	0.86
21/06/2000 14:30	1.32	0.59	0.73
Largest Surge Events			
4/07/2007 20:30	1.16	-0.01	1.17
14/04/2018 9:30	1.04	0.00	1.04
9/05/2016 18:30	1.09	0.12	0.97
20/06/2011 21:30	0.92	0.00	0.92
29/09/2016 20:30	0.79	-0.12	0.92

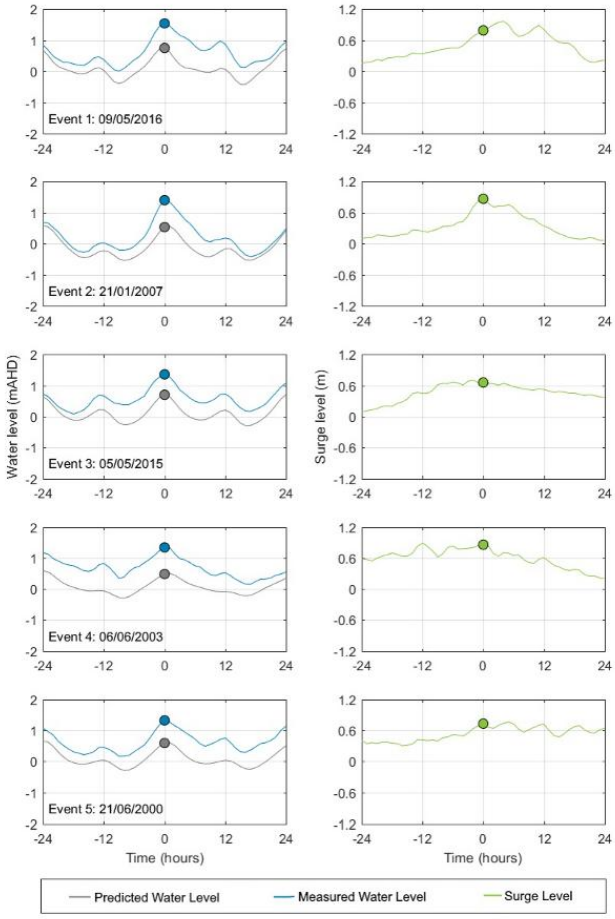


Figure 4. Time series of the five highest measured water levels at Victor Harbour (2000 to 2018).

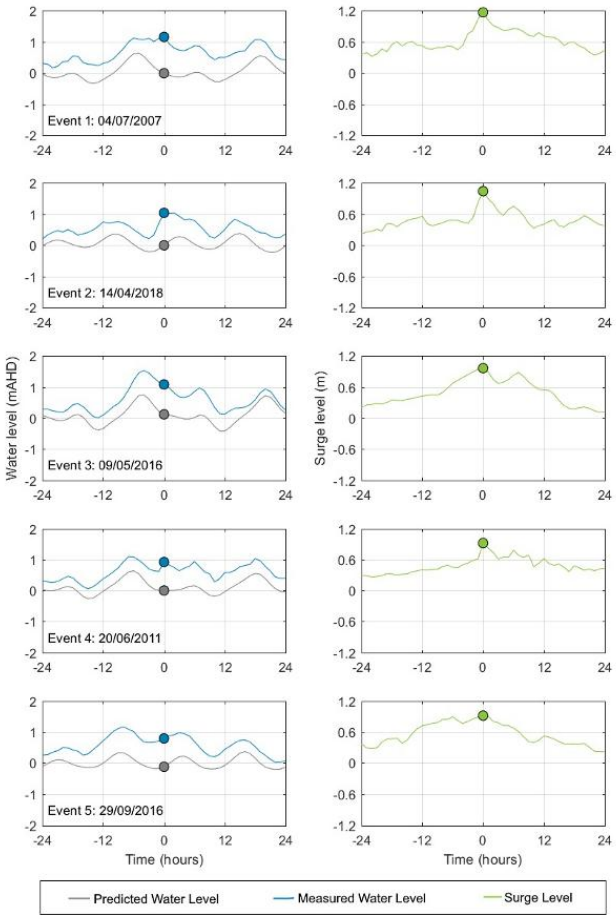


Figure 5. Time series of the five largest surge events at Victor Harbour (2000 to 2018).

2.2. Wind

Wind data have been sourced from the Bureau of Meteorology (BoM) weather station at Cape Jaffa (see Figure 2). Although this isn't the closest weather station to Horseshoe Bay its location on the headland at Cape Jaffa means that it provides a good representation of the wind conditions from the south through to west which are the directions which could result in waves at Horseshoe Bay.

The annual wind conditions at Cape Jaffa show a high variability in direction, with a dominance of winds from the south through to the west (Figure 6). There is a high degree of seasonal variability with prevailing winds from the south in the summer and from the north in the winter (Figure 7). These seasonal trends are varied by sea breezes through the day, with stronger winds typically developing in the afternoon when winds tend to blow onshore.

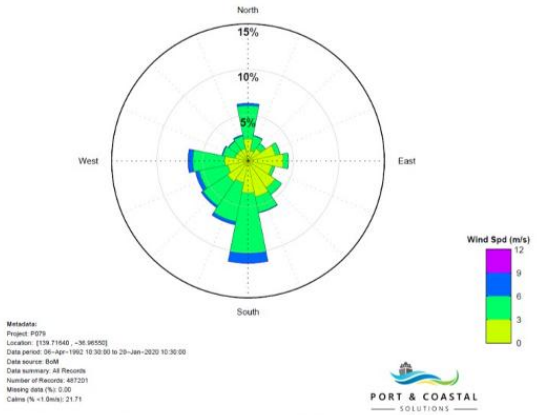


Figure 6. Annual wind rose from the Cape Jaffa weather station (BoM).

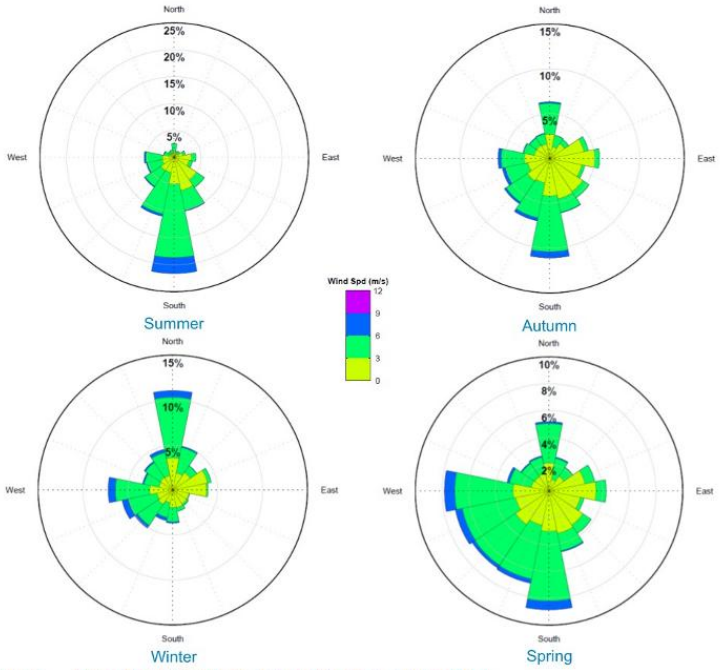


Figure 7. **Seasonal wind roses from the Cape Jaffa weather station (BoM).**

2.3. Waves

The closest long-term observational record of the wave climate is from a Waverider Buoy (WRB) deployed at Cape du Couedic, approximately 200 km to the west south-west of Horseshoe Bay. The WRB was deployed in late November 2000 and is still operational. The original WRB was non-directional, this was replaced with a directional WRB in June 2019 (although the data for 2021 and 2022 are also non-directional). The largest waves at the WRB occur in the winter (when the median wave height is 2.87 m) and smallest waves occur in the summer (with a median wave height of 2.19 m), with storm waves significantly larger than the typical wave conditions. A wave rose and significant wave height (H_s) against peak wave period (T_p) scatter plot for the measured data collected at the site are shown in Figure 8 and Figure 9.

The wave direction for the wave rose was derived from the hindcast wave model developed by the Centre for Australian Weather and Climate Research (CAWCR) at a location adjacent to the Cape du Couedic WRB. The model provides 7 km spatial resolution hourly wave conditions from 1979 to the present day (Smith et al., 2020). The CAWCR wave/wind hindcast uses the WAVEWATCH III (WWIII) model, which is a third generation wave model

widely used for forecasting. The CAWCR wave model has been validated using all available satellite altimeter data as well as wave buoy data (Durrant et al., 2014; Hemer et al., 2017).

The plots show that there is very little variation in wave direction, with waves consistently from the south-west and west south-west. The H_s is below 4 m for the majority of the time (90%). The T_p varies from 4 s to 22 s and the minimum wave period increases with wave height, with the largest wave events (e.g. H_s > 7 m) having a T_p of between 12 and 18 s. The results therefore show that the waves at the Cape du Couedic WRB are dominated by swell waves generated thousands of kilometres from the site by temperate low pressure systems blowing over the Southern Ocean, rather than by locally generated wind waves.

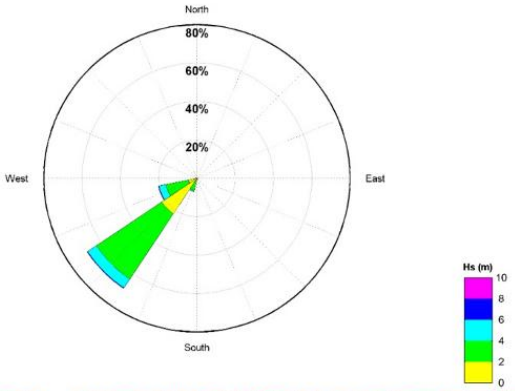


Figure 8. Wave rose for the Cape du Couedic WRB, directions are derived from CAWCR.

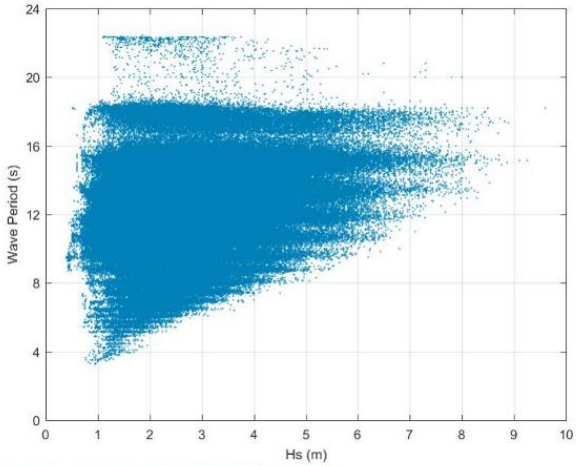


Figure 9. H_s vs T_p for the Cape du Couedic WRB.

The top ten waves recorded at the Cape du Couedic WRB from 2000 to the end of 2022 are detailed in Table 3. The following observations can be made about the extreme waves at the WRB:

- the largest wave occurred in July 2019 with an H_s of 9.6 m;
- eight of the ten largest waves from the 22 year record occurred in the last 10 years (since 2013);
- the wave periods are indicative of swell waves, with T_p ranging from 14 to 18 s; and
- the largest extreme waves occur between late Autumn and mid Spring (i.e. mainly over the winter months).

Table 3. Ten largest waves recorded at the Cape du Couedic WRB.

Date/Time	Peak H_s (m)	Wave period (s)
23/07/2019 02:30	9.60	18.2
31/07/2014 21:20	9.26	15.1
24/07/2021 13:30	8.95	14.3
29/10/2017 19:40	8.89	17.4
18/08/2013 09:20	8.82	17.6
15/09/2008 10:20	8.71	15.3
12/05/2015 12:20	8.53	17.7
29/09/2016 12:50	8.53	14.6
03/05/2016 10:20	8.52	17.8
04/09/2002 03:00	8.45	18.0

Wave data were recorded within Horseshoe Bay at HB01 using an Acoustic Doppler Current Profiler (ADCP) by Flinders University from the 20th June 2023 to the 4th September 2023 to represent winter conditions and from 1st December 2023 to 4th March 2024 to represent summer conditions. Timeseries of the measured wave data from the two deployments are shown along with the water level and current data in the following section.

The measured wave conditions at HB01 over the winter conditions, along with measured and hindcast modelled (CAWCR) wave conditions at the Cape du Couedic WRB, are shown in Figure 10. The measured H_s within Horseshoe Bay varies from 0.5 m to 2.5 m, with mean values around 1 m. The peaks and troughs in H_s approximately correspond with the offshore H_s at the Cape du Couedic WRB, with both the measured and hindcast modelled from CAWCR providing similar values. The measured T_p at HB01 correlates very closely with the measured T_p at the Cape du Couedic WRB, while the hindcast modelled T_p from CAWCR shows more variability with the measured data at HB01. The measured wave direction at Horseshoe Bay is consistently from approximately 170°, with variations typically within ± 10°, while at the Cape du Couedic WRB the wave direction typically varies between 200 and 300°.

The measured wave data at HB01 therefore demonstrate that the wave environment in Horseshoe Bay is significantly less energetic than at Cape du Couedic, with wave energy attenuated as waves propagate across the wide zone of relatively shallow water in Encounter Bay as well as through the narrow entrance, between the mainland and Pullen Island, into Horseshoe Bay. The wave climate at Horseshoe Bay is investigated in more detail using the wave model developed as part of this study, with results presented in Section 4.1.

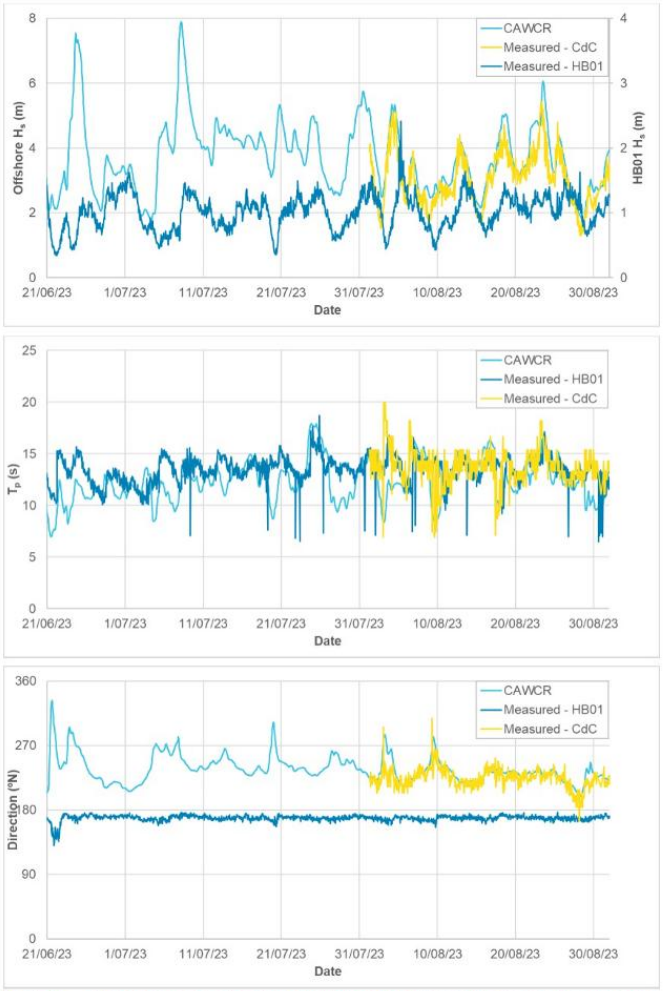


Figure 10. **Timeseries of measured wave conditions at HB01 along with concurrent measured and hindcast wave data from the Cape du Couedic WRB location.**

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2.4. ADCP Data

The ADCP deployed in the winter and summer conditions in 2023/24 at HB01 in Horseshoe Bay measured currents through the water column as well as waves. The measured wave height, water level and current data at three depths through the water column at HB01 are shown in Figure 11 during winter conditions and in Figure 12 during summer conditions. The plots show:

- during both the winter and summer conditions the H_s typically varied between 0.5 and 1.5 m. During both periods there was one larger wave event, during the winter period the larger wave event had a peak H_s of just under 2.5 m and during the summer period the larger wave event had a peak H_s of more than 3.5 m;
- water levels over both periods were typically between -0.5 and 1 m MSL. The water level shows a clear tidal signal, but with significant variability which shows that residual water levels are also important. The highest water levels measured during both periods correlate with the timing of wave events, with the peak in water level approximately correlating with the peak in wave height; and
- the current speeds were lower during the winter period, with speeds typically varying between 0 and 0.2 m/s, and higher during the summer period, with speeds typically varying between 0 and 0.4 m/s. There is a reduction in current speed through the water column, with surface currents having higher speeds than the bed currents (typically 0.05 to 0.1 m/s, but can be up to 0.3 m/s during storm events). There is no clear tidal pattern in the current speeds, but the periods with higher current speeds correlate with periods with larger wave heights (typically H_s of above 1 m). The highest measured current speeds during both periods were measured during the largest wave events, with 0.35 m/s measured during the winter period and 0.7 m/s measured during the summer period (although the mid and near-surface current measurements were unreliable at the peak of the wave event and so current speeds are likely to have been higher during the peak of the event). During the wave events which result in higher current speeds, the current direction was typically to the east north-east, while during periods with lower current speeds the direction was more variable.

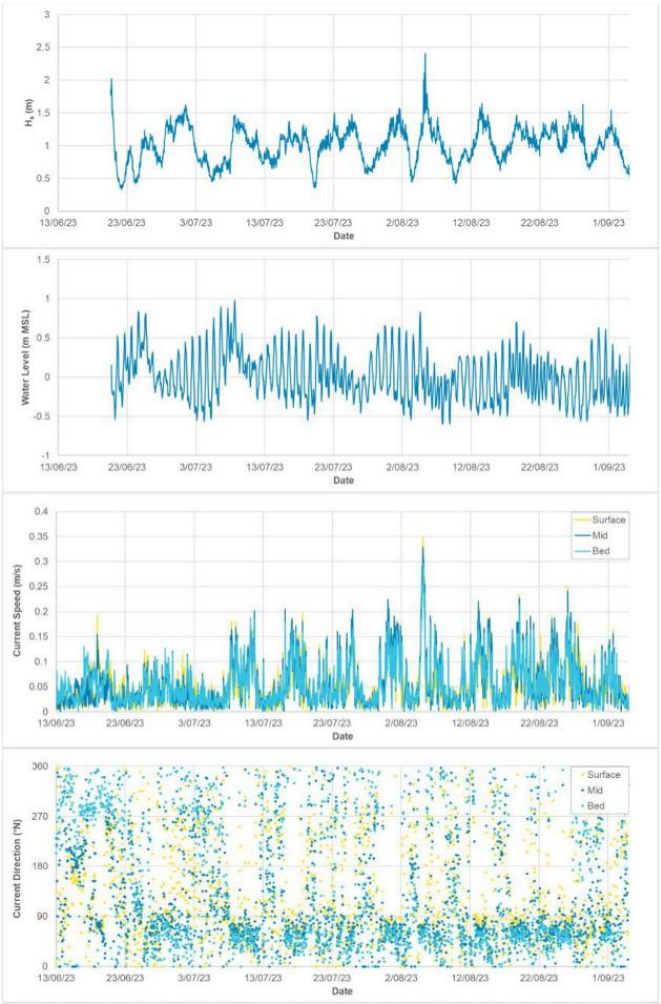


Figure 11. **Timeseries of measured current speed and direction at HB01 along with concurrent measured H_s at HB01 during the winter deployment.**

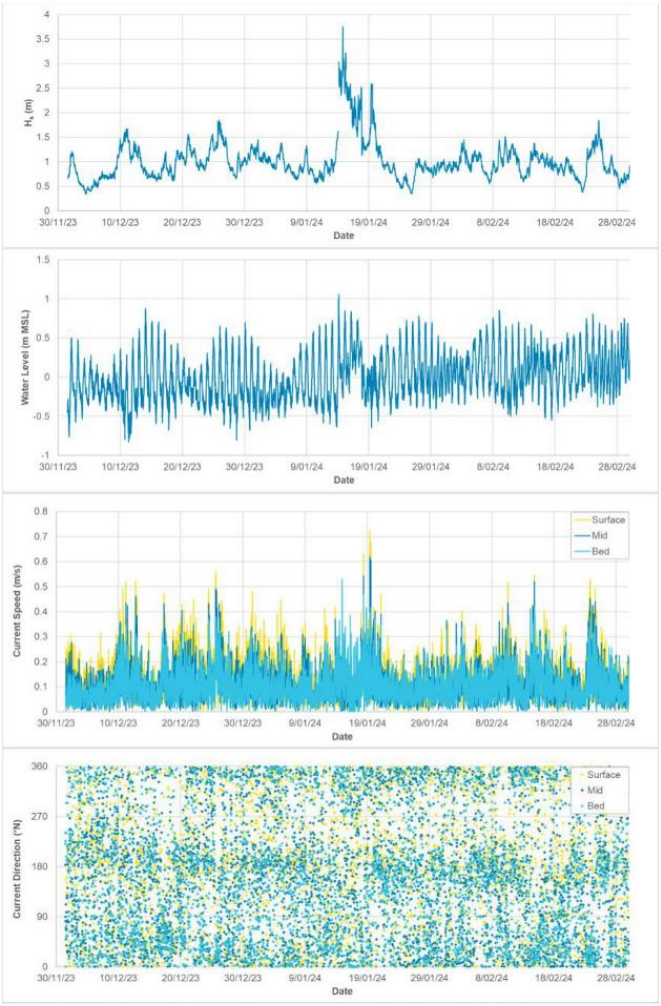


Figure 12. **Timeseries of measured current speed and direction at HB01 along with concurrent measured H_s at HB01 during the summer deployment.**

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2.5. Bathymetric and Topographic Data

Bathymetric and topographic surveys were undertaken as part of this project in 2023. Details of the surveys are provided below:

- bathymetric survey: this was aimed at providing reliable bathymetric data for the subtidal areas of Horseshoe Bay. The survey was undertaken by HydroSurvey from Flinders University on the 20th and 21st August 2023 (HydroSurvey, 2023). The survey was undertaken using a Jet Ski fitted with a single beam echo sounder along with an RTK-GPS. The data points captured during the survey are shown in Figure 13. The transect line spacing was approximately 25 m with higher density in areas of shallow reef (when possible); and
- topographic survey: this was aimed at providing high resolution elevation data for the intertidal areas of Horseshoe Bay beach as well as showing changes to the beach elevation due to a storm event. A drone fitted with LiDAR and RTK-GPS was used to undertake the surveys, with separate beach topographic surveys collected on 27/06/2023, 04/07/2023 and 11/07/2023. The timing of the surveys was selected to provide pre and post storm beach elevation data, with storm events occurring on 01/07/2023 and 08/07/2023. The wave conditions for the two events were similar, with a peak in H_s of around 1.5 m, the T_p was 13 s during the first wave event and 15 s during the second wave event and the wave direction was from 170° for both events. The main difference between the two events was the water level, with the peak in H_s during the first event coinciding with a high water level of around 0.4 m MSL with little to no storm surge present, while the peak in H_s during the second event coincided with a high water level combined with a storm surge resulting in a measured water level of 1.0 m MSL (Figure 11 and Figure 12). The beach elevation for the three surveys is shown in Figure 14 to Figure 16. The figures show cusps are present along the shoreline throughout the Bay in all three surveys, with the most obvious change being between the 2nd and 3rd surveys with the cusps becoming larger and more uniform across the Bay. Changes in beach elevation between the three surveys are considered further in the following section.

Data from the bathymetric and topographic surveys (3rd survey) were combined and interpolated to provide a bathymetry for the beach and subtidal areas of Horseshoe Bay (Figure 17). The plot shows that the deepest area is the middle of the Bay, with relatively shallow bathymetry adjacent to both the western and eastern headlands.



Figure 13. Bathymetric survey data points (20-21 August 2023).



Figure 14. Beach topographic data collected on 27/06/2023 (1st Survey).



Figure 15. Beach topographic data collected on 04/07/2023 (2nd Survey).



Figure 16. Beach topographic data collected on 11/07/2023 (3rd Survey).

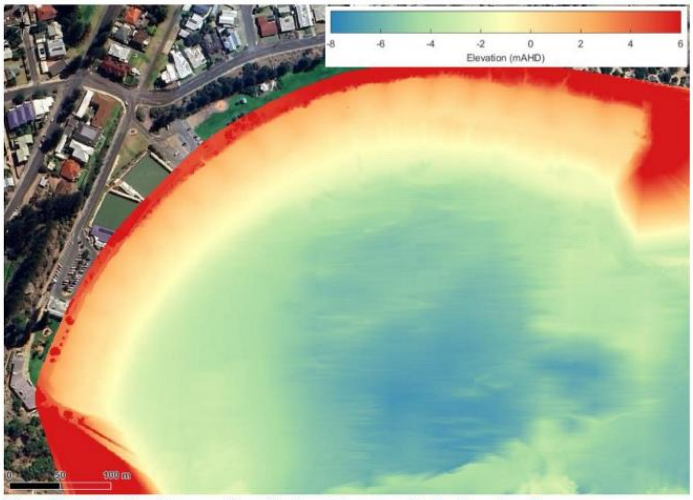


Figure 17. Combined topographic and bathymetric survey data for Horseshoe Bay.

2.6. Beach Profile Changes

Beach profile transect line 615002 has been surveyed by the Department of Environment and Water in Horseshoe Bay since 1977. The landward end of the profile ends at the seawall fronting the bowls club which will have prevented any landward recession of the profile. The profile elevation for surveys between 1986 and 2022 is shown in Figure 18. The plot shows that overall there has been limited change to the profile, with periods of accretion and erosion occurring between 0 m AHD and the toe of the seawall (approximately located at 2.5 m AHD). Comparison between the survey in 2018 and 2022 indicates that sand has been transported from between 0 and 1 m AHD to above 1 m AHD over this period, indicating that net onshore transport has dominated.

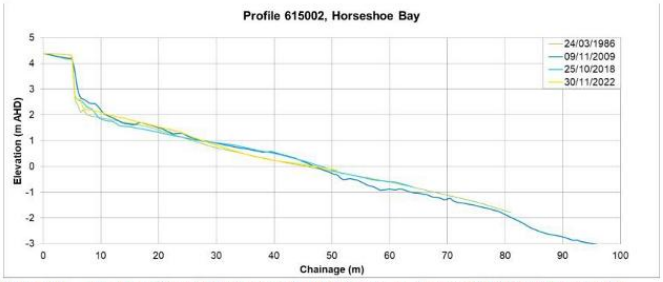


Figure 18. The Department if Environment and Water cross-shore profile 615002 elevation for surveys from 1986 to 2022.

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Changes in beach elevation between the three beach surveys are shown in Figure 19 and Figure 20. Comparison between the two plots shows that despite the storm events being very similar, the changes in beach elevation which occurred during the two events were very different. The spatial distribution of the changes were different between the two events and the magnitude of the changes were different:

- first storm event: the changes were predominantly less than ± 0.2 m, with erosion of the beach occurring in the middle third of the beach and accretion at the western and eastern thirds. Limited change occurred in the upper (landward) section of the beach, this was a result of the peak water level during the event being 0.35 m AHD, while the upper area of the beach is typically between 1.5 and 2.5 m AHD, meaning that the waves did not impact the upper section of the beach; and
- second storm event: the changes were larger during this storm event, with areas of erosion and accretion of up to ±0.5 m occurring across the beach. The changes were predominantly erosion, but with localised areas of accretion also occurring along the middle third of the beach. The erosion was predominantly in the upper (landward) section of the beach, while the accretion was typically in the lower (seaward) section of the beach, indicating sand being removed from the upper beach profile and deposited in the lower beach profile. The highest erosion rates occurred in the middle of the beach and at the eastern and western ends of the beach. The reason for the difference in beach response between this storm event and the first storm event appears to be predominantly due to the higher water level during this storm event (1.0 m MSL compared to 0.35 m MSL during the first event). This indicates that a storm event is more likely to result in erosion of the beach at Horseshoe Bay when it results in a combination of large waves and high water levels.

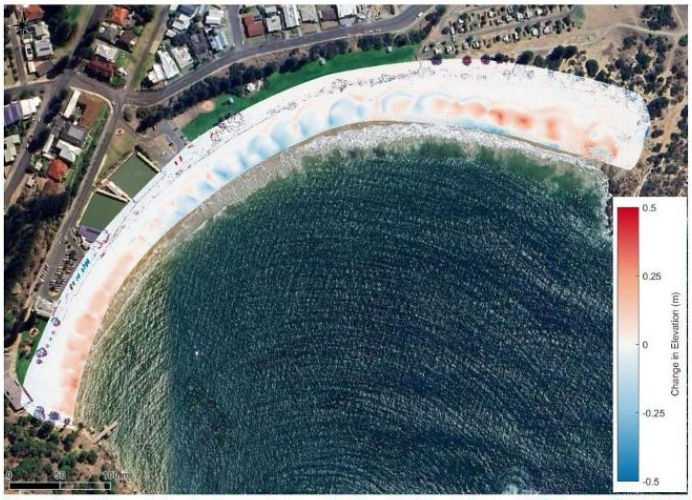


Figure 19. Change in beach elevation between the 1st and 2nd Beach Surveys (27th June to 4th July 2023).

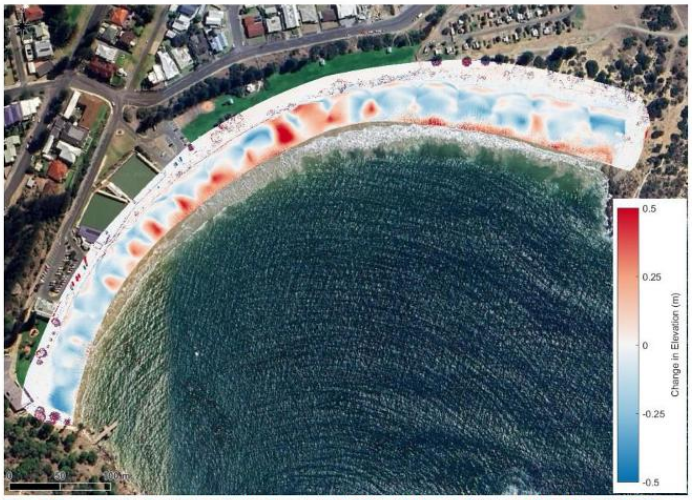


Figure 20. Change in beach elevation between the 2nd and 3rd Beach Surveys (4th to 11th July 2023).

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2.7. Shoreline Alignment

The alignment of the shoreline at Horseshoe Bay is similar to that of a crenulate bay. To test if the shoreline fits a parabolic equation the approach detailed by Hsu and Evans (1989) to predict the equilibrium crenulate bay shape for Horseshoe Bay was tested along with the angle between the control line and the wave crest line as defined for Vivonne Bay on Kangaroo Island (as this is a similar bay which experiences similar unidirectional swell wave conditions to Horseshoe Bay). The approach requires a diffraction point for the waves entering the bay, this is typically a headland or similar hard structure. For Horseshoe Bay the diffraction point is the eastern end of the breakwater at the western headland of the Bay.

The predicted crenulate bay parabolic curve along with the diffraction point is shown in Figure 21. The figure shows that the shoreline closely follows the crenulate bay parabolic curve, with the only section not following it being the eastern end of the Bay. The presence of the headland at this end of the Bay is expected to have influenced the shoreline alignment here, resulting in a build-up of sediment which could be due to a small supply of sand from either longshore transport or the cross-shore transport of sand from offshore. The fact that the Bay configuration fits a parabolic curve indicates that the bay has reached the limit of erosion under present day conditions and that the beach is in a static equilibrium with a negligible sediment input (Hsu and Evans, 1989). Based on this, the shoreline alignment can be considered to be in equilibrium and so in the future the shoreline can be expected to be susceptible to short-term storm erosion and long-term translation of the shoreline alignment due to future sea level rise (SLR).



Figure 21. Predicted crenulate bay shoreline alignment for Horseshoe Bay.

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3. Modelling Approach

To better understand the processes which influence the shoreline at Horseshoe Bay, in addition to analysing and processing measured data, numerical modelling has also been used. This section provides details of the numerical modelling software and modelling tools developed for this study.

3.1. SW Model

3.1.1. Software

The MIKE software suite has been adopted for the assessment. The MIKE software has been developed by the Danish Hydraulics Institute (DHI) and is internationally recognised as state-of-the-art and has been adopted elsewhere in Australia and internationally for similar projects. The MIKE suite includes a spectral wave (SW) module which has been applied to transform measured wave conditions from the Cape du Couedic WRB to the study area. Results from the SW model will provide a better understanding of the local wave climate in Horseshoe Bay and how it varies spatially across the Bay and will also provide wave conditions for the storm response and sea level response modelling.

3.1.2. Model Mesh

The MIKE SW module allows a flexible mesh (FM) to be adopted which enables the spatial resolution of the model mesh to be varied throughout the model domain. Adopting this allows suitable model mesh resolutions to be adopted throughout, ensuring the model accuracy and efficiency can be balanced. This means that areas of interest can have a higher mesh resolution while a lower mesh resolution can be adopted in offshore areas. This is particularly relevant to hindcast simulations which span several decades.

The SW mesh is shown in Figure 22. The mesh is shown at both regional scale (showing the full mesh extent) and local scale (zoomed into the Horseshoe Bay region) to show the mesh in more detail. The unstructured mesh enables the resolution to be varied within the domain, with higher resolution (approximately 30 m) applied within Horseshoe Bay and coarser resolution offshore (up to 5,000 m along the offshore boundary).

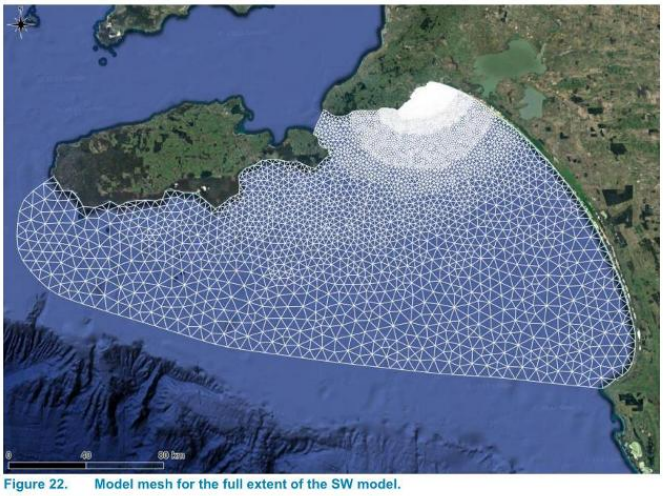


Figure 22. Model mesh for the full extent of the SW model.



Figure 23. Model mesh zoomed in around Horseshoe Bay.

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3.1.3. Bathymetry

The model bathymetry used in the SW model is comprised of the following datasets:

- Horseshoe Bay bathymetric survey (HydroSurvey, 2023): processed bathymetric data from the August 2023 hydrographic survey were used as the primary dataset for the subtidal region in Horseshoe Bay;
- Horseshoe Bay intertidal zone LiDAR survey: the most recent drone survey of the Horseshoe Bay intertidal and supratidal areas (11/07/2023) undertaken by Flinders University was used to represent these areas in the model;
- Digitised data from navigation charts: bathymetric contour and spot height data from navigation charts were manually digitised to supplement the local bathymetric data around Horseshoe Bay; and
- Bathymetric Grid of Australia data (Geoscience Australia, 2009): Data from the 2009 bathymetric grid of Australia dataset were used to supplement data gaps further offshore within the model domains. The dataset comprises bathymetric data gridded at a resolution of 0.0025 decimal degrees and constitutes the coarsest resolution dataset of the four listed above.

Data from each of these datasets were interpolated onto the SW model mesh using the above list order as the priority preference. The interpolated bathymetry is shown in Figure 24 and Figure 25.

3.1.4. Boundary Conditions

The boundary conditions for the SW model were derived from measured wave data from the Cape du Couedic WRB. As noted in Section 2.2, prior to June 2019 a non-directional WRB was deployed, and so for this period the wave directions were derived from the CAWCR hindcast model. Wave conditions from the CAWCR model were also used to fill any gaps in the WRB record (approximately 7% of the time).

The SW model applied spatially uniform, time varying winds based on the measured data at Cape Jaffa. In addition, a spatially uniform, time varying water level (based on measured water levels from Victor Harbour) was also applied in the SW model.

3.1.5. Model Calibration

For the calibration of the wave model a qualitative comparison between measured and modelled wave height, wave period and wave direction has been undertaken. In addition, a quantitative comparison of wave percentiles between modelled and measured wave heights has also been undertaken.

The wave model was set up to replicate the wave conditions at HB01 over the two month period from the 20th June 2023 to 30th August 2023 when wave conditions were measured. Measured wave data to drive the SW model from the Cape du Couedic WRB were only available from the 2nd August 2023 onwards and so the SW model has been setup to simulate the wave conditions over the entire period using wave boundary conditions from the CAWCR hindcast model and to simulate the period from 2nd August 2023 to 30th August 2023 using wave boundary conditions from the Cape du Couedic WRB.

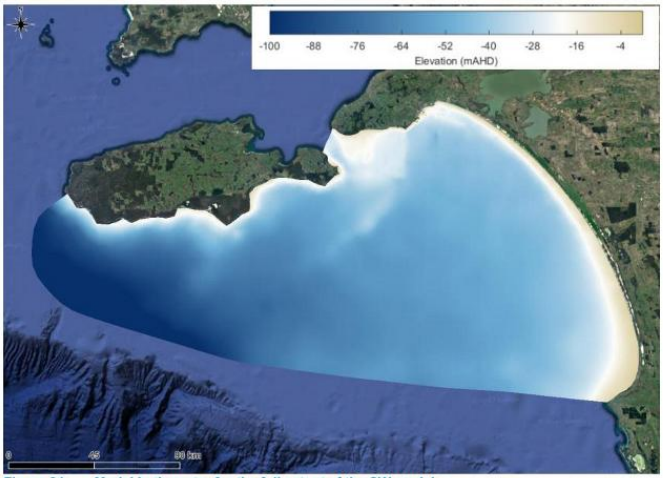


Figure 24. Model bathymetry for the full extent of the SW model.



Figure 25. Model bathymetry zoomed in around Horseshoe Bay.

Time series plots of H_s, T_p and mean wave direction are shown at HB01 over the 2 month calibration period in Figure 26. The plots show that the model provides a good representation of the measured H_s, T_p and direction for a range of wave conditions. The model is able to provide a good representation of the measured wave heights when its being driven using either the CAWCR hindcast model or the measured wave conditions at the Cape du Couedic WRB, but the wave period is significantly improved when the measured WRB data are adopted compared to the hindcast CAWCR model.

A quantitative assessment of the model calibration at HB01 is provided in Table 4, with percentile statistics presented for both measured and modelled H_s over the full model run period when using the CAWCR hindcast model and also for the August 2023 period when measured wave boundary conditions from the Cape du Couedic WRB were available. The statistics confirm that the modelled wave heights agree well with the measured data when using either boundary condition (to within 0.1 m for the 20th percentile and above). The model tends to underestimate the smaller wave conditions (5th and 10th percentiles) compared to the measured data, but these calm conditions will not influence the storm response or sea level response modelling and so this limitation of the model is not considered to be an issue for this study.

Table 4. Percentiles of measured H_s and modelled H_s using the CAWCR and WRB data for boundary conditions at the Horseshoe Bay ADCP.

Percentile	20/06/23 to 30/08/23		02/08/23 to 30/08/23	
	Model CAWCR H_s (m)	Measured H_s (m)	Model WRB H_s (m)	Measured H_s (m)
99th	1.60	1.57	1.62	1.58
95th	1.47	1.43	1.46	1.45
90th	1.40	1.35	1.33	1.36
80th	1.28	1.26	1.26	1.28
50th	1.01	1.02	1.05	1.08
20th	0.71	0.76	0.75	0.82
10th	0.54	0.64	0.61	0.73
5th	0.32	0.53	0.53	0.63



Figure 26. **Comparison of modelled and measured waves at the ADCP site in Horseshoe Bay over two months, showing H_s (upper), T_p (middle) and mean wave direction (lower).**

3.1.6. Simulation Period

Following the model calibration exercise, the SW model was setup to simulate the wave conditions in Horseshoe Bay over a 20 year period, from 2000 to 2020.

3.2. Future Shoreline Changes

As noted in Section 2.7, the future shoreline position at Horseshoe Bay is expected to have the potential to be influenced by short-term storm erosion along with a long-term translation of the shoreline alignment due to SLR. To represent both of these potential changes a combination of modelling approaches is required, with results from both then being combined to provide the total potential future shoreline change. The separate modelling approaches to represent these are detailed in the following sections.

3.2.1. Storm Response Modelling

The MIKE Littoral Processes LITPROF module has been adopted to model the cross-shore transport of sediment during a storm event and the resultant beach profile response. The LITPROF module calculates the propagation, shoaling and breaking of waves, the momentum balance for cross-shore currents and the resultant cross-shore sediment transport. The cross-shore sediment transport and storm response was modelled at 7 beach profiles which were spaced approximately every 100 m along the Horseshoe Bay shoreline (Figure 27). The cross-shore profiles extended to a depth of approximately -6.5 m AHD to allow wave propagation to be modelled along the profiles, this resulted in profile lengths of around 350 m.

The bathymetry for the beach profiles were extracted from the combined Horseshoe Bay bathymetry which was based on the bathymetric and LiDAR survey data. A uniform particle size was assumed for each profile of 300 μm (based on sand sampling within Horseshoe Bay).

Results from the 20 year SW model simulation were analysed to identify the largest wave event which coincided with a high water level over the period. Based on this a wave event in September 2016 was selected, with an H_s of 2.5 m and T_p of 15 s (at HB01) and a water level of 1.15 m AHD (i.e. this included a storm surge). As noted in Sections 2.1 and 2.3, this event resulted in the 5th largest storm surge (at Victor Harbour) and the 8th largest H_s (at Cape du Couedic WRB) event since 2000.

The LITPROF model was setup to simulate the cross-shore transport and resultant beach profile response for the September 2016 wave event at each of the 7 beach profiles. The wave conditions at the seaward end of each beach profile was extracted from the SW model over the duration of the wave event. The water level adopted in the LITPROF model was the measured water level from Victor Harbour. The water level was increased by 0.1 m, 0.3 m and 1.0 m to represent the SLR in 2030, 2050 and 2100 as recommended by the South Australian Coast Protection Board. Sensitivity testing was undertaken using the SW model to determine the relative influence of SLR on the wave conditions at the seaward end of the profiles and it was found that increases in H_s were less than 5% and so the offshore wave condition was not varied with SLR. The LITPROF model transforms the wave conditions from the seaward end of the cross-shore profile to the shoreline and so the change in wave transformation along the profiles due to the SLR is represented in this model.

As a qualitative model validation, profile P4 was setup to simulate the beach profile response for the September 2016 wave event for present day water levels. The storm erosion was estimated to be approximately 5 m which corresponds well to the recession which has been estimated to have occurred in this location of 3 to 4 m between 2003 and 2018 by Western et al. (2019). This recession is likely to have been predominantly due to storm erosion, but the SLR of approximately 50 mm (3.2 mm/yr) which will have occurred over this period could also

have contributed to the recession and limited the potential for the shoreline to recover from the storm erosion.

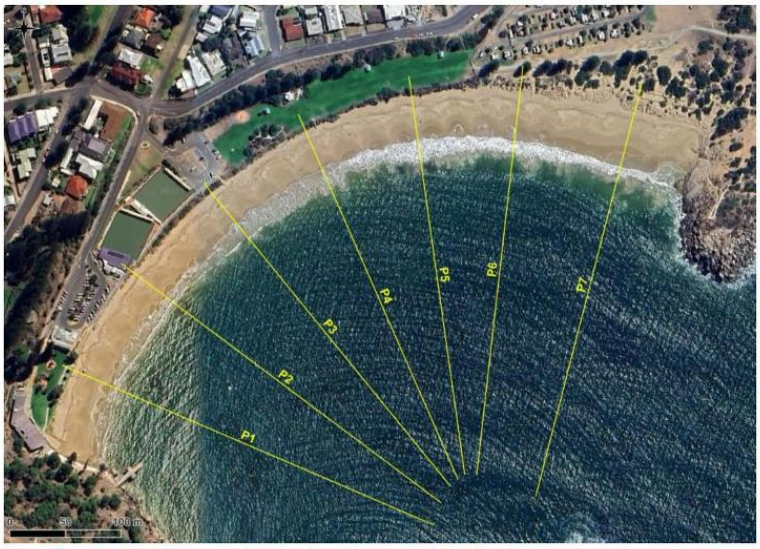


Figure 27. **Location of the cross-shore beach profiles adopted for the longshore and cross-shore sediment transport modelling.**

3.2.2. Sea Level Response

To determine how the cross-shore profiles at Horseshoe Bay will respond to sea level rise the rules-based shoreface translation model ShoreTrans was adopted (McCarroll et al., 2021). The model can be used to estimate change to coastlines resulting from SLR, whilst also accounting for hard structures such as sea walls.

The ShoreTrans model was setup to predict how the 7 cross-shore profiles in Horseshoe Bay will respond to future SLR in 2030, 2050 and 2100. For each of the 7 profiles the inner depth of closure was calculated based on the wave conditions extracted from the SW model using the approach detailed by Hallermeier (1981).

At Profiles P1 to P3 the cross-shore profiles were modelled both with (assuming the seawalls are maintained to ensure they prevent any erosion of the shoreline behind them) and without the existing seawall in place to understand how the cross-shore profiles will respond for both cases.

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4. Modelling Results

This section presents and discusses results from the SW modelling and the future shoreline changes modelling.

4.1. Wave Modelling

Results from the 20 year SW model were extracted at locations approximately 100 m offshore of the shoreline at profiles P1, P4 and P7 as well as at HB01. Joint frequency tables for H_s and wave direction are shown at these four locations in Table 5 to Table 8, while wave roses are shown relative to the model output locations in Figure 28. A spatial map of H_s and wave direction during the peak of the September 2016 wave event is also shown in Figure 29. The results show the following:

- waves offshore of Horseshoe Bay are predominantly from the south, with wave heights significantly larger offshore of the Bay. The combination of Pullen Island, the shallow areas of reef of the Twins and the Sisters, the breakwater on the south-western end of the Bay and the shallower bathymetry within the Bay all act to limit wave heights in the Bay;
- refraction of the waves once they have entered the Bay results in the wave direction varying significantly. The wave direction varies from the east south-east at the western end of the Bay (P1), to south south-east in the middle of the Bay (the same as HB01) and to south at the eastern end of the Bay. At all locations there is a single wave direction which is strongly dominant. This highlights how dominant the offshore swell waves are over local wind waves in the region; and
- the wave heights vary across the Bay due to the relative exposure of the Bay to the waves from the south. The smallest waves are at the western end, where the H_s was below 1 m for 96% of the time, and the largest waves are at the eastern end where the wave heights are only slightly smaller than at HB01, with an H_s of less than 1 m occurring for 73% of the time (66% at HB01) and an H_s of more than 1.5 m occurring for 3% of the time (6% at HB01).

Overall, the wave modelling results show that Horseshoe Bay is relatively sheltered from offshore swell waves. Refraction of the waves within the Bay mean that they are aligned approximately shore normal by the time they reach the shoreline. The wave height varies along the shoreline, with the western end of the Bay being the most sheltered and the eastern end being the most exposed.

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Table 5. Joint frequency table of H_s against wave direction at HB01 based on the 20 year modelled wave conditions.

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	0.01	0.02	0.07	0.07	0.05	0.03	0.02	0.17	0.23	0.02	*	*	*	*	*	0.01	0.73	0.73
0.25–0.5	–	–	–	*	*	*	0.02	9.72	1.22	–	–	–	–	–	–	–	10.96	11.69
0.5–0.75	–	–	–	–	–	–	*	24.91	2.38	–	–	–	–	–	–	–	27.29	38.98
0.75–1	–	–	–	–	–	–	*	25.02	2.36	–	–	–	–	–	–	–	27.38	66.36
1–1.25	–	–	–	–	–	–	–	16.46	1.84	–	–	–	–	–	–	–	18.30	84.66
1.25–1.5	–	–	–	–	–	–	–	8.48	0.92	–	–	–	–	–	–	–	9.40	94.06
1.5–1.75	–	–	–	–	–	–	–	3.93	0.35	–	–	–	–	–	–	–	4.28	98.34
1.75–2	–	–	–	–	–	–	–	1.54	0.12	–	–	–	–	–	–	–	1.66	100.00
Total	0.01	0.02	0.07	0.07	0.05	0.03	0.05	90.22	9.41	0.02	*	*	*	*	*	0.01		
Cumul.	0.01	0.04	0.11	0.18	0.23	0.26	0.31	90.53	99.94	99.96	99.97	99.97	99.98	99.98	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

Metadata:
Project: P079
Location: HB01 [290287.00000 , 6065126.00000]
Data period: 30–Nov–2000 12:00:00 to 14–Jan–2020 01:59:59
Data source: SW Model
Data summary: All Records
Number of Records: 167607

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Table 6. Joint frequency table of H_s against wave direction at P1 based on the 20 year modelled wave conditions.

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	0.02	0.05	0.09	0.09	0.13	4.57	0.32	*	*	*	–	*	*	*	*	*	5.31	5.31
0.25–0.5	–	–	–	–	–	39.73	1.25	–	–	–	–	–	–	–	–	–	40.98	46.29
0.5–0.75	–	–	–	–	–	34.65	1.10	–	–	–	–	–	–	–	–	–	35.74	82.03
0.75–1	–	–	–	–	–	13.68	0.50	–	–	–	–	–	–	–	–	–	14.18	96.21
1–1.25	–	–	–	–	–	3.35	0.16	–	–	–	–	–	–	–	–	–	3.51	99.72
1.25–1.5	–	–	–	–	–	0.27	0.01	–	–	–	–	–	–	–	–	–	0.28	100.00
1.5–1.75	–	–	–	–	–	*	–	–	–	–	–	–	–	–	–	–	*	100.00
1.75–2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	100.00
Total	0.02	0.05	0.09	0.09	0.13	96.25	3.34	*	*	*	–	*	*	*	*	*		
Cumul.	0.02	0.07	0.16	0.26	0.39	96.64	99.97	99.98	99.98	99.98	99.98	99.98	99.98	99.98	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

Metadata:
Project: P079
Location: P1 [290108.00000 , 6065185.00000]
Data period: 30–Nov–2000 12:00:00 to 14–Jan–2020 01:59:59
Data source: SW Model
Data summary: All Records
Number of Records: 167607

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Table 7. Joint frequency table of H_s against wave direction at P4 based on the 20 year modelled wave conditions.

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	*	0.04	0.04	0.03	0.03	0.05	0.05	1.21	0.07	*	*	*	*	*	*	*	1.55	1.55
0.25–0.5	–	–	–	–	–	–	*	22.45	*	–	–	–	–	–	–	–	22.46	24.02
0.5–0.75	–	–	–	–	–	–	*	36.19	*	–	–	–	–	–	–	–	36.19	60.21
0.75–1	–	–	–	–	–	–	–	25.04	–	–	–	–	–	–	–	–	25.04	85.25
1–1.25	–	–	–	–	–	–	–	10.69	–	–	–	–	–	–	–	–	10.69	95.94
1.25–1.5	–	–	–	–	–	–	–	3.34	–	–	–	–	–	–	–	–	3.34	99.28
1.5–1.75	–	–	–	–	–	–	–	0.68	–	–	–	–	–	–	–	–	0.68	99.96
1.75–2	–	–	–	–	–	–	–	0.04	–	–	–	–	–	–	–	–	0.04	100.00
Total	*	0.04	0.04	0.03	0.03	0.05	0.05	99.65	0.07	*	*	*	*	*	*	*		
Cumul.	*	0.04	0.08	0.11	0.14	0.19	0.25	99.89	99.97	99.97	99.98	99.98	99.98	99.99	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

Metadata:
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Location: P4 [290253.00000 , 6065345.00000]
Data period: 30-Nov-2000 12:00:00 to 14-Jan-2020 01:59:59
Data source: SW Model
Data summary: All Records
Number of Records: 167607

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Table 8. Joint frequency table of H_s against wave direction at P7 based on the 20 year modelled wave conditions.

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	0.02	0.04	0.02	*	0.01	0.01	0.04	0.02	0.34	0.32	0.02	0.01	*	0.01	0.01	*	0.90	0.90
0.25–0.5	–	–	–	–	–	–	–	*	13.73	0.75	–	–	–	–	–	–	14.50	15.40
0.5–0.75	–	–	–	–	–	–	–	0.01	29.27	1.08	–	–	–	–	–	–	30.35	45.75
0.75–1	–	–	–	–	–	–	–	*	26.89	0.84	–	–	–	–	–	–	27.74	73.49
1–1.25	–	–	–	–	–	–	–	*	16.12	0.32	–	–	–	–	–	–	16.44	89.93
1.25–1.5	–	–	–	–	–	–	–	*	7.12	0.05	–	–	–	–	–	–	7.18	97.10
1.5–1.75	–	–	–	–	–	–	–	–	2.40	*	–	–	–	–	–	–	2.41	99.51
1.75–2	–	–	–	–	–	–	–	–	0.49	–	–	–	–	–	–	–	0.49	100.00
Total	0.02	0.04	0.02	*	0.01	0.01	0.04	0.05	96.38	3.36	0.02	0.01	*	0.01	0.01	*		
Cumul.	0.02	0.06	0.08	0.08	0.10	0.11	0.14	0.19	96.57	99.93	99.95	99.96	99.97	99.98	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

Metadata:
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Location: P7 [290471.00000 , 6065350.00000]
Data period: 30-Nov-2000 12:00:00 to 14-Jan-2020 01:59:59
Data source: SW Model
Data summary: All Records
Number of Records: 167607

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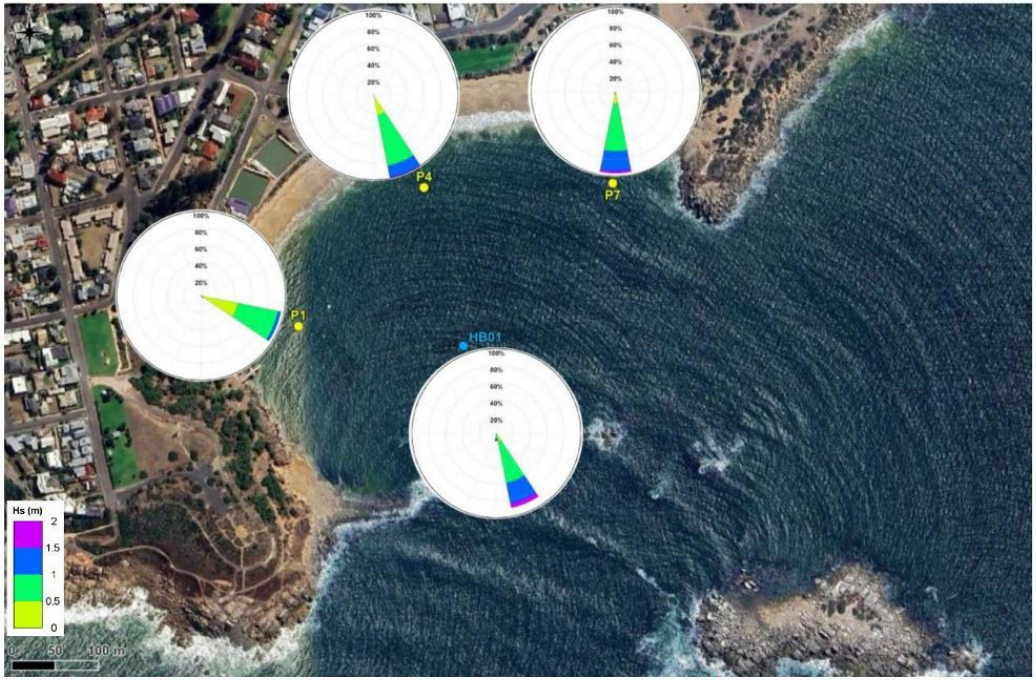


Figure 28. Wave roses showing modelled wave conditions over 20 years at multiple locations within Horseshoe Bay.

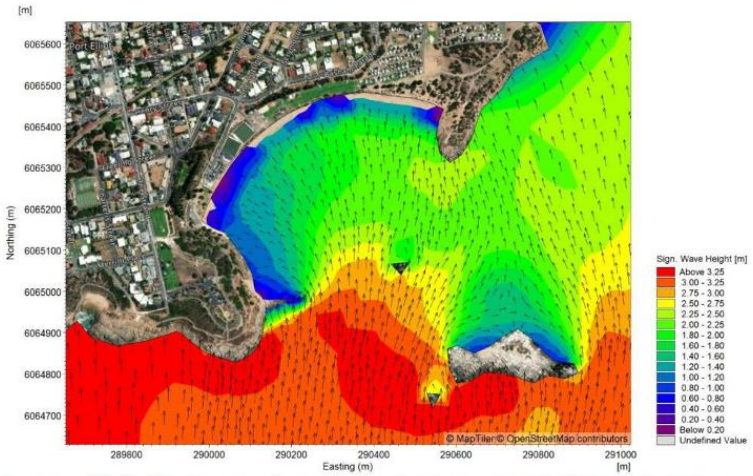


Figure 29. **Modelled H_s and wave direction around Horseshoe Bay during the peak of the September 2016 wave event.**

4.2. Future Shoreline Changes

The modelled change in cross-shore profile due to a storm event occurring with 2030, 2050 and 2100 sea levels is shown at profile P4 in Figure 30 and the change at the same profile due to SLR is shown in Figure 31. The plots show the following:

- storm event: the storm is predicted to erode sand from the profile above 0.5 m AHD and this sand is deposited further offshore in the profile between 0.5 m and -5 m AHD. There is predicted to be an increase in the elevation of the offshore bar around -1 to -2 m AHD. The growth of an offshore bar during a large storm event is a typical natural response of a beach as the increase in elevation of the offshore bar promotes wave breaking which in turn acts to limit the wave heights closer to the beach. To calculate the shoreline recession for the storm events the 1.5 m AHD contour was used as this was the approximate elevation of the modelled toe of the storm scarp (and provides a larger and more conservative recession rate compared to using the crest of the scarp); and
- SLR: the cross-shore profile is predicted to migrate in a landward direction whilst also increasing its elevation relative to SLR. The cross-shore profile is maintained by the model, with the erosion and accretion across the profile balanced. The model predicts erosion above the 2.5 m AHD contour and accretion below it. To calculate the shoreline recession for the storm events either the toe or crest of the scarp was used, whichever resulted in the higher recession rate (to ensure a conservative recession rate).

The modelled shoreline recession rates due to the storm event and SLR as well as the combined recession due to both are shown for all 7 profiles in Table 9. The table shows the following:

- 2030: the short-duration storm event recession rates range from 4 to 6 m, while the long-term SLR recession rates range from 1 to 3 m, resulting in combined recession rates of 5

to 9 m. The lowest recession rates are predicted at the western and eastern ends of the Bay, while the highest recession rates are in the middle of the Bay (profiles P4 and P5);

- 2050: the short-duration storm event recession rates range from 5 to 8 m, while the long-term SLR recession rates range from 3 to 5 m, resulting in combined recession rates of 9 to 13 m. As for the 2030 shoreline recession predictions, the lowest recession rates are predicted at the western and eastern ends of the Bay, while the highest recession rates are in the middle of the Bay (profile P4); and
- 2100: the short-duration storm event recession rates range from 8 to 12 m, while the long-term SLR recession rates range from 10 to 13 m, resulting in combined recession rates of 18 to 25 m. As with the other shoreline recession predictions, the lowest recession rates are predicted at the western and eastern ends of the Bay (lowest at the western end), while the highest recession rates are in the middle of the Bay (profile P4).

The cross-shore profile response to SLR was also modelled with the existing seawall still in place for profiles P1 to P3 (assuming that the seawall is maintained so no erosion occurs landward of it), the resultant cross-shore profiles for 2030, 2050 and 2100 are shown in Figure 32 to Figure 34. The plots show how the profiles are predicted to deepen directly seaward of the seawalls, with the deepening increasing with SLR. The predicted deepening in front of the seawalls is detailed in Table 10 for the three profiles with existing seawalls. The results show that by 2030 the deepening is predicted to be relatively small with deepening at all profiles of less than 0.15 m, but by 2100 the deepening is predicted to range from 0.89 to 1.28 m at the three profiles. It is important to consider that this will present a long-term reduction in the beach elevation due to SLR and additional deepening can also occur during storm events which could increase the deepening by more than double over the short-term potentially resulting in the undermining of structures.

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Table 9. Modelled shoreline recession rates at the cross-shore profile locations along Horseshoe Bay.

Profile	2030 Shoreline Recession (m)			2050 Shoreline Recession (m)			2100 Shoreline Recession (m)		
	Storm	SLR	Comb.	Storm	SLR	Comb.	Storm	SLR	Comb.
P1	3	1	4	4	4	8	8	10	18
P2	4	3	7	5	5	10	9	11	20
P3	4	3	7	6	5	11	9	13	22
P4	5	3	8	7	5	12	12	13	25
P5	5	3	8	7	4	11	13	10	23
P6	4	1	5	5	3	8	9	10	19
P7	4	1	5	5	3	8	11	10	21

Table 10. Modelled profile deepening due to storm events at profiles with a seawall present.

Profile	Profile Deepening (m)		
	2030	2050	2100
P1	-0.13	-0.47	-0.89
P2	-0.12	-0.39	-1.28
P3	-0.09	-0.39	-1.15

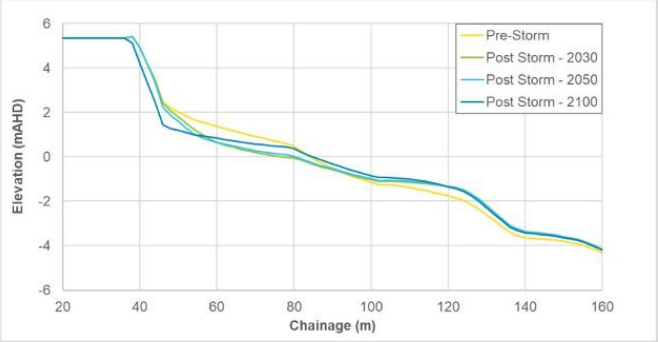


Figure 30. **Modelled cross-shore profile change at P4 during a storm event for 2030, 2050 and 2100 sea levels.**

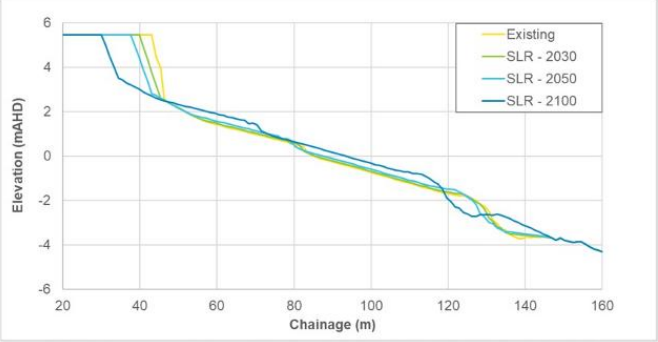


Figure 31. **Modelled cross-shore profile change at P4 due to SLR for 2030, 2050 and 2100.**

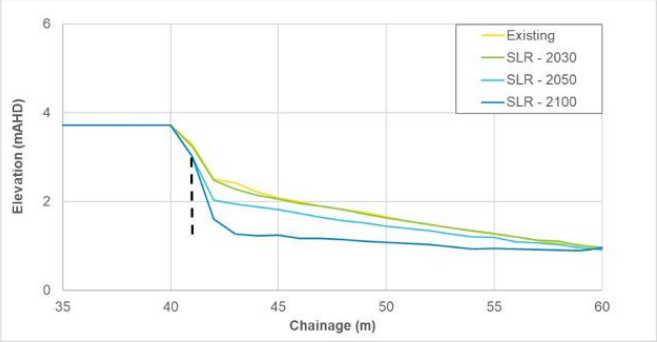


Figure 32. Modelled cross-shore profile change at P1 due to SLR for 2030, 2050 and 2100 with the existing seawall in place (black dashed line).

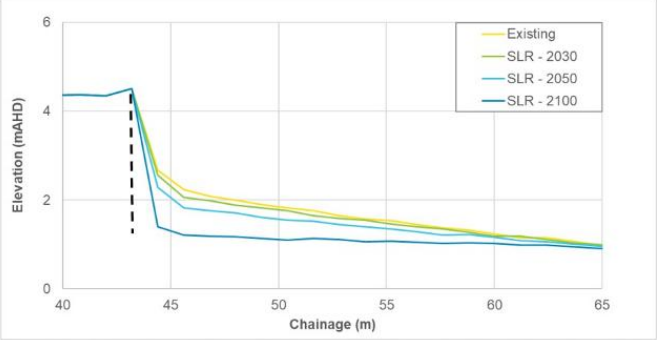


Figure 33. Modelled cross-shore profile change at P2 due to SLR for 2030, 2050 and 2100 with the existing seawall in place (black dashed line).

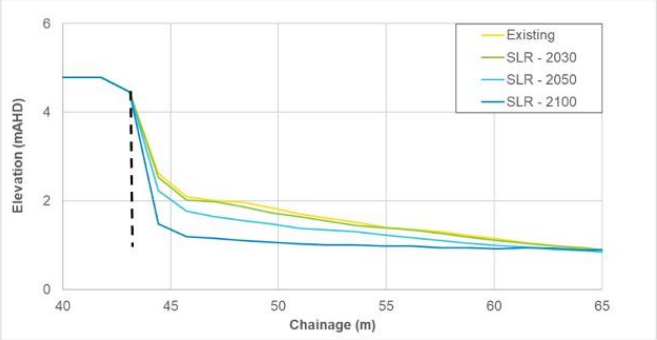


Figure 34. Modelled cross-shore profile change at P3 due to SLR for 2030, 2050 and 2100 with the existing seawall in place (black dashed line).

The combined predicted recession rates from a short-term storm event and long-term SLR translation have been mapped relative to the existing shoreline position to show predicted shoreline positions following a large storm event in 2030, 2050 and 2100. The shoreline position between the cross-shore profile locations has been assumed to maintain a similar crenulate bay shape as the existing shoreline (in accordance with the crenulate bay theory). The shoreline positions assume that no seawalls or infrastructure are present which would prevent shoreline recession. The predicted future shoreline positions are shown in Figure 35 to Figure 37.

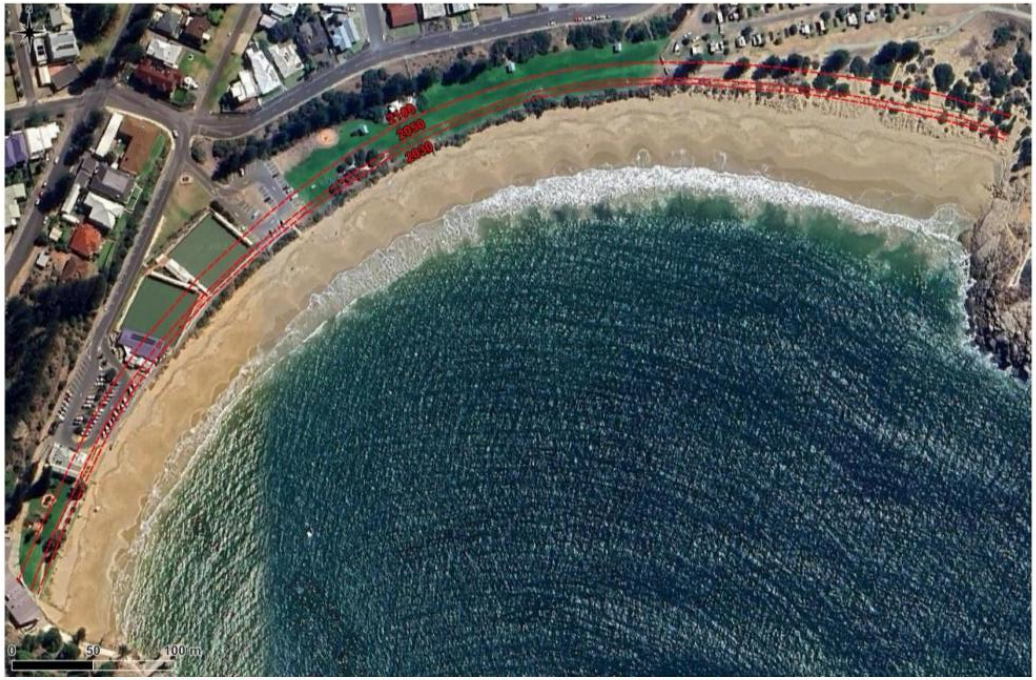


Figure 35. Predicted shoreline recession lines for 2030, 2050 and 2100 shown for all of Horseshoe Bay.



Figure 36. Predicted shoreline recession lines for 2030, 2050 and 2100 shown for the west half of Horseshoe Bay.



Figure 37. Predicted shoreline recession lines for 2030, 2050 and 2100 shown for the east half of Horseshoe Bay.

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5. Option Assessment

This section presents modelling results from alternative management options to assess their potential impacts on coastal erosion at Horseshoe Bay.

5.1. Management Options

The alternative management options were proposed by Wavelength based on their understanding of the existing conditions at Horseshoe Bay as well as review of the numerical modelling results for the existing case (detailed in Section 4). The alternative management options being considered are shown in Figure 38 and summarised below:

- Option 1, Breakwater Extension: this option assumes that the existing breakwater at the western side of the entrance to Horseshoe Bay is extended from approximately 100 m in length to 200 m in length and the crest elevation is built up to 5 m AHD along the full length of the breakwater. This option was represented in the SW model mesh and bathymetry and the SW model was used to simulate 20 years of wave conditions. Results from the SW model were then used as inputs to the storm response and sea level response modelling;
- Option 2, Submerged Breakwater: this option assumes that a 300 m long submerged breakwater is located between -4.5 and -5.5 m AHD in the middle of Horseshoe Bay (from P2 to P6). The submerged breakwater has a crest height of -2.5 m AHD and a crest width of 15 m. This option was represented in the SW model mesh and bathymetry and the SW model was used to simulate 20 years of wave conditions. Results from the SW model were then used as inputs to the storm response and sea level response modelling;
- Option 3, Seawall Extension: this option assumes that the existing seawall located at the western end of the beach (covering P1 to P3) is extended approximately 200 m to the east north-east to cover the beach at P4 and P5. This option was represented by including a seawall in the beach profiles at P4 and P5 for the sea level response modelling; and
- Option 4, Nourishment: this option assumes that 3,500 m^3 of sand is borrowed from a 175 m section of the eastern end of the beach (between P6 and P7) and 2,400 m^3 of sand (assuming losses of 30% from the borrow site) is used to create a back beach berm along a 300 m length of beach (between P2 and P5). This option was represented as a change in the beach profile to represent the borrowing of sand from profiles P6 and P7 1m AHD and the nourishment of sand at profiles P2 to P5. The borrowing was represented by flattening the profile between 1 m AHD and 1.75 m AHD down to 1 m AHD and then reducing the beach level by 0.75 m between 1.75 m AHD and 3 m AHD. The nourishment was represented as a 4 m advance of the 3.5 m AHD level with a 1V:1.8H slope down to the existing beach level, representing an approximate 8 m^2 increase in beach cross-sectional area at each profile.



Figure 38. Map showing the alternative management options being considered for Horseshoe Bay.

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5.2. Option Modelling Results

Results from the numerical modelling undertaken to assess the management options relative to the existing case are presented in the following sections for the wave modelling and the future shoreline changes.

5.2.1. Wave Modelling

Spatial maps of wave height and wave direction at the peak of the September 2016 storm event are shown for the existing case and for Options 1 and 2 in Figure 39 and Figure 40. The plots show that relative to the existing case Option 1, the extended breakwater, results in a significant reduction in wave height across the majority of Horseshoe Bay, with the largest reduction at the western end of the bay and with minimal change at the eastern end of the bay. In contrast, the plots show that Option 2, the submerged breakwater, results in a localised increase in wave height where the structure is located (due to the shallower bathymetry at the submerged breakwater locally increasing wave heights) and then a slight reduction adjacent to the shoreline.

The spatial maps only show the change in waves for a single wave condition (a large wave event which coincided with a high water level). To show the changes for all wave conditions wave roses at locations approximately 100 m offshore of the shoreline at profiles P1, P4 and P7 are shown for the existing case and for Options 1 and 2 in Figure 41 and Figure 42 and H_s against wave direction frequency tables are shown at P4 for Options 1 and 2 in Table 11 and Table 12. The results show the following:

- Option 1, Extended Breakwater: the results predict that this option would result in a significant reduction in H_s at P1 and P4 (and the profiles between the two) and a moderate reduction at P7. At P1 the option is predicted to result in the H_s remaining below 0.5 m for more than 95% of the time, compared to 45% of the time for the existing case. At P4 the option is predicted to result in the H_s remaining below 0.5 m for 70% of the time, compared to 25% of the time for the existing case. At P7 the option is predicted to result in the H_s remaining below 1 m for 90% of the time, compared to 70% of the time for the existing case; and
- Option 2, Submerged Breakwater: the results predict that this option would result in a slight reduction in H_s at P1 to P7. At P1 the option is predicted to result in the H_s remaining below 0.5 m for 60% of the time, compared to 45% of the time for the existing case. At P4 the option is predicted to result in the H_s remaining below 1 m for 89% of the time, compared to 85% of the time for the existing case. At P7 the option is predicted to result in a marginal reduction in H_s compared to the existing case.

Overall, the results show that Option 1, extending the breakwater by 100 m, is predicted to result in a significant reduction in wave heights along the western and central areas of Horseshoe Bay, while Option 2, the submerged breakwater, is predicted to result in relatively small reductions in wave heights.

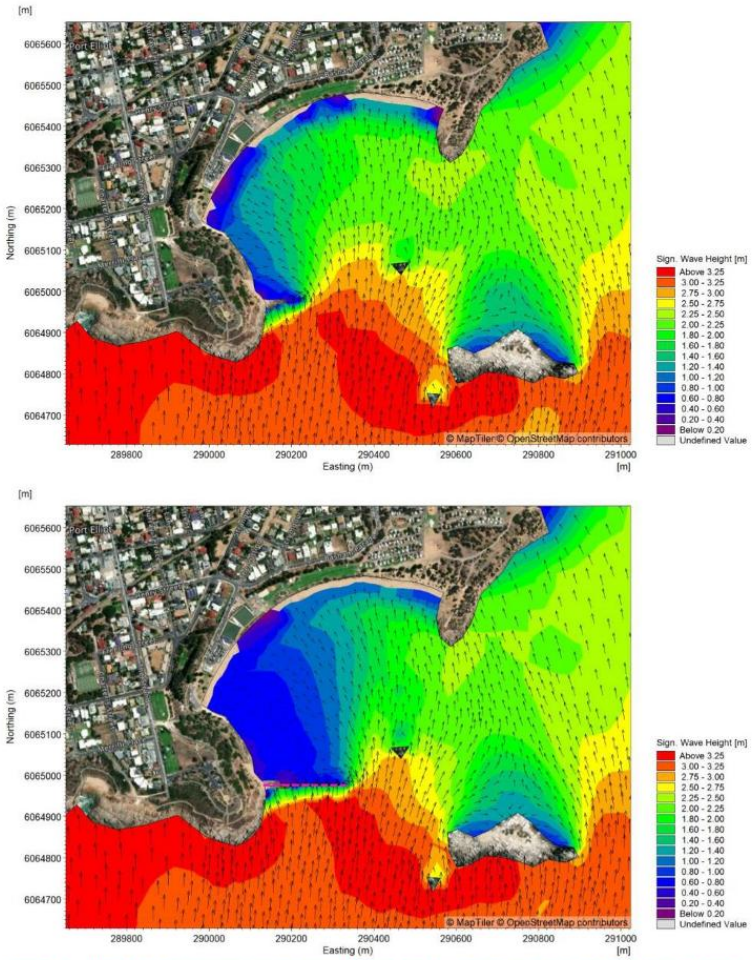


Figure 39. **Modelled H_s and wave direction around Horseshoe Bay during the peak of the September 2016 wave event assuming existing conditions (top) and Option 1, Extended Breakwater (bottom).**

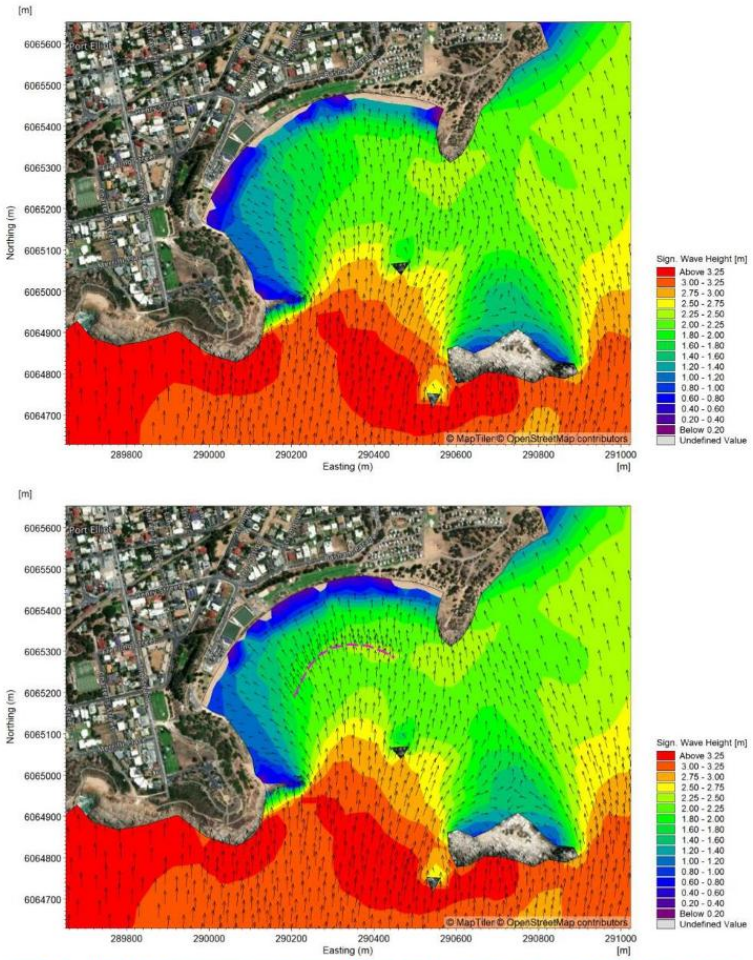


Figure 40. **Modelled H_s and wave direction around Horseshoe Bay during the peak of the September 2016 wave event assuming existing conditions (top) and Option 2, Submerged Breakwater (bottom).**

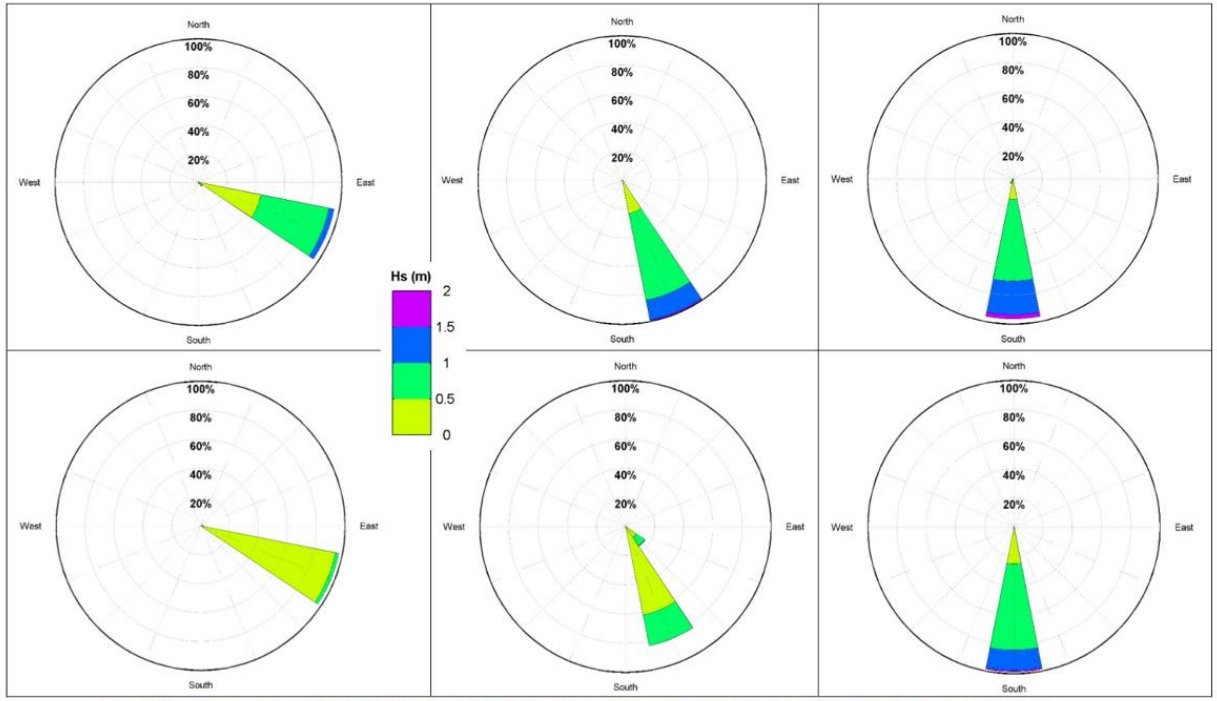


Figure 41. Wave roses at P1 (left), P4 (middle) and P7 (right) for the existing case (top) and Option 1, the Extended Breakwater (bottom).

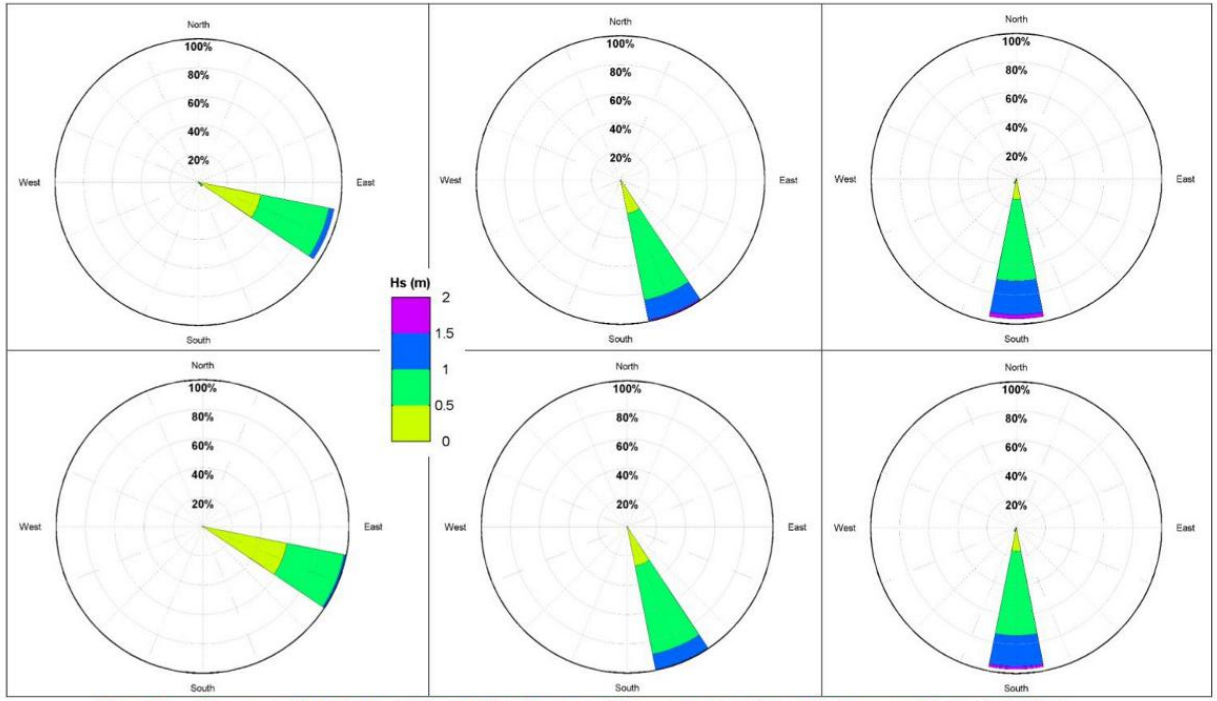


Figure 42. Wave roses at P1 (left), P4 (middle) and P7 (right) for the existing case (top) and Option 2, the Submerged Breakwater (bottom).

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Table 11. Joint frequency tables of H_s against wave direction at P4 based on the 20 year modelled wave conditions assuming existing case (top) and Option 1, the Extended Breakwater (bottom).

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	*	0.04	0.04	0.03	0.03	0.05	0.05	1.21	0.07	*	*	*	*	*	*	*	1.55	1.55
0.25–0.5	–	–	–	–	–	–	*	22.45	*	–	–	–	–	–	–	–	22.46	24.02
0.5–0.75	–	–	–	–	–	–	*	36.19	*	–	–	–	–	–	–	–	36.19	60.21
0.75–1	–	–	–	–	–	–	–	25.04	–	–	–	–	–	–	–	–	25.04	85.25
1–1.25	–	–	–	–	–	–	–	10.69	–	–	–	–	–	–	–	–	10.69	95.94
1.25–1.5	–	–	–	–	–	–	–	3.34	–	–	–	–	–	–	–	–	3.34	99.28
1.5–1.75	–	–	–	–	–	–	–	0.68	–	–	–	–	–	–	–	–	0.68	99.96
1.75–2	–	–	–	–	–	–	–	0.04	–	–	–	–	–	–	–	–	0.04	100.00
Total	*	0.04	0.04	0.03	0.03	0.05	0.05	99.65	0.07	*	*	*	*	*	*	*		
Cumul.	*	0.04	0.08	0.11	0.14	0.19	0.25	99.89	99.97	99.97	99.98	99.98	99.98	99.99	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	0.03	0.05	0.05	0.05	0.05	0.09	2.68	11.87	0.02	*	0.01	*	*	*	*	0.01	14.97	14.97
0.25–0.5	–	–	–	–	–	–	6.25	49.87	–	–	–	–	–	–	–	–	56.12	71.09
0.5–0.75	–	–	–	–	–	–	5.23	19.09	–	–	–	–	–	–	–	–	24.32	95.41
0.75–1	–	–	–	–	–	–	1.86	2.37	–	–	–	–	–	–	–	–	4.23	99.64
1–1.25	–	–	–	–	–	–	0.30	0.06	–	–	–	–	–	–	–	–	0.35	100.00
1.25–1.5	–	–	–	–	–	–	*	–	–	–	–	–	–	–	–	–	*	100.00
1.5–1.75	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	100.00
1.75–2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	100.00
Total	0.03	0.05	0.05	0.05	0.05	0.09	16.32	83.27	0.02	*	0.01	*	*	*	*	0.01		
Cumul.	0.03	0.08	0.13	0.18	0.24	0.33	16.65	99.92	99.94	99.95	99.96	99.96	99.97	99.98	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

Metadata:
Project: P079
Location: P4 [290253.00000 , 6065345.00000]
Data period: 30-Nov-2000 12:00:00 to 14-Jan-2020 01:59:59
Data source: SW Model
Data summary: All Records
Number of Records: 167607

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Table 12. Joint frequency tables of H_s against wave direction at P4 based on the 20 year modelled wave conditions assuming existing case (top) and Option 2, the Submerged Breakwater (bottom).

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	*	0.04	0.04	0.03	0.03	0.05	0.05	1.21	0.07	*	*	*	*	*	*	*	1.55	1.55
0.25–0.5	–	–	–	–	–	–	*	22.45	*	–	–	–	–	–	–	–	22.46	24.02
0.5–0.75	–	–	–	–	–	–	*	36.19	*	–	–	–	–	–	–	–	36.19	60.21
0.75–1	–	–	–	–	–	–	–	25.04	–	–	–	–	–	–	–	–	25.04	85.25
1–1.25	–	–	–	–	–	–	–	10.69	–	–	–	–	–	–	–	–	10.69	95.94
1.25–1.5	–	–	–	–	–	–	–	3.34	–	–	–	–	–	–	–	–	3.34	99.28
1.5–1.75	–	–	–	–	–	–	–	0.68	–	–	–	–	–	–	–	–	0.68	99.96
1.75–2	–	–	–	–	–	–	–	0.04	–	–	–	–	–	–	–	–	0.04	100.00
Total	*	0.04	0.04	0.03	0.03	0.05	0.05	99.65	0.07	*	*	*	*	*	*	*		
Cumul.	*	0.04	0.08	0.11	0.14	0.19	0.25	99.89	99.97	99.97	99.98	99.98	99.98	99.99	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

N=167607	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	Cumul.
0–0.25	0.02	0.03	0.03	0.02	0.02	0.05	0.05	1.68	0.05	*	*	*	*	*	*	0.01	1.99	1.99
0.25–0.5	–	–	–	–	–	–	*	25.59	*	–	–	–	–	–	–	–	25.59	27.58
0.5–0.75	–	–	–	–	–	–	*	37.35	*	–	–	–	–	–	–	–	37.36	64.94
0.75–1	–	–	–	–	–	–	–	24.14	–	–	–	–	–	–	–	–	24.14	89.08
1–1.25	–	–	–	–	–	–	–	8.77	–	–	–	–	–	–	–	–	8.77	97.85
1.25–1.5	–	–	–	–	–	–	–	1.98	–	–	–	–	–	–	–	–	1.98	99.83
1.5–1.75	–	–	–	–	–	–	–	0.17	–	–	–	–	–	–	–	–	0.17	100.00
1.75–2	–	–	–	–	–	–	–	*	–	–	–	–	–	–	–	–	*	100.00
Total	0.02	0.03	0.03	0.02	0.02	0.05	0.05	99.69	0.05	*	*	*	*	*	*	0.01		
Cumul.	0.02	0.05	0.09	0.11	0.13	0.18	0.23	99.91	99.97	99.97	99.98	99.98	99.98	99.99	99.99	100.00		

* denotes values less than 0.01% – denotes no records in bin

Metadata:
Project: P079
Location: P4 [290253.00000 , 6065345.00000]
Data period: 30–Nov–2000 12:00:00 to 14–Jan–2020 01:59:59
Data source: SW Model
Data summary: All Records
Number of Records: 167607

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5.2.2. Future Shoreline Changes

The modelled change in cross-shore profile due to a storm event occurring with 2030, 2050 and 2100 sea levels is shown relative to the existing case at profile P4 for Options 1 (Breakwater Extension), 2 (Submerged Breakwater) and 4 (Nourishment) and also at profile P7 for Option 4 in Figure 43 to Figure 46. The plots show the following:

- Option 1, Extended Breakwater: the storm is predicted to result in minor deepening and recession of the cross-shore profile between 0 and 3 m AHD. Both the landward recession and the deepening of the cross-shore profile are predicted to be significantly less than for the existing case;
- Option 2, Submerged Breakwater: the storm is predicted to result in a similar response to the existing case, but with a slight reduction in the erosion. The reduction in erosion relative to the existing case is most prominent for the 2100 storm event; and
- Option 4, Nourishment:
  - within the proposed nourishment area (e.g. profile P4) the results predict limited recession of the nourishment scarp for the 2030 and 2050 storm events, but with a similar deepening of the profile below 2 m AHD predicted to the existing case. During the 2100 storm event the nourishment scarp is predicted to be eroded, resulting in recession of the back beach; and
  - within the proposed borrow area (e.g. profile P7) the results show that the borrowing of the sand results in approximately a 10 m artificial landward recession at the 1.5 m AHD level (the level which is used to quantify the storm demand recession) relative to the existing case. The subsequent landward recession of the profile is predicted to be less than for the existing case as the model is redistributing sand in the profile to develop a more stable profile. The predicted profile resulting from the 2100 storm event for this option is similar to the profile predicted for the existing case, but with the dune scarp being slightly steeper and the toe of the scarp being deeper by approximately 0.4 m.

The modelled shoreline recession due to SLR is shown at profiles P4 and P7 for Option 4 (Nourishment) in Figure 47 and Figure 48. The shoreline recession due to SLR results for Options 1 (Breakwater Extension) and 2 (Submerged Breakwater) are similar to the existing case and so plots for these options are not included (the results are summarised in tables which are discussed below). The plots show the following:

- within the proposed nourishment area (e.g. profile P4): there is predicted to be ongoing recession of the entire profile with SLR, but the recession is predicted to be approximately 2 m less than for the existing case. The shoreline position below the original scarp height of 3.5 m AHD is predicted to remain seaward of the existing shoreline position up to 2050, but by 2100 it is predicted to have retreated by around 11 m resulting in it being landward of the existing shoreline by approximately 7 m. The area of the profile cross-section predicted to be eroded above 2 m AHD by 2030 is similar to the profile nourishment area and so it is likely that the erosion will result in the profile returning to its pre-nourishment form rather than the area above the scarp eroding, this indicates that ongoing nourishment maybe required every 5 to 10 years. The frequency will be dependent on the number and severity of the storms which occur, how the beach profile recovers after the storm events (i.e. does it return to the post nourishment profile or does it gradually tend to return to the pre-nourishment profile) and the actual rate of SLR which occurs (the 2030 simulation assumes 0.1 m of SLR and it is this which is driving the predicted landward shift in the profile); and
- within the proposed borrow area (e.g. profile P7): there is predicted to be similar recession due to SLR to the existing case but with a slight reduction in the recession rates of the top of the dune compared to the existing case. However, the results show that the toe of the dune is approximately 1 m lower for the Option 4 profile compared to the existing case profile for all three future SLR scenarios. In addition, the location of the

4 m AHD level in the beach profile is consistently further landward for the Option 4 profile compared to the existing case profile. The model is not able to adjust the cross-shore profile over time, just transform it based on the SLR, but in reality it is likely that the profile will gradually return to a similar slope as the pre-borrowing profile using sand stored in the dunes behind the beach, this would result in some additional recession not represented by the modelling. Overall, the results predict that the beach profile at this location is not overly sensitive to sand being borrowed due to the large dunes backing the beach, based on this it is considered unlikely that the borrowing would result in a significant increase in shoreline recession.

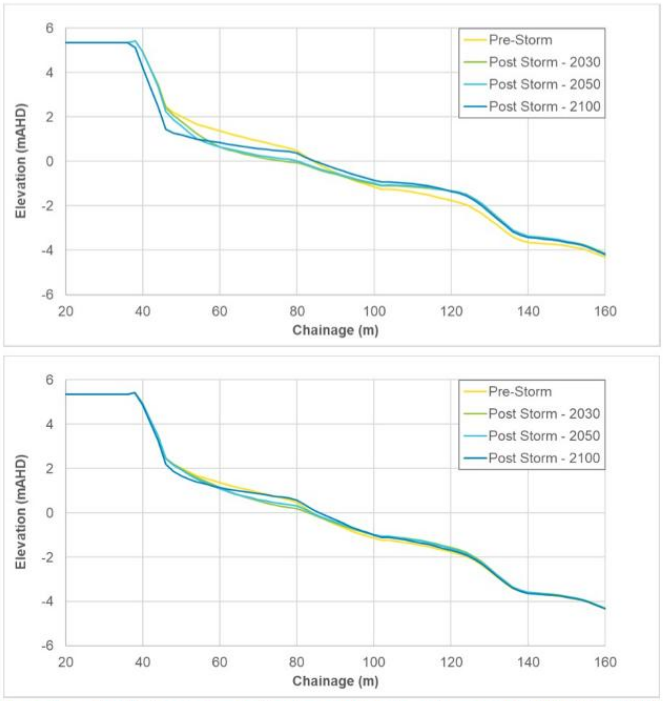


Figure 43. **Modelled cross-shore profile change at P4 during a storm event for 2030, 2050 and 2100 sea levels for the existing case (top) and Option 1, the Extended Breakwater (bottom).**

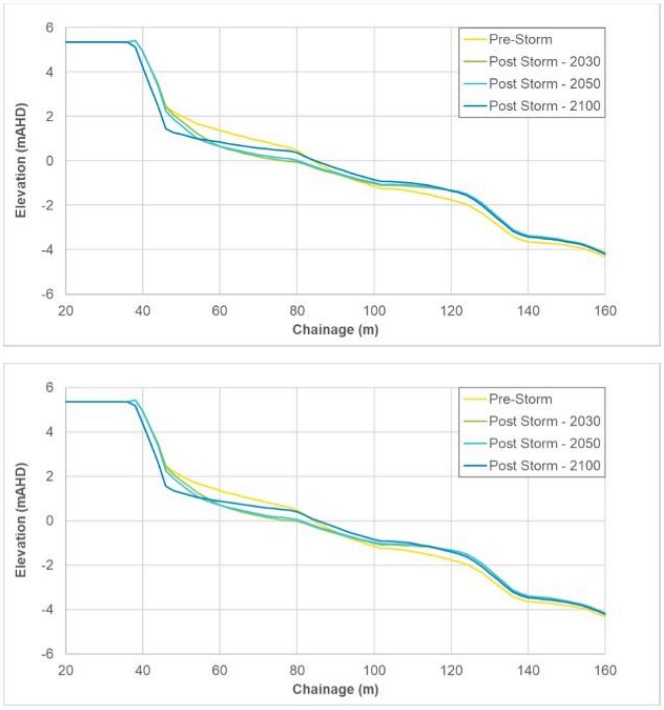


Figure 44. Modelled cross-shore profile change at P4 during a storm event for 2030, 2050 and 2100 sea levels for the existing case (top) and Option 2, the Submerged Breakwater (bottom).

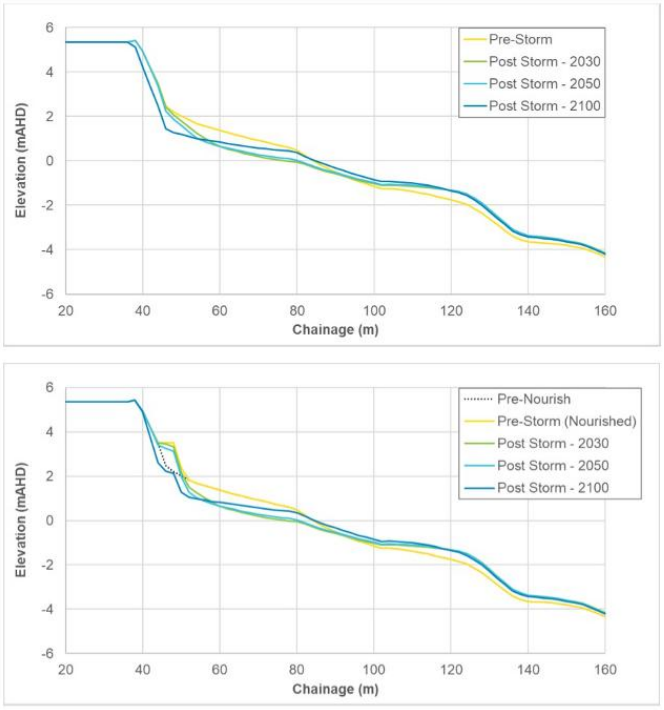


Figure 45. **Modelled cross-shore profile change at P4 during a storm event for 2030, 2050 and 2100 sea levels for the existing case (top) and Option 4, Beach Nourishment (bottom).**

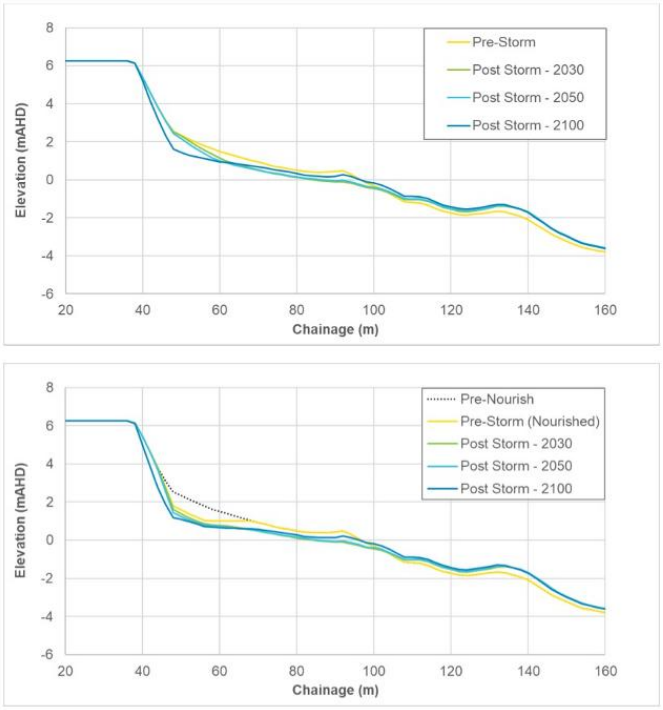


Figure 46. **Modelled cross-shore profile change at P7 during a storm event for 2030, 2050 and 2100 sea levels for the existing case (top) and Option 4, the Beach Nourishment (bottom).**

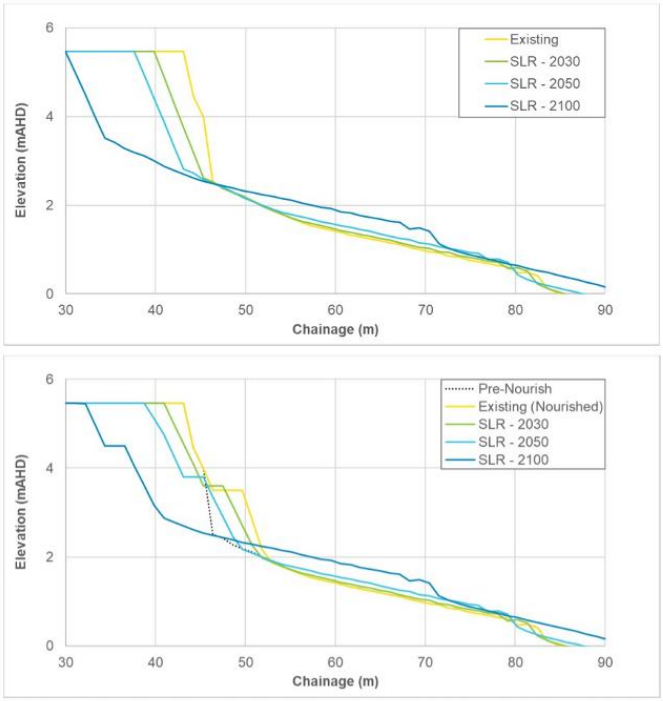
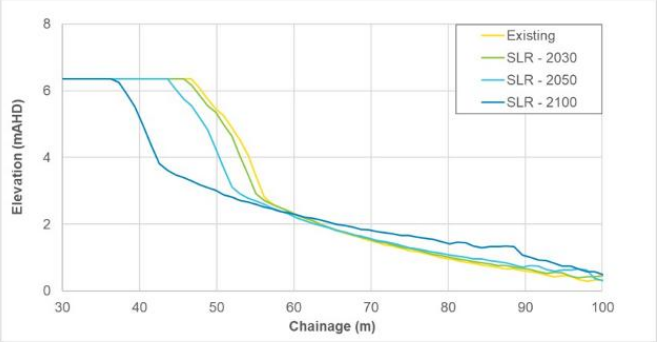


Figure 47. **Modelled cross-shore profile change at P4 due to SLR for 2030, 2050 and 2100 for the existing case (top) and Option 4, beach nourishment (bottom).**



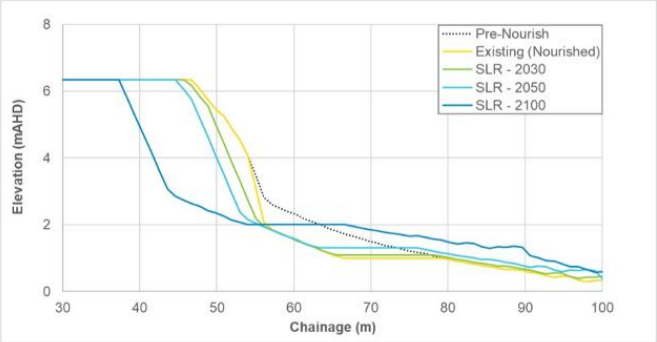


Figure 48. Modelled cross-shore profile change at P7 due to SLR for 2030, 2050 and 2100 for the existing case (top) and Option 4, beach nourishment (bottom).

The modelled shoreline recession rates due to the storm event and SLR as well as the combined recession due to both are shown for Option 1 (Breakwater Extension) in Table 13, for Option 2 (Submerged Breakwater) in Table 14 and for Option 4 (Nourishment) in Table 15. The tables highlight where the recession is predicted to be reduced by 2 m or more relative to the existing case. The tables show the following:

- Option 1, Breakwater Extension: the table shows that the short-duration storm event recession rates at profiles P1 to P5 are almost all reduced by 2 m or more compared to the existing case, while the long-term SLR recession rates remained similar to those for the existing case. As a result of the storm event recession rates being reduced by 2 m or more at profiles P1 to P5, the combined recession rates were also reduced by 2 m or more at these profiles;
- Option 2, Submerged Breakwater: the table shows limited change in either the short-duration storm event recession rates or the long-term SLR recession rates compared to

the existing case, with a reduction in combined recession rate of 2 m predicted at profile P3 for 2050 and 2100 and profile P4 for 2100. Therefore, the results indicate that the submerged breakwater is unlikely to significantly reduce shoreline recession rates in Horseshoe Bay; and

- Option 4, Nourishment: the table shows that the short-duration storm event recession rates at profiles P2 to P4 (and P5 for 2100) are predicted to be reduced by 2 m or more compared to the existing case, while the long-term SLR recession rates are also predicted to be reduced by 2 to 3 m at profiles P2 to P4. As a result, the combined recession rates for this option are predicted to generally be lower than for Option 1 (Breakwater Extension) at profiles P2 to P4 and similar at profile P5. The recession rates shown in the table for the profiles in the borrow area (profiles P6 and P7) also indicate a reduction in rates compared to the existing case. However, the rates shown in the table were calculated relative to the post-borrowing beach profile (as opposed to the existing beach profile) and if the rates were calculated relative to the existing beach profile there would be an additional 10 m of storm recession (as this was calculated relative to the 1.5 m AHD beach level).

The cross-shore profile response to SLR was also modelled for Option 3, the extended seawall, which assumes that the existing seawall which covers profiles P1 to P3 is extended to include profiles P4 and P5. The option assumes that the seawall is maintained and cannot be undercut by erosion and so no erosion occurs landward of it (i.e. the shoreline cannot recede), but the model can predict the deepening of the cross-shore profile due to seawall rather than the recession. The resultant cross-shore profiles at profiles P4 and P5 for 2030, 2050 and 2100 are shown in Figure 49 and Figure 50. The plots show that as with profiles P1 to P3, the profiles are predicted to deepen directly seaward of the seawalls, with the deepening increasing with SLR. The predicted deepening in front of the seawalls is detailed in Table 16 for all five profiles (P1 to P5) which the existing and extended seawall cover. The results show that by 2030 the deepening is predicted to be relatively small with deepening at profiles P4 and P5 or approximately 0.1 m adjacent to the seawall and with the deepening influencing a beach width of up to 10 m from the seawall. By 2050 the deepening is predicted to increase to 0.28 m at profile P4 and 0.36 m at profile P5 and the deepening is predict to occur over a width of 15 to 20 m of the beach adjacent to the seawall. The deepening is predicted to increase significantly by 2100, with deepening at profiles P4 and P5 predicted to be larger than at profiles P1 to P3 with deepening of approximately 1.5 m at profile P4 and 1.7 m at profile P5 compared to 0.9 to 1.3 m at profiles P1 to P3. The deepening at profiles P4 and P5 is predicted to result in a flattening of the profile to a level of approximately 1 m AHD, with this level extending around 25 m seaward of the seawall. As noted previously for the existing seawall, it is important to consider that the results predict a long-term reduction in the beach elevation due to SLR and that additional deepening can also occur during storm events.

As noted in Section 2.7 the existing alignment of Horseshoe Bay is representative of a crenulate bay with the diffraction point controlling the bay alignment located at the eastern end of the existing breakwater. Moving the diffraction point to the eastern end of the Extended Breakwater assumed for Option 1 results in a change in alignment of the bay, which indicates that the equilibrium bay shape would be shifted to the east for much of the bay (Figure 51). This suggests that much of the bay would experience accretion in response to this option, although it is not possible to determine whether this bay shape would actually occur (there is unlikely to be sufficient sand available for the bay to accrete this much) or the timeframes for any changes. However, the equilibrium bay alignment does provide a further indication of the longer-term response of the bay to the change in wave conditions resulting from the extended breakwater which the other models are not able to represent.

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Table 13. Modelled shoreline recession rates at the cross-shore profile locations along Horseshoe Bay for Option 1: Breakwater Extension.

Profile	2030 Shoreline Recession (m)			2050 Shoreline Recession (m)			2100 Shoreline Recession (m)		
	Storm	SLR	Comb.	Storm	SLR	Comb.	Storm	SLR	Comb.
P1	1	1	**2**	1	4	**5**	2	10	**12**
P2	1	2	**3**	2	5	**7**	4	11	**15**
P3	1	1	**2**	2	4	**6**	4	12	**16**
P4	2	3	**5**	4	5	**9**	6	13	**19**
P5	4	2	**6**	5	4	**9**	9	10	**19**
P6	4	1	**5**	5	3	**8**	9	10	**19**
P7	4	1	**5**	5	2	**7**	10	10	**20**

Note: values in green show a reduction in recession of 2 m or more relative to the existing case (see Table 9).

Table 14. Modelled shoreline recession rates at the cross-shore profile locations along Horseshoe Bay for Option 2: Submerged Breakwater.

Profile	2030 Shoreline Recession (m)			2050 Shoreline Recession (m)			2100 Shoreline Recession (m)		
	Storm	SLR	Comb.	Storm	SLR	Comb.	Storm	SLR	Comb.
P1	3	1	**4**	4	4	**8**	7	10	**17**
P2	3	3	**6**	4	5	**9**	8	11	**19**
P3	4	3	**7**	5	4	**9**	8	12	**20**
P4	5	3	**8**	7	5	**12**	11	12	**23**
P5	5	2	**7**	7	4	**11**	12	10	**22**
P6	3	1	**4**	4	3	**7**	8	10	**18**
P7	4	1	**5**	5	2	**7**	10	10	**20**

Note: values in green show a reduction in recession of 2 m or more relative to the existing case (see Table 9).

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Table 15. Modelled shoreline recession rates at the cross-shore profile locations along Horseshoe Bay for Option 4: Beach Nourishment.

Profile	2030 Shoreline Recession (m)			2050 Shoreline Recession (m)			2100 Shoreline Recession (m)		
	Storm	SLR	Comb.	Storm	SLR	Comb.	Storm	SLR	Comb.
P1	3	1	**4**	4	4	**8**	8	10	**18**
P2	1	1	**2**	2	4	**6**	3	10	**13**
P3	1	1	**2**	2	4	**6**	3	10	**13**
P4	2	2	**4**	3	4	**7**	5	11	**16**
P5	4	2	**6**	6	3	**9**	9	10	**19**
P6	2[1]	1	**3[1]**	4[1]	3	**7[1]**	6[1]	10	**16[1]**
P7	2[1]	1	**3[1]**	4[1]	3	**7[1]**	6[1]	10	**16[1]**

Note: values in green show a reduction in recession of 2 m or more relative to the existing case (see Table 9).
[1] the storm recession rates for P6 and P7 are based on the post nourishment profile, there would be an additional 10 m recession relative to the pre-nourishment profile.

Table 16. Modelled profile deepening due to storm events at profiles with a seawall already present (P1 to P3) and at the profiles where the seawall extension would cover.

Profile	Profile Deepening (m)		
	2030	2050	2100
P1	-0.13	-0.47	-0.89
P2	-0.12	-0.39	-1.28
P3	-0.09	-0.39	-1.15
P4	-0.09	-0.28	-1.46
P5	-0.11	-0.36	-1.73

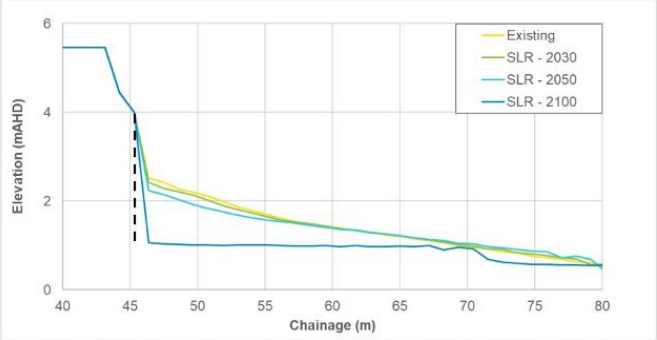


Figure 49. Modelled cross-shore profile change at P4 due to SLR for 2030, 2050 and 2100 for Option 3, a seawall extension to cover this profile (black dashed line).

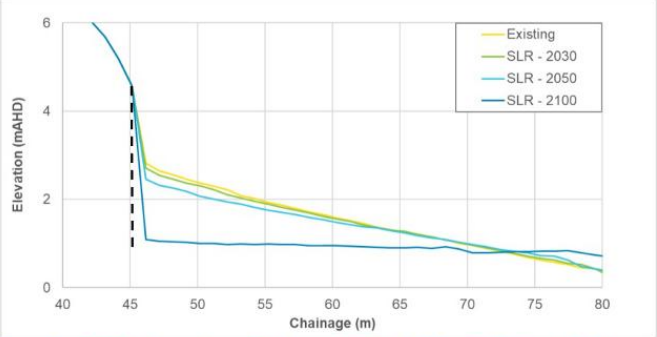


Figure 50. Modelled cross-shore profile change at P5 due to SLR for 2030, 2050 and 2100 for Option 3, a seawall extension to cover this profile (black dashed line).



Figure 51. Predicted crenulate bay equilibrium shoreline alignment for Horseshoe Bay assuming the existing case (blue line) and Option 1, the Breakwater Extension (yellow line).

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6. Summary

This report has presented results from an analysis of existing metocean, bathymetric and topographic data along with results from numerical modelling. The numerical modelling has included a combination of wave and beach response models which have been used to predict future shoreline changes and to test possible management scenarios and their effectiveness of limiting future shoreline erosion.

A detailed SW model was setup for the area, this included bathymetric and topographic data for Horseshoe Bay collected for the project. The SW model was calibrated using wave data collected within Horseshoe Bay, with the model shown to be able to provide a good representation of the measured waves. The SW model was used to simulate the wave conditions at Horseshoe Bay over a 20 year period and the results from the model were used to show how wave conditions vary through the Bay.

Results from the SW model were used as inputs to a combination of storm response and sea level response models. The models were used to predict the storm demand and SLR translation at 7 cross-shore profiles spaced every 100 m along the shoreline for 2030, 2050 and 2100. The results predicted combined shoreline recession rates of 5 to 9 m for 2030, 9 to 13 m for 2050 and 18 to 25 m for 2100. The recession due to storm demand was larger than the recession for SLR for 2030 (1 to 3 m for SLR compared with 4 to 6 m for storm demand) and 2050 (3 to 5 m for SLR compared with 5 to 8 m for storm demand) while for 2100 the SLR recession was slightly larger (10 to 13 m for SLR compared with 8 to 12 m for storm demand). The highest recession rates were predicted in the middle of the Bay, with the lowest recession rates predicted at the western and eastern ends of the Bay. The combined predicted recession rates for storm demand and SLR translation were mapped to show predicted shoreline positions for 2030, 2050 and 2100.

The sea level response model was also used to predict changes to the cross-shore profile if the existing seawalls were maintained. The model predicted that by 2030 there would be deepening of the beach profile adjacent to the seawall of up to 0.15 m, while by 2100 the deepening would be between 0.89 and 1.28 m.

The numerical models were used to test four possible management scenarios, these are detailed below along with a summary of the key results from the modelling:

- Option 1, Breakwater Extension: this option assumed that the existing breakwater at the western side of the entrance to Horseshoe Bay was extended from approximately 100 m in length to 200 m in length and the crest elevation was built up to 5 m AHD along the full length of the breakwater. The option was predicted to result in a significant reduction in wave heights along the western and central areas of Horseshoe Bay. The short-duration storm event recession rates for this option at profile locations in the western and central areas of the bay (profiles P1 to P5) were predicted to almost all be reduced by 2 m or more compared to the existing case, while the long-term SLR recession rates were predicted to remain similar to those for the existing case;
- Option 2, Submerged Breakwater: this option assumed that a 300 m long submerged breakwater was located between -4.5 and -5.5 m AHD in the middle of Horseshoe Bay (from profiles P2 to P6). The submerged breakwater had a crest height of -2.5 m AHD and a crest width of 15 m. The option was predicted to result in a minor reduction in wave heights along the Horseshoe Bay shoreline. The modelling predicted that the option resulted in limited change in either the short-duration storm event recession rates or the long-term SLR recession rates compared to the existing case;
- Option 3, Seawall Extension: this option assumed that the existing seawall located at the western end of the beach (covering profiles P1 to P3) was extended approximately 200 m to the east north-east to cover the beach at profiles P4 and P5. The results showed similar profile deepening along the extended section of seawall to the predicted

deepening along the existing seawall at the western end of the beach (profiles P1 to P3) for SLR in 2030 and 2050 (in the order of 0.1 and 0.3 m respectively). However, increased deepening was predicted relative to the existing seawall at the western end of the beach (profiles P1 to P3) for SLR in 2100, with deepening of 1.5 to 1.7 m predicted along the extended section of seawall compared to deepening of 0.9 to 1.3 m predicted along the existing section of seawall; and

- Option 4, Nourishment: this option assumed that 3,500 m^3 of sand was borrowed from a 175 m section of beach at the eastern end of the bay (between profiles P6 and P7) and 2,400 m^3 of sand (assuming losses of 30% from the borrow site) was used to create a back beach berm along a 300 m length in the western and central areas of the beach (between P2 and P5). The short-duration storm event recession rates for this option were reduced by 2 m or more compared to the existing case at the nourishment locations (except for the eastern most nourishment area), while the long-term SLR recession rates were also predicted to be reduced by 2 m or more (except for the eastern most nourishment area). The modelling predicted that the borrowing of sand from the eastern end of the bay would be unlikely to result in a significant increase in shoreline recession due to storm events and SLR, although the borrowing would result in some artificial deepening and landward migration of the beach profile.

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7. References

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Appendix C – Engagement Summary

Horseshoe Bay Engagement Summary

Stakeholder and community engagement was undertaken from 25 September until 30 October 2025 on the series of coastal adaptation options for Horseshoe Bay identified by the study.

The engagement aimed to:

- Raise awareness of the risks posed by coastal erosion and sea-level rise
- Provide information about each option, its cost and pros and cons
- Understand the level of community and stakeholder support for each option and what is liked or not liked about each option.

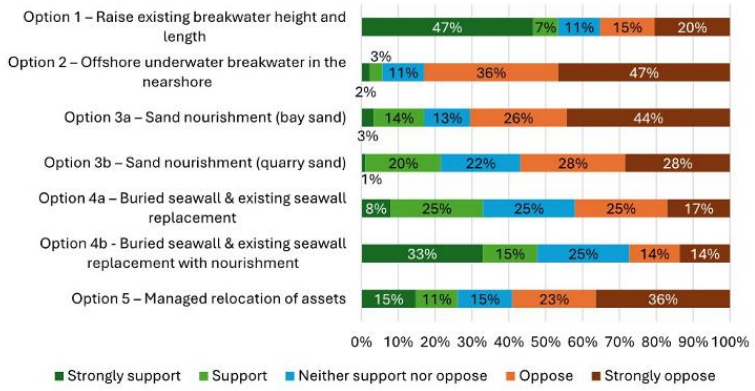
The engagement included:

- A survey to capture community feedback (88 responses)
- Informative summary brochure about erosion risk, study and options (Appendix X)
- 2 community information sessions
- Information displays at Port Elliot Show and in the Goolwa Council Offices
- 4 one on one meetings with directly impacted stakeholders
- Combined Council and Committee information workshop
- Promotion through Council's MySay consultation website, signage and email.

The options that received the highest levels of support through the responses were:

- Option 1 – Raise existing breakwater height and length (54% of survey respondents support or strongly support)
- Option 4b - Buried seawall & existing seawall replacement with nourishment (48% of survey respondents support or strongly support).

Level of support for coast adapation options for Horseshoe Bay (% of survey respondents, n=88)



Options in order of support	Feedback overview[1]
Option 1 Raise existing breakwater height and length	Desired because it will protect the calm area of the bay that is valued by community and tourists as well as the heritage breakwater but needs to be done in conjunction with another option to protect the bay in the long term. Some are concerned about the marine environmental impacts and the cost for little long-term benefit/effectiveness.
Option 4b Buried seawall & existing seawall replacement with nourishment	Liked because limits erosion, protects infrastructure and maintains a useable sandy beach. Seen as the most comprehensive option / 'best of both worlds' as it is effective in the short and long term and retains look and feel of Horseshoe Bay and recreation and tourism value. Some suggest doing along with option 1. Concern with engineered look, long term cost and potential loss of beach s replenishment not maintained or if sea-level rise exceeds projections.
Option 4a Buried seawall & existing seawall replacement	Liked because it limits erosion, protects infrastructure and is straightforward to do and for community to understand. However, concerns that it will not maintain a sandy beach in the long term and so will impact on the social environmental and economic value of the beach. Cost without long term benefit. Plus, concerns of impacts during construction and a 'hard' rather than a natural solution.
Option 5 Managed relocation of assets	Viewed by most as defeatist or abandoning Horseshoe Bay's amenity, heritage, community and economy. It's uncosted and a feasibility and bureaucratic challenge. Should be a long-term contingency rather than an immediate priority. Liked by some because it works with nature and the coast's natural trajectory and demonstrates climate change leadership.
Option 3b Sand nourishment (quarry sand)	Not supported as doesn't address long-term impacts, concerns that cost may exceed that of option 1 over time and of the compatibility of sand and impacts to beach access and amenity during campaigns. Replenishment is seen as a 'natural', feasible, short term easy and flexible measure that could be used to complement other options. Quarry sand seen as preferable to bay sand.
Option 3a Sand nourishment (bay sand)	As above but added environmental concerns regarding the impact of sourcing sand from dunes and the beach in the bay.
Option 2 Offshore underwater breakwater in the nearshore	Not supported due to concerns about beach/dune erosion either side of the structure, impacts of structure on natural wave movement (e.g. for body boarding), is an underwater hazard for boats, and is costly without being effective in short or long term. Small support for ecological or recreation gains from establishing a reef.

[1] This is a summary of a summary prepared by Alexandrina Council of the feedback received on each option.

Attachment 2 - Advice from Coast Unit DEW

From: Rosewarne, Tanya (DEW) <[redacted]
Sent: Wednesday, 11 March 2026 4:15 PM
To: Kylie Weymouth
Cc: Matt Atkinson
Subject: RE: Horseshoe Bay Wave Modelling project - Coast Branch/Board input

OFFICIAL

Hello Kylie,

Thank you for the opportunity to provide feedback on the 'Planning for the future of Horseshoe Bay'.

As you are aware, the Coast Protection Board has recently endorsed the Coastal Hazard Adaptation Planning (CHAP) Guidelines that have been developed as part of the broader Climate Ready Coasts program in which DEW are a partner. The purpose of the guidelines are to provide best practice procedures as well as consistent and clear pathways to support Local Governments as they work to develop CHAP for their council area.

The Coast Unit has reviewed the Coastal Adaptation Study, Coastal Adaptation Plan, the stand alone report for Port Elliot-Horseshoe Bay, the engagement of Cape Advisory on modelling and adaptation actions and pathways, and public consultation for the 'Planning for the future of Horseshoe Bay' in the context of the CHAP guidelines mentioned above.

At this stage, DEW Coasts does not have a preference for any of the options outlined. DEW encourages council to continue to work through the CHAP process with each viable option to ascertain which option is best from an economic, environmental and community perspective. DEW's only comment is in regard to Option 3B and 4B which specifically refer to the use of quarry sand. DEW would recommend that council consider other external sand sources that may be fit for purpose (i.e. from areas of accretion along the coastline).

The next step should be for council to undertake a cost benefit analysis of all the options outlined by Cape Advisory (please refer to section 4.6 Economic analysis in the CHAP guidelines and Economic Analysis for Coastal Adaptation - Technical Compendium). Support for further options analysis can also be provided by Annabel Sandery (Principle Advisor, Coastal Resilience annabel.sandery@sa.gov.au).

The responsibility for undertaking coast protection works at Horseshoe Bay lies with the Alexandrina Council. DEW Coasts is available to assist with technical guidance and Alexandrina Council are encouraged to apply for the CPB Grant program when ready to implement an adaptation method. However, as you are aware some projects with large capital costs may be outside the scope of the Board's available funding. Funding may also be available through the Climate Ready Coasts program or the Commonwealth Disaster Fund. We would also recommend engaging with Department of Infrastructure and Transport in regard to the breakwater.

Through the CRC program, DEW has established a coastal monitoring infrastructure network that includes both wave buoys and tide gauges. All data collected from this network is available for download from AusWaves or from DEW Coasts directly. DEW is committed to maintaining its long-term beach profile data set that does include coastal profile lines throughout Alexandrina Council. This monitoring program is evaluated each year and DEW is

open to learning about where council have identified critical data gaps to help improve the statewide network.

Any proposed development (e.g. protection works) in the Coastal Areas Overlay of the Planning and Design Code, would require the planning authority to refer the application to the Coast Protection Board (the Board) for direction. The Board would consider any development application referred to it against its Policy Document. The assessment would include consideration of potential impacts on coastal processes and impacts on the local coastal environment.

If Council requires any future monitoring of adaptation options implemented, Annabel Sandery can be of assistance.

Thank you,

Tanya Rosewarne
Coast & Marine Officer
[redacted]

We acknowledge that the lands that we live and work on are the traditional lands of South Australia's First Nations peoples. We pay respect to the traditional custodians of these ancestral lands and acknowledge their deep spiritual connection to Country.

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4. Presentations / Deputations

4.1 Rotary Club of Encounter Bay - Future Management of the Goolwa Wharf and Port Elliot Markets

Mr Stuart Ellis on behalf of the Rotary Club of Encounter Bay to make a deputation regarding the future management and licensing arrangements for the Goolwa Wharf and Port Elliot Markets.

5. Petitions

Nil

6. Questions with Notice

6.1. Cr Sue Miller - Little Corella Council Wide Management

Question with Notice from Cr Sue Miller

Previous Decisions: Nil

Information

The following questions from Cr Sue Miller were taken on notice.

Questions

Little Corella Management Service Level Change

1. *Will administration consider that any service level uplift (that is, target culling to reduce flock numbers by minimum 30%) be adopted as an ongoing operational budget provision over a 4 year program so that the community can be assured that this issue will be permanently addressed?*

Answer:

Refer to Item 9.1 of the agenda – Financial Implications.

6.2. Cr Sue Miller – Council Relationship to Cittaslow Goolwa

Question with Notice from Cr Sue Miller

Previous Decisions: Nil

Information

The following questions from Cr Sue Miller were taken on notice.

Questions

Council's Cittaslow Commitment

1. *What is Cittaslow, and is there a difference between the Cittaslow International movement and Cittaslow Goolwa Inc?*
2. *What is the nature of the relationship between Council and:*
    1. *Cittaslow International, and*
    2. *Cittaslow Goolwa Inc?*
3. *When and by whom have decisions regarding Council's support and involvement in Cittaslow (International or Inc.) been made?*
4. *How is accreditation as a Cittaslow member obtained, and who provides and holds such accreditation as it relates to Goolwa and/or Alexandrina Council?*
5. *What obligations, responsibilities or actions are imposed on a Council (and/or Administration) by being accredited as a Cittaslow community.*
6. *When did Council last test its commitment to Cittaslow principles with the broader community?*
7. *Is the Cittaslow commitment only Goolwa-centric, or is it a council-wide membership and/or commitment applicable to other townships?*

Answer

Responsible Officer: Stacey Bateson (General Manager Community)

1. *What is Cittaslow, and is there a difference between the Cittaslow International movement and Cittaslow Goolwa Inc?*

    Cittaslow (Italian for 'slow town') is an international movement founded in Italy in 1999 to promote quality of life, environmental sustainability, protection of local character and heritage, support for local businesses, and community wellbeing.

    Cittaslow International is the global governing body of the movement. It:

    - Sets the Cittaslow Charter, accreditation standards and membership criteria.
    - Assesses and accredits member towns and cities.
    - Coordinates the international network of member communities.
    - Oversees the use of the Cittaslow name and trademark.
    - Further information can be found on the Cittaslow International website.

Cittaslow Goolwa Inc is a local not-for-profit community association established in 2007 following Goolwa Alexandrina's accreditation as Australia's first Cittaslow community. Its role is to:

- Promote and support Cittaslow principles locally.
- Deliver community projects and initiatives aligned with Cittaslow values.
- Encourage environmental sustainability, heritage protection, local food production and community wellbeing.
- Represent the local community within the broader Cittaslow network.
- Further information can be found on the Cittaslow Goolwa website.

2. *What is the nature of the relationship between Council and:*
    1. *Cittaslow International, and*
    2. *Cittaslow Goolwa Inc?*

    1. Cittaslow International

    Alexandrina Council played a central role in obtaining and maintaining Cittaslow accreditation. Accreditation was awarded to Goolwa Alexandrina through a partnership between Council and the community rather than to a community organisation alone.

    Council maintains membership with Cittaslow International through payment of an annual membership fee, which was $2,580 in 2026.

    The Mayor of Alexandrina Council serves as the local representative on the Cittaslow International Coordinating Committee. Mayor Keith Parkes was reappointed to this role by acclamation at the Cittaslow International General Assembly held in Greve in Chianti, Italy, on 20 June 2026. The Committee serves a three-year term.

    2. Cittaslow Goolwa Incorporated

    The origins of Cittaslow in Goolwa date back to 2004, when the Southern Alexandrina Business Association (SABA), in partnership with Alexandrina Council, commissioned a feasibility study to investigate the applicability of the Cittaslow model within the region.

    Following accreditation in 2007, Cittaslow Goolwa Incorporated was established as a community organisation to support and promote the accredited status of Goolwa Alexandrina and advance Cittaslow principles locally.

    The relationship between Council and Cittaslow Goolwa Inc remains collaborative. Council provides ongoing support for initiatives aligned with Cittaslow principles and the Mayor serves as Patron of Cittaslow Goolwa Inc.

    While Cittaslow Goolwa Inc is often the public face of the movement locally, accreditation was achieved through a Council-community partnership, with Alexandrina Council providing the governance and municipal commitment required by the international accreditation process.

    The General Manager Community has a strong relationship with the Executive of Cittaslow, and holds monthly meetings with those Committee Members on behalf of the Mayor, to discuss opportunities to collaborate with Administration and ways to support the Cittaslow Volunteers to deliver on their initiatives and projects.

3. *When and by whom have decisions regarding Council's support and involvement in Cittaslow (International or Inc.) been made?*

Cittaslow Goolwa History and Accreditation Timeline	
Date	**Milestone**
1999	Cittaslow International established in Italy.
2004	The Southern Alexandrina Business Association (SABA) commissions a feasibility study into implementation of the Cittaslow model in Goolwa Alexandrina.
August 2005	Public meeting hosted by SABA is held in the Alexandrina Council Chamber and the Goolwa Cittaslow Working Party is formed.
5 September 2005	Alexandrina Council resolves to support the Cittaslow accreditation process. ACF05480 Moved Cr Connor seconded Cr Tuckwell that Council supports the Cittaslow principles and the Cittaslow working party to achieve and maintain ongoing accreditation for the town of Goolwa within budget limitations. CARRIED
20 March 2006	Council considers progress toward accreditation. ACF0653 Moved Cr Featherston seconded Cr Davis that Council support the Goolwa Cittaslow project and if they achieve accreditation, we agree to use the Cittaslow snail logo on documents specific to the Goolwa area. CARRIED
7 August 2006	Council continues its support for the accreditation process. ACF06313 Moved Cr Medlyn seconded Cr Oliver that Council donate $3,000 to the Southern Alexandrina Business Association towards the goal of Cittaslow accreditation. CARRIED
2005-2006	Community workshops and assessments undertaken against Cittaslow accreditation criteria.
2006-2007	Accreditation application submitted to Cittaslow International.
12 March 2007	Goolwa Alexandrina accredited as Australia's first Cittaslow community and the first accredited community outside Europe.
2007	Cittaslow Goolwa Incorporated is established as a not-for-profit community association to support and promote the newly accredited Cittaslow status of Goolwa.

June 2007	A report detailing the history of Cittaslow in Goolwa is presented to Council by the Convenor of Cittaslow Goolwa. The Cittaslow Goolwa report is available on Council's website.
May 2017	Goolwa hosts the International Cittaslow Assembly, becoming the first Cittaslow community outside Europe to do so.
August 2025	Council resolved at the 18 August 2025 meeting, to approve the Chief Executive Officer to continue to facilitate Strategic Partnerships on behalf of Council, of which a membership with Cittaslow International was included (C260/08/25). This means Council maintains membership and representation within the international network on an ongoing basis.

4. *How is accreditation as a Cittaslow member obtained, and who provides and holds such accreditation as it relates to Goolwa and/or Alexandrina Council?*

   Accreditation is administered by Cittaslow International through a formal application and assessment process.

   To become accredited, a municipality must:

   - Commit to the principles of the Cittaslow Charter.
   - Demonstrate compliance with accreditation criteria relating to:
     - environmental management;
     - infrastructure and mobility;
     - quality of urban life;
     - agriculture, tourism and local products;
     - hospitality and community awareness;
     - social cohesion; and
     - partnerships and collaboration.
   - Successfully complete assessment by Cittaslow International.

   The accreditation is granted and regulated by Cittaslow International, which owns the Cittaslow trademark.

   Under the Cittaslow model, accreditation is generally held by the town or municipality through its local government authority, rather than by an independent community organisation.

   Goolwa Alexandrina was accredited in March 2007 through a partnership between Alexandrina Council and the local community. Cittaslow Goolwa Incorporated was subsequently established to support and promote the accredited community's status.

5. *What obligations, responsibilities or actions are imposed on a Council (and/or Administration) by being accredited as a Cittaslow community.*

   Cittaslow accreditation does not impose a separate statutory obligation on Council. Rather, Council's commitment is to support and promote the principles underpinning accreditation and to maintain engagement with the international network.

   This includes:

   - Maintaining membership with Cittaslow International.
   - Supporting initiatives that align with Cittaslow principles.
   - Encouraging environmental sustainability, heritage conservation and local economic development.

- Supporting community wellbeing, participation and activation of public spaces.
- Incorporating Cittaslow principles into strategic planning and place-based development initiatives where appropriate.
- Maintaining collaborative relationships with Cittaslow Goolwa Inc and the broader community.

6. *When did Council last test its commitment to Cittaslow principles with the broader community?*

   To Administration's knowledge there has been no formal testing of a commitment to Cittaslow principles with the broader community. However, at the September 2026 Council meeting, Council resolved to oppose establishment of Chain Based Fast Food Outlets in Goolwa, which is a form of restating the commitment.

   C320/09/26

   Moved Cr Peter Oliver seconded Cr Margaret Gardner

   That the Alexandrina Council oppose the establishment of Chain Based Fast Food Outlets in Goolwa.

   CARRIED

7. *Is the Cittaslow commitment only Goolwa-centric, or is it a council-wide membership and/or commitment applicable to other townships?*

   The accreditation applies specifically to Goolwa Alexandrina, which was assessed and approved by Cittaslow International.

   While Alexandrina Council maintains the membership and supports Cittaslow principles through its activities and partnership with Cittaslow Goolwa Inc, the formal accreditation does not extend to all townships across the Alexandrina Council area unless separately assessed and accredited by Cittaslow International.

   It is important to note that the Cittaslow Executive do consider other areas of the Council region, including being very active with preparing formal responses to Community Engagement opportunities that may challenge or support the Cittaslow values.

[Time taken to prepare this response was 100 minutes]

Attachments

Nil

6.3. Cr Bill Coomans - SA Government Country Cabinet Attendance and Hosting, Victor Harbor

Question with Notice from Cr Bill Coomans

Previous Decisions: Nil

Information

The following questions from Bill Coomans were taken on notice.

Preamble (included upon request)

On Thursday 8 October 2026, the Chair of the Mount Compass Community Association and I attended the State Government's Country Cabinet held at the Victor Harbor Encounter Bay Football Club. During the event, questions relating to the issues with the Compass Springs water supply were raised by the Chair with the Premier and Ministers.

At the commencement of the forum, the Premier acknowledged the Mayors and CEOs of the City of Victor Harbor and the District Council of Yankalilla. It was noted that the Mayor of Alexandrina was not in attendance.

This is the second occasion on which Victor Harbor has hosted a Country Cabinet. Given that Alexandrina is geographically larger and represents a greater population than Victor Harbor and Yankalilla combined, and noting the strategic importance of Alexandrina within the Fleurieu Peninsula, I seek clarification regarding Council's involvement in the planning and hosting of this event and why a location within Alexandrina was not considered or lobbied for.

I also note that the venue used had limited seating capacity for this event and the meal served prior needed to be eaten outdoors on tables and chairs located on the oval under uncomfortable weather conditions. A more central Fleurieu location, such as the Mount Compass War Memorial Community Centre, which is equidistant from Myponga, Yankalilla, Victor Harbor, Goolwa and Strathalbyn, and which has adequate parking, a professional kitchen and indoor dining facilities with a town hall built to cater for a seated audience of up to 500, may have been more suitable. Such a more central location may have encouraged more to attend especially from those in the northern areas.

Accordingly, I request responses to the following questions:

Questions

1. *What involvement, if any, did Alexandrina Council have in the organisation, planning or delivery of the Country Cabinet event held on the Fleurieu Peninsula?*

2. *What actions were taken by the Council's Executive, including the mayor, to lobby for Alexandrina to host this important Country Cabinet event?*

3. *Given the Mayor's non-attendance at the event, was the Deputy Mayor requested or authorised to attend the event to represent the Mayor with the CEO?*

4. *Why were elected members not invited or encouraged to participate in meeting the Premier and Ministers prior to the event to participate in discussions specific to Alexandrina?*

Answer

Responsible Officer: Andrew MacDonald (Chief Executive Officer)

1. *What involvement, if any, did Alexandrina Council have in the organisation, planning or delivery of the Country Cabinet event held on the Fleurieu Peninsula?*

   Fleurieu councils were not responsible for organising, planning or delivering the Country Cabinet event. The event was led by the Premier's Office, with councils advised of the arrangements.

2. *What actions were taken by the Council's Executive, including the mayor, to lobby for Alexandrina to host this important Country Cabinet event?*

   The event was led by the Premier's Office, with councils advised of the arrangements.

   Separately, Alexandrina Council, the City of Victor Harbor and Yankalilla Council were invited to deliver a joint presentation to the Premier and Country Cabinet Ministers. This provided a key opportunity for the three councils to collaborate and influence State Government decision-making.

   The presentation was developed collaboratively by the three councils. On Tuesday 29 September, the CEO emailed Council Members outlining the proposed presentation content and confirming the attendance of the Mayor, CEO and Group Manager Regional Development.

   The presentation highlighted:

   - An overview of the Fleurieu region, including its demographics;
   - The councils' shared services program, which was well received by Cabinet;
   - The implications of the GARP for the Fleurieu region, including projected growth figures;
   - How councils will leverage their shared services model to support and facilitate growth; and
   - The importance of the State Government as a key partner in delivering future growth, particularly through the provision of infrastructure ahead of housing development.

3. *Given the Mayor's non-attendance at the event, was the Deputy Mayor requested or authorised to attend the event to represent the Mayor with the CEO?*

   The Mayor was unavailable to attend the event and liaised with the Deputy Mayor regarding representation. The Deputy Mayor subsequently attended on the Mayor's behalf.

4. *Why were elected members not invited or encouraged to participate in meeting the Premier and Ministers prior to the event to participate in discussions specific to Alexandrina?*

   The meetings with State Government representatives were arranged by other organising parties rather than by individual councils.

   There was also limited seating at the various venues, which restricted the number of representatives that could attend from each council.

   On Thursday 8 October, the Mayor, CEO and other key Alexandrina Council staff attended the following sessions:

   Session 1 – Joint Council Presentation to Country Cabinet

   A joint council presentation to Country Cabinet was held at the City of Victor Harbor Council Chamber. Mayor Jenkins gave the presentation on behalf of the three councils.

Session 2 – Meeting with the Minister for Transport

A meeting was held with the Minister for Transport, Joe Szakacs MP, to discuss the Fleurieu councils' proposal freight corridor and the Middleton bypass. The session was arranged and facilitated by David Ridley, Regional Development Australia (RDA) and held at the Middleton Tavern.

Session 3 – Middleton Pathway Site Visit

The Minister for Transport, Joe Szakacs MP, attended a site visit to view the Mill Terrace pathway works in Middleton and formally announce Council's successful grant application for the project. This session was specifically requested by the Minister.

Session 4 – Meeting with the Premier

A meeting was held with the Premier, Peter Malinauskas MP, to discuss current issues relating to the Horseshoe Bay seawall, breakwater and beach erosion. The session was arranged and facilitated by the Member for Finniss, Lou Nicholson MP.

The points raised in this Question on Notice regarding advocacy for future Country Cabinet visits to the Alexandrina Council area and opportunities for greater Council Member involvement are well made and will be considered for future Country Cabinet opportunities.

Overall, the Country Cabinet visit was considered a success, with Alexandrina Council, the City of Victor Harbor and Yankalilla Council presenting a strong, consistent and collaborative message, particularly during the joint presentation to Cabinet at Victor Harbor.

Sincere thanks are extended to David Ridley (RDA) and the Member for Finniss, Lou Nicholson MP, for arranging and facilitating the sessions in Middleton and at Horseshoe Bay.

In addition to the sessions above, the Deputy Premier, Kyam Maher, requested to attend Signal Point Experience Centre for a tour of First Nations Exhibition, Yuntulun Ku:li-war. The session was led by the Manager Community Connection and Activation, supported by Council's Art and Cultural Development Officer.

[Time taken to prepare this response was 20 minutes]

Attachments

Nil

7. Questions without Notice

Council Members may ask Questions without Notice.

8. Notice of Motions

Nil

9. Administration Reports

9.1. Management of Little Corellas

Decision Report

Responsible Officer: Alan Harvey (General Manager Infrastructure)

Report Author: Andrew MacDonald (Chief Executive Officer)

Previous Decisions: C321/09/26, C265/08/26, C080/03/25

Report Purpose

For Council to consider the immediate implementation of a two-year humane Little Corella Population Control Program using qualified and professional contractors, and to consider the development of a longer-term Integrated Little Corella Management Plan, in collaboration with the Landscape SA – Hills & Fleurieu, Primary Industries and Regions SA (PIRSA), the Department for Environment and Water (DEW), and the Southern & Hills Local Government Association.

Recommendation

That Council:

1. **Receive and note the report titled *Management of Little Corellas*.**
2. **Approve the immediate implementation of a two-year humane Little Corella Population Control Program using suitably qualified and professional contractors to trap and remove birds, subject to required approvals, animal welfare requirements, public safety controls and operational arrangements.**
3. **Approve a budget variation of $100,000 (includes contingency) to fund the 2026/27 Little Corella Population Control Program, with the budget variation to be reflected in the First Quarter Budget Review.**
4. **Supports the continuation of Council's current Little Corellas deterrence activities within existing operational resources.**
5. **Approve the development of an Integrated Little Corella Management Plan in collaboration with Landscape SA – Hills & Fleurieu, PIRSA, DEW and the Southern & Hills Local Government Association.**
6. **Receive a progress report by March 2027 on the outcomes of the Little Corella Population Control Program, including the progress on the development of the Integrated Little Corella Management Plan.**
7. **Require Administration to present the proposed Integrated Management Plan to Council for consideration following consultation and development with the relevant partners.**
8. **Consider funding for the second year of the program as part of the 2027/28 Annual Business Plan and Budget process.**

Background

Statewide and Alexandrina Context

The management of abundant bird species is a statewide issue affecting primary producers, conservation and land management organisations, local government, communities and State Government agencies. Impacts include crop losses, infrastructure damage, noise, fouling of public spaces and risks to workplace health and safety.

Within Alexandrina, Little Corellas and feral pigeons are the primary abundant bird species of concern. Council currently undertakes targeted control programs to manage feral pigeon populations, primarily within Strathalbyn. This report focuses on Little Corellas due to their widespread impacts and the ongoing community concern regarding their numbers and behaviour.

Little Corellas are highly mobile and adaptable native birds that occupy both natural and urban environments. Their movements across public and private land, as well as local government boundaries, limit the effectiveness of isolated, localised control measures. While targeted management can reduce impacts at specific locations, sustained regional population reduction is unlikely to be achieved through a single approach. A combination of removal methods is likely to be more effective and should be considered as part of an integrated management program.

Council has a role in managing impacts on its assets and infrastructure, supporting affected communities and advocating for a coordinated response. However, successful long-term management requires collaboration with State Government agencies, landscape boards and neighbouring councils.

Community Impacts

Little Corellas have affected communities across the Alexandrina district for more than 20 years and have been the subject of Council reports, petitions, deputations and ongoing complaints.

Large flocks regularly occupy townships between October and May. Flocks can number up to approximately 15,000 birds when smaller groups congregate. Known problem locations include Strathalbyn, Goolwa, Milang, Port Elliot, Hindmarsh Island and Mount Compass.

Reported impacts include:

- Excessive noise from screeching vocalisations.
- Damage to trees, vegetation and crops.
- Fouling of public spaces, schools and private properties.
- Damage to buildings, lighting, playgrounds, sporting facilities and other infrastructure.
- Reduced amenity for residents, schools and businesses.

Community views vary, with some residents valuing the birds as part of the natural environment and others experiencing significant impacts. These differing perspectives need to be considered when determining future management approaches.

Previous Management Activities

Over the past 20 years, Council has trialled a range of management measures, including sound and light deterrents, pyrotechnics, clap boards, starter pistols, gas guns, birds of prey, stock whips, shoot-to-scare techniques, trapping, gassing, shooting and visual deterrents.

Although some measures have achieved short-term results, their effectiveness has often declined as birds adapt to them. Other methods have been constrained by regulatory requirements, community concerns, labour demands or cost.

Previous control programs have also faced limitations, as some control methods were labour-intensive and costly, while removal efforts were often constrained by the presence of birds on private land where Council could not undertake control activities.

Council currently undertakes deterrence activities in accordance with Resolution C080/03/25 of 17 March 2025, including drone operations, flashing lights and clap boards. Council also provides advice to residents and businesses on managing impacts on private property.

These activities are currently delivered within existing operational resources, without a dedicated abundant bird management budget or a dedicated management position.

Research and Regional Initiatives

Between 2015 and 2017, Council participated in a statewide Little Corella research project involving universities, government agencies, the Local Government Association of South Australia (LGASA) and several South Australian councils. The project examined the social, environmental and regulatory aspects of Little Corella management.

The resulting report was presented to Council in June 2017. Council resolved (ACM17200) to continue deterrence and removal activities at specific problem sites and to advocate for stronger State Government leadership.

Council has continued to engage with PIRSA and DEW, including following Resolution C080/03/25.

PIRSA and LGASA have also investigated the development of a pest bird baiting program. Further research may establish whether baiting can provide an additional long-term management option. The report *A New Bait for Pest Birds of the Grains Industry* is provided as Attachment 1.

The Kangaroo Island Landscape Board undertook a two-season night-time roost control trial between 2024 and 2026. The trial demonstrated that night-time contractor control activities can remove significant numbers of Little Corellas and may reduce local impacts. However, effectiveness was lower within townships, reinforcing the importance of sustained, multi-year programs to achieve meaningful outcomes.

The Limestone Coast Local Government Association is also considering regional and potentially statewide flock monitoring to improve understanding of Little Corella movements. Participation by Alexandrina and the broader Southern & Hills region may support future planning.

These initiatives highlight the need for sustained, coordinated management using a combination of approaches.

Council Resolutions

At its meeting on 17 August 2026, Council received deputations regarding Little Corella management in Goolwa and Strathalbyn, together with petitions seeking the reinstatement of lethal culling. Council subsequently resolved (C265/08/26):

C265/08/26

That Council receive the petition requesting Council to reinstate lethal culling of Little Corellas as part of a Corella Action Plan by October 2026 and that it be forwarded to the Infrastructure division for assessment and response to Head Petitioner and further:

1. **Note the deputation by Ms L Bradey regarding 'the management of the impact of the large flocks of Little Corella in the Goolwa Township'**
2. **Note the deputation by Mr M Ferry of Strathalbyn on behalf of the Strathalbyn Eastern Fleurieu School and Community regarding 'Strathalbyn-Corella Action Plan – October 2026'**
3. **Note item 9.1 to be considered later in this agenda 'Community Engagement Outcomes - Future planning for Goolwa Main Street Trees' references corella management;**
4. **Note on page 186 of this agenda that Environment, Rural Land and Natural Assets key messages arising from the Strathalbyn and Surrounds Town Plan engagement included calls for culling of Little Corellas expressing concerns about environmental balance; and**
5. **Request administration as an interim short-term solution prepare a report including costings and budget impact for the 19 October 2026 council meeting for the purpose of commencing lethal culling of Little Corellas in Strathalbyn and Goolwa and other townships as required, as soon as possible.**
6. **Write to the State Members for Hammond, Heysen and Mawson in addition to writing to the State Member for Finniss to seek advice and support for the management of Little Corellas from a regional and local perspective.**

CARRIED UNANIMOUSLY

At the same meeting, Council considered the *Future Planning for Goolwa Main Street Trees* report and resolved (C267/08/26, Item d):

C267/08/26

That Council approve the development of Option 2, with further reporting being provided on:

a. **Increasing the streetscape level of service in Cadell Street (from Gardiner Street to Goolwa Terrace).**
b. **Development and implementation of a specific tree management plan for the existing Cadell Street trees.**
c. **Scoping and execution of specific plans to manage the interaction of trees within the state heritage area and heritage listed buildings.**
d. **Investigation and development of corella management strategies from a regional and local perspective for the 19 October 2026 Council meeting.**
e. **Investigation of better engagement with businesses within Cadell Street to support the ongoing management of the street and the trees.**
f. **Note that as a matter of priority elements a, b and d are proposed to be reported first over the coming few months followed by elements c and then e.**

CARRIED UNANIMOUSLY

At its meeting on 21 September 2026, Council considered a Notice of Motion regarding Little Corella management and resolved (C321/09/26):

C321/09/26

Moved Cr Peter Oliver seconded Cr Margaret Gardner

That Corella Management Plans be escalated with the objective of reduction in super flock numbers by 30% by 31/12/2026.

CARRIED

This report responds to these resolutions by outlining some management options, their limitations, the proposed immediate response, longer-term management opportunities and associated financial implications.

Discussion

The proposed approach is to reduce the local impacts of Little Corellas at priority locations across Alexandrina, as soon as possible, while developing a coordinated, evidence-based approach to longer-term management.

It is broadly recognised that Little Corellas move between townships, rural areas and neighbouring council districts. The number of birds present at any particular location can change significantly over short periods. Accordingly, reductions in local flock numbers do not necessarily equate to a sustained reduction in the overall regional population.

Many known roosting and problem locations are on private land, limiting Council's ability to undertake direct management activities. Any proposed control program must therefore consider land access, site suitability, operational costs, animal welfare, public safety and the roles of other agencies.

Option 1 — Continue Existing Service Levels

Council could continue its current deterrence and community support activities within existing operational resources.

This option would maintain:

- Drone operations and other deterrents.
- Resident education and advice.
- Management of impacts on Council assets where practicable.
- Advocacy for a coordinated State Government response.

This option would not require additional program funding or staffing. However, it would not expand Council's management capacity and is unlikely to deliver materially different outcomes from those currently being achieved.

Option 2 — Implement a Two-Year Trapping and Removal Program

Council could engage suitably qualified professional contractors to undertake targeted trapping and bird removal at selected locations over two years, subject to confirmation of the applicable approvals, legal requirements, animal welfare safeguards and operational arrangements.

This approach would involve:

- establishing feeding stations and attracting birds to suitable locations;
- deploying modular capture traps capable of capturing approximately 200-300 birds per day;
- releasing any non-target bird species;
- humane removal of captured Little Corellas; and
- ongoing monitoring and adjustment of trapping locations.

The program would occur from November to February, for 4 days per week with 6-hour contractor shifts, and consider known problem locations including Strathalbyn, Goolwa, Milang, Port Elliot, Hindmarsh Island and Mount Compass. The program and associated operating cost will be closely monitored by Administration and reported to Council as appropriate. The cost of the program has been estimated at $88,000.

Before implementation, the operational arrangements would need to confirm:

- How priority sites are selected and assessed.
- The land access, authorisations and safety requirements for each operation.
- The contractor's qualifications, insurance and reporting obligations.
- Animal welfare procedures, including the management of injured birds.
- Responsibility for community notification and complaints.
- Records of operations, birds removed, incidents and expenditure.
- The measures used to assess effectiveness and determine whether further operations are warranted.

Further considerations include:

- Trapping and removal can only be undertaken on Council land or land under Council's care and control;
- trapping and removal are generally more effective in rural and fringe township locations than within urban areas; and
- effectiveness may be limited where birds are roosting on private land.

Formal approval with DEW would be required to ensure regulatory requirements and operational arrangements are met.

The proposed program should be subject to regular monitoring and review. Its intended outcome is to reduce local impacts at selected locations; it should not be presented as a guarantee of a sustained reduction in the overall Little Corella population.

A two-year program would allow Council to assess results across successive seasons and inform decisions regarding future management.

Longer-Term Option — Integrated Little Corella Management Plan

A longer-term Integrated Little Corella Management Plan would provide a coordinated framework for managing impacts across the district and working with State Government agencies and neighbouring councils.

The plan could include:

- Continued bird deterrence activities and community education across the region.
- Assessment of trapping and other control methods, subject to relevant approvals.
- Identification of preferred targeted trapping and removal methods, informed by program results.
- Identification of suitable locations across the region and development of a regional trapping program.
- Participation in PIRSA and DEW research initiatives, including future baiting trials where appropriate.
- Participation in regional or statewide flock monitoring initiatives.
- Continued advocacy for coordinated State Government leadership.
- Annual reporting to councils on activities, costs, outcomes and effectiveness.

The plan should identify priority locations, management objectives, responsibilities, resource requirements, performance measures and review arrangements. It should also consider the practical and regulatory limitations of individual methods and determine how the approaches can be integrated over time.

A dedicated Corella Management Officer position may be required longer-term and has been estimated at $100,000 per annum. The position would support ongoing program coordination and could potentially be shared with other regional partners.

Recommended Approach

Administration recommends that Council consider a staged approach comprising:

1. **Immediate action:** Implement a two-year targeted trapping and removal program at suitable priority locations, subject to confirmation of operational requirements and safeguards.
2. **Longer-term planning:** Develop and implement an Integrated Little Corella Management Plan in partnership with the Landscape SA – Hills & Fleurieu, PIRSA, DEW and the Southern & Hills Local Government Association.
3. **Evidence and collaboration:** Participate in relevant research, baiting trials and regional flock-monitoring initiatives as opportunities arise.
4. **Monitoring and review:** Report on expenditure, activities, outcomes, incidents and effectiveness, using the findings to inform future decisions about management methods and resource allocation.

This approach provides an immediate response to community concerns while recognising the limitations of localised control and the need for coordinated adaptive management.

Council Resolution C321/09/26 refers to a 30% reduction in superflock numbers by 31 December 2026. Administration cannot guarantee that outcome through a local control program. Little Corellas are highly mobile, and the number of birds present within Alexandrina varies over time. Any assessment against this target would need to establish a reliable baseline, define the geographic area and measurement method, and distinguish changes in local flock numbers from changes in the broader population.

Financial Implications

The proposed change in service levels has significant financial implications and will require additional operational funding and further consideration by Council.

There is currently no dedicated operational budget for Little Corella management. Administration has identified a proposed operational budget requirement of $88,000 for 2026/27, which would require a budget adjustment to be considered by Council.

Funding for the second year of the proposed two-year targeted trapping and shooting program will need to be considered as part of the 2027/28 Annual Business Plan and Budget process.

Longer-term funding requirements will need to be considered by Council, taking into account the effectiveness and actual costs of the proposed two-year targeted trapping and removal program, as well as the requirements of the Integrated Little Corella Management Plan. The Plan is expected to provide cost estimates and identify how implementation costs and resources will be shared among the various program partners.

Furthermore, Council may need to consider establishing a dedicated Corella Management Officer position. The need for this position will be informed by the outcomes of the two-year targeted trapping and shooting program and the level of resourcing required to implement the Integrated Little Corella Management Plan. As previously stated, the cost of a dedicated Corella Management Officer could possibly be shared with other regional partners.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk associated with adopting the recommendations is assessed as **Medium**. The principal risks relate to animal welfare, public safety, regulatory compliance, financial management, operational effectiveness and community response.

These risks would be managed through appropriate site assessments, contractor requirements, operational controls, incident reporting and ongoing monitoring and review.

Community views regarding Little Corella management vary, particularly in relation to lethal control. Clear and timely communication will be important to explain the purpose, scope and limitations of the proposed program, while acknowledging differing community perspectives.

Subject to Council’s consideration of this report, the Alexandrina Council website will be updated to reflect Council’s approach to Little Corella management and its associated management actions.

Attachments

Attachment 1 — *A New Bait for Pest Birds of the Grains Industry*.

OFFICIAL



A new bait for pest birds of the grains industry

Funded by the Local Government Research and Development Scheme

Government of South Australia
Department of Primary Industries and Regions

OFFICIAL

A new bait for pest birds of the grains industry

Information current as of April 2026

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Government of South Australia
Department of Primary Industries and Regions

Background

Pest birds include introduced species like feral pigeons and starlings as well as native species that are over-abundant and problematic like little corellas and silver gulls. When populations of pest birds are in high numbers, they impact primary industries, including grains, fruit, nuts, and fisheries, as well as infrastructure and residential properties in regional communities.

PIRSA partnered with Local Government Association (LGA) to analyse the costs and benefits of developing and registering a new bait for use on pest birds, which are impacting primary industries and communities.

To quantify impacts of pest birds, stakeholders were engaged through surveys and workshops. Information acquired through surveys and the workshop was modelled by independent economists to analyse the costs and benefits of developing and registering a new bait.

Impacts from pest birds have been increasing over the last decade. The surveys indicated that the most affected primary industries were the fruit, nut and tuna industries.

These findings strengthened the understanding of the need for, and the development and application of, a bait for pest birds. The cost versus benefit analyses highlighted the large benefits and relatively low costs of the new bait. This information will inform project plans and funding proposals to undertake the required research and development for the new bait.

This report summarises the findings of the project and provides a project plan for future actions.

Stakeholder engagement

To understand impacts and identify priorities, stakeholders were engaged from fruits, nuts, grains, and tuna industries, as well as local councils, landscape boards, and the Department for Environment and Water (DEW).

At a stakeholder workshop, PIRSA outlined findings of population modelling, which indicated exponential population growth of pest birds. The population models are reproduced in the report on the economic analyses of the proposed bait. Stakeholders also shared information on the relevant legislation and impacts of pest birds.

Short-, medium- and long-term actions were identified based on feedback from stakeholders. Full details are provided in Appendix 1. Pest bird impacts in South Australia - Stakeholder workshop summary.

Surveys

PIRSA surveyed over 65 stakeholders to understand and quantify the impacts of pest birds on primary industries and local communities. Findings from the surveys are summarised in Table 1.

Table 1. Production loss and control cost of pest birds on different industries and local governments.

Group	Production loss	Control cost
Grain growers (n = 4)	~9% crop loss	~$3/ha or ~11 days/year
Grain storage (n = 4)	~$1/t	~300 days per year
Fruit producers (n = 11)	100% of unnetted crops	~$4,500/ha
Nut producers (n = 7)	100% without control	~$500/ha
Tuna producers (n = 1)	~4% of stock feed (~$2 m)	$250,000/year
Kingfish producers (n = 1)	~$1.4 m/harvest	
Council – non-native birds (n = 26)	NA	~$10,000/year ~6 days/year
Council – native birds (n = 26)	NA	~$22,500/year ~18 days/year

Some costs (e.g., mental health, poor working conditions, and health risks) were harder to quantify but were noted in the economic analysis (see below).

Workshops

PIRSA facilitated a stakeholder workshop in February 2025, bringing together 32 representatives from local and state governments and primary industries to discuss pest bird impacts. Details of the workshop are included in Appendix 1.

Birds such as pigeons, sulphur-crested cockatoos, little corellas, cormorants, swallows and starlings were highlighted as causing increasing losses across the grain industry during seeding, harvest and storage. Impacts include crop consumption, infrastructure damage and fouling of stored grain, with concerns that impacts increase during droughts. Growers and handlers have trialled a range of controls including trapping, gassing, shooting and emerging technologies such as AI-assisted deterrents and a bait called *Ovo-control*.

Fruit and nut growers report that bird damage has become more severe over the past 10–15 years, with species such as rosellas, lorikeets and little corellas destroying buds and crops and damaging farm infrastructure. Some farms reported production losses of up to 80%, requiring substantial labour and resources for bird management. Exclusion netting remains the most reliable control method, but high costs and logistical constraints limit its widespread use. Uncoordinated management between neighbouring properties was highlighted as reducing the effectiveness of control measures.

In the tuna industry, silver gull numbers have increased over the past decade, with flocks around cages growing from small numbers to thousands. This has led to significant feed losses—estimated at an average of $1.76 million annually—and increased biosecurity and worker health risks. Current controls, such as egg oiling are costly and ineffective. Local councils are also receiving more public complaints

about pest birds, but Councils were uncertain about their role in management, with limited coordination and with some community opposition to lethal control.

At the workshop, PIRSA outlined the research and development work required to register a new bait for pest birds, including non-native species and abundant native species.

Technical assessment of candidate toxins

Toxins used to control pest birds have been used internationally, but few examples exist in Australia. PIRSA reviewed information to identify a candidate toxin, which could be used humanely while also minimising risks to non-target animals and the environment. The three candidate toxins that were assessed are outlined in Appendix 2. PIRSA, 2026.

The most suitable candidates were identified based on their species specificity, low risk of secondary poisoning and humaneness. Lack of trials in the field and in captivity were identified as gaps that were required to be addressed through future research.

Economic analysis

PIRSA engaged BDO Pty. Ltd. to conduct an economic analysis using the information gathered from stakeholder surveys and workshop discussions. The full economic analyses are included in Appendix 3. BDO Services Pty. Ltd.

Cost for stakeholders

Economic impacts identified by the analysis are listed in Table 2. The fruit industry was the most impacted followed by the nut industry and aquaculture industry.

Table 2. Impact of pest birds on industries. Abbreviations – GSP = gross state product; FTE = full time equivalent

Sector	Total GSP (20 yrs)	Direct GSP	Flow-on Effects	Avg Annual GSP	Employment Impact (Avg FTE)	Direct FTE	Flow-on FTE
Fruit growing	$503 M	$403 M	$100 M	$25 M	+32	+17	+15
Nut growing	$138 M	$268 M	–$129 M	$7 M	–145	–116	–29
Aquaculture	$15 M	$6 M	$9 M	$1 M	+5	+2	+3
Other sectors	$6 M	$16 M	–$10 M	$0.3M	–3	<–1	–2

Cost of control measures

The economic analyses modelled the projected costs of pest bird control measures using stakeholder inputs and population modelling undertaken by PIRSA.

In 2030–31, ten bait stations are proposed to be constructed across South Australia at a cost of $10,000 each to support coordinated pest bird control. From 2031–32 onwards, coordination costs are estimated at $250,000 per year and baiting at $500,000 per year, with ongoing bait station repairs estimated at $20,000 annually from 2032–33 (Table 3). The research and development for a bait will cost $5,040,000 to test three candidate toxins, analyse data and report findings (Table 4).

Table 3. Estimated cost of coordinated area-wide pest bird control deployment costs (Appendix 3. BDO Services Pty. Ltd., 2025).

Control measures	Timeline	Cost
Research and development of bait (Table 4)	3 years commencing 2027	1,260,000 X 4 phases
Deployment of ten bait stations	1 year commencing 2030-31	$10,000 per station x 10
Delivery and coordination of a control program	2 years commencing 2031-32	$250,000 per year x 2
Baiting operations	2 years commencing 2031-32	$500,000 per year x 2
Repair and maintenance	2 years commencing 2031-32	$20,000 per year x 2
	Total	$6,680,000

Benefits

The economic analysis indicates that the proposed pest bird control tool is a worthwhile investment.

In South Australia, the program is projected to generate a net present value (NPV) of $604 million and a benefit–cost ratio (BCR) of 5.3, contributing $1.3 billion to Gross State Product over 20 years, or an average of $63 million annually.

The initiative is estimated to deliver an annual NPV of $5 billion and a BCR of 3.3, contributing $14 billion to GDP over 20 years. The largest annual sectoral benefits are expected in fruit ($542 million), grains ($62 million) and nuts ($52 million).

Draft project plan to progress work to develop a bait for pest birds

Overview

Industries and stakeholders most impacted by pest birds have been identified and consulted.

The development and registration of a new bait has been proposed to mitigate the impacts.

The next phase of the project will focus on continuing stakeholder engagement, seeking funding to progress work to research, development and registration of a bait.

The findings and processes of the project will be used to develop a Strategic Plan for Pest Birds, linking the impacts of pest birds, the proposed strategic actions, and the economic benefits to South Australia and nationally.

Scope

Continuing stakeholder engagement

The project involves stakeholders from the fruit, nut, grain and tuna industries, as well as local councils, landscape boards and the Department for Environment and Water (DEW). Future workshops will build on this existing stakeholder base to strengthen collaboration with, and co-funding from, national peak industry groups. Inputs from these stakeholders will achieve outcomes at state- and national- levels.

Bait research and registration

PIRSA will develop and submit proposals to research and register a new bait for pest birds, including both non-native species and abundant native species. PIRSA has experience in working to register a new bait for feral cats and PIRSA is in the process of registering a bait for feral deer.

There are limited toxins that could be used for pest bird control. PIRSA conducted a literature review to identify candidate toxins for pest birds. The review identified candidate toxins that have potential be delivered using bird-specific feeders with future incorporation of artificial intelligence (AI) recognition models to increase specificity of targets. To ensure that the bait is humane and does not impact non-target species, trials are proposed to be conducted in the following phases until a suitable bait is identified:

Phase 1 – Conduct aviary trials of DRC-1339
Phase 1A – Analysis and reporting
Phase 1B – If aviary trials are successful, the project would progress to the preparation of APVMA registration package for a bait based on DRC-1339.

Phase 2 – If Phase 1A is not successful, conduct aviary trials of sodium fluoroacetate (1080)
Phase 2A – Analysis and reporting
Phase 2B – If aviary trials are successful, the project would progress to the preparation of APVMA registration package for a bait based on sodium fluoroacetate.

Phase 3 – If Phase 2A is not successful, conduct aviary trials of cyanide
Phase 3A – Analysis and reporting
Phase 3B – If aviary trials are successful, the project would progress to the preparation of APVMA registration package for a bait based on cyanide.

Phase 4 – Analysis, reporting and liaison with APVMA through the registration process.

Trials would be undertaken in a controlled environment followed by analysis of the findings to inform whether the candidate toxins may be suitable for a new bait.

Baits are regulated by the Australian Pesticides and Veterinary Medicines Authority (APVMA) and must be target-specific, humane, and have minimal impacts on non-target species. This process requires expertise to develop and synthesise an application package that will be provided to the APVMA based on the literature reviews and aviary trials.

Budget and funding applications

Funding is required to progress the research and development of a bait for pest birds and to draft the application to the APVMA, and to engage with them during the 3-year registration process.

The project identified several primary industries that are impacted by pest birds. PIRSA would seek to discuss potential funding opportunities with representatives from the peak bodies of these industries, and with other state governments and the Commonwealth Government.

Economic analyses (Appendix 3. BDO Services Pty. Ltd., 2025) indicate that an investment of $5 million will be required to develop an effective and humane bait and secure national registration, with funding over four years from 2027–28. Literature review of bird toxins (Appendix 2. PIRSA, 2026) identified DRC – 1339, sodium fluoroacetate (1080) and cyanide has candidate toxins. Funding will enable completion of the phased research and development, which includes stop-go points, outlined below (Table 4).

If Phase 1 is successful then the project can move directly to Phase 4 resulting in the development of a bait for a minimum of $2,52,0000.

Table 4. Estimated cost of research and development of a bait.

Research and development phases	Cost	Timeline
Phase 1 – Aviary trials of DRC -1339	$1,26,0000	2027 - 2028
Phase 2 – Aviary trials of 1080	$1,26,0000	2028 - 2029
Phase 3 – Aviary trials of cyanide	$1,26,0000	2029 - 2030
Phase 4 – Analysis and reporting	$1,26,0000	2027 - 2030
Total	$5,040,000	

Strategic Plan for Pest Birds

A strategic plan for the management of pest birds in South Australia is essential to ensure a coordinated, evidence-based approach across government, industry and community stakeholders.

A clear framework would enable prioritisation of resources, alignment of short and long-term actions, and integration of emerging tools and technologies to improve effectiveness.

It would also provide defined objectives and measurable outcomes, supporting accountability and sustained reduction in economic, environmental and social impacts.

Conclusions

Population modeling indicated that several species of pest birds are increasing exponentially, and the independent economic analyses indicated that pest birds are already having significant economic impacts on several primary industries. Impacts are likely to worsen as populations of pest birds continue to increase, especially since no effective method of control exists.

A systematic approach to the research, development and registration of a bait has been outlined, which would result in the availability and deployment of a bait that will benefit impacted sectors.

Appendix

Appendix 1. Pest bird impacts in South Australia - Stakeholder workshop summary
Appendix 2. Literature review of candidate toxins for baiting pest birds in Australia
Appendix 3. Pest bird control tool - Economic analysis. A report by BDO Services Pty Ltd.

Pest bird impacts in South Australia

Stakeholder workshop: Monday 3 February 2025, Adelaide

PIRSA facilitated a collaborative stakeholder workshop on 3 February 2025, bringing together over 30 representatives from government and primary industries to discuss pest bird impacts. The purpose was to:

1. **Understand** and **quantify** the impacts of pest birds in South Australia
2. **Plan** for the development of a new bait for pest bird management

Participants included representatives from fruits, nuts, grains, and tuna industries, as well as local councils, landscape boards, and the Department for Environment and Water (DEW). Everyone shared their experiences with pest birds; we heard about crop losses, infrastructure damage, huge control costs, stress, and human safety issues. We also heard about population trends, legislation, and the Biodiversity Bill. PIRSA summarised results from over 60 surveys across primary industries and councils, and participants contributed to further quantifying the impacts and costs of pest birds.

The PIRSA proposal to develop a new bait was presented and a discussion was held on roles of different stakeholders, funding avenues, and other challenges. The workshop highlighted a common need to foster social license for a toxin to manage pest birds at a population level. Strong support existed for cross-agency, council, and industry collaboration on pest bird management

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Workshop outcomes and actions

Short term

- PIRSA to follow-up with all groups, capture more data on impacts for cost-benefit analyses
- Modelling work continues, including for silver gulls, cormorants, and starlings
- New stakeholders identified and engaged
- Form a Pest Bird Advisory Group for planning, messaging, and advice

Medium term

- Release cost-benefit analyses
- Pest Bird Advisory Group to provide input on draft regulations for pest birds
- Apply for funding for bait work, including from research and development funds
- Start work on technical and field trials
- Facilitate other works, such as flock monitoring programs for developing social licence

Long term

- Registration package for new bird bait submitted to the APVMA
- Scientific applications to use bait adopted and baits laid
- Capture benefits of reduced pest bird impacts from the bait






Summary of workshop content

Understanding stakeholder impacts

Stakeholders from the grain, fruit, nut, and tuna industries and local councils shared the impacts they experience from pest birds. They included:

Grains

- Pest birds are a significant problem during seeding, at harvest, and during storage
- Impacts include crop losses, damage to infrastructure, and fouling of stored grain
- Pest species include pigeons, sulphur-crested cockatoos, little corellas, cormorants, swallows, and starlings
- Growers are fearful that when the drought breaks birds will come back in high numbers; with no effective control tools, populations will be difficult to manage
- Birds are a major problem for grain handlers and storage sites. Viterra has tried many control tools including trapping, gassing, and shooting; they are currently trialling non-lethal tools, including the AI-assisted CHIRRP system at Tailem Bend and Ovo-control

Fruits

- Twenty years ago, birds were not a significant problem; first started experiencing damage 10-15 years ago
- Impacts include eating and stripping fruit buds in winter, and destroying fruit crops
- Rosellas and lorikeets cause the most damage
- This season was exceptionally bad because of drought conditions; the birds are starving and arrived earlier than in previous years
- Control tools include shooting; However, permits do not allow enough numbers to be shot, and a permit holder can shoot through a permit within weeks, with little effect on impacts
- Only current effective tool is exclusion netting, which is not always feasible for large properties because it can be expensive and difficult to finance
- One farm spent 60 days a year on average managing birds, where they lose anywhere between 0-80% of production
- Management costs may exceed $100,000 per hectare; more data needed to understand costs for industry

Nuts

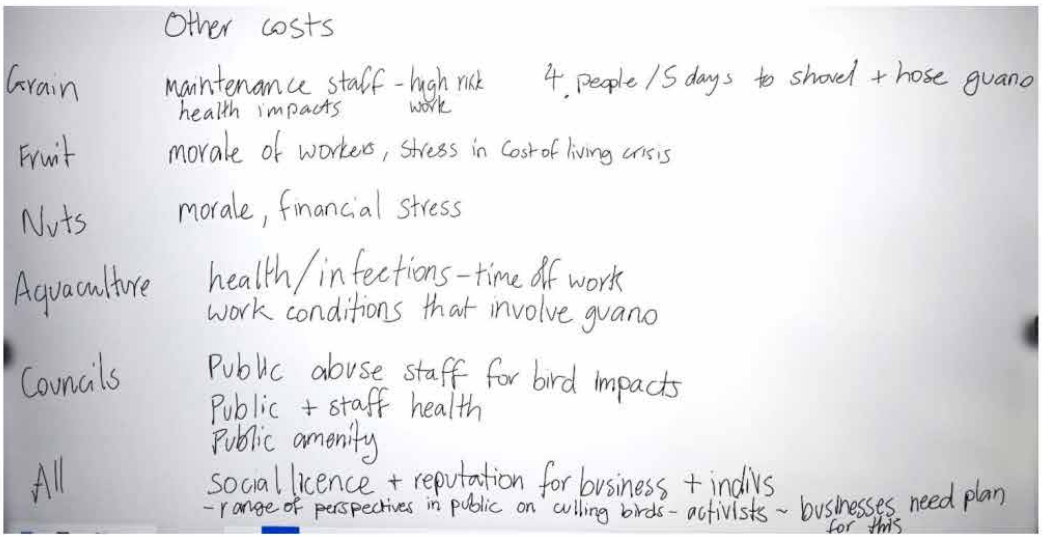
- Little corellas cause major damage to almond farms; they chew buds, consume nuts, and damage infrastructure (tear holes in tarps and drip lines)
- Without control tools, little corellas will destroy almost 100% of crops
- Control tools include gas guns and scare planes; one farm is trialling AI-assisted CHIRRP system. Another farm has staff on quad bikes with guns, scaring birds for up to four hours per day during specific seasons. In severe circumstances, up to seven people are deployed to shoot birds for 4-6 weeks (or more than 1,300 hrs)
- Growers are managing impacts independently, so birds just move among properties
- Best approach is coordinated use of multiple control tools together (lethal and non-lethal)

Tuna

- Significant issue with silver gulls eating tuna feed; problem has been growing considerably over last 10 years
- Over 20 years ago only 5 birds per cage, now over 5,000 birds per cage
- Sardines are fed to tuna for 6 months of the year; the silver gulls find alternative food outside of this time, moving into townships, kingfish farms, and landfill sites
- Huge costs incurred, including average loss of $1.76 million in feed that needs to be replaced (net cost of $3.52 million); biosecurity and work health and safety risks are severe, with workers at the cage being covered in faeces, cuts become infected
- Controls include large egg oiling program; it is an expensive program spraying 27,500 eggs per year, barely scratches the surface of the problem

Local Councils

- Administrative perspective, managing environments for people is important
- Complaints regarding pest birds are increasing; councils are not a pest management agency; is there a role for councils to be involved in pest management?
- Councils not coordinating bird management; some scare birds into neighbouring councils
- Contractors engaged to regularly shoots pigeons; one council tried to shoot little corellas and within 24 hours community members were demonstrating against killing them
- Pressure from the community to reduce little corella impacts, but currently have no answers
- Lots of costs associated with pest birds, but difficult to quantify in monetary terms (e.g., tree damage, loss of tourism, social licence)



Population trends by Seamus Doherty – PIRSA

- Maps of occurrence records for pest bird species over time and modelling of the expected future distributions of feral pigeons and little corellas showed exponential growth in numbers
- Models aligned with observations from the group, i.e. dramatic increase in last 10-15 years
- Discussions occurred around bird survey data and accounting for increase efforts to robustly infer past and future population trends for different species (e.g., manually collected from councils and BirdLife Australia)
- Similar analysis completed so far for little corellas and feral pigeons will be conducted for little pied cormorants, silver gulls, and starlings



Summary of survey results by Annette Scanlon – PIRSA

- Over 65 surveys were completed to understand and quantify the impacts of pest birds on primary industries and local communities
- Noting that the sample sizes were small, it is a start to articulate the quantity of costs
- The group discussed other costs that are difficult to quantify, but will be noted in the economic analysis (e.g., mental health, poor working conditions, and health risks)

Group	Production loss	Control cost
Grain growers (n = 4)	~9% crop loss	~$3/ha or ~11 days/year
Grain storage (n = 4)	~$1/t	~300 days per year
Fruits (n = 11)	100% of unnetted crops	~$4,500/ha
Nuts (n = 7)	100% without control	~$500/ha
Tuna (n = 1)	~4% of stock feed (~$2 m)	$250,000/year
Kingfish (n = 1)	~$1.4 m/harvest	
Council – non-native birds (n = 26)	NA	~$10,000/year ~6 days/year
Council – native birds (n = 26)	NA	~$22,500/year ~18 days/year

Legislation by Karl Hillyard and Tony Halls – DEW

- Three pieces of legislations in South Australia relate to the protection of wildlife and the welfare of animals
    - *National Parks and Wildlife* (NPW) *Act 1972* provides for the conservation of wildlife in a natural environment and for other purposes
    - The *Landscape South Australia Act 2019* gives powers to landscape boards to coordinate the destruction of animals
    - The *Animal Welfare* (AW) *Act 1985* prohibits cruelty to animals (protected and unprotected species)
- A new Biodiversity Bill is currently under review; it will replace the NPW Act. Under the new bill, **all native species are protected**
- It will include a range of mechanisms to enable the management of 'impact causing' birds
- Have your say on the Biodiversity Bill – the current round of consultation closes 18 February 2025

Method	Protected species (NPW Act)	Unprotected species (NPW Act)	Code of Practice
Shooting	Permit required	No permit required	Yes
Trap and gas	Not generally permitted	Permit required for little corellas and galahs	Yes
Eggs – oiling, pricking, destruction	Permit required	Permit required for little corellas and galahs	No

Working toward a new bait by Annette Scanlon – PIRSA

- PIRSA has a proposal to develop and register a new bait for pest birds, including non-native species and abundant native species
- Almost no toxins exist for pest birds. A painless narcotic called alphachloralose can be used by licenced pest controllers to stupefy specific introduced bird species, with individual sleeping birds being collected and euthanised
- Existing, common control methods include deterrents, exclusion, trapping, and shooting
- No bait is available for population-level control of pest birds
- Baits are a cost-effective, landscape-scale control tool used on many invasive species
- Poisons are highly regulated by the APVMA
- All registered poisons must be 1) highly specific to the target species; 2) humane; 3) carry minimal residual or secondary affects
- PIRSA is partnering with the Local Government Association (LGA) to deliver the first phase of the proposal, due March 2026
- Outputs from that work include:
    - Literature review
    - Stakeholder workshop
    - Cost-benefit analysis of pest birds in South Australia
    - Project plan

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Pathway – Developing a bait for pest birds

1. Technical assessment – underway
   - literature review, workshop, C-B analysis, and **project plan**
2. Technical trials
   - Trials of candidate toxins on target species
   - Efficacy and humaneness
3. Field trials, demonstrating:
   - Environmental appraisals
   - Bait delivery pathways (species-specific feeders)
   - Restrictions for use, e.g., townships
4. Registration package:
   - Valid scientific arguments (safety, efficacy, trade, labelling)
   - Application to APVMA

Quantifying impacts from pest birds – Everyone

- All representatives participated in a systematic discussion to quantify the impacts from pest birds for each sector and group
- Participants started identifying new types of costs to incorporate into the discussion
- Groups agreed that data collected so far was good, but that PIRSA staff would follow-up with all groups to capture more information
- All information will feed into a cost-benefit analysis to calculate state-wide impacts from pest birds

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Group Discussion (90 min)

Grain growers
Production loss ~9% crop losses
Control cost ~$3/ha + ~11 days per year

Grain storage
Production loss ~$1/t stored
Control cost ~300 days per year

Fruits
Production loss 100% unnetted crops
Control cost ~$4,500/ha

Nuts
Production loss 100% without controls
Control cost ~$500/ha

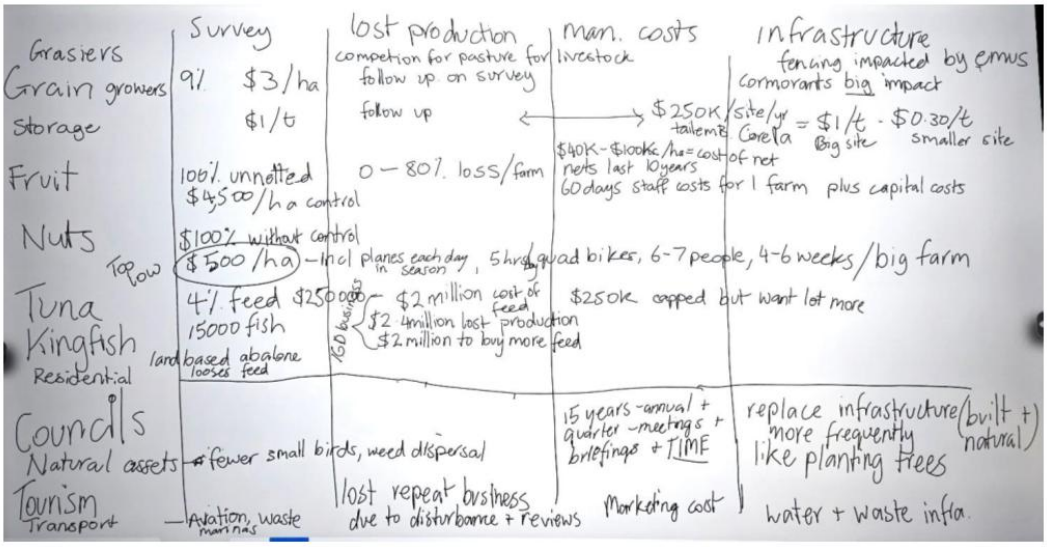
Tuna
Production loss ~4% of feed (~$2 m)
Control cost ~$250,000

kingfish
Production loss 15,000 fish killed (~$1.4 m)
Control costs: ??

Local councils - introduced
Production loss ??
Control cost ~$10,000 ~6 days

Local councils - native
Production loss ??
Control cost~$22,500; ~18 days

Stakeholder workshop: Pest bird impacts in South Australia 7



Discussion about a bait

What do you expect from a bait?

- Highly regulated (like 1080)
- Not too restricted that landholders would struggle to get permits
- Technology needs to be accessible, not too expensive
- Need sufficient evidence that the bait is safe, minimal risk to threatened or off-target species

If there could be a bait registered, what would success look like to you?

- Manageable population levels (not extinction)
- Impacts were manageable 15+ years ago, aim for that level again
- Improved diversity of native birds, and reduced impact on native vegetation
- Need a baseline to be able to pick a size that can be culled
- Silver gulls will need a greater reduction than most species to get back to natural levels

Social license

- A common challenge acknowledged by the group surrounded the social license
- Identified need for all stakeholders to co-develop and agree on shared messages
- Need clear environmental message, not too much focus on industry, highlight the welfare and public health issues
- Is it better to start advertising now, or wait until a clear plan, with timelines and costs has been developed? Need a strategy for communication
- Lessons can be learnt from other examples, what has and has not worked for other over abundant species (e.g., kangaroos)

Where to next?

Next 12 months…

- PIRSA to work with stakeholders to gather more detailed information on pest bird costs
- New stakeholders will also be engaged, including:
    - More processors, packing houses (flow-on affects from lower yields)
    - Meat and Livestock Australia (MLA), livestock producers on the west coast have reported needing to clean troughs twice a day because of bird impacts
    - Table grape and wine industry – impacts of birds on grape growers
    - Land-based aquaculture – abalone industry (silver gulls)
    - The Department for Education – impacted assets (ovals, buildings, schools)
    - SA Water – impacts of birds on water quality/nutrient levels
    - SA Power Networks – infrastructure costs (bats and birds?)
- Other risks from pest birds to be explored, including:
    - Business, industry, reputation, market access risks from pest birds
    - Diseases such as bird flu, psittacosis
- Roles and responsibilities to be clearly defined; for example, councils can support stakeholders through community education; industry groups can facilitate access to growers and trial sites; landscape boards will help drive the project forward

Pest Bird Advisory Group

- PIRSA will coordinate formation of an advisory group to continue collaboration and coordination of the bait project and pest bird management more broadly
- The group will act as a unified voice, engage networks and sectors, and distribute information to their wider networks
- The group will help identify funding opportunities and support proposals as well as provide coordinated submission on regulations for managing pest birds

The workshop was supported by PIRSA and LGA SA.



Candidate toxins for baiting pest birds in Australia

Literature review

Government of South Australia
Department of Primary Industries and Regions

Candidate toxins for baiting pest birds in Australia – Literature review

Information current as of April 2026

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1 Introduction

1.1 Purpose

This document provides a literature review of candidate toxins to assess their suitability and potential, for the lethal baiting of pest birds in Australia. In this context, 'pest birds' includes introduced species and impact-causing abundant native species.

1.2 Pest bird impacts

Over 60 native and introduced bird species impact Australia's primary industries by consuming and contaminating produce and feed, damaging infrastructure, and posing health and biosecurity risks. Pest birds also impact amenity and outcompete other birds for limited resources, such as tree hollows.

Twenty years ago, the annual cost of pest birds to horticultural industries, including cereal crops, was estimated to be $310 million (Tracey *et al.*, 2007); the management costs of controlling established pest animals, including feral birds, was estimated to be a further $75 million annually (Gong *et al.*, 2009).

Following anecdotal reports of increasing impacts, the Department of Primary Industries and Regions in South Australia (PIRSA), with the Local Government Association (LGA), launched a new initiative to quantify current costs of pest birds to primary industries and communities. As part of that work, independent economists showed most affected sectors include fruit ($542 million annually), grains ($62 million annually) and nuts ($52 million annually) (BDO Services Pty Ltd, 2025).

New insights into the severity and magnitude of the impacts of pest birds provides an impetus to consider new ways to manage them, including population level control tools, such as baits.

1.3 Managing pest birds

Non-lethal tools

Many stakeholders conduct pest bird deterrent activities, deploying exclusion nets, gas guns, and planes to frighten bird flocks away from crops or towns. Studies assessing the efficacy of these tools (Bomford and Sinclair, 2002; Tracey *et al.*, 2007; Scanlon *et al.*, 2017; Rivadeneira *et al.*, 2018)indicate that non-lethal deterrents are ineffective because birds, especially smart birds like corellas, quickly become habituated to the measures, or move to the next property where they continue to cause damage. Fertility control with OvoControl® is available for use on some bird species. It requires repeated consumption during the breeding season, which can last year-round.

Lethal tools

Shooting is commonly used to manage pest birds. Land managers are restricted by the number they can kill, time, and money, meaning that shooting can be an effective deterrent, but is not a population control tool.

Two toxins (alpha-chloralose and 4-aminopyridine) are registered in Australia for the lethal control of pigeons (*Columba livia*), sparrows (*Passer domesticus, P. montanus*, hereafter *Passer* spp.), starlings (*Sturnus vulgaris*) and Indian mynas (*Acridotheres tristis*), but these compounds typically act like chemical repellents and do not reduce population numbers. Strychnine can be used to control emus in Western Australia and Victoria. No toxin is registered for use on other abundant native birds in Australia.

1.4 Developing a bait for pest birds

Baiting is the most efficient and widely used method for controlling most vertebrate pests in Australia. Baits can be effective for large-scale population reductions, and for maintaining low numbers.

One review highlighted that a population reductions were achieved by farmers illegally poisoning birds, including little corellas (*Cacatua sanguinea*) (Bomford, 1992). Illegal poisoning of pest birds is unacceptable; that it occurs even occasionally demonstrates the desperation of some landholders. Access to a safe, effective, and humane bait to reduce impacts from pest birds is apparently needed for primary industries and other land managers who are struggling with the impacts of pest birds.

While species specificity and non-target impacts are important and relevant for registration, an assumption of this work is that the bait would be dispensed in a species-specific feeder. As such, many off-target impacts would be mitigated, and the assessment of humaneness in this review is focussed on pest birds and secondary impacts, rather than direct impacts on non-target species. Species-specific feeders have been demonstrated for lethal baiting of feral deer and goats, with 100% of non-target species, including macropods, rodents and birds, being excluded (NSW National Parks and Wildlife Service Invasive Projects and Research Unit (IPRU), 2024).

Three toxins are assessed in this review, they are sodium fluoroacetate, cyanide, and DRC-1339, (in no particular order). Toxins used for pest bird control in Australia and excluded from this review include anti-coagulates (e.g., pindone, warfarin, brodifacoum), cholecalciferol, and strychnine.

2 Candidate toxins

2.1 Sodium fluoroacetate (1080)

2.1.1 General information and history of use

Sodium fluoroacetate, commonly known as 1080, is both a naturally occurring and synthetic chemical, which has been used as a toxin to control vertebrate pests in Australia since the 1950s (Calver and King, 1986). It is biosynthesised by plants, with the toxin being recorded in over 40 species of native Australian plants (Claridge *et al.*, 2006). 1080 is used to control pest animals in Australia and New Zealand.

1080 is toxic to many vertebrate species, particularly mammals, and was introduced in Australia in the 1950s for rabbit control. It is now used to control wild dogs, foxes, feral cats, and pigs (McLeod and Saunders, 2013); over 100,000 1080 fox baits are deployed annually across South Australia, for example. New trials have also demonstrated it to be an effective and humane toxin for the lethal control of feral deer (PIRSA, 2025). Outside of Australia, 1080 has been used to control rats, possums, stoats, and rabbits in New Zealand. Livestock protection collars containing 1080 are approved to control coyotes in USA (APVMA, 2008), and 1080 is approved as a rodenticide in Israel, Japan, Korea, and Mexico (McCranor *et al.*, 2019).

1080 has not been used to control birds; many bird species are reportedly moderately sensitive to the toxin (McIlroy, 1984). However, reports exist of deaths from 1080 poisoning in scavenging birds such as magpies, crows, and pest species such as sparrows, starlings, doves, and pigeons (APVMA, 2008).

2.1.2 Toxicity to birds

1080 is absorbed through inhalation or ingestion, and may also be absorbed though cuts, but not through intact skin (McLeod and Saunders, 2013). Once absorbed, toxicity arises through inhibition of tricarboxylic acid cycle (McLeod and Saunders, 2013), resulting in energy deprivation. The decline in

energy production can affect any organ with high metabolic rates (Mcilroy, 1984), making this a potentially good candidate for birds due to their higher metabolic rate compared to similar-sized mammals (Holmes and Austad, 1995).

There is a lag between bait consumption and first sign of symptoms (McLeod and Saunders, 2013). For birds, McIlroy (1984) showed that signs of poisoning post 1080 bait consumption occurred within 1-60 hours, and birds that received a lethal dose died within 1-262 hours, with the large variation in times being linked to metabolic differences among species.

Parrots (Psittaciformes) are particularly sensitive to 1080, with LD50 values indicating it is highly toxic to species such as the crimson rosella (*Platycerus elegans*) and Australian ringneck (*Barnardius zonarius*), and similarly high sensitivity has been observed in little corellas (*Cacatua sanguinea*). Introduced pest birds like starlings, house sparrows, and feral pigeons also show high susceptibility, with LD50 values making 1080 highly toxic for these groups. In contrast, the emu is far less sensitive, with a much higher LD50, meaning 1080 is moderately toxic to this species.

Use of 1080 has typically not targeted birds, with most research focusing instead on reducing unintended impacts during baiting for other species such as the brushtail possum. A review of aerial baiting in New Zealand found that 6.5% of tagged native birds died in treated areas compared to 2.1% in non-baited controls. Earlier studies also showed that certain bait types, such as raspberry-lured carrot and apple baits, were attractive to birds and led to increased unintended mortality.

No comparable studies are available from Australia; birds are known consumers of surface-laid grain and meat baits (McIlroy, Gifford and Forrester, 1993), with emus and corvids observed taking wild dog baits (H. Miller pers. obs., Kreplins and Algar, 2025). Trials of 1080 baiting of feral pigs showed around 19% of baits were moved by birds (Australian magpies, raptors) and lizards (varanids), but less than 2% of baits were consumed (Gentle, Speed and Pople, 2014); studies have demonstrated that birds of prey (raptors) from north-western Australia have a high tolerance to 1080 (Martin and Twigg, 2002). (Fleming et al. (2000) reported that 58% of meat baits were consumed by birds. These studies show that birds will consume 1080 baits in Australia.

2.1.3 Delivery methods

1080 has been delivered to pigs using grain, and to deer using oats and other grains. A food bait would be an effective means for delivering 1080 to pest birds, with substrate type being determined by dietary preferences. Grain, fruit and other crops targeted by pest birds have been identified by PIRSA (2026) that could be used for delivery.

2.1.4 Humaneness

The cause of death varies among individuals and species, but is typically from organ failure, because of a decline in energy reserves and disruption of the central nervous system. Observations indicate that when the animal shows signs of central nervous system dysfunction in the latter stages of absorption, they are less likely to experience pain or distress during this time (Gregory, 1996).

In herbivorous mammals symptoms of distress are minimal compared to carnivores mammals (PIRSA, 2026). In birds, early signs of poisoning may include vomiting, or attempts to vomit, and hypersensitivity. Most birds fluff their feathers out and occasionally shiver, are reluctant to walk or fly, and become uncoordinated. Rapid panting, vocalisations, and violent flapping can occur, prior to convulsions, slow breathing, paralysis, and death (Mcilroy, 1984).

2.1.5 Environmental and human health impacts

The environmental and human health impacts of 1080 have been thoroughly studied because it is widely used in Australia on a range of pest species. 1080 biodegrades in water, soil, and animal carcasses (King, 1990). Many Australian mammalian species have demonstrated tolerance to 1080. In South Australia reintroduced threatened quolls and possums are thriving in regions where fox and wild dog baiting is common (e.g. Ikara-Flinders Ranges National Park)

Pest birds can move away from the baiting site and experience symptoms and die; adverse outcomes from that scenario include dead or dying birds being eaten by scavenging animals, leading to secondary poisoning. This risk is mitigated by bait label conditions, which would require notification of neighbours and signage, as well as by the reduced mobility of birds following consumption of bait.

2.1.6 Practical considerations

- Training and authorisation: Handlers must hold appropriate authorisation, such as an Agricultural Chemical Users Permit with a 1080 endorsement, before working with 1080 products.
- Notification of use: Neighbours within 1 km of the baiting location must receive notification at least 72 hours (and sometimes up to 4 days) before baits are laid.
- Signage: Warning signs are required at all property entrances, baiting area entry points, and along with any bordering public thoroughfares, and must remain in place for a minimum of four weeks after the program ends.
- Minimum distance requirements: baits must be laid at least 150m from any dwelling, 20m from permanent water sources, and 5m from boundary fences, though these distances vary between states.
- Disposal of unused bait: Any unused or uneaten bait must be collected and disposed of by deep burial (at least 500mm) or incineration.

3.3 Cyanide

3.3.1 General information and history of use

Cyanides are compounds that occur naturally in plants. Globally, cyanogenic glycosides (compounds that release cyanide) are found in thousands of plant species, where they act as a defence mechanism against herbivores and other plant pests. In Australia, these compounds are found in over 130 plant species, but unlike for 1080 (see 1080 Environmental and human health impacts), no indication of cyanide tolerance is known in native animals.

First synthesised in 1782, cyanide was registered as a pesticide in 1947 to control ants in the United States (USDA-APHIS-Wildlife Services, 2019). Cyanide was first approved for use on pest mammals in New Zealand in the 1960s to control possums, and has since been used to control tammar and Bennett's wallabies (Ross *et al.*, 2011; Shapiro *et al.*, 2011) and coyotes, wild dogs and foxes (USDA, 2019). It is registered as a pest control tool in the United States and New Zealand. In Australia cyanide was approved under special permit to control brushtail possums on Keppel Island in Queensland. Cyanides have been trialled as a poison for pigs (Gentle et al., 2011), foxes (Marks and Gigliotti, 1996), wild dogs, Bennett's wallabies, brushtail possums, and goats (McLeod and Saunders, 2013) and was assessed for the control of deer (Davis *et al.*, 2016).

Cyanide is considered humane because of rapid onset of symptoms and time to death, low risk of secondary poisoning, and little persistence in the environment (Statham *et al.*, 2010). Cyanide is highly toxic to all vertebrates, including humans, and has low palatability.

3.3.3 Toxicity to birds

Cyanides have high toxicity, with levels being dependent on the exposure dose, type, and length (USDA, 2019). The toxin is readily absorbed through inhalation, ingestion, or skin contact (McLeod and Saunders, 2010, USDA, 2019). Cyanide disrupts energy metabolism by preventing the transfer of oxygen, depressing the central nervous system, resulting in rapid suffocation and death (Wiemeyer *et al.*, 1986; John Hopkins University, 2022).

The onset of symptoms is usually within 15 seconds and can be up to 10 minutes (Cope, 2021). Symptoms include vomiting, breathing difficulties, weakness and lethargy, loss of coordination, and irritation of the eyes, nose, and throat (Cope, 2021). Severe poisoning can result in convulsions, paralysis, loss of consciousness, cessation of respiration, and cardiac arrest (McLeod and Saunders, 2013). In birds, large doses will generally result in death within 1-41 minutes but can take up to 3 hours in birds that receive small doses (Dumonceaux and Harrison, 1994).

Toxicity data in birds are limited, but evidence indicates that raptors and scavengers are more susceptible to cyanide poisoning than non-predatory species. Hawk-like birds such as the American kestrel and scavengers like the black vulture have very high toxicity levels (LD50 ~4.0–4.8 mg/kg), compared with higher LD50 values (>17 mg/kg) in species like the European starling and domestic chicken. This increased sensitivity is attributed to the lower digestive pH in predatory birds, which accelerates cyanide breakdown and leads to more rapid release of the toxin (Wiemeyer *et al.*, 1986; Donato *et al.*, 2007).

3.3.4 Delivery methods

Cyanide has been delivered on pastes, pellets, and in ejector devices. Cyanide pastes have been used to control possum populations in New Zealand, where there have also been reports of bait shyness (Morgan *et al.*, 2001). Pastes were trialled to control pigs and foxes, but concerns around effective formulations, environmental stability, and palatability halted further exploration (Gentle *et al.*, 2011).

In New Zealand, cyanide is also delivered to possums and wallabies through encapsulated pellets (Feratox®). The pellets were developed to overcome bait shyness and improve the stability of cyanide in the environment. The pellets comprise 120 (possum) or 200 (wallaby) mg per kg of cyanide powder, coated in a capsule; it requires jaw compression to crack open, and has a coating of sugar and flour as an attractant. The capsule protects the cyanide from air and moisture, allowing it to remain stable in the environment (Statham *et al.*, 2010; Connovation, no date).

A single pellet contains enough cyanide to kill birds, but no evidence exists that small birds have the strength to break the hard outer shell (Connovation, no date). Larger birds, including weka (*Gallirallus australis*) have been killed by Feratox®, because they are large enough to swallow the pellets (Thomas and Ross, 2007).

In the US, cyanide is delivered to target livestock predators, including coyotes, wild dogs, and foxes, using ‘canid pest ejector’ (CPE) devices. These devices are baited, and spring loaded; they release a single dose of cyanide into the mouth of an animal that pulls on the baited capsule. One capsule contains enough cyanide to be lethal to canids through oral, inhalation, and skin contact (USDA, 2019, Marks and Gigliotti, 1996).

3.3.5 Humaneness

Salivation, excess generation of tears and irritation of the eyes, uncontrolled urination and faeces and discolouration of mucous membranes may occur. Muscle twitching is involuntary and progresses to generalised spasms and coma before death. Animals may stagger and struggle before collapse. Sudden death may also occur with few symptoms.

Time to death ranges from 3-12 minutes in rabbits (USDA-APHIS-Wildlife Services, 2019), 29 minutes in mice (USDA-APHIS-Wildlife Services, 2019), 19-70 mins in pigs (Gentle et al., 2011) and 22 minutes in Bennett's wallabies (Ross *et al.*, 2011).

3.3.6 Environmental and human health impacts

Degradation behaviour of cyanides varies in different environments. Cyanide is soluble in water, posing a high risk of contaminating ground water (Ya *et al.*, 2022). They persist in the environment for several days (Department of Climate Change, Energy, the Environment and Water, 2022).

3.3.7 Practical considerations

Risks to non-target species would be mitigated by bait label conditions, which would require notification of neighbours and signage, as well as by the reduced mobility of birds following consumption of bait.

4.4 DRC-1339

DRC-1339 (3-Chloro-p-toluidine hydrochloride), also known as Starlicide®, is a slow acting avicide that is toxic to some pest bird species and some mammals. It is considered humane, with high selective toxicity, delayed on-set of toxicity, and a low risk of secondary poisoning (Decino, Cunningham and Schafer, 1966). DRC-1339 is registered for use in the USA and New Zealand for use on pest birds.

4.4.1 General information and history of use

DRC-1339 was first registered as a toxin for pest birds in the USA in 1967 (USDA-APHIS-Wildlife Services, 2019). DRC-1339 is a water soluble organochlorine that was identified as a potential toxin by the Denver Research Centre after evaluating over 2000 chemicals for pest starling control (Eisemann, Pipas and Cummings, 2003). DRC-1339 has been tested on a wide range of avian species, as well as mammals (Dawes, 2006). It was highly toxic to starlings, had low toxicity to mammals, produced a slow, non-violent death that reduced bait aversion, and had minimal secondary poisoning risks (Decino, Cunningham and Schafer, 1966).

DRC-1339 is an effective tool for the control of starlings, pigeons, blackbirds, corvids, and gulls (Klug *et al.*, 2023). The chemical was registered for use on starlings and rooks (New Zealand), mynas (Cook Islands and Seychelles) and Indian house crows (Kenya) (Klug *et al.*, 2023; BBC News, 2024). An application to import DRC-1339 into Australia has previously been approved, with the compound trialled as a toxin for the control of starlings in the early 2000s (Invasive Animals CRC, 2012).

The use of this toxin provides potential for development of effective feed strategies using trials to refine its use on pest birds in Australia.

4.4.2 Toxicity to birds

Studies assessing DRC-1339 toxicity to starlings, which were dosed via three pathways (oral, bait consumption, and intravenously) showed similar LD_{50} of 'very highly toxic' (3.8 mg/kg, 4.2 mg/kg and 3.5 mg/kg respectively) (DeCino et al., 1966). Absorption of DRC-1339 results in the impaired function of the kidney and liver, with death resulting from nephrotoxicity, uremic poisoning, and congestion of major organs (Nelson, 1994; Dawes, 2006). Birds that receive a lethal dose will generally die within 3-50 hours after death, but up to 80 hours to death has been recorded (Nikodémusz and Imre, 1982; Dawes, 2006).

Toxicity data for over 55 bird species were summarised by Eisemann et al. (2003). In Australia, corvids, pigeons and doves, quail, gulls, ducks and swans, and species of the Icteridae family (starlings,

blackbirds, and common mynas) are the most sensitive to DRC-1339. Multiple pest bird species in Australia are from the Psittacidae family (e.g., little corellas, long-billed corellas), of which information on the toxicity is limited, except for the budgerigar to which DRC-1339 is 'moderately toxic' (LD_{50} 242 mg/kg).

In the United States, early trials of DRC-1339-treated poultry pellets destroyed 75% of starlings (from an initial population of 2,280) in seven days (Besser, Royall and Degrazio, 1967) and 93% of starlings (from an initial population of 1,800) in 4 days (Royall, DeCino and Besser, 1967). Another study showed a starling population reduction of 80% over four months (West, 1968) and a 90% reduction over 36 days (Stickley Jr, 1979). West (1968) reported 94% of birds were destroyed within the first seven weeks of the baiting program. These studies noted that other bird species fed from baited feedlots or were observed nearby; however, blackbirds were the only reported non-target species that was killed.

DRC-1339 has also been used in attempts to eradicate pest birds from the Cook Islands. The initial aim of the program was to control Common Myna numbers using DRC-1339 and trapping. As the benefits of reduced populations became apparent, the program changed to an eradication. After 3.5 years, 11,500 birds were killed using DRC-1339 baits (Avery and Feare, 2020).

4.4.3 Delivery methods

A wide variety of DRC-1339 bait substrates have been deployed, with different foods mobilised for targeting of different species. A study of DRC-1339 bait preferences for starlings demonstrated a preference for poultry pellets over other substrates, including cracked corn mixed with lard, distiller's grain (wet powder and pellets), and livestock feed (calf-started pellet and sweet-feed mix) (Homan et al., 2010). Baiting programs in New Zealand and USA applied DRC-1339 to cereals, cereal pellets, bread and drippings, sultanas, and potato chips during ground baiting operations. Maize, shelled walnuts, grub grass beetles and cooked macaroni were less preferred bait substrates (Nelson, 1994). In New Zealand, bread was successfully substituted for maize and shelled walnuts after bread attracted off-target species (magpies and black-backed gulls) or was not being consumed by rooks (Porter, Clapperton and Coleman, 2008). Rooks were baited during seasons when their preferred foods were scarce. DRC-1339 has also been injected into hard-boiled chicken eggs, which are then consumed by particular target bird species such as ravens (Spencer, 2002).

In USA, a large and baiting program targeting blackbirds was conducted on harvested rice fields during late winter and early spring, when alternative foods were limited (Glahn and Wilson, 1991). Bait uptake was negatively related to the amount of alternative food sources. Linz and Bergman (1996) reported no change in the number of blackbirds around sunflower fields after baiting; the baiting began when sunflowers were ripening, and blackbirds showed a strong preference for the ripening crops.

4.4.4 Humaneness

DRC-1339 is considered humane, with susceptible species displaying minimal outward clinical signs of toxicity (Timm, 1983; Dawes, 2006). The central nervous system becomes depressed, resulting in cardiac or respiratory arrest. Death can occur within one to three days of symptoms emerging. Birds that ingested a lethal dose of the compound died a quiet death; there was no flapping, convulsing, vocalisation or any other indication of pain or distress (Williams and Corrigan, 1994; Dawes, 2006). In non-targets, symptoms can also be successfully treated (USDA-APHIS-Wildlife Services, 2001). No evidence of lethal position of non-target species exists in field conditions; however, during toxicity trials, death from DRC-1339 was reported to be quiet and painless (Schafer Jr, 1984).

4.4.5 Environmental and human health impacts

DRC-1339 poses low risk of primary or secondary poisoning to non-target species (Bentz et al., 2007). The risk of primary poisoning of non-target species is minimised because of high selective toxicity to target pest bird species. The slow action of DRC-1339 allows the chemical to be mostly metabolised into

a non-toxic substance and excreted prior to death, minimising secondary poisoning to non-target species (Spencer, 2002; USDA-APHIS-Wildlife Services, 2022). Approximately 90% of the toxin is metabolised and excreted within 2 hours of ingestion, with residues highest in the kidneys (Cunningham, Schafer Jr and McConnell, 1979; Goldade, Tessari and Johnston, 2004).

DRC-1339 has a low risk of secondary poisoning. Scavengers and predators would need to consume two to three times their body mass to receive a lethal dose due to low levels of residue (Cunningham, Schafer Jr and McConnell, 1979). Dogs, cats, pigs owls, foxes, and hawks have been observed scavenging on birds killed with DRC-1339, yet no animals were observed to suffer from secondary poisoning (Besser, Royall and Degrazio, 1967; Ford, 1967; Royall, DeCino and Besser, 1967; Lefebvre *et al.*, 1979).

Crows are highly sensitive to DRC-1339, indicating a risk of secondary poisoning in susceptible species. (Cunningham, Schafer Jr and McConnell, 1979) suggested that for such species, the risk of secondary poisoning exists if animals feed solely on poisoned birds for an extended period (i.e., > 30 d). Off-target risk can be mitigated by identifying bird species and determining their sensitivity to DRC-1339 at baiting sites (Kostecke, Linz and Bleier, 2001).

DRC-1339 does not remain active for extended periods. It does not bioaccumulate like other organochlorines (e.g., dichlorodiphenyltrichloroethane (DDT)), and will degrade rapidly in soil when exposed to sunlight, heat, or ultraviolet radiation (Cowan *et al.*, no date). Baits exposed to these treatments lost their efficiency after three days, or after one year in storage with no treatment (NPCA, 2018). DRC-1339 strongly binds to organic matter and has an average half-life of 0.17 days in soil (reviewed in USDA, 2022). If DRC-1339 leaches from a bird feeder into the environment, it will degrade quickly, or bind to soil organic material, reducing risk of uptake by plants. The rapid and irreversible binding to organic matter also means that there is no risk of exposure because of vaporisation back into the atmosphere, nor through groundwater and surface water.

Despite its resistance to hydrolysis, DRC-1339 is unlikely to bioaccumulate in water, because light will degrade the toxin (Cowan et al., 2010, USDA, 2001). The half-life in water is estimated to range from 6.5 to 41 hours, with degradation occurring faster in summer (USDA, 2001). Some aquatic invertebrates may be sensitive to DRC-1339, but marine species may be more tolerant (96-hour LC_{50} in water fleas = 0.079 mg/L, white river crayfish = 15 mg/L, blue crab = 16.0 mg/L) (Walker et al., 1979, Marking and Chandler Jr, 1981). It is thought to be moderately toxic to fish (bluegill sunfish = 11 mg/L, rainbow trout = 9.7 mg/L southern leopard frog tadpoles = 44 mg/L) (USDA, 2001).

DRC-1339 is hazardous to humans if swallowed, inhaled, or absorbed through the skin (Sterner, Elias and Cerven, 1992), however, no human exposure cases have been documented (USDA, 2022). In the USA and New Zealand, only trained and licensed operators can apply and place the baits.

4.4.6 Practical considerations

Optimal baiting periods need to be identified to ensure uptake by pest-birds and effective control. The availability of alternative food influences the uptake of pest-birds, with greater uptake achieved during snow-cover months in USA.

DRC-1339 is the best studied and most used avicide for the control of pest birds and has been used for the control of rooks throughout New Zealand. The species selectivity, low risk of secondary poisoning, and humaneness of DRC-1339 make this toxin a promising control tool for pest birds throughout Australia. Investment in developing baiting strategies would improve the success of previous field trials (Bentz et al., 2007).

Reduced impacts have been reported with control activities targeting pest birds. A two year DRC-1339 baiting program targeting blackbirds was estimated to remove between 1.3 and 2.7 million birds annually Glahn and Wilson (1991). The blackbirds were damaging sprouting rice, during the program, growers reported a reduction in impacts exceeding 80% (Glahn and Wilson, 1991). In New Zealand, DRC-1339

has been used to reduce numbers of rooks, and more recently starlings. A large baiting program delivered between 1971 and 1985 was estimated to have removed 86,000 rooks and reduced costs associated with their damage from $154,000 in 1970 to almost no cost in 1980s (Porter, Clapperton and Coleman, 2008).

5. Recommendations

Based on history of use, humaneness and minimal poisoning of non-targets, DRC-1339 and 1080 (in order) are potential candidate toxins for overabundant pest birds in Australia.

5.1 Sodium fluoroacetate (1080)

Australian land managers are experienced in using 1080 since the 1950s providing an established regulatory and operational framework that could be adapted for pest bird control.

Proven efficacy: 1080 has reduced abundances of ship rats (*Rattus rattus*), brushtail possums (*Trichosurus vulpecula*) and stoats (*Mustela erminea*) in New Zealand (Kemp, Elliott and Hunter, 2018).

Favourable toxicological profile: The toxin's natural occurrence in many native Australian plants reduces the risk to non-target species, while its biodegradable and non-residual properties minimise environmental persistence (Gooch, Fleming and Meek, 2025).

Industry acceptance: 1080 is accepted one of the key methods for invasive species control in agricultural, pastoral and conservation sectors in Australia. Authorised training and regulations are in place to handle and deliver 1080 products.

Proven Australian potential: 1080 is being used across Australia.

5.2 DRC-1339

DRC-1339 is recommended based on its international track record and favourable characteristics:

Proven efficacy: DRC-1339 has demonstrated effectiveness in reducing livestock feed losses caused by starlings in United States feeding operations (Besser et al. 1967)

Favourable toxicological profile: The compound is considered humane and presents low risk of secondary poisoning to non-target species

Industry acceptance: Research indicates willingness among Australian feedlot and piggery operators to adopt poison baits that are cost-effective, target-specific, and humane (Bentz et al., 2007)

Proven Australian potential: Preliminary feasibility analyses with starlings in Australia have yielded promising results (Bentz et al., 2007)

Economic efficiency: Control programs could use existing affected grain crops as bait, eliminating the need for specialised bait formulations

5.3 Bait research and registration pathway

The next steps to advance regulatory approval and optimise deployment of both toxins for pest bird control include:

Pen trials to:
- Generate empirical evidence for species-specific efficacy
- Refine application protocols and dosing regimes
- Assess humaneness
- Develop comprehensive data packages to support APVMA registration

Field trials:
- Grain production facilities experiencing significant impacts from pest birds
- Grain-handling facilities with documented economic losses
- Diverse agricultural sites across varying climatic conditions and production systems
- Sites with different non-target bird assemblages to assess selectivity

This multi-site approach would be effective to assess efficacy across the range of Australian agricultural conditions required for product registration with the APVMA.

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Pest Bird Control Tool Economic Analysis

A report for the Department of Primary Industries and Regions

1 September 2025

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Abbreviations

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
BCR	benefit cost ratio
CBA	cost benefit analysis
DFA	Department of Finance and Administration
DTF	Department of Treasury and Finance
fte	full-time equivalent
GDP	gross domestic product
GSP	gross state product
IO	input-output
NPV	net present value
PIRSA	Department of Primary Industries and Regions
RISE	Regional Industry Structure and Employment
SA	South Australia

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Executive summary

Introduction and scope

In South Australia, invasive pest birds and overabundant native bird species are causing serious damage to agriculture, ecosystems and communities. Bird control is increasingly urgent due to rising populations and ineffective, costly management tools. Scalable solutions like targeted baiting are needed but currently unavailable.

The proposed coordinated pest bird control case was compared to a base scenario with no such tool developed or implemented. The analysis spanned 2025–26 to 2044–45, including five years for bait development and registration, followed by 15 years of implementation. In the base case, bird populations continue rising; under coordinated control (program case), they return to 2005 levels. PIRSA's pest bird modelling informed the assessment of impacts on South Australia's primary industries and local governments. These findings were scaled nationally using proportional industry impacts.

Cost benefit analysis results

The cost-benefit analysis (CBA) for South Australia of the program case yielded a net present value (NPV) of $604.3 million and a benefit-cost ratio (BCR) of 5.3. The BCR is higher than economic analyses of other recent area-wide pest control initiatives due to lower implementation costs—mainly affordable technology rather than labour-intensive or expensive methods. It also underscores the value of coordinated, effective control compared to the current fragmented and ineffective efforts.

At the national level, including South Australia, the high-level CBA produced a net present value of $5.2 billion and a benefit-cost ratio of 3.3.

The estimated benefits are likely conservative, as they do not account for all affected industries or the full range of social impacts—such as emotional stress—experienced by stakeholders dealing with pest bird issues. The majority of surveyed industry groups and local councils acknowledged that pest birds negatively impact staff wellbeing and pose risks to trade, safety, and biosecurity.

Economic impact analysis results

Over a 20-year period, the development, registration, and implementation of a strategic pest bird control tool is projected to contribute a total of $1.3 billion to South Australia's GSP, with an average annual contribution of $62.7 million. The initiative is expected to result in a net reduction of an average of 172 full-time equivalent (fte) jobs. While employment effects are expected to be initially positive between 2026–27 and 2029–30—driven by activities related to the tool's development and registration—long-term impacts are negative. This is due to reduced time and financial investment by primary industries and local governments in ineffective pest bird control measures.

Nationally, the strategic pest bird control tool is estimated to contribute $13.7 billion to GDP over 20 years, with an average annual contribution of $683.7 million. The most affected sectors include fruit ($542.4 million annually), grains ($62.0 million annually) and nuts ($52.2 million annually). A total average reduction of 660 fte jobs is anticipated. Like South Australia, employment impacts are initially positive from 2026–27 to 2029–30 due to development and registration efforts. However, long-term employment declines as primary industries and local governments allocate fewer resources to ineffective pest bird control practices.

1. Introduction

1.1. Background

Many pest birds in South Australia (SA), including non-native and overabundant native species, have detrimental impacts on economic, social, and environmental resources (Bomford and Sinclair, 2002). For example, information collected 20 years ago, in 2005-2007, indicated that pest birds were costing the grains and horticulture industries across Australia over $300 million annually (Tracey et al., 2007). The social and environmental effects of pest birds can be hard to measure, yet they can be quite significant. In May 2025, one producer who had grown almonds for 40 years said he was leaving the industry in 2025 because of birds and was "devastated" by their impacts (PIRSA pers. comm.).

Increasing reports of pest bird impacts in recent years, including huge flocks of little corellas around Tailem Bend, led the Department of Primary Industries and Regions (PIRSA) to investigate how the impacts from pest birds have changed in the last 25 years, and what new tools could be developed to manage their impacts. This report was co-funded by PIRSA and the Local Government Association of South Australia's Research and Development Scheme[1]. The method of analysis involved workshops, site visits, meetings, phone calls, and online surveys with affected producers and communities. The overarching theme that emerged from stakeholder consultation was that pest bird impacts (and management costs) have increased dramatically over the last 15 years for the primary industries and communities in SA.

While the impacts were not assessed for other jurisdictions, likely, similar types and levels of impacts occur elsewhere. PIRSA staff have received anecdotal evidence of these impacts from counterparts in Western Australia and Victoria, as well as from industry groups. The impact-causing bird species identified in this study are also ubiquitous and abundant across target primary industry areas interstate. Work is needed to quantify the pest bird impacts on primary industries nationally, noting the relatively recent dramatic changes being experienced in SA.

Producers and councils have limited control tools available to address pest bird issues. These stakeholders invest heavily in bird management, deploying exclusion nets, gas guns, planes, falconry, drones and lasers to deter pest birds. Unfortunately, studies assessing the efficacy of these tools (Bomford and Sinclair 2002, Tracey et al., 2007 and Rivadeneira et al., 2018) find non-lethal deterrents to be ineffective because birds, especially smart birds like parrots, quickly become habituated to the measures, or will move to the next property where they will continue to cause damage. Lethal tools include egg-oiling (silver gulls) and shooting, but land managers are restricted by the need to apply for a permit (native species), the number they can kill, time, and money, as well as other constraints, such as social licence.

Baiting is the most cost-effective, efficient, and widely used method for controlling most vertebrate pests in Australia (reference). Two toxins (alphachloralose and 4-aminopyridine) are registered in Australia for the lethal control of non-native bird species (such as sparrows, starlings, and Indian mynas), but these toxins do not typically reduce population numbers (PIRSA, pers. comm.). Strychnine can be used to control emus in Western Australia and Victoria, but it is highly toxic to mammals, so it is rarely deployed. Baits can be an effective tool for large-scale population reductions for vertebrate pests, but there is no current effective bait available for use on pest birds (PIRSA, pers. comm.).

[1] https://www.lga.sa.gov.au/members/services/research-and-publications/library/2024/developing-a-new-bait-for-pest-birds-of-the-grains-industry

1.2. Purpose and scope of the economic analysis

The Government of South Australia anticipates the need to develop a business case for developing an effective area-wide control tool (as a bait) for controlling pest and over-abundant native bird species. The intention is to develop the tool and register it nationally. PIRSA engaged BDO to undertake an economic analysis to support the business case for investment.

The economic analysis includes:

- Cost-benefit analysis (CBA) to assess whether investing in an area wide control tool and strategy is an efficient and appropriate use of government resources (i.e., whether the project provides a positive return to the community). The analysis is completed at two geographic scales: South Australia and Australia.
- Economic impact analysis to assess the economic impact of investing an area wide control tool and strategy on the South Australian and Australian economies, using the extended input-output (IO) RISE model.

The analysis focussed on the impacts on the agriculture industry and local government and their flow-on effects. Analysis of the effects on the natural environment were out of scope.

1.3. Document structure

The rest of the report is structured as follows. An outline of the key characteristics of the CBA and IO methods employed in this study, the scope of costs and benefits and data sources/assumptions are provided in Section 2 of the report. Results of the CBA, including key indicators and sensitivity analysis, are detailed in Section 3. The results of the economic impact analysis are provided in Section 4.

2. Methods of analysis and data

2.1. Cost benefit analysis

2.1.1. Purpose and scope of the cost benefit analysis

The cost-benefit analysis (CBA) was aimed at evaluating the net benefits of a strategic pest bird control tool being developed and implemented in South Australia. Additionally, it provided a scaled estimate of the potential net benefits if the control tool is adopted across Australia over the same timeframe. The results of the CBA present the net benefit (or cost) to the community by appropriately categorising the monetary costs and benefits to all relevant impacted parties. No non-market costs or benefits have been included directly in the CBA but are discussed qualitatively.

The proposed coordinated pest bird control tool development and implementation case (program case) was compared against a base case scenario, in which no coordinated pest bird control tool is developed or implemented, as described in Table 2-1.

Table 2-1 CBA options

Option	Description
Base case	No new coordinated pest bird control tool is developed or implemented. Pest bird populations continue to grow, and agricultural and council losses increase over time. Primary industries and local communities continue to invest in the management of pest birds at a site-by-site level (i.e., no state-wide coordination).
Program case: Pest bird control tool case	A new funding commitment of $5 million is allocated from 1 July 2026 for 4 years to develop and register a new bait for pest birds. By 2030-31, the bait is deployed at scale, and populations of target pest bird species return to 2005-06 levels within 15-20 years (i.e., by 2045-2050). Crop and stock losses return to 2005-06 levels within 15 years. Control costs for primary industries and local government return to 2005-06 levels within 15 years. Social impacts caused by pest bird impacts decrease to 2005-06 levels.

2.1.2. Method of analysis

The CBA followed the South Australian and Commonwealth Government guidelines for conducting evaluations of public sector projects (DFA 2006, DTF 2008). Given that the costs and benefits were specified in real terms (i.e. 2025 dollars), future values were converted to present values by applying a discount rate of 7 per cent, with discount rates of 4 and 10 per cent included in the sensitivity analysis. The analysis was conducted over a 20-year period, which is a reasonable period for the life of the project.

Results were expressed in terms of net benefits, that is, the incremental benefits and costs of the program relative to those generated by the base case scenario. The evaluation criteria employed for this analysis are described below.

- NPV – discounted project benefits less discounted project costs. Under this decision rule, the program case is considered to be potentially viable if the NPV is greater than zero. The NPV for the program case was calculated as an incremental NPV, using the standard formulation:

$$NPV_{Program\ case} = PV\left(B_{Program\ case} - B_{Base\ case}\right) - PV\left(C_{Program\ case} - C_{Base\ case}\right)$$

- BCR – the ratio of the present value of benefits to the present value of costs. Under this decision rule, the program case was considered to be potentially viable if the BCR was greater than one. The ratio was expressed as:

$$BCR_{Program\ case} = \frac{PV\left(B_{Program\ case} - B_{Base\ case}\right)}{PV\left(C_{Program\ case} - C_{Base\ case}\right)}$$

2.1.3. Costs and benefits

As described in Section 2.1.1, the proposed coordinated pest bird control tool development and implementation case was compared against a base case scenario, in which no coordinated pest bird control tool is developed or implemented (as described in Table 2-1). The major economic costs and benefits of the program are listed in Table 2-2.

Table 2-2 In-scope costs and benefits

Item	Cost or Benefit	Agent	Description	Expected change between base case and program case
Produce loss	Avoided cost	Primary producers, packers and handlers	Harvest ready and harvested produce loss (grains, fruit, nuts and winegrapes). Fingerlings and fish food loss (aquaculture)	Costs decrease through reduced produce or input losses
Staff cost	Avoided cost	Primary producers, packers, handlers, local government	Time spent by land managers to control bird numbers	Cost decreases through reduced effort in managing bird numbers
Management cost	Avoided cost	Primary producers, packers, handlers, local government	Cash spent by land managers to control bird numbers and repair damage to infrastructure	Cost decreases through reduced effort in managing bird numbers
Business operating costs	Cost	Primary producers, packers and handlers	Operating costs associated with harvesting and storage (grains, fruit, nuts and winegrapes) and feed (aquaculture)	Increase as more produce is saved to be harvested, packed, stored
Pest bird control tool development and registration	Cost	State Government	Development and national registration of the bait tool for pest bird control	Increase (nil in the base case)
Pest bird control tool implementation	Cost	State and local government	Costs of implementing area wide pest bird control tool program	Increase (nil in the base case)

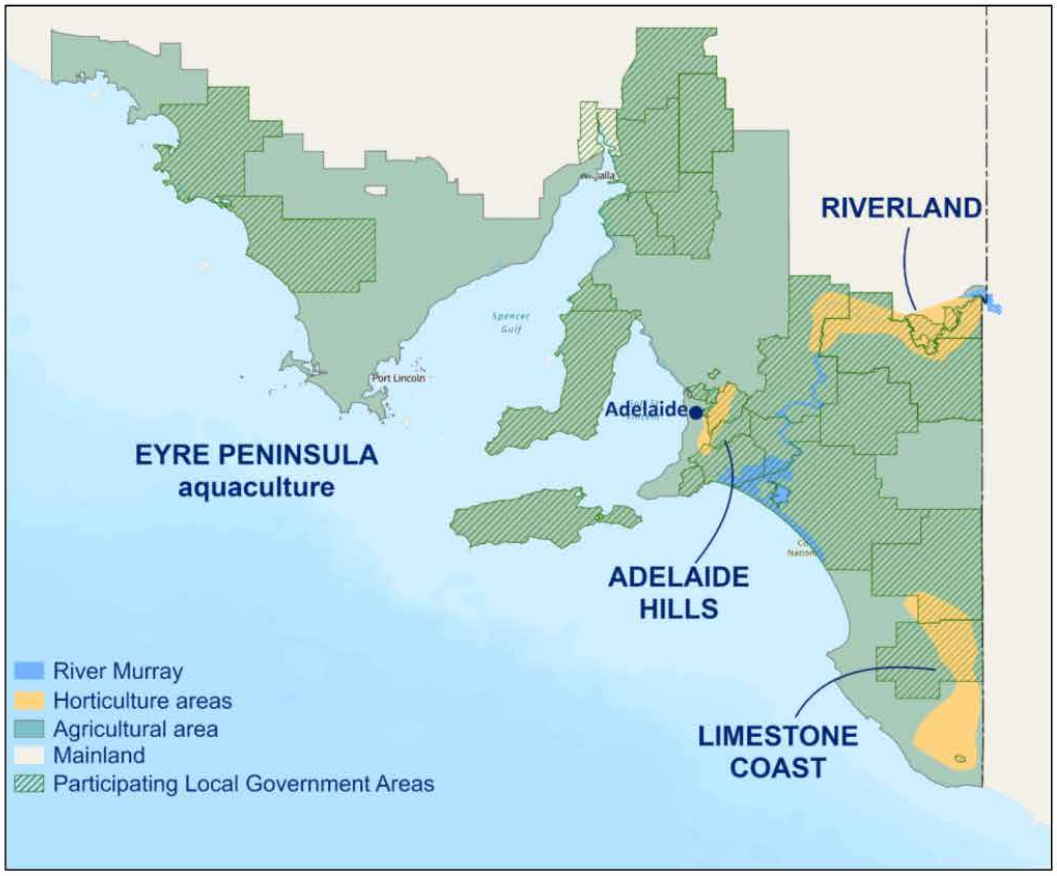
2.1.4. Pest bird population modelling

Pest bird population modelling for the base case and program case was provided by PIRSA. The bird survey data (collected between 1 January 2000 and 12 May 2025) from the Atlas of Living Australia and eBird (Sullivan et. al. 2009) were modelled to identify relative changes in the probability of observing a species during a survey, as a proxy for abundance, as per Campbell et al. (2022).

The datasets were purposefully restricted to two target regions (see Figure 2-1):

1. Agricultural regions of SA, where 5 of the 6 study species are commonly reported to cause damage
2. 30-kilometre buffer (15 kilometres inland and 15 kilometres over water) along the coastline for silver gulls.

Figure 2-1 Primary production and local government regions involved in the assessment of pest bird impacts



Source: PIRSA

Logistic regression models to predict the probability of observing a given species, on a survey list of a given length and year, were fitted for each species independently in R using the *MCMCpack* package. List length was incorporated to account for effort, where surveys with a longer list of species were assumed to equate to greater survey effort.

To predict future trends, detection probabilities were projected for each year from 2000 to 2045, assuming a consistent level of observer effort (based on the median survey length). The model was run many times using random sampling (*MCMCpack*) to capture uncertainty in the predictions. The robustness of the models was confirmed by comparing trends to those published for other Australian major cities (Sydney, Melbourne, Brisbane and Perth) (Campbell et. al. 2022).

The population modelling (see Table 2-3) provides a mean probability of detection on a scale from 0 to 1. For example, a probability of 0.072 equates to 7.2 per cent likelihood of recording that species during a survey. The models showed that two native species, little corella and rainbow lorikeet, are becoming far more abundant across the agricultural landscape in the last 25 years (Figure 2-2). The probability of observing a little corella in the year 2000 was 0.032, which increased by 125 per cent to 0.072 in 2025, and by another 88 per cent to 0.135 in 2045 (overall increase of 322 per cent in 45 years; Table 2-3). The rainbow lorikeet showed the greatest increase of all species between 2000 and 2045 (345 per cent) and were the most abundant species modelled here. The modelling suggests, that by 2045, the likelihood of observing a rainbow lorikeet during a survey is 56 per cent. For the coastal buffer regions, silver gulls had also become more abundant since 2000 (Figure 2-2). The likelihood of observing a silver gull during a survey in 2000 was 10.5 per cent, compared to 13.6 per cent in 2025, and is projected to increase to 16.6 per cent by 2045 (Table 2-3).

Of the non-native species in agricultural areas, the rock dove was increasing in abundance (Figure 2-2), with the probability increasing from 0.053 in 2000 to 0.069 in 2025, and 0.084 by 2045 (a 56 per cent increase; Table 2-3). Both the common starling and house sparrow declined in abundance over time, despite producers often reporting severe impacts from these species (Figure 2-2). It is not known why these populations are declining, but it could be a consequence of growing competition with other species, including native birds occupying the same habitat, or changing urban environments (Campbell et. al. 2022). Note that these trends do not imply that starlings and sparrows are now uncommon (they are very common), rather they are becoming less common than they were, relative to other species.

The trends in SA are very similar to those observed in other major cities of Australia. The rainbow lorikeet and little corella were among the top species with the largest increase in prevalence across all major cities. Silver gulls increased in Sydney and Perth, declined in Brisbane, and were not reported for Melbourne. Similarly for the introduced species, the rock dove increased in three of four major cities, whereas the house sparrow and common starling declined in the same three cities.

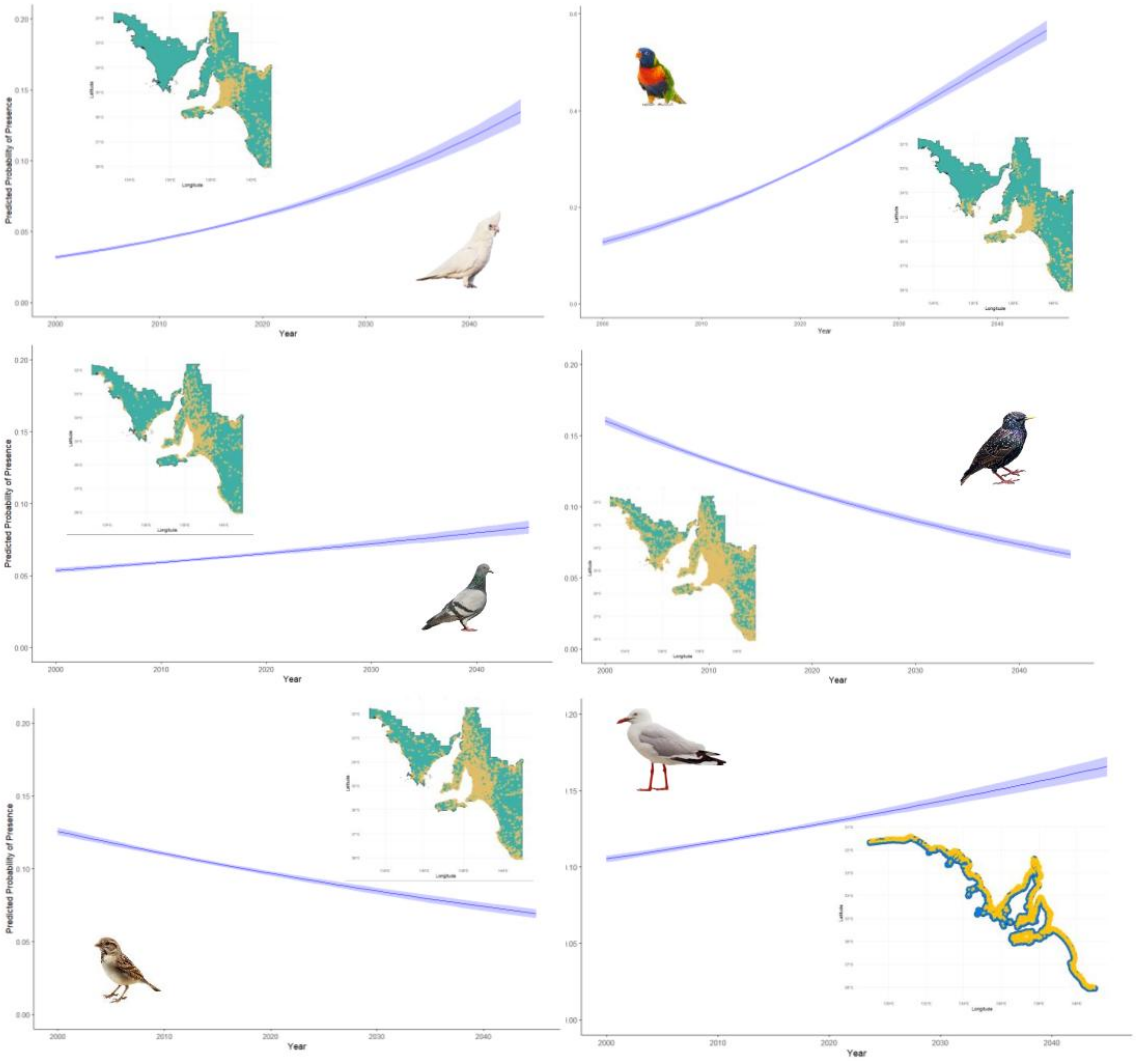
Table 2-3 Change in the mean predicted probability of detecting a species between 2000 and 2045

	Mean probability of detection [95% confidence intervals]			
Species	**2000**	**2025**	**2045**	**% change**
Little corella	0.032 [0.031, 0.033]	0.072 [0.070, 0.075]	0.135 [0.126, 0.143]	322.46%
Rainbow lorikeet	0.127 [0.120, 0.135]	0.33 [0.326, 0.335]	0.566 [0.546, 0.587]	344.6%
Silver gull	0.105 [0.103, 0.107]	0.136 [0.134, 0.138]	0.166 [0.159, 0.172]	57.65%
*Rock dove	0.053 [0.052, 0.055]	0.069 [0.067, 0.071]	0.084 [0.079, 0.088]	56.36%
*Common starling	0.160 [0.157, 0.164]	0.099 [0.097, 0.101]	0.066 [0.063, 0.069]	-58.69%
*House sparrow	0.126 [0.123, 0.128]	0.090 [0.89, 0.092]	0.069 [0.066, 0.072]	-44.94%

* Non-native species.

Source: PIRSA

Figure 2-2 Predicted probability of presence (as a proxy for abundance) between 2000 and 2045 for six impact causing bird species[a]



[a] The light blue ribbon either side of the trend line indicates the 95 per cent confidence intervals. Note the change in scale on the y-axis for the rainbow lorikeet.

Source: PIRSA

2.1.5. Trends in functional feeding groups

To determine impacts on different industries inflicted by multiple bird species, population trends were assessed for different functional feeding groups[2], including those with predominately fish, fruit, grain, and nut diets. These results (see Table 2-4 and Figure 2-3) indicate an increase in all groups. Fruit-eating birds continue to increase from an already high base; fish-eating birds increase steadily; grain-eating birds

[2] Species included in functional groups include fish - silver gull; fruits - rainbow lorikeet, *European starling; nuts - little corella; grains - little corella, *rock dove, *house sparrow; general (local government) - little corella, *rock dove.

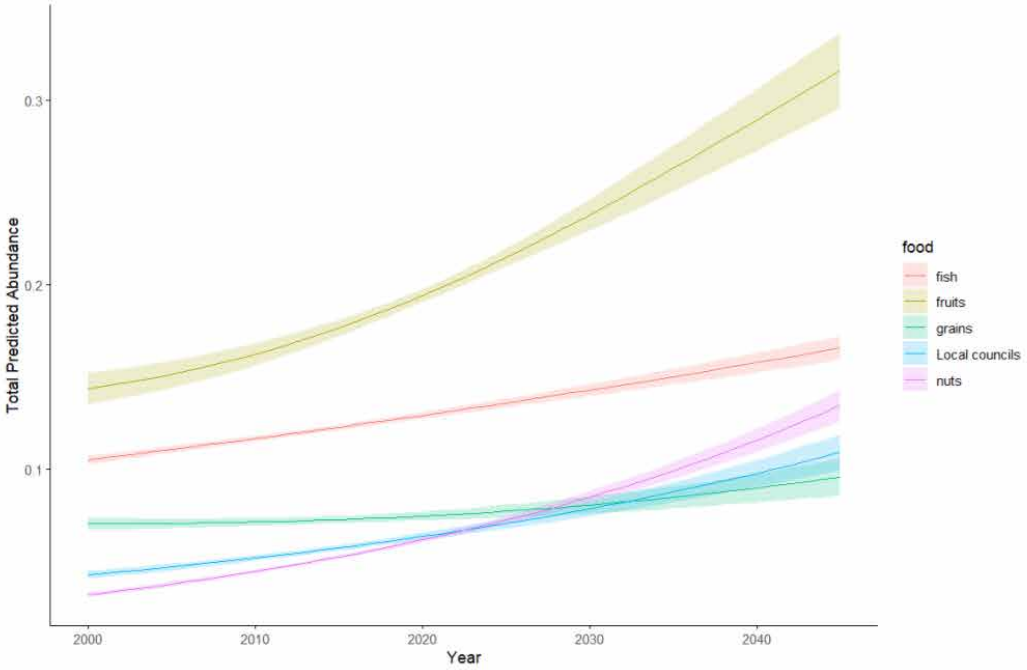
continue to increase dramatically, and nut-eating birds showed the greatest relative increase, of over 320 per cent since 2000 and a predicted 87.5 per cent increase on current levels to 2045 (Table 2-4). The predicted increase in functional groups of pest birds is used to extrapolate expected associated increases in impacts from current to 2045 levels, in subsequent economic projections in this report.

Table 2-4 Mean predicted probability of detecting a functional group between 2000 and 2045

	Mean probability of detection [95% confidence intervals]			
Commodity/group	2000	2025	2045	% change
Fish	0.105 [0.103, 0.107]	0.136 [0.134, 0.138]	0.166 [0.159, 0.172]	57.65%
Fruits	0.144 [0.135, 0.152]	0.215 [0.209, 0.219]	0.316 [0.296, 0.337]	120.00%
Nuts	0.032 [0.031, 0.033]	0.072 [0.070, 0.075]	0.135 [0.126, 0.143]	322.46%
Grains	0.070 [0.067, 0.074]	0.077 [0.074, 0.081]	0.096 [0.096, 0.106]	36.00%
General (local government)	0.043 [0.041, 0.045]	0.070 [0.068, 0.073]	0.109 [0.099, 0.119]	156.00%

Source: PIRSA

Figure 2-3 Predicted probability of presence (as a proxy for abundance) between 2000 and 2045 for five functional feeding groups[a]



[a] The shaded ribbon either side of the trend line indicates the 95 per cent confidence intervals.

Source: PIRSA

2.1.6. Stakeholder engagement

Stakeholder engagement activities to collect impact data were conducted over eight months, from November 2024 to June 2025; they included:

- Phone surveys – 48 completed
- On-line surveys – 66 completed
- Workshops – two completed with over 40 attendees
- Site visits and inspections – six completed.

From over 160 stakeholders, PIRSA collected detailed data on the annual costs of pest birds (e.g., loss of stock or stock feed) and the costs of controlling pest birds (e.g., investment in deterrence tools, staff costs) from 20 to 25 plus years ago, trends in last five to 15 years, and current impacts, as an average in last five years.

Costs were analysed in current (2025) dollars, and the value of production losses were estimated at current farmgate prices. The following bird species were used to model impacts as they were identified as the key impact causing species and representative of the nature and scale of impact:

- Native pest bird species:
    - Little corella (*Cacatua sanguinea*) – large cockatoo that impacts nut and grain industries and local councils
    - Rainbow lorikeet (*Trichoglossus moluccanus*) – medium-sized parrot that impacts the fruit industry
    - Silver gull (*Chroicocephalus novaehollandiae*) – medium-sized coastal gull that impacts the aquaculture industry
- Introduced pest bird species:
    - Rock dove or feral pigeon (*Columba livia*) – medium-sized dove that impacts the grain industry and local councils
    - Common or European starling (*Sturnus vulgaris*) – small-to-medium sized bird that impacts grain and fruit industries and local councils
    - House sparrow (*Passer domesticus*) – small sparrow that impacts the grain industry and local councils.

Costs (value of farmgate losses, management costs and infrastructure costs) were assumed to change in direct proportion to bird population changes.

2.1.7. Quantified costs and benefits

The following costs and benefits were estimated:

Bait development and registration costs

The following data and assumptions were provided by PIRSA:

- $5.0 million investment in developing an effective, humane bait and registering it for use nationally
- Investment spread evenly over 4 years, commencing 2026-27.

Coordinated, area-wide pest bird control deployment costs

The following data and assumptions were provided by PIRSA:

- Ten bait stations, at a cost of $10,000 each are constructed around SA in 2030-31
- Coordination commences in 2031-32 at a cost of $250,000 per year
- Baiting commences in 2031-32 at a cost of $500,000 per year
- Bait stations are repaired or replaced from 2032-33 onwards, at an annual cost of $20,000.

Costs to industry

Costs to industry include direct costs (loss of produce and loss of feed) and pest bird management costs (both cash and in staff time). Costs were assumed to change in direct proportion to bird population changes; and were estimated for the South Australian aquaculture sector (tuna, kingfish and abalone), fruit growing (apples, pears and cherries), nut growing (almonds and pistachio), winegrapes and grains sectors. Table 2-5 to Table 2-9 summarise the estimated rate of population change, costs and staff hours data used to model costs for each of these industries.

Table 2-5 SA aquaculture sector parameters used to estimate cost[a]

Parameter	2025-26	2029-30	2034-35	2039-40	2044-45
Base case					
Rate of population change (factor)	0.01015	0.01008	0.01000	0.00991	0.00982
Direct - lost feed ($m)	2.91	3.03	3.19	3.35	3.52
Direct - lost produce ($m)	1.56	1.63	1.71	1.80	1.89
Management ($m)	0.63	0.65	0.69	0.72	0.76
Staff hours	1,437	1,496	1,573	1,652	1,735
Staff wages ($m)	0.04	0.04	0.05	0.05	0.05
Program case					
Rate of population change (factor)	0.01015	0.01008	-0.01977	-0.02193	-0.02463
Direct - lost feed ($m)	2.91	3.03	2.75	2.48	2.20
Direct - lost produce ($m)	1.56	1.63	1.48	1.33	1.18
Management ($m)	0.63	0.65	0.60	0.54	0.48
Staff hours	1,437	1,496	1,363	1,231	1,098
Staff wages ($m)	0.04	0.04	0.04	0.04	0.03

[a] Parameters were estimated for each year of the analysis. Years 1, 5, 10, 15 and 20 are shown here.

Source: PIRSA

Table 2-6 SA fruit sector parameters used to estimate cost[a]

Parameter	2025-26	2029-30	2034-35	2039-40	2044-45
Base case					
Rate of population change (factor)	0.02067	0.02078	0.02022	0.01905	0.01743
Direct - lost produce ($m)	45.44	49.33	54.56	60.03	65.56
Management ($m)	19.77	21.46	23.74	26.12	28.53
Staff hours[b]	-86,355	-93,757	-103,698	-114,101	-124,606
Staff wages ($m)	-2.55	-2.77	-3.06	-3.37	-3.68
Program case					
Rate of population change (factor)	0.02067	0.02078	-0.07143	-0.11112	-0.25005
Direct - lost produce ($m)	45.44	49.33	35.63	21.92	8.22
Management ($m)	19.77	21.46	16.16	10.87	5.57
Staff hours[b]	-86,355	-93,757	-81,273	-68,790	-56,306
Staff wages ($m)	-2.55	-2.77	-2.40	-2.03	-1.66

[a] Parameters were estimated for each year of the analysis. Years 1, 5, 10, 15 and 20 are shown here.
[b] Reduced hours in the packing sheds from reduced volumes of fruit.
Source: PIRSA

Table 2-7 SA nuts sector parameters used to estimate cost[a]

Parameter	2025-26	2029-30	2034-35	2039-40	2044-45
Base case					
Rate of population change (factor)	0.03258	0.03224	0.03175	0.03119	0.03055
Direct - lost produce ($m)	19.31	21.92	25.65	29.92	34.80
Management ($m)	8.32	9.45	11.05	12.90	15.00
Staff hours	338,040	383,850	449,003	523,824	609,257
Staff wages ($m)	9.99	11.34	13.27	15.48	18.00
Program case					
Rate of population change (factor)	0.03258	0.03224	-0.05130	-0.06900	-0.10535
Direct - lost produce ($m)	19.31	21.92	17.26	12.59	7.93
Management ($m)	8.32	9.45	7.44	5.43	3.42
Staff hours	338,040	383,850	302,654	221,457	140,261
Staff wages ($m)	9.99	11.34	8.94	6.54	4.14

[a] Parameters were estimated for each year of the analysis. Years 1, 5, 10, 15 and 20 are shown here.
Source: PIRSA

Table 2-8 SA winegrapes sector parameters used to estimate cost[a]

Parameter	2025-26	2029-30	2034-35	2039-40	2044-45
Base case					
Rate of population change (factor)	0.02067	0.02078	0.02022	0.01905	0.01743
Direct - lost produce ($m)	32.83	35.64	39.42	43.38	47.37
Management ($m)	46.04	49.99	55.29	60.83	66.43
Program case					
Rate of population change (factor)	0.02067	0.02078	-0.02980	-0.03502	-0.04246
Direct - lost produce ($m)	32.83	35.64	30.90	26.15	21.41
Management ($m)	46.04	49.99	43.83	37.68	31.52

[a] Parameters were estimated for each year of the analysis. Years 1, 5, 10, 15 and 20 are shown here.

Source: PIRSA

Table 2-9 SA grains sector parameters used to estimate cost[a]

Parameter	2025-26	2029-30	2034-35	2039-40	2044-45
Base case					
Rate of population change (factor)	0.00760	0.00891	0.01048	0.01196	0.01329
Direct - lost produce ($m)	134.86	139.64	146.89	155.66	166.07
Management ($m)	18.34	18.99	19.98	21.17	22.59
Staff hours	90,714	93,929	98,804	104,703	111,704
Staff wages ($m)	2.56	2.66	2.79	2.96	3.16
Program case					
Rate of population change (factor)	0.00760	0.00891	-0.00881	-0.00922	-0.00966
Direct - lost produce ($m)	134.86	139.64	133.70	127.76	121.82
Management ($m)	18.34	18.99	18.19	17.38	16.57
Staff hours	90,714	93,929	89,933	85,936	81,940
Staff wages ($m)	2.56	2.66	2.54	2.43	2.32

[a] Parameters were estimated for each year of the analysis. Years 1, 5, 10, 15 and 20 are shown here.

Source: PIRSA

The current estimate of production losses for grains ($134.9 million) is approximately 3.7 per cent of the farmgate value ($3.7 billion) and 3.0 per cent of the export value ($4.5 billion) of grain production in SA in 2023/24 (PIRSA 2025)[3].

[3] To put these losses into context, Murray and Brennan (2010) estimated losses from three major wheat pathogens to the national wheat crop of $447 million (with control) and $994 million (without control) in 2008 dollars.

Costs to local government

Costs to local government included pest bird management costs (both cash and in staff time). As per the primary industries, costs were assumed to change in direct proportion to bird population changes. Table 2-10 summarises the estimated costs modelled for local government.

Table 2-10 SA local government parameters used to estimate cost[a]

Parameter	2025-26	2029-30	2034-35	2039-40	2044-45
Base case					
Rate of population change (factor)	0.02145	0.02175	0.02206	0.02229	0.02241
Management ($m)	1.41	1.54	1.71	1.91	2.14
Staff hours	7,735	8,429	9,398	10,491	11,719
Staff wages ($m)	0.42	0.46	0.51	0.57	0.64
Program case					
Rate of population change (factor)	0.02145	0.02175	-0.03511	-0.04259	-0.05412
Management ($m)	1.41	1.54	1.30	1.06	0.83
Staff hours	7,735	8,429	7,131	5,834	4,536
Staff wages ($m)	0.42	0.46	0.39	0.32	0.25

Source: PIRSA

Avoided operating costs

With produce loss, operating costs associated with harvesting and storage were assumed to be reduced proportionately. Table 2-11 summarises the estimated reduced costs modelled for the primary industries.

Table 2-11 Avoided operating costs, SA primary industry

Primary industry	2025-26	2029-30	2034-35	2039-40	2044-45
Base case					
Aquaculture ($m)	0.41	0.43	0.45	0.48	0.50
Fruit ($m)	23.56	25.58	28.30	31.13	34.00
Nuts ($m)	2.80	3.18	3.72	4.34	5.05
Winegrapes ($m)	5.53	6.00	6.64	7.31	7.98
Grains ($m)	13.77	14.26	15.00	15.90	16.96
Program case					
Aquaculture ($m)	0.41	0.43	0.39	0.35	0.31
Fruit ($m)	23.56	25.58	18.48	11.37	4.26
Nuts ($m)	2.80	3.18	2.50	1.83	1.15
Winegrapes ($m)	5.53	6.00	5.21	4.41	3.61
Grains ($m)	13.77	14.26	13.65	13.05	12.44

Source: BDO analysis

The following gross margin data were used to estimate the reduced operating costs per million dollars of farmgate production (output):

- Aquaculture: $270,000/$m output, based on BDO (2025)
- Fruit: $520,000/$m output, based on Naturalogic and EconSearch (2015)
- Nuts: $150,000/$m output, based on Pocock (2007)
- Winegrapes: $170,000/$m output, based on Wheeler et al. (2022)
- Grains: $100,000/$m output, based on ABARES (2025).

Australia-wide cost assumptions

PIRSA did not complete a detailed assessment of pest bird populations and impact on primary industries and communities in other jurisdictions. However, based on anecdotal evidence received from counterparts in Western Australia and Victoria, and from industry groups, it is likely that similar types and levels of impacts occur in other Australian jurisdictions. To assess national production losses, local impacts from SA, including crop losses and management costs, were extrapolated to a national context. This analysis assumes uniform effects across targeted crops and aquaculture sectors. The resulting estimates of potential production losses are indicative and serve to illustrate the possible broader impacts (Table 2-12). These costs include SA impacts.

Table 2-12 Australia-wide cost assumptions

Industry	Industry GVP ($m)	Current production losses ($m)	Management costs	
			Cash ($m)	Staff Hours ('000 hours)
Aquaculture	2,136.0	21.4	1.3[a]	3.2[a]
Cherries	215.7	64.7	364.4[a]	-1,639.6[a]
Apples	989.9	178.2	Included in above[a]	Included in above[a]
Pears	129.4	19.4	Included in above[a]	Included in above[a]
Winegrapes	1,005.0	76.4	94.9[a]	Nil[a]
Almonds	1,690.1	166.9	65.7	2,628.0
Grains	12,250.0	500.0	47.0	470.0

[a] Estimated by BDO based on SA data

Source: PIRSA

Production losses, management cash costs and staff time were scaled up over the 20-year analytical period based on the relative magnitude of production losses. Where national management costs (cash and time) were provided, these were used to scale up their respective SA values over the analytical period.

Bait development and registration costs were included in the national analysis as per the SA analysis (i.e. without scaling). Coordinated, area-wide pest bird control costs were included in the national analysis and were scaled up based on the aggregate production losses.

Due to a lack of suitable information, local government costs were included without scaling up.

2.1.8. Unquantified costs

While difficult to quantify in dollar terms, it is important to note the social risks associated with pest birds. Table 2-13 shows that most industry groups and local councils agreed that pest birds affected staff wellbeing

and created trade, safety and biosecurity risks. Relevant related comments are provided below Table 2-13 in verbatim.

Table 2-13 Percentage agreement with statements about pest birds

Pest birds....	Aquaculture	Fruit	Nuts	Grapes	Fruit storage	Grain storage
affect staff wellbeing	100%	80%	93%	50%	Agree	Agree
create market and trade risks	100%	83%	92%	83%	Disagree	Agree
create serious health and safety concerns	100%	83%	100%	25%	-	Agree
are a biosecurity risk and biohazard	100%	83%	93%	50%	-	Agree

PIRSA, pers. comm.

".. the last 10 years it's been getting worse, now it's unbearable, made growing a misery"

"... we got out of the [horticulture] *industry because of the birds"*

"...I spent $0.5 million on staff wages for thinning out the apples, the next week the birds decimated the remaining fruit, we won't harvest that block this year"

"The impacts of little corellas on people are equal to mice and rabbits when they are in plague proportions, e.g. damaging trees and infrastructure and, for some people, allowing no sleep for months on end, and turning ordinary people suicidal, angry and stressed"

"There needs to be an overall state effort to reduce and control little corellas as they seem to go from one council to the next as each does its own control action"

"Council has been advocating to local Landscapes SA Boards and the State Government to implement better control methods"

"As there is no help from State or Commonwealth Governments, the weight of management falls on underfunded, small, rural, and regional Councils with few resources, large areas, and no method of controlling the problem"

2.2. Economic impact - method and data

2.2.1. Economic impact models

Economic impacts of the pest bird control tool's development and implementation were analysed using SA and Australian RISE (regional industry structure and employment) models based on 2022/23 data. RISE models are extended input-output (IO) models developed by BDO over a decade and updated occasionally for use by the Department of the Premier and Cabinet, Government of SA.

IO models are widely used to assess the economic contribution of existing levels of economic activity and the economic impact of shocks. The models are based on IO tables that describe the interdependencies between industries within the regional economy and with the economy outside of the region. This makes the comprehensive economic framework provided by the RISE models useful for disentangling the direct and flow-on effects of activity in an economy.

The IO method used in the RISE model has been extended to incorporate population and unemployment changes. Modelling population allows for the impacts on population driven sectors, such as government administration, health, defence and education. Modelling unemployment change allows estimation of an offsetting effect on consumption-induced flow-on impacts as some new employees may have previously claimed unemployment benefits in the region and some may be new to the region. These extensions improve the reliability of the RISE model compared to conventional IO models.

2.2.2. Economic activity

Economic activity indicators: the focus of this aspect of analysis is the generation of economic activity resulting from development and implementation of a coordinated pest bird management program. The key economic activity indicators considered in the analysis are gross state/domestic product (GSP/GDP) and employment.

Economic impact: changes in economic activity are referred to as economic impacts. Generally, changes in economic activity indicators result from some stimulus or external shock imposed on the economy. In this analysis, the economic impact includes the increases in contributions to the economy stimulated by the pest bird control activities and increased production, as well as decreases in contributions from reduced bird management costs by industry and local government as pest bird populations are brought under control.

2.2.3. Indicators of economic activity

Gross state/domestic product (GSP/GDP): is a measure of the contribution of an activity to the economy. GSP is measured as value of gross output (business revenue) less the cost of goods and services (including imports) used in producing the output. In other words, it can be measured as the sum of household income, gross operating surplus and gross mixed income net of payments to owner managers and taxes less subsidies on products and production. It represents payments to the primary inputs of production (labour, capital and land). Using GSP as a measure of economic impact avoids the problem of double counting that may arise from using the value of output. GDP is the Australian equivalent of GSP.

fte employment: is a measure of the number of working proprietors, managers, directors and other employees in terms of the number of full-time equivalent (fte) jobs. Fte is a way to measure a worker's involvement in a project. An fte of 1.0 means that the person is equivalent to a full-time worker, while an fte of 0.5 signals that the worker is half-time. In this report, employment has been reported in terms of fte units on a per annum basis.

2.2.4. Categories of economic activity

This section describes the components (direct, flow-on, and total contributions) of the economic indicators described in Section 2.2.3. Estimates of economic contribution are presented in this study in terms of:

- direct contribution
- flow-on (or indirect) contribution
- total contribution.

Direct contributions are the initial round of effects (i.e. employment and GSP) generated by an economic activity (i.e. government investment, landholder investment, and livestock enterprises).

Flow-on (or indirect) contributions are the sum of production-induced effects and consumption-induced effects. Production-induced effects are additional employment and GSP resulting from re-spending by firms (e.g. contractors) that receive payments from the sale of goods and services to the activities mentioned above. Consumption-induced effects are additional employment, household income and GSP resulting from re-spending by households that receive income from employment in direct and indirect activities.

Total contributions are the sum of direct and flow-on (indirect) contributions.

2.2.5. Data and assumptions

The data and assumptions used to calculate the economic impacts are the same as those used for the CBA (Section 2.1.7).

In addition to the assumptions embodied in the IO model itself, it was necessary to make several other general assumptions in estimating the economic impacts:

- The impacts were measured using models that represent the structure of the economy for the year in which the most recent data are available (2022/23). However, over time there are likely to be improvements in primary factor productivity in these economies. To allow for these improvements, an across-the-board (all sectors) labour productivity improvement rate of 0.5 per cent per annum has been incorporated into the modelling.
- When new jobs are created, it should be determined where the people come from to fill those jobs. In some cases, the jobs will be taken by previously unemployed locals or by someone who is currently employed locally but whose own job is taken by a previously unemployed local. In both cases the impact of the newly created job and associated income is particularly offset by the fact that someone who was previously receiving unemployment benefits, for example, is no longer doing so. To calculate this effect requires estimates of the parameter rho, the proportion of new jobs that are likely to be filled by previously unemployed locals. The values for rho of 0.8 for SA and 0.99 for Australia were used.

3. Cost benefit analysis results

This section describes the results from the CBA of the SA pest bird control tool development, registration and deployment (Section 3.1) and associated sensitivity analysis (Section 3.2). It also presents the CBA results for the high-level, national analysis (Section 3.3).

3.1. South Australia

The primary focus of the CBA in this study was the tangible costs and benefits to primary industries and local government from a strategic pest bird control tool being developed and implemented in SA (this section), and a simple scaled version of the net benefits if the control tool is extended across Australia over the same period (Section 3.3). The CBA is used to assist in the identification of the option that maximises the net social benefits. The two scenarios were:

- Base case: no coordinated pest bird control tool is developed, registered or implemented.
- Program case: Proposed coordinated pest bird control development, registration ($5.0 million investment) and implementation (over 20 years).

The program case was compared against the base case.

Summary results of the CBA for South Australia are presented in Table 3-1 and detailed CBA results are presented in Appendix 1. The results of the economic analysis have been presented in terms of two evaluation criteria: net present value (NPV) and benefit cost ratio (BCR). NPV is a measure of the aggregate, annual net benefits (i.e. benefits – costs) of an option over a 20-year period, discounted (i.e. expressed as a present value) using a discount rate of 7 per cent. BCR is the ratio of the present value of benefits to the present value of costs.

The CBA shows whether the proposed investment represents an efficient use of public money. The results of the CBA for the program are described in Table 3-1. These results are based on expected values for key variables, as outlined in Section 2.1.7.

The results indicate that according to the two evaluation criteria used, investing in the development, registration and implementation of a coordinated pest bird control tool is a worthwhile investment. The NPV of $604.3 million indicates that, relative to the base case, the program will generate a net benefit to the community of $604.3 million over a 20-year period. The decision rule is that the investment will be worthwhile if the NPV is greater than zero.

The BCR provides a measure of the return on investment. Under this decision rule, the investment is considered to be potentially viable if the BCR is greater than one. The BCR of 5.3 indicates that investing in developing, registering and deploying a coordinated area-wide pest bird control tool provides excellent returns to the South Australian community. The BCR result is higher than other, recent coordinated, area-wide pest animal control initiative CBAs (see, for example BDO EconSearch 2022, BDO EconSearch 2021), primarily because the implementation costs are relatively low (i.e. relatively low-cost technology, rather than labour and high-cost technology of other initiatives). The high BCR also reflects the value of investing in coordinated control using effective tools, especially when compared to the current fragmented approach, where land managers across various industries rely on limited and ineffective control methods.

Accordingly, the net benefits of investing in the coordinated pest bird control tool outweigh the net benefits of the base case in which primary industries and local government continue to control pest birds in an uncoordinated manner and with ineffective tools.

Benefits are likely to be underestimated because not all industries or all social impacts, such as emotional stress, were included for stakeholders experiencing pest bird impacts. Most industry groups and local councils surveyed, agreed that pest birds affected staff wellbeing and created trade, safety and biosecurity risks (Table 2-13).

Table 3-1 CBA results, South Australia

Item	Present value ($m)
Net benefits ($m)	
Avoided loss of produce & feed and avoided pest management costs (cash and time)	
Aquaculture	7.2
Fruit	243.9
Nuts	157.8
Winegrapes	180.8
Grains	150.4
Avoided pest management costs (cash and time)	
Local government	5.2
Total net benefits ($m)	**745.3**
Net costs ($m)	
Pest bird control tool	
Bait development & registration	4.2
Capital cost	0.1
Capital replacement	0.1
Bait	3.1
Coordination	1.6
Additional operating costs (due to lower loss of produce)	
Aquaculture	0.6
Fruit	92.7
Nuts	11.8
Wine grapes	13.6
Grains	13.3
Total net costs ($m)	**141.0**
Net present value ($m)	**604.3**
Benefit cost ratio	**5.3**

BDO analysis

3.2. Sensitivity analysis - South Australia

The results of the CBA were re-estimated using values for key variables that reflect the uncertainty of those variables. The sensitivity analysis included the following:

- Discount rates
- Pest bird control tool costs

The range of values used for each uncertain variable and detailed results of the sensitivity analysis are set out below with some interpretation of the results. Note that each sensitivity analysis for each variable was undertaken by holding all other variables constant at their 'assumed' values. The assumptions and results of the sensitivity analysis are summarised and described in the following sections.

Discount rates

Costs and benefits are specified in real terms (i.e. in current dollars) and future values are converted to present values by applying a discount rate of 7 per cent. A sensitivity analysis was conducted using discount rates of 4 and 10 per cent (Table 3-2).

Table 3-2 Sensitivity analysis, discount rates

Discount rate	Value	NPV ($m[a])	BCR
Low	4%	892.4	5.3
Assumed	7%	604.3	5.3
High	10%	418.4	5.2

[a] In current dollars

Source: BDO analysis

As expected, the NPV improves with the lower (4 per cent) discount rate. This occurs because, although the bulk of the program costs are 'up front' and are not significantly affected by the discount rate, the benefits accrue over many years and are greater, in present value terms, when the discount rate is lower. However, although the results are sensitive to the discount rate applied, the positive NPVs across the range of discount rates tested indicate that the program case is still preferable to the base case.

Pest bird control tool costs

The development, registration and deployment of the pest bird control tool is based on estimated costs. These costs have potential to vary, and a sensitivity analysis was conducted using cost estimates that were 25 per cent lower and higher (Table 3-3).

Table 3-3 Sensitivity analysis, pest bird control tool costs

Pest bird control tool costs	Value	NPV ($m[a])	BCR
Low	25 per cent lower	606.6	5.4
Expected	Expected	604.3	5.3
High	25 per cent higher	602.0	5.2

[a] In current dollars

Source: BDO analysis

The indicators (NPV and BCR) vary marginally with the range of values tested (with higher costs reducing the NPV and BCR indicators slightly) and the positive NPVs across the range of discount rates tested indicate that the program case is still preferable to the base case.

3.3. Australia

The CBA was completed, at a high level, for the whole of Australia (including SA). As described earlier (Section 2.1.7), a detailed assessment of pest bird populations and impact on primary industries and communities in other jurisdictions was not completed. However, assuming the same relative proportion of production losses for the same primary industries, an indicative CBA was completed for Australia as a whole using scaled-up estimates based on SA data. The results of this analysis are summarised in Table 3-4 and detailed results are presented in Appendix 1.

Table 3-4 Indicative CBA results, Australia

Item	Present value ($m)
Net benefits ($m)	
Avoided loss of produce & feed and avoided pest management costs (cash and time)	
Aquaculture	17.8
Fruit	5,076.9
Nuts	1,392.7
Winegrapes	419.2
Grains	544.6
Avoided pest management costs (cash and time)	
Local government	5.2
Total net benefits ($m)	**7,456.4**
Net costs ($m)	
Pest bird control tool	
Bait development & registration	4.2
Capital cost	0.4
Capital replacement	0.6
Bait	15.7
Coordination	7.9
Additional operating costs (due to lower loss of produce)	
Aquaculture	1.5
Fruit	2,009.6
Nuts	109.7
Wine grapes	33.0
Grains	49.7
Total net costs ($m)	**2,232.2**
Net present value ($m)	**5,224.2**
Benefit cost ratio	**3.3**

BDO analysis

4. Economic impact analysis results

This section describes the results from the economic impact analysis of the SA pest bird impact assessment (Section 4.1) and the high-level, national analysis (Section 4.2).

4.1. South Australia

This section presents the economic impacts that a strategic pest bird control tool being developed and implemented is expected to make to the SA economy in terms of GSP and employment. Note that the impact measured here is the difference between the income, expenditures and staff resulting from the program case and base case scenarios. Results are presented for the pest bird control tool program (Section 4.1.1), primary industries (Section 4.1.2), local government (Section 4.1.3) and concluding with a summary of the aggregate impacts (Section 4.1.4).

4.1.1. Pest bird control development, registration and deployment

Pest bird control tool development, registration and deployment included the following activities (i.e. expenditures):

- Bait development and national registration, from 2026-27 to 2029-30
- Bait station construction, 2030-31
- Area-wide pest control program coordination, 2031-32 to 2044-45
- Bait deployment, 2031-32 to 2044-45
- Bait station repair and replacement, 2032-33 to 2044-45.

The results of the impact analysis are summarised in Table 4-1.

Table 4-1 Economic impacts of pest bird control development, registration and deployment, South Australia

	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY35	FY40	FY45	Av. annual	Total
GSP ($m[a])												
Direct	0.0	0.6	0.6	0.6	0.6	0.0	0.3	0.3	0.3	0.3	0.3	6.7
Prod'n induced flow-ons	0.0	0.3	0.3	0.3	0.3	0.0	0.2	0.2	0.2	0.2	0.2	4.4
Cons'n induced flow-ons	0.0	0.4	0.4	0.4	0.4	0.0	0.2	0.2	0.2	0.2	0.2	4.6
Total[b]	**0.0**	**1.3**	**1.3**	**1.3**	**1.3**	**0.1**	**0.7**	**0.7**	**0.7**	**0.7**	**0.8**	**15.7**
Employment (fte jobs)												
Direct	0	5	5	5	5	0	2	2	2	2	2	N/A
Prod'n induced flow-ons	0	2	2	2	2	0	1	1	1	1	1	N/A
Cons'n induced flow-ons	0	2	2	2	2	0	1	1	1	1	1	N/A
Total[b]	**0**	**9**	**9**	**9**	**9**	**0**	**4**	**4**	**4**	**4**	**5**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

The estimated impact of these activities on the South Australian economy were:

- GSP: $15.7 million in GSP in total over 20 years, $6.7 million from direct effects and $9.0 million from flow-on effects. The average annual contribution was $0.8 million (total GSP)
- Employment: an average of five fte jobs in total, two fte jobs directly and three fte jobs through flow-on effects. The peak contribution to employment occurred in 2026-27, comprising 9 fte jobs in total.

4.1.2. Primary industry

Aquaculture

Coordinated area-wide pest bird control from 2031-32 to 2044-45 is expected to have the following effects:

- Increased aquaculture output (from reduced losses from pest birds) in the kingfish and abalone sectors
- Consequently, increased feed costs in the kingfish and abalone sectors
- Decreased feed costs in the tuna industry
- Decreased management effort on controlling pest birds (cash and staff time).

The results of the impact analysis are summarised in Table 4-2.

Table 4-2 Economic impacts of pest bird control, aquaculture, South Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
GSP ($m[a])							
Direct	0.0	0.0	0.7	1.4	2.1	0.8	16.8
Prod'n induced flow-ons	0.0	0.0	-0.4	-0.7	-1.1	-0.4	-8.7
Cons'n induced flow-ons	0.0	0.0	-0.1	-0.2	-0.3	-0.1	-2.0
Total[b]	**0.0**	**0.0**	**0.3**	**0.5**	**0.8**	**0.3**	**6.1**
Employment (fte jobs)							
Direct	0	0	0	0	0	0	N/A
Prod'n induced flow-ons	0	0	-2	-4	-6	-2	N/A
Cons'n induced flow-ons	0	0	0	-1	-1	0	N/A
Total[b]	**0**	**0**	**-2**	**-5**	**-7**	**-3**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

The estimated impact of these changes in activities by the aquaculture sector on the South Australian economy were:

- GSP: $6.1 million in GSP in total over 20 years, $16.8 million from direct effects and a reduction of $10.7 million from flow-on effects. The average annual contribution was $0.3 million (total GSP)
- Employment: an average reduction of three fte jobs in total, less than one fte jobs directly and two fte jobs through flow-on effects.

Fruit

Coordinated area-wide pest bird control from 2031-32 to 2044-45 had the following effects:

- Increased produce output (from reduced losses from pest birds)

- And consequently, increased harvest and packing costs
- Decreased management effort on controlling pest birds (cash and staff time).

The results of the impact analysis are summarised in Table 4-3.

Table 4-3 Economic impacts of pest bird control, fruit, South Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
GSP ($m[a])							
Direct	0.0	0.0	16.7	33.6	50.6	20.2	403.0
Prod'n induced flow-ons	0.0	0.0	3.1	6.2	9.3	3.7	74.5
Cons'n induced flow-ons	0.0	0.0	1.1	2.1	3.2	1.3	25.6
Total[b]	**0.0**	**0.0**	**20.8**	**42.0**	**63.1**	**25.2**	**503.1**
Employment (fte jobs)							
Direct	0	0	14	29	43	17	N/A
Prod'n induced flow-ons	0	0	7	15	22	9	N/A
Cons'n induced flow-ons	0	0	5	10	15	6	N/A
Total[b]	**0**	**0**	**27**	**54**	**81**	**32**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

The estimated impact of these changes in activities by the fruit growing sector on the South Australian economy were:

- GSP: $503.1 million in GSP in total over 20 years, $403.0 million from direct effects and $100.1 million from flow-on effects. The average annual contribution was $25.2 million (total GSP)
- Employment: an average of 32 fte jobs in total, 17 fte jobs directly and 15 fte jobs through flow-on effects.

Nuts

Coordinated area-wide pest bird control from 2031-32 to 2044-45 would have similar effects as per the fruit industry. The results of the impact analysis are summarised in Table 4-4.

The estimated impact of these changes in activities by the nut growing sector on the South Australian economy were:

- GSP: $138.2 million in GSP in total over 20 years, $268.1 million from direct effects and a reduction of $129.4 million from flow-on effects. The average annual contribution was $6.9 million (total GSP)
- Employment: an average reduction of 145 fte jobs in total, 116 fte jobs directly and 29 fte jobs through flow-on effects.

Table 4-4 Economic impacts of pest bird control, nuts, South Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
GSP ($m[a])							
Direct	0.0	0.0	10.8	22.3	34.6	13.4	268.1
Prod'n induced flow-ons	0.0	0.0	-1.4	-2.9	-4.4	-1.7	-34.5
Cons'n induced flow-ons	0.0	0.0	-3.8	-7.9	-12.3	-4.8	-95.4
Total[b]	**0.0**	**0.0**	**5.6**	**11.5**	**17.8**	**6.9**	**138.2**
Employment (fte jobs)							
Direct	0	0	-93	-192	-298	-116	N/A
Prod'n induced flow-ons	0	0	-6	-11	-18	-7	N/A
Cons'n induced flow-ons	0	0	-18	-37	-58	-22	N/A
Total[b]	**0**	**0**	**-116**	**-241**	**-373**	**-145**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Winegrapes

Coordinated area-wide pest bird control from 2031-32 to 2044-45 would have similar effects as per the fruit industry. The results of the impact analysis are summarised in Table 4-5.

The estimated impact of these changes in activities by the winegrape growing sector on the South Australian economy were:

- GSP: $266.8 million in GSP in total over 20 years, $456.4 million from direct effects and a reduction of $189.6 million from flow-on effects. The average annual contribution was $13.3 million (total GSP)
- Employment: an average reduction of 48 fte jobs in total, less than one fte jobs directly and 48 fte jobs through flow-on effects.

Table 4-5 Economic impacts of pest bird control, winegrapes, South Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
GSP ($m[a])							
Direct	0.0	0.0	18.8	38.1	57.4	22.8	456.4
Prod'n induced flow-ons	0.0	0.0	-6.2	-12.5	-18.9	-7.5	-150.3
Cons'n induced flow-ons	0.0	0.0	-1.6	-3.3	-4.9	-2.0	-39.3
Total[b]	**0.0**	**0.0**	**11.0**	**22.3**	**33.5**	**13.3**	**266.8**
Employment (fte jobs)							
Direct	0	0	0	0	0	0	N/A
Prod'n induced flow-ons	0	0	-32	-64	-97	-38	N/A
Cons'n induced flow-ons	0	0	-8	-16	-24	-9	N/A
Total[b]	**0**	**0**	**-40**	**-80**	**-120**	**-48**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Grains

Coordinated area-wide pest bird control from 2031-32 to 2044-45 would have similar effects as per the fruit industry. The results of the impact analysis are summarised in Table 4-6.

Table 4-6 Economic impacts of pest bird control, grains, South Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
GSP ($m[a])							
Direct	0.0	0.0	13.6	28.8	45.7	17.4	347.7
Prod'n induced flow-ons	0.0	0.0	-0.2	-0.5	-0.7	-0.3	-5.6
Cons'n induced flow-ons	0.0	0.0	-0.2	-0.4	-0.6	-0.2	-4.9
Total[b]	**0.0**	**0.0**	**13.2**	**28.0**	**44.4**	**16.9**	**337.3**
Employment (fte jobs)							
Direct	0	0	-6	-12	-19	-7	N/A
Prod'n induced flow-ons	0	0	0	0	0	0	N/A
Cons'n induced flow-ons	0	0	-1	-2	-3	-1	N/A
Total[b]	**0**	**0**	**-7**	**-14**	**-22**	**-8**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

The estimated impact of these changes in activities by the grain growing sector on the South Australian economy were:

- GSP: $337.3 million in GSP in total over 20 years, $347.7 million from direct effects and a reduction of $10.4 million from flow-on effects. The average annual contribution was $16.9 million (total GSP)
- Employment: an average reduction of 8 fte jobs in total, seven fte jobs directly and one fte job through flow-on effects.

4.1.3. Local government

Coordinated area-wide pest bird control from 2031-32 to 2044-45 is expected to decrease management effort on controlling pest birds (cash and staff time). The results of the impact analysis are summarised in Table 4-7.

The estimated impact of these changes in activities by local government on the South Australian economy were:

- GSP: a reduction of $13.6 million in GSP in total over 20 years, $3.0 million from direct effects and $10.6 million from flow-on effects. The average annual contribution was reduction of $0.7 million (total GSP)
- Employment: an average reduction of 4 fte jobs in total, 2 fte jobs directly and 2 fte jobs through flow-on effects.

It is worth noting that these impacts can be viewed as a release of funds and staff time for other, more productive uses of council resources.

Table 4-7 Economic impacts of pest bird control, local government, South Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
GSP ($m[a])							
Direct	0.0	0.0	-0.1	-0.3	-0.4	-0.2	-3.0
Prod'n induced flow-ons	0.0	0.0	-0.3	-0.5	-0.8	-0.3	-6.2
Cons'n induced flow-ons	0.0	0.0	-0.2	-0.4	-0.6	-0.2	-4.3
Total[b]	**0.0**	**0.0**	**-0.5**	**-1.1**	**-1.7**	**-0.7**	**-13.6**
Employment (fte jobs)							
Direct	0	0	-1	-3	-5	-2	N/A
Prod'n induced flow-ons	0	0	-1	-3	-4	-2	N/A
Cons'n induced flow-ons	0	0	-1	-2	-3	-1	N/A
Total[b]	**0**	**0**	**-4**	**-7**	**-11**	**-4**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

4.1.4. Aggregate results

The aggregate economic impact of developing and implementing a strategic pest bird control tool and its effects on primary industry and local government in South Australia is summarised in Table 4-8.

The estimated aggregate impact of developing registering and implementing a strategic pest bird control tool and the effects on primary industries and local government in South Australia were:

- GSP: $1.3 billion in GSP in total over 20 years and an average annual contribution of $62.7 million (total GSP)
- Employment: an average reduction of 172 fte jobs in total. Employment impacts are expected to be initially positive (2026-27 to 2029-30), with the development and registration of the pest bird control tool, and thereafter employment impacts are negative overall, as primary industry businesses and local government spend less time and financial resources on ineffective pest bird control activities.

Table 4-8 Summary of economic impacts of pest bird control, South Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
Total GSP ($m[a])							
Pest bird control tool	0.0	1.3	0.7	0.7	0.7	0.8	15.7
Aquaculture	0.0	0.0	0.3	0.5	0.8	0.3	6.1
Fruit	0.0	0.0	20.8	42.0	63.1	25.2	503.1
Nuts	0.0	0.0	5.6	11.5	17.8	6.9	138.2
Winegrapes	0.0	0.0	11.0	22.3	33.5	13.3	266.8
Grains	0.0	0.0	13.2	28.0	44.4	16.9	337.2
Local government	0.0	0.0	-0.5	-1.1	-1.7	-0.7	-13.6
Grand total[b]	**0.0**	**1.3**	**51.1**	**103.8**	**158.6**	**62.7**	**1,253.6**
Total employment (fte jobs)							
Pest bird control tool	0	9	4	4	4	5	N/A
Aquaculture	0	0	-2	-5	-7	-3	N/A
Fruit	0	0	27	54	81	32	N/A
Nuts	0	0	-116	-241	-373	-145	N/A
Winegrapes	0	0	-40	-80	-120	-48	N/A
Grains	0	0	-7	-14	-22	-8	N/A
Local government	0	0	-4	-7	-11	-4	N/A
Grand total[b]	**0**	**9**	**-138**	**-289**	**-449**	**-172**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

4.2. Australia

Aggregate, high-level results for Australia are presented in this section and detailed results for pest bird control tool investment and by sector are presented in Appendix 2.

The aggregate economic impact of developing and implementing a strategic pest bird control tool and its effects on primary industry and local government in South Australia is summarised in Table 4-9.

The estimated aggregate impact of developing registering and implementing a strategic pest bird control tool and the effects on primary industries and local government in Australia were:

- GDP: $13.7 billion in GDP in total over 20 years and an average annual contribution of $683.7 million (total GDP). Fruit, grains and nuts are the most significantly impacted sectors ($542.4 million, $62.0 million and $52.2 million annually, respectively).
- Employment: an average reduction of 660 fte jobs in total. Employment impacts are initially positive (2026-27 to 2029-30), with the development and registration of the pest bird control tool, and thereafter employment impacts are negative overall, as primary industry business es and local government spend less time and financial resources on ineffective pest bird control activities.

Sensitivity analyses on the Australia CBA were not undertaken as the CBA is an extrapolation of the SA analysis, and sensitivity analysis results would form similar conclusions.

Table 4-9 Summary of economic impacts of pest bird control, Australia

	2025-26	2029-30	2034-35	2039-40	2044-45	Av. annual	Total
Total GDP ($m[a])							
Pest bird control tool	0.0	1.7	4.1	4.1	4.1	3.2	64.4
Aquaculture	0.0	0.0	0.5	1.1	1.6	0.6	12.9
Fruit	0.0	0.0	449.4	904.5	1,361.0	542.4	10,848.4
Nuts	0.0	0.0	42.0	86.8	134.6	52.2	1,044.5
Winegrapes	0.0	0.0	19.8	40.0	60.3	24.0	479.8
Grains	0.0	0.0	48.7	103.0	163.3	62.0	1,241.0
Local government	0.0	0.0	-0.7	-1.4	-2.2	-0.9	-17.0
Grand total[b]	**0.0**	**1.7**	**563.8**	**1,138.1**	**1,722.7**	**683.7**	**13,673.9**
Total employment (fte jobs)							
Pest bird control tool	0	9	20	19	19	16	N/A
Aquaculture	0	0	-4	-8	-12	-5	N/A
Fruit	0	0	617	1,247	1,880	747	N/A
Nuts	0	0	-1,013	-2,094	-3,248	-1,260	N/A
Winegrapes	0	0	-99	-200	-302	-120	N/A
Grains	0	0	-26	-55	-88	-33	N/A
Local government	0	0	-4	-8	-13	-5	N/A
Grand total[b]	**0**	**9**	**-510**	**-1,100**	**-1,764**	**-660**	**N/A**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

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Disclaimer

The assignment is a consulting engagement as outlined in the 'Framework for Assurance Engagements', issued by the Auditing and Assurances Standards Board, Section 17. Consulting engagements employ an assurance practitioner's technical skills, education, observations, experiences and knowledge of the consulting process. The consulting process is an analytical process that typically involves some combination of activities relating to: objective-setting, fact-finding, definition of problems or opportunities, evaluation of alternatives, development of recommendations including actions, communication of results, and sometimes implementation and follow-up.

The nature and scope of work has been determined by agreement between BDO and the Client. This consulting engagement does not meet the definition of an assurance engagement as defined in the 'Framework for Assurance Engagements', issued by the Auditing and Assurances Standards Board, Section 10.

Except as otherwise noted in this report, we have not performed any testing on the information provided to confirm its completeness and accuracy. Accordingly, we do not express such an audit opinion and readers of the report should draw their own conclusions from the results of the review, based on the scope, agreed-upon procedures carried out and findings.

Appendix 1 Detailed CBA results

Appendix Table 1-1 Detailed CBA, South Australia

	Present value ($m)	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2034-35	2039-40	2044-45
Base case - no new pest bird control tool											
Benefits ($m)											
Avoided operating costs (due to lost produce)											
Aquaculture	5.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Fruit	311.2	23.6	24.1	24.6	25.1	25.6	26.1	26.6	28.3	31.1	34.0
Nuts	40.6	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.7	4.3	5.0
Wine grapes	73.0	5.5	5.6	5.8	5.9	6.0	6.1	6.3	6.6	7.3	8.0
Grains	168.1	13.8	13.9	14.0	14.1	14.3	14.4	14.5	15.0	15.9	17.0
Total benefits	**597.9**	**46.1**	**46.9**	**47.7**	**48.6**	**49.5**	**50.4**	**51.3**	**54.1**	**59.2**	**64.5**
Costs ($m)											
Aquaculture											
Direct (loss of produce & feed)	54.7	4.5	4.5	4.6	4.6	4.7	4.7	4.8	4.9	5.1	5.4
Management	7.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8
Management (staff cost)	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Fruit											
Direct (loss of produce)	600.0	45.4	46.4	47.3	48.3	49.3	50.3	51.4	54.6	60.0	65.6
Management	261.0	19.8	20.2	20.6	21.0	21.5	21.9	22.4	23.7	26.1	28.5
Management (staff cost)	-33.7	-2.6	-2.6	-2.7	-2.7	-2.8	-2.8	-2.9	-3.1	-3.4	-3.7
Nuts											
Direct (loss of produce)	279.6	19.3	19.9	20.6	21.2	21.9	22.6	23.4	25.6	29.9	34.8
Management	120.5	8.3	8.6	8.9	9.2	9.4	9.8	10.1	11.1	12.9	15.0
Management (staff cost)	144.6	10.0	10.3	10.6	11.0	11.3	11.7	12.1	13.3	15.5	18.0
Wine grapes											
Direct (loss of produce)	433.5	32.8	33.5	34.2	34.9	35.6	36.4	37.1	39.4	43.4	47.4
Management	608.0	46.0	47.0	48.0	49.0	50.0	51.0	52.1	55.3	60.8	66.4
Management (staff cost)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grains											

	Present value ($m)	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2034-35	2039-40	2044-45
Direct (loss of produce)	1,645.9	134.9	136.0	137.1	138.4	139.6	141.0	142.4	146.9	155.7	166.1
Management	223.9	18.3	18.5	18.7	18.8	19.0	19.2	19.4	20.0	21.2	22.6
Management (staff cost)	31.3	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.8	3.0	3.2
Local councils											
Management	18.9	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.7	1.9	2.1
Management (staff cost)	5.6	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6
Total costs	**4,401.9**	**341.9**	**347.4**	**353.1**	**359.0**	**365.0**	**371.2**	**377.5**	**397.4**	**433.5**	**472.8**
Scenario 1 - new pest bird control tool developed and implemented											
Benefits											
Avoided operating costs (due to lost produce)											
Aquaculture	4.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Fruit	218.5	23.6	24.1	24.6	25.1	25.6	24.2	22.7	18.5	11.4	4.3
Nuts	28.8	2.8	2.9	3.0	3.1	3.2	3.0	2.9	2.5	1.8	1.1
Wine grapes	59.4	5.5	5.6	5.8	5.9	6.0	5.8	5.7	5.2	4.4	3.6
Grains	154.8	13.8	13.9	14.0	14.1	14.3	14.1	14.0	13.7	13.0	12.4
Total benefits	**466.0**	**46.1**	**46.9**	**47.7**	**48.6**	**49.5**	**47.6**	**45.8**	**40.2**	**31.0**	**21.8**
Costs											
Pest bird control tool											
Bait development & registration	4.2	0.0	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
Capital cost (bait stations)	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Capital replacement (bait stations)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bait	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5
Coordination	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3
Aquaculture											
Direct (loss of produce)	48.4	4.5	4.5	4.6	4.6	4.7	4.6	4.5	4.2	3.8	3.4
Management	6.8	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.5	0.5
Management (staff cost)	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fruit											
Direct (loss of produce)	421.3	45.4	46.4	47.3	48.3	49.3	46.6	43.8	35.6	21.9	8.2
Management	189.5	19.8	20.2	20.6	21.0	21.5	20.4	19.3	16.2	10.9	5.6

	Present value ($m)	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2034-35	2039-40	2044-45
Management (staff cost)	-27.4	-2.6	-2.6	-2.7	-2.7	-2.8	-2.7	-2.6	-2.4	-2.0	-1.7
Nuts											
Direct (loss of produce)	198.5	19.3	19.9	20.6	21.2	21.9	21.0	20.1	17.3	12.6	7.9
Management	85.6	8.3	8.6	8.9	9.2	9.4	9.0	8.6	7.4	5.4	3.4
Management (staff cost)	102.8	10.0	10.3	10.6	11.0	11.3	10.9	10.4	8.9	6.5	4.1
Wine grapes											
Direct (loss of produce)	357.0	32.8	32.8	33.5	34.2	34.9	35.6	34.7	31.8	27.1	22.4
Management	503.6	46.0	45.9	46.9	47.9	48.9	49.9	48.6	45.0	38.8	32.7
Management (staff cost)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grains											
Direct (loss of produce)	1,515.7	134.9	136.0	137.1	138.4	139.6	138.5	137.3	133.7	127.8	121.8
Management	206.2	18.3	18.5	18.7	18.8	19.0	18.8	18.7	18.2	17.4	16.6
Management (staff cost)	28.8	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.5	2.4	2.3
Local councils											
Management	14.9	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.3	1.1	0.8
Management (staff cost)	4.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.2
Total costs	**3,665.7**	**341.9**	**346.9**	**352.6**	**358.4**	**364.4**	**357.9**	**349.3**	**321.6**	**275.3**	**229.1**
Incremental benefits	**-131.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-2.7**	**-5.5**	**-13.9**	**-28.2**	**-42.7**
Incremental costs	**-736.2**	**0.0**	**-0.5**	**-0.5**	**-0.6**	**-0.6**	**-13.3**	**-28.2**	**-75.8**	**-158.1**	**-243.7**
Net present value	**604.3**	**0.0**	**0.5**	**0.5**	**0.6**	**0.6**	**10.5**	**22.7**	**62.0**	**130.0**	**201.0**
Benefit cost ratio	**0.2**										
Alternative BCR	**5.3**										

BDO analysis

Appendix Table 1-2 Detailed CBA, Australia

	Present value ($m)	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2034-35	2039-40	2044-45
Base case - no new pest bird control tool											
Benefits ($m)											
Avoided operating costs	(due to lost produce)										
Aquaculture	12.7	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.3
Fruit	6,747.7	511.0	521.6	532.5	543.5	554.8	566.3	577.9	613.6	675.2	737.4
Nuts	378.2	26.1	27.0	27.8	28.7	29.7	30.6	31.6	34.7	40.5	47.1
Wine grapes	177.1	13.4	13.7	14.0	14.3	14.6	14.9	15.2	16.1	17.7	19.4
Grains	628.1	51.5	51.9	52.3	52.8	53.3	53.8	54.3	56.1	59.4	63.4
Total benefits	**7,943.9**	**603.0**	**615.2**	**627.7**	**640.4**	**653.4**	**666.6**	**680.1**	**721.6**	**794.0**	**868.4**
Costs ($m)											
Aquaculture - direct (loss of produce & feed)	137.6	11.3	11.4	11.5	11.6	11.7	11.8	12.0	12.3	12.9	13.6
Aquaculture - Management	16.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.6
Aquaculture - Management (staff cost)	1.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Fruit - direct (loss of produce)	13,010.9	985.3	1,005.8	1,026.7	1,048.1	1,069.8	1,091.9	1,114.3	1,183.2	1,301.9	1,421.8
Fruit - Management	4,812.0	364.4	372.0	379.7	387.6	395.6	403.8	412.1	437.6	481.5	525.8
Fruit - Management (staff cost)	-625.2	-47.3	-48.3	-49.3	-50.4	-51.4	-52.5	-53.5	-56.9	-62.6	-68.3
Nuts - Direct (loss of produce)	2,607.5	180.1	185.9	191.9	198.1	204.5	211.0	217.8	239.2	279.0	324.6
Nuts - Management	1,025.5	70.8	73.1	75.5	77.9	80.4	83.0	85.7	94.1	109.7	127.6
Nuts - Management (staff cost)	1,172.9	81.0	83.6	86.3	89.1	92.0	94.9	98.0	107.6	125.5	146.0
Winegrapes - Direct (loss of produce)	1,051.2	79.6	81.3	83.0	84.7	86.4	88.2	90.0	95.6	105.2	114.9
Winegrapes - Management	1,253.1	94.9	96.9	98.9	100.9	103.0	105.2	107.3	114.0	125.4	136.9
Grains - Direct (loss of produce)	6,150.6	504.0	508.1	512.5	517.1	521.8	526.8	532.0	548.9	581.7	620.6
Grains - Management	578.2	47.4	47.8	48.2	48.6	49.1	49.5	50.0	51.6	54.7	58.3
Grains - Management (staff cost)	155.1	12.7	12.8	12.9	13.0	13.2	13.3	13.4	13.8	14.7	15.6
Local government - Management	18.9	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.7	1.9	2.1
Local government - Management (staff cost)	5.6	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6
Total costs	**31,371.5**	**2,387.4**	**2,433.7**	**2,481.1**	**2,529.8**	**2,579.6**	**2,630.5**	**2,682.6**	**2,844.8**	**3,133.8**	**3,441.9**

	Present value ($m)	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2034-35	2039-40	2044-45
Scenario 1 - new pest bird control tool developed and implemented											
Benefits											
Avoided operating costs (due to lost produce)											
Aquaculture	11.3	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.8
Fruit	4,738.1	511.0	521.6	532.5	543.5	554.8	524.0	493.2	400.7	246.6	92.4
Nuts	268.5	26.1	27.0	27.8	28.7	29.7	28.4	27.1	23.3	17.0	10.7
Wine grapes	144.1	13.4	13.7	14.0	14.3	14.6	14.2	13.8	12.6	10.7	8.7
Grains	578.4	51.5	51.9	52.3	52.8	53.3	52.8	52.4	51.0	48.8	46.5
Total benefits	**5,740.4**	**603.0**	**615.2**	**627.7**	**640.4**	**653.4**	**620.5**	**587.5**	**488.7**	**323.9**	**159.2**
Costs											
Pest bird control tool											
Bait development & registration	4.2	0.0	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
Capital cost (bait stations)	0.4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Capital replacement (bait stations)	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Bait	15.7	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5
Coordination	7.9	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
Aquaculture											
Direct (loss of produce)	121.8	11.3	11.4	11.5	11.6	11.7	11.5	11.3	10.7	9.6	8.5
Management	14.5	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.1	1.0
Management (staff cost)	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Fruit											
Direct (loss of produce)	9,135.9	985.3	1,005.8	1,026.7	1,048.1	1,069.8	1,010.3	950.9	772.6	475.4	178.3
Management	3,493.7	364.4	372.0	379.7	387.6	395.6	376.1	356.6	298.0	200.3	102.6
Management (staff cost)	-508.8	-47.3	-48.3	-49.3	-50.4	-51.4	-50.0	-48.7	-44.6	-37.7	-30.9
Nuts											
Direct (loss of produce)	1,851.2	180.1	185.9	191.9	198.1	204.5	195.8	187.1	161.0	117.4	73.9
Management	728.2	70.8	73.1	75.5	77.9	80.4	77.0	73.6	63.3	46.2	29.1
Management (staff cost)	833.8	81.0	83.6	86.3	89.1	92.0	88.1	84.2	72.5	53.1	33.6
Wine grapes											

	Present value ($m)	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2034-35	2039-40	2044-45
Direct (loss of produce)	855.6	79.6	81.3	83.0	84.7	86.4	84.1	81.8	74.9	63.4	51.9
Management	1,029.6	94.9	96.9	98.9	100.9	103.0	100.5	98.0	90.3	77.7	65.0
Management (staff cost)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grains											
Direct (loss of produce)	5,664.0	504.0	508.1	512.5	517.1	521.8	517.4	512.9	499.6	477.4	455.2
Management	532.4	47.4	47.8	48.2	48.6	49.1	48.6	48.2	47.0	44.9	42.8
Management (staff cost)	142.8	12.7	12.8	12.9	13.0	13.2	13.0	12.9	12.6	12.0	11.5
Local councils											
Management	14.9	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.3	13.2	10.3
Management (staff cost)	4.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.2
Total costs	**23,943.8**	**2,387.4**	**2,434.9**	**2,482.4**	**2,531.1**	**2,580.9**	**2,476.4**	**2,375.9**	**2,064.8**	**1,546.2**	**1,027.5**
Incremental benefits	**-2,203.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-46.2**	**-92.6**	**-233.0**	**-470.1**	**-709.2**
Incremental costs	**-7,427.7**	**0.0**	**1.3**	**1.3**	**1.3**	**1.3**	**-154.2**	**-306.6**	**-780.0**	**-1,587.7**	**-2,414.4**
Net present value	**5,224.2**	**0.0**	**-1.3**	**-1.3**	**-1.3**	**-1.3**	**108.0**	**214.1**	**547.0**	**1,117.6**	**1,705.2**
Benefit cost ratio	**0.3**										
Alternative BCR	**3.3**										

BDO analysis

Appendix 2 Detailed economic impact results, Australia

Appendix Table 2-1 Economic impacts of pest bird control development, registration and deployment, Australia

	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY35	FY40	FY45
GDP ($m[a])										
Direct	0.0	0.6	0.6	0.6	0.6	0.2	1.5	1.5	1.5	1.5
Prod'n induced flow-ons	0.0	0.4	0.4	0.4	0.4	0.2	1.3	1.4	1.4	1.4
Cons'n induced flow-ons	0.0	0.6	0.6	0.6	0.6	0.2	1.2	1.2	1.2	1.2
Total[b]	**0.0**	**1.7**	**1.7**	**1.7**	**1.7**	**0.6**	**4.0**	**4.1**	**4.1**	**4.1**
Employment (fte jobs)										
Direct	0	4	4	4	4	1	8	8	8	8
Prod'n induced flow-ons	0	2	2	2	2	1	6	6	6	6
Cons'n induced flow-ons	0	3	3	3	3	1	6	6	6	6
Total[b]	**0**	**9**	**9**	**9**	**9**	**3**	**20**	**20**	**19**	**19**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Appendix Table 2-2 Economic impacts of pest bird control, aquaculture, Australia

	2025-26	2029-30	2034-35	2039-40	2044-45
GDP ($m[a])					
Direct	0.0	0.0	1.7	3.5	5.2
Prod'n induced flow-ons	0.0	0.0	-1.0	-2.0	-3.0
Cons'n induced flow-ons	0.0	0.0	-0.2	-0.4	-0.6
Total[b]	**0.0**	**0.0**	**0.5**	**1.1**	**1.6**
Employment (fte jobs)					
Direct	0	0	0	-1	-1
Prod'n induced flow-ons	0	0	-3	-6	-9
Cons'n induced flow-ons	0	0	-1	-2	-3
Total[b]	**0**	**0**	**-4**	**-8**	**-12**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Appendix Table 2-3 Economic impacts of pest bird control, fruit, Australia

	2025-26	2029-30	2034-35	2039-40	2044-45
GDP ($m[a])					
Direct	0.0	0.0	337.4	679.1	1,021.8
Prod'n induced flow-ons	0.0	0.0	82.2	165.4	248.8
Cons'n induced flow-ons	0.0	0.0	29.8	60.0	90.3
Total[b]	**0.0**	**0.0**	449.4	904.5	1,361.0
Employment (fte jobs)					
Direct	0	0	270	546	823
Prod'n induced flow-ons	0	0	212	428	646
Cons'n induced flow-ons	0	0	135	272	410
Total[b]	**0**	**0**	**617**	**1,247**	**1,880**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Appendix Table 2-4 Economic impacts of pest bird control, nuts, Australia

	2025-26	2029-30	2034-35	2039-40	2044-45
GDP ($m[a])					
Direct	0.0	0.0	97.6	201.7	312.8
Prod'n induced flow-ons	0.0	0.0	-16.7	-34.4	-53.4
Cons'n induced flow-ons	0.0	0.0	-39.0	-80.5	-124.8
Total[b]	**0.0**	**0.0**	42.0	86.8	134.6
Employment (fte jobs)					
Direct	0	0	-771	-1,593	-2,471
Prod'n induced flow-ons	0	0	-67	-138	-214
Cons'n induced flow-ons	0	0	-176	-363	-563
Total[b]	**0**	**0**	**-1,013**	**-2,094**	**-3,248**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Appendix Table 2-5 Economic impacts of pest bird control, winegrapes, Australia

	2025-26	2029-30	2034-35	2039-40	2044-45
GDP ($m[a])					
Direct	0.0	0.0	41.6	84.0	126.7
Prod'n induced flow-ons	0.0	0.0	-16.9	-34.1	-51.4
Cons'n induced flow-ons	0.0	0.0	-4.9	-9.9	-14.9
Total[b]	**0.0**	**0.0**	**19.8**	**40.0**	**60.3**
Employment (fte jobs)					
Direct	0	0	0	0	0
Prod'n induced flow-ons	0	0	-77	-155	-233
Cons'n induced flow-ons	0	0	-23	-45	-69
Total[b]	**0**	**0**	**-99**	**-200**	**-302**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Appendix Table 2-6 Economic impacts of pest bird control, grains, Australia

	2025-26	2029-30	2034-35	2039-40	2044-45
GDP ($m[a])					
Direct	0.0	0.0	48.9	103.4	164.0
Prod'n induced flow-ons	0.0	0.0	0.4	0.9	1.4
Cons'n induced flow-ons	0.0	0.0	-0.6	-1.4	-2.2
Total[b]	**0.0**	**0.0**	**48.7**	**103.0**	**163.3**
Employment (fte jobs)					
Direct	0	0	-29	-62	-99
Prod'n induced flow-ons	0	0	6	13	20
Cons'n induced flow-ons	0	0	-3	-6	-10
Total[b]	**0**	**0**	**-26**	**-55**	**-88**

[a] In current dollars

[b] Sums may not add to totals due to rounding

BDO analysis

Appendix Table 2-7 Economic impacts of pest bird control, local government, Australia

	2025-26	2029-30	2034-35	2039-40	2044-45
GDP ($m[a])					
Direct	0.0	0.0	-0.1	-0.3	-0.4
Prod'n induced flow-ons	0.0	0.0	-0.3	-0.7	-1.1
Cons'n induced flow-ons	0.0	0.0	-0.2	-0.5	-0.7
Total[b]	**0.0**	**0.0**	**-0.7**	**-1.4**	**-2.2**
Employment (fte jobs)					
Direct	0	0	-1	-3	-5
Prod'n induced flow-ons	0	0	-2	-3	-5
Cons'n induced flow-ons	0	0	-1	-2	-3
Total[b]	**0**	**0**	**-4**	**-8**	**-13**

[a] In current dollars

[b] Sums may not add to totals due to rounding

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9.2. Proposed Community Engagement - Draft Greening our Township Strategy

Decision Report

Responsible Officer: Matt Atkinson (General Manager Growth)

Report Author: Monika Rhodes (Team Leader Environmental Strategy)

Previous Decisions:

February 2021 - ACM20893; November 2025 - C381/11/25 & C382/11/25; April 2023 - C23121 & C23122; March 2024 - C24110; November 2024 - C24591 & C24592; and May 2026 - C183/05/26.

Report Purpose

To present Council with the draft *Greening our Townships Strategy* and to seek approval to commence community engagement.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Proposed Community Engagement - Draft Greening our Townships Strategy*.**
2. **Receive the informing report titled *Setting Canopy Targets - a 'Greenprint for Success'*, as contained in Attachment 4.**
3. **Approve the draft *Greening our Townships Strategy* (Attachment 1) and draft Infographic (Attachment 3) for public consultation in accordance with the draft Community Engagement Plan (Attachment 2).**
4. **Authorise the Chief Executive Officer to make any minor amendments to the draft Greening our Townships Strategy and/or to the draft Community Engagement Plan.**
5. **Note that a further report will be presented to Council in Q1 or Q2 2027, to present the consultation results, feedback and the final Greening our Townships Strategy for approval.**

Background

Community input has been critical to understanding local needs and priorities. In 2020, our community strongly identified township greening throughout the preparation of the Village Innovation Plans (VIPs) (ACM20893), which was reinforced as one of the key visions in Alexandrina's Community Strategic Plan (A2040) under Liveable Alexandrina: '1.1 Increase township greening and tree planting for canopy cover'. Council's *A2040 Strategic Delivery Plan 2025-2035* identifies two (2) related key actions: to deliver a township greening strategy (action 3.1.12); and to identify township greening delivery actions (action 3.1.13).

To develop a greening strategy, in 2022, Administration commissioned a study to determine the current tree canopy cover and provide heat maps for our major townships (C23122). The *Tree Canopy Benchmark Study and Thermal Imaging Report* identified the current canopy cover per township and showed that most trees are found on private land (78%), compared to Council managed land (21%) and Crown land (1%). This report was adopted by Council and is available on Council's webpage (the Benchmark Study).

Having established a benchmark canopy cover and land ownership for our main townships, the next step was to identify where each township could increase canopy cover, how this could be achieved, what resources would be required and ultimately what would be an ambitious but achievable canopy cover target. Council appointed consultants to help resolve these questions, which culminated in a report entitled *'Setting Canopy Targets - a "Greenprint" for Success'* (Greenprint for Success) (***Attachment 4***).

The results from the Greenprint for Success study provide Council with evidence-based information on how to achieve tree canopy increase, with the associated timeframes and the relevant costs involved. The main recommendations of this study were incorporated into the draft *Greening our Township Strategy* (***Attachment 1***), which is now provided for approval to progress to community and stakeholder engagement.

Greening our townships is not just about canopy cover though and not all locations are suitable to accommodate trees. In many cases lower growing species are vital for our ecosystems and so biodiversity planting, which may involve vegetation other than trees, is also part of the strategy to green our townships.

Discussion

The draft *Greening our Townships Strategy* (the draft Strategy) (***Attachment 1***) sets out how Council can work with communities to create greener, cooler and more liveable townships. It supports Council's *A2040 Strategic Delivery Plan 2025-2035* and will guide future planning, investment and funding opportunities through the Annual Community Plan, Long Term Financial Plan and external funding programs.

The draft Strategy has been prepared by the Strategic Development Team, informed by the Benchmark Study and Greenprint for Success, and shaped by community and stakeholder input, including from Council's Section 41 Climate Emergency and Environment Committee (CEEAC). This input has helped ensure the draft Strategy reflects local knowledge, community aspirations and the greening opportunities that matter most to each township. Engagement activities to date have included:

- Village Conversations;
- Three (3) workshops with the CEEAC and internal staff representing different business units; and
- Council Member workshops.

The draft Strategy is structured around two (2) complementary sections:

1. Main document

The main document outlines the overarching vision, strategic directions and levels of service for greening our townships, incorporating the findings of the two (2) informing studies: The Benchmark Study and the Greenprint for Success.

The draft Strategy identifies priority actions for how Council, community and other Government agencies, can respond to our key challenges:

- Strengthening community involvement;
- Greening townships where space is limited;
- Urban heat, extreme weather and climate change; and
- Maintenance and resourcing.

Where relevant, the strategic alignment (either the *A2040 Strategic Delivery Plan 2025-2035* and / or the *Environmental Action Plan 2030*) for each priority action is identified, along with the proposed timing as identified in the *A2040 Strategic Delivery Plan 2025-2035*.

2. Greening opportunities in township reserves (Appendix A of the draft Strategy)

The second part of the draft Strategy outlines greening opportunities in township parks. Public parks are shared community places where residents, schools, community groups, volunteers and Council can work together to create greener, cooler and more welcoming townships.

With public parks located across Alexandrina's townships, Appendix A outlines the recommended priority parks identified within Greenprint for Success for each township based on consideration of socio economic and canopy cover inequities, accessibility, urban heat island exposure, existing canopy cover, and planting potential, that are presented as 'heat style' maps.

These priority parks and reserves now need to be tested with the community and internal engagement, as outlined in the Community Engagement Plan (***Attachment 2***). This feedback will help confirm where community priorities and Council investment can best align to deliver the greatest local benefit.

Proposed Community Engagement

Broad community and stakeholder engagement is recommended to help finalise the draft Strategy. This will give residents, stakeholders, user groups, and internal business units the opportunity to review the proposed priority actions and priority township parks, and to provide feedback before the Strategy is finalised.

It is proposed that the draft Strategy be released for community engagement in November/ December for a 6-week consultation period. This is a discretionary consultation that is not bound by the provisions of Council's *Community Engagement Policy*. The extended timeframe will allow adequate time for residents, visitors and stakeholders to review the documents and for Administration to initiate targeted engagement with key stakeholders.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting these recommendations are considered Low based on the following assessment:

- The recommendation is to receive the informing plan and to undertake community engagement on the draft Greening our Townships Strategy only.
- Whilst delivering the actions in the draft Strategy will have significant budget implications, financing the actions will be subject to the provision of external funding, whether the action is already identified in the Long Term Financial Plan and Strategic Delivery Plan, and/or will need to be considered with future budget processes.
- The Community Engagement process itself will be delivered using existing operating budgets.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low, as the outcomes of the proposed community engagement will be presented to Council prior to making any decisions regarding implementation. It is noted, however, that there is a risk that the community will expect a greater level of township greening than what Council can afford within the constraints of Council's Long-Term Financial Plan.

The risk of NOT adopting the recommendation and not undertaking community engagement is considered High as there is an expectation that community will want to be engaged and further, the buy in and feedback from community groups who are already involved in some way will be invaluable.

Attachments

Attachment 1 - Draft Greening our Townships Strategy

Attachment 2 - Draft Greening our Townships Strategy Community Engagement Plan

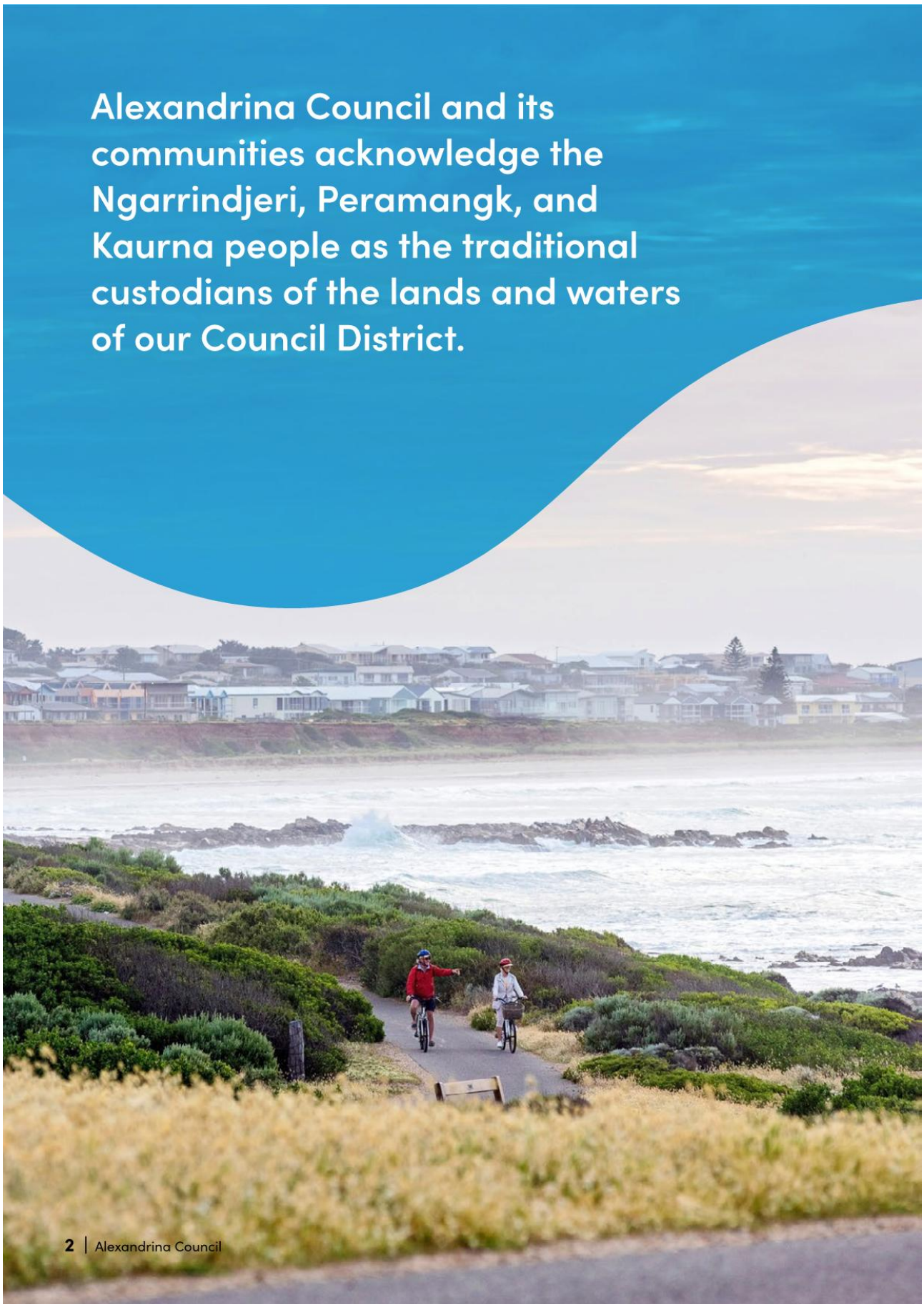
Attachment 3 - Draft Greening our Townships Strategy One Page Summary

Attachment 4 - Draft Setting Canopy Targets - Greenprint for Success Informing plan

Attachment 1 - Draft Greening our Townships Strategy



Alexandrina Council and its communities acknowledge the Ngarrindjeri, Peramangk, and Kaurna people as the traditional custodians of the lands and waters of our Council District.



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Message from the Mayor and CEO

Our trees and green spaces play a significant role in our region. They make our places and spaces more attractive and support our healthy lifestyles. As we move towards a warmer and more densely populated future, the role they play in cooling and shading our towns, sequestering carbon, and supporting regional biodiversity will be more important than ever.

This Greening our Townships Strategy is the start of our greening journey as we seek to respond to a changing climate and halt the loss of biodiversity.

It has been prepared with a vision for the future and a strategic focus for each township and outlines our need for, and approach to, sustaining and enhancing the benefits of urban greening across our townships.

While we acknowledge all greening is important, our focus is initially on townships given the multitude of benefits provided by trees to human health and wellbeing, biodiversity, environments, and local economies. The progressive expansion of greening our entire region is our ultimate goal.

Alexandrina's vision is to have townships that are vibrant, walkable communities, characterised by tree-lined streets and shady, green parks and reserves that enhance liveability, promote wellbeing, and foster biodiversity.

Greening our townships is a shared community effort. With 78% of Alexandrina's land in private ownership, the actions our community, landholders and businesses take every day play a vital role in creating greener, cooler places for everyone to enjoy.

Alexandrina Council recognises and values the huge role the community, First Nations Peoples, schools, businesses and developers play in greening our region by supporting projects and activities that enable our community to thrive.

Council sought expert advice from Edge Impact and Active Green to develop this document in close collaboration with staff and Council's Climate Emergency and Environment Advisory Committee.

Together we can make our townships 'Liveable. Green. Connected.' places for all to enjoy.

Kind regards





Andrew MacDonald
Chief Executive Officer

Mayor
Keith Parkes

Context



Figure 1 - Map of Alexandrina Council - total land area 1,827 km²

Context



In December 2019, Council declared a climate emergency, recognising the risk within the region from an increasingly drier and warmer climate, and providing a clear mandate to place climate change mitigation and adaptation at the forefront of all local action. Trees and plants play a significant role in our region, helping to cool our landscapes and mitigate climate change impacts, enhancing the aesthetic appeal of our surroundings, and contributing to our overall wellbeing. In the face of a progressively warmer climate and increasing urban density, their significance becomes even more evident.

Our trees and green spaces provide vital cooling and shading to our towns, offer a sense of place for our communities, actively sequester carbon, and foster regional biodiversity. As we navigate towards the future, their role will only grow in importance, making our commitment to their preservation and expansion even more critical.

As such, our urban trees and vegetation are not just a feature of our region; they are integral to the liveability and resilience of Alexandrina's major townships. Replenishing and sustaining the benefits of urban tree canopy cover and creating biodiverse green spaces is therefore central to our Greening our Townships Strategy.

Our objective is to systematically expand our network of green assets, fostering the growth of trees with optimal health and form throughout our townships. This Strategy aims to prioritise greening actions to better protect existing trees, address canopy deficiencies by planting in areas where trees and biodiverse vegetation are most essential, and to guide our strategic direction to implement realistic and appropriately resourced actions.

Successfully protecting, growing, and managing our urban tree canopy and greening initiatives will require support from many members of the community including First Nations Peoples, the public sector, developers, businesses, Council and the State Government (refer Page 7, Figure 1). This Strategy sets out recommendations for how township greening can be delivered through this partnership.

Strategic context

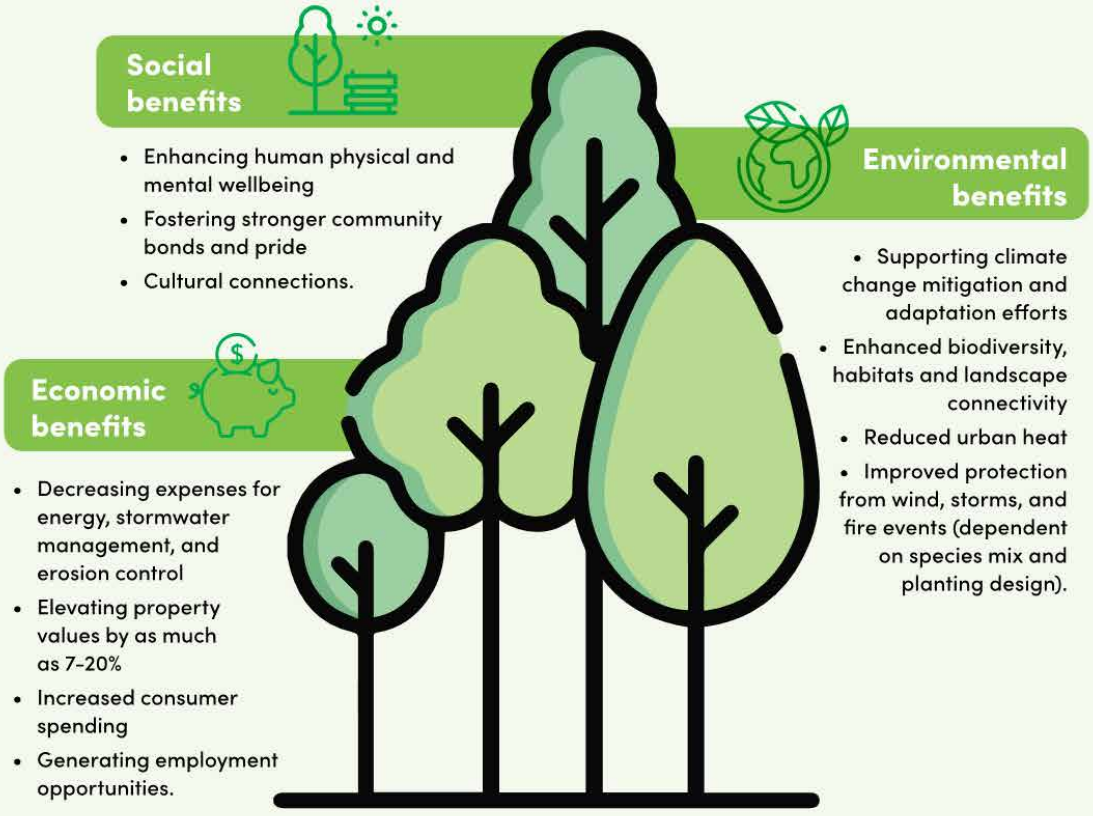
Greening our townships is consistently reported to be of the highest importance to our community, and is referenced in many community led Council Plans.

In 2020, we worked with our community to shape A2040, Alexandrina's 20 year Strategic Community Vision. Through this process, our community shared a clear aspiration for the region to thrive as a 'Liveable. Green. Connected.' place for everyone to enjoy.

- **Alexandrina's Community Strategic Plan (A2040)[2]**
  - In A2040, our community strategy and key guiding document for 2023-2040, we've committed to shaping a 'Liveable. Green. Connected.', Alexandrina and declared that it's our time to thrive. To deliver this commitment, it's essential that we establish a network of healthy and resilient urban trees distributed equitably within each of our townships. The vitality of our communities is intricately linked with the flourishing health of our trees and environment.
  - Township greening emerged as a focal point during Alexandrina's A2040 Village Conversations, highlighting the significance of tree canopy cover not only for environmental wellbeing but also for community health.
  - The 2024 review of the 2020 Community Strategic Plan highlighted that the community's vision to be 'Liveable. Green. Connected.' remained strong and relevant. One of the five key themes identified to bring the A2040 vision to life is 'Climate and environmental stewardship' where 'Alexandrina is a climate resilient community that values our natural assets'.
- **A2040 Strategic Delivery Plan 2025- 2035[3]**
  - One of the five key themes identified to bring the A2040 vision to life is 'Climate and environmental stewardship' where: 'Alexandrina is a climate resilient community that values our natural assets'. One of the three identified outcomes is 'Thriving ecosystems & biodiversity with Strategy 3.4 being to: Protect and enhance natural areas and biodiversity through integrated approaches, including land use planning, sustainable community land management, community stewardship, and facilitated habitat restoration' and the relevant success indicators are:
    - 'increased tree canopy coverage.
    - Progressing toward Council's 2040 Carbon Neutral goal.
- **Alexandrina's Environmental Action Plan 2030[4]**
  - As a community, we collectively share the responsibility of safeguarding our natural environment. Our Environmental Action Plan 2030 underscores our dedication and outlines the steps we'll take to fulfill our role as responsible stewards of the land and waters of Alexandrina.
  - This Plan provides a comprehensive overview of the context, opportunities, and challenges involved in implementing necessary changes to protect our ecosystems and improve environmental management.
- **Alexandrina's Climate Emergency Action Plan[5]**
  - Following this declaration, Council committed to achieving carbon neutrality by 2040 and developed our Climate Emergency Action Plan, which identifies how together, as Council and community, we can respond to climate change and the carbon neutral target, and how we can elevate our mitigation and adaptation ambition.
  - Increased urban greening, including through tree planting and retention on public and private land, is identified as a key mechanism for helping to achieve Council's carbon neutral targets and better adapt to climate change impacts.

Benefits of urban trees and greening

Planting trees represents an investment in our future, with urban trees providing a large range of benefits, which can broadly be divided into three main service areas as follows:



Social benefits

- **Enhancing human physical and mental wellbeing, such as:**
  - Decreasing stress, depression, and anxiety
  - Improving air quality
  - Encourages physical activity in cool shaded, attractive areas
  - Decreased urban heat through shading and evapotranspiration
  - Contributing to food security and nutrition.
- **Fostering stronger community bonds and pride**
  - Creating a 'sense of place' and provide landscape character to an area
  - Encourages community connections, by making outdoor activities more appealing through providing cool, shaded spaces where people feel comfortable to meet and play.
- **Cultural connections**
  - Encourages an inclusive place that has been integral to the lives of the Ngarrindjeri, Peramangk and Kaurna First Nations for millennia
  - Developing closer relationships with First Nations and their deep connection to nature
  - Many tree species hold sacred significance for First nations People.

Economic benefits

- **Decreasing expenses for energy, stormwater management, and erosion control**
  - Provide shade to keep homes cooler, reducing the need for energy intensive air conditioners
  - Reduce stormwater flows, filtering runoff entering waterways
  - Root system acts to bind any loose soil and increases water filtration and reducing runoff.
- **Elevating property values by as much as 7-20%**
  - Greener, leafier suburbs demand higher land values
  - Tree-lined streets enhance land value.
- **Increased consumer spending**
  - Retail precincts with neighbouring trees and tree-shade show higher rates of consumer spending in hot temperatures.
- **Generating employment opportunities**
  - Increased consumer spending can increase need for additional job opportunities.

Environmental benefits

- **Supporting climate change mitigation and adaptation efforts, including through:**
  - Increased carbon storage and sequestration
  - Improved stormwater management and flood mitigation
  - Reduced air, noise, and pollution.
- **Enhanced biodiversity, habitats and landscape connectivity**
- **Reduced urban heat**
- **Improved protection from wind, storms, and fire events (dependent on species mix and planting design)**

Our shared responsibility

Our vision: Our townships are vibrant, walkable communities, characterised by tree lined streets and shady, green parks and reserves that enhance liveability, promote wellbeing, and foster biodiversity.



Our shared targets

Through this Strategy, and as a community, we aim to achieve the following:

Our community will...

- Value and champion the many benefits that trees and green spaces provide for our environment, health, and wellbeing
- Actively contribute to our shared vision by greening homes and gardens
- Contribute to the greening of township parks and reserves
- Work together to help grow and care for greener, cooler townships for current and future generations.

Council will...

- Lead street tree plantings
- Grow richer, more diverse plantings across Council reserves by working alongside our community, volunteers, and partners
- Walk alongside our community on our shared greening journey, providing support, resources, and opportunities to get involved
- Build healthier, more resilient trees on Council land for the benefit of current and future generations
- Increase tree planting to achieve a 25% canopy cover on Council managed land by 2055 with interim milestones to track progress
- Seek grant funding to complement Council investment to reach our targets.

Together we will...

- Create cooler, greener, and more liveable neighbourhoods to benefit our community, nature, and future generations
- Build a strong culture of community stewardship by increasing participation in tree planting, watering, monitoring, and education programs
- Increase the number and diversity of species planted annually across the townships, with a shared goal of at least 80% survival after 5 years through joint care, watering, and stewardship
- Protect and retain existing mature, habitat, and culturally significant trees on public and private land, recognising that retention delivers faster canopy, cooling, and biodiversity benefits than new planting
- Aim to increase overall township tree canopy cover to 18.6% by 2055 across private and public land, with interim milestones to track progress.

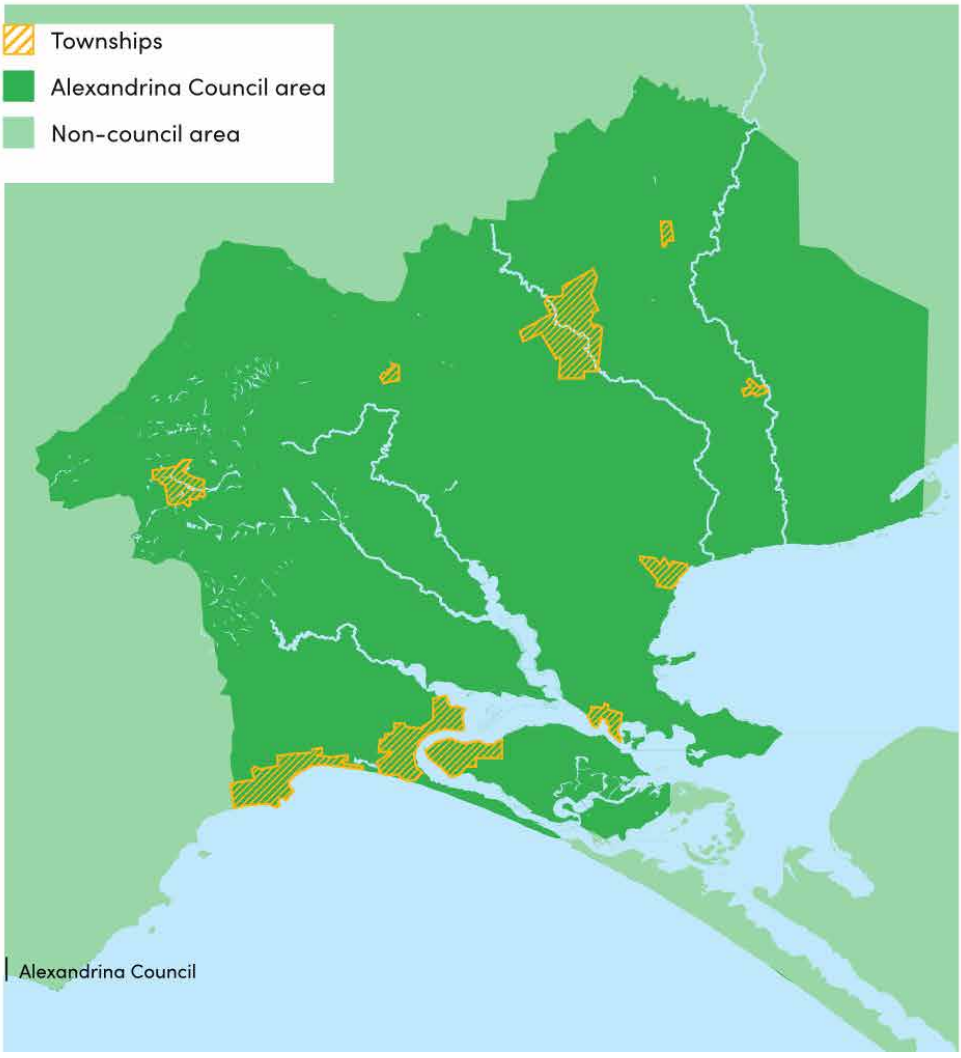
Scope

This Strategy sets the direction for Council, the community, landowners, and developers to protect what we have and to increase tree and vegetation cover across our townships.

It specifically focusses on our townships – our built, urban centres because of the benefits of greening where people live work and play.

Conservation, management and revegetation outside of our townships is outlined in Alexandrina's Environmental Action Plan 2030.

Area within scope of Strategy



Where have we come from?



Historical urban landscape

Prior to the impacts of European settlement in 1836, the Alexandrina Council area was covered by a continuous mosaic of vegetation that enabled native fauna to move freely across the landscape (along green corridors) and which provided essential resources for First Nations Peoples.

Vegetation communities were diverse (refer Page 15 - Figure 2) and included: the shrubby dunes and low grassy woodlands of the coastal strip; the reed beds and grasslands adjacent to the freshwater lower lakes and creeks; inland swamps and creeks; the mallee communities of the plains surrounding Lake Alexandrina; the widespread woodland communities of the foothills; and some denser stringybark forests on the higher ridges to the north of Ashbourne and Mount Compass. The local landscape was an integral part in the lives of the Ngarrindjeri, Peramangk and Kaurna First Nations people who have been stewards of the land and waters for millennia.

European settlement was initially driven by agriculture and grazing. As such, since settlement began, vegetation within our Council area has been subject to broad-scale clearing and disturbance for agricultural purposes, as well as urban and coastal development.

During the early stages of settlement, key townships such as Goolwa, Strathalbyn, and Mount Compass emerged as vital hubs for trade and commerce due to their strategic locations along major transport routes, including the Murray River and various roads connecting the region to Adelaide and other parts of South Australia. Before the spread of railways to inland Australia, Goolwa, situated near the mouth of the Murray River, played a significant role as a port town during the riverboat trade era, facilitating the transportation of goods and passengers between inland areas and the coast. Strathalbyn became a prominent agricultural centre, known for its fertile lands and thriving farming community, and developed as a service centre for the surrounding rural areas. Mount Compass, located in the north western part of the Council area, also developed as an agricultural township, with dairy farming and crop cultivation being primary economic activities.

The development and expansion though of these main townships, and others that emerged within the region, often involved extensive land clearing of native vegetation and forests, altering the landscape significantly. While early settlers cleared land for farming and infrastructure, they also recognised the value of native trees and vegetation for various purposes such as timber, fuel, and fodder. Native species were selectively harvested, and some efforts were made to preserve pockets of vegetation for their practical benefits. With the rise of industrialisation and urbanisation in the late 19th and early 20th centuries, the demand for land and resources intensified. This period saw further clearing of vegetation for urban development, expansion of transport networks, and establishment of industrial sites, leading to significant environmental changes.

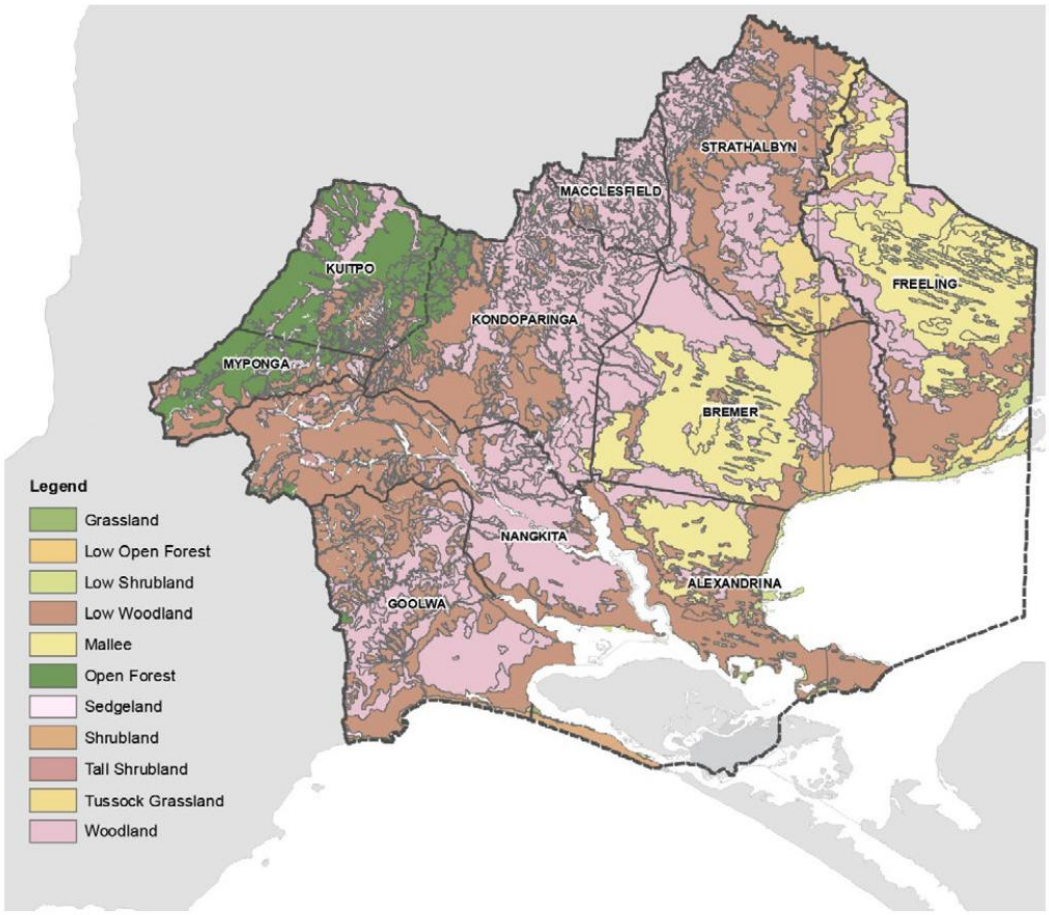
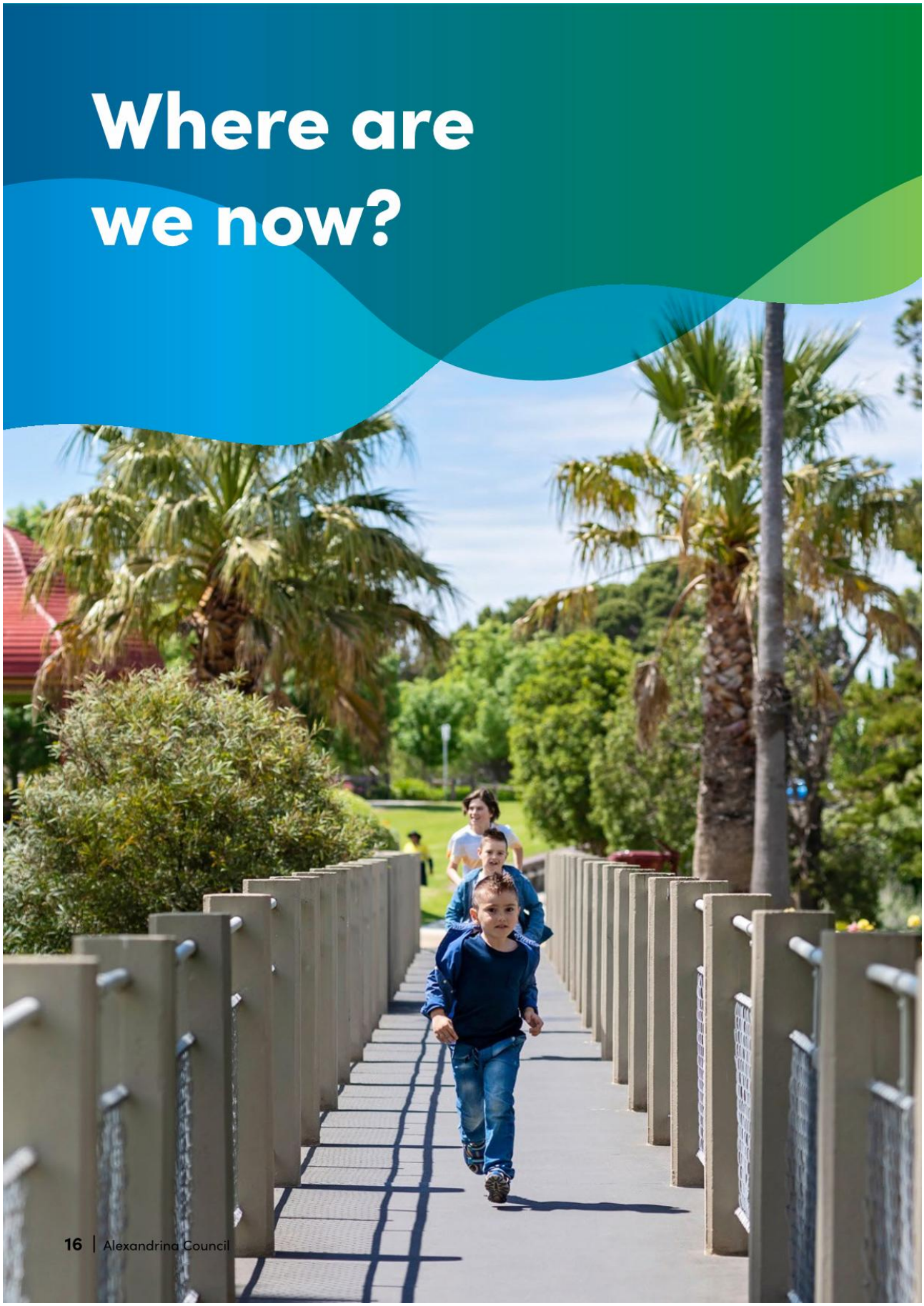


Figure 2. Pre-European Vegetation across our region. Source: Department for Environment and Water Digital Data (2014). Data not available for Hindmarsh Island.

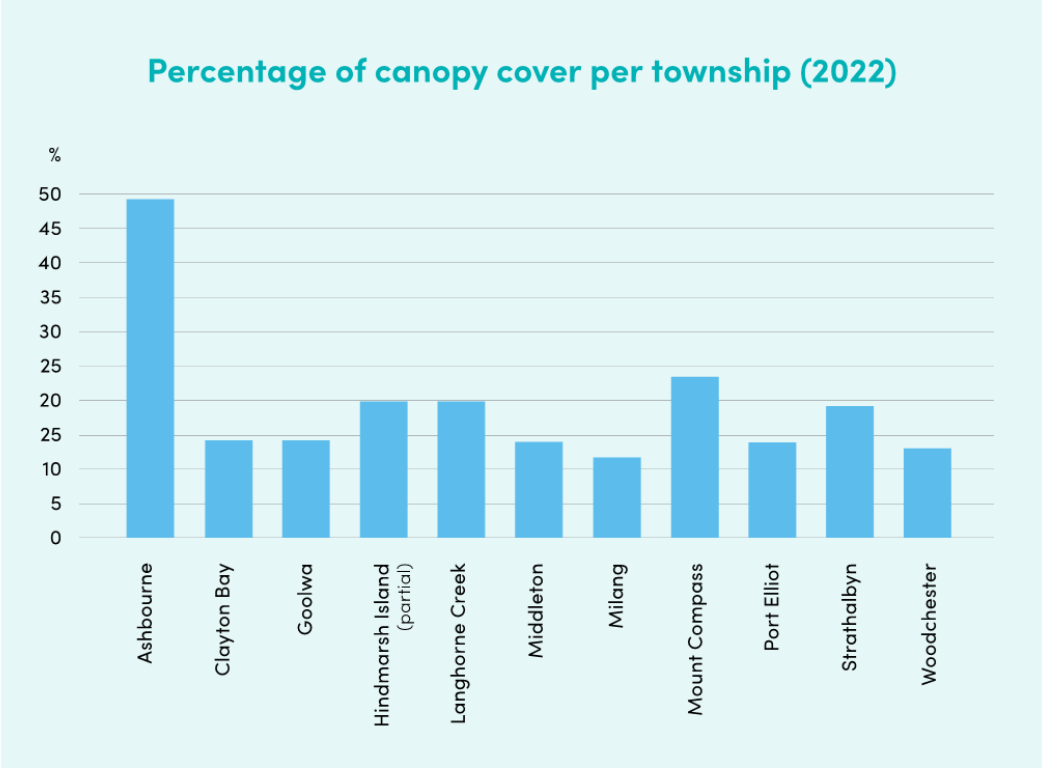
Where are we now?



Current urban canopy cover

In 2022, Council commissioned a study to capture and assess the baseline tree canopy cover within each of our 11 main townships.

This 'Tree Canopy Benchmarking Study'[6] (Benchmarking Study), established the current canopy cover baseline for our townships, including identifying locations where tree canopy cover is lacking. It showed that the average current urban tree canopy cover across all townships was 17.6%, which is substantially lower than the average of 23.4% across Adelaide's metropolitan councils. However, the percentage cover between each township varied significantly, from 11.7% in Milang to 49.3% in Ashbourne (see graph below).



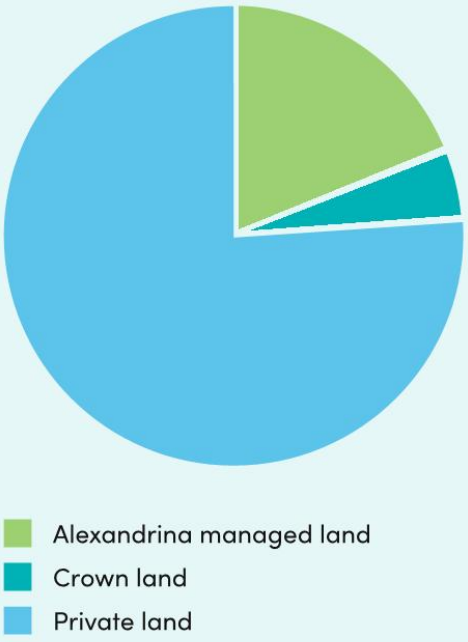


The Benchmarking Study also investigated canopy cover in relation to land tenure within each township. Private land ownership dominates the region, covering 78% of the total study area and supporting 76.4% of the total urban tree canopy cover. Comparatively, Council owned land comprises 21% of the study area and supports 19% of total urban canopy cover. The remaining 1% of land area and 4.6% of urban canopy cover is on Crown owned and managed land (see graph to right).

To offset a 1% loss of canopy cover on private land, an increase of 3.3% of canopy cover on Council land would be required.

This highlights the critical role that the community plays in aspirations to protect and grow Alexandrina's urban tree canopy.

Tree canopy cover across 11 townships between public land (Alexandrina and Crown) and private land (2022)



Current urban heat patterns

The 'Tree Canopy Benchmarking Study'[6] also included thermal imaging. Findings from this analysis mirrored those of other thermal studies within the State[7,8], showing that the hottest areas generally occurred in areas with low or no canopy cover, and/or expanses of dry vegetation.

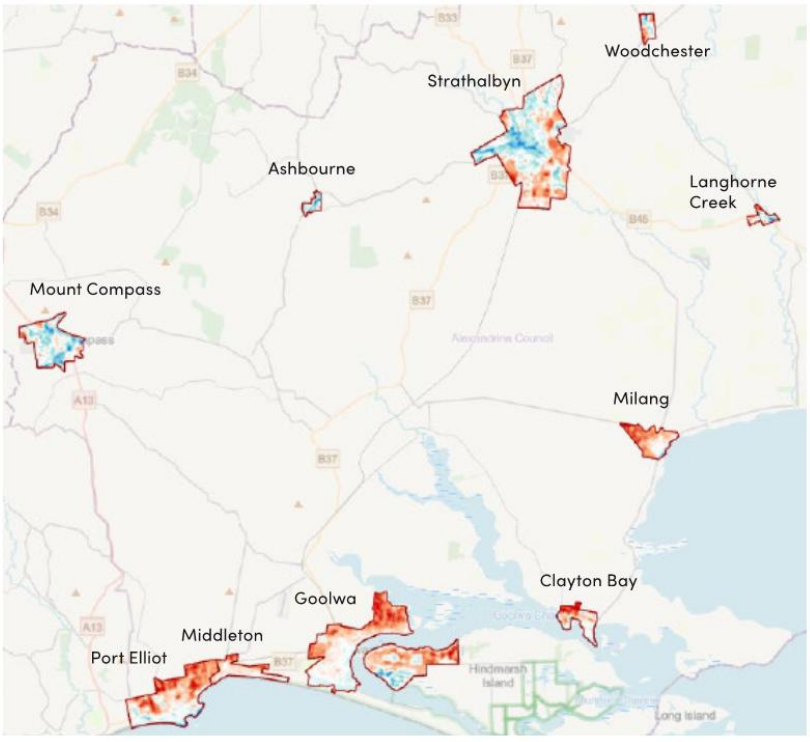
Whereas the coolest areas coincided with increased canopy cover and well watered vegetation (see map below). Outputs from this report include the current canopy cover proportions for each of our townships and note the increasing temperatures likely to be experienced due to climate change-induced temperature increases coupled with the urban heat island effect.

This demonstrates the importance of trees and irrigated vegetation in mitigating these impacts.

The data from this project serves as a vital tool in guiding our decision-making processes regarding urban greening priorities, directing our focus toward areas most in need of greening initiatives

Alexandrina Council urban heat data

- +/- 4°C
- 4 to 10°C warmer
- 10 to 14°C warmer
- 14 to 19°C warmer
- >19°C warmer



Current township tree planting and management

Council currently plants an average of 300 trees per annum, varying each year in line with budget allocation. Trees are planted within our township urban parks and reserves, on streets and other public spaces.

Managing and maintaining our urban tree canopy and green spaces occur in accordance with, and subject to, adoption of Council's Annual Business Plan and Budget.

Tree management within Alexandrina is undertaken in accordance with Council's Tree Management Policy and Procedures.

Council partners with the community on a range of initiatives to help increase greening across our townships:

We also acknowledge the significant work undertaken by community groups across Alexandrina to increase greening within and outside our townships.

Private land incentives:

- Supporting the community through subsidised local native plants for their backyards
- Actively restoring Council land which buffers or connects remnant vegetation on private land
- Promoting and supporting programs delivered by community organisations and other levels of government
- Educating and providing information to help guide private investment, such as strategic revegetation priorities and species lists
- Backyards for Bushyards initiative, providing plant packs to households.

Public land activities:

- Supporting the community through an annual Environmental Community Grants Program
- Initiate community planting days on township reserves
- Greening on public land through guidance and encouragement of Council volunteers and community groups.



Where do we want to be?



Our vision

In A2040 we heard that our community envisages a walkable, liveable, vibrant, and accessible environment and community.

Recognising this, this draft Strategy sets out our vision for protecting, managing, and increasing Alexandrina's urban tree canopy and greening. We will achieve this vision by increasing resources with a dedicated focus on planting more trees and vegetation, whilst maintaining, protecting, and retaining our existing tree canopy.

Our townships are vibrant, walkable communities, characterised by tree-lined streets and shady, green parks and reserves that enhance liveability, promote wellbeing, and foster biodiversity.

Together, our green townships create inviting spaces for residents and visitors to gather, play, and connect with nature.



What canopy target should Alexandrina aim for?

Our A2040 identifies increased tree canopy cover as a success indicator, but what rate of increase?

The Greater Adelaide Regional Plan[9] (GARP) outlines the long term growth of metropolitan Adelaide and its surrounding peri urban areas for the next 30 years. Alexandrina Council falls entirely within the Greater Adelaide (GA) regional area.

The GARP includes a range of targets including Target 4, which aims for a 30% tree canopy cover for metropolitan Adelaide by 2055, requiring a 2% tree canopy growth every five years.

While this target has not been assigned to the peri-urban Councils in the greater Adelaide region, it provides a relevant benchmark and has informed the development of this strategy by considering how a similar level of cover could be achieved locally.

Of most relevance to Alexandrina's future growth areas is the GARP target for new master planned greenfield development and strategic infill sites to achieve a 30% tree canopy cover once landscaping has matured. This target reinforces the importance of integrating greening outcomes into the planning and design of new urban areas from the outset.

While the GARP's 30% canopy cover target can be applied to new development areas, Council recognised the need for a locally appropriate canopy target for Alexandrina's existing townships.

Council commissioned a study to determine evidence based targets for each township. The 'Setting Canopy Targets, Greenprint for success' study[10], ('Greenprint for Success') recognises there is no one size fits all when identifying targets for Alexandrina's 11 townships and settlements, as each has different characteristics, land use patterns and existing levels of canopy cover. The study modelled a number of scenarios to identify evidence based canopy targets that are both ambitious and achievable. It also recommends annual planting programs for each township to improve canopy cover and provide more equitable access to trees and green spaces across Alexandrina. Council's Climate Emergency and Environment Committee helped to determine the right approach.

Addressing the challenges of urban greening, expanding canopy cover and protecting biodiversity requires a coordinated, place based and future focused approach.

Based on the modelling, Scenario 1 is recommended as the minimum target (refer to Table 1) for both individual townships and Alexandrina as a whole. This scenario is based on **doubling Council's current planting program** to approximately 600 trees per year through to 2055.

Under Scenario 1, the minimum 2055 canopy cover targets are:

18.6% total canopy cover across all township land tenures, an increase from the current 17.6%.

25% canopy cover on Council controlled land across all townships, an increase from the current 19.0%.

Refer Page 24, **Table 1**



Table 1: Presentation of current township canopy cover and expected increase of canopy cover by 2055, **Scenario 1**

Township (Scenario 1)	2025[1] Total Canopy Cover	2055 Total Canopy Cover	2025[1] Council Canopy Cover	2055 Council Canopy Cover	Trees per year[4]
Across all townships	17.6%	**18.6%**	19.0%	**24.9%** (rounded to 25% for the purpose of this document)	591 (rounded to **600** for the purpose of this document)
Ashbourne	49.3%	**49.3%**	70.2%	**70.2%**	0
Clayton Bay	14.3%	**173%**	10.8%	**22.8%**	100
Goolwa	14.3%	**15.7%**	16.0%	**21.4%**	200
Hindmarsh Island	19.9%	**20.0%**	11.7%	**12.9%**	20
Langhorne Creek	19.9%	**20.8%**	26.5%	**31.8%**	10
Middleton	14.1%	**16.2%**	11.6%	**17.3%**	65
Milang	11.7%	**14.1%**	20.2%	**28.5%**	75
Mount Compass	23.4%	**23.5%**	25.9%	**26.5%**	6

Total canopy cover increases by 1%, from 17.6% to 18.6%, and on Council land canopy cover increases by 5.9%, from 19% to 25% by 2055 with Council's investment prioritising street tree plantings.

The 2025 township canopy cover extent is based on Alexandrina's 2022 Tree Canopy Report

1. Total Canopy Cover = Canopy cover percentage of townships by 2055 across all tenures (Council, Crown, and private)
2. Council Canopy Cover = Canopy cover percentage of townships by 2055 on Council land
3. Trees per year = Trees to be planted annually up to 2055.

Source: Setting Canopy Targets – A Greenprint for Success

While Scenario 1 represents the lowest canopy increase of the 79 scenarios modelled, it is considered the most achievable under current funding conditions. Greater canopy outcomes could be realised through increased planting on private land, accelerated planting in the early years, or additional investment. However, these options would require substantially higher upfront funding at a time of significant budget constraints.

Prioritising Alexandrina's most vulnerable areas

A central focus of this draft Strategy is ensuring our efforts are directed to where they are needed most.

This draft Strategy recognises that we can't do it all at once and so we need to prioritise. The Strategy provides a pathway for Council and the community to take positive actions to address inequities in canopy cover and the quality of township greening.

Priority should be given to areas with:

- lower existing tree canopy
- social vulnerability and inequality
- greater exposure to urban heat
- increased vulnerability to climate change impacts.

Finding suitable locations that meet all of these criteria can be challenging. Many parks and reserves serve multiple functions, and planting, particularly along foreshore areas, can be constrained by competing uses and community expectations around views and open space.

Open, constructive conversations with the community will be essential to balance these competing priorities and create green, shady spaces that everyone can enjoy.

Some areas within townships are not in proximity of parks and reserves. In order to ensure that households where this is the case have access to shade, Council will focus its investment in street tree planting programs. Street tree planting programs will be prioritised in order of township with lowest canopy cover first and then streets identified as being the hottest in the most disadvantaged areas within those townships, using the maps in Appendix A. Noting that a street tree planting priority map has already been prepared for the township of Milang (refer Appendix A), being the lowest canopy cover township.

The Greenprint for Success study identified priority parks with social value by targeting areas of high public use and exposure, lower canopy cover, as well as those with social vulnerability, such as schools. The priority locations are identified in Appendix A.

Council will actively investigate grant funding opportunities and will partner with community groups to deliver canopy and biodiversity outcomes in parks and reserves.

Responding to our key challenges



Responding to our key challenges

The benefits of trees and green spaces are well documented, so it might seem simple – Council should just plant more trees and plants! But there are lots of challenges to achieving our target of 25% canopy cover on Council managed land and 18.6% canopy cover across all township land.

The following pages identify the actions that we can undertake to respond to the challenges and achieve these targets.

Noting that some of the actions identified in the following Strategic Action Tables are relevant to more than one challenge but are not repeated.



Strengthening community involvement

While we know that many in our community want to see more township greening, there are also members of the community who hold concerns about the impacts that trees can have. These concerns include: falling branches, root intrusion into drains, disputes with neighbours, allergies to pollen, leaf litter, obstruction of views, and potential bushfire risks.

These perceptions often result in strong opposition to Council's street and reserve planting campaigns including the illegal removal of trees.

But there are things that we can do to improve these perceptions including education regarding the benefits of trees and township greening and importantly partnering with community and community groups to both help increase the level of understanding of the values of greening and to help with the practical side of growing and planting the right types of trees and vegetation.

We are fortunate to have many dedicated community groups already leading greening activities independently of Council. Council's Climate Emergency and Environment Advisory Committee will also play an important role as respected community champions, helping to support and advocate for the Greening our Townships Strategy 2026–2036 and its actions.



Alexandrina Council

Strengthening community involvement:		
Strategic Action	**Strategic Alignment: A2040[+] or EAP[++]**	**Timing/ Priority[+++]**
Council Led Actions		
Deliver education activities that build understanding of township greening in priority parks.	A2040 3.1.13	2026 – 2035
Develop a **communications plan to promote tree benefits**, address barriers and recognise community champions.	A2040 3.1.13	2026 – 2035
Create **incentives for private land planting** to increase township greening and canopy cover.	A2040 4.1.1	2026 – 2035
Community Led and Partnership Actions		
Lean on community groups to assist in increasing our canopy cover by facilitating **community led plantings** in parks and reserves using Appendix A to prioritise.		
Engage First Nations Peoples and Rangers to inform planting, green space design and conservation.	EAP 1.1; 1.2, 1.4, 1.5, 3.1	Ongoing
Collaborate with community groups to develop and promote **verge planting guidelines and programs**.	EAP 1.4	High investment required
Use citizen science data to map **Alexandrina's urban biodiversity**.	EAP 1.1	Medium investment required
Use community groups and organisations to help **promote trees and vegetation as contributors to health**, wellbeing, biodiversity and liveability.	A2040, EAP	Ongoing
Support township champions, community and environment groups through information sharing, coordinating and facilitating biodiversity plantings in townships.	A2040 3.1.11 EAP 3.1, 3.5	2025/2026 (also $10k allocated in 2026/2027 ACP)
Using Appendix A as an evidence base to seek grant funding for Council led or community led plantings.	A2040 3.1.13	2026 – 2035
Partner with local nurseries to supply local provenance species.	EAP 1.2	Ongoing
Increase the allocation in Council's Community Grants assigned to Environmental initiatives that improve our greening and canopy cover.	A2040 1.5.1	2026/2027

+ A2040 Strategic Delivery Plan[3] (A2040)
++ EAP - Environmental Action Plan[4] (EAP)

+++ Note: While some initiatives have been assigned to particular financial years, many are business as usual and ongoing but may require additional budget.

Greening townships where space is limited

Council does not own or control enough land within townships to reach desired canopy cover, and the land that is in Council's control is highly contested by other uses such as community halls, sports fields, libraries, offices, and infrastructure both above and below ground.

Our townships are also expanding and the demand for space for buildings, homes, roads, and infrastructure escalates, exacerbating the loss of urban vegetation.

New developments or rebuilds frequently result in the removal of mature trees to accommodate larger structures, and at the same time diminishing available space for tree planting.

The increasing extent of impermeable surfaces, such as buildings and roads, also amplify urban heat island effects and stormwater runoff, and the retained vegetation can often suffer damage compromising health and longevity.

Even the selective removal of trees within a stand exposes the remaining trees to heightened vulnerability to strong winds and extreme weather conditions, increasing the likelihood of failures and losses.



Alexandrina Council

Greening townships where space is limited:		
Strategic Action	**Strategic Alignment: A2040+ or EAP++**	**Timing/ Priority+++**
Council Led Actions		
Create space for large trees in urban places and plan plantings to **maximise available canopy opportunities** (Scenario 1 of the Greenprint for Success study).		High investment required
Improve tree protection in Council's **Tree Management Policy and Permit applications** through stronger compliance assessments, enforcement for vandalised or removed public trees, and prioritisation of tree retention.	A2040 3.1.12	2025/2026
Strengthen environmental input in strategic development processes to **improve tree retention outcomes**.	New	Medium investment required
Include and budget for tree replacements and plantings as mandatory elements within **capital works projects**.	New	High investment required
Collaborate with **utility and service providers** to reduce impacts on and removal of trees, and create opportunities for medium to large trees near utilities, including bundling low-voltage overhead powerlines and undergrounding high-voltage powerlines.		Ongoing advocacy
Identify and implement Water Sensitive Urban Design (WSUD) opportunities in new subdivisions, reserves, public spaces and streetscape plantings.	EAP 2.4	High investment required
Ensure new development or redeveloping areas **meet objectives of IPWEA's Green Infrastructure Management Manual**[1].		Ongoing
Ensure an outcome of **30% tree canopy cover** for vegetation once matured, in new development areas, including where the Master Planned Township Zones are applied (as required under the GARP).		Ongoing
Community Led and Partnership Actions		
Advocate for **stronger planning tools** to improve outcomes for private and public trees, green spaces, deep soil planting, landscaping, biodiversity and water sensitive urban design, through the application of the following overlays to a greater range of zones across the Council Area: - Urban Tree Canopy Overlay - Significant and Regulated Tree Overlay.		Ongoing advocacy
Negotiate where possible with private land owners and developers to **prioritise mature and habitat tree retention** to achieve faster canopy, cooling and biodiversity benefits.	EAP 1.2, 1.3, 1.4	Ongoing
Involve stakeholders in developing and implementing green spaces and increased canopy cover.	EAP 1.2, 1.3, 1.4	Ongoing

+ A2040 Strategic Delivery Plan[3] (A2040)
++ EAP – Environmental Action Plan[4] (EAP)

+++ Note: While some initiatives have been assigned to particular financial years, many are business as usual and ongoing but may require additional budget.

Urban heat, extreme weather and climate change

Alexandrina Council's 2019 climate emergency declaration highlights the need for proactive action to reduce urban heat and strengthen township resilience to extreme weather.

The urban heat island effect is a growing challenge across Alexandrina's townships. As development increases, hard surfaces expand and canopy cover is reduced, creating localised hot spots.

A changing climate adds further pressure, with rising temperatures, drought, intense storms and bushfire risk affecting the health of existing vegetation and the success of new greening efforts. This requires careful decisions about what, where and how trees and vegetation are planted and managed.

Urban greening also depends on choosing species suited to local conditions. Alexandrina's townships extend from the hills to the sea, with varied soils, space constraints, microclimates and exposure to heat, all of which influence plant survival.

A broader and more climate-resilient planting palette will help reduce vulnerability and support healthier, more adaptable urban landscapes.



Alexandrina Council

Urban heat, extreme weather and climate change		
Strategic Action	**Strategic Alignment: A2040[+] or EAP[++]**	**Timing/ Priority[+++]**
Council Led Actions		
Increase the number and diversity of species planted annually across townships within streetscapes, parks and reserves to create a richer mix of trees, shrubs, groundcovers and grasses across townships.	A2040 3.1.10	2025/2026
Select climate-ready trees and species that can tolerate higher temperatures, reduced and unpredictable rainfall, more frequent heatwaves and longer dry periods, as well as site conditions, such as high-traffic areas, compacted soils and constrained environments.	A2040 3.1.13	2025-2035
Maintain and update the public facing Preferred Tree Species list that identifies climate-ready species suited to local site conditions and urban ecology outcomes.	Preferred tree species list for street planting in Alexandrina Council	High investment requires support from local nurseries
Require developers to use climate-ready species and planting practices in new land divisions and development areas.		Ongoing advocacy (input into Land division guidelines)
Prioritise areas with the highest vulnerability, including: • lowest existing tree canopy • higher levels of socio-economic disadvantage and inequality • greater exposure to urban heat • increased vulnerability to climate change impacts. Greening Opportunities by Township are identified in Appendix A	A2040 3.1.3	2030–2035 draft complete, refer Appendix A
Community Led and Partnership Actions		
Aim for at least 80% survival rate of vegetation after five years of planting on public land through coordinated care, watering and stewardship.		High investment required (Council/private)
Identify external funding opportunities, including incentives and grants, to accelerate and support urban greening on public and private land.	A2040 3.1.11	Grant funding required 2025/2026 (also $10k allocated in 2026/2027 ACP)
Collaborate with local and community environment groups to prepare a recommended species list that identifies climate-ready species suited to local site conditions across Alexandrina and urban ecology outcomes.		High investment required support from local nurseries

+ A2040 Strategic Delivery Plan[3] (A2040)
++ EAP - Environmental Action Plan[4] (EAP)

+++ Note: While some initiatives have been assigned to particular financial years, many are business as usual and ongoing but may require additional budget.

Maintenance and resourcing

Increasing vegetation and tree cover requires more than planting; it needs coordinated planning, ongoing resourcing and long-term maintenance.

Poorly planned or managed urban trees can create avoidable costs and risks, including cracked pavements, clogged pipes, blocked sightlines and gutters, and restricted access.

Accurate tree records and planning are needed to understand tree type, location, age, condition, risk and expected useful life.

Young trees need intensive care for the first three to five years, while aging trees may require extra maintenance to retain benefits such as shade, habitat, carbon storage and pollution removal.

With the right planning and investment, urban trees and greening can be managed as valuable assets that grow in benefits over time.

This includes suitable species selection, site preparation, establishment watering, formative pruning, regular inspections and succession planning.

Reviewing township specific planting regimes will help establish and maintain healthy, resilient urban trees and green cover.



Alexandrina Council

Maintenance and resourcing:

Strategic Action	Strategic Alignment: A2040+ or EAP++	Timing/ Priority+++
Council Led Actions		
Allocate resources to **deliver the target increase in canopy cover** to 2055 focussing on street tree planting, prioritised using Appendix A, starting with Milang's targeted street tree planting locations (refer Appendix A, Figure 1).	A2040 3.1.12	High investment required / Grant funding (Council, private)
Undertake an audit public street, public park & reserve trees by township to industry standard. Including an assessment of **township tree diversity and useful life** to guide climate-resilient replacement planting.	A2040 3.4.3	2028-2030
Adopt and implement a **township tree Asset Management System** with inventory, risk, valuation and lifecycle data, to facilitate efficient operational delivery.		High priority investment required
Using our Greenprint for Success evidence **seek funding for priority large scale planting programs.**		
Building on the Milang Street Tree opportunity/planting plan, model the other townships to **identify street tree planting opportunities**.		High Seek grant funding
Review the tree canopy cover progress against the 2022 baseline data, report progress against targets and adjust greening delivery actions as required.	A2040 3.1.2	2028/2029
Allocate resources to **increase nursery capacity for greening program** to grow an additional 250 trees (a 50% increase) for planting and installing of 20 stormwater inlets for improved watering capability.	A2040 3.1.9	2025/2026 and ongoing
Community Led and Partnership Actions		
Facilitate community organisations to plant out, care for and maintain **new and existing planting areas**. Through programs such as 'Adopt a Park'.	A2040 4.1.1 and 4.1.19	2026-2035
Encourage community **co-management of new planting sites**.	A2040 3.1.13	2026-2035
Offer subsidised or free plants to Alexandrina residents and landowners, especially in townships.	A2040 3.1.11	2025/2026 (also $10k allocated in 2026/2027 ACP)

+ A2040 Strategic Delivery Plan[3] (A2040)
++ EAP - Environmental Action Plan[4] (EAP)

+++ Note: While some initiatives have been assigned to particular financial years, many are business as usual and ongoing but may require additional budget.

This is just the beginning

The time for action starts now. Every tree planted, every green space created and every garden tended brings us closer to creating our cool, resilient, green, and liveable communities.

Our community is aware of the value vegetation and trees provide for health and wellbeing, making Alexandrina a great place to live, work and play.

This draft Strategy plays an important role in Alexandrina's greening journey. We are in this together. No single person, organisation, or sector can achieve success alone. It highlights what is needed to increase canopy cover and importantly the need for a shared ownership to implement the strategic actions.

While Council will lead street tree plantings, local communities have an important role in shaping, supporting and caring for private and our public spaces. Green spaces will provide more vibrant, biodiverse communal spaces for everyone to enjoy. Our Appendix A sets a clear focus for priority parks identified in each township, creating a pathway for collective action and local greening outcomes.

This draft Strategy provides the foundation towards realising our Greening initiatives and invites everyone to be part of the solution.



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Glossary



Alexandrina Council is committed to creating a 'Liveable. Green. Connected' place that provides a high-quality experience for its residents and visitors.

Biodiversity: The Environmental Protection and Biodiversity Conservation Act 1999 (EPBC) defines biodiversity as "...the variability among living organisms from all sources (including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part) and includes... diversity within species and between species; and diversity of ecosystems".

Canopy cover: The proportion of an area covered by tree canopy, typically expressed as a percentage.

Climate change: A long-term change in the average weather patterns that have come to define Earth's local, regional and global climates.

Community: Alexandrina's community is made up of First Nations Peoples, residents, ratepayers, schools, community groups, businesses, and visitors.

Community engagement: A purposeful, planned process of working with identified groups of people, whether connected by geography, demography or interests, to inform decision making, build relationships and strengthen connections with community and First Nations Peoples.

Extreme weather: Unexpected, unusual, severe, or unseasonal weather at the extremes of the historical distribution.

Formative pruning: The process of pruning a young tree to achieve a desired shape as it grows and matures.

Impermeable surface: A surface that does not allow liquid to pass through it.

Landscape character: The distinct, recognisable and consistent pattern of elements in the landscape. It is these patterns that give each locality its 'sense of place', making one landscape different from another, rather than better or worse.

Liveability: The combination of factors that add up to a community's quality of life, including the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment, and recreation possibilities. There is emerging research on liveability indicators through the RMIT Australian Urban Observatory (AUO).

Proactive: Taking action in advance of a future situation, as opposed to responding reactively.

Remnant trees/vegetation: Refers to native vegetation, including individual trees or groups of trees (that provide habitat for wildlife, such as hollow bearing trees and dead standing trees with ecological significance), that have not been significantly cleared or modified, retaining their natural structure, composition, and ecological function, and providing critical habitat for biodiversity

Replacement planting: The practice of replacing trees with new ones when a tree or trees needs to be, or has already been, removed. Selecting suitable replacement trees considers factors like appropriate species selection, spacing, soil conditions, and environmental suitability to ensure the success and long-term health of the replanted trees.

Streetscape: The collective term for the appearance of elements associated with a street that form the street's character. Elements include: the road surface, footpaths, adjacent buildings, street furniture, trees, and adjacent open spaces.

Evapotranspiration: The process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers. Evapotranspiration by trees provides important air cooling in urban areas.

Tree canopy: The collective terms for multiple tree crowns in an area. It includes trees of all types and sizes across public and private land.

Tree crown: The leaves, branches, and reproductive structures of a single tree.

Urban Greening: The total vegetation cover within an urban area, including (but not limited to): trees, shrubs, grasses, aquatic plants, planter beds, and green walls; all of which contribute to the biodiversity of an area.

Urban heat island (UHI) effect: The phenomenon whereby urban areas are significantly warmer compared to surrounding non-urban areas due to the built environment and human activities.

Urban trees: All trees in urban environments including remnant and planted specimens on public and private land.

Water sensitive urban design (WSUD): An approach to urban planning and engineering design that integrates water management practices to enhance the sustainability, resilience, and liveability of urban areas by considering the entire water cycle and its interactions with the built environment.



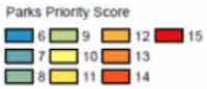
Appendix A

Greening Opportunities in Alexandrina Townships

Introduction

Public parks are shared community places where residents, schools, community groups, volunteers and Council can work together to create greener, cooler and more welcoming townships. Through local knowledge, planting, biodiversity enhancement and ongoing care, communities can help shape shaded spaces where people gather, connect with nature, support local wildlife and strengthen neighbourhood wellbeing. With public parks located across Alexandrina's townships, this appendix helps identify where community priorities and Council investment can come together to deliver the greatest local benefit.

The 'Greenprint for Success' report **identified priority parks for each township** based on socio economic and canopy cover inequities, accessibility, urban heat island exposure, existing canopy cover, and planting potential, expressed as 'heat style' maps. For example, lower priority parks have lower numbers and are shown in cool colours (blue, green) while high priority parks have higher numbers and are shown in warm colours (red and orange),



The priority parks identified for each township are provided below, starting with the township with the lowest through to the highest canopy cover, as identified in Council's 2022 'Tree Canopy Benchmarking Study'.

Milang

In 2022, Milang had the lowest of all township canopies, with a tree canopy cover of 11.7%. Most of the land is privately owned and 46.88% of the total canopy cover is found on private land.

Targeted street tree plantings

Street tree planting offers an important opportunity to create cooler, more comfortable streets and is particularly important for areas that are not close to parks or reserves. While roadside planting is managed by Council because of safety requirements, local knowledge can help identify where shade is most needed. Due to Milang having the lowest canopy cover of Alexandrina's townships, it was prioritised for this analysis.

The 'Greenprint for Success' study (2026) recommends 575 priority street planting sites in Milang, including 345 street locations and 230 locations within or next to parks (refer Page 4, Figure 1).

Several key road corridors have been identified where additional trees will provide the greatest community benefit by improving shade, reducing heat and making streets more pleasant for residents and visitors. Some of the key streets include:

- **Daranda Terrace**: As the main road through Milang, this high use corridor would benefit from coordinated roadside and park edge planting to cool the street, improve visual amenity and make walking more comfortable.
- **Woodrow Drive**: Additional street trees would help cool this local route and create a more attractive, shaded streetscape for nearby residents.
- **Macdonald Street**: Targeted planting would address limited shade and high heat exposure, improving day to day comfort for people walking, cycling or living nearby.
- **Jupiter and Lyon streets**: The Jupiter Lyon Reserve is located within a high heat exposure zone. Enhancing canopy cover along the road corridors either side of the reserve will provide shaded pathways but also contribute to the planting potential of the reserve itself.

Planting in these streets would help reduce surface temperatures and improve pedestrian comfort. Powerline compatible species must be used where overhead infrastructure limits planting options.

Greening opportunities in public parks and reserves

In Milang, greening priorities for parks and reserves focus on increasing canopy cover along road corridors and in busy pedestrian areas. These locations will provide the greatest benefits for reducing urban heat, cooling road surfaces and improving community wellbeing. Park selections were guided by heat mapping, park hierarchy, community use and biodiversity outcomes (refer Page 4, Figure 2).

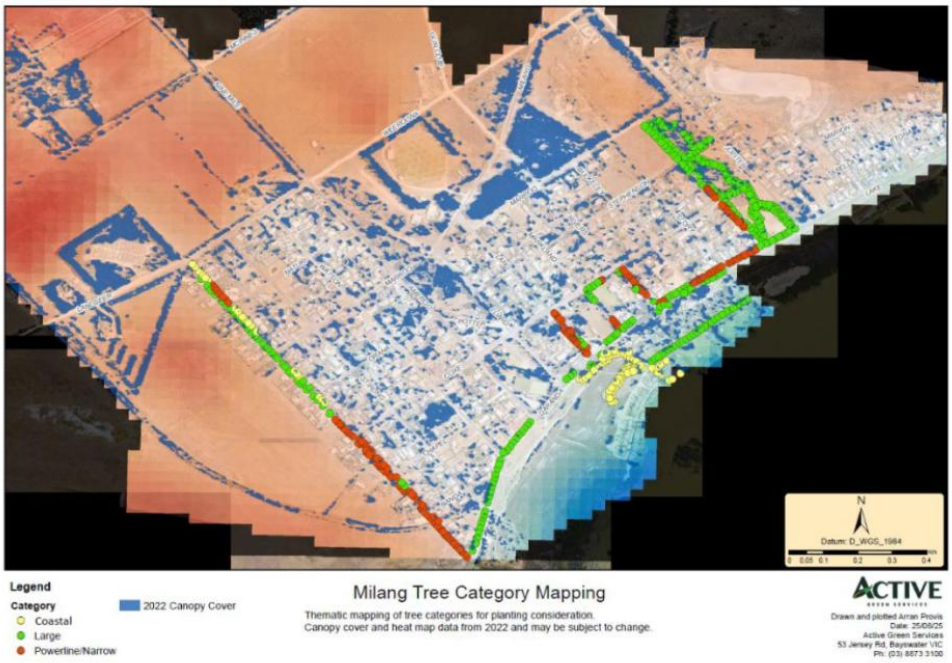


Figure 1: Map showing preferred street planting locations with three tree types suitable for Milang, large, coastal, and powerline friendly tree species. © Active Green Services, 2026

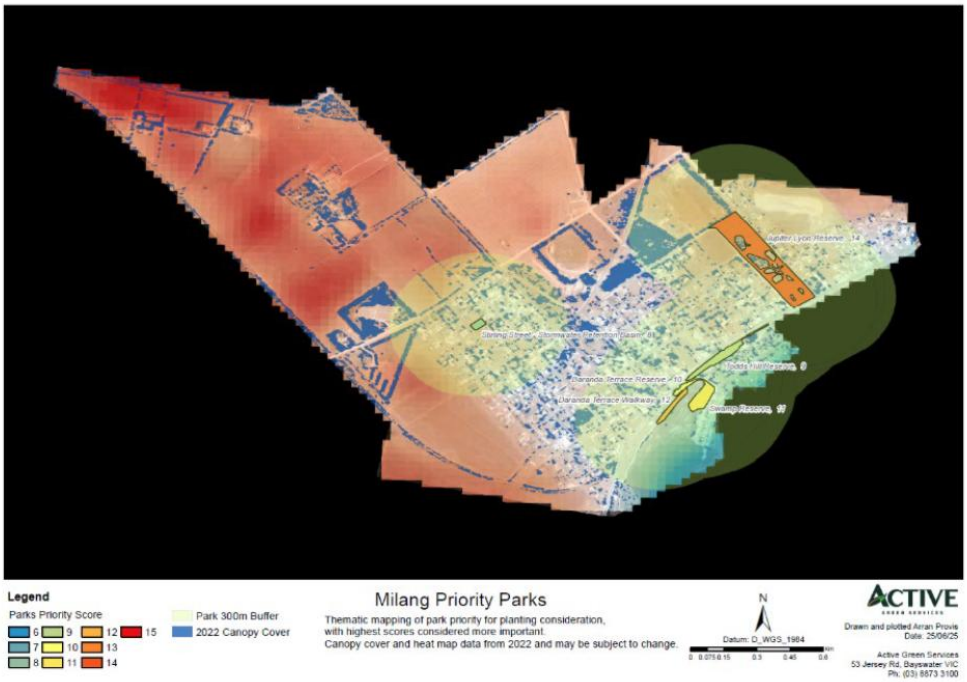


Figure 2: Map showing preferred public park locations in Milang.
© Active Green Services, 2026

The following priority parks and reserves were identified for Milang:

Daranda Terrace Reserve

This reserve, which serves as a connector to the Swamp Reserve, is a key focus area due to its strategic location and linkage function. While not requiring heavy internal planting, the reserve's Daranda Terrace frontage will be enhanced with canopy trees that contribute to roadside cooling in conjunction with the broader street planting program.

Swamp Reserve and Daranda Terrace Walkway

These connected reserves serve as high use pedestrian corridors with currently limited canopy cover. Enhancing shade along the walkway network will improve comfort for walkers and cyclists, encourage increased recreational use, and support active transport within the township.

Stirling Street Stormwater Retention Basin

Stirling Street Stormwater Retention Basin was selected because it can help improve access to green space for residents in the Macdonald Street area while continuing to support stormwater management. If suitable, planting here would transform the basin into a multi functional green space, providing shade, improving local amenity and creating recreational value for nearby residents.

Jupiter Lyon Reserve / Milang Commonage

These sites are situated within identified heat hotspot zones in Milang. This reserve currently includes some biodiversity focused plantings, which will be enhanced by additional canopy trees, particularly adjacent to pathway networks. This will improve shade for users, increase the appeal of the reserves for walking and passive recreation, and strengthen biodiversity outcomes through habitat connectivity.

Woodchester

In 2022, Woodchester had a tree canopy cover of 13.1%. Most of the land is privately owned. This means that 94.43% of the total canopy cover is found on private land.

Greening opportunities

There are no Council managed parks or reserves currently located within the township of Woodchester (Figure 3). Similarly to Ashbourne, this presents a significant challenge for ensuring equitable access to green space.

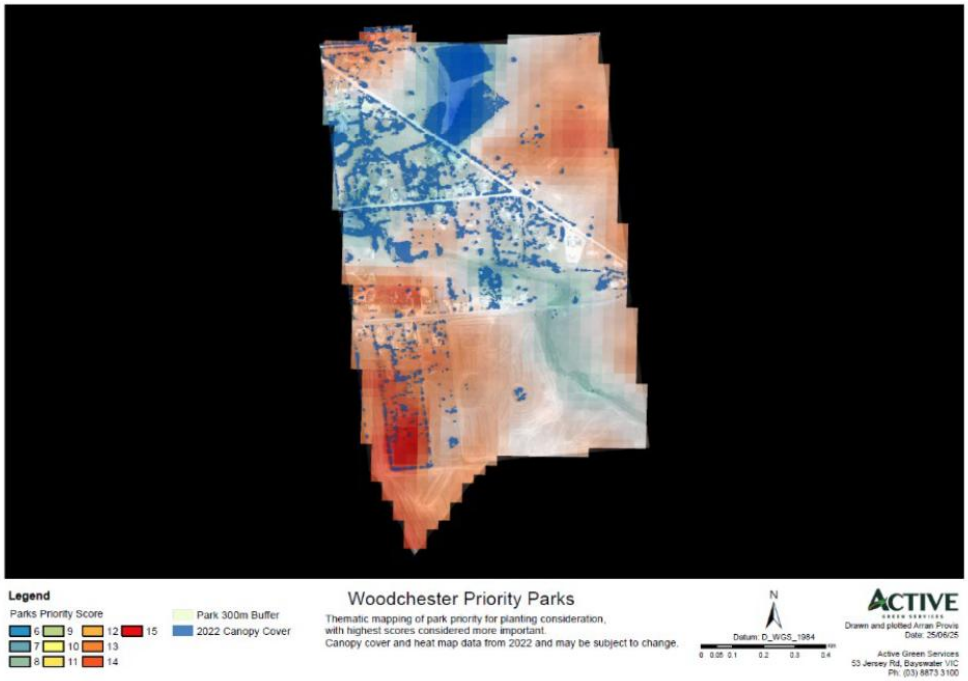


Figure 3: Map showing lack of public park locations in Woodchester while showing areas that would benefit from tree planting (red coloured). © Active Green Services, 2026

Woodchester has low canopy cover, mainly due to past and ongoing land clearing for agriculture. The lack of trees is made worse by the absence of formal public open space. This limits opportunities for recreation, informal gathering, nature play and community wellbeing.

This may be particularly impactful for vulnerable community members, such as children, older adults, and those with mobility constraints, who have limited ability to access green spaces outside the township. There is a clear opportunity to address this gap through the strategic identification, acquisition, or co-management of land suitable for the creation of public green spaces within Woodchester.

Additionally, there is scope to explore partnership models involving private landowners interested in stewardship or shared use arrangements. State government agencies may hold underutilised land suitable for conversion to community open space, while landcare groups or community associations may be able to support revegetation and maintenance programs.

Addressing the green space deficit in Woodchester is seen as a priority for enhancing community wellbeing, improving climate resilience, and supporting biodiversity outcomes. Even modest investments in strategically located green spaces can deliver measurable benefits to the health, liveability, and environmental performance of the township.

Port Elliot

In 2022, Port Elliot had a tree canopy cover of 13.9%. Most of the land is privately owned. This means that 66.93% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

Port Elliot shares similarities with Middleton in its coastal township setting but is differentiated by a larger commercial footprint, more extensive agricultural hinterland, and higher concentrations of urban heat hotspots, as indicated by heat mapping analysis. The combination of limited canopy cover, larger areas of sealed surfaces, and increased community vulnerability underlines the urgency to expand the tree canopy within both public open spaces and streetscapes across Port Elliot (Figure 4).

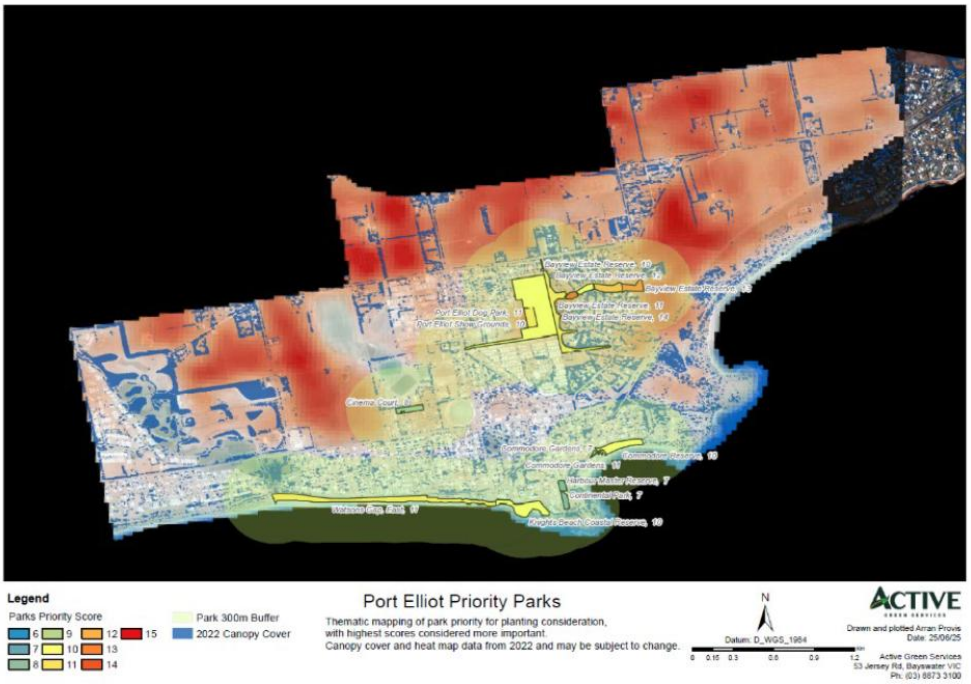


Figure 4: Map showing preferred public park locations in Port Elliot.
© Active Green Services, 2026

The following priority parks have been identified in Port Elliot:

Port Elliot Show Grounds and Port Elliot Primary School Precinct

This precinct represents a high priority location, situated within a notable urban heat hotspot. While the Show Grounds are heavily utilised during major events, the area remains underutilised and sparsely vegetated for the majority of the year. There is significant opportunity to introduce strategically placed canopy trees that provide shade and cooling while respecting event space requirements and infrastructure clearances.

This would deliver dual benefits of improved amenity for the local community year round and enhanced comfort during event periods.

Bayview Estate Reserves

A network of small to medium neighbourhood reserves adjacent to the Show Grounds. These spaces are currently underutilised for canopy planting, despite being situated in a confirmed heat hotspot. Focused planting, particularly along road frontages and within passive recreation areas, will significantly contribute to heat mitigation and improved neighbourhood amenity.

Cinema Court Reserve

A neighbourhood level reserve adjacent to community gardens within a residential area it provides an excellent opportunity for extensive tree planting, as current canopy cover is negligible. This reserve functions as a buffer to nearby heat hotspots and would benefit from shade trees.

Commodore Reserve and Commodore Gardens

Commodore Reserve is a premier open space under Alexandrina's park hierarchy, serving both residents and visitors. It forms a key connection between the Port Elliot Caravan Park and the foreshore, offering a refuge for those seeking open green space and ocean views, without accessing the beach directly. The north side contains Araucaria plantings, but the central reserve offers scope for diversified canopy expansion, particularly with coastal tolerant species.

Commodore Gardens, which adjoins the reserve, is largely devoid of planting and presents a valuable opportunity to introduce shade trees for the adjacent car park and Port Elliot Bowls Club. Car park design adjustments would be needed to allow for adequate soil preparation, root space and long term tree health.

Harbour Master Reserve and Continental Park

Both are designated as premier parks but are currently lacking significant vegetation coverage. As such there is substantial scope for introducing canopy cover along walking paths, road frontages and passive recreation nodes.

Additionally, the nearby Freemans Knob Reserve could benefit from supplementary coastal tree planting, where appropriate, to reinforce shade and habitat values.

Clayton Bay

In 2022, Clayton Bay had a tree canopy cover of 14.3%. Most of the land is privately owned. This means that 80.71% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

Several key sites have been identified in Clayton Bay for targeted greening based on a combination of urban heat mapping, existing canopy cover, anticipated public use, and landscape prominence (Figure 5). These sites represent important opportunities to enhance the township's resilience to heat, improve liveability and support biodiversity outcomes.

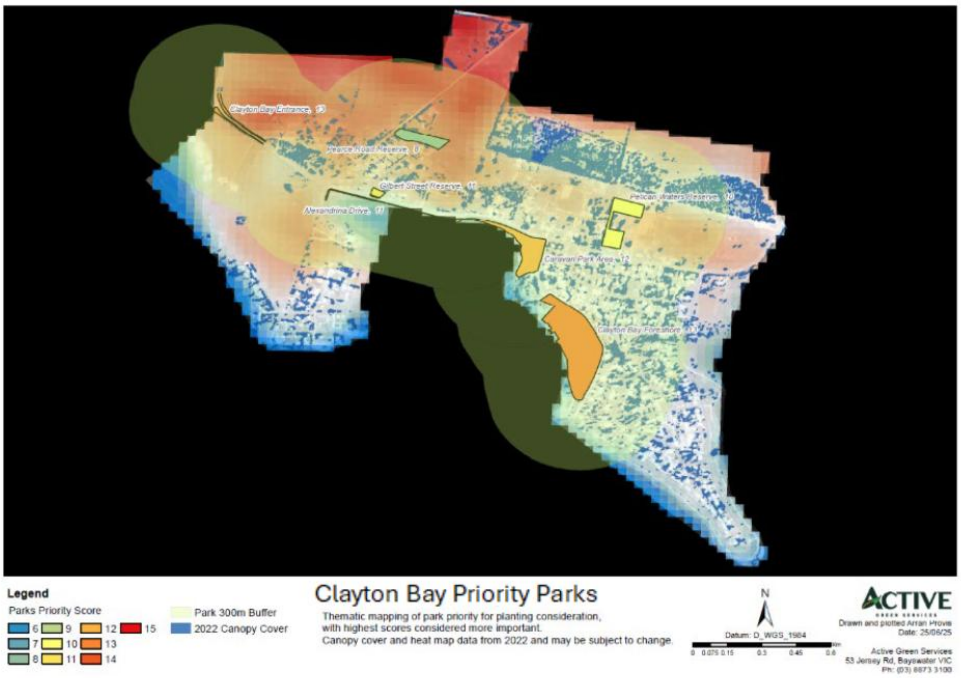


Figure 5: Map showing preferred public park locations in Clayton Bay.
© Active Green Services, 2026

The following priority parks have been identified in Clayton Bay:

Gilbert Street Reserve and Pearce Road Reserve

Both of these reserves are located within the residential heart of Clayton Bay and are characterised by very high urban heat levels and low canopy coverage. Their proximity to housing and high pedestrian activity makes them strong candidates for intensive shade planting and greening treatments. Enhancements to these parks would provide direct health and wellbeing benefits to local residents, while also supporting cooler, more comfortable neighbourhood environments.

Alexandrina Drive Reserve

Situated on the southern side of the township, this reserve includes a walking track that serves as a key link between the Clayton Bay Foreshore Reserve and the Caravan Park area. Although not identified as an extreme heat hotspot, the existing canopy cover along this corridor is limited. Given the pathway's high potential for community use and active transport, targeted shade tree planting would significantly enhance user comfort, promote walking and cycling, and support ecological connectivity. Opportunities for community led biodiversity planting could also be explored to strengthen local stewardship and engagement.

Island View Drive

Strategic verge planting along Island View Drive has been identified as a means to reduce heat absorption on road surfaces and mitigate localised heat island effects. However, the success of this intervention will depend on community consultation and support, particularly due to potential concerns over obstructing scenic views along the "Island View" corridor. A sensitive planting design that balances shade provision with view preservation is recommended.

Pelican Waters Reserve

This reserve is located within a high heat area where significant clearing has occurred in recent years to accommodate new development. As such, it presents a critical site for canopy restoration, biodiversity enhancement, and future open space provision. Establishing a well shaded, multi-functional park in this area will not only help offset the impacts of recent vegetation loss but also provide long term amenity for the growing residential population.

Goolwa

In 2022, Goolwa had a tree canopy cover of 14.3%. Most of the land is privately owned. This means that 70.09% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

The township of Goolwa presents multiple opportunities for targeted canopy enhancement to improve community wellbeing, address urban heat hotspots and support biodiversity. Priority reserves have been identified based on a combination of factors including socio-economic need, current canopy gaps, heat mapping, recreational demand and access to green spaces (Figure 6).

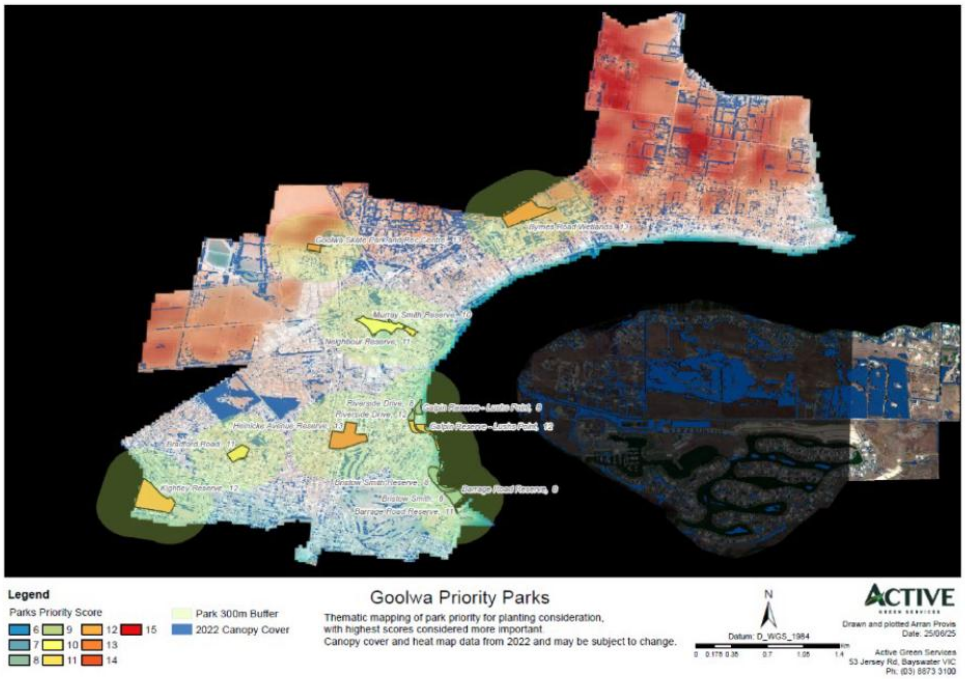


Figure 6: Map showing preferred public park locations in Goolwa.
© Active Green Services, 2026

The following priority parks have been identified in Goolwa:

Heinicke Avenue Reserve

Heinicke Avenue Reserve has benefited from the ongoing greening from our community groups. But due to the size, limited canopy cover and exposed street frontages, this park has been identified as a priority park
that will benefit from continued increase shade to help cool a significant local heat hotspot, create a more comfortable place for nearby residents and visitors.

Bradford Road Reserve

Bradford Road Reserve is a sizeable park with existing recreational use and moderate canopy cover. There is considerable scope to further increase shade, particularly over play areas and high use spaces. In addition, roadside plantings can help to mitigate adjacent road surface heat hotspots. The reserve's 300 metre catchment area complements that of Heinicke Avenue Reserve, providing strategic connectivity in green infrastructure across Goolwa's residential areas.

Kightley Reserve

Kightley Reserve is one of the last major reserves before the beachfront, currently featuring minimal vegetation cover. While the coastal location benefits from natural sea breezes that moderate temperatures, the reserve plays a vital role in delivering accessible public open space for equity, accessibility, urban heat island exposure; existing canopy cover and planting potential. Due to its size, Kightley Reserve offers an opportunity to contribute significantly to local canopy targets and provides a valuable site for community driven biodiversity planting.

Murray Smith Reserve and Neighbour Reserve (Goolwa Oval Precinct)

Surrounding the Goolwa Oval sporting complex, these reserves are located within an important active transport corridor in the town centre. Current vegetation levels appear limited, offering substantial opportunity for increased canopy cover. Enhancing shade in this precinct will not only support sporting and recreation activities but also improve comfort and usability for pedestrians and cyclists moving through the area.

Goolwa Skate Park and Recreation Centre

Both facilities are situated within identified heat hotspots. In particular, the Goolwa Skate Park, would greatly benefit from the introduction of large canopy trees to provide shade for users, who are often exposed to prolonged periods of sun on hard concrete surfaces. Tree planting here will directly support youth wellbeing and active recreation while contributing to broader urban cooling outcomes.

Byrnes Road Wetlands

Byrnes Road Wetlands represents one of the last remaining large reserves leading towards North Goolwa, an area characterised by significant heat hotspots and limited council managed open space. The reserve offers excellent potential for canopy enhancement combined with biodiversity restoration, capitalising on its natural wetland features. Given the scarcity of formal parkland in North Goolwa, consideration should also be given to strategic land acquisition and intensive street tree planting to address the growing demand for green space.

Riverside Corridor – Key Future Focus Area

Through analysis the riverfront reserves from Riverside Drive Reserve to Barrage Road Reserve has been identified as high priority zones for future greening. Despite their prominent location along the river, these reserves currently exhibit very low canopy cover. Given the increasing importance of this corridor as an active transport route for pedestrians and cyclists, enhancing shade provision is critical. Tree planting with large canopy or coastal appropriate species will help reduce heat exposure, improve user comfort, and contribute to the scenic and ecological value of the riverfront.

Middleton

In 2022, Middleton had a tree canopy cover of 14.1%. Most of the land is privately owned. This means that 66.79% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

Middleton presents a range of opportunities for targeted canopy enhancement that balances the needs of climate resilience, active transport support, and public amenity with the unique sensitivities of coastal landscapes (refer Page 16, Figure 7).

The township's exposure to urban heat hotspots, particularly along road corridors and high use recreation areas, highlights the need for strategic tree planting despite potential community concerns views preservation.

- Focus on foreshore and road adjacent reserves to maximise cooling and shade outcomes.
- Balance community concerns around views preservation with the need for urban heat mitigation and active transport support.
- Prioritise linear reserves such as Padman Crescent, Offshore Drive, and Surfers Parade Reserves for immediate canopy expansion.
- Leverage existing vegetation in reserves like Middleton Shores, Abbotts Reserve, and Middleton Creek Reserve with complementary planting strategies.
- Use resilient, coastal tolerant species that provide effective canopy without compromising long term maintenance or survival.

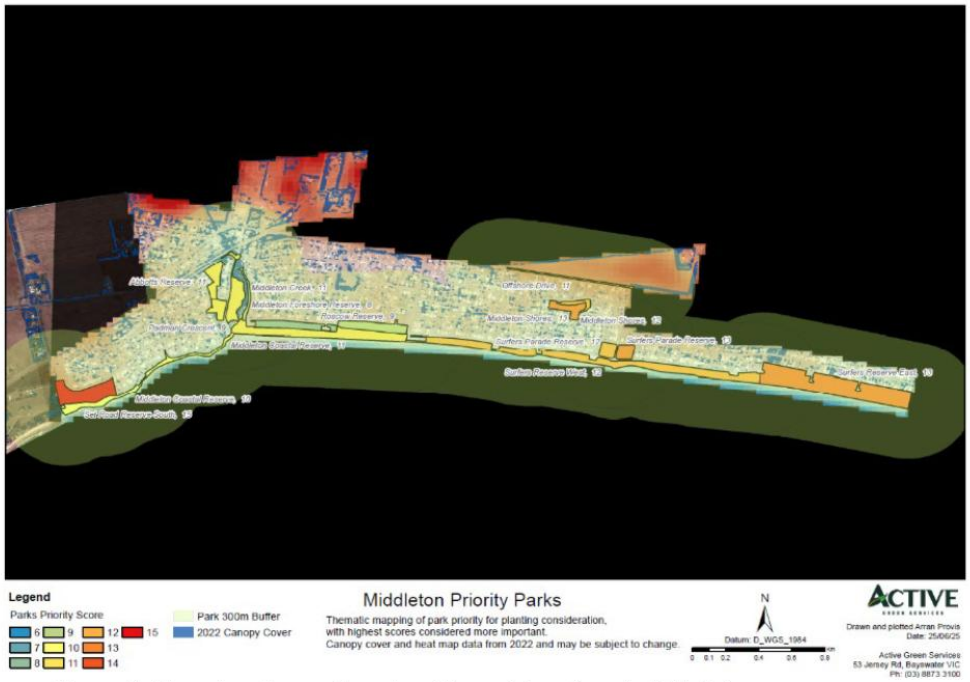


Figure 7: Map showing preferred public park locations in Middleton.
© Active Green Services, 2026

The following priority parks have been identified in Middleton:

Foreshore Reserves

The primary opportunity for significant canopy enhancement lies along the Middleton foreshore, stretching from Surfers Reserve East to Set Road Reserve South. These reserves currently feature scattered, low density vegetation, particularly where they interface with roads and footpaths. Increased planting along these corridors would serve a dual purpose of mitigating roadside heat hotspots by shading road surfaces and enhancing the amenity and comfort of the foreshore's walking paths and recreation areas.

While the introduction of large canopy trees offers substantial benefits in terms of cooling and urban greening, it is acknowledged that this may be contentious due to concerns over obstructed coastal views. Additionally, coastal soil conditions and salt exposure will limit the planting palette to robust, salt tolerant species. Nonetheless, from an environmental, recreational, and liveability perspective, the foreshore remains the highest priority for tree planting in Middleton, subject to careful community engagement and sensitive design solutions that balance shade provision with view corridors.

Offshore Drive Reserve

This long, linear reserve has a north facing orientation and is located within a significant heat hotspot. The reserve features minimal existing canopy cover, particularly over the adjacent road surface, which contributes to heat retention. This location is highly suitable for tree planting aimed at reducing road surface temperatures, improving comfort along the roadside for both pedestrians and cyclist and contributing to township wide canopy targets. Given its linear form and exposure, planting design here should focus on consistent spacing and species that are resilient to local coastal conditions.

Middleton Shores Reserve

Middleton Shores is a neighbourhood scale reserve that accommodates walking tracks and exercise equipment. While parts of the reserve are densely vegetated, the primary high use activity zones are poorly shaded, primarily due to the prevalence of dispersed Araucaria plantings, which offer a strong architectural character but limited canopy coverage. Strategic infill planting with broad canopy species could significantly improve shade provision for users, enhancing the comfort and functionality of this popular community space.

Surfers Parade Reserves (Twin Reserves)

Located slightly inland from the foreshore, these twin reserves along Surfers Parade are currently underutilised in terms of canopy cover, presenting clear opportunities for planting. Their positioning away from direct foreshore view corridors makes them well suited for large canopy trees, providing shade for recreational users and mitigating nearby heat hotspots without the view constraints associated with beachfront reserves.

Padman Crescent Reserve – High Priority for Active Transport Shading

Padman Crescent Reserve is a long, linear reserve adjacent to a heavily exposed roadside and shared user path. This corridor experiences extensive sun exposure that likely create uncomfortable conditions for pedestrians and cyclists.
It represents a high priority site for canopy planting, particularly in providing shade for the footpath, cool the adjacent road surface and improve overall streetscape amenity for local residents. Given alignment with sustainable transport goals, this reserve should be a focal point for the next phase of Middleton's urban greening program.

Abbotts Reserve and Middleton Creek Reserve

These reserves share similar characteristics to Padman Crescent, featuring elongated forms adjacent to key road corridors. While both have a greater degree of existing vegetation, opportunities remain for supplementary planting, especially along road edges to reduce surface heat, over hardstand areas within the reserves to increase shaded recreation spaces and for biodiversity outcomes through species diversity and habitat creation.

Strathalbyn

In 2022, Strathalbyn had a tree canopy cover of 19.4%. Most of the land is privately owned. This means that 74.34% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

Heat mapping for Strathalbyn demonstrates a distinct pattern of cooler areas aligned with river corridors and creek lines, particularly around the town centre where dense vegetation is already present. Conversely, areas dominated by agricultural land, large lot rural subdivisions, and the racecourse exhibit significant urban heat island effects (refer Page 19, Figure 8).

The limited distribution of neighbourhood scale parkland outside the township core is a challenge, with larger reserves or open spaces often serving broader landscape functions but providing less direct community access for daily recreation.

Many parcels captured in the supplied reserve dataset contain easements, drainage corridors, and roadside landscapes which may not meet the usable open space for recreation intent locally accessible public parks. This has implications for how canopy targets are applied spatially within Strathalbyn.

There is a critical need to balance biodiversity planting with user amenity, and it is recommended that tree placement prioritises:

- Playgrounds
- Seating areas
- Walking and cycling paths
- Gathering spaces
- As well as habitat corridors where appropriate.

Areas to the south of the cemetery and racecourse demonstrate significant canopy deficits. Given the absence of conventional reserves in these rural fringe zones, a focus on road corridor greening becomes the primary mechanism for delivering shade, cooling and visual amenity.

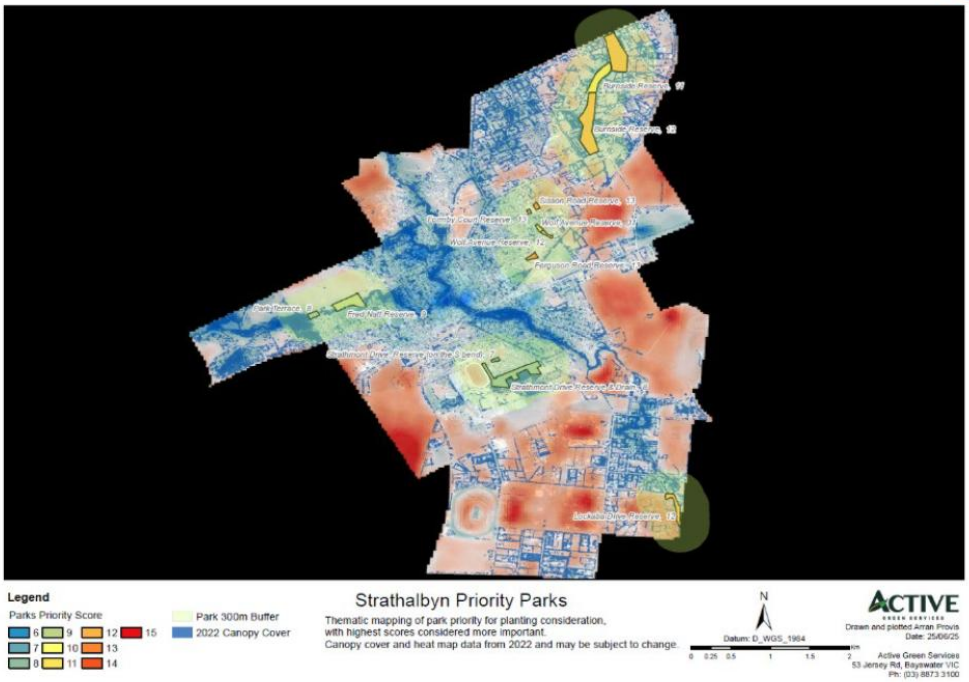


Figure 8: Map showing preferred public park locations in Strathalbyn.
© Active Green Services, 2026

The following priority parks have been identified in Strathalbyn:

Strathmont Drive Reserve (S-Bend) and Strathmont Drain/Cemetery Precinct

Strathmont Drive Reserve has minimal existing vegetation but is well positioned to serve the surrounding residential catchment as a neighbourhood scale park. The Strathmont Drain and Cemetery Precinct presents a unique opportunity for greening, albeit with considerations around burial space requirements. The lack of canopy cover around burial plots contributes to heat exposure, impacting visitors and staff.

A review of historical cemetery planting practices could introduce a more contemporary approach. For example, a “memorial tree” program akin to that used at Glenmorus Memorial Park in Albury, NSW, allows families to select memorial trees for departed ones, enhancing the site's amenity and providing shaded spaces for reflection.

The township areas south of the cemetery are characterised by significant heat hotspots and limited park infrastructure. These may want to be considered as part of prioritised roadside tree planting given the constraints around park establishment on large rural lots.

Ferguson Road Reserve and Wolf Avenue Reserve

Both are situated within residential neighbourhoods adjacent to confirmed heat hotspots with Ferguson Road Reserve having capacity for extensive tree planting to create a biodiverse, shaded parkland suitable for passive recreation. Wolf Avenue Reserve appears to function as a pedestrian thoroughfare, offers an excellent opportunity for linear canopy planting along pathways to improve thermal comfort for walkers and cyclists.

Sisson Road Reserve and Formby Court Reserve

These paired reserves serve the northern residential catchments, currently providing important, albeit underutilised, contributions to locally accessible parks. Both reserves lack significant canopy and would benefit from the introduction of large canopy trees, providing shade over open spaces and potential future amenities (playgrounds, seating, paths). A review of current and future recreation needs is recommended to determine whether infrastructure upgrades should accompany greening initiatives.

Fred Natt Reserve and Park Terrace Reserve

These reserves primarily function as bushland or biodiversity reserves, but there is clear potential for boundary edge planting, especially where neighbouring properties are cleared, to enhance canopy and buffer microclimates. Roadside planting around these reserves would further contribute to heat mitigation and urban amenity while supporting ecological connectivity.

Burnside Reserve (Linear Park)

Burnside Reserve benefits from existing canopy cover along its central spine; however, northern and southern sections are more open and exposed. There is scope for supplementary large tree planting to increase shade coverage, biodiversity focused planting, especially in under vegetated areas. Roadside planting along the reserve boundaries to mitigate road surface heat sinks and improve the reserve's microclimate for users.

Hindmarsh Island

In 2022, Hindmarsh Island had a tree canopy cover of 19.9% within the township boundaries. Most of the land is privately owned. This means that 90.66% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

Hindmarsh Island exhibits a significant urban heat island profile. Residential development is predominantly clustered along the island's perimeter, particularly adjacent to riverfronts and within the Coorong Quays marina precinct. Notably, much of the island's residential area falls outside locally accessible parks, highlighting a clear gap in accessible public open space that should be addressed in future open space planning and policy (refer Page 22, Figure 9).

Constraints and Considerations:

- A significant proportion of Hindmarsh Island's open space consists of riparian zones, floodplains, or wetland ecosystems, which are either already vegetated or require species with tolerance to such coastal environments where broad scale canopy planting is considered.
- Community expectations, particularly regarding unobstructed waterfront views, may influence planting design in certain locations.
- Future urban development on the island presents an opportunity to integrate new open space provisions that align with the 300 metre proximity principle and support canopy expansion.

A targeted approach focused on infill planting within existing parks, succession planning for aging trees, and strategic open space acquisition in underserved areas will provide Hindmarsh Island with the greatest return on investment in terms of urban heat mitigation, amenity improvement, and biodiversity outcomes.

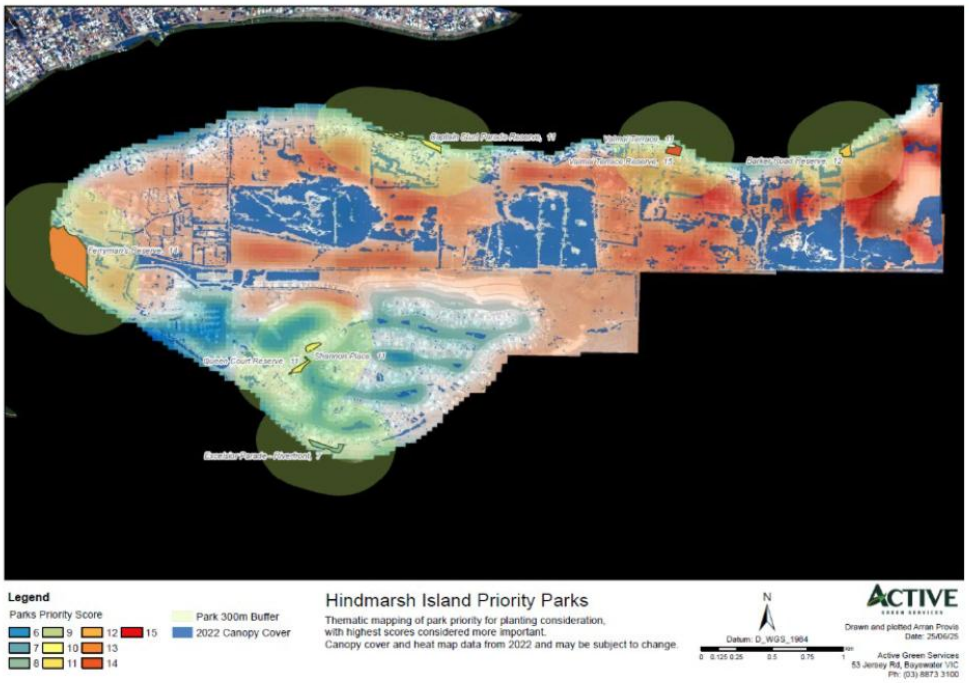


Figure 9: Map showing preferred public park locations within the Hindmarsh Island township boundary. © Active Green Services, 2026

The following priority parks have been identified in Hindmarsh Island:

The following reserves have been identified as priority locations for tree planting, primarily aimed at enhancing public amenity, shade provision, and microclimate cooling. While the primary focus is on community use and comfort, biodiversity outcomes can also be achieved through appropriate species selection and planting design.

Valmai Terrace Reserve

A largely open and minimally vegetated space with high potential for canopy enhancement. Despite its proximity to the waterfront, this reserve functions as the primary open space for both the immediate residential catchment and surrounding neighbourhoods, some of which are located up to 700 metres away. Increasing canopy cover here will provide essential shade, improve thermal comfort, and enhance recreational amenity.

Barker Road Reserve

This reserve shares similar characteristics with Valmai Terrace, with slightly higher existing vegetation cover. However, much of the tree stock appears to be mature and aging. A program of succession planting will support the long term sustainability

of this space, improve shade coverage and preserve its ecological and recreational functions.

Coorong Quays Reserves – Queen Court, Shannon Place, and Excelsior Parade (Riverfront)

Located within the Coorong Quays residential marina, these reserves are currently characterised by limited shade and minimal canopy cover. Targeted planting within these spaces will improve thermal comfort for users, enhance local amenity, and contribute to the island's broader canopy targets. However, given the riverfront orientation and premium on open water views, it will be essential to engage with the local community to address potential concerns regarding views preservation. Thoughtful species selection and strategic planting design can balance the need for shade with maintaining desirable sightlines.

Captain Sturt Parade Reserve

A linear reserve complex that separates residential properties from the river frontage, this contains vegetation where infill is appropriate to enhance canopy cover. The site appears to have frequent use for car parking and river access, with tree plantings on the southern side facilitating shade of the roadside and local hot spots. There are limited other reserves within the residential area, indicating that this may be opportunity for enhancement for use.

Ferryman's Reserve

Ferryman's reserve is adjacent to Kumerangk Hindmarsh Island Landcare Group Nursery and a site is continued to be restored by this Landcare Group following its historic use as a stock hold waiting for the ferry. The reserve is now a large public space. Although recent plantings have occurred within the reserve, there is a strong case for densifying the canopy. The site features walking tracks through the natural area that appear largely uncovered as the site contains minimal canopy cover, although current plantings will have already a positive impact in the near future.

This reserve provides a great opportunity to increase the overall canopy cover for Council managed land within the Hindmarsh Island township boundary, which is significantly lower than canopy cover from private land.

Langhorne Creek

In 2022, Langhorne Creek had a tree canopy cover of 19.9%. Most of the land is privately owned. This means that 78.09% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

Langhorne Creek is a small township with comparatively high existing canopy cover relative to other settlements in the region. As such, the greening focus for Langhorne Creek is directed toward infill planting, aimed at enhancing shade over community facilities, pathways and adjacent roadsides, rather than large scale new canopy establishment (Figure 10).

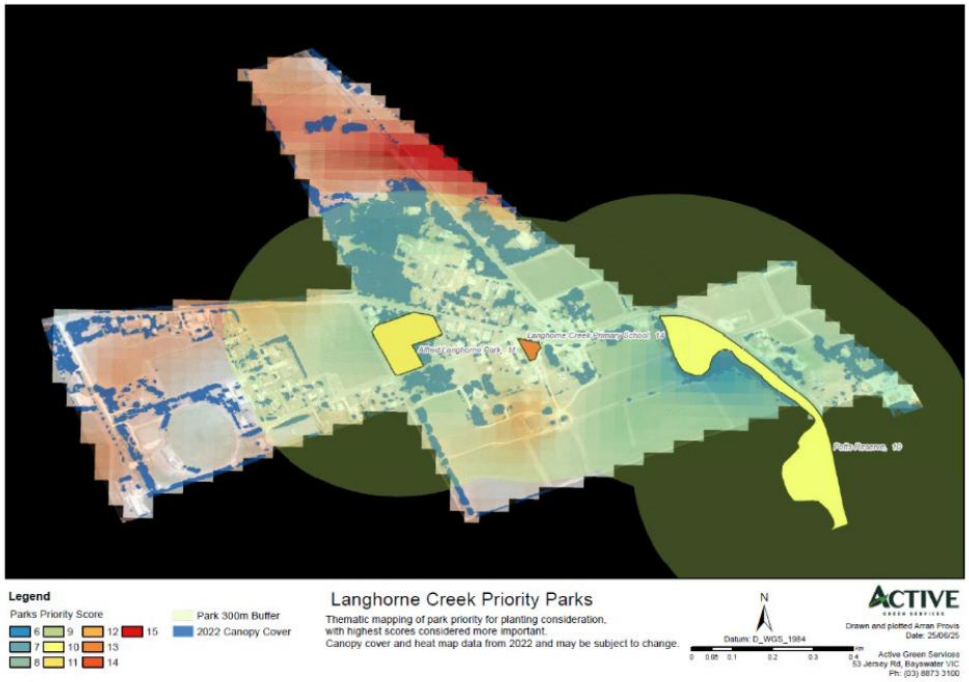


Figure 10: Map showing preferred public park locations in Langhorne Creek.
© Active Green Services, 2026

The following priority parks have been identified in Langhorne Creek:

Langhorne Creek Primary School Reserve

This smaller reserve, which includes play equipment and high use recreation areas, presents an opportunity for targeted planting to improve shade and comfort, particularly during the hotter months. Currently, the reserve contains several large ornamental trees concentrated along the southern boundary, which do not provide effective shade for the playground and key use areas.

- Planting along the northern boundary with larger, broad canopy trees would significantly improve sun protection for the play area.
- Selection of deciduous ornamental species would align with the existing landscape character, offering summer shade while allowing for winter sun, enhancing year round usability and comfort.

Alfred Langhorne Park

This park features moderate canopy cover, with potential for minor infill planting, particularly along road verges, pedestrian paths, and seating areas. Enhancing tree cover in these locations will improve both the amenity and microclimate of the park, benefiting regular users and contributing to town wide heat mitigation.

Potts Reserve

Potts Reserve is a mature, heavily treed park, offering significant shade and habitat benefits. However, there is potential for additional planting along the northern roadside boundary, where existing vegetation is sparse. This area is currently characterised by limited tall vegetation, likely influenced by powerline constraints.

Where feasible, planting with indigenous, powerline compatible species or the use of offset plantings (set back from the powerlines) could provide valuable roadside shade without conflicting with infrastructure. This approach may be coordinated with the broader roadside planting program, particularly where gaps exist in the township's canopy network adjacent to residential properties.

Mount Compass

In 2022, Mount Compass had a tree canopy cover of 23.4%. Most of the land in Mount Compass is privately owned. This means that 88.39% of the total canopy cover is found on private land.

Greening opportunities in public parks and reserves

Mount Compass displays a mosaic of heat and cool zones, as revealed by urban heat mapping in 2022. These patterns closely correlate with recent land clearing and development activities, contributing to heat hotspots, while areas with retained vegetation offer cooler microclimates.

The township's existing park network is primarily concentrated within the eastern portion of Mount Compass, servicing high use areas such as the retail precinct and school zones. In contrast, there are limited public open spaces within the rural living areas, industrial precinct, and mining zones, which impacts accessibility to green spaces (Figure 11).

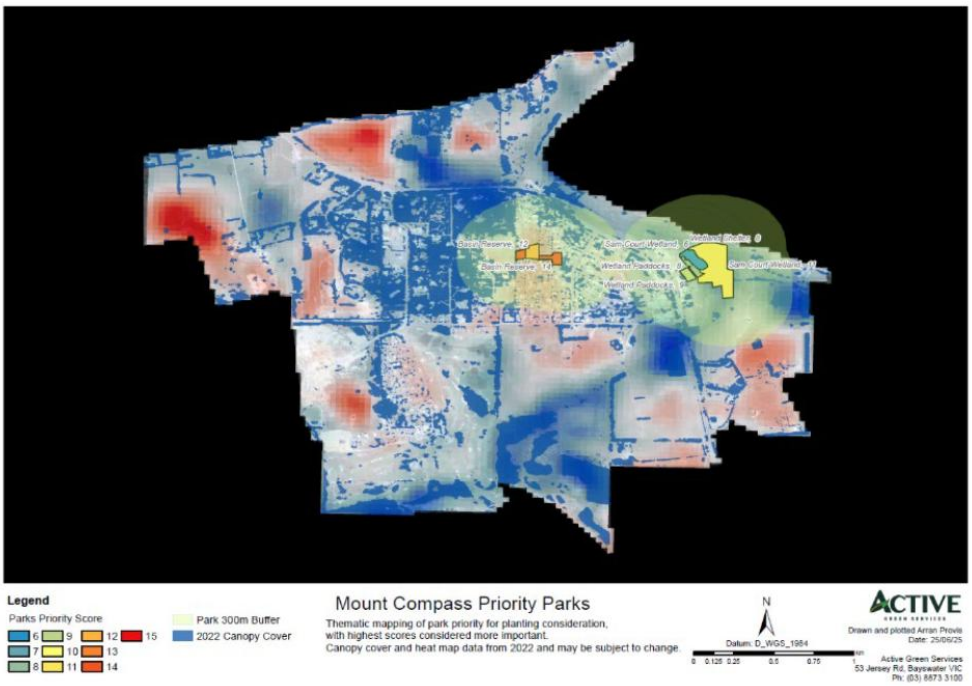


Figure 11: Map showing preferred public park locations in Mount Compass.
© Active Green Services, 2026

The following priority parks have been identified in Mount Compass:

Basin Reserve

Basin Reserve is a three part, multifunctional park that includes Mount Compass Recreation Park and forms part of an active transport corridor linking residential areas with Burgess Oval and the broader school precinct around Mount Compass Oval.

Although recent plantings have occurred within the reserve, there is a strong case for densifying the canopy, particularly to offset ongoing vegetation loss from adjacent private development, including areas like Slater Avenue, which have recently experienced significant clearing. As a heat hotspot, Basin Reserve represents a high priority site where expanded planting will deliver immediate benefits for urban cooling, recreation amenity and biodiversity support.

George Francis Drive Precinct

This residential area has limited access to nearby formal parks or reserves. While golf course vegetation and quarry easement plantings provide some landscape value, they do not function as public open space. Targeted roadside planting would help reduce heat hotspots and improve shade along the rural residential edge.

Sand Mine Road – Industrial Estate

While the industrial estate sits within a relatively cool microclimate, the absence of formal green space remains notable. Although the immediate priority for this area is lower compared to residential zones, strategic streetscape planting should still be considered to support worker wellbeing, improve amenity, and contribute to the township's overall canopy targets.

Ashbourne

In 2022, Ashbourne had with 49.3% the highest canopy cover of all townships. Most of the land is privately owned. This means that 86.43% of the total canopy cover is found on private land. There are currently no Council managed parks or reserves in Ashbourne.

Greening opportunities

While the overall tree canopy cover in Ashbourne is comparatively high, reflecting the rural and vegetated character of the area, there remains a gap in formalised recreational open space. The absence of designated parks and reserves limits opportunities for structured recreation, passive use, and community gathering, particularly for vulnerable groups such as children and older adults who may have limited mobility (Figure 12).

Alexandrina Council will explore partnerships with private landholders, schools, or state agencies in the delivery of green infrastructure in the short to medium term. Establishing even small scale reserves or green corridors could provide measurable benefits to community wellbeing, climate resilience and biodiversity.

A tailored approach is required for Ashbourne, recognising both its high canopy baseline and the current lack of accessible public open space.

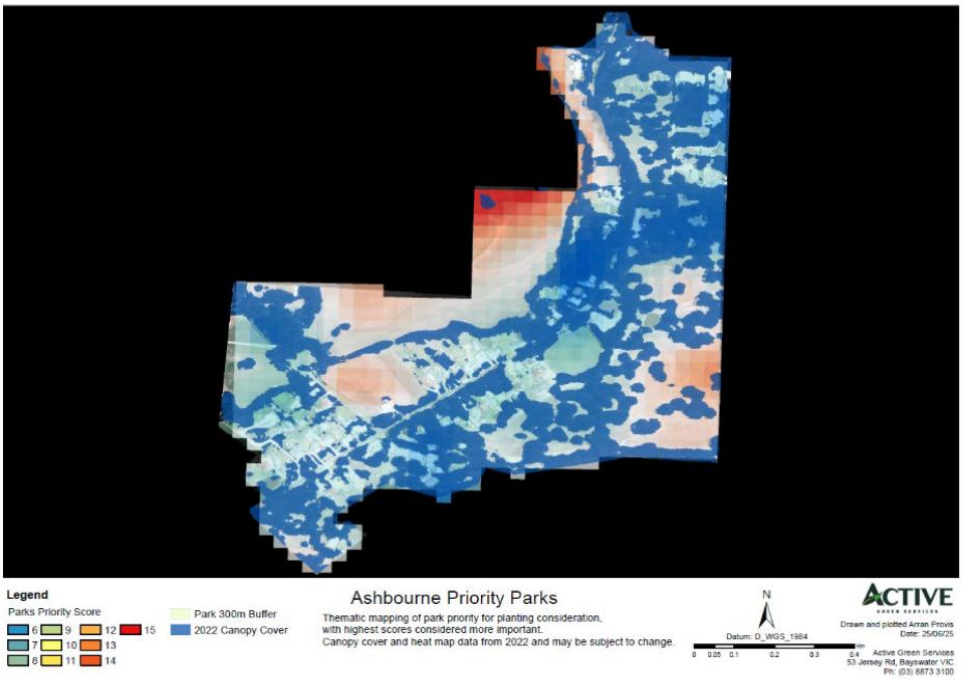


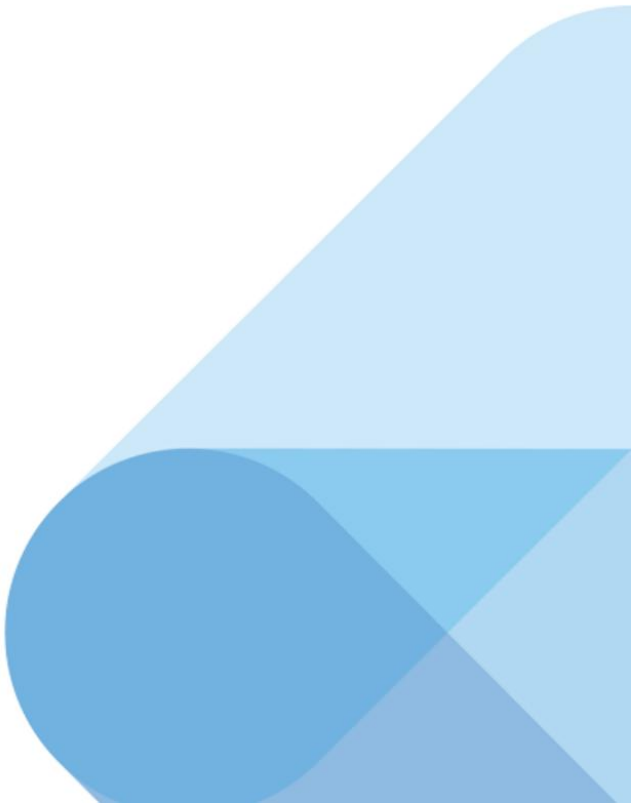
Figure 12: Map highlighting the lack of public park locations in Ashbourne.
© Active Green Services, 2026

How to contact us

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alex@alexandrina.sa.gov.au

Community Engagement Plan

Draft Greening our Townships Strategy 2026–2036



Name of Project: Draft Greening our Townships Strategy

Dates of Engagement: 9 am, Thursday 5 November 2026 until 5 pm, Friday 11 December 2026

Subject of Council Report:

☒ Yes, 19 October 2026

Or

☐ No

This project:

☒ Is included in the Annual Community Plan

☒ Is included in the A2040 Strategic Delivery Plan 2025–2035

☐ Is a Legislative requirement

☒ Has funding allocated through existing budgets

☒ Requires external or future funding to proceed

Purpose for engagement:

☒ Feedback from the community will shape the outcome.

or

☐ This engagement is designed to build community connection or inform, with no decision-making component.

Pre-engagement considerations

Consideration	Assessment
There is expectation within the Council or the community that the project will involve community engagement.	Yes
Risk level if community consultation is **not** undertaken. (*Legal, Regulatory and Policy and / or Reputation)*	Major
Level of complexity / difficulty for decision-making.	Moderate
Key stakeholders highly invested in the decision.	Major

Engagement timeline

Milestones	Dates	Status
Council Member Information Session on draft Strategy and informing plans	11 August 2026	Completed
Council Decision to proceed to community engagement	19 October 2026	TBC
Community engagement opens	5 November 2026	TBC
Community drop-in sessions (x4): Mt Compass, Middleton/Goolwa (TBC), Strathalbyn, Milang	Between 5/11-11/12/2026	Exact dates and locations TBC
Key stakeholder drop-in sessions (x2): Goolwa/Middleton (TBC), Strathalbyn	Between 5/11-11/12/2026	Exact dates and locations TBC
Community engagement closes	11 December 2026	TBC
Council Member Information Session to consider feedback	January 2027	TBC
Council Meeting with feedback and updated Strategy	February 2027	TBC
Next steps	Endorsement of final Strategy and budget allocated for ongoing implementation	TBC

About the project

Greening our townships is consistently reported to be of the highest importance to our community and is identified in Alexandrina's A2040 20-year Strategic Community Vision which articulates a clear aspiration for the region to thrive as a 'Liveable. Green. Connected.' place for everyone to enjoy.

In response to this, Alexandrina Council is currently developing a Greening our Townships Strategy (the draft Strategy). The draft Strategy provides Council and the community with a pathway on how Council, community and stakeholders can work together to increase greening and canopy cover in our townships.

Actions identified within the draft Strategy will be considered alongside existing endorsed plans and implemented through the Annual Community Plan, Long Term Financial Plan and external funding sources sought.

Extensive community and stakeholder engagement is proposed. This will provide Council the opportunity to hear from residents, stakeholders and environmental groups regarding the strategy and the proposed priority actions and priority reserves ensuring a partnership approach to achieving our shared community vision.

Community engagement

The purpose of the drop-in sessions is to gather broad community and key stakeholder feedback regarding the:

- Draft Greening our Townships Strategy;
- Actions identified in the draft Strategy to respond to our key challenges in line with Council's A2040-Strategic-Delivery-Plan-2025-2035 and Environmental Action Plan 2030;
- Greening opportunities in Alexandrina's townships as identified in Appendix A of the draft Strategy.

Meeting the community and key stakeholders in six (6) drop-in sessions will help refine and prioritise future actions to be included in the final Greening our Townships Strategy. By outlining proposed actions and the supporting evidence, it will help community members to clearly understand what is being put forward and enable them to provide focused feedback.

Conducting engagement based on a draft Strategy allows for more targeted and meaningful consultation. It gives the community the opportunity to respond to specific sections, key challenges and proposed strategic actions and planting locations, or recommendations.

How we are asking for feedback

Drop-in sessions

Four (4) drop-in sessions and two (2) separate key stakeholder sessions are being held to provide an opportunity for community members, environmental community groups, business owners and residents to speak face to face with staff about the draft Strategy. We want to hear from the community because they know our townships best.

The community drop-in sessions will be held across Alexandrina (locations and time to be confirmed):

- Strathalbyn
- Mt Compass
- Middleton
- Milang

Stakeholder drop-in sessions will be held in Goolwa and Strathalbyn with details to be confirmed.

Written feedback

Written feedback can be provided via the survey on My Say Alexandrina, by filling out a hard copy survey at any of the drop-in sessions or at the Council's Offices in Goolwa and Strathalbyn, or by emailing alex@alexandrina.sa.gov.au.

Frequently Asked Questions

Frequently Asked Questions are still being developed as part of the My Say Alexandrina webpage, including but not limited to:

Why are we developing the Greening our Townships Strategy?

Greening our townships is consistently reported to be of the highest importance to our community and is identified in Alexandrina's A2040 20-year Strategic Community Vision which articulates a clear aspiration for the region to thrive as a 'Liveable. Green. Connected.' place for everyone to enjoy.

The Greening our Townships Strategy (the Strategy) helps Council, residents, community groups, landowners and local organisations understand what we can each do to protect existing trees, grow more shade and support greener streets, parks and reserves for current and future generations.

What are the benefits of greening our townships?

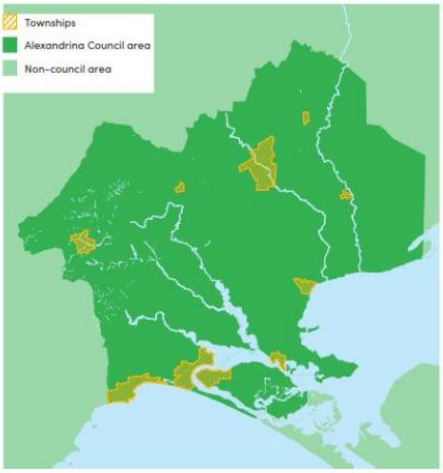
Greening our townships benefits everyone who lives, works, learns, visits and spends time in our communities. More trees and vegetation help create cooler streets, shaded walking routes and welcoming places to gather. They also support healthier communities by improving wellbeing, reducing heat, providing habitat for local wildlife, strengthening biodiversity and making our neighbourhoods more resilient. Over time, greener townships can also help reduce energy, stormwater and erosion costs, while adding to the character, beauty and pride people feel in the places they call home.

Why does the Strategy focus on Townships?

This Strategy specifically focusses on our townships – our built, urban centres because of the benefits of greening where people live work and play. We know from our Tree Canopy Benchmark and Thermal Imaging Report how hot some of our townships can get without appropriate greening and tree canopies.

Conservation, management and revegetation outside of our townships is outlined in Alexandrina's Environmental Action Plan 2030.

Area within scope of Strategy



Why does the Strategy identify roles for community and stakeholders?

Greening our townships is something we will need to collectively deliver. 78% of the land in Alexandrina is in private ownership and the land that is in Council's control is not all available for planting trees or plants. This means that we need everyone to help reach (and hopefully exceed) our targets. The draft Strategy therefore identifies actions that community members, landowners, developers and local groups can take—protecting existing trees, creating more shade, increasing vegetation cover and working together to make our townships cooler, healthier and more resilient.

Aren't trees already protected?

Native trees and vegetation that meet the definition of 'native vegetation' are protected across the whole of Alexandrina. However, the Alexandrina Council region is not covered by the Regulated and Significant Tree Overlay that applies in other parts of Greater Adelaide and protects (most) trees with a trunk circumference of 1m (measured at 1m from ground). This means trees that are not native, or were planted, are not protected.

Alexandrina Council's Tree Management Policy is the guiding framework for the planting, maintenance, conservation and removal of trees on Council land.

Form (survey) questions

Refer Appendix 1.

Who's listening

- Team Leader Environmental Strategy
- Manager Strategic Development
- Manager Field Services

Key documents included on MySay:

- Draft Greening our Townships Strategy
- Factsheet (one page summary)
- Informing plans:
  - Setting Canopy Targets – a 'Greenprint' for Success
  - Link to the informing plan: Tree Canopy Benchmark and Thermal Imaging Report

Additional content options:

☐	Swipe tool	Interactive before-and-after comparison of images or designs.
☐	Video presentation	Embed a video to explain the project or how to get involved.
☐	Newsfeed	Ongoing updates and announcements for the project.
☒	Subscribe for updates	Allows users to sign up for email updates about the project.
☐	Image slider	Scrollable series of images for visual storytelling.
☐	Gallery	Collection of images
☐	Other: Please specify.	

Engagement Tools

☒	My Say project page: The hub of all consultation details.	
☒	Form	Collect structured feedback through survey questions.
☐	Social Map	Interactive map where users can pin comments or ideas by location.
☐	Visioner Input	Ideas board for quick suggestions and creative input. Feedback looks like 'post it' notes.
☐	Quick Poll	Single-question poll for fast community sentiment checks. This is considered 'informal' or 'pulse check' feedback..
☐	Gather	A collaborative space for detailed ideas, discussions, and long-form feedback.

☒	Facilitate written submissions (via email and post)	
☒	Face-to-face engagement	A total of six (6) drop-in sessions as outlined above (under Engagement timeline).

Stakeholders to be informed

Residents and Ratepayers	
☒	General Residents and Ratepayers
☐	Adjoining Property Owners / Business Owners
Government and key agencies	
☒	Department for Environment and Water
☐	SA Water
☐	Department for Infrastructure and Transport (DIT)
☐	Department of Climate Change, Energy, The Environment and Water (Federal)
☐	Environment Protection Authority (EPA)
☐	Surrounding Councils
☐	Landscape Boards SA
☐	Regional Development Australia
☐	Minister for Planning
☐	Minister for the Environment
Members of Parliament	
State	
☒	Member for Finniss
☒	Member for Hammond
☒	Member for Heysen
☒	Member for Mawson
Federal	
☒	Member for Mayo
First Nations	
☒	Ngarrindjeri Aboriginal Corporation
☒	Peramangk Aboriginal Corporation (PAC)
☒	Strathalbyn Aboriginal Action Reference Group Inc (SAARG)
Section 41 Committees / Advisory Committees	
☐	Audit and Risk Committee
☐	Agricultural Advisory Group

☐	Cemeteries Advisory Group
☒	Climate Emergency and Environment Advisory Committee
☐	Heritage Advisory Group
☒	Ratalang Basham Beach and Horseshoe Bay Advisory Committee
☐	SA Wooden Boat Festival Committee
☐	Strathalbyn Recreation Precinct (Lot 10) Advisory Group
☐	Not applicable

Community groups, ratepayer associations and other organisations
☒ Alexandrina Residents and Ratepayers Action Group
☒ Cittaslow
☒ Clayton Bay Community Association
☒ Environmental Community Groups, especially those that are currently undertaking plantings in townships or that have a vested interest in urban greening
☐ Goolwa Wharf Operators Group
☒ Langhorne Creek Progress Association
☐ Hope Forest Residents Association Inc.
☒ Middleton Community Association Inc. (formerly Middleton Town and Foreshore Association)
☒ Milang and District Community Association Incorporated
☐ Mount Compass War Memorial Community Association
☒ Murray River Lakes and Coorong Action Group
☒ Port Elliot Town and Foreshore Association
☒ Strathalbyn Business Group
☐ Strathalbyn Tourism Association
☒ Milang and District Community Association Inc (MADCA)
☐ Not applicable

Communication Tools

Audience	Channel	Responsibility
Residents/ Ratepayers	Council website - Latest news article on home page of corporate website (space permitting)	Marketing and Communications Officer

	Social media (Instagram and Facebook) – at the start and midway through consultation	Marketing and Communications Officer
	Council office / digital displays - entryways	Community Engagement Officer
	Community noticeboards across our townships and key locations	Communications Team/ Strategic Development Team
	My Say e-newsletter subscribers	Community Engagement Officer
Government and key agencies	Direct email or posted letter to: State MPs • Member for Finniss • Member for Mawson • Member for Heysen • Member for Hammond Federal MPs • Member for Mayo Department for Environment and Water	Manager Strategic Development
Section 41 Committees / Advisory Committees	Section 41 Climate Emergency and Environment Committee • Invite the committee to provide a formal response as a group via a scheduled meeting	Manager Strategic Development
Community groups, resident and ratepayer associations	Direct email to community environmental groups	Team Leader Environmental Strategy
Media	Public Notice Fleurieu Sun, The Southern Argus Media release	Communications Team

Internal staff	Connect Intranet Announcement	Team Leader Environmental Strategy
Council Members	Briefing to Council Members: ☒ Council Report ☐ CM Portal ☐ Email ☒ Council Information Session	Strategic Development Team

Reporting

The My Say Alexandrina software provides a report on close of the consultation, with all submissions received through the My Say site. In addition, written submissions are recorded and allocated to Environmental Strategy and Strategic Development.

A summary of key themes that emerge from the submissions received (all methods of engagement) are identified and included in the Council Report.

A detailed Community Engagement Report will be published on the My Say project page.

The Reports to Council will be public documents, available on Council's website after release.

Names, addresses and information that personally identifies the respondents will not be included in public Reports.

Risks

Risk	Mitigation strategies
Reputation/ community expectation	• Communicate clearly and transparently about project scope and limitations. • Use FAQs to address common concerns.
Low community involvement	• Promote on multiple channels and target audiences, including community drop in sessions and sessions targeted to environmental groups and other key stakeholders

	• Schedule sessions at various times (day and evening sessions). • Undertake community and stakeholder drop-in sessions at key townships: Milang, Middleton, Goolwa, Strathalbyn, Mt Compass. • Use multiple communication tools, like My Say, social media, emails. • Extended consultation period of five (5) weeks.
Community members may not understand or correctly interpret the content of the Town Plan due to its complexity, technical language, or planning terminology.	• Use plain English, provide summaries and visual aids, test materials with community representatives, and offer multiple engagement opportunities to explain key concepts and answer questions.
Single-issue dominance	• Set clear engagement guidelines. • Use moderated forums or facilitated sessions. • Provide balanced information to broaden discussion.
Governance and compliance	• Ensure all processes align with legislative and policy requirements. • Document decisions and approvals.
Decision complexity	• Break down decisions into clear stages. • Provide visual aids (diagrams, summaries). • Engage subject matter experts and Council Members early.
Potential for controversy	• Prepare key messages and Q&A sheets. • Discuss crisis management with the Communications Team prior to consulting.
Public impact importance	• Prioritise transparency and accessibility of information. • Use plain language summaries. • Offer multiple feedback opportunities.
Community engagement demand	• Allocate sufficient resources (staff, budget). • Monitor engagement levels and adjust as needed.

Misinterpretation of draft Greening our Townships Strategy	• Use plain language one pager and summaries • Offer opportunities to one-on-one clarifications at drop-in sessions
Unrealistic expectations of the delivery of the draft Greening our Townships Strategy	• Clearly communicate the scope, budget limitations, and outline opportunities of working together • Clearly explain the key challenges as outlined in the draft Strategy and how we respond to these • Clearly communicate that greening is a shared responsibility and cannot be undertaken by Council alone – but in collaboration with our community, key stakeholders and funding bodies.

Next steps for approval

☒ This Plan is to be attached to a Council Report for endorsement to commence Community Engagement.

Following endorsement by Council, send this Community Engagement Plan together with the Resolution from the Council Minutes to the Communications Team.

OR

☐ Seek approval from General Manager and CEO, by obtaining signatures below.

Send fully signed Community Engagement Plan to Communications Team.

Approved by:

.....	.....
Signature of Group Manager	**Name of Group Manager**

.....
Date

Approved by Chief Executive Officer:

.....
Signature of Andrew MacDonald

.....
Date

APPENDIX A: SURVEY QUESTIONS

Survey questions Greening our Townships Strategy 2026-2036

Community engagement period: 5 Nov-11 Dec 2026

Introduction

Greening our townships is consistently reported to be of the highest importance to our community and is identified in Alexandrina's A2040 20-year Strategic Community Vision which articulates a clear aspiration for the region to thrive as a 'Liveable. Green. Connected.' place for everyone to enjoy.

In response to this, Alexandrina Council has developed a draft 'Greening our Townships Strategy' 2026-2036 (the 'draft Strategy'). The draft Strategy is about working together to create cooler, healthier and more welcoming places for people to live, visit and enjoy. It helps Council, residents, community groups, landowners and local organisations understand what we can each do to protect existing trees, grow more shade and support greener streets, parks and reserves for current and future generations.

About you

1. **Full Name (required)**

* Please note: Personal information (name and email) will be excluded from any publicly available documents including Council agenda attachments.

2. **Email address (required)**

* Please note: Personal information (name and email) will be excluded from any publicly available documents including Council agenda attachments.

3. **Which statement best describes you? Select all that apply (required):**

☐ Alexandrina Resident

☐ Alexandrina Ratepayer

☐ Alexandrina Business Owner / Operator

☐ Member of a community environmental group

☐ Visitor

☐ Recently moved to the Alexandrina

☐ Considering moving to Alexandrina

☐ Other

Free text

4. **What is your age bracket? (required)**

Under 18 What is your age bracket?

☐ 19 - 24

☐ 25 - 34

☐ 35 - 44

☐ 45 - 54

☐ 55 - 64

☐ 65 - 74

☐ 75 - 84

☐ 85 +

☐ Prefer not to say

1. **Township/ suburb (required)**

Open text

2. **Did you attend any of the community drop-in sessions and/or key stakeholder sessions held in November and December? (required)**

☐ Community drop-in session: Strathalbyn

☐ Community drop-in session: Mount Compass

☐ Community drop-in session: Middleton

☐ Community drop-in session: Milang

☐ Key stakeholder session 1: Goolwa

☐ Key stakeholder session 2: Strathalbyn

☐ I did not attend

☐ I plan to attend

Our Vision

Our vision of the draft Strategy is: *Our townships are vibrant, walkable communities, characterised by tree lined streets and shady, green parks and reserves that enhance liveability, promote wellbeing, and foster biodiversity*.

3. **Indicate your level of support of the vision for greening Alexandrina's townships (required):**

☐ Support

☐ Neutral

☐ Do not support

5. **Further comments.** (Response is optional where "Support" or "Neutral" was selected. Response is required where "Do not support" was selected.)

Open text

6. **Do you agree that greening our townships will require Council and the community to work together? (required)**

☐ Agree

☐ Neutral

□ Do not agree

7. **Do you support a target of 25% canopy cover on Council controlled land across all townships, which will involve doubling the current planting program? (required)**

□ Support

□ Neutral

□ Do not support

8. **Further comments.** (Response is optional where "Support" or "Neutral" was selected. Response is required where "Do not support" was selected.)

Open text

Key challenges and strategic actions

The benefits of trees and green spaces are well documented, so it might seem simple – Council should just plant more trees and plants! But there are lots of challenges to achieving our target of 25% canopy cover on Council managed land and 18.6% canopy cover across all township land.

The draft Strategy identifies the following challenges and provides strategic actions that Council and the community can undertake to respond to the challenges and achieve these targets:

- Strengthening community involvement;
- Greening townships where space is limited;
- Urban heat, extreme weather and climate change; and
- Maintenance and resourcing.

9. **Do you support the actions identified to address the 'Strengthen community involvement' challenge? (Optional)**

□ Support

□ Neutral

□ Do not support

10. **Please provide any comments about the 'Strengthening community involvement' actions, including any additional actions that you think should be considered.** (Response is optional where "Support" or "Neutral" was selected. Response is required where "Do not support" was selected.)

Open text

11. **Do you support the actions identified to address the 'Greening townships where space is limited' challenge? (Optional)**

□ Support

□ Neutral

□ Do not support

12. **Please provide any comments about the 'Greening townships where space is limited' actions, including any additional actions that you think should be considered.** (Response is optional where "Support" or "Neutral" was selected. Response is required where "Do not support" was selected.)

Open text

13. **Do you support the actions identified to address the 'Urban heat, extreme weather and climate change' challenge? (Optional)**

□ Support

□ Neutral

□ Do not support

14. **Please provide any comments about the 'Urban heat, extreme weather and climate change' actions, including any additional actions that you think should be considered.** (Response is optional where "Support" or "Neutral" was selected. Response is required where "Do not support" was selected.)

Open text

15. **Do you support the actions identified to address the 'Maintenance and resourcing' challenge? (Optional)**

□ Support

□ Neutral

□ Do not support

16. **Please provide any comments about the 'Maintenance and resourcing' actions, including any additional actions that you think should be considered.** (Response is optional where "Support" or "Neutral" was selected. Response is required where "Do not support" was selected.)

Open text

Community greening opportunities in Alexandrina

Appendix A of the draft Strategy outlines greening opportunities in priority parks for each township based on:

- socio economic and canopy cover inequities,
- accessibility,
- urban heat island exposure,
- existing canopy cover, and
- planting potential.

Public parks are shared community spaces where Council and the community can work together to create greener, cooler and more welcoming townships, this appendix helps identify where **community priorities and Council investment can come together** to deliver the greatest local benefit.

Greening opportunities will be location specific and will include local plants suitable for each public park.

17. **Looking at the proposed public parks across each township (outlined in Appendix A), and noting that these priority public parks were selected to be inclusive to allow access to green spaces for everyone in their neighbourhood, did we miss any township reserves? If yes, please provide specific information on alternatives.**

Include tick boxes for 11 townships (Note: participants will be able to select which township(s) they want to provide feedback on): Ashbourne, Clayton Bay. Goolwa, Hindmarsh Island (within the township boundary), Langhorne Creek, Middleton, Milang, Mount Compass, Port Elliot, Strathalbyn, Woodchester.

Open text field expands underneath each ticked option

18. **If you consider that any of the reserves identified are unsuitable for urban greening initiatives, please provide the reasons why you believe these to be unsuitable.**

Long open text field

19. **Overall, do you support the draft Greening our Townships Strategy?**

□ Strongly support

□ Support

□ Somewhat support

□ Do not support

20. **Further comments** (Response is optional where "Support" or "Neutral" was selected. Response is required where "Do not support" was selected.)

Open text

Attachment 3 - Draft Greening our Townships Strategy One Page Summary

Draft Greening our Townships Strategy 2026-2036

Our shared vision

We will protect and grow the trees and green spaces that make our townships a 'Liveable. Green. Connected.' place to live in. Where our townships are vibrant, walkable communities, characterised by tree lined streets and shady, green parks and reserves that enhance liveability, promote wellbeing, and foster biodiversity.

We will work together to achieve shared goals, providing fair access to green spaces, creating greener, cooler places to live, through shared care and community pride, growing greener townships by design and prioritise thriving nature in our townships.

Through this Greening our Townships Strategy 2026-2036, and as a community, we aim to achieve the following:

Our Community will...

- Value and champion the many benefits that trees and green spaces provide for our environment, health, and wellbeing
- Actively contribute to our shared vision by greening homes and gardens
- Contribute to the greening of township parks and reserves
- Work together to help grow and care for greener, cooler townships for current and future generations.

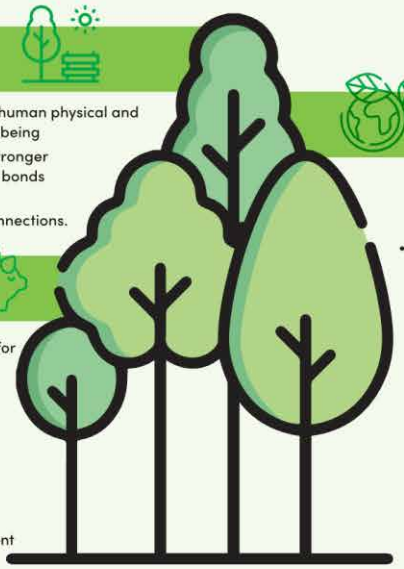
Our Council will...

- Lead street tree plantings
- Grow richer, more diverse plantings across Council reserves by working alongside our community, volunteers, and partners
- Walk alongside our community on our shared greening journey, providing support, resources, and opportunities to get involved
- Build healthier, more resilient trees on Council land for the benefit of current and future generations
- Increase tree planting to achieve a 25% canopy cover on Council managed land by 2055 with interim milestones to track progress
- Seek grant funding to complement Council investment to reach our targets.

Together we will...

- Create cooler, greener, and more liveable neighbourhoods to benefit our community, nature, and future generations
- Build a strong culture of community stewardship by increasing participation in tree planting, watering, monitoring, and education programs
- Increase the number and diversity of species planted annually across the townships, with a shared goal of at least 80% survival after 5 years through joint care, watering, and stewardship
- Protect and retain existing mature, habitat, and culturally significant trees on public and private land, recognising that retention delivers faster canopy, cooling, and biodiversity benefits than new planting
- Aim to increase overall township tree canopy cover to 18.6% by 2055 across private and public land, with interim milestones to track progress.

Benefits of urban trees and greening



Social benefits

- Enhancing human physical and mental wellbeing
- Fostering stronger community bonds and pride
- Cultural connections.

Environmental benefits

- Supporting climate change mitigation and adaptation efforts
- Enhanced biodiversity, habitats and landscape connectivity
- Reduced urban heat
- Improved protection from wind, storms, and fire events (dependent on species mix and planting design).

Economic benefits

- Decreasing expenses for energy, stormwater management, and erosion control
- Elevating property values by as much as 7-20%
- Increased consumer spending
- Generating employment opportunities.

Responding to our key challenges

The Strategy identifies Council led and community led/ partnership actions for the following key challenges:

- Strengthening community involvement
- Greening townships where space is limited
- Urban heat, extreme weather and climate change
- Maintenance and resourcing.

The time for action starts now. Every tree planted, every green space created and every garden tended brings us closer to creating our cool, resilient, green, and liveable communities.

This Strategy highlights what is needed to increase canopy cover and importantly the need for a shared ownership to implement the strategic actions.

Visit **mysay.alexandrina.sa.gov.au/GreeningOurTownships** to read the full draft Strategy and actions to meet our targets.

Alexandrina's Township Greening

Setting Canopy Targets – a 'Greenprint' for Success

Alexandrina Council

February 25, 2026

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Alexandrina's Township Greening

Setting Canopy Targets –

a 'Greenprint' for Success

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Simon Strauss

BAppSc (with distinction)

25 February 2026

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1. Executive summary and canopy cover target recommendation

One of Alexandrina's key community-identified visions is to increase township greening and tree planting for canopy cover (Alexandrina 2040 Liveable Green Connected, Alexandrina Council 2020). The objective of this Study was to work with Council to develop an evidence-based canopy targets for each township – ambitious though realistic – with recommended annual planting programs to help achieve equitable access to trees and green spaces for Alexandrina's communities.

This work goes a step further than the overarching Greening Our Townships Strategy and builds on the 2022 Tree Canopy Benchmark Study and Thermal Imaging Report (the "Tree Canopy Report") that investigated the tree canopy baseline for Alexandrina's 11 townships, its urban 'heat island' effect across each, and canopy cover by landholder. The 2022 baseline study showed that Alexandrina's total canopy cover averaged 17.6% across the townships, ranging from 11.7% (Milang) to 49.3% (Ashbourne). It also showed that much of Alexandrina's canopy cover is located on private land - 78%. In comparison, Council managed land has 21% canopy cover, and 1% of canopy cover is on Crown Land.

Addressing the challenges associated with urban greening, canopy cover expansion, and biodiversity protection requires a coordinated, place-based and future-oriented approach. There is no one-size-fits-all solution as municipalities such as Alexandrina face unique environmental, social, spatial and governance contexts. However, a suite of complementary strategies can guide more effective planning, design and implementation to help navigate structural, ecological and social challenges.

Hence, the outcomes of this Study equip Alexandrina to lead and manage its township targets and plans with evidence-based decision-making information including consideration for:

- Opportunities for street scape plantings (Council led);
- Biodiversity plantings in township reserves (Council and/or community);
- Community plantings supported by Council (e.g. Adopt a Tree / Adopt a Park, revegetation); and
- Climate ready tree species

to guide strategic planning and budgeting as part of part of a suite of documents supporting Council's Greening Our Townships Strategy.

1.1. Street scape plantings (Council-led)

The value of knowing when and how much to plant

The body of this Study is large and complex. In addition to space and budget considerations, it models seven planting scenarios for each township (eight for Milang); 79 scenarios in total. These scenarios are important to evaluate different approaches for achieving urban canopy targets, including various planting rates, financial profiles and canopy outcomes to 2055. Tree-related factors, social and economic benefits were also modelled to identify areas of greatest impact. It also incorporates findings from research on best practice and management solutions to assist effective and efficient implementation.

Identifying minimum canopy cover targets

Of the 79 scenarios modelled and inputs considered, the minimum target canopy cover results per township are outlined in Table 1 (Scenario 1). This is based on doubling the current planting regime to 591 trees annually up to 2055. The minimum overall 2055 targets are:

- 18.6 % total canopy cover on all land (tenures) across all townships, an increase of 1.0% from the benchmark of 17.6%.
- 24.9% canopy cover on Council-controlled land across all townships, an increase of 5.9% from the benchmark of 19.0%.

It has the lowest canopy cover increase of all scenarios modelled. Over-achievement of these targets is possible through community contribution on private land, through front-loading (Scenarios 3-5), and increased up-front funding (refer to Table 2). Hence, Scenario 1 is recommended as the minimum target at both township and overall levels.

Table 1: Presentation of current (2025) township canopy cover and expected increase of canopy cover by 2055 under Scenario 1 – modelling for total canopy cover and for canopy cover on Council land. Total canopy cover increases by 1%, from 17.6% to 18.6%, and on Council land canopy cover increases by 5.9%, from 19% to 24.9% by 2055.

Township (Scenario 1)	2025[1] Total Canopy Cover[2]	2055 Total Canopy Cover	2025[1] Council Canopy Cover[3]	2055 Council Canopy Cover	Trees per year[4]
Across all townships	17.6%	**18.6%**	19.0%	**24.9%**	591
Ashbourne	49.3%	**49.3%**	70.2%	**70.2%**	0
Clayton Bay	14.3%	**17.3%**	10.8%	**22.8%**	100
Goolwa	14.3%	**15.7%**	16.0%	**21.4%**	200
Hindmarsh Island	19.9%	**20.0%**	11.7%	**12.9%**	20
Langhorne Creek	19.9%	**20.8%**	26.5%	**31.8%**	10
Middleton	14.1%	**16.2%**	11.6%	**17.3%**	65
Milang	11.7%	**14.1%**	20.2%	**28.5%**	75
Mount Compass	23.4%	**23.5%**	25.9%	**26.5%**	6
Port Elliot	13.9%	**14.3%**	16.4%	**18.0%**	60
Strathalbyn	19.4%	**19.6%**	26.6%	**28.0%**	50
Woodchester	13.1%	**13.6%**	11.2%	**19.3%**	5

[1] *The 2025 township canopy cover extent is based on Alexandrina's 2022 Tree Canopy Report as no other canopy data was available and it was deemed a reasonable estimate for the purpose of this Study*

[2] *Total Canopy Cover = Canopy cover percentage of townships by 2055 across all tenures (Council, Crown, and private)*

[3] *Council Canopy Cover = Canopy cover percentage of townships by 2055 on Council land*

[4] *Trees per year = Trees to be planted annually up to 2055*

Table 2: Summary of Scenarios 1-5. Outcomes of the modelling shows that the more trees are planted earlier, the quicker the canopy cover is achieved. Front-loading planting requires initially a higher upfront expense but overall less budget and fewer trees over the 30 year planting horizon (2025-2055). Costing excludes future CPI indexing, land acquisition or repurposing, or the administrative and staffing costs that would be required to deliver and manage a program at this scale.

Scenario	Description	2055 Total Canopy Cover[1]	Canopy description 2055	Planting Profile	Total Trees Planted	Total Cost[2] (Planting + Maintenance)	Year 1 Cost[3] (Planting + Maintenance)	Key Benefits	Key Challenges
Scenario 1 Minimum Target	Doubling current planting approach	18.6%	Modest increases (varies by township)	Even, steady planting to 2055	17,730	$23.94M	$384K	Lowest annual resourcing demand	Least canopy improvement, highest long-term maintenance and total costs
Scenario 2 Targeted Equity[4]	Even canopy distribution focus	19.3%	~20%+ (varies)	Steady planting to 2055	19,915	$26.89M	$1.40M	Addresses township canopy disparity	Higher total cost, slower delivery
Scenario 3 Front-loaded – 20% Reduction	Equitable canopy distribution	19.6%	~25%+	High, then 20% annual reduction, ends ~2050	15,506	$20.93M	$2.36M	Earlier canopy benefits, significant savings	Higher upfront costs, delivery pressure in early years
Scenario 4 30% Council canopy by 2050	Ambitious canopy target	20.0%	30% cover on Council land	High, then 20% annual reduction, ends ~2050	18,018	$24.32M	$2.74M	Gold-standard target, early outcomes, climate resilience	High upfront costs, complex logistics
Scenario 5 30% Council canopy by 2050 – Accelerated	Fastest delivery model	20.1%	30% cover on Council land	High, then 33% annual reduction, ends ~2050	16,487	$22.26M	$3.93M	Fastest canopy delivery, lowest total trees, largest lifecycle savings	Very high upfront cost, highest early delivery burden

[1] Total Canopy Cover = Canopy cover percentage of townships by 2055 across all tenures (Council, Crown, and private)
[2] Total Cost covers the 2025 to 2055 timeframe and includes tree stock, planting and maintenance (e.g. watering) for 3 years to ensure establishment (based on current Council costs) but excludes future CPI indexing, land acquisition or repurposing, or the administrative and staffing costs
[3] Year 1 costs excludes future CPI indexing, land acquisition or repurposing, or the administrative and staffing costs
[4] Targeted equity means equitable planting approach to address canopy disparities between townships to ensure fair distribution of new street plantings across all townships

The advantages of planting early

One surprising outcome from this Study was the potential for large monetary savings by planting trees as early as practicable in the 30 year strategic time horizon – the "front-loaded" scenarios (Scenarios 3-5). **Why? Because trees are natural assets and grow.** The longer they are in the ground, the quicker they provide shade and the greater the services they provide at the target end date. Simply put, for a given canopy target at a given date, less trees in total are required when more are planted early.

Using Clayton Bay as an example, modelled to achieve a 3% canopy cover increase by 2055 using a constant planting rate (Figure 1a) compared to early plantings (Figure 1b), cost savings of >25% and >40% reduction in planting sites, are achievable.

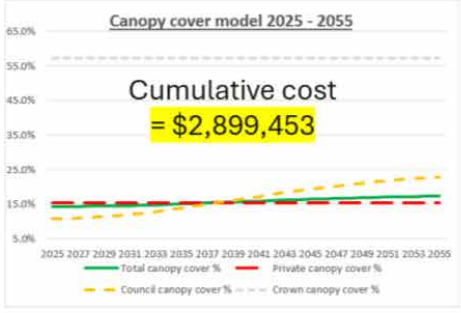
Figure 1a: 'Constant planting rate' outputs.

Canopy projection model:	Clayton Bay			
	2025	2030	2043	2055
Total Canopy %	14.3%	14.3%	15.3%	17.3%
% T = 100.0 Canopy Ha	33.7	33.8	35.8	40.7
Private Canopy %	15.4%	15.4%	15.4%	15.4%
% T = 74.9 Canopy Ha	27.2	27.2	27.2	27.2
Council Canopy %	10.8%	11.0%	14.5%	22.8%
% T = 25.0 Canopy Ha	6.4	6.5	8.6	13.4
Trees planted in year	-	100	100	100
Average plantings	-	100	100	100
Cumulative plantings	-	500	1,800	3,000
Annual P&W cost	$ 135,000	$ 135,000	$ 135,000	$ 135,000



Figure 1b: 'Planting more trees early' outputs.

Canopy projection model:	Clayton Bay			
	2025	2030	2043	2055
Total Canopy %	14.3%	14.5%	16.1%	17.3%
% T = 100.0 Canopy Ha	33.7	34.1	37.8	40.8
Private Canopy %	15.4%	15.4%	15.4%	15.4%
% T = 74.9 Canopy Ha	27.2	27.2	27.2	27.2
Council Canopy %	10.8%	11.6%	17.7%	22.8%
% T = 25.0 Canopy Ha	6.4	6.9	10.5	13.5
Trees planted in year	-	114	1	0
Average plantings	-	296	95	57
Cumulative plantings	-	1,478	1,708	1,709
Annual P&W cost	$ 761,400	$ 221,857	$ 1,216	$ 10



The front-loading results show that planting a higher number of trees earlier and over a short timeframe (Scenarios 3-5) require a higher upfront investment initially but, importantly, achieves canopy targets faster while having earlier environmental benefits, long-term cost savings and stronger resilience to inflation. For example, Scenario 5 achieves the 30% canopy target on Council land faster and more cost efficiently compared Scenario 1 or a steady planting of trees over a longer timeframe (Scenario 2). Table 2 below provides an overview of the outcomes and costs for all five scenarios.

Are state-developed canopy cover targets achievable?

At the commencement of this Study, the draft Greater Adelaide Regional Plan (draft GARP) proposed canopy targets of 30% canopy cover by 2055 for metropolitan Adelaide, with an interim target of a 2% canopy increase by 2030 for rural councils. Council wanted to understand if these targets are achievable for Alexandrina.

Hence, Scenarios 6 and 7 were developed in response to these specifications. The results of the Study demonstrate that such goals are unachievable for Alexandrina without significant contributions from private land based on two fundamental criteria:

- A 2% increase of canopy cover across Alexandrina by 2030 would incur a cost of $73 million to Council (Scenario 6);
- Unavailability and capacity of Council-controlled space and associated resources. For example, Woodchester does not have enough public land to achieve 30% canopy cover across the township.

These results show that without appropriate modelling, strategy and planning, such canopy cover targets, are aspirational. Hence, this Study enables Alexandrina to make informed decisions.

Tube stock plantings

Scenario 8 evaluates tube stock planting in Milang specifically as a lower-cost option. The results indicate that community-led tube stock plantings are likely to play a cost-effective role in parks, reserves, and open spaces where conditions are more favourable for establishment. However, for urban streetscapes, high-traffic areas, and constrained environments, advanced tree stock should remain the preferred method due to its higher survival rates, lower maintenance demands and ability to deliver faster canopy outcomes.

Recommendations to Council

24 key recommendations are made to help ensure Council investment results in the expected outcomes (section 9). They are summarized as:

- Adopt township-specific canopy targets based on Scenario 1 as a minimum.
- Ensure no net loss of tree canopy on private land.
- Where-ever practical, plant trees early to maximise their canopy and minimise overall costs.
- Regular canopy mapping and progress reporting is essential to monitor outcomes, identify underperforming areas, and guide continuous improvement.

- Where additional resources become available, the canopy targets based on Scenario 1 should be reset at increased levels.
- Maintain an adaptive, iterative approach to help ensure the achievement of the long-term urban canopy targets.

Collectively, the modelling scenarios presented in this Study (Table 2) provide evidence to inform realistic, cost-effective, and impactful greening decisions. There is no one-size-fits-all solution for Alexandrina's townships. However, a suite of complementary strategies derived from this Study can guide more effective planning, design and implementation to help navigate structural, ecological and social challenges.

1.2. Township reserves to promote biodiversity and community plantings (Council and/or community led)

Tree planting within parks and reserves presents a valuable opportunity for community engagement through Council-led planting programs. To prioritise parks for strategic tree planting, several criteria were modelled, including location and functional use of each park; the urban heat island exposure; existing canopy cover and planting potential; equity; and accessibility (300m threshold under the 3–30–300 rule). The results and maps for each township are shown in Section 6 of the Study.

Establishing even small-scale reserves or green corridors could provide measurable benefits to community wellbeing, climate resilience and biodiversity. Exploring partnerships with private landholders, schools, or state agencies may also support the delivery of green infrastructure in the short, medium and long term.

1.3. Planning for the future – climate-ready tree species

Climate-ready tree species are those identified as resilient to the projected impacts of climate change, including increased average temperatures, reduced and irregular rainfall, more frequent heatwaves, and extended periods of drought. For Alexandrina, the strategic selection and planting of these species is essential to ensuring the long-term health, functionality, and sustainability of the urban forest, as well as achieving canopy cover targets. Section7 of this Study shows suitable tree species based on modelling of future climate projections.

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2. Introduction and background

Alexandrina Council is committed to enhancing its urban forest and green spaces through a coordinated, multi-faceted planting approach, aligned with the community's vision in the for a "green" and "liveable" future (Alexandrina Council 2020).

Alexandrina's Township Greening: Setting Canopy Targets – a '**Greenprint**' for Success (the Study) is a technical, tree management document underpinning Alexandrina's "Greening Our Township Strategy" (Greening Strategy) which sets out Alexandrina Council's vision for protecting, managing, and increasing Alexandrina's urban tree canopy and greening.

The Greening Strategy identifies the objectives of Council and its community as to how Council intends to enhance urban greening and increase its tree canopy cover against its baseline from the 2022 Tree Canopy Report. This Study serves as a framework to guide the Greening Strategy's implementation through:

- Evidence-based canopy cover targets tailored for each township.
- Annual planting rates, to achieve these targets efficiently.
- Increased resilience of urban greening initiatives through climate-ready species selection.
- Equitable access to trees and green spaces across all communities.
- Biodiversity enhancement across public and community-managed spaces.
- Council and/or community-driven biodiversity plantings in township reserves.
- Community-supported planting initiatives (e.g. *Adopt a Tree*, *Adopt a Park*, and local revegetation projects).
- Best practice and location suitability guidelines.
- Examples (for Milang) demonstrating the above principles, of:
    - A prioritised annual planting program.
    - Strategic, Council-led streetscape planting opportunities.

Strategic analysis, including GIS mapping and prioritisation, using the '3-30-300 Rule' (Konijnendijk 2023), has informed the spatial planning of planting efforts. Internal Council strategies and reports were reviewed to ensure alignment, while input from relevant departments and committees was incorporated. Supporting academic literature and benchmarking against other jurisdictions have guided the formulation of targets and methods.

Together, these actions provide a clear and coordinated pathway for Alexandrina Council to strengthen its urban forest, promote climate resilience and ensure that green space benefits are equitably distributed across all townships now and into the future.

Council can achieve this through three key delivery streams:

1. **Council-led streetscape planting programs**. Council delivers an annual street tree and amenity park planting program with a focus on enhancing canopy cover, particularly in low-canopy townships. Key components will include:
   - Prioritisation: Planting guided by Council's Tree Canopy Baseline Study and Climate Emergency & Environment Committee recommendations.
   - Equity: Ensures fair distribution of new plantings across all townships.
   - Species Suitability: Utilisation of a locally adapted preferred species list.
   - Community Engagement: Residents can request verge trees, which are planted and maintained for 12 months by Council.
   - Internal Nursery: A Council-managed nursery grows semi-advanced trees from local tube stock to improve survival and performance.
2. **Biodiversity-focused plantings (Council and/or community)** in reserves and public land, using local provenance species and collaborating with conservation groups, supported by community environment grants. Council actively protects and restores biodiversity assets across urban and peri-urban reserves through targeted planting and revegetation.
   Key features will include:
   - Habitat Restoration: Establishment of ecological buffers, corridors, and functional habitat patches.
   - Local Provenance: All plantings utilise locally indigenous species to support biodiversity and resilience.
   - Partnerships: Delivery is supported by partnerships with conservation groups, agencies and landholders.
   - Grant Support: Community Environment Grants fund site preparation, propagation and planting projects.
3. **Community-supported greening** initiatives. Council supports and will continue to empower community participation in greening and canopy enhancement including:
   - One Million Trees Project: A regional campaign encouraging schools, residents and groups to collectively plant one million native trees by 2030 (Alexandrina Council. n.d. b).
   - Greening & Wildlife Project: A collaboration with Second Nature Conservancy to distribute subsidised native plant packs and provide workshops (Second Nature Conservancy. n.d.).

- Verge Planting Opportunities: Residents may undertake verge plantings aligned with the Alexandrina Township Verges Planting Guide (Alexandrina Council. n.d. c).
- "Adopt a Tree" Program: Engages residents in the care and stewardship of new street trees.
- Community Nurseries: Council supports local nurseries that propagate native seedlings for public and private planting projects.

2.1. Tree planting scenarios

This Study explores seven planting scenarios for each township (eight for Milang) which evaluate different approaches for achieving urban canopy targets. Scenarios 1–5 model various planting rates, financial profiles and canopy outcomes to 2055. **Results show that front-loaded models (Scenarios 3–5, with higher upfront investment) deliver earlier environmental benefits, long-term cost savings and stronger resilience to inflation, with Scenario 5 achieving the 30% canopy target fastest and most efficiently.**

Scenarios 6 and 7, based on whole-of-land canopy targets, demonstrate that such goals as originally outlined in the Draft Greater Adelaide Regional Plan (draft GARP) are unachievable without significant contributions from private land which is beyond this Study's scope.

Scenario 8 specifically evaluates tube stock planting in Milang as a lower-cost option. However, its use is limited in urban streetscapes due to establishment challenges.

Collectively, these models provide evidence to inform realistic, cost-effective, and impactful greening decisions (Table 2).

Trends across scenarios:

- Consistent leaders

Goolwa and Port Elliot show large absolute gains in every scenario, reflecting strong baseline capacity and urban greening opportunities.

- Improving equitability

Scenarios 3–5 show substantial improvements in historically low-growth townships like Hindmarsh Island, Langhorne Creek and Woodchester.

- Distribution matters

While total canopy increases are important, equitable gains across urban, rural, and peri-urban areas are critical to addressing urban heat and social vulnerability.

- The advantage of planting early - front-end loading of tree planting rates

There are significant benefits associated with front-loaded programs including economies of scale in planting and maintenance, improved contract efficiencies for spatially proximate plantings, and greater cost certainty (by mitigating exposure to future stock price volatility and CPI increases). Using Clayton Bay as an example, modelled to achieve a 3% canopy cover increase by 2055 using a constant planting rate (Figure 1a), compared to early plantings (Figure 1b), cost savings of >25%, and >40% reduction in planting sites, are achievable.

2.2. Assumptions, planting considerations & strategic implications

This section outlines the critical assumptions, constraints and strategic considerations shaping the canopy modelling and township greening approach. Existing canopy cover is assumed to remain static, without net change, requiring immediate or advanced replacement of any removed public trees as a minimum. **However, private land - that is largely outside Council control - plays a decisive role in township-wide canopy outcomes. Even a modest 0.5% annual change on private land can shift total canopy outcomes by up to 12%,** highlighting the importance of landholder engagement and vegetation protection measures.

Ground-truthing canopy distribution and planting opportunities of each township is vital. The case study of Ashbourne (Section 4.4.11) reveals limitations in the interpretation of aerial canopy data, reinforcing the value of field inspections and one advantage of having a detailed tree inventory to guide long-term planning. Strategic tree planting on Council-managed land remains essential for achieving defensible, resilient and equitable canopy gains, particularly in low canopy cover townships.

Various public plantings within Alexandrina may provide limited canopy benefit due to species traits, planting arrangement or performance issues. To address this, Council should prioritise broad-canopied and climate-resilient species where possible, supported by targeted infill planting, and the removal and replacement of underperforming trees. Site-specific planting density and soil conditions must also be factored into design decisions, to support long-term canopy viability.

Community-led planting, especially in parks and reserves using tube stock, offers biodiversity and stewardship benefits though streetscape plantings are better suited to advanced nursery stock due to survival and establishment challenges. Biodiversity outcomes are strengthened by community participation and understorey diversity while tree planting also contributes to carbon sequestration, aligned with Alexandrina's climate goals.

Finally, this Study identifies strong alignment with grant funding opportunities across South Australia. By leveraging existing modelling, cost-benefit analysis and strategic targets, Alexandrina is

well-positioned to secure external funding and partnerships to support ongoing greening, biodiversity and climate resilience objectives.

2.3. Climate-ready tree species

To ensure long-term canopy resilience in the face of climate change, this Study has assessed Alexandrina's preferred tree species list using the Climate Assessment Tool (CAT). This analysis supports the strategic selection of climate-ready species that can withstand projected increases in temperature, reduced rainfall and more extreme weather events.

Under a 2050 emissions-limited scenario, most preferred species show good climate suitability, from the inclusion of native and climate-adapted exotic species. However, under a 2090 trajectory (under Scenario 1), suitability declines sharply, particularly for cooler-climate exotics such as *Fraxinus*, *Ulmus*, and *Acer ×freemanii*, highlighting the urgent need to diversify the species palette.

The CAT results provide guidance and not absolute predictions. Therefore, it should be considered alongside other key factors such as drought and salt tolerance, soil type and local microclimates. A diversified planting approach supported by local trials, monitoring and integration into asset management systems is essential to build climate resilience into Alexandrina's urban forest.

2.4. Bushfire risk and powerline impacts

Tree planting for canopy coverage in Alexandrina is constrained by bushfire risk classifications and vegetation clearance regulations around powerlines. Clearance requirements under the *Electricity (Principles of Vegetation Clearance) Regulations 2021* limit the use of large-canopy species under overhead lines, especially in bushfire-prone areas. Approved species lists focus mostly on small, shrub-like species under 4 m in height, restricting canopy potential.

These constraints present significant challenges to achieving canopy cover targets without strategic planning or exemptions. Comparative regulations in Victoria suggest less restrictive approaches may be possible, raising the opportunity for review and collaboration with SA Power Networks (SAPN), including development of a Memorandum of Understanding (MOU). GIS tools and desktop analysis can help identify feasible planting locations that balance risk, compliance and canopy objectives.

Bushfire risk and powerline impacts on canopy - risks versus benefits

Current powerline clearance regulations and bushfire risk controls appear to prioritise the reduction of vegetation-related hazards without fully accounting for the broader public health and environmental benefits that trees provide. While it is essential to mitigate bushfire ignition risks

from powerline contact, the existing restrictions limit opportunities for meaningful canopy cover and associated climate resilience benefits.

The risk of fire from vegetation contact is real but statistically rare, with electricity-related ignitions reportedly accounting for 2.7% of bushfires nationally. In contrast, heat-related deaths and melanoma rates in South Australia are significantly higher and ongoing public health challenges. Large-canopy trees play a critical role in reducing urban heat and UV exposure, helping prevent heat stress, skin cancers and other heat-related illnesses.

This suggests the need for a balanced risk-benefit framework and is supported by academics. A more nuanced approach, potentially supported by a Memorandum of Understanding (MOU) between Council and SA Power Networks, could enable greater flexibility in species selection while maintaining safety. Strategic planting, guided by risk-aware design and supported by GIS tools, can help reconcile vegetation management obligations with canopy targets and public health objectives.

Clearances around buildings for bushfire safety also results in clearing and limits new planting site options. The Planning Development and Infrastructure Act 2016 provides exemptions for the removal of any tree located within 10m of a dwelling within a high or medium risk bushfire area.

2.5. Planning, development and tree retention

Tree protection and retention through regulation within Alexandrina Council is limited due to the constraints of the application of relevant Overlays through the Planning and Design Code (the P&D Code). The Regulated and Significant Tree Overlay do not currently apply to the Alexandrina Local Government Area (LGA), noting that State Government is currently reviewing applying the application of these Overlays more broadly to townships in Greater Adelaide. The only current protection of trees applicable in the Alexandrina LGA is via the Native Vegetation and the State Significant Native Vegetation Overlays of the P&D Code together with a requirement for clearance approval to clear any trees that are defined as 'native vegetation' under the Native Vegetation Act 1991. Other overlays, such as the Urban Tree Canopy Overlay which require trees to be planted for new allotments, are only currently applicable in two locations across the Council district (the Master Planned Township zoned land at Middleton and an area of Neighbourhood zoned land on the western side of Strathalbyn. Council continues to advocate for the application of the Urban Tree Canopy Overlay to new Master Planned Township zones. Development pressures continue to threaten tree canopy, particularly on private land which makes up the majority of the council area. Current regulations do not fully account for the high socio-ecological/amenity value of mature trees. Councils Tree Management Procedure outlines tree valuation per the City of Melbourne method;

however, a 75% reduction factor is applied where tree removals are approved and there does not appear to be any precedent or justification for applying this.

Stronger regulatory and financial incentives/penalties, such as amenity-based valuation fees, are required to provide a strong deterrent – or revenue stream for Council - to offset against the loss of community benefit for the loss of trees.

Council's Tree Management Policy and Tree Management Procedure govern the removal and replacement of public trees but lacks transparency on how replacement plantings compensate for canopy loss in terms of age, form and Useful Life Expectancy. The Urban Tree Canopy Overlay also provides for replacement of large trees with smaller trees which do not offer equivalent environmental returns compared to mature specimens (Noting that this policy is set at the State level).

To address this, stronger planning protections, integrated data systems and improved valuation methods are recommended. A comprehensive tree inventory and canopy monitoring program would strengthen planning outcomes, inform offsets and support more effective urban forest management. Should the Regulated and Significant Tree Overlay be extended to Alexandrina, it may offer a valuable mechanism for improving tree retention outcomes on private land.

2.6. Vegetation quality, design and urban canopy outcomes

Achieving the most impactful urban canopy outcomes in Alexandrina also requires an evolution in focus from canopy *quantity* alone to include *quality*, species performance and landscape function. Tools such as Leaf Area Index (LAI) and Green Plot Ratio (GnPR) have been applied in global contexts like Singapore. These may offer valuable frameworks to assess vegetation health, maturity and ecological impact to highlight the superior performance of large, mature trees over smaller or narrow-canopied species.

In terms of development planning, Conservation Design offers a high-impact opportunity to retain existing vegetation during subdivision and construction, preserving mature canopy and natural assets, reducing clearance pressure and lowering long-term replanting costs. In contrast to Conventional Design where lot yield and access is prioritised, Conservation Design integrates canopy and ecological features into early site planning.

To embed this approach, Alexandrina Council may benefit from introducing formal development and best practice guidelines, overlay provisions and public education campaigns. These measures will strengthen alignment between urban greening goals, biodiversity outcomes and climate resilience, while ensuring that canopy cover is delivered equitably across communities.

This reflects the broader challenge of balancing high land values and the desire to maximise built form against Conservation Design and retention/enhancement of vegetation. As demonstrated, developments are typically reliant on canopy cover and cooling benefits derived from adjacent public open spaces or larger neighbouring properties.

2.7. Developer-planted trees in new developments

Tree planting by developers is a key mechanism for greening new subdivisions, yet its long-term effectiveness is often compromised by poor species selection, substandard planting practices and inadequate maintenance. These shortcomings can result in premature decline, structural issues or tree failure by the time of Council handover. This undermines both canopy growth and community confidence in greening outcomes.

To address this, Alexandrina Council should strengthen governance through clear planting specifications, performance benchmarks and post-installation monitoring. All trees should be entered into a tree asset management/inventory system at the time of planting to support transparent lifecycle tracking and ensure compliance at handover. Poor-performing trees should be replaced or funded for replacement as a condition of acceptance.

Reinvesting offset funds from tree removals into localised planting using a proposed benchmark of 10 trees per removal may help maintain canopy equity and neighbourhood-scale resilience.

The introduction of South Australia's draft Design Standard 1 in 2025 provides a timely opportunity to embed consistent expectations for street trees and landscape infrastructure across new developments. However, successful delivery still depends on robust Council oversight, data integration and enforcement of standards to ensure these assets meaningfully contribute to long-term canopy targets.

2.8. Tree asset management system and tree valuation

Implementing a Tree Asset Register and Management System (TMS) is a critical step in professionalising urban forest management and maximising the value of Alexandrina Council's green infrastructure. Such a system supports a shift from reactive tree care to strategic, data-informed decision-making, with wide-ranging benefits across operational efficiency, environmental performance, financial planning and community engagement.

A well-functioning TMS enables comprehensive tree inventories, facilitates proactive maintenance, enhances risk and liability management, and improves workflow efficiency through digital integration and GIS mapping. It provides essential metrics for tracking canopy cover, monitoring

biodiversity, informing climate resilience strategies and delivering long-term urban greening goals such as the 2055 canopy cover target.

From a sustainability perspective, a TMS can support carbon sequestration monitoring, air quality improvement analysis and stormwater management, helping to reduce reliance on grey infrastructure. Economically, it allows Council to identify cost-saving opportunities, increase transparency around development offsets, and even link healthy tree canopies to property value uplift and enhanced public realm appeal.

In parallel, tree valuation transforms individual trees and collective canopy into infrastructure assets with a quantified value. By assigning monetary values to trees through methods such as the City of Melbourne's model or Arboriculture Australia's standardised national method (AANZAA-Value), Council can better justify investment, articulate and communicate the benefits of trees in relatable terms, and enforce accountability in development or damage contexts.

Valuation also underpins offset fee structures, informs cost-benefit analysis for removals and replacements and supports financial planning. Alexandrina currently applies a valuation method based on the City of Melbourne model, though a review of the Base Value (BV) is recommended to ensure currency and consistency with inflation. Alternatively, AANZAA-Value could be adopted.

Together, a modern TMS and tree valuation framework reposition Alexandrina's urban forest from a perceived 'cost' to a strategic, multi-functional asset, unlocking long-term returns in environmental health, liveability, climate resilience and community wellbeing.

2.9. Green infrastructure as a valued asset and budget funding

Recognising green infrastructure like trees, wetlands, rain gardens and green roofs as essential assets on par with traditional 'grey' infrastructure is critical for climate resilience, health and liveability. **Traditional infrastructure contributes to 70% of global emissions whereas green infrastructure delivers low-cost, long-term services including community health and wellbeing, flood mitigation, cooling and biodiversity support. However, it is frequently undervalued and underfunded in asset management and financial planning.**

To address this, the Institute of Public Works Engineering Australasia (IPWEA) and partners have led a South Australian project to embed green infrastructure into standard asset management frameworks. Their 2025 published Green Infrastructure Management Manual provides best-practice guidelines and training for councils, engineers and arborists, and covers asset treatment and management, valuation, condition assessment, lifecycle costing and risk management. Quantifying green asset values enables more balanced, informed investment decisions.

The planting and establishment of long-lived, canopy-forming trees represent enduring community infrastructure and should be funded, at least in part, through capital budgets. Many Australian councils including Melbourne, Brisbane, Surf Coast, Glen Eira, and Hobsons Bay already allocate capital funds for strategic tree planting as part of climate adaptation and urban forest strategies.

While operational budgets remain important for routine maintenance and small-scale planting, securing capital investment through a planting master plan and business case would ensure greater funding certainty and flexibility, better accountability, and long-term success of greening initiatives across Alexandrina Council.

2.10. Review and refinement

Achieving long-term urban canopy targets requires an adaptive and iterative approach. Regular canopy mapping and progress reporting will be essential to monitor outcomes, identify underperforming areas, and guide continuous improvement through appropriate and consistent decision-making. Where challenges to canopy growth arise, such as Council land sales or infrastructure constraints, these should be factored into future scenario modelling. Conversely, where targets are being exceeded, programs may be refined to optimise resources, including exploring engineered solutions such as soil vaults within heat-prone sites such as car parks and roads to facilitate tree planting and canopy cover.

A structured review and refinement cycle will ensure planting strategies remain effective, efficient, and aligned with Alexandrina's canopy cover and climate resilience goals. These cycles should be 5 years at a maximum but ideally every 2 years.

3. Modelling considerations

3.1. Modelling increased canopy cover

Council's tree planting over the past decade has been inconsistent rather than part of a sustained program. At the time of this Study, Council had an historic planting rate averaging 260 trees per year across a ten-year period (varying from 68 to 500 trees annually). To consider if and how much to increase the benchmark tree canopy cover, Council required an understanding of whether and how that might be achieved including consideration of:

- Which tree species
- How many of each
- Annual planting rates
- Available land
- Cost projections.

By modelling various scenarios, assuming planting locations on Council land (i.e. areas of greatest control), evidence-based canopy targets for each of Alexandrina's townships could be interrogated and dimensioned, informing recommendations and decision-making.

3.2. Prior learning on canopy cover strategy and targets

Addressing the challenges associated with urban greening, canopy cover expansion, and biodiversity protection requires a coordinated, place-based and future-oriented approach. There is no one-size-fits-all solution as municipalities such as Alexandrina face unique environmental, social, spatial and governance contexts. However, a suite of complementary strategies can guide more effective planning, design and implementation to help navigate structural, ecological and social challenges.

Integrated Urban Forest Strategies and Tree Protection Policies

Developing and implementing a robust urban forest strategy is foundational to increasing canopy cover and sustaining green infrastructure. This includes:

- Setting clear canopy targets (e.g. 18.6% by 2055) and identifying priority zones for intervention based on UHI, socioeconomic equity, and public health outcomes.
- Embedding tree protection regulations within development controls to reduce unnecessary removal of mature trees and ensure the retention of vegetation during construction.
- Requiring green offset mechanisms, such as "planting-to-removal" ratios and/or financial compensation, when vegetation loss is unavoidable.

These strategies must also account for climate-resilient species selection, emphasising trees and understory plants suited to projected heat and rainfall conditions through to 2040 and beyond.

Early integration into planning and infrastructure design

To overcome the competing demands of roads, housing, services and utilities, green infrastructure must be integrated from the earliest stages of land use and infrastructure planning. This includes:

- Ensuring adequate soil volume, root zones and water access in streetscapes and public open spaces.
- Applying design guidelines that mandate green infrastructure (e.g. tree-lined streets, vegetated verges) in new subdivisions and infill developments.
- Incorporating green infrastructure elements such as rain gardens, permeable pavements, and water-sensitive urban design to support both canopy health and stormwater management.

Proactive design ensures trees are not seen as competing with infrastructure but rather as integral assets that enhance its performance and longevity.

Equitable greening and spatial prioritisation

Investment in green space and canopy cover should be informed by equity indicators, such as the "Socio-Economic Indexes for Areas" (SEIFA) (Australian Bureau of Statistics 2021) and 300m access thresholds, to ensure that vulnerable or underserved communities benefit from improved environmental quality. This involves:

- Mapping and targeting areas with low canopy cover and high heat exposure.
- Aligning planting initiatives with health and wellbeing programs, particularly in areas with older populations, children, or people with chronic illness.
- Ensuring that parks in isolated or socially disadvantaged areas receive proportional greening investments, even if visitation is lower compared to prominent regional parks.

This equity lens helps address systemic imbalances in access to nature and climate resilience.

Community engagement and behavioural change

Long-term success requires strong community awareness, involvement, and ownership of urban greening initiatives. Councils can:

- Launch education campaigns to build understanding of the environmental and social value of trees, addressing concerns such as litter, allergies and view obstruction.

- Facilitate community planting days and “adopt-a-tree” programs that foster local stewardship.
- Provide tree guides and incentives for private landholders to plant suitable trees, particularly in low-canopy neighbourhoods.

Engaging with residents strengthens social agency and increases the likelihood of long-term tree retention and care.

Resilient and diverse planting approaches

Given increasing climate variability, planting strategies must be both adaptive and diverse. Solutions include:

- Selecting a diverse palette of native and non-invasive exotic species with tolerance to heat, drought, salinity, pests and diseases.
- Prioritising deep-rooted species that stabilise soil and reduce erosion, particularly in coastal or flood-prone areas.
- Applying succession planting models that ensure canopy continuity over time by integrating fast-growing and long-lived species together.

This resilience-based approach safeguards both social benefits and ecosystem services under future climate extremes.

Ongoing resourcing, maintenance, and monitoring

Planting trees is only the beginning. Program success depends on adequate maintenance and monitoring to ensure survival, health and long-term benefit. Councils must:

- Allocate long-term operational budgets for watering, pruning, pest management, and replacement planting.
- Use GIS and asset management tools to track canopy growth, tree health, and mortality rates.
- Develop partnerships with NGOs, local businesses and schools to support co-investment in greening initiatives.

Monitoring outcomes over time also allows councils to adjust strategies responsively and demonstrate return on investment.

Canopy cover targets for Councils throughout Australia is becoming an increasing focal point given the multitude of benefits canopy cover provides from social environmental and economic standpoints, and the climate change mitigating influence trees provide.

From a worldwide perspective, there have been numerous suggestions. The USA not-for-profit organisation American Forests recommends 40% canopy cover while a large UK study (Doick et al. 2017) suggests setting a benchmark of 20%. While the former was recognised as difficult to attain nationally due to the diversity of American cities and towns, it demonstrates a large disparity between suggestions.

Cities such as Barcelona (Ajuntament de Barcelona 2017), Bristol (Bristol Green Capital Partnership 2018), Canberra (Australian Capital Territory 2019), Seattle (Seattle Government 2016) and Vancouver (City of Vancouver 2020) have all set an ambitious 30% target in the coming decades.

This general canopy cover target of 30% is frequently mentioned in other Australian LGAs and seems the generally desired benchmark in the urban context (The Nature Conservancy and Resilient Melbourne, 2019). Konijnendijk (2023) supports a minimum 30% canopy cover at the neighbourhood level and recommends cities striving for even higher canopy coverage when possible as there can be further benefits from greater canopy cover.

As an example, Ziter et al. (2019) reviewed tree canopy cover over impervious surfaces cover and the effect on air temperature. The study found an average 3.5 °C (range of 1.1–5.7 °C) variability in daytime air temperature and that the greatest cooling occurred in a non-linear trend and when canopy cover exceeded 40%.

Konijnendijk (2023) makes a distinction that the 30% city scale reference point should not be used city-wide as this limits specificity for areas that may require more canopy, and that can lead to inequity of tree benefits.

The example used is that cities like Barcelona, Spain and Vancouver, Canada have canopy cover of around 20%; however, this value is comprised of one or more local large natural green spaces and the value of built-up areas is much lower. This highlights the importance of representing canopy cover values at local versus macro scales and in determining where improvements need to be made.

3.3. LGA canopy cover benchmarking

Existing canopy cover, canopy cover targets and the proposed timescale for achieving targets can vary markedly between LGAs, and even within municipalities. One size does not fit all. Alexandrina has differences to all other LGAs from environmental, land use and resourcing perspectives, and these must be considered in setting Alexandrina's targets.

In an ambitious proposal, the City of Sydney's Greening Sydney Plan outlines the vision for the City to increase current canopy cover by 50% by the year 2030 and by 75% by the year 2050. This represents 23% canopy cover by 2030 and 27% canopy cover by 2050 (City of Sydney 2021). To

facilitate this high expectation, their urban forest strategy is the foundational document at the heart of delivering the City's Sustainable 2030 vision and the Greening Sydney Plan.

The City of Melbourne, Victoria has a plan to increase tree canopy cover predominantly on public land from 22% to 40% by 2031, with a forecasted reduction of up to two degrees in average daytime summer temperature (City of Melbourne 2012).

Brisbane City Council, Queensland has a target to achieve 40% natural habitat cover on mainland Brisbane by 2031 and seeks to provide tree shade cover to 50% for footpaths and bikeways in residential areas by 2031 (Brisbane City Council 2023). Natural habitat is a collective term for all the native vegetation communities across Brisbane, at all levels of maturity and condition.

Bayside City Council, Victoria aims to achieve an increase in the municipal tree canopy cover from 16.01% to 30% by 2040, with the following outlining current benchmarks and desired targets on specific Council managed land: 20.3% to 30% in parks and reserves, 24% to 35% in roads and streets, 15.6% to 25% in car parks, and 17.4% to 30% foreshore and other areas (Bayside City Council 2022).

Hobsons Bay City Council, Victoria, proposes an overall increase in tree canopy to 30% by 2040 comprising 40% in parklands, 30% in streets and roads, and 20% in industrial areas (Hobsons Bay City Council 2020).

Banyule City Council, Victoria key targets of the Urban Forest Strategy includes 30% canopy cover across all suburbs by 2050 and 45% canopy cover across the footpath and local road network by 2050 with no canopy loss in either category where suburbs exceed the target, and 50% canopy cover across the open space shared path network and surrounding playgrounds by 2050 (Banyule City Council 2023).

Following research indicating a net canopy loss of 10% in the 4 years preceding 2019, the City of Whitehorse, Victoria is implementing a strategy which, over the next 10 years, will halt the loss in canopy cover and work towards achieving a target of 27% canopy cover by 2030, with 30% coverage by 2050 (Whitehorse City Council 2021).

Lake Macquarie, New South Wales are aiming to achieve a 10% canopy increase in suburbs vulnerable to urban heat by 2023 and seek similar canopy cover targets of: 30% in all residential zones, 25% in business zones, and 15% in commercial zones, with all these targets required for new developments (Lake Macquarie City 2022).

Orange City Council adopted a strategy to increase 2022 canopy cover benchmarks in their three key city areas to 2050 entire township (public and private) targets of:

- Orange - 17.3% to 20.0%
- Lucknow - 7.0% to 9.0%
- Spring Hill - 4.9% to 7.0%

In reviewing canopy targets closer to Alexandrina, the South Australian government Draft Greater Adelaide Regional Plan (GARP) set a target of 30% by 2055 across the Greater Adelaide metropolitan region and a target increase of 2% by 2030 for rural councils, although revision of the draft resulted in Alexandrina Council no longer being bound to any such requirement. As the modelling in the Study showed, to implement a 2% increase canopy cover by 2030 across Alexandrina Council, it would have required a budget of approximately $73 million.

Neighbouring regional LGAs of Victor Harbor, Yankalilla, Onkaparinga, Mount Barker and Murray Bridge all have a focus on tree management and environmental protection through their various strategic documents and policies with general commitments to:

- Increasing tree cover through planting programs in townships, streetscapes, parks and reserves.
- Protecting and enhancing existing trees and native vegetation for biodiversity, environmental benefits and amenity.
- Addressing urban heating through tree planting.

While these sentiments are echoed between LGAs, only the Rural City of Murray Bridge was found to explicitly state a quantifiable percentage tree canopy target. Under their Environment Management Plan 2020-2024 (Rural City of Murray Bridge 2021) Action E4.2 notes an “aim to increase tree cover and shade to improve liveability” through “achieving 20% increase in tree cover based on tree canopy study” as an ongoing project until 20% coverage is achieved.

Another example comes from the Department for Infrastructure and Transport (Department for Infrastructure and Transport 2025) where the landscaping plan for the Adelaide Road roundabout project in Mount Barker aims to increase tree canopy cover by over 20% within the project, which is in line with the Department’s commitment.

Based on these examples and trends towards increased canopy cover targets per the GARP, a canopy cover target for each of the 11 townships within Alexandrina of 20% or greater by 2055 seems appropriate. Scenario 3 generally facilitates this objective and outlines expected budget and timeframes for completion.

3.4. Fair and equitable access to urban green space

Equitable access to urban green space is increasingly recognised as a critical public good and a central policy objective across local, national, and global frameworks. This is clearly reflected in the United Nations Sustainable Development Goal 11, Target 11.7, which calls for universal access by 2030 to safe, inclusive, and accessible green and public spaces; particularly for women, children, older persons, and individuals with disabilities (United Nations 2022).

However, disparities in access and canopy distribution remain a challenge. The Alexandrina Council Tree Canopy Report highlights this inequity, showing a stark contrast in canopy coverage across townships such as 11.7% in Milang to 49.3% in Ashbourne (Alexandrina Council 2022). These variations reflect not only environmental differences but also planning legacies, socioeconomic conditions and levels of public investment in greening initiatives.

Access to urban nature is now viewed as an essential public service and a basic human right (Miles 2022). This view is realised in part through tree visibility, with the proposal (the "3–30–300 Rule", below) that every person should be able to see at least three trees from their home, workplace or educational setting. Given that public trees are often located on road verges or in open spaces, local governments play a vital role in enabling this access.

Importantly, the quality of trees matters. Chi et al. (2022) found that exposure to fewer, well-established large trees can have greater mental health benefits than many smaller or immature trees. This finding reinforces the need to prioritise planting for size and longevity, rather than simply volume or density.

In line with the World Health Organization's (WHO) recommendations, every resident should have access to a large green space of at least 1 hectare within 300 metres of their residence - equivalent to a 5-minute walk (WHO 2017). Larger green spaces are associated with higher recreational value, greater ecological complexity and increased usage (Cohen et al. 2010, Nielsen et al. 2014). While this benchmark is desirable, it poses significant challenges in high-density or established urban areas where retrofitting such spaces requires innovative solutions and multi-agency coordination.

A framework known as the "3–30–300 Rule" has gained international traction to guide equitable urban forestry planning (Konijnendijk 2023). This guideline recommends:

- A minimum of 3 visible trees from every home, school, and place of work;
- 30% tree canopy cover in every neighbourhood; and
- 300 metres maximum distance to the nearest public green space (UNECE 2022) (Figure 2).



Figure 2: Image demonstrating the 3-30-300 rule and how it would apply in a residential setting (UNECE 2022).

Adoption of a framework like the '3–30–300 rule' guidelines for urban forestry could support equitable access to trees and green spaces, and their benefits, and may benefit Alexandrina in the development of planting programs and tree retention procedures.

It should be noted that the '3–30–300 rule' is intended as a guideline to best practice based on research rather than an absolute. The 300m may be more readily followed in some areas, whereas other locations may require further assessment and pragmatic modification. As an example, the existing DSS requires a local park within 400m of each lot for greenfield developments. This existing framework provides a mechanism by which new developments can provide amenity and public open space, with the proximity and size of local parks potentially acceptable for Alexandrina residents.

It is expected additional investigation would be required for existing neighbourhoods that don't meet the 3-30-300 targets to identify retrofitting capability. This may include land use repurposing, Council buyback schemes or road modification/lane closures. The later has been particularly successful in the City of Melbourne where micro-parks and linear reserves have been created within the heavily built city environment (City of Melbourne 2012).

In terms of design, preference should be provided to endemic and native species as these will be better suited to the local environment and provide greater ecological function to the area. A biodiverse species palette should also be a key consideration as this enhances ecological function, provides resilience to the system, and improves mental, physical, and social dimensions of health and well-being. These themes tie in well with strategic priorities of the Alexandrina Environmental Action Plan 2030 (2023c) and development of new neighbourhoods that are liveable and leafy and supporting urban biodiversity.

Studies such as Watkins and Gerrish (2018) and Shiraishi (2022) show that marginalised populations often live in neighbourhoods with lower urban tree canopies. The recent study by Zhou et al. (2021)

also demonstrates that socially vulnerable urban populations typically live in hotter city areas with fewer trees. While the IRSD (Index of Relative Socio-economic Disadvantage) data for Alexandrina generally demonstrates the greatest disadvantage within the centre of townships (Australian Bureau of Statistics 2021), this is not necessarily where the hottest areas are located or the locations where canopy cover is more required (Alexandrina Council 2022).

Given the rural nature of Alexandrina and large and farming properties in many locations, the 300m rule may be challenging. Consideration of an alternative metric or quantum, appropriate to Alexandrina, and flexible to be useful to future planning and development situations, may be appropriate.

3.5. Targeted street tree planting for urban heat island (UHI)

A key driver for increasing canopy cover across Alexandrina Council is the anticipated rise in average temperatures and the intensification of the Urban Heat Island (UHI) effect (Alexandrina Council 2022a, Alexandrina Council 2022b, Alexandrina Council 2023c). Alexandrina Council is committed to climate adaptation, urban greening and enhancing liveability as outlined in various documents including the Tree Management Policy (Alexandrina Council 2023a), Alexandrina 2040 Liveable Green Connected (Alexandrina Council 2020), Environmental Action Plan 2030 (Alexandrina Council 2023c) amongst many others. Trees and associated vegetation are viewed as essential public assets, delivering ecosystem services such as cooling, shading and visual amenity across streetscapes, activity centres and parklands.

Tree canopy cover is among the most cost-effective strategies to mitigate UHI effects, with well-positioned shade trees significantly reducing surface and air temperatures. Evapotranspiration provided by tree canopies also contributes significantly to reduced ambient temperatures. According to Osmond and Sharifi (2017), this cooling effect can lessen dependence on energy-intensive air-conditioning systems, offering an indirect yet impactful emissions reduction benefit. Research by Norton et al. (2015) and Coutts and Tapper (2017) has shown that strategically planted urban trees can lower road surface temperatures by over 25°C and reduce household energy demand by 2–5%. Figure 3 illustrates a thermal imaging example from central Melbourne, clearly demonstrating temperature differences between shaded and unshaded sections of roadways (Nogrady 2017).

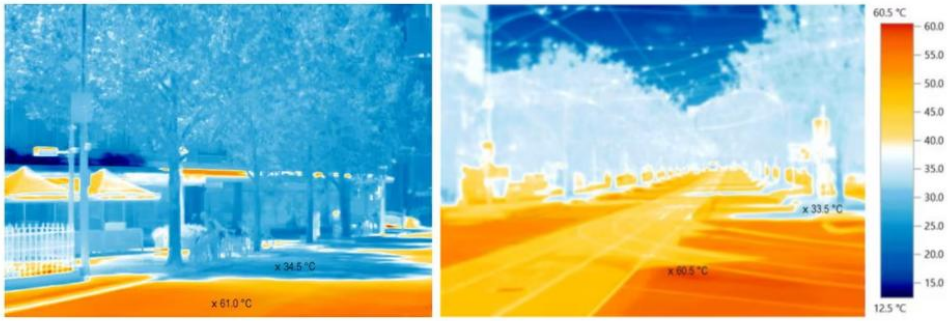


Figure 3: Thermal image from January 2017 demonstrating shaded and non-shaded sections of Elizabeth Street (left) and Royal Parade (right), near the Queen Victoria Market, Melbourne, Victoria (Nogrady 2017).

While this may be the case, there are common urban development constraints that limit the ability to implement widespread verge tree planting. Amongst these are narrow verges resulting from increasing dual occupancy development and vertical lot orientations, both which reduce available planting space, soil volumes and increased hard surface coverage. As crossover density increases with infill and medium-density development, opportunities for verge greening diminish, exacerbating local heat retention and amplifying UHI impacts.

Tree health and infrastructure conflicts are other key considerations. When planted in constrained soil volumes, trees often extend root systems into adjacent private land or nearby infrastructure in search of water and nutrients, potentially causing damage to paths, roads and foundations. These issues underscore the need for properly designed planting zones with adequate space and soil quality to support long-lived, healthy trees.

In response, Alexandrina Council may consider incorporating design requirements in planning policy that allocate sufficient verge widths in new developments similar to those adopted in Canberra. Alternative engineering solutions such as soil vaults, structured soils and Water Sensitive Urban Design (WSUD) features can also support tree establishment in challenging environments and are usually part of retrofitting projects in prominent locations.

Safety and visibility considerations, such as sightlines and road safety, can be managed through species selection, staged planting, and initial road speed reductions where required. Mature tree benefits such as shade, evapotranspiration cooling and habitat far exceed those of smaller or recently planted trees, making early investment in appropriate planting design and infrastructure essential (Turner-Skoff & Cavender, 2019).

To optimise outcomes, Alexandrina Council should adopt a planting prioritisation framework, such as that supplied within this Study, that maps heat hotspots, considers tree equity, high use zones, and

targets locations with the highest potential for canopy gain (e.g. wide verges, underutilised reserves). Complex zones such as those impacted by underground infrastructure or powerlines may require more detailed assessment and engineered interventions. Any planting program should include a robust monitoring and evaluation framework, allowing for adaptive management in response to environmental, economic and social shifts over time.

A holistic approach to heat mitigation should also consider complementary strategies including cool pavements, green roofs and walls, and retention of existing vegetation. Where bushfire risk coexists with UHI exposure, detailed risk-benefit analyses should be conducted, comparing public health impacts of extreme heat (e.g. heat stress, skin cancer) against bushfire hazards, supported by State guidance and departments such as the Country Fire Service (CFS).

Tree planting along road reserves is a key opportunity. Preliminary reviews of selected road segments have shown limited shading coverage, confirming the need for targeted action. Strategic street design that reserves the north side for tree planting and locates infrastructure on the south side will optimise shade, enhance canopy coverage, support pedestrian comfort and reduce long-term management costs.

Finally, broader integration with Council's existing greening programs could deliver compounding benefits. For example, Moreton Bay Regional Council increased its tree planting budget by 30% in 2022–23 and aligned this with land buyback and habitat enhancement programs (Moreton Bay Regional Council 2022). Similar integration within Alexandrina's programs could support biodiversity corridors, stepping stone connectivity and ecosystem resilience.

An integrated planning approach is essential to achieving urban forest goals, climate adaptation, and resilient urban design.

4. Modelling canopy cover targets by 2055

4.1. Methodology – Canopy cover scenarios

This Study explores seven planting scenarios for each township (eight for Milang) which evaluate different approaches for achieving urban canopy targets by 2055. Comparative analysis of the first five planting scenarios highlights varying approaches in balancing canopy cover targets, upfront costs, and long-term financial efficiency.

An overview of the eight Scenarios is provided as follows:

- **Scenario 1** (18.6% total canopy cover in 2055) - represents a steady planting model, doubling current planting rates while delivering modest canopy increases. It requires a lower demand for operational resources (such as staff resources) but results in the least canopy change by 2055.
- **Scenario 2** (19.3% total canopy cover in 2055) - builds on Scenario 1 by applying a more targeted, equitable planting approach to address canopy disparities between townships. However, it carries a higher total cost and longer delivery timeframe.
- **Scenario 3** (19.6% total canopy cover in 2055) - introduces a front-loaded planting model with high initial planting rates reduced by 20% annually and low or replacement-only plantings from 2050 to 2055. This facilitates earlier canopy benefits, reduced maintenance costs over time, and total program savings compared to Scenarios 1 and 2.
- **Scenario 4** (20.0% total canopy cover in 2055) - further escalates the front-loaded approach with higher-again initial planting rates reduced by 20% annually. This achieves 30% canopy cover target on Council-managed land by 2050, delivering substantially early outcomes but at a higher total program cost.
- **Scenario 5** (20.1% total canopy cover in 2055) - adopts the most aggressive front-loading strategy, with a 33% annual planting reduction, achieving the 30% canopy target fastest, delivering the earliest environmental and amenity benefits, and offering the largest life-cycle savings despite the highest upfront costs.
- **Scenario 6** - models a target of a 2% total canopy cover increase across all land by 2030.
- **Scenario 7** - models a 30% total canopy cover increase across all land by 2055.

Scenarios 6 and 7 demonstrate that achieving these targets is not feasible when relying solely on Council-managed land and Council budgets. Although the 2% target were initially considered within the draft GARP for regional councils, it has since been removed from the scope.

While the draft GARP may have intended to encourage programs that support total canopy growth, including contributions from private land, this responsibility is outside the scope of this Study and is no longer a formal requirement for regional councils. However, it is acknowledged that canopy cover on private land has the most significant influence - both positive and negative - on total canopy outcomes, as private land constitutes the majority land area within Alexandrina. This highlights the importance of considering land clearing practices associated with private development and land use. At the same time, complementary initiatives such as free tree giveaways or tube stock distribution to residents could enhance private land contributions to total canopy cover.

- **Scenario 8** - has been developed exclusively for tree planting in Milang using tube stock to examine the viability and costs of this approach, offering an alternative to the traditional, advanced tree planting models.

As discussed in Section 8.1.3 Tube stock suitability for streetscapes, the use of tube stock in urban streetscapes has generally resulted in poor establishment outcomes and is generally not recommended. Park planting may be a suitable alternative and allow for engagement with the community.

4.2. Methodology – Tree categories

As part of this Study, achieving the canopy cover target is primarily focused on tree planting within Council-managed land such as streets and public open spaces, where Councils greatest level of control exists. Tree species selection is guided by the specific characteristics and conditions of each planting location. To support effective modelling, planning and monitoring, species are grouped into four categories based on general growth characteristics:

- Coastal
- Large
- Ornamental
- Narrow / Powerline-compatible

This categorisation enables more accurate forecasting of canopy growth and ensures species are appropriately matched to their planting context.

1. Coastal category

This category includes vegetation and tree species, both native and exotic, that are suitable for planting in coastal environments but can also be planted in the other townships. These species vary in size ranging from small to large, and must exhibit resilience to coastal conditions including the key characteristics of:

- Tolerant to harsh coastal conditions such as salt exposure, wind and sandy soils.
- Includes both native and exotic species.
- Variable size (small to large).
- Long-lived (ULE 40–75 years).

Example Species:

- *Araucaria heterophylla* — Norfolk Island Pine (height to 50 m) (Figure 4)
- *Banksia integrifolia* — Coastal Banksia (height to 15 m)
- *Banksia marginata* — Silver Banksia (height to 10 m)



Figure 4: Example of Araucaria heterophylla at Goolwa Wharf

2. Large category

This category comprises native and exotic tree species that are iconic in stature and typically used as feature or avenue trees. These trees are often planted as single species in formal arrangements along streets or within parks where their form, canopy spread and visual prominence contribute significantly to the urban landscape. They offer high amenity value and are selected for their long-term contribution to canopy cover and character.

Key Characteristics:

- Native or exotic feature trees.
- Iconic form, often planted as avenues or focal points.
- Defined by broad canopy spread and amenity value.
- Suitable for parks, streets, and large open spaces.

- Useful Life Expectancy (ULE): 40–75 years
- Example: *Ficus hillii* avenue planting along Cadell Street.

Example Species:

- *Brachychiton acerifolius* — Illawarra Flame Tree (height to 20 m)
- *Eucalyptus leucoxylon* ssp. *leucoxylon* — South Australian Blue Gum (height to 20 m) (Figure 5)
- *Eucalyptus fasciculosa* — Pink Gum (height to 15 m)



Figure 5: Example of Eucalyptus leucoxylon at Hindmarsh Island.

3. Ornamental category

This category includes both native and exotic species that are small to medium in size and offer high amenity value. Ornamental trees are well-suited to constrained planting environments, such as verges with limited in-ground space or areas around urban infrastructure. They are commonly used in residential streetscapes and can be tailored to suit specific design themes or development contexts. These trees often form part of developer landscaping contributions and are selected for their visual appeal and adaptability.

Key Characteristics:

- Native and exotic species.
- Small to medium size with high amenity value.
- Narrower canopy spread, suited to constrained sites.
- Suitable for verge planting and around infrastructure.

- Commonly used in development contexts.
- Useful Life Expectancy (ULE): 25–40 years.

Example Species:

- *Eucalyptus cladocalyx* 'Nana' — Dwarf Sugar Gum (height to 8 m) (Figure 6)
- *Hibiscus tiliaceus* 'Rubra' — Cottonwood (height to 8 m)
- *Ulmus parvifolia* 'Todd' — Chinese Elm (height to 10 m)



Figure 6: Example of Eucalyptus cladocalyx 'Nana' in Elizabeth, SA.

4. Narrow / Powerline-compatible category

This category includes native and exotic tree species that would be selected for planting beneath or adjacent to overhead powerlines and within narrow urban corridors. These trees are typically small to narrow in form, with a modified or compact canopy structure that aligns with clearance requirements outlined in the Office of the Technical Regulator (OTR) Lists 1 and 2, where applicable. While generally offering moderate amenity value, these species are essential for greening constrained sites without compromising infrastructure safety.

Key Characteristics:

- Includes species from OTR Lists 1 and 2 (where applicable).
- Native and exotic varieties.
- Small or narrow form with compact canopy.
- Suitable for planting under powerlines and in tight spaces.

- Moderate amenity value.
- Useful Life Expectancy (ULE): 25–40 years.

Example Species:

- *Lagerstroemia indica* var. 'Tuscarora' — Crepe Myrtle (to 6 m) (Figure 7)
- *Eucalyptus leucoxylon* 'Euky Dwarf' / 'Goolwa Gem' — Dwarf SA Blue Gum (to 8 m)
- *Sophora japonica* 'Princeton Upright' — Pagoda Tree (to 12 m)



Figure 7: Example of Lagerstroemia indica var. 'Tuscarora' Callington Road, Strathalbyn

4.3. Methodology – Model attributes and execution

The model is built in an Excel workbook using the following inputs:

- Tree categories (up to 4).
  - ULE
  - Average growth rate (24 calendar years after planting)
  - Mortality rate (first 3 years, then ongoing)
- Tree planting rates.
- Landholders apportioned to Council controlled, Private and Crown.
- Baseline canopy cover change per landholder (Tree Canopy Report 2022).

The tree category metrics above were separately processed to establish their life cycle growth (and decline) characteristics using an iterative process. The form of these curves is based on scientific literature and is non-linear. This rigour results in the most accurate life-cycle canopy forecast per

tree category practical. From this, canopy areas are calculated and referenced by the model for each tree category and each year of growth in each year forecast based on the time since planting.

Model dashboard and outputs

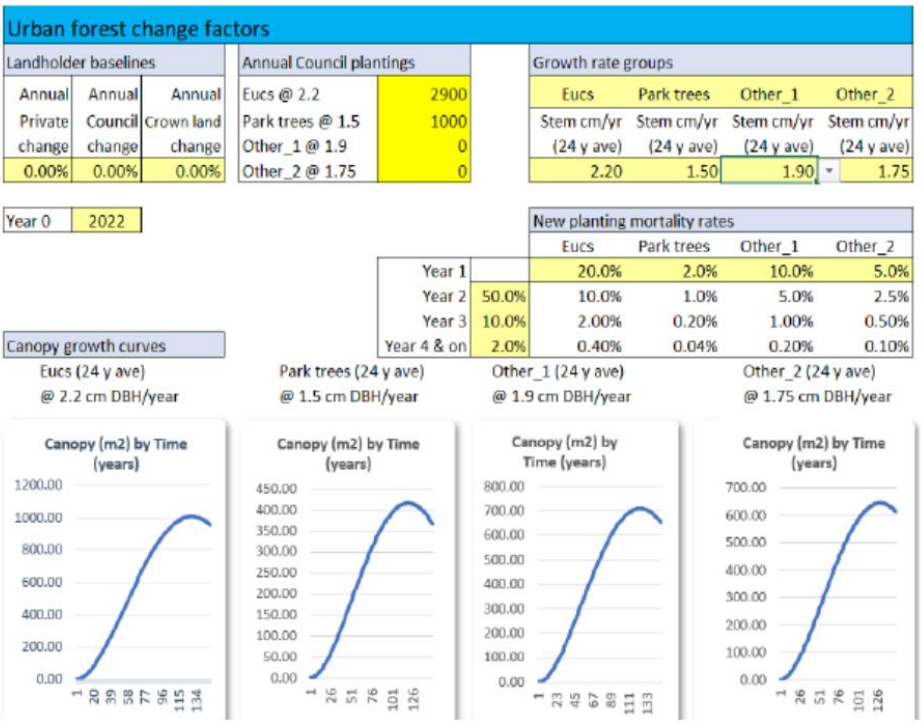


Figure 8: Canopy model dashboard part showing input factors. From Orange City Council.

Figure 8, above, shows part of the Canopy model dashboard with input factors:

- Landholder baselines.
- Growth rate groups (categories) with 24-year average growth rate selected.
- Annual plantings per Growth rate group (category).
- Mortality rates per Growth rate group for Years 1 – 3 and 4 and onwards.
- Category life-cycle canopy area curves per Growth rate group versus Year.
- [Input elsewhere is the annual planting rate reduction percentage if applicable.]

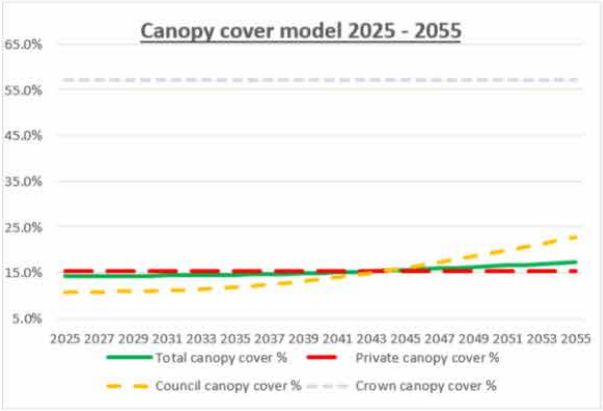
Figure 9, below, shows part of the Canopy model dashboard with output information:

- Total canopy area for year indicated in % and Ha.
- Private and Council canopy areas for year indicated in % and Ha.
- Proportions of Private and Council land as a percentage of total (T).

- Trees planted in year indicated and average trees planted up to that year.
- Cumulative planting numbers in year indicated.
- Annual planting and watering (P&W) cost at year indicated
- Cumulative P&W costs are tabulated elsewhere in the model.
- Time series showing percentage canopy cover per landholder.

Figure 9: Canopy model dashboard part showing output factors. Calyton Bay Scenario 1 output.

Canopy projection model:	Clayton Bay			
	2025	2030	2043	2055
Total Canopy %	**14.3%**	**14.3%**	**15.3%**	**17.3%**
% T = 100.0 Canopy Ha	33.7	33.8	35.8	40.7
Private Canopy %	15.4%	15.4%	15.4%	15.4%
% T = 74.9 Canopy Ha	27.2	27.2	27.2	27.2
Council Canopy %	10.8%	11.0%	14.5%	22.8%
% T = 25.0 Canopy Ha	6.4	6.5	8.6	13.4
Trees planted in year	-	100	100	100
Average plantings	-	100	100	100
Cumulative plantings	-	500	1,800	3,000
Annual P&W cost	$ 135,000	$ 135,000	$ 135,000	$ 135,000



78 versions of the model were created for each Scenario and Township with results tabulated and presented in Section 4, with the 79th used in the Executive Summary (Figure 1b) to demonstrate the cost effectiveness of early ("front-loaded") planting.

4.4. Results – Canopy cover by 2055

4.4.1. Scenario 1 –Doubling of Council's current planting program: 2055 total canopy cover @18.6%

This scenario doubles current planting rates to 591 trees annually - on Council-managed land. This Scenario predicts a 5.9% canopy cover on Council land and an overall increase of the total canopy cover (all land, all townships) of 1.0% - from 17.6% to 18.6% (Table 1 and Table 3).

Table 3: Scenario 1 Canopy hectare changes for Council land in townships and Total Canopy Cover change across all land.

Locality	Hectares						% Change (Council land)
	All Land	Total canopy cover with change on Council land only					
		2025	2030	2043	2055	2025-2055 Change	
Ashbourne	75.31	37.12	37.12	37.12	37.12	0.00	0%
Clayton Bay	235.90	33.67	33.79	35.84	40.74	7.07	12%
Goolwa	1160.77	166.02	166.30	172.32	190.41	24.39	15%
Hindmarsh Island	739.72	146.89	146.91	147.43	148.98	2.10	1%
Langhorne Creek	85.49	17.02	17.04	17.35	18.31	1.29	8%
Middleton	260.12	36.55	36.65	38.73	45.37	8.82	24%
Milang	313.20	36.71	36.81	38.54	42.74	6.03	16%
Mount Compass	594.41	139.15	139.16	139.40	140.10	0.95	1%
Port Elliot	967.49	134.54	134.63	136.62	142.68	8.15	6%
Strathalbyn	2003.48	388.29	388.38	390.37	396.00	7.71	2%
Woodchester	104.50	13.71	13.72	13.97	14.72	1.01	7%
TOTAL	6,540.39	1,149.66	1,150.52	1,167.69	1,217.17	67.50	5.9%

Council Planted Canopy Cover change over All Land	Hectares	Increase %
	67.50	1.03%

Scenario 1 used a consistent annual planting rate, with no front-end loading or phased reductions over time. Instead, planting continues annually at the base rate through to 2055 as outlined in Table 4, Column A (below).

This approach results in modest council canopy increases across most townships with the exception of Ashbourne where no plantings are currently planned due to its already high canopy cover.

All other townships show increased canopy cover due to modelled Council planting activity. The percentage impact varies depending on the starting canopy cover percentage, Council land area in absolute terms along with the planting numbers per species group and mortality rates specified.

Projected costs to Council

Financially, the program incurs:

- Over the life of the program, a total of 16,198 trees planted at a cumulative cost of $21,867,300 (excluding consumer price index (CPI) adjustments and future cost escalations).
- A typical annual budget for Scenario 1, factoring 591 new plantings and maintenance of previous two years plantings, would be $797,850 ($177,300 [planting] + (3 x $206,850) [watering]).
- Year 1 is adjusted to account for lower watering costs as pervious plantings were not considered.

Table 4 (below) outlines the estimated costs associated with Scenario 1 for each township, with the percentage of canopy cover change on Council land detailed in Column I and the percentage of total canopy cover on all land in Column J. It shows planting and maintenance costs for Year 1 only (Columns B and C), with maintenance costs for trees planted in previous years (2023 and 2024) also considered (Column D) and cumulative results for 2025-2055 in Columns E and F.

Additional assumptions

- No tube stock or volunteer effort is included in this Scenario.
- Council supplied costs used were:
    - Stock and planting - $300/tree.
    - Watering - $350/year for 3 years.
- No CPI adjustments for future years.
- No change in 2022 benchmark data which is assumed as the 2025 benchmarks.
- Township boundaries of Hindmarsh Island are the western parts of the island only.

Table 4: Scenario 1 – Planting status quo with expected canopy coverage outcomes and budget costs.

	A	B	C	D	E	F	G	H	I	J
Locality	**Year 1 Planting no.**	**Year 1 $ - Planting only**	**Year 1 $- Planted maintenance only**	**Year 1 $ – all planting & maintenance**	**2055 – Total Planting no.**	**2055 - Total Project Cost**	**2025 – Council Canopy**	**2055 - Council Canopy**	**Council Canopy % Change**	**2055 – Total Canopy %**
Ashbourne	-	$-	$-	$-	0	$-	70%	70%	0%	49%
Clayton Bay	100	$30,000	$35,000	$135,000	3000	$4,050,00	11%	23%	12%	17%
Goolwa	200	$60,000	$70,000	$270,000	6000	$8,100,000	16%	24%	8%	16%
Hindmarsh Island	20	$6,000	$7,000	$27,000	600	$810,000	12%	13%	2%	20%
Langhorne Creek	10	$3,000	$3,500	$13,500	300	$405,000	27%	36%	9%	21%
Middleton	65	$19,500	$22,750	$87,750	1950	$2,632,500	12%	18%	6%	16%
Milang	75	$22,500	$26,250	$101,250	718	$969,578	20%	27%	7%	14%
Mount Compass	6	$1,800	$2,100	$8,100	180	$243,000	26%	27%	2%	24%
Port Elliot	60	$18,000	$21,000	$81,000	1800	$2,430,000	16%	20%	3%	15%
Strathalbyn	50	$15,000	$17,500	$67,500	1500	$2,025,000	27%	29%	2%	20%
Woodchester	5	$1,500	$1,750	$6,750	150	$202,500	11%	26%	15%	14%
TOTAL	**591**	**$177,300**	**$206,850**	**$797,850**	**16,198**	**$21,867,300**				

4.4.1. Scenario 2 – Council proposed planting program: 2055 total canopy cover @19.3%

This scenario models increased and more equitable 2055 canopy cover, compared to Scenario 1, using a proposed, front-end loaded approach for townships with low starting canopy cover. In this scenario, Year 1 planting numbers are generally doubled (from Scenario 1), then reduced over time. It predicts a 9.5% canopy cover on Council land and an overall increase (all land, all townships) of 1.7% - from 17.6% to 19.3% (Table 5).

Table 5: Scenario 2 Canopy hectare changes for Council land in townships and Total Canopy Cover change across all land.

Locality	Hectares						% Change (Council land)
	All Land	Total canopy cover with change on Council land only					
		2025	2030	2043	2055	2025-2055 Change	
Ashbourne	75.31	37.12	37.13	37.53	38.60	1.48	**4%**
Clayton Bay	235.90	33.67	33.93	37.96	46.03	12.36	**37%**
Goolwa	1160.77	166.02	166.53	174.53	190.40	24.38	**15%**
Hindmarsh Island	739.72	146.89	146.93	147.37	147.97	1.08	**1%**
Langhorne Creek	85.49	17.02	17.05	17.25	17.50	0.48	**3%**
Middleton	260.12	36.55	36.78	41.93	58.66	22.11	**60%**
Milang	313.20	36.71	36.91	40.38	48.78	12.07	**33%**
Mount Compass	594.41	139.15	139.18	139.77	141.52	2.38	**2%**
Port Elliot	967.49	134.54	134.72	138.71	150.83	16.30	**12%**
Strathalbyn	2003.48	388.29	388.48	392.46	403.71	15.42	**4%**
Woodchester	104.50	13.71	13.73	14.09	15.12	1.41	**10%**
TOTAL	6540.39	1149.66	1151.39	1181.99	1259.11	109.46	**9.5%**

Council Planted Canopy Cover change over All Land	Hectares	Increase %
	109.46	**1.7%**

In Scenario 2, Clayton Bay, Goolwa, Hindmarsh Island, and Milang experience a gradual reduction of 10% in planting numbers over time whilst starting from higher initial number. Langhorne Creek receives planting only in Year 1, with no further planting in subsequent years.

Table 6 (below) outlines the estimated costs for each township, with the percentage of canopy cover change on Council land detailed in Column I and the percentage of total canopy cover on all land in Column J. It shows planting and maintenance costs for Year 1 only (Columns B and C), with maintenance costs for trees planted in previous years (2023 and 2024) also considered (Column D) and cumulative results for 2025-2055 in Columns E and F.

This approach proposes a higher number of trees planted in a more targeted manner, aiming to achieve a more equitable distribution of council-managed canopy cover by 2055. Under this scenario, most townships are projected to achieve canopy cover greater than 20% (Column H), with the exception of Hindmarsh Island at 13%. Several townships are expected to achieve double-digit increases in canopy cover (Column I), reflecting an intentional effort to balance the disparity in current canopy cover percentages (Column G) between townships. This outcome broadly translates to prioritising planting in areas with lower existing canopy to support township equity.

Projected costs to Council

Financially, the program incurs:

- Over the life of the program, a total of 19,684 trees planted at a cumulative cost of $26,572,834 (excluding consumer price index (CPI) adjustments and future cost escalations). (Scenario 1 was 16,198 trees and $21,867,300 achieving a 0.6% lower total canopy cover).
- A Year 1 planting cost of $378,000 and a Year 1 maintenance cost of $441,000 (for 1,260 new trees) – total $819,000.
- Previous years' plantings still requiring watering need to be added to provide a Year 1 budget. This is estimated at $1,397,000.

Additional assumptions

- No tube stock or volunteer effort is included in this Scenario.
- Council supplied costs used were:
    - Stock and planting - $300/tree.
    - Watering - $350/year for 3 years.
- No CPI adjustments for future years.
- No change in 2022 benchmark data which is assumed as the 2025 benchmarks.
- Township boundaries of Hindmarsh Island are the western parts of the island only.

Table 6: Scenario 2 – Planting following Council proposed planting rate with expected canopy coverage outcomes and budget costs.

	A	B	C	D	E	F	G	H	I	J
Locality	**Year 1 Planting no.**	**Year 1 $ - Planting only**	**Year 1 $- Planted maintenance only**	**Year 1 $ – all planting & maintenance**	**2055 - Total Planting no.**	**2055 - Total Project Cost**	**2025 - Council Canopy**	**2055 - Council Canopy**	**Council Canopy % Change**	**2055 - Total Canopy %**
Ashbourne	10	$3,000	$3,500	$6,500	300	$405,000	70%	91%	21%	51%
Clayton Bay	200	$60,000	$70,000	$165,000	1915	$2,585,543	11%	32%	21%	20%
Goolwa	400	$120,000	$140,000	$400,000	3830	$5,171,087	16%	24%	8%	16%
Hindmarsh Island	50	$15,000	$17,500	$46,500	152	$204,544	12%	13%	1%	20%
Langhorne Creek	50	$15,000	$17,500	$39,500	50	$67,500	27%	30%	3%	20%
Middleton	155	$46,500	$54,250	$146,250	4650	$6,277,500	12%	34%	22%	23%
Milang	150	$45,000	$52,500	$150,000	1436	$1,939,157	20%	34%	13%	16%
Mount Compass	15	$4,500	$5,250	$13,950	450	$607,500	26%	30%	4%	24%
Port Elliot	120	$36,000	$42,000	$162,000	3600	$4,860,000	16%	20%	3%	15%
Strathalbyn	100	$30,000	$35,000	$100,000	3000	$4,050,000	27%	31%	4%	20%
Woodchester	10	$3,000	$3,500	$13,500	300	$405,000	11%	32%	21%	14%
TOTAL	**1260**	**$378,000**	**$441,000**	**$1,397,000**	**19,684**	**$26,572,834**				

4.4.2. Scenario 3 – Equitable tree distribution proposal: 2055 total canopy cover @19.6%

This scenario features an 2025-2055 cumulative budget forecast slightly lower than Scenario 1 whilst achieving a higher 2055 canopy cover result than Scenarios 1 and 2. To do this, it uses a heavily front-end loaded approach where Year 1 planting numbers are initially six times current and then reduced over time. It predicts a 11.5% canopy cover on Council land and an overall increase (all land, all townships) of 2.0% - from 17.6% to 19.6% (Table 7).

Table 7: Scenario 3 Canopy hectare changes for Council land in townships and Total Canopy Cover change across all land.

Locality	Hectares						% Change (Council land)
	All Land	Total canopy cover with change on Council land only					
		2025	2030	2043	2055	2025-2055 Change	
Ashbourne	75.31	37.12	37.23	38.65	40.79	3.67	**10%**
Clayton Bay	235.90	33.67	34.02	38.36	45.28	11.61	**34%**
Goolwa	1160.77	166.02	166.67	174.88	188.82	22.81	**14%**
Hindmarsh Island	739.72	146.89	147.37	153.54	164.42	17.53	**12%**
Langhorne Creek	85.49	17.02	17.08	17.83	19.07	2.05	**12%**
Middleton	260.12	36.55	37.12	44.58	58.08	21.53	**59%**
Milang	313.20	36.71	37.01	42.22	51.49	14.78	**40%**
Mount Compass	594.41	139.15	139.33	141.47	144.62	5.47	**4%**
Port Elliot	967.49	134.54	135.29	144.68	159.71	25.18	**19%**
Strathalbyn	2003.48	388.29	388.52	391.35	395.30	7.01	**2%**
Woodchester	104.50	13.71	13.75	14.18	14.86	1.14	**8%**
TOTAL	6540.39	1149.66	1153.38	1201.73	1282.44	132.78	**11.5%**

Council Planted Canopy Cover change over All Land	Hectares	Increase %
	132.78	**2.03%**

Scenario 3 has high initial plantings in Year 1 followed by a 20% annual reduction in planting numbers. Program plantings (other than replacements) are completed around 2050. The objective is to accelerate canopy growth early in the program, maximising amenity, shade and biodiversity benefits as trees mature over the next 30 years. The model adopts the same targeted planting approach as Scenario 2, focusing on available planting space and achieving equitable council-managed canopy cover by 2055.

Table 8 (below) outlines the estimated for each township, with the percentage of canopy cover change on Council land detailed in Column I and the percentage of total canopy cover on all land in Column J. It shows planting and maintenance costs for Year 1 only (Columns B and C), with maintenance costs for trees planted in previous years (2023 and 2024) also considered (Column D) and cumulative results for 2025-2055 in Columns E and F.

Under this scenario, all townships are projected to achieve approximately 25% or greater canopy cover (Column H) by 2055. Most townships are expected to meet a 30% increase on their existing canopy cover, consistent with the Draft GARP targets (for example, an existing canopy cover of 16% would increase to 20.8%). Mount Compass and Strathalbyn achieve slightly lower increases of 27% and 26% respectively, reflecting their higher benchmark canopy levels (Column G) and the model's focus on balancing distribution between townships.

While this model requires higher upfront planting and maintenance costs, it has the potential to deliver significant long-term savings by reducing the cumulative costs of establishment and maintenance. This is particularly relevant where future plantings may be consolidated into a single planting event, rather than staggered over multiple years. This approach offers further efficiencies through economies of scale in planting and maintenance contracts, particularly where spatial proximity allows for reduced servicing costs. Additionally, the front-loaded model provides greater financial certainty by mitigating risks associated with input cost increases and stock price escalations in later years.

Projected costs to Council

Financially, the program incurs:

- Over the life of the program, a total of 15,506 trees planted at a cumulative cost of $20,932,804 (excluding consumer price index (CPI) adjustments and future cost escalations). (Scenario 1 was 16,198 trees and $21,867,300 achieving a 0.9% lower total canopy cover).
- A Year 1 planting cost of $1,051,500 and a Year 1 maintenance cost of $1,226,750 (for 3,505 new trees) – total $2,272,250.

- Previous years' plantings still requiring watering need to be added to provide a Year 1 budget. This is estimated at $2,361,950.

While upfront costs are higher, this scenario facilitates the completion of the planting program between 2045 and 2050 (depending on the township) and is estimated to deliver total program savings of between $900,000 and $5.5 million when compared with Scenario 1 and Scenario 2 respectively.

Additional assumptions

- No tube stock or volunteer effort is included in this Scenario.
- Council supplied costs used were:
    - Stock and planting - $300/tree.
    - Watering - $350/year for 3 years.
- No CPI adjustments for future years.
- No change in 2022 benchmark data which is assumed as the 2025 benchmarks.
- Township boundaries of Hindmarsh Island are the western parts of the island only.

Table 8: Scenario 3 – Front end loaded program planting for completion by 2050 (20% annual planting reduction), revised planting numbers for township tree distribution and Equity.

	A	B	C	D	E	F	G	H	I	J
Locality	**Year 1 Planting no.**	**Year 1$ - Planting only**	**Year 1$- Planted maintenance only**	**Year 1$ – all planting & maintenance**	**2055 - Total Planting no.**	**2055 - Total Project Cost**	**2025 - Council Canopy**	**2055 - Council Canopy**	**Council Canopy % Change**	**2055 - Total Canopy %**
Ashbourne	75	$22,500	$26,250	$48,750	375	$505,623	70%	100%	51%	54%
Clayton Bay	300	$90,000	$105,000	$265,000	1498	$2,022,493	11%	30%	20%	19%
Goolwa	600	$180,000	$210,000	$460,000	2996	$4,044,986	16%	24%	8%	16%
Hindmarsh Island	450	$135,000	$157,500	$306,500	2247	$3,033,739	12%	27%	15%	22%
Langhorne Creek	50	$15,000	$17,500	$39,500	250	$337,082	27%	41%	15%	22%
Middleton	465	$139,500	$162,750	$347,750	2322	$3,134,864	12%	33%	22%	22%
Milang	280	$84,000	$98,000	$234,500	1398	$1,887,660	20%	37%	16%	16%
Mount Compass	120	$36,000	$42,000	$82,200	599	$808,997	26%	35%	9%	24%
Port Elliot	590	$177,000	$206,500	$425,500	2946	$3,977,569	16%	26%	10%	17%
Strathalbyn	550	$165,000	$192,500	$132,500	749	$1,011,246	27%	29%	2%	20%
Woodchester	25	$7,500	$8,750	$19,750	125	$168,541	11%	28%	17%	14%
TOTAL	**3,505**	**$1,051,500**	**$1,226,750**	**$2,361,950**	**$15,506**	**$20,932,804**				

4.4.3. Scenario 4 – Equitable canopy cover proposal: 2055 total canopy cover @20.0%

This scenario features an accelerated, front-end loaded approach, delivering 20% total canopy cover in 2055, with incremental plantings complete by 2050 after reducing initially high planting rates over time. It predicts a 13.7% canopy cover on Council land and an overall increase (all land, all townships) of 2.4% - from 17.6% to 20.0% (Table 9).

Table 9: Scenario 4 Canopy hectare changes for Council land in townships and Total Canopy Cover change across all land.

Locality	Hectares						% Change (Council land)
	All Land	Total canopy cover with change on Council land only					
		2025	2030	2043	2055	2025-2055 Change	
Ashbourne	75.31	37.12	37.19	38.09	39.43	2.31	**6%**
Clayton Bay	235.90	33.67	34.00	38.20	45.07	11.40	**34%**
Goolwa	1160.77	166.02	167.10	181.34	207.69	41.67	**25%**
Hindmarsh Island	739.72	146.89	147.45	154.85	168.63	21.74	**15%**
Langhorne Creek	85.49	17.02	17.04	17.23	17.52	0.50	**3%**
Middleton	260.12	36.55	37.05	43.46	55.13	18.58	**51%**
Milang	313.20	36.71	36.94	39.98	45.62	8.91	**24%**
Mount Compass	594.41	139.15	139.23	140.21	141.85	2.70	**2%**
Port Elliot	967.49	134.54	135.54	148.39	170.54	36.00	**27%**
Strathalbyn	2003.48	388.29	388.68	393.42	400.48	12.19	**3%**
Woodchester	104.50	13.71	13.75	14.24	15.00	1.29	**9%**
TOTAL	6540.39	1149.66	1153.97	1209.43	1306.95	157.29	**13.7%**

Council Planted Canopy Cover change over All Land	Hectares	Increase %
	157.29	**2.4%**

In Scenario 4, all township plantings are scheduled to be completed by approximately 2050. The objective is to rapidly accelerate canopy growth, maximising the environmental, amenity, shade and biodiversity benefits as trees mature over the next 30 years. This scenario is the more ambitious than the previous ones, proposing an equitable canopy distribution where all townships achieve 30% canopy cover on Council-managed land by 2055 with the exception of Ashbourne which remains an outlier at ~100% canopy cover due to existing private tree contributions.

Achieving this target requires a significant initial planting effort, with 3,610 trees planted in Year 1, progressively reducing each year. The planting effort is distributed based on canopy deficits and township size. For example, Goolwa requires highest planting numbers with 975 trees in Year 1 (4,869 total), and Langhorne Creek is the lowest with 12 trees in Year 1 (60 total). Other notable townships include Port Elliot with 800 trees in Year 1 (3,995 total), Hindmarsh Island with 520 trees in Year 1 (2,597 total), and Middleton with 405 in Year 1 (2,022 total). This targeted distribution reflects the greater need for canopy expansion in larger or lower-covered townships.

As with Scenario 3, while this model involves higher upfront costs, it generates long-term savings by reducing the number of trees planted and cumulative maintenance burden associated with an extended planting timeline. Specifically, it provides an estimated $ $2,404,040 in life-cycle savings compared to Scenario 2. There is also flexibility to consolidate future plantings; for instance, 765 outstanding plantings identified in 2040 could be delivered in a single event followed by three years of maintenance, enhancing efficiency.

This front-loaded approach offers further advantages, including economies of scale for both planting and maintenance contracts, improved cost certainty by mitigating exposure to CPI increases and stock price fluctuations, and greater agility to identify and address program gaps through periodic spatial canopy assessments. This adaptive capacity allows for responsive program adjustments over time.

Projected costs to Council

Table 10 (below) outlines the estimated costs associated with Scenario 4 for each township, with the percentage of canopy cover change on Council land detailed in Column I and the percentage of total canopy cover on all land in Column J. It shows planting and maintenance costs for Year 1 only (Columns B and C), with maintenance costs for trees planted in previous years (2023 and 2024) also considered (Column D) and cumulative results for 2025-2055 in Columns E and F.

Financially, the program incurs:

- Over the life of the program, a total of 17,903 trees planted at a cumulative cost of $24,323,851 (excluding consumer price index (CPI) adjustments and future cost escalations).
- A Year 1 planting cost of $1,083,000 and a Year 1 maintenance cost of $1,263,500 (for 3,610 new trees) – total $2,346,500.
- Previous years' plantings still requiring watering need to be added to provide a Year 1 budget. This is estimated at $2,728,550.

While this scenario carries higher total costs than Scenarios 1 and 3, it achieves the most ambitious canopy outcome and still delivers significant life-cycle savings when compared with Scenario 2.

Additional assumptions

- No tube stock or volunteer effort is included in this Scenario.
- Council supplied costs used were:
    - Stock and planting - $300/tree.
    - Watering - $350/year for 3 years.
- No CPI adjustments for future years.
- No change in 2022 benchmark data which is assumed as the 2025 benchmarks.
- Township boundaries of Hindmarsh Island are the western parts of the island only.

Table 10: Scenario 4 – Front end loaded program planting for completion by 2050 (20% annual planting reduction), with 30% change in Council canopy coverage outcomes and budget costs.

	A	B	C	D	E	F	G	H	I	J
Locality	**First Year Planting no.**	**Year 1 - Planting only costs**	**Year 1 - Planted maintenance only**	**Year 1 - all planting & maintenance**	**2055 - Total Planting Numbers**	**2055 - Total Project Cost**	**2025 - Council Canopy**	**2055 - Council Canopy**	**Council Canopy % Change**	**2055 - Total Canopy %**
Ashbourne	75	$22,500	$26,250	$32,500	250	$337,082	70%	100%	32%	52%
Clayton Bay	285	$85,500	$99,750	$220,250	1423	$1,921,368	11%	30%	19%	19%
Goolwa	975	$292,500	$341,250	$773,750	4869	$6,573,102	16%	30%	14%	18%
Hindmarsh Island	520	$156,000	$182,000	$352,000	2597	$3,505,654	12%	30%	19%	23%
Langhorne Creek	12	$3,600	$4,200	$14,800	60	$80,899	27%	30%	4%	20%
Middleton	405	$121,500	$141,750	$312,250	2022	$2,730,365	12%	30%	19%	21%
Milang	200	$60,000	$70,000	$182,500	999	$1,348,328	20%	30%	10%	15%
Mount Compass	50	$15,000	$17,500	$36,700	250	$337,082	26%	30%	4%	24%
Port Elliot	800	$240,000	$280,000	$562,000	3995	$5,393,315	16%	30%	14%	18%
Strathalbyn	260	$78,000	$91,000	$204,000	1298	$1,752,827	27%	30%	3%	20%
Woodchester	28	$8,400	$9,800	$37,800	140	$188,766	11%	30%	19%	14%
TOTAL	**3,610**	**$1,083,000**	**$1,263,500**	**$2,728,550**	**17,903**	**$24,168,793**				

4.4.4. Scenario 5 – Equitable canopy cover proposal: 2055 total canopy cover @20.1%

This scenario is the most heavily front-loaded tree planting program modelled, followed by a 33% annual reduction in planting numbers after Year 1. It predicts a 14.0% canopy cover on Council land and an overall increase (all land, all townships) of 2.5% - from 17.6% to 20.1% (Table 11). The 2025-2055 cumulative spend is similar to Scenario 1 but resource availability would be challenging.

Table 11: Scenario 4 Canopy hectare changes for Council land in townships and Total Canopy Cover change across all land.

Locality	Hectares						% Change (Council land)
	All Land	Total canopy cover with change on Council land only					
		2025	2030	2043	2055	2025-2055 Change	
Ashbourne	75.31	37.12	37.18	37.82	38.63	1.52	**4%**
Clayton Bay	235.90	33.67	34.12	38.66	44.99	11.32	**34%**
Goolwa	1160.77	166.02	167.43	182.68	208.32	42.30	**25%**
Hindmarsh Island	739.72	146.89	147.60	155.27	168.36	21.47	**15%**
Langhorne Creek	85.49	17.02	17.57	19.56	22.25	5.23	**31%**
Middleton	260.12	36.55	37.19	43.98	54.94	18.39	**50%**
Milang	313.20	36.71	37.01	40.23	45.72	9.00	**25%**
Mount Compass	594.41	139.15	139.26	140.39	141.90	2.76	**2%**
Port Elliot	967.49	134.54	135.92	149.99	170.33	35.79	**27%**
Strathalbyn	2003.48	388.29	388.82	394.00	400.46	12.17	**3%**
Woodchester	104.50	13.71	13.77	14.30	14.99	1.28	**9%**
TOTAL	6540.39	1149.66	1155.87	1216.88	1310.89	161.23	**14.0%**

Council Planted Canopy Cover change over All Land	Hectares	Increase %
	161.23	**2.5%**

Table 12 outlines the likely costs associated with Scenario 5 for each township, with the percentage of canopy cover change on Council land detailed in Column I and the percentage of total canopy cover on all land in Column J.

It shares the same target as Scenario 4, aiming to achieve 30% canopy cover on Council-managed land by 2055, with Ashbourne again an outlier at 91% canopy cover, primarily due to the influence of significant private tree cover within the township. This approach delivers the highest upfront planting volume and costs but achieves the fastest realisation of canopy coverage, alongside the associated benefits of shade, amenity and biodiversity gains.

To achieve this target, 5,502 trees are planted in Year 1, with planting numbers decreasing significantly in subsequent years. While this represents a logistical and budgetary challenge, particularly in the early years of the program, it offers the highest level of cost certainty and the earliest delivery of environmental outcomes among all scenarios. Additionally, it may be more competitive for external funding opportunities, including grants aligned with State government urban greening and climate resilience targets, as discussed in Section 8.2.20 Grant funding.

This scenario can also factor variations in land use across different zones such as residential, commercial, town centres, and parklands and delivers the lowest total number of plantings (16,487) of all five scenarios. This may become a significant consideration should future constraints limit the availability of Council-managed land for planting.

The planting effort is distributed based on canopy deficits and township size. For example, Goolwa requires highest planting numbers with 1,450 trees in Year 1 (4394 total) with Langhorne Creek the lowest with 19 trees in Year 1 (58 total). Other notable townships include Port Elliot with 1,320 trees in Year 1 (4000 total), Hindmarsh Island with 720 trees in Year 1 (2182 total) and Middleton with 620 in Year 1 (1879 total). This targeted distribution reflects the greater need for canopy expansion in larger or lower-covered townships.

Consistent with Scenarios 3 and 4, while this model carries higher upfront costs, it yields significant long-term savings by reducing the cumulative costs associated with ongoing establishment and maintenance. This includes an estimated $2,069,957 in savings compared to Scenario 4 and $4,473,877 compared to Scenario 2. It also offers the potential to finalise planting even earlier, with 473 outstanding plantings identified as early as 2035, which could be delivered in a single event followed by three years of maintenance.

All additional benefits associated with front-loaded programs apply, including economies of scale in planting and maintenance, improved contract efficiencies for spatially proximate plantings, and greater cost certainty by mitigating exposure to CPI increases and future stock price volatility.

Furthermore, this approach allows for early identification of program gaps or delivery constraints through periodic spatial canopy analysis, enabling adaptive management throughout the program lifespan.

Projected costs to Council

Financially, the program incurs:

- Over the life of the program, a total of 16,370 trees planted at a cumulative cost of $22,098,957 (excluding consumer price index (CPI) adjustments and future cost escalations)
- A Year 1 planting cost of $1,650,900 and a Year 1 maintenance cost of $1,925,700 (for 5,502 new trees) – total $3,576,600.
- Previous years' plantings still requiring watering need to be added to provide a Year 1 budget. This is estimated at $3,916,000.

Additional assumptions

- No tube stock or volunteer effort is included in this Scenario.
- Council supplied costs used were:
    - Stock and planting - $300/tree.
    - Watering - $350/year for 3 years.
- No CPI adjustments for future years.
- No change in 2022 benchmark data which is assumed as the 2025 benchmarks.
- Township boundaries of Hindmarsh Island are the western parts of the island only.

Table 12: Scenario 5 – Front end loaded program planting for completion by 2050 (33% annual planting reduction), with expected canopy coverage outcomes and budget costs.

	A	B	C	D	E	F	G	H	I	J
Locality	**First Year Planting no.**	**Year 1 - Planting only costs**	**Year 1 - Planted maintenance only**	**Year 1 - all planting & maintenance**	**2055 - Total Planting Numbers**	**2055 - Total Project Cost**	**2025 - Council Canopy**	**2055 - Council Canopy**	**Council Canopy % Change**	**2055 - Total Canopy %**
Ashbourne	150	$45,000	$52,500	$32,500	152	$204,544	70%	91%	21%	51%
Clayton Bay	430	$129,000	$150,500	$314,500	1303	$1,759,080	11%	30%	19%	19%
Goolwa	1,450	$435,000	$507,500	$1,082,500	4394	$5,931,782	16%	30%	14%	18%
Hindmarsh Island	720	$216,000	$252,000	$482,000	2182	$2,945,436	12%	30%	18%	23%
Langhorne Creek	19	$5,700	$6,650	$19,350	58	$77,726.80	27%	30%	4%	21%
Middleton	620	$186,000	$217,000	$448,500	1879	$2,536,348	12%	30%	19%	21%
Milang	290	$87,000	$101,500	$241,000	879	$1,186,356	20%	30%	10%	15%
Mount Compass	80	$24,000	$28,000	$56,200	242	$327,270	26%	30%	4%	24%
Port Elliot	1,320	$396,000	$462,000	$900,000	4000	$5,399,967	16%	30%	14%	18%
Strathalbyn	380	$114,000	$133,000	$282,000	1152	$1,554,536	27%	30%	3%	20%
Woodchester	43	$12,900	$15,050	$58,050	130	$175,908	11%	30%	19%	14%
TOTAL	**5,502**	**$1,650,600**	**$1,925,700**	**$3,916,600**	**16,370**	**$22,098,957**				

4.4.5. Summary – Scenarios 1-5

Comparative analysis of the first five planting scenarios highlighting varying approaches in balancing canopy cover targets, upfront costs, and long-term financial efficiency. Key findings are summarised in Table 13. The full comparative analysis and summary of tree planting Scenarios 1-5 are shown in Table 2 in the Executive Summary.

Table 13: Total canopy growth by 2055 (All townships combined) – Scenarios 1 to 5. Comparing outcome of canopy cover increase by 2055 for five Scenarios modelled for total canopy cover across all land tenures and for Council land only. The canopy cover baseline showed that Alexandrina's total canopy cover averaged 17.6% across the 11 townships with an average of 19% on Council land. Most of the land in townships is privately owned.

Scenario	2055 Total Canopy Cover[1]	Total Canopy Change	2055 Council Canopy Cover[2]	Council Canopy Change	Key Features
Scenario 1	18.6%	+1.0%	24.9%	+ 5.9%	Low growth, limited interventions, minimal gains in small towns.
Scenario 2	19.3%	+1.7%	28.5%	+9.5%	Moderate growth, early signs of improved distribution.
Scenario 3	19.6%	+2.0%	30.5%	+11.5%	Strong gains, especially in underperforming areas like Hindmarsh Island.
Scenario 4	20.0%	+2.4%	32.7%	+13.7%	Accelerated growth with more balanced spatial outcomes.
Scenario 5	20.1%	+2.5%	33%	+14.0%	Most ambitious and equitable scenario; highest total increase.

[1] Total Canopy Cover = Canopy cover percentage of townships by 2055 across all tenures (Council, Crown, and private)

[2] Council Canopy Cover = Canopy cover percentage of townships by 2055 on Council land

4.4.6. Discussion – Comparing Scenarios 1-5

The first five Scenarios present different pathways for canopy cover change over the 30-year period from 2025 to 2055. Each reflects varying degrees of planting ambition, management intensity, and spatial distribution.

Scenario 1 represents an approach with small canopy gains and unoptimised distribution. Scenarios 2 and 3 reflect stepped increases in ambition and benefit distribution, with Scenario 3 showing a key shift in previously low canopy cover townships.

Scenarios 4 and 5 deliver the most substantial outcomes in terms of canopy cover increases. While both achieve strong results, Scenario 5 is the most comprehensive, combining:

- The highest total canopy gain (161.23 ha or an extra 2.5% overall).

- The lowest total number of trees planted (16,487) due to the efficacy of early establishment and its focus on long-term maintenance reduction.
- Broad geographic benefit across all townships, especially low canopy cover townships.
- Meaningful improvements in disadvantaged or heat-exposed localities like Langhorne Creek, Milang and Hindmarsh Island.
- Demonstrate greater financial efficiency over time, stronger resilience to inflation, and earlier realisation of biodiversity, shade, and urban cooling benefits, albeit with higher early-year investments and logistical requirements. These scenarios may better suit capital budget rather than operational budget expenditure.

Recommendation to Council

Where budget allows, front-end loaded scenarios such as Scenarios 2, 3, 4 or 5 should be prioritised if the Council seeks to deliver maximum environmental, health, and climate adaptation benefits through a regionally coordinated and equitable greening strategy.

Every front-loaded scenario demonstrates greater cost efficiency compared to Scenario 1 - constant planting rates - in achieving 2055 canopy cover targets as less trees are ultimately required. Further savings through smaller township final years' plantings consolidations are possible as these scenarios have reduced planting rates towards the end of the strategic time horizon (Table 14, below).

Table 14: Outstanding tree numbers for Scenario 4 and Scenario 5 to facilitate early planting completion.

Location	Scenario 4 Outstanding Plantings		Scenario 5 Outstanding Plantings	
	Year		Year	
	2040	2045	2035	2040
Ashbourne	11	3	5	1
Clayton Bay	61	19	36	5
Goolwa	208	65	120	17
Hindmarsh Island	112	35	60	9
Langhorne Creek	8	3	24	5
Middleton	87	27	52	7
Milang	34	14	24	3
Mount Compass	11	4	7	1
Port Elliot	171	53	109	15
Strathalbyn	56	21	32	5
TOTAL	765	246	473	69

4.4.7. Scenario 6 – Modelling 2% total canopy cover increase by 2030

Scenario 6 was developed in response to earlier specifications contained within the Draft Greater Adelaide Regional Plan (GARP). This initially proposed a 2% increase in total canopy cover (across all land types) by the year 2030 for rural councils. It is important to note that this specification has since been removed.

This scenario models the implementation of planting exclusively on Council-managed land as this Study does not currently extend to formalised private land contributions. As such, the burden of delivering a region-wide canopy increase falls solely on Council assets, despite the fact that Council-managed land represents a relatively small proportion of the overall land area across the Alexandrina district.

Preliminary analysis indicates that to achieve a 2% increase in total canopy cover across the entire region (inclusive of both public and private land), Council would be required to plant an unrealistically high volume of trees, concentrated almost entirely on its limited landholdings. Based on canopy modelling inputs and projected canopy growth dynamics, this would require an initial planting volume in excess of 100,000 trees. Many of these would need to be advanced, large-growing species to realise any meaningful canopy expansion within the short timeframe to 2030.

Consequently, the Year 1 delivery cost alone is estimated at approximately $73 million, based on advanced tree stock pricing, site preparation, planting, watering, and establishment maintenance (Table 15). This estimate excludes CPI indexing, contractor availability constraints, land preparation limitations, and any expansion of operational capacity required to deliver such a program at scale. Even under ideal conditions, this rate of planting is neither logistically nor financially feasible within existing Council frameworks.

Furthermore, even if such a program were funded and initiated, it would carry substantial risks in relation to:

- Long-term tree survivability and establishment rates
- Maintenance resourcing and spatial constraints
- Uncertainty around urban development pressures and climate variability
- The inability to address the vast contribution of private land in total canopy dynamics

For these reasons, Scenario 6 is presented as a hypothetical reference case only. It demonstrates that a region-wide canopy target based solely on public land particularly over a short timeframe is not achievable without integrated policy, planning, and funding mechanisms that include private land contributions.

This reinforces the importance of cross-sectoral programs and incentives that engage private landholders, developers, and institutions in the delivery of long-term urban greening outcomes. It also underscores the need for pragmatic, scalable canopy cover targets that reflect both the available land base and the capacity for ongoing investment.

Table 15: Planting rate data for all townships for 2% total canopy cover Increase by 2030 (yearly planting rate reduction of 33%)

Locality	First year planting #.	First year cost	2055 Council Canopy %	2055 Total Canopy %
Ashbourne	1,100	$715,000	500.1%	90.2%
Clayton Bay	4,400	$2,860,000	218.2%	66.2%
Goolwa	20,200	$13,270,000	215.2%	64.7%
Hindmarsh Island	17,000	$11,064,000	324.4%	69.4%
Langhorne Creek	1,400	$917,000	434%	87%
Middleton	5,550	$3,653,000	140.2%	63.1%
Milang	5,900	$3,887,500	231.4%	72.7%
Mount Compass	8,550	$5,561,700	473.5%	69.6%
Port Elliot	15,700	$10,247,000	197.7%	63.4%
Strathalbyn	29,000	$18,885,000	271.2%	62.9%
Woodchester	1,600	$2,160,000	661.2%	55.5%
TOTAL	**108,800**	**$73,220,200**		

4.4.8. Scenario 7 – Modelling 30% total canopy cover increase by 2055

Scenario 7 was developed, similarly to Scenario 6, to ascertain if the 30% tree canopy cover by 2055, as required in the Greater Adelaide Regional Plan (GARP) for metropolitan Adelaide, would be feasible for Alexandrina Council.

While this Scenario is less cost-prohibitive than Scenario 6, it remains unachievable within the current strategic, operational, and financial scope of Council if approached through planting solely on Council-owned land. It is worth noting that a 30% target aligns with canopy cover targets commonly adopted by local governments elsewhere, accounting for varied contributions from different land use zones including residential, parklands, commercial and town centres (see Section 3.3 for examples from other LGAs). However, these targets are rarely, if ever, supported by planned planting programs.

To reach a 30% increase in canopy cover across the entire Alexandrina region, the modelling assumes a planting and growth trajectory that would require tens of thousands of large-canopy trees to be planted and successfully established across public land assets. This would need to occur at a sustained and intensive rate over a 30-year period. Even with a generous lead-in time and front-loaded planting schedule, this level of expansion would far exceed the practical land availability, planting capacity, and maintenance resources currently available to Council.

The first-year cost estimate for this scenario exceeds $20 million, inclusive of advanced tree stock procurement, planting, establishment watering, contractor management, and support infrastructure. Importantly, this figure does not include future CPI indexing, land acquisition or repurposing, or the administrative and staffing costs that would be required to deliver and manage a program at this scale (Table 2 and Table 16).

Moreover, the modelling assumes ideal survival rates and optimal conditions for growth, which do not adequately account for:

- Mortality due to heatwaves, drought, pests, or limited establishment care.
- Competing land uses and development activity on Council reserves.
- Social and political constraints related to amenity expectations, land access, and resourcing priorities.

Scenario 7 underscores a critical planning consideration: that broad regional canopy cover targets must be aligned with the actual distribution of land ownership and control. Given that the vast majority of land in Alexandrina's townships is privately owned, a total canopy cover increase of this magnitude can only be realistically achieved through multi-sectoral strategies that involve both

public and private stakeholders. This includes the adoption of policies and programs that encourage tree retention and planting on private land, incentives for developers, protection of existing vegetation, and community greening initiatives.

As with Scenario 6, Scenario 7 is provided for reference and comparative purposes only, to highlight the limitations of Council-only planting models when applied to whole-of-region canopy objectives. Its inclusion is intended to inform future discussions around the need for integrated greening frameworks that leverage all land tenures and contributors rather than placing unrealistic expectations solely on local government assets.

Table 16: Planting rate data for all townships for 30% total canopy cover increase by 2055 (yearly planting rate reduction of 33%)

Locality	First year planting #.	First year cost[1]	2055 Council Canopy %	2055 Total Canopy %
Ashbourne	10	$6,500	72%	49%
Clayton Bay	1,400	$945,000	74%	30%
Goolwa	8,100	$5,405,000	78%	30%
Hindmarsh Island	3,300	$2,159,000	76%	30%
Langhorne Creek	295	$198,750	88%	30%
Middleton	1,350	$923,000	53%	30%
Milang	1,660	$1,117,500	84%	30%
Mount Compass	1,220	$797,200	90%	30%
Port Elliot	5,200	$3,422,000	75%	30%
Strathalbyn	6,900	$4,520,000	86%	30%
Woodchester	560	$756,000	271%	30%
TOTAL	**29,995**	**$20,249,950**		

[1] *Costs do not include future CPI indexing, land acquisition or repurposing, or the administrative and staffing costs that would be required to deliver and manage a program at this scale*

4.4.9. Scenario 8 – Milang tube-stock

This scenario explores an alternative planting model for Milang where tube stock is used instead of advanced tree stock, diverging from Alexandrina Council's standard planting program. The scenario mirrors the structure of Scenario 4, with a 20% annual planting reduction from an initially high planting number and a target of 30% canopy cover over Council-managed land by 2055.

To achieve this, the program requires 500 tube stock plantings in Year 1, with a total of 2,497 tube stock planted over the program's lifespan. The scenario incorporates an assumed 40% mortality rate over the establishment period, consistent with published literature (see Section 8.1.2).

Two delivery methods are assessed:

- Method A – Community Volunteer Delivery, where costs include $3 per tube stock, $2.50 per tree guard, and $350 for contractor watering in Year 1 only.
- Method B – Full Contractor Delivery, where costs include $6 per tube stock (purchase and planting), $2.90 per tree guard (purchase and install), and the same $350 for Year 1 watering.

Under Method A, the first-year budget is $230,250, which is higher than Scenario 4 for Milang ($182,500) despite the lower per-unit stock costs. This is attributed to the larger planting volume needed to compensate for higher expected mortality and the requirement for establishment watering in the first year.

Over the life of the program, Method A results in a total program cost of $992,650, compared to $1,339,227 for Milang under Scenario 4, indicating potential for substantial cost savings when scaled across a broader planting program. Method A outcomes are provided in Table 17.

For Method B, the first-year budget is slightly higher at $231,950, with a total program cost of $1,001,139, reflecting increased costs associated with contractor-led planting and tree guard installation.

It is important to note that Scenario 8 does not account for formative pruning, which is typically undertaken during the nursery growth phase of advanced stock in 30L pots. Additionally, it does not fully capture the increased mortality risks associated with tube stock in urban streetscape settings, which are discussed in Section 8.1.3.

This scenario indicates that there is likely to be a cost-effective role for community-led tube stock planting (Method A) within parks, reserves and open space where conditions are more favourable for establishment. However, for urban streetscapes, high-traffic areas, and constrained

environments, advanced tree stock should remain the preferred method due to its higher survival rates, lower maintenance demands and ability to deliver faster canopy outcomes.

Table 17: Scenario 8 Method A - canopy cover rates, planting numbers and anticipated planting and watering costs

Canopy projection model: Scenario 8 – Milang Tube stock				
Year	2026	2030	2043	2055
Total Canopy % (All land)	11.7%	11.8%	12.8%	14.5%
Canopy Hectares	36.7	36.9	39.6	45.3
Canopy % (Council land)	20.2%	20.5%	23.5%	29.7%
Canopy Hectares	18.3	18.5	21.2	26.9
Trees planted in year	500	205	6	0
Cumulative plantings	-	1,681	1,375	1,398
Annual P&W cost	$230,250	$72,806	$2,383	$164

4.4.10. Underlying assumptions and considerations in calculating canopy cover

Under the scenario modelling it is assumed that base canopy cover percentages across Council landholding in the townships remains static, i.e. starting canopy cover is maintained at a constant level throughout the projection period. This requires that any canopy loss due to tree decline or removal is offset immediately through replacement planting or compensated for by canopy growth from existing trees to preserve baseline conditions at the local level. Considering this and where feasible, replacement planting should be undertaken in advance of tree removal to allow for early establishment and minimise the lag time in restoring canopy cover.

The model assumes no change in canopy cover across Crown land or privately owned land, which may be unrealistic. Historically, tree retention during development has been limited, primarily due to pressures to maximise land yield and reduce construction costs. Tree removals are often undertaken to facilitate easier site access and lower overall development expenses for clients.

With this in mind, while the modelling highlights that Council-led planting efforts provide a consistent uplift across all locations, private landholders play a decisive role in determining the total canopy outcome.

As an example, a modest 0.5% annual change in canopy cover on private land (either positive or negative) can significantly alter township canopy cover results by as much as 12%, indicating the importance of incentivising private landholders for retention and enhancement of tree canopy cover.

While all models see all townships canopy improvements overall, Council land contributes disproportionately to total canopy in some smaller townships, highlighting opportunities for impact through focused investment on public land.

Achieving targets in low-canopy cover towns such as Milang, Port Elliot and Clayton Bay may require additional focus through both public greening initiatives and engagement with residents to reach more equitable shade and microclimate outcomes.

High baseline figures for Ashbourne lead to a specific review of opportunities for canopy cover there which are outlined in the following section.

4.4.11. Ground-truthing planting opportunities - Ashbourne case study

A review of canopy distribution and potential planting opportunities was conducted across Alexandrina townships by a drive-through field inspection led by Ian Brett (Alexandrina Council) and Tim Fischer (AGS) on 25 April 2025.

In several locations, initial impressions from canopy mapping (Tree Canopy Report 2022) suggested limited planting opportunities on Council-managed land. However, the drive-through inspection showed that ground-truthing is important to confirm and interpret aerial mapping data, especially in high canopy cover areas.

To explore this issue in greater depth, Ashbourne was used as a case study due to its high total township canopy cover recorded at 49.3%, the highest among the 11 townships assessed. Ground-truthing was conducted along Bull Creek Road, a key thoroughfare through Ashbourne, including intersections such as Henry Martin Road and the vicinity of 1266 Bull Creek Road (Figure 10). Although existing canopy mapping indicates both sides of the road are well covered in these cases (Figure 11 & Figure 13), the field inspection and accompanying Google Street View analysis confirmed that opportunities for new Council plantings still exist within the road reserve (Figure 12 & Figure 14).

This highlights the importance of ground truthing to identify potential planting sites and review the quality and expected longevity of surrounding vegetation. For example, there may be extensive canopy cover, but this may be from trees that are in decline where there is opportunity for succession planting in nearby areas to account for loss of canopy cover when these trees senesce or are ultimately removed.

In this regard, a comprehensive tree inventory is essential for understanding the current condition, species composition and spatial distribution of individual trees within the landscape. It provides a foundational dataset that informs not only the present status of the urban and peri-urban forest but also supports evidence-based decision-making for the future. Furthermore, as part of a tree risk management strategy, is may be able to serve as a record for risk assessment and amelioration.

By capturing detailed information such as tree health, structure, age, size (e.g. DBH, height) and life expectancy, a tree inventory enables Councils and land managers to assess the long-term viability of existing canopy cover and identify areas at risk of decline. It also allows for the modelling of future scenarios, including canopy loss due to senescence, development pressure, or climate stress and guides strategic planning to ensure sustainable canopy outcomes. This is described further in section *8.2.16 Tree management system/Tree asset register*.

Importantly, the inventory supports prioritisation for tree maintenance, replacement and planting programs, ensuring that limited resources are allocated effectively to maximise environmental, social and economic returns. In the context of climate resilience, biodiversity conservation and urban heat mitigation, such an inventory is a critical tool for achieving long-term green infrastructure goals at both local and regional scales.



Figure 10: Trees viewed from aerial mapping along Bull Creek Road near Henry Martin Road intersection.



Figure 11: Extensive canopy cover mapping along Bull Creek Road near Henry Martin Road intersection.



Figure 12: Street view looking south on Bull Creek Road adjacent Henry Martin Road intersection demonstrating tree planting potential for Council road reserve.



Figure 13: Extensive canopy cover mapping near 1266 Bull Creek Road.



Figure 14: Street view of 1266 Bull Creek Road showing tree planting potential on Council road reserve.

5. Prioritised tree planting locations: Fair and equitable access to urban green spaces

5.1. Methodology – Prioritised tree planting

The Prioritised Planting approach used in this Study is a data-driven approach used to strategically guide urban tree planting to maximise environmental, social and economic benefits. This methodology integrates multiple spatial and demographic datasets to identify and prioritise areas where urban greening will have the greatest impact. The analysis for this project considered the following key layers:

1. High public use zones

Areas with high pedestrian activity such as town centres, transport hubs, schools, aged care facilities, sporting fields and main streets are targeted to provide shade, comfort and aesthetic improvements. Increasing canopy in these zones supports active transport, encourages outdoor activity, and improves urban liveability and safety.

2. Urban Heat Island (UHI) mapping

Heat mapping identifies neighbourhoods that experience elevated land surface temperatures due to a lack of vegetation and a high proportion of heat-absorbing materials (e.g. asphalt, concrete). These UHI zones are prioritised for tree planting as increasing canopy cover is one of the most effective interventions for cooling ambient temperatures, mitigating heat-related health risks, and enhancing thermal comfort.

3. Existing canopy cover mapping

Baseline tree canopy data is used to identify canopy deficits and opportunities for densification or gap-filling. Areas with <10% canopy cover are typically flagged for urgent greening, while medium-canopy areas may be targeted to help achieve municipal canopy goals (e.g. 20–30% cover by 2055).

4. Equity

Equity of canopy cover was assessed using the Index of Relative Socio-economic Disadvantage (IRSD) as a measure of socio-economic conditions. The IRSD provides a summary measure of the socio-economic status of different regions by combining various census data, including income, education, employment and occupation. The index helps identify areas that are relatively disadvantaged compared to others. The IRSD is part of the Socio-Economic Indexes for Areas (SEIFA), compiled by the Australian Bureau of Statistics (ABS).

There is evidence in Australia and overseas that neighbourhoods identified as socially disadvantaged are more vulnerable to climate impact and have historically lower tree canopy cover. This part of the analysis used the IRSD as a GIS layer to help assess whether areas were receiving equitable access to the health, environmental and economic benefits of urban canopy cover.

5. Available planting space/biodiversity outcomes

This category relates to the amount of available space for tree root and canopy growth and development. Narrow verges that contain hard infrastructure or those sites adjacent buildings generally attain a lower rating that those sites that allow for success as the tree matures and is able to meet full dimensions and expected longevity.

Additionally, large space is generally ascribed to wider open space such as reserves or parklands where Existing biodiversity programs may have occurred. Further tree planting integration with initiatives such as the Second Nature Revegetation / Restoration Action Plans for Milang Common is encouraged to enhance biodiversity outcomes.

Each of the criteria outlined above has been assigned a weighted score to form a composite prioritisation index (Table 18). This scoring framework enables each potential planting site to be ranked and then thematically mapped, visually distinguishing highest priority- locations from those of lower urgency. The resulting GIS overlay not only guides phasing of the planting program but also supports clear communication of priorities to stakeholders and the community.

Outcome and applications

In combining these factors, Prioritised Planting Maps have been developed that spatially identify target planting locations with the highest need and benefit. This approach supports:

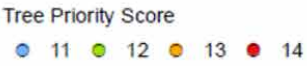
- Efficient allocation of greening budgets and resources.
- Achievement of urban canopy cover targets.
- Integration into climate adaptation, health, and equity strategies.
- Enhanced funding applications and investment planning.
- Transparent and evidence-based urban forestry decisions.

Table 18: Prioritised tree planting framework

Criteria	High Priority (3 pts)	Medium Priority (2 pts)	Low Priority (1 pt)
Public Use / Activity Zones	Schools, transport stops, town centres, main pedestrian corridors	Local parks, community facilities, residential verges	Low-use verges or infrastructure zones
Urban Heat Island (UHI)	High-intensity UHI hotspot	Moderate UHI exposure	Low or negligible UHI effect
Existing Canopy Coverage	<10% canopy cover	10–20% canopy cover	>20% canopy cover
Equity	IRSD score in lowest 20th percentile	IRSD score in middle 40–60th percentiles	IRSD score in upper 20th percentile
Available Planting Space	Large verge or open public land	Moderate verge width or partial suitability	Narrow verges or highly constrained space

Tree planting site prioritisation and application examples

The points from the table above can sum to a range of 5 to 15. In calibrating and colourising geospatial maps, this may be automated based on software but typically follows a "heat map" style. An example of these manifests as:



and can be seen in the legend of Figure 15 below.

5.2. Results: Milang – Recommended strategic planting locations

As the township with the lowest canopy cover recorded in 2022 (Tree Canopy Report), Milang has been used to undertake a full assessment of potential strategic planting locations available in both streetscape and park locations based on the principles and recommendation of this Study. The Milang tree planting analysis provides 575 prioritised planting sites consisting of 345 roadside locations with 230 of these within or adjacent to parks (Figure 15). These locations have been selected through a GIS-based mapping assessment that considers canopy gaps, urban heat island (UHI) intensity, location type and site constraints such as powerlines.

This total of 575 prioritised planting sites provides a suitable buffer to support a range of planting programs over multiple years while accounting for feasibility constraints (e.g. sites that may ultimately prove unsuitable for planting).

It is sufficient to deliver Scenario 2, which requires 516 trees over four years, support a three-year program under Scenario 4, which calls for 488 trees in total or, alternatively, support the first year and part of Year 2 of Scenario 8 (the Milang tube stock scenario) . The number of sites ensures operational flexibility and strategic coverage as part of a staged implementation plan.

Location and heat mapping insights

Of the 575 planting locations:

- 328 sites (57%) fall within high UHI zones, indicating a strong emphasis on mitigating localised heat impacts.
- 139 locations (24%) are within medium UHI areas, while only 108 (19%) are in low UHI zones.

This data reinforces that planting priorities have been guided by the goal of achieving measurable reductions in urban heat, particularly along exposed roads and open reserve networks.

Key streets and reserves

Priority roads such as Daranda Terrace and Woodrow Drive have been selected due to their high public use and exposure to sunlight, offering an opportunity to reduce surface temperatures and improve pedestrian amenity. Similarly, Macdonald Street, with north-east plantings for residential properties, has been highlighted for its exposure to heat and limited shade, with powerline-compatible species selected where infrastructure constraints are present.

Parks and Reserves have also been strategically selected as follows:

- Daranda Terrace Reserve and Swamp Reserve are both higher-order parks with path connections to the town centre, water frontage, and heritage areas. They currently lack sufficient canopy cover and have been prioritised accordingly.
- Jupiter Lyon Reserve while lower in the park hierarchy is located within a high heat exposure zone. Enhancing canopy cover here will not only support recreational use by providing shaded pathways but also contribute to biodiversity outcomes by extending existing habitat plantings.

Equity considerations and community engagement

Milang exhibits relatively consistent IRSD values across the township. While not a primary driver of site selection in this instance, equitable access to green infrastructure has been maintained by ensuring distribution of plantings across residential frontages and public reserves. Community planting opportunities have been identified particularly in parks and along walking routes where social engagement and stewardship can be fostered.

Strategic planting focus

The planting strategy places particular emphasis on:

- Northerly aspects and prominent public interfaces, where shading can deliver the greatest cooling and amenity benefits.
- High-use public zones, such as school precincts and central streets.
- Sites where planting complements existing pathways and community infrastructure, facilitating improved thermal comfort and walkability.

This integrated approach ensures the dual outcomes of urban cooling and biodiversity enhancement, while aligning with both Council's greening strategy and broader community values.

Tree category distribution (**Figure 16**)

The species selection includes a range of tree types tailored to site conditions and canopy objectives:

- 316 Large Canopy Trees (55%) have been prioritised to maximise long-term shade and cooling benefits.
- 163 Powerline-compatible or narrow canopy Trees (28%) have been designated for constrained sites, particularly along streets with overhead infrastructure.
- 96 Coastal Trees (17%) are included where local soil or exposure conditions require increased resilience, particularly in parks and reserves near the waterfront.

Figure 15: Milang Priority Tree Mapping - planting map.

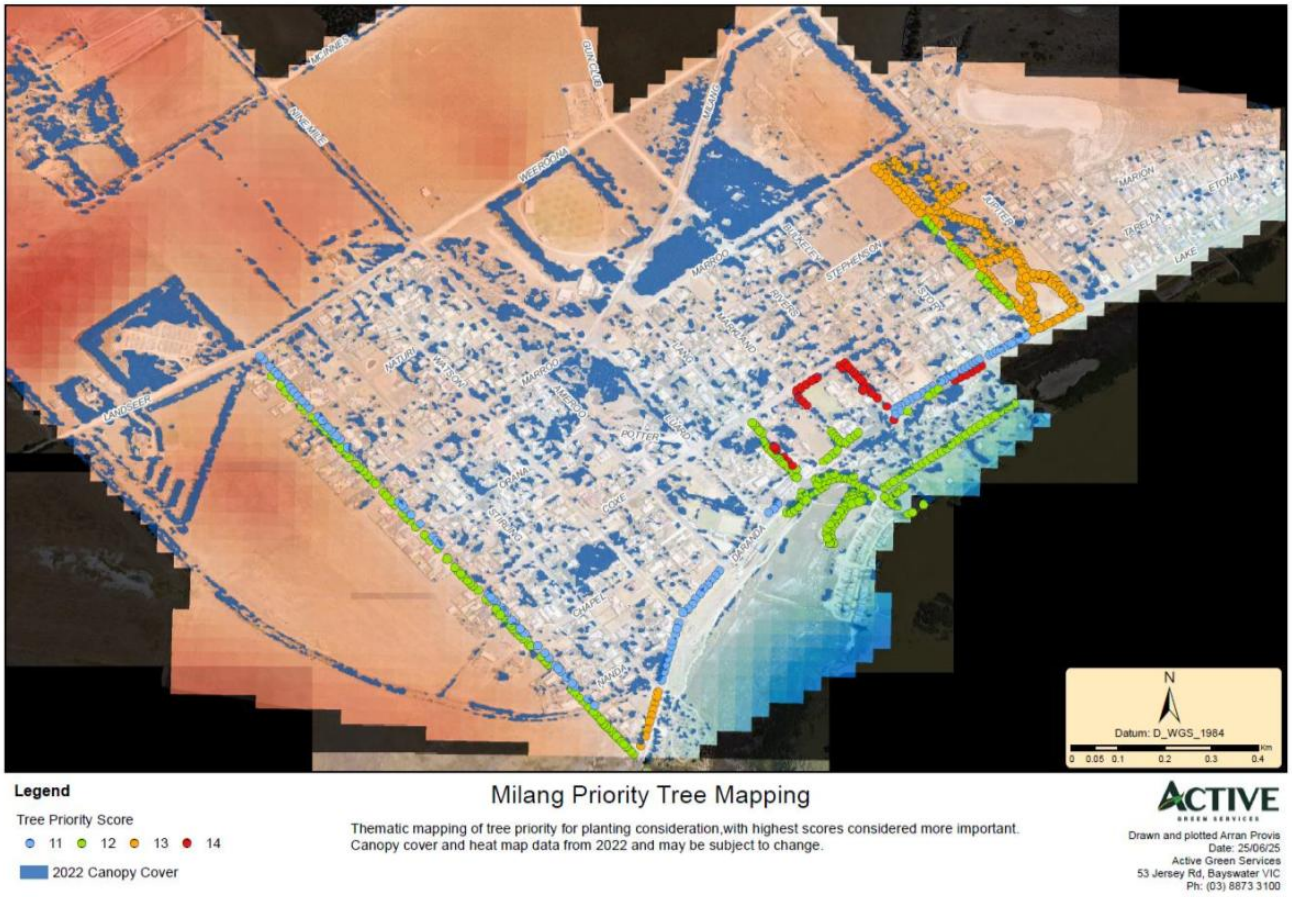
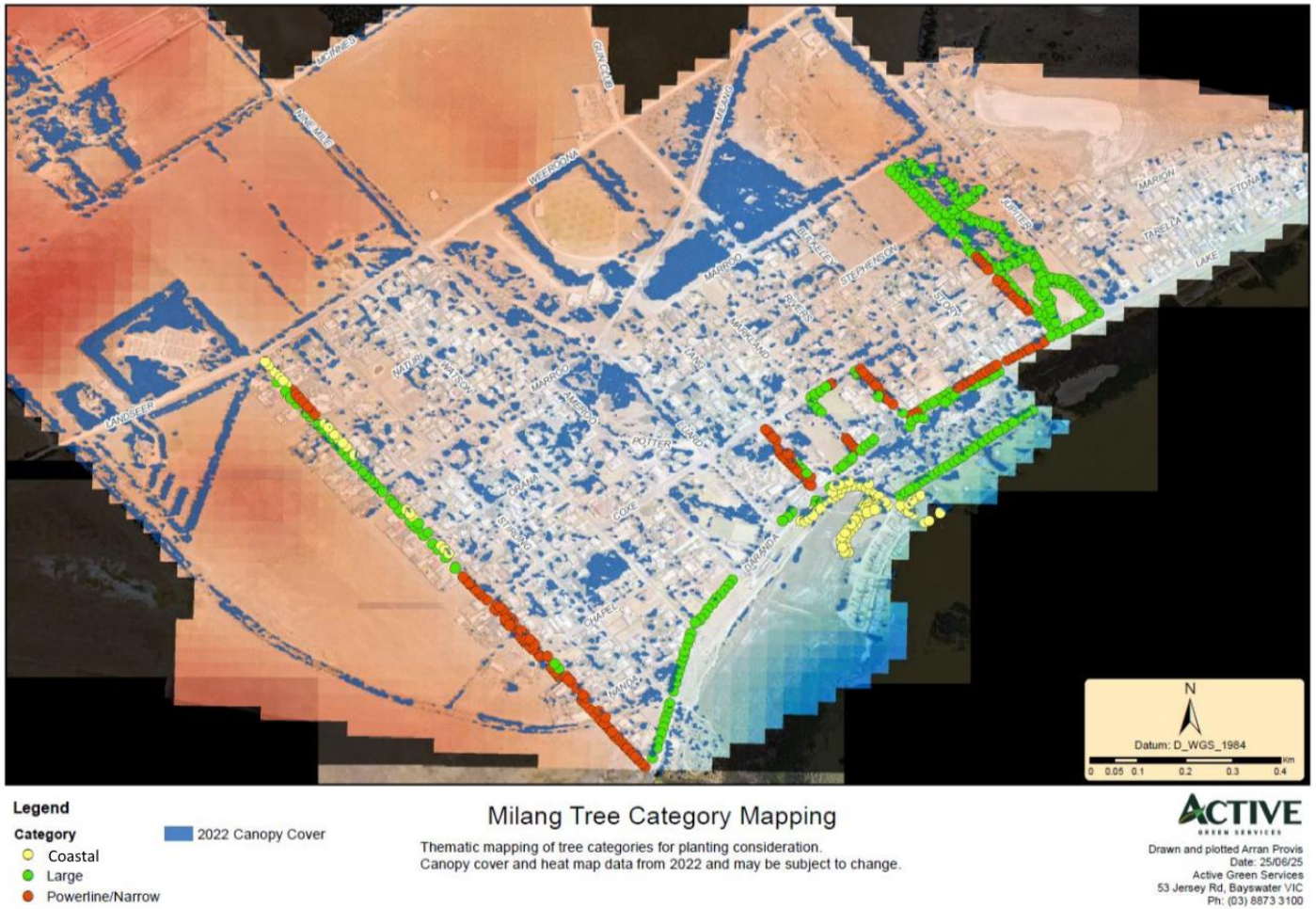


Figure 16: Milang Tree Category Mapping - thematic map.



(For detail on the tree "Category" legend see section 6.4.2.1., above).

6. Park Priority Selection (for urban greening initiatives)

6.1. Methodology – Park priority selection

Tree planting within parks and reserves presents a valuable opportunity for community engagement through Council-led planting programs. These initiatives not only foster a sense of ownership, stewardship, and connection between the community and the local environment but also play a critical role in achieving broader biodiversity objectives. By prioritising biodiversity-focused plantings within these spaces, Council can deliver multiple benefits, including:

- Enhancement of local habitat for native flora and fauna.
- Strengthening of ecological corridors within urban and peri-urban landscapes.
- Contribution to climate resilience through increased canopy cover, shading, and cooling.
- Support for community education on the importance of biodiversity, urban ecology, and sustainable land management.

The methodology utilised the following five criteria to prioritise parks for strategic tree planting and canopy enhancement. Each category was assigned a weighted score to support the development of a clear hierarchy, enabling sites to be thematically mapped and ranked for action across short- and long-term programs. See Table 19, below, for hierarchy.

1. Location and functional use

Parks located in high-use zones, such as township centres, school precincts, or areas with high pedestrian activity, were given higher priority. Emphasis was placed on sites with existing recreational infrastructure such as playgrounds, seating areas, or exercise stations where improved shade and amenity will benefit a broad demographic, including children, families and older adults.

This typically aligned with the Alexandrina Council Park Hierarchy (A–D), with higher-tier parks (A and B) receiving greater priority in this category due to their role in serving larger or more diverse community functions.

2. Urban Heat Island (UHI) exposure

Urban heat mapping data was used to identify localised heat hotspots within and surrounding parks. Parks located in areas with high UHI intensity were prioritised to support cooling interventions through increased canopy cover. Strategic planting in these areas is expected to mitigate extreme temperatures, create more liveable public spaces, and improve thermal comfort for adjacent residential areas.

3. Existing canopy cover and planting potential

Baseline canopy cover data (sourced from the 2022 canopy layer) was analysed for each park and expressed as a percentage of the total park area. Parks with limited existing canopy were prioritised to enable significant shade gains and expand urban forest benefits.

A canopy scoring scale was applied:

- 0–20% cover = Score 4 (highest priority)
- 20–30% cover = Score 3
- 30–60% cover = Score 2
- 60–100% cover = Score 1 (lowest priority)

This approach differs slightly from the broader street tree planting framework by using park-specific area data (m^2) to determine proportional canopy cover. Additional consideration was given to planting feasibility like potential to establish shade over hard surfaces (e.g. paths, car parks) that exacerbate heat retention.

4. Equity

To ensure equitable outcomes, IRSD data (Australian Bureau of Statistics 2021) was used to identify communities with higher levels of social disadvantage. Parks located in or adjacent to these areas were given higher priority, recognising the role of green space in improving physical and mental health outcomes and reducing environmental inequality. While this criterion was weighted alongside others, it reinforced Council's commitment to fairness and inclusion in urban greening.

5. Accessibility – 300m threshold under the 3–30–300 rule

Consistent with the '3–30–300 rule' urban greening principle, the analysis included proximity mapping to identify households with limited access to public green space within 300 metres. A buffer analysis was conducted for all parks in the Council-supplied layer. Parks were then prioritised based on their spatial isolation, using the number of overlapping 300m park buffers as a proxy for proximity to alternative green space.

The scoring system was as follows:

- Buffer Score 3 (highest priority): The park had 9 or fewer other parks within the 600m buffer zone.
- Buffer Score 2: The park had 10–20 other parks within the 600m buffer zone.
- Buffer Score 1 (lowest priority): The park had more than 20 overlapping buffers, indicating greater access to alternative green spaces nearby.

While some smaller parks in this dataset (e.g. road verges or infrastructure-dominated parcels) were captured in the buffer analysis, each site was cross-checked against aerial imagery to confirm its suitability in supporting canopy objectives (e.g. biodiversity, amenity, recreation). This ensured that parks were not only selected for their proximity relevance but also their functional value.

It is important to note that while this accessibility metric focused on spatial equity, Category 1 (High Use Zones) captures actual user demand and visitation pressure, allowing the framework to balance both use-driven and access-driven priorities.

Based on the assessment criteria outlined the following selection of parks and reserves have been identified as priorities for tree planting across each of the 11 townships. For each site, a rationale is provided to explain its selection, including key considerations such as urban heat mitigation, biodiversity enhancement, and community benefit.

Potential challenges and constraints such as site conditions, community sensitivities, land use limitations, or maintenance requirements are noted to inform implementation strategies and guide future planning.

Assessment of hierarchy

In order to prioritise public parks based on the criteria outlined above, scoring was undertaken using a scoring range for each of the five criteria (Table 19). This resulted in colourising geospatial maps, that typically follows a “heat map” style, with higher numbers indicating higher priorities . An example of these manifests as:

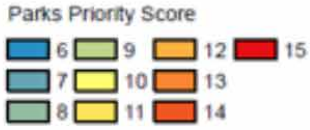


Table 19: Scoring hierarchy for planting priority identification.

Criterion	Scoring Range	Score Description
1. Location and Functional Use	High-use park (Hierarchy A/B)	3 – Park in township centre, near schools, or with high pedestrian activity and recreational infrastructure (e.g. playgrounds, exercise equipment).
	Moderate-use park (Hierarchy C)	2 – Park in local residential area with moderate community use or limited facilities.
	Low-use park (Hierarchy D)	1 – Isolated or passive open space with minimal infrastructure or usage.
2. Urban Heat Island (UHI)	High UHI zone	3 – Located within or adjacent to mapped high surface temperature area.
	Medium UHI zone	2 – Moderate heat exposure based on mapping.
	Low UHI zone	1 – Low surface temperature area.
3. Existing Canopy Cover	0–20% canopy cover	4 – Very limited shade, high potential for greening and environmental benefit.
	20–30% canopy cover	3 – Low existing shade, room for significant improvement.
	30–60% canopy cover	2 – Moderate shade, some opportunities for gap planting.
	60–100% canopy cover	1 – High shade coverage; low planting potential or priority.
4. Equity	High disadvantage (IRSD lowest quintile)	3 – Located in area with high relative disadvantage.
	Moderate disadvantage	2 – Some indicators of disadvantage.
	Low disadvantage	1 – Located in area with low relative disadvantage.
5. Accessibility (300m Proximity)	1–9 other parks within 600m buffer	3 – Isolated access, limited nearby alternatives, higher priority for equitable access.
	10–20 other parks within 600m buffer	2 – Moderate access, some nearby alternatives available.
	>20 other parks within 600m buffer	1 – High access, many overlapping buffers indicating good park proximity coverage.

6.2. Results – Park priority selection

6.2.1. Ashbourne – Park priority selection

Based on the spatial data layers and asset mapping provided, there are currently no Council-managed parks or reserves located within the township of Ashbourne. This presents a challenge in meeting the 300-metre proximity component of the '3-30-300 rule', which advocates for all residents to have access to a quality public green space within a 300-metre radius of their home.

While the total tree canopy cover in Ashbourne is comparatively high, reflecting the rural and vegetated character of the area, there remains a gap in formalised recreational open space. The absence of designated parks and reserves limits opportunities for structured recreation, passive use, and community gathering, particularly for vulnerable groups such as children and older adults who may have limited mobility.

Opportunities may exist to explore strategic acquisition or co-management of land for the purpose of establishing public green space in Ashbourne. Such sites could be targeted based on the following criteria:

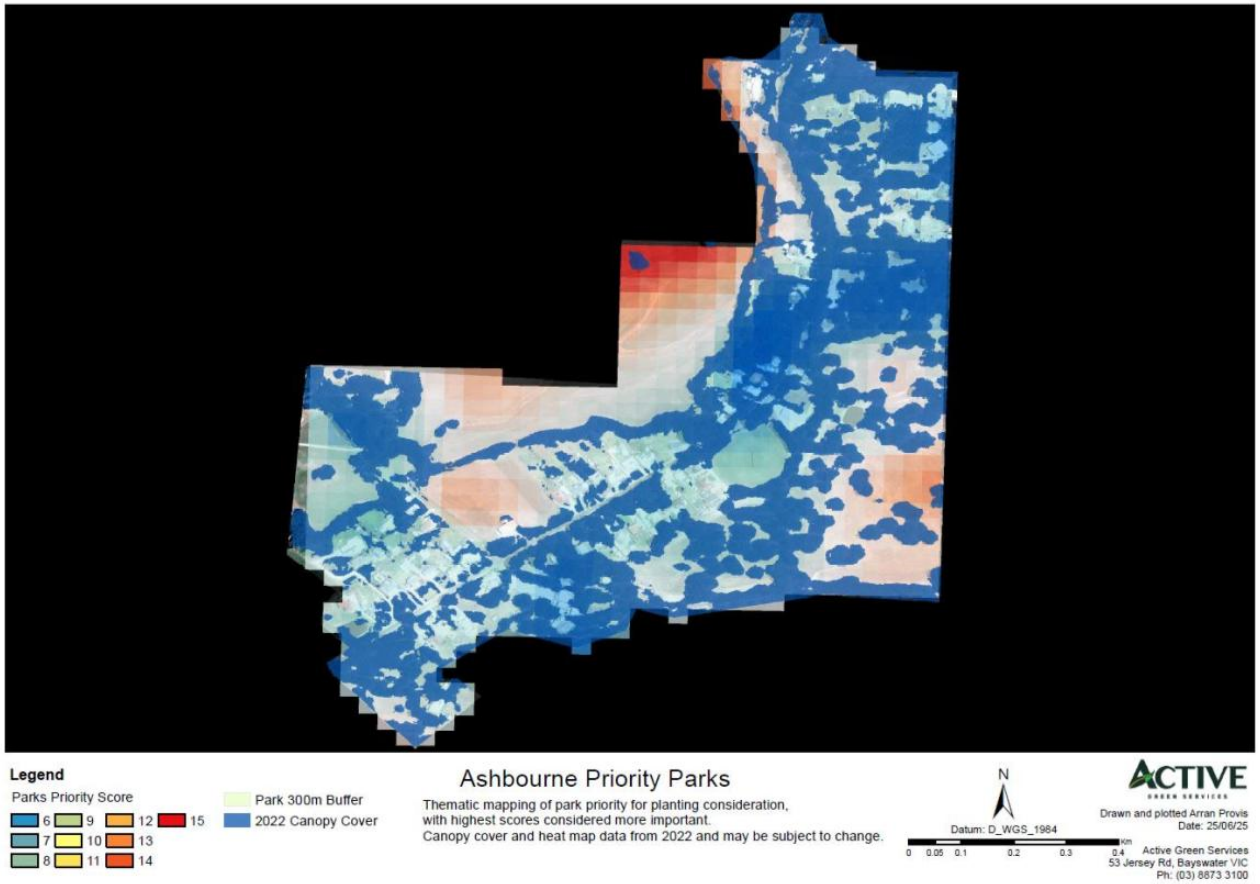
- Identified hotspots from thermal mapping, particularly where hard surfaces or built form contribute to elevated temperatures (Figure 17).
- Community need or expressed demand for recreational space or nature-based play.
- Land use compatibility and feasibility for park development or revegetation.

Exploring partnerships with private landholders, schools, or state agencies may also support the delivery of green infrastructure in the short to medium term. Establishing even small-scale reserves or green corridors could provide measurable benefits to community wellbeing, climate resilience and biodiversity.

It is also noted that Ashbourne has potential planting sites available on road verges as detailed in Section 4.4.11 - Ashbourne case study.

A tailored approach is, therefore, recommended for Ashbourne, recognising both its high canopy baseline and the current lack of accessible public open space.

Figure 17: Ashbourne Priority Parks [nil] - priority map featuring hot spots from thermal mapping.



6.2.2. Clayton Bay – Park priority selection

A number of key sites have been identified in Clayton Bay for targeted greening interventions based on a combination of urban heat mapping, existing canopy cover, anticipated public use, and landscape prominence. These sites represent important opportunities to enhance the township's resilience to heat, improve liveability and support biodiversity outcomes. See Figure 18.

Clayton Bay Entrance Reserve

Located at the primary entry point to the township, this reserve exhibits very high surface temperatures and has minimal existing canopy cover. Its prominent position offers a strategic opportunity for feature streetscape planting, improving both visual amenity and the thermal comfort of residents and visitors alike. Large-canopy street trees in this location would establish a clear sense of arrival to reflect the township's identity as a nature-based destination and support tourism and commerce.

Gilbert Street Reserve and Pearce Road Reserve

Both of these reserves are located within the residential heart of Clayton Bay and are characterised by very high urban heat levels and low canopy coverage. Their proximity to housing and high pedestrian activity makes them strong candidates for intensive shade planting and greening treatments. Enhancements to these parks would provide direct health and wellbeing benefits to local residents, while also supporting cooler, more comfortable neighbourhood environments.

Alexandrina Drive Reserve

Situated on the southern side of the township, this reserve includes a walking track that serves as a key link between the Clayton Bay Foreshore Reserve and the Caravan Park area. Although not identified as an extreme heat hotspot, the existing canopy cover along this corridor is limited. Given the pathway's high potential for community use and active transport, targeted shade tree planting would significantly enhance user comfort, promote walking and cycling, and support ecological connectivity. Opportunities for community-led biodiversity planting could also be explored to strengthen local stewardship and engagement.

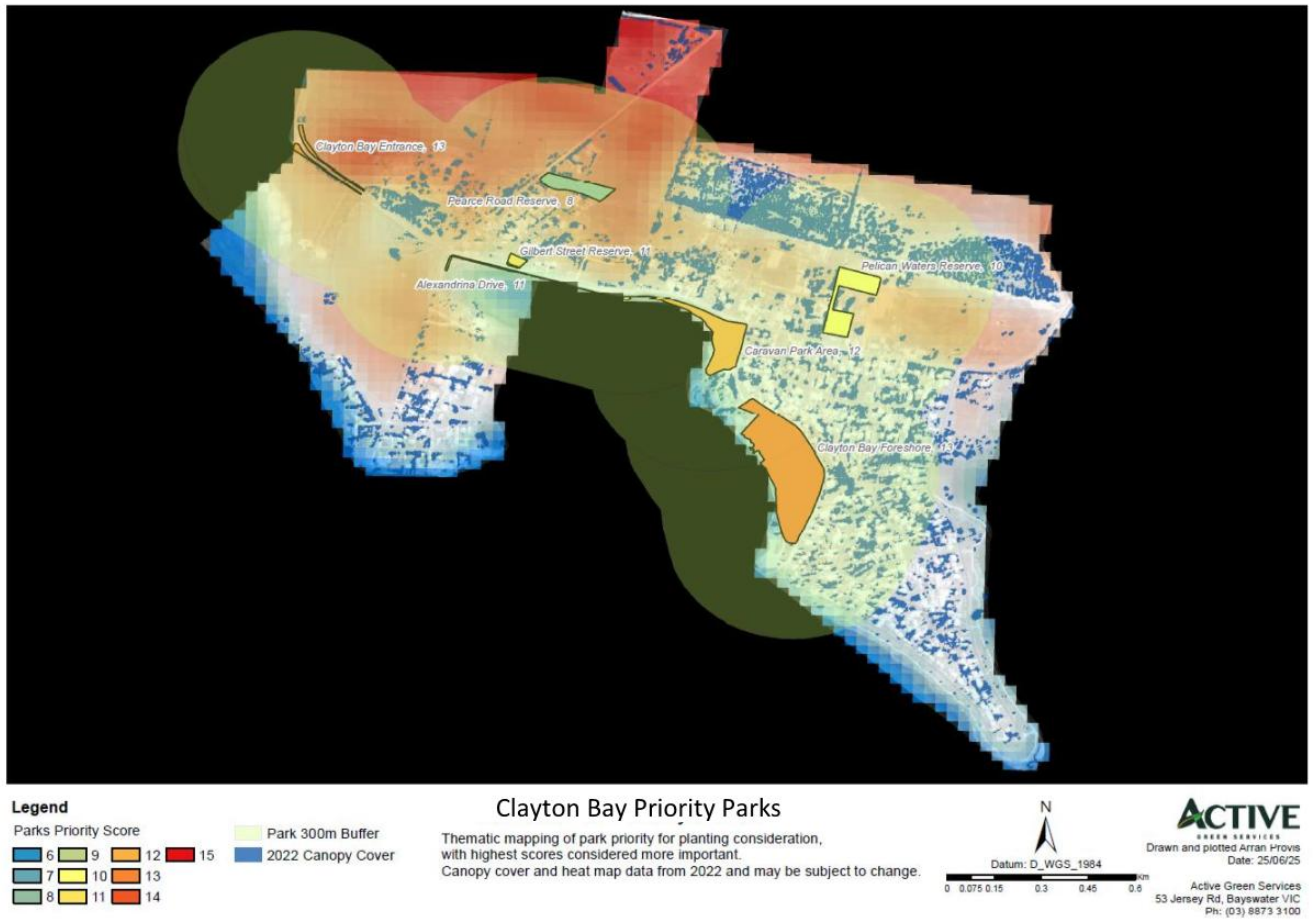
Island View Drive

Strategic verge planting along Island View Drive has been identified as a means to reduce heat absorption on road surfaces and mitigate localised heat island effects. However, the success of this intervention will depend on community consultation and support, particularly due to potential concerns over obstructing scenic views along the "Island View" corridor. A sensitive planting design that balances shade provision with view preservation is recommended.

Pelican Waters Reserve

This reserve is located within a high heat area where significant clearing has occurred in recent years to accommodate new development. As such, it presents a critical site for canopy restoration, biodiversity enhancement, and future open space provision. Establishing a well-shaded, multi-functional park in this area will not only help offset the impacts of recent vegetation loss but also provide long-term amenity for the growing residential population.

Figure 18: Clayton Bay Priority Parks - planting priority map.



6.2.3. Goolwa – Park priority selection

The township of Goolwa presents multiple opportunities for targeted canopy enhancement to improve community wellbeing, address urban heat hotspots and support biodiversity. Priority reserves have been identified based on a combination of factors including socio-economic need, current canopy gaps, heat mapping, recreational demand and alignment with the '3-30-300 rule' urban greening principle. See Figure 19, below.

Heinicke Avenue Reserve

Located within an IRSD Level 1 area, Heinicke Avenue Reserve serves a relatively disadvantaged community. Despite being classified as a low-hierarchy park via the Parks Priority Score, it is a large reserve with very limited canopy cover, particularly along its street frontages. This contributes to the formation of a significant heat hotspot in the area. Greening this reserve offers critical social equity benefits by improving liveability, reducing heat stress, and enhancing local amenity for vulnerable populations.

Bradford Road Reserve

Bradford Road Reserve is a sizeable park with existing recreational use and moderate canopy cover. There is considerable scope to further increase shade, particularly over play areas and high-use spaces. In addition, roadside plantings can help to mitigate adjacent road surface heat hotspots. The reserve's 300-metre catchment area complements that of Heinicke Avenue Reserve, providing strategic connectivity in green infrastructure across Goolwa's residential areas.

Kightley Reserve

Kightley Reserve is one of the last major reserves before the beachfront, currently featuring minimal vegetation cover. While the coastal location benefits from natural sea breezes that moderate temperatures, the reserve plays a vital role in delivering accessible public open space within the '3-30-300 rule' framework. Due to its size, Kightley Reserve offers an opportunity to contribute significantly to local canopy targets and provides a valuable site for community-driven biodiversity planting.

Murray Smith Reserve and Neighbour Reserve (Goolwa Oval Precinct)

Surrounding the Goolwa Oval sporting complex, these reserves are located within an important active transport corridor in the town centre. Current vegetation levels appear limited, offering substantial opportunity for increased canopy cover. Enhancing shade in this precinct will not only support sporting and recreation activities but also improve comfort and usability for pedestrians and cyclists moving through the area.

Goolwa Skate Park and Recreation Centre

Both facilities are situated within identified heat hotspots. The Goolwa Skate Park, in particular, would greatly benefit from the introduction of large-canopy trees to provide shade for users, who are often exposed to prolonged periods of sun on hard concrete surfaces. Tree planting here will directly support youth wellbeing and active recreation while contributing to broader urban cooling outcomes.

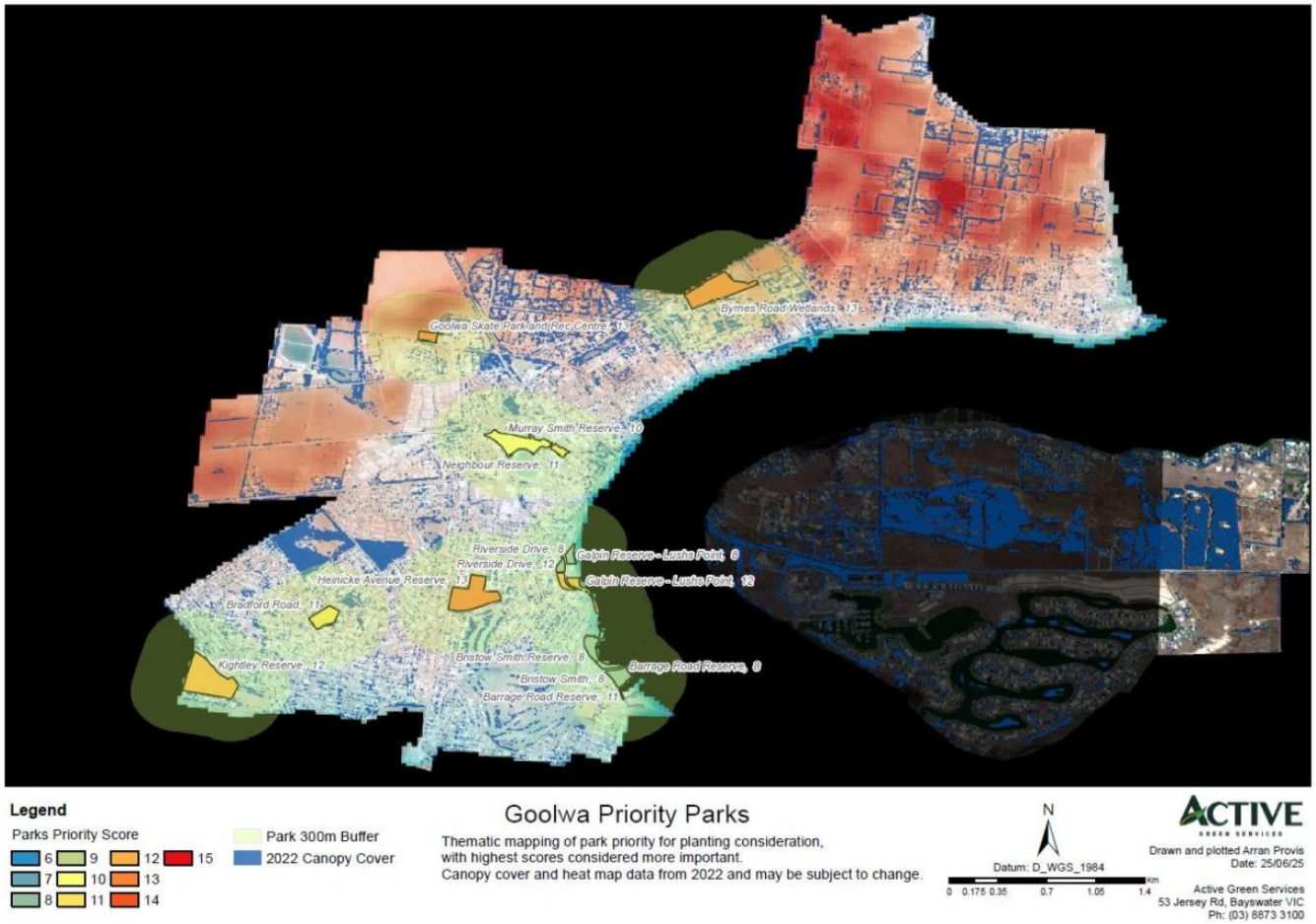
Byrnes Road Wetlands

Byrnes Road Wetlands represents one of the last remaining large reserves leading towards North Goolwa, an area characterised by significant heat hotspots and limited council-managed open space. The reserve offers excellent potential for canopy enhancement combined with biodiversity restoration, capitalising on its natural wetland features. Given the scarcity of formal parkland in North Goolwa, consideration should also be given to strategic land acquisition and intensive street tree planting to address the growing demand for green space.

Riverside Corridor – Key Future Focus Area

Through analysis the riverfront reserves from Riverside Drive Reserve to Barrage Road Reserve has been identified as high-priority zones for future greening. Despite their prominent location along the river, these reserves currently exhibit very low canopy cover. Given the increasing importance of this corridor as an active transport route for pedestrians and cyclists, enhancing shade provision is critical. Tree planting with large-canopy or coastal-appropriate species will help reduce heat exposure, improve user comfort, and contribute to the scenic and ecological value of the riverfront.

Figure 19: Goolwa Priority Parks - planting priority map.



6.2.4. Hindmarsh Island – Park priority selection

Hindmarsh Island exhibits a significant urban heat island (UHI) profile, as evidenced by heat mapping analysis. Residential development is predominantly clustered along the island's perimeter, particularly adjacent to riverfronts and within the Coorong Quays marina precinct. Notably, much of the island's residential area falls outside the 300-metre proximity requirement of the '3-30-300 rule', highlighting a clear gap in accessible public open space that should be addressed in future open space planning and policy. See Figure 20, below.

A targeted approach focused on infill planting within existing parks, succession planning for aging trees, and strategic open space acquisition in underserved areas will provide Hindmarsh Island with the greatest return on investment in terms of urban heat mitigation, amenity improvement, and biodiversity outcomes.

The following reserves have been identified as priority locations for tree planting, primarily aimed at enhancing public amenity, shade provision, and microclimate cooling. While the primary focus is on community use and comfort, biodiversity outcomes can also be achieved through appropriate species selection and planting design.

Valmai Terrace Reserve

A largely open and minimally vegetated space with high potential for canopy enhancement. Despite its proximity to the waterfront, this reserve functions as the primary open space for both the immediate residential catchment and surrounding neighbourhoods, some of which are located up to 700 metres away. Increasing canopy cover here will provide essential shade, improve thermal comfort, and enhance recreational amenity.

Barker Road Reserve

This reserve shares similar characteristics with Valmai Terrace, with slightly higher existing vegetation cover. However, much of the tree stock appears to be mature and aging. A program of succession planting will support the long-term sustainability of this space, improve shade coverage and preserve its ecological and recreational functions.

Coorong Quays Reserves – Queen Court, Shannon Place, and Excelsior Parade (Riverfront)

Located within the Coorong Quays residential marina, these reserves are currently characterised by limited shade and minimal canopy cover. Targeted planting within these spaces will improve thermal comfort for users, enhance local amenity, and contribute to the island's broader canopy targets. However, given the riverfront orientation and premium on open water views, it will be essential to engage with the local community to address potential concerns regarding views preservation.

Thoughtful species selection and strategic planting design can balance the need for shade with maintaining desirable sightlines.

Captain Sturt Parade Reserve

A linear reserve complex that separates residential properties from the river frontage, this contains vegetation where infill is appropriate to enhance canopy cover. The site appears to have frequent use for car parking and river access, with tree plantings on the southern side facilitating shade of the roadside and local hot spots. There are limited other reserves within the residential area, indicating that this may be opportunity for enhancement for use.

Ferryman's Reserve

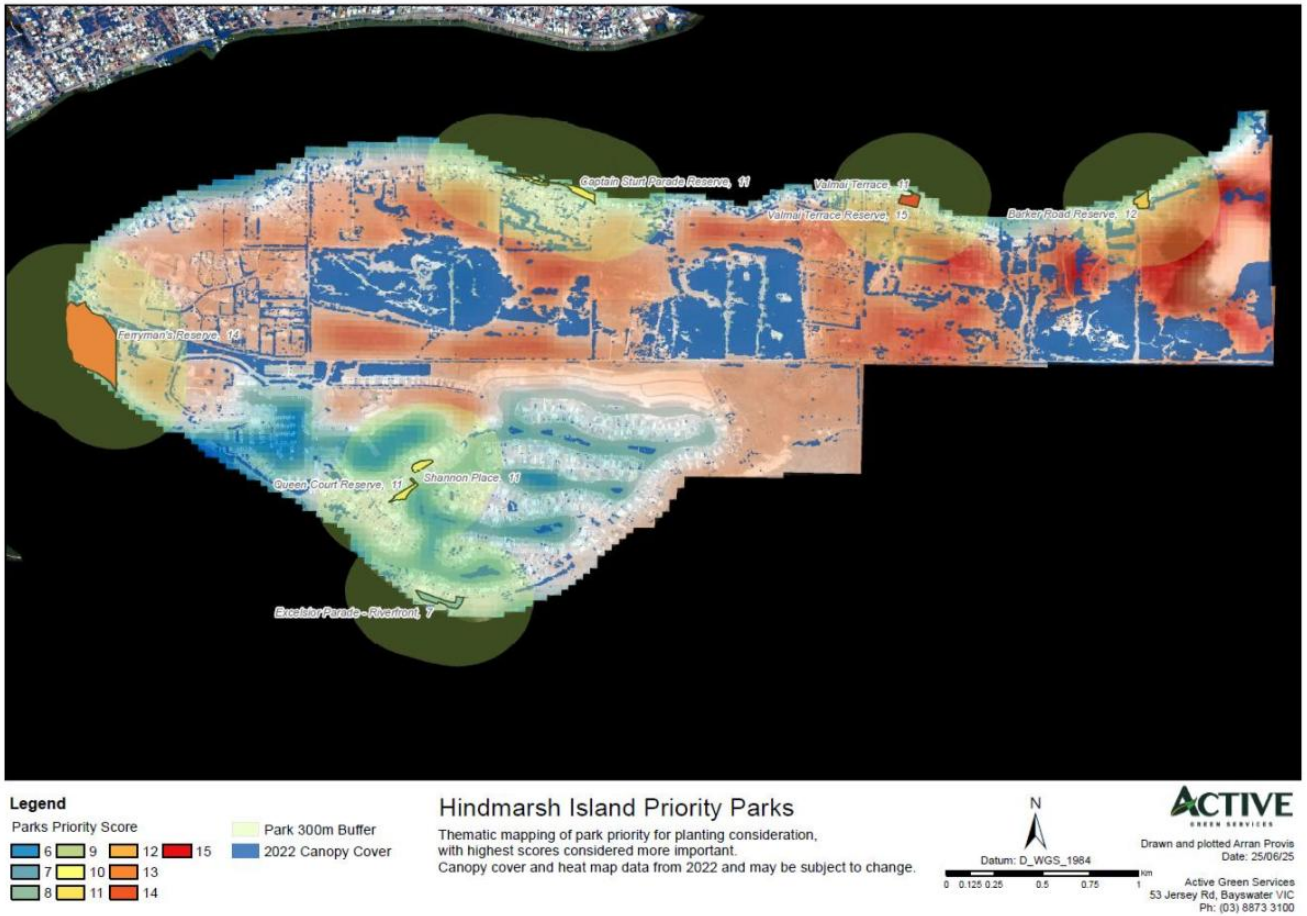
Ferryman's reserve is adjacent to Kumerangk Hindmarsh Island Landcare Group Nursery and a site that has been restored by the group following its historic use as a stock hold waiting for the ferry. The reserve is now a large public space that doubles as a seed orchard for Hindmarsh Island species and also rare species from the Fleurieu Peninsula. The site features walking tracks through the natural area that appear largely uncovered as the site contains minimal canopy cover.

It provides a great opportunity for planting with coastal species to increase the total canopy cover for Council managed land on Hindmarsh Island, which is significantly lower than canopy cover from private land.

Constraints and Considerations:

- A significant proportion of Hindmarsh Island's open space consists of riparian zones, floodplains, or wetland ecosystems, which are either already vegetated or require species with tolerance to such coastal environments where broad-scale canopy planting is considered.
- Community expectations, particularly regarding unobstructed waterfront views, may influence planting design in certain locations.
- Future urban development on the island presents an opportunity to integrate new open space provisions that align with the 300-metre proximity principle and support canopy expansion.

Figure 20: Hindmarsh Island Priority Parks - planting priority map.



6.2.5. Langhorne Creek – Park priority selection

Langhorne Creek is a small township with comparatively high existing canopy cover relative to other settlements in the region. As such, the greening focus for Langhorne Creek is directed toward infill planting, aimed at enhancing shade over community facilities, pathways and adjacent roadsides, rather than large-scale new canopy establishment. See Figure 21, below.

Langhorne Creek Primary School Reserve

This smaller reserve, which includes play equipment and high-use recreation areas, presents an opportunity for targeted planting to improve shade and comfort, particularly during the hotter months. Currently, the reserve contains several large ornamental trees concentrated along the southern boundary, which do not provide effective shade for the playground and key use areas.

- Planting along the northern boundary with larger, broad-canopy trees would significantly improve sun protection for the play area.
- Selection of deciduous ornamental species would align with the existing landscape character, offering summer shade while allowing for winter sun, enhancing year-round usability and comfort.

Alfred Langhorne Park

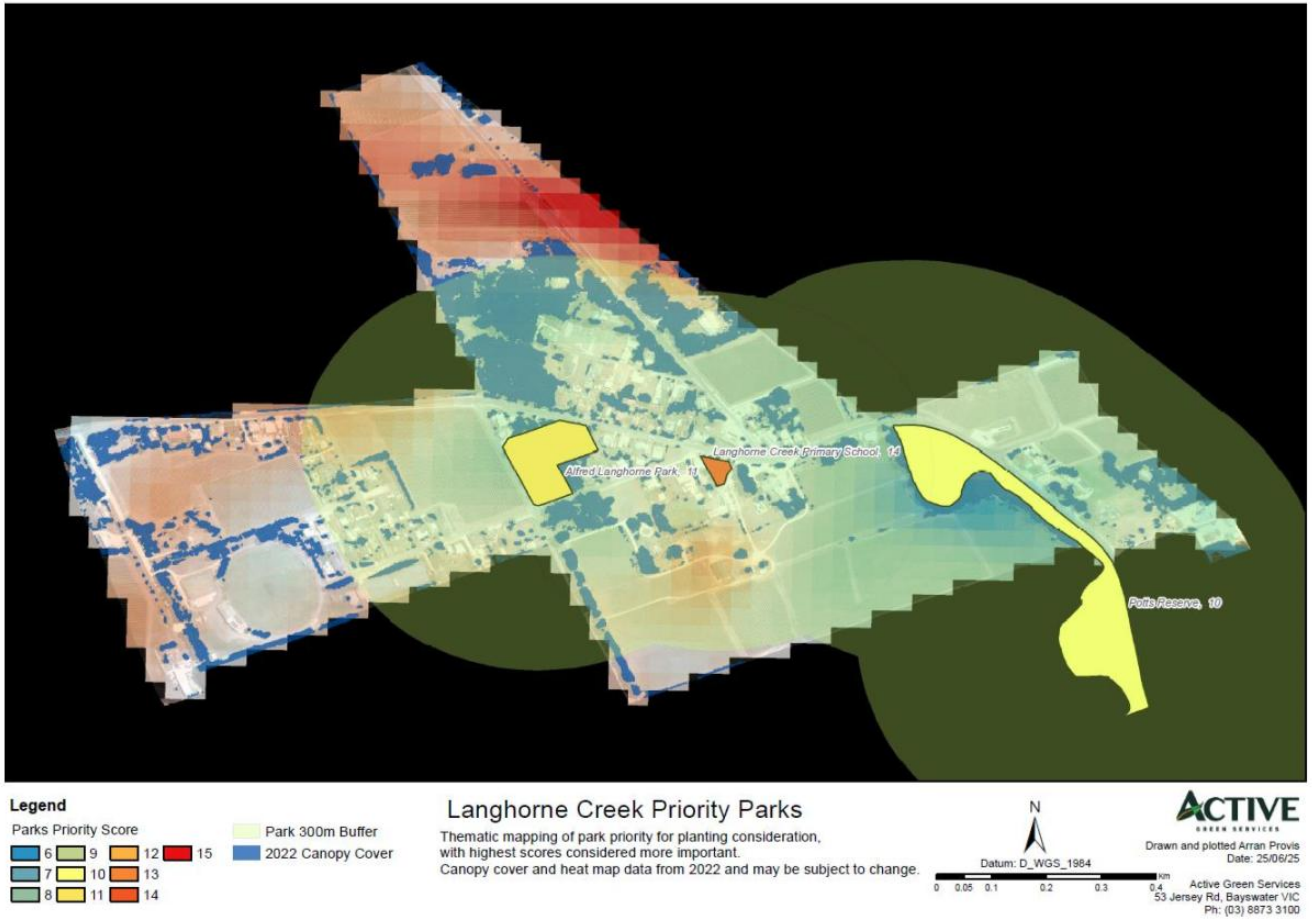
This park features moderate canopy cover, with potential for minor infill planting, particularly along road verges, pedestrian paths, and seating areas. Enhancing tree cover in these locations will improve both the amenity and microclimate of the park, benefiting regular users and contributing to town-wide heat mitigation.

Potts Reserve

Potts Reserve is a mature, heavily treed park, offering significant shade and habitat benefits. However, there is potential for additional planting along the northern roadside boundary, where existing vegetation is sparse. This area is currently characterised by limited tall vegetation, likely influenced by powerline constraints.

Where feasible, planting with indigenous, powerline-compatible species or the use of offset plantings (set back from the powerlines) could provide valuable roadside shade without conflicting with infrastructure. This approach may be coordinated with the broader roadside planting program, particularly where gaps exist in the township's canopy network adjacent to residential properties.

Figure 21: Langhorne Creek Priority Parks - planting priority map.



6.2.6. Middleton – Park priority selection

Middleton presents a range of opportunities for targeted canopy enhancement that balances the needs of climate resilience, active transport support, and public amenity with the unique sensitivities of coastal landscapes. The township's exposure to urban heat hotspots, particularly along road corridors and high-use recreation areas, highlights the need for strategic tree planting despite potential community concerns views preservation. See Figure 22, below.

- Focus on foreshore and road-adjacent reserves to maximise cooling and shade outcomes.
- Balance community concerns around views preservation with the need for urban heat mitigation and active transport support.
- Prioritise linear reserves such as Padman Crescent, Offshore Drive, and Surfers Parade Reserves for immediate canopy expansion.
- Leverage existing vegetation in reserves like Middleton Shores, Abbotts Reserve, and Middleton Creek Reserve with complementary planting strategies.
- Use resilient, coastal-tolerant species that provide effective canopy without compromising long-term maintenance or survival.

Foreshore Reserves

The primary opportunity for significant canopy enhancement lies along the Middleton foreshore, stretching from Surfers Reserve East to Set Road Reserve South. These reserves currently feature scattered, low-density vegetation, particularly where they interface with roads and footpaths. Increased planting along these corridors would serve a dual purpose of mitigating roadside heat hotspots by shading road surfaces and enhancing the amenity and comfort of the foreshore's walking paths and recreation areas.

While the introduction of large-canopy trees offers substantial benefits in terms of cooling and urban greening, it is acknowledged that this may be contentious due to concerns over obstructed coastal views. Additionally, coastal soil conditions and salt exposure will limit the planting palette to robust, salt-tolerant species. Nonetheless, from an environmental, recreational, and liveability perspective, the foreshore remains the highest priority for tree planting in Middleton, subject to careful community engagement and sensitive design solutions that balance shade provision with view corridors.

Offshore Drive Reserve

This long, linear reserve has a north-facing orientation and is located within a significant heat hotspot. The reserve features minimal existing canopy cover, particularly over the adjacent road surface, which contributes to heat retention. This location is highly suitable for tree planting aimed at reducing road surface temperatures, improving comfort along the roadside for both pedestrians and cyclist and contributing to township-wide canopy targets. Given its linear form and exposure, planting design here should focus on consistent spacing and species that are resilient to local coastal conditions.

Middleton Shores Reserve

Middleton Shores is a neighbourhood-scale reserve that accommodates walking tracks and exercise equipment. While parts of the reserve are densely vegetated, the primary high-use activity zones are poorly shaded, primarily due to the prevalence of dispersed Araucaria plantings, which offer a strong architectural character but limited canopy coverage. Strategic infill planting with broad-canopy species could significantly improve shade provision for users, enhancing the comfort and functionality of this popular community space.

Surfers Parade Reserves (Twin Reserves)

Located slightly inland from the foreshore, these twin reserves along Surfers Parade are currently underutilised in terms of canopy cover, presenting clear opportunities for planting. Their positioning away from direct foreshore view corridors makes them well-suited for large-canopy trees, providing shade for recreational users and mitigating nearby heat hotspots without the view constraints associated with beachfront reserves.

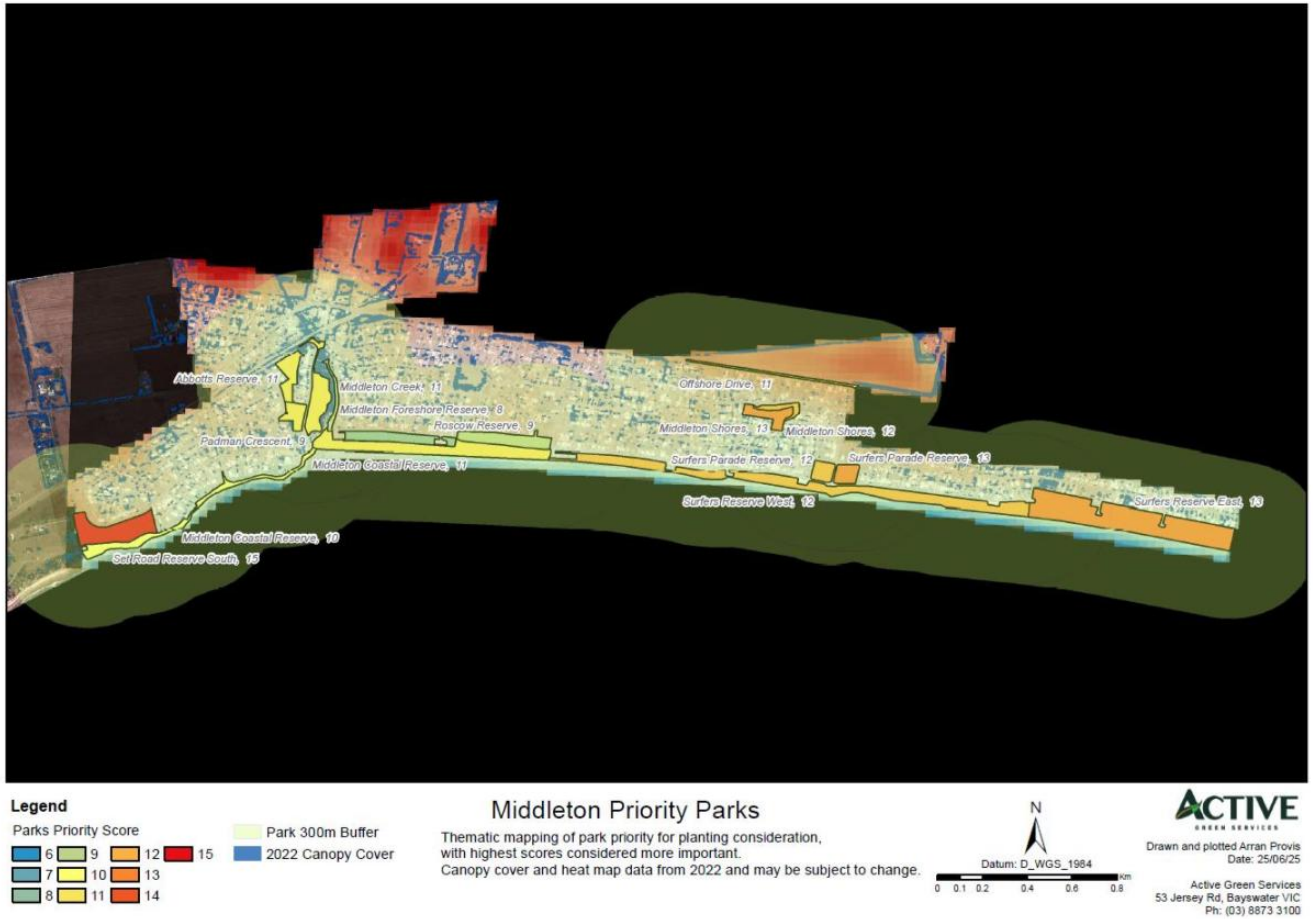
Padman Crescent Reserve – High Priority for Active Transport Shading

Padman Crescent Reserve is a long, linear reserve adjacent to a heavily exposed roadside and shared user path. This corridor experiences extensive sun exposure that likely create uncomfortable conditions for pedestrians and cyclists. It represents a high-priority site for canopy planting, particularly in providing shade for the footpath, cool the adjacent road surface and improve overall streetscape amenity for local residents. Given alignment with sustainable transport goals, this reserve should be a focal point for the next phase of Middleton's urban greening program.

Abbotts Reserve and Middleton Creek Reserve

These reserves share similar characteristics to Padman Crescent, featuring elongated forms adjacent to key road corridors. While both have a greater degree of existing vegetation, opportunities remain for supplementary planting, especially along road edges to reduce surface heat, over hardstand areas within the reserves to increase shaded recreation spaces and for biodiversity outcomes through species diversity and habitat creation.

Figure 22: Middleton Priority Parks - planting priority map.



6.2.7. Milang – Park priority selection

The urban greening priorities for Milang are primarily focused on increasing canopy cover along road corridors and in high-use pedestrian zones, where additional shading will deliver the greatest benefits in terms of urban heat island (UHI) reduction, road surface cooling, and community wellbeing. The Index of Relative Socio-Economic Disadvantage (IRSD) values are relatively consistent across Milang and therefore not a major determinant in prioritisation. Selections have been informed by factors including heat mapping, park hierarchy, community use, and biodiversity outcomes. See Figure 23, below.

Daranda Terrace Reserve

This reserve, which serves as a connector to the Swamp Reserve, is a key focus area due to its strategic location and linkage function. While not requiring heavy internal planting, the reserve's Daranda Terrace frontage will be enhanced with canopy trees that contribute to roadside cooling in conjunction with the broader street planting program.

Swamp Reserve and Daranda Terrace Walkway

These connected reserves serve as high-use pedestrian corridors with currently limited canopy cover. Enhancing shade along the walkway network will improve comfort for walkers and cyclists, encourage increased recreational use, and support active transport within the township.

Stirling Street Stormwater Retention Basin

This reserve has been selected primarily for its function within the '3-30-300 rule' urban greening guideline, addressing a critical gap for residents in the McDonald Street area who would otherwise fall outside the 300-metre proximity to a neighbourhood park or reserve. Planting here transforms the retention basin into a multi-functional green space, offering both environmental services (stormwater management) and recreational value.

Jupiter Lyon Reserve and Milang Commonage

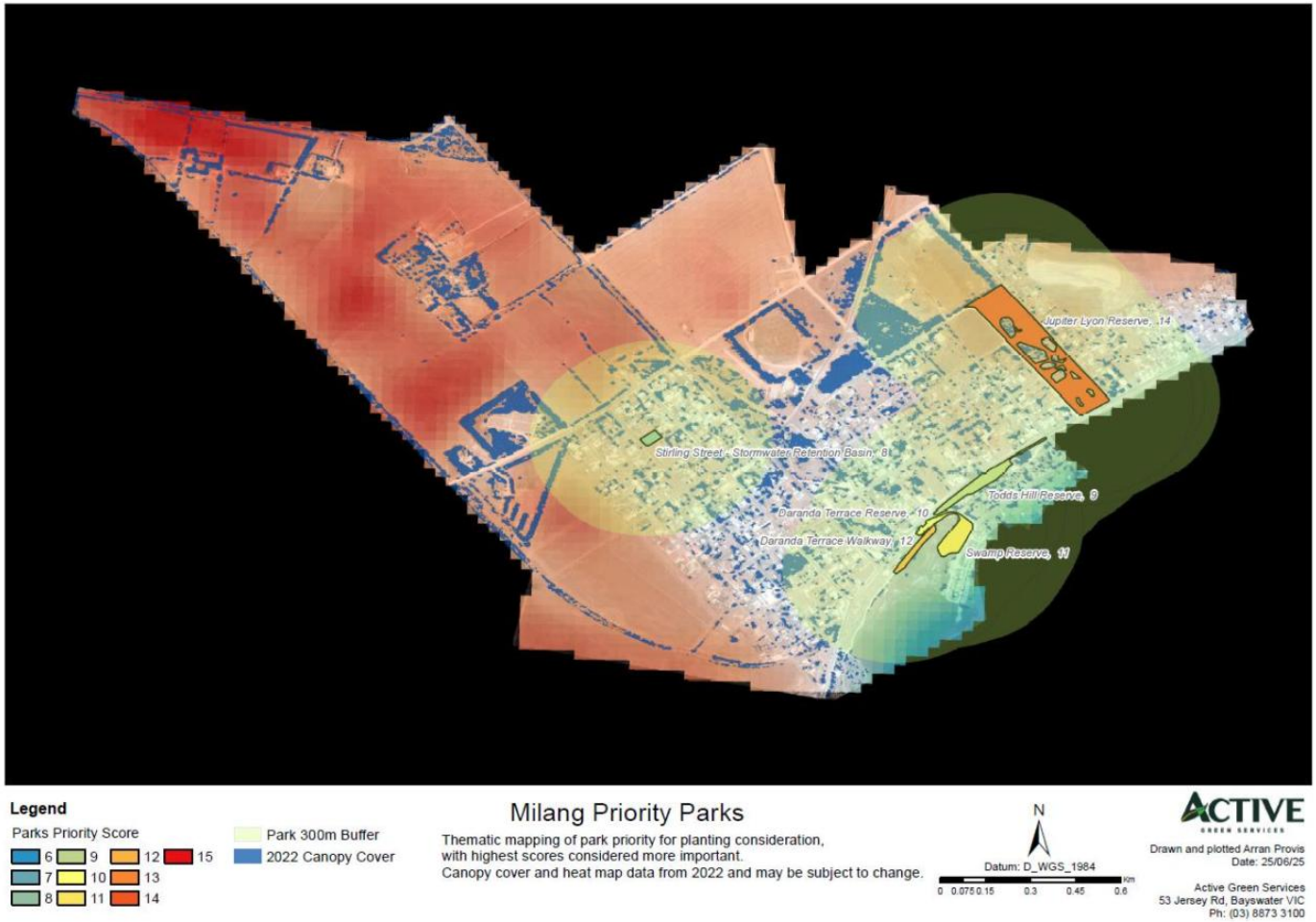
These sites are situated within identified heat hotspot zones in Milang. The reserves currently include some biodiversity-focused plantings, which will be enhanced by additional canopy trees, particularly adjacent to pathway networks. This will improve shade for users, increase the appeal of the reserves for walking and passive recreation, and strengthen biodiversity outcomes through habitat connectivity.

Road corridors – targeted street tree planting

Key road corridors have been identified where tree planting will significantly contribute to reducing UHI impacts and improving amenity for both residents and visitors. These include:

- Daranda Terrace – As the main road through Milang, this corridor experiences high levels of use and significant sun exposure. A coordinated approach combining roadside plantings and park edge canopy cover will help cool this thoroughfare, improve visual amenity, and support pedestrian comfort.
- Woodrow Drive – Another priority location where increased street tree planting will assist in mitigating heat impacts and improving the streetscape experience.

Figure 23: Milang Priority Parks - planting priority map.



6.2.8. Mount Compass – Park priority selection

Mount Compass displays a mosaic of heat and cool zones, as revealed by urban heat mapping. These patterns closely correlate with recent land clearing and development activities, contributing to heat hotspots, while areas with retained vegetation offer cooler microclimates.

The township's existing park network is primarily concentrated within the eastern portion of Mount Compass, servicing high-use areas such as the retail precinct and school zones. In contrast, there are limited public open spaces within the rural living areas, industrial precinct, and mining zones, which impacts accessibility to green space in accordance with the '3-30-300 rule'. See Figure 24, below.

Basin Reserve

Basin Reserve is a multi-functional, three-part park that includes the Mount Compass Recreation Park and forms part of an active transport corridor, linking residential areas with Burgess Oval and the broader school complex around Mount Compass Oval.

Although recent plantings have occurred within the reserve, there is a strong case for densifying the canopy, particularly to offset ongoing vegetation loss from adjacent private development, including areas like 31–33 Slater Avenue, which have experienced significant clearing (Figure 25 & Figure 26). As a heat hotspot, Basin Reserve represents a high-priority site where expanded planting will deliver immediate benefits for urban cooling, recreation amenity and biodiversity support.

George Francis Drive Precinct

This residential area lacks access to formal parks or reserves within 300 metres, although it benefits somewhat from adjacent golf course vegetation and quarry easement plantings. However, these do not function as accessible public open space. This area would benefit from a targeted roadside planting program, particularly to address roadside heat hotspots and improve shade for the rural residential interface.

Sand Mine Road – Industrial Estate

While the industrial estate sits within a relatively cool microclimate, the absence of formal green space remains notable. Although the immediate priority for this area is lower compared to residential zones, strategic streetscape planting should still be considered to support worker wellbeing, improve amenity, and contribute to the township's total canopy targets.

Figure 24 Mount Compass Priority Parks - planting priority map

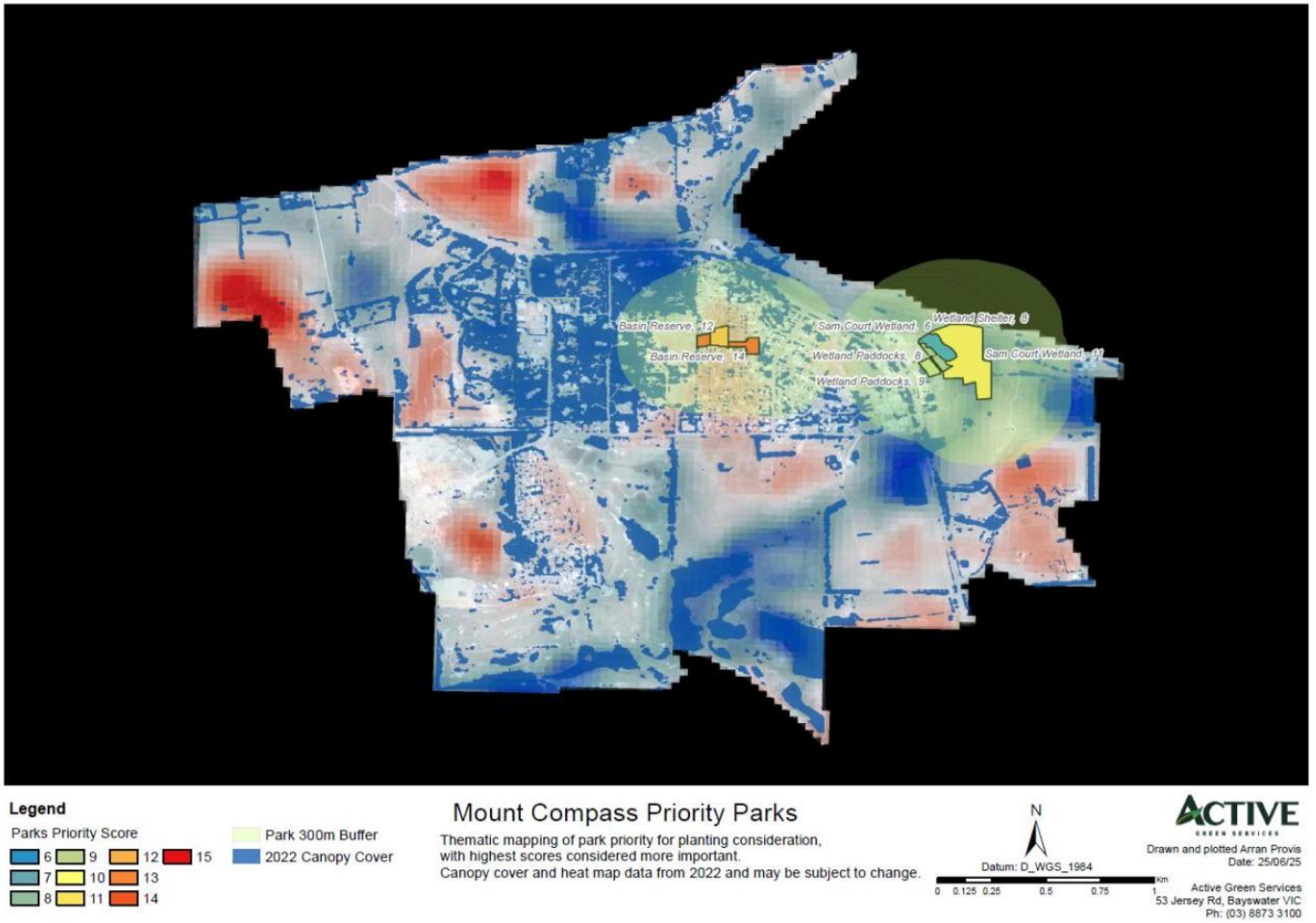




Figure 25: Vegetation cover at 31–33 Slater Avenue pre 2022 canopy cover audit (image MetroMaps)

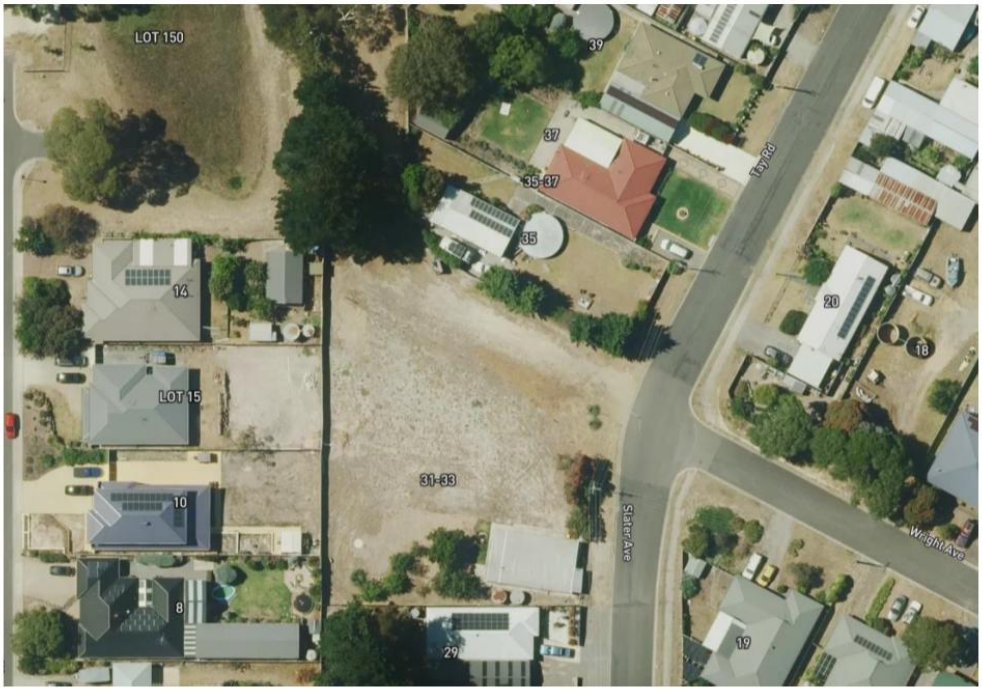


Figure 26: Vegetation clearing at 31–33 Slater Avenue post 2022 canopy cover audit (image MetroMaps)

Wetland Paddocks – future opportunity area

The wetland paddocks adjacent to Sam Court and the retail/commercial precinct represent a significant opportunity for proactive canopy cover development.

Despite being within a currently cooler area, the lack of existing vegetation means this site has the potential to become a future heat hotspot, particularly if earmarked for commercial expansion or urban development. Integrating canopy cover into any future land use changes in this area is essential to ensure that urban heat mitigation, biodiversity, and public amenity are embedded into future growth plans.

Compass Crescent – high priority roadside planting

The Compass Crescent area currently lacks parkland within a 300-metre radius and coincides with an identified urban heat hotspot. This location should be prioritised within the roadside planting program, not only to address road surface heat but also to provide shade and visual amenity for the surrounding rural acreage lots, helping improve the liveability of this low-density area.

Although not designated a park, the existing Tookayerta Wetlands area that extends through Mount Compass could benefit from additional planting/revegetation.

6.2.9. Port Elliot – Park priority selection

Port Elliot shares similarities with Middleton in its coastal township setting but is differentiated by a larger commercial footprint, more extensive agricultural hinterland, and higher concentrations of urban heat hotspots, as indicated by heat mapping analysis. This is further compounded by generally lower IRSD values and greater Socio-economic Disadvantage within Port Elliot's urban areas, highlighting the importance of addressing both climate resilience and social equity through targeted urban greening initiatives. See Figure 27, below.

The combination of limited canopy cover, larger areas of sealed surfaces, and increased community vulnerability underlines the urgency to expand the tree canopy within both public open spaces and streetscapes across Port Elliot.

Port Elliot Show Grounds and Port Elliot Primary School Precinct

This precinct represents a high-priority location, situated within a notable urban heat hotspot and an area of relative social disadvantage. While the Show Grounds are heavily utilised during major events, the area remains underutilised and sparsely vegetated for the majority of the year. There is significant opportunity to introduce strategically placed canopy trees that provide shade and cooling while respecting event space requirements and infrastructure clearances.

This would deliver dual benefits of improved amenity for the local community year-round and enhanced comfort during event periods.

Bayview Estate Reserves

A network of small to medium neighbourhood reserves adjacent to the Show Grounds. These spaces are currently underutilised for canopy planting, despite being situated in a confirmed heat hotspot. Focused planting, particularly along road frontages and within passive recreation areas, will significantly contribute to heat mitigation and improved neighbourhood amenity.

Cinema Court Reserve

A neighbourhood-level reserve adjacent to community gardens within a residential area it provides an excellent opportunity for extensive tree planting, as current canopy cover is negligible. This reserve functions as a buffer to nearby heat hotspots and would benefit from shade trees.

Commodore Reserve and Commodore Gardens

Commodore Reserve is a premier open space under Alexandrina's park hierarchy, serving both residents and visitors. It forms a key connection between the Port Elliot Caravan Park and the foreshore, offering a refuge for those seeking open green space and ocean views, without accessing the beach directly. The north side contains Araucaria plantings, but the central reserve offers scope for diversified canopy expansion, particularly with coastal-tolerant species.

Commodore Gardens, which adjoins the reserve, is largely devoid of planting and presents a valuable opportunity to introduce shade trees for the adjacent car park and Port Elliot Bowls Club. Car park design adjustments would be needed to allow for adequate soil preparation, root space and long-term tree health.

Harbour Master Reserve and Continental Park

Both are designated as premier parks but are currently lacking significant vegetation coverage. As such there is substantial scope for introducing canopy cover along walking paths, road frontages and passive recreation nodes.

Additionally, the nearby Freemans Knob Reserve could benefit from supplementary coastal tree planting, where appropriate, to reinforce shade and habitat values.

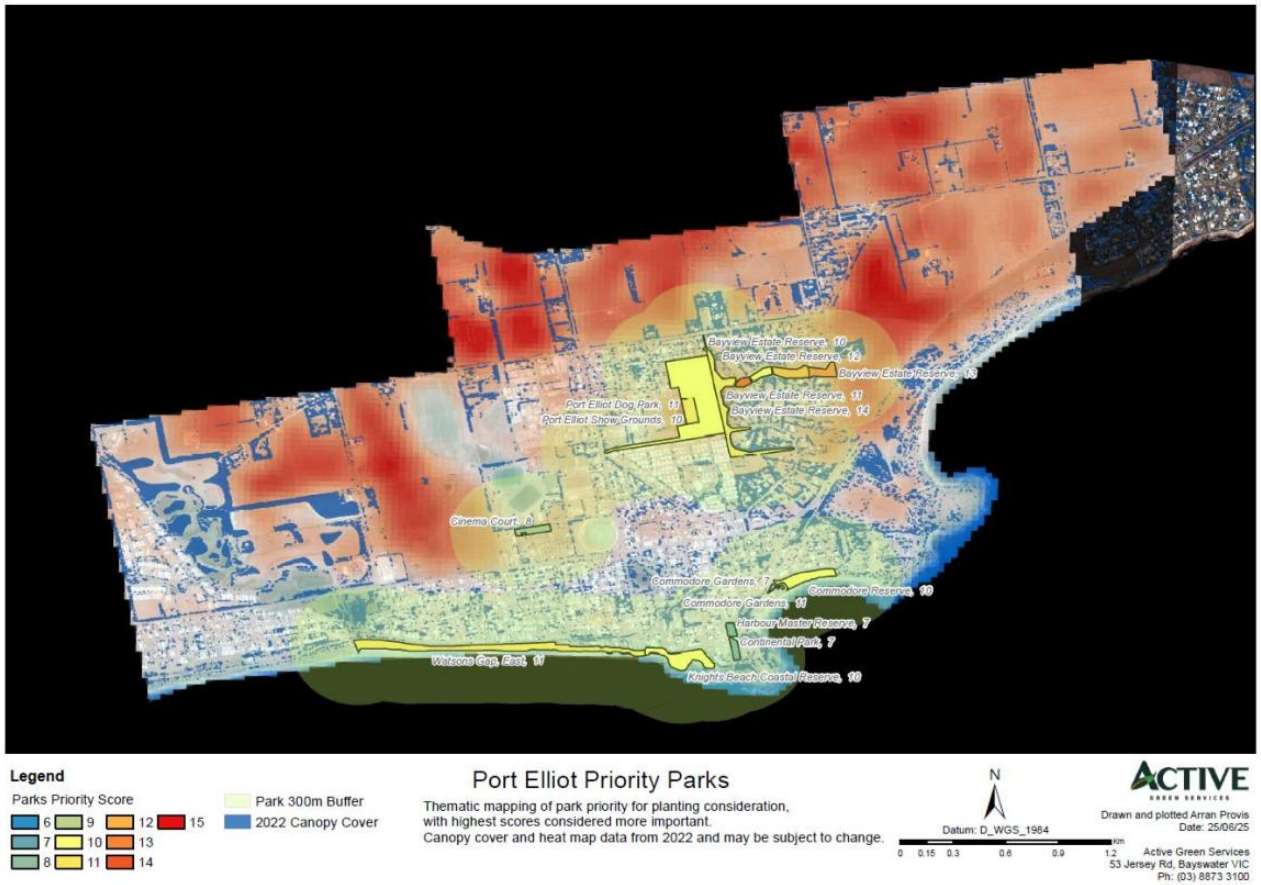
Knights Beach Coastal Reserve and Watsons Gap (East)

These foreshore reserves are coastal areas characterised by open dune ecotones and sparse low-lying vegetation, with residential dwellings immediately behind this area.

Despite natural ocean cooling, the infrastructure adjacent these such as roads, footpaths, and the trainline are localised hotspots due to their exposed surfaces. Targeted tree planting in these areas would achieve surface temperature reduction along roads and pathways and improved biodiversity and amenity.

The design challenge here will be balancing canopy cover and shade provision with consideration of coastal view corridors, which is often a community concern and community engagement will be critical. This will also need to address the limitations of coastal soil conditions, salt exposure, and wind, requiring the use of hardy, salt-tolerant coastal species.

Figure 27: Port Elliot Priority Parks - planting priority map.



6.2.10. Strathalbyn – Park priority selection

Heat mapping for Strathalbyn demonstrates a distinct pattern of cooler areas aligned with river corridors and creek lines, particularly around the town centre where dense vegetation is already present. Conversely, areas dominated by agricultural land, large-lot rural subdivisions, and the racecourse exhibit significant urban heat island (UHI) effects.

Socio-economic analysis highlights that Strathalbyn contains the broadest range of IRSD values. While some outer areas are relatively advantaged, the most socio-economically disadvantaged populations are concentrated within the central township area, amplifying the importance of equitable greening strategies.

An additional challenge is the limited distribution of neighbourhood-scale parkland outside the township core, with larger reserves or open spaces often serving broader landscape functions but providing less direct community access for daily recreation. See Figure 28, below.

Many parcels captured in the supplied reserve dataset contain easements, drainage corridors, and roadside landscapes which may not meet the usable open space for recreation intent of the 300-metre principle. This has implications for how canopy targets are applied spatially within Strathalbyn.

There is a critical need to balance biodiversity planting with user amenity and it is recommended that tree placement prioritises:

- Playgrounds
- Seating areas
- Walking and cycling paths
- Gathering spaces
- As well as habitat corridors where appropriate.

Areas to the south of the cemetery and racecourse demonstrate significant canopy deficits. Given the absence of conventional reserves in these rural-fringe zones, a focus on road corridor greening becomes the primary mechanism for delivering shade, cooling and visual amenity.

Strathmont Drive Reserve (S-Bend) & Strathmont Drain/Cemetery Precinct

Strathmont Drive Reserve has minimal existing vegetation but is well-positioned to serve the surrounding residential catchment as a neighbourhood-scale park. The Strathmont Drain and Cemetery Precinct presents a unique opportunity for greening, albeit with considerations around burial space requirements. The lack of canopy cover around burial plots contributes to heat exposure, impacting visitors and staff.

A review of historical cemetery planting practices could introduce a more contemporary approach. For example, a “memorial tree” program akin to that used at Glenmorus Memorial Park in Albury, NSW, allows families to select memorial trees for departed ones, enhancing the site's amenity and providing shaded spaces for reflection.

The township areas south of the cemetery are characterised by significant heat hotspots and limited park infrastructure. These may want to be considered as part of prioritised roadside tree planting given the constraints around park establishment on large rural lots.

Ferguson Road Reserve & Wolf Avenue Reserve

Both are situated within residential neighbourhoods adjacent to confirmed heat hotspots with Ferguson Road Reserve having capacity for extensive tree planting to create a biodiverse, shaded parkland suitable for passive recreation. Wolf Avenue Reserve appears to function as a pedestrian thoroughfare, offers an excellent opportunity for linear canopy planting along pathways to improve thermal comfort for walkers and cyclists.

Sisson Road Reserve & Formby Court Reserve

These paired reserves serve the northern residential catchments, currently providing important, albeit underutilised, contributions toward the 300-metre accessibility rule. Both reserves lack significant canopy and would benefit from the introduction of large canopy trees, providing shade over open spaces and potential future amenities (playgrounds, seating, paths). A review of current and future recreation needs is recommended to determine whether infrastructure upgrades should accompany greening initiatives.

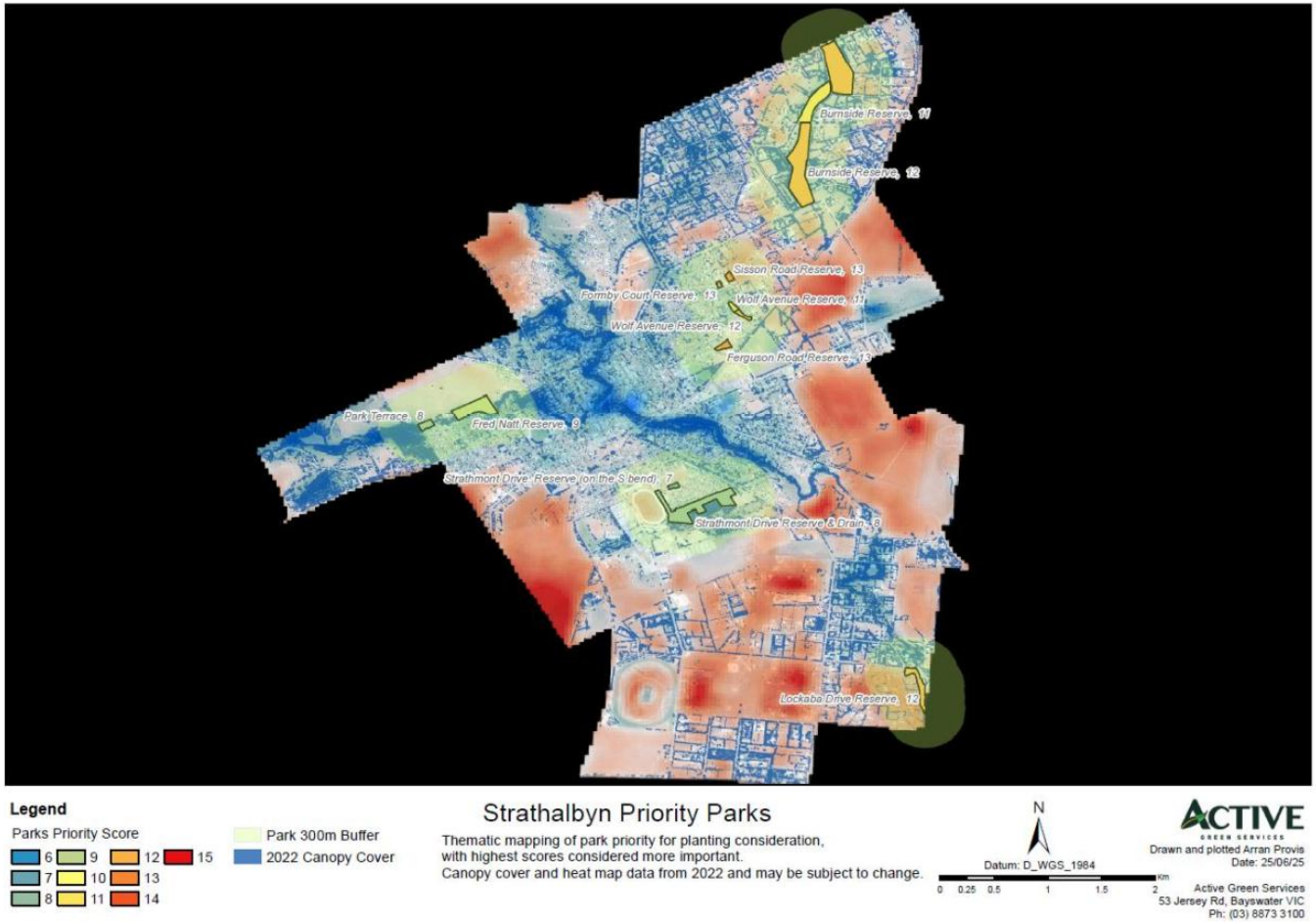
Fred Natt Reserve & Park Terrace Reserve

These reserves primarily function as bushland or biodiversity reserves, but there is clear potential for boundary-edge planting, especially where neighbouring properties are cleared, to enhance canopy and buffer microclimates. Roadside planting around these reserves would further contribute to heat mitigation and urban amenity while supporting ecological connectivity.

Burnside Reserve (Linear Park)

Burnside Reserve benefits from existing canopy cover along its central spine; however, northern and southern sections are more open and exposed. There is scope for supplementary large tree planting to increase shade coverage, biodiversity-focused planting, especially in under-vegetated areas. Roadside planting along the reserve boundaries to mitigate road surface heat sinks and improve the reserve’s microclimate for users.

Figure 28: Strathalbyn Priority Parks - planting priority map



6.2.11. Woodchester – Park priority selection

Based on the spatial data layers and asset mapping provided, there are no Council-managed parks or reserves currently located within the township of Woodchester. Similarly to Ashbourne, this presents a significant challenge in meeting the 300-metre proximity component of the '3-30-300 rule', which is critical for ensuring equitable access to green space.

Unlike Ashbourne, however, Woodchester has a relatively low canopy cover, largely a result of historical and ongoing land clearance for agricultural purposes. This lack of vegetation cover is further compounded by the absence of formal recreational open space, limiting opportunities for structured recreation, passive use and informal gathering or nature-based play and community wellbeing. See Figure 29, below.

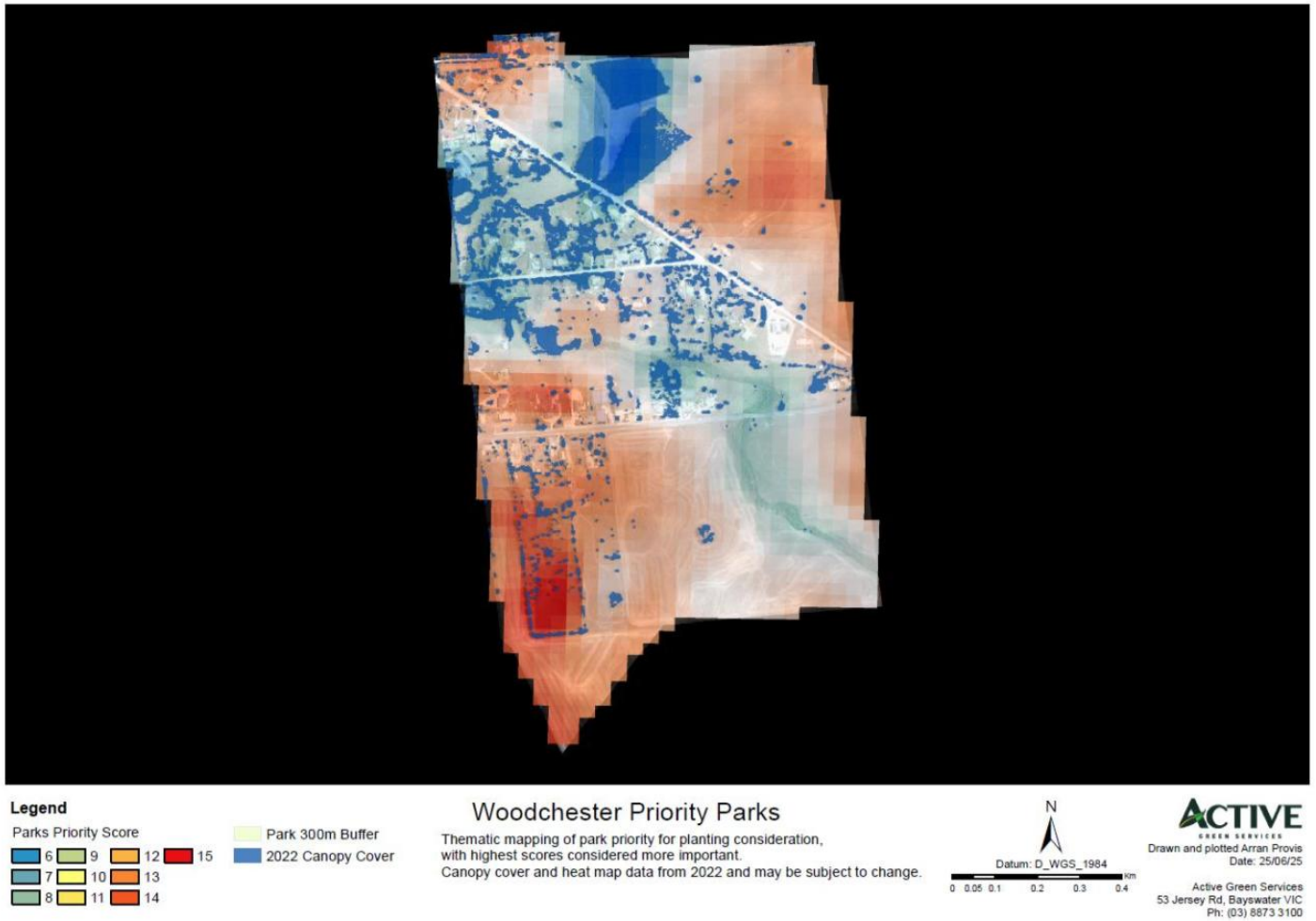
This may be particularly impactful for vulnerable community members, such as children, older adults, and those with mobility constraints, who have limited ability to access green spaces outside the township. There is a clear opportunity to address this gap through the strategic identification, acquisition, or co-management of land suitable for the creation of public green spaces within Woodchester. Site selection should be guided by the following criteria:

- Thermal Hotspot Mitigation: Target areas identified in heat mapping where hard surfaces or built form contribute to elevated surface temperatures.
- Community Need and Demand: Prioritise locations where there is demonstrated or emerging demand for recreational space, passive open space, or nature-based play.
- Land Use Compatibility: Focus on parcels where existing land use supports the feasibility of park development, revegetation, or establishment of biodiversity corridors.

Additionally, there is scope to explore partnership models involving private landowners interested in stewardship or shared-use arrangements. State government agencies may hold underutilised land suitable for conversion to community open space, while landcare groups or community associations may be able to support revegetation and maintenance programs.

Addressing the green space deficit in Woodchester is seen as a priority for enhancing community wellbeing, improving climate resilience, and supporting biodiversity outcomes. Even modest investments in strategically located green spaces can deliver measurable benefits to the health, liveability, and environmental performance of the township.

Figure 29: Woodchester Priority Parks - planting priority map



7. Climate ready tree species

Climate-ready tree species are those identified as resilient to the projected impacts of climate change, including increased average temperatures, reduced and irregular rainfall, more frequent heatwaves, and extended periods of drought. For Alexandrina, the strategic selection and planting of these species is essential to ensuring the long-term health, functionality, and sustainability of the urban forest, as well as achieving canopy cover targets.

Climate-ready species will continue to deliver critical ecosystem services including shade provision, urban cooling, stormwater regulation, habitat for biodiversity and community amenity, while also helping to reduce maintenance costs and mitigate risks associated with tree decline or failure under a changing climate. Integrating these species into planning frameworks, greening strategies and streetscape design is key to building more resilient and liveable communities.

To assess climate suitability, Alexandrina Council's preferred species list was evaluated using the Climate Assessment Tool (CAT) developed by Botanic Gardens Conservation International (BGCI) as part of the Climate Change Alliance of Botanic Gardens (2025).

7.1. Methodology - CAT Assessment and climate scenarios

Geographic coordinates for Milang (Latitude -35.4062, Longitude 138.9702) were used as a representative location for the region. The Alexandrina Council preferred species list was initially assessed using the CSV upload function within the Climate Assessment Tool (CAT), which included all nominated species.

Where results were not returned, species names were verified and cleaned (e.g. correction of spelling errors, removal of cultivar identifiers) and re-run using the Single Taxon method.

While the Single Taxon and CSV upload methods may yield slightly different risk codes, the results are complementary and were aligned using colour-coded classifications for interpretation, as illustrated in Figure 30 and Figure 31.

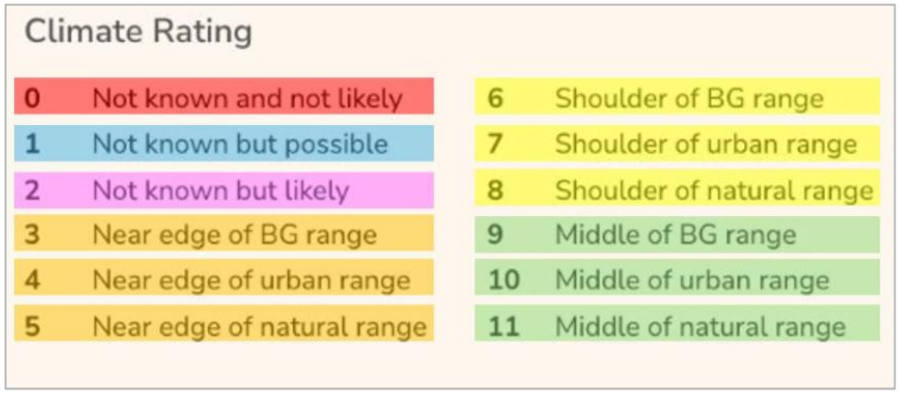


Figure 30: Climate Assessment Tool climate risk code categories from CSV method (colour stylised by author).

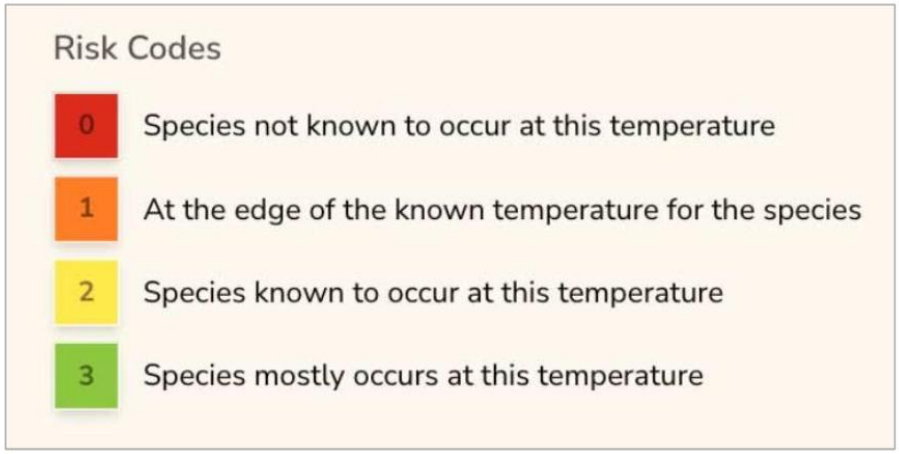


Figure 31: Climate Assessment Tool climate risk code categories from Single Taxon method (colour from webpage)

In cases where these methods did not return results, a "Taxon Not Found" result was returned. This outcome may be due to one or more of the following reasons:

- The species is not classified as a "tree" in the reference databases.
- The species lacks records within the databases used by the tool.
- An infraspecific name was entered (e.g. *var.*, *aff.*, *subsp.*, *f.*, cultivar or common names), which are not recognised under CAT's taxonomic criteria.

Where a "Taxon Not Found" result occurred, the species was retained within the spreadsheet, but the corresponding data row was left blank.

Two climate scenarios were applied in the assessment:

- Emissions limited: Based on the SSP2 / RCP4.5 scenario as outlined by the Intergovernmental Panel on Climate Change (IPCC), this model projects the 2050 climate assuming moderate global efforts to limit emissions.
- Scenario 1: Based on the SSP3 / RCP7.0 scenario, this model projects the 2090 climate assuming no significant action is taken to reduce emissions, representing a worst-case scenario.

7.2. Results - CAT Assessment and climate scenarios

Results from both scenarios were compiled and are presented in Table 20 and highlighted using the thematically colour-coded based on their climate risk rating.

Table 20: Analysis of Alexandrina Council preferred species list assessed with CAT for projected climate in the years 2050 and 2090.

	Alexandrina Council Preferred Species	Taxon within CAT	Emissions Limited 2050		Scenario 1 2090	
			Projected Temperature, °C	Climate Rating	Projected Temperature, °C	Climate Rating
*	*Acacia argyrophylla*					
	Acacia melanoxylon	*Acacia melanoxylon*	17.7	6	19.7	6
	Acacia pendula	*Acacia pendula*	17.7	11	19.7	5
	Acacia pycnantha	*Acacia pycnantha*	17.7	9	19.7	6
	Acer buergerianum	*Acer buergerianum*	17.7	5	19.7	5
	Acer freemanii	*Acer ×freemanii*	17.7	0	19.7	0
	Acer negundo 'sensation'	*Acer negundo*	17.7	5	19.7	5
	Agathis robusta	*Agathis robusta*	17.7	9	19.7	11
	Allocasuarina verticillata	*Allocasuarina verticillata*	17.7	6	19.7	3
	Angophora costata	*Angophora costata*	17.7	11	19.7	5
	Angophora hispida	*Angophora hispida*	17.7	6	19.7	2
	Araucaria heterophylla	*Araucaria heterophylla*	17.7	11	19.7	8
^	*Araucaria heterophylla hawaiian*					
	Banksia integrifolia	*Banksia integrifolia*	17.7	11	19.7	8
	Banksia marginata	*Banksia marginata*	17.7	5	19.7	2
^	*Banksia ornata*					
	Brachychiton acerifolia	*Brachychiton acerifolius*	17.7	11	19.7	6
	Brachychiton bidwillii	*Brachychiton bidwillii*	17.7	9	19.7	11

	Alexandrina Council Preferred Species	Taxon within CAT	Emissions Limited 2050		Scenario 1 2090	
			Projected Temperature, °C	Climate Rating	Projected Temperature, °C	Climate Rating
	Brachychiton populneus	*Brachychiton populneus*	17.7	8	19.7	5
	Brachychiton rupestris	*Brachychiton rupestris*	17.7	9	19.7	11
	Callistemon citrinus var.	*Melaleuca citrina*	17.7	6	19.7	3
^	*Callistemon rugulosus*					
	Callistemon viminalis 'captain cook'	*Melaleuca viminalis*	17.7	11	19.7	11
	Callitris glauca syn. C columellaris	*Callitris columellaris*	17.7	11	19.7	9
^	*Callitris gracilis*					
	Calodendron capense	*Calodendrum capense*	17.7	11	19.7	8
	Cassia fistula	*Cassia fistula*	17.7	9	19.7	9
*	*Ceanothus papillosus 'pacific blue'*	*Ceanothus caeruleus*	17.7	2	19.7	1
	Celtis occidentalis	*Celtis occidentalis*	17.7	5	19.7	2
	Cercis canadensis 'forrest pansy'	*Cercis canadensis*	17.7	11	19.7	5
	Cercis chinensis var "avondale"	*Cercis chinensis*	17.7	8	19.7	5
	Cercis siliquastrum	*Cercis siliquastrum*	17.7	5	19.7	3
^	*Chamelaucium uncinatum*					
	Corymbia citriodora	*Corymbia citriodora*	17.7	11	19.7	11
^	*Corymbia citriodora 'lemon squash'*					
	Corymbia ficifolia	*Corymbia ficifolia*	17.7	8	19.7	5
^	*Corymbia ficifolia 'wild fire'*					

	Alexandrina Council Preferred Species	Taxon within CAT	Emissions Limited 2050		Scenario 1 2090	
			Projected Temperature, °C	Climate Rating	Projected Temperature, °C	Climate Rating
	Corymbia maculata	*Corymbia maculata*	17.7	11	19.7	5
^	*Corymbia maculata 'lowanna'*					
	Cupaniopsis anacardioides	*Cupaniopsis anacardioides*	17.7	9	19.7	11
*	*Dodonea viscosa ssp. Spatulata*	*Dodonaea viscosa*	17.7	3	19.7	2
^	*Elaegnus x ebbingerii*					
	Elaeocarpus reticulatus	*Elaeocarpus reticulatus*	17.7	9	19.7	6
	Eremophila bignoniflora	*Eremophila bignoniiflora*	17.7	9	19.7	11
	Eremophila longifolia	*Eremophila longifolia*	17.7	11	19.7	11
^	*Eremophila sturtii*					
	Eucalyptus arenacea	*Eucalyptus arenacea*	17.7	2	19.7	2
	Eucalyptus camaldulensis	*Eucalyptus camaldulensis*	17.7	11	19.7	9
	Eucalyptus cladocalyx	*Eucalyptus cladocalyx*	17.7	6	19.7	3
^	*Eucalyptus cladocalyx nana*					
	Eucalyptus cneorifolia	*Eucalyptus cneorifolia*	17.7	6	19.7	2
	Eucalyptus diversifolia	*Eucalyptus diversifolia*	17.7	6	19.7	3
	Eucalyptus eremophila	*Eucalyptus eremophila*	17.7	8	19.7	6
	Eucalyptus erythronema	*Eucalyptus erythronema*	17.7	11	19.7	6
	Eucalyptus fasciculosa	*Eucalyptus fasciculosa*	17.7	6	19.7	3
	Eucalyptus gillii	*Eucalyptus gillii*	17.7	11	19.7	8

	Alexandrina Council Preferred Species	Taxon within CAT	Emissions Limited 2050		Scenario 1 2090	
			Projected Temperature, °C	Climate Rating	Projected Temperature, °C	Climate Rating
	Eucalyptus leucoxylon 'euky dwarf' 'goolwa gem'	*Eucalyptus leucoxylon*	17.7	9	19.7	6
^	*Eucalyptus leucoxylon species*					
^	*Eucalyptus leucoxylon ssp leucoxylon*					
	Eucalyptus macrocarpa	*Eucalyptus macrocarpa*	17.7	11	19.7	8
	Eucalyptus odorata	*Eucalyptus odorata*	17.7	6	19.7	3
	Eucalyptus porosa	*Eucalyptus porosa*	17.7	5	19.7	2
	Eucalyptus tetragona	*Eucalyptus pleurocarpa*	17.7	9	19.7	6
	Eucalyptus tetraptera	*Eucalyptus tetraptera*	17.7	6	19.7	6
	Eucalyptus torquata	*Eucalyptus torquata*	17.7	11	19.7	5
	Eucalyptus Viminalis ssp cygnetensis	*Eucalyptus viminalis*	17.7	6	19.7	3
	Eucalyptus websteriana	*Eucalyptus websteriana*	17.7	11	19.7	8
	Eucalyptus youngiana	*Eucalyptus youngiana*	17.7	9	19.7	11
	Ficus microcarpa var 'hillii' 'flash'	*Ficus microcarpa*	17.7	9	19.7	9
	Ficus palmata	*Ficus palmata*	17.7	11	19.7	11
	Ficus rubignosa	*Ficus rubiginosa*	17.7	11	19.7	8
	Fraxinus angustifolia 'raywoodii'	*Fraxinus angustifolia*	17.7	5	19.7	3
	Fraxinus excelsior 'aurea'	*Fraxinus excelsior*	17.7	3	19.7	2
*	*Fraxinus griffithsii*	*Fraxinus griffithii*	17.7	3	19.7	3
	Fraxinus ornus 'meczek'	*Fraxinus ornus*	17.7	3	19.7	2

	Alexandrina Council Preferred Species	Taxon within CAT	Emissions Limited 2050		Scenario 1 2090	
			Projected Temperature, °C	Climate Rating	Projected Temperature, °C	Climate Rating
*	*Geijera parvifolia*	*Geijera parviflora*	17.7	3	19.7	2
*	*Ginko biloba*	*Ginkgo biloba*	17.7	2	19.7	1
*	*Gleditsia tricanthos var 'shademaster'*	*Gleditsia triacanthos*	17.7	2	19.7	1
	Grevillea robusta	*Grevillea robusta*	17.7	11	19.7	11
	Hakea francisiana	*Hakea francisiana*	17.7	11	19.7	8
	Harpephyllum caffrum	*Harpephyllum caffrum*	17.7	11	19.7	8
^	*Hibiscus hybrids*					
	Hibiscus tiliaceus rubra	*Hibiscus tiliaceus*	17.7	9	19.7	9
	Hymenosporum flavum	*Hymenosporum flavum*	17.7	11	19.7	8
	Jacaranda mimosifolia	*Jacaranda mimosifolia*	17.7	11	19.7	9
*	*Juniper virginiana 'skyrocket'*	*Juniperus virginiana*	17.7	2	19.7	1
*	*Koelreutaria paniculata*	*Koelreuteria paniculata*	17.7	1	19.7	1
*	*Laegestromia indica var 'tuscarora' etc*	*Lagerstroemia indica*	17.7	3	19.7	2
*	*Leucopogon parvifolius*	*Leucopogon parviflorus*	17.7	1	19.7	0
	Lophostemon conferta	*Lophostemon confertus*	17.7	11	19.7	8
	Magnolia grandiflora 'little gem' & 'kay parris'	*Magnolia grandiflora*	17.7	11	19.7	11
	Malus floribunda	*Malus floribunda*	17.7	3	19.7	2
	Melaleuca brevifolia	*Melaleuca brevifolia*	17.7	6	19.7	2
	Melaleuca decussata	*Melaleuca decussata*	17.7	6	19.7	3

	Alexandrina Council Preferred Species	Taxon within CAT	Emissions Limited 2050		Scenario 1 2090	
			Projected Temperature, °C	Climate Rating	Projected Temperature, °C	Climate Rating
	Melaleuca halmaturorum	*Melaleuca halmaturorum*	17.7	6	19.7	3
	Melia azedarach 'elite'	*Melia azedarach*	17.7	11	19.7	8
*	*Metrosideros thomasii*	*Metrosideros excelsa*	17.7	2	19.7	1
^	*Myoporum deserti*					
	Myoporum insulare	*Myoporum insulare*	17.7	6	19.7	5
	Myoporum platycarpum	*Myoporum platycarpum*	17.7	11	19.7	9
*	*Pistachia chinensis*	*Pistacia chinensis*	17.7	3	19.7	2
	Pittosporum angustifolium	*Pittosporum angustifolium*	17.7	11	19.7	9
	Pittosporum crassifolium	*Pittosporum crassifolium*	17.7	5	19.7	3
	Prunus cerasifera	*Prunus cerasifera*	17.7	3	19.7	3
^	*Prunus x blireana*					
	Pyrus calleryana var 'mrs bradford' & 'capital'	*Pyrus calleryana*	17.7	8	19.7	5
*	*Pyrus usuriensis*	*Pyrus ussuriensis*	17.7	0	19.7	0
	Quercus ilex	*Quercus ilex*	17.7	5	19.7	3
	Quercus palustris	*Quercus palustris*	17.7	3	19.7	2
	Quercus suber	*Quercus suber*	17.7	5	19.7	3
	Santalum acuminatum	*Santalum acuminatum*	17.7	11	19.7	8
	Sapium sebiferum	*Triadica sebifera*	17.7	11	19.7	11
	Sophora japonica 'princeton upright'	*Styphnolobium japonicum*	17.7	5	19.7	5

	Alexandrina Council Preferred Species	Taxon within CAT	Emissions Limited 2050		Scenario 1 2090	
			Projected Temperature, °C	Climate Rating	Projected Temperature, °C	Climate Rating
*	*Syzygium 'aussie southern'*	*Syzygium australe*	17.7	3	19.7	3
	Tristaniopsis laurina	*Tristaniopsis laurina*	17.7	11	19.7	6
	Ulmus glabra leutescens	*Ulmus glabra*	17.7	2	19.7	2
	Ulmus parvifolia 'murray's form'	*Ulmus parvifolia*	17.7	11	19.7	8
^	*Ulmus parvifolia 'todd'*					
	Ulmus procera	*Ulmus minor*	17.7	3	19.7	2
	Zelkova serrata var 'green vase'	*Zelkova serrata*	17.7	8	19.7	5

Legend

Climate Rating

0	Not known and not likely	6	Shoulder of BG range
1	Not known but possible	7	Shoulder of urban range
2	Not known but likely	8	Shoulder of natural range
3	Near edge of BG range	9	Middle of BG range
4	Near edge of urban range	10	Middle of urban range
5	Near edge of natural range	11	Middle of natural range

Risk Codes

0	Species not known to occur at this temperature
1	At the edge of the known temperature for the species
2	Species known to occur at this temperature
3	Species mostly occurs at this temperature

7.3. Discussion - Climate suitability of Alexandrina Council preferred species

The analysis indicates that the majority of Alexandrina Council's preferred tree species exhibit good climate suitability under the 2050 emissions-limited scenario. This is largely attributed to the inclusion of numerous native and indigenous species, as well as exotic species originating from regions with comparable climatic conditions. Species situated at the 'edge of their climatic range are typically exotics from cooler climates, such as Fraxinus spp. and Ulmus spp. Notably, *Acer ×freemanii* and *Pyrus ussuriensis* are considered unlikely or unsuitable under this scenario.

Under the 2090 Scenario 1, climate suitability declines for many species, with a shift towards the 'edge' or 'shoulder' of their viable range. An increase in species classified as 'Not known but likely' is also observed, although some of these may be inferred from their marginal viability under the 2050 emissions-limited scenario.

This scenario highlights the significant challenges associated with maintaining a viable urban forest under a continued high-emissions trajectory. Should this pathway persist, the existing species palette would become increasingly constrained, necessitating the consideration of alternative species. These alternatives may include a higher proportion of exotic or currently underutilised species, some of which may presently be considered undesirable or invasive.

When species are rated as medium or high risk under future climate scenarios, a decision-making framework should be used to assess their inclusion, replacement or monitoring in urban and landscape plantings with CAT suggesting a management response decision tree for those species proposed or in use that are not considered suited to future climate scenarios (Figure 32).

After finalising this Study on climate suitability of Alexandrina's preferred species, the *'Predicting climate impacts on Adelaide's urban trees through expert elicitation'* report from the University of Adelaide was published. It is recommended for Council to review the outcomes of this Study with outcomes of the Adelaide metropolitan study, noting the differences of the microclimate and ecosystems between Adelaide and Alexandrina.

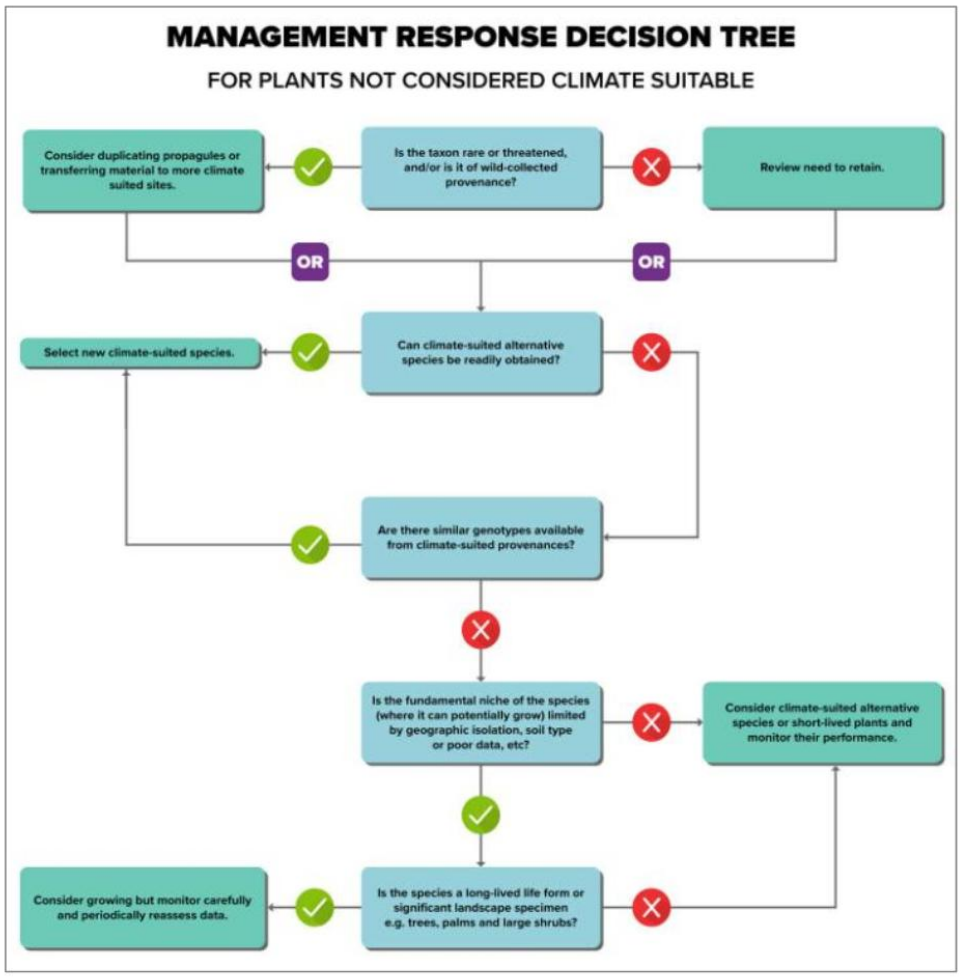


Figure 32: CAT suggested management tree for medium and high risk taxa (Climate Change Alliance of Botanic Gardens 2025).

7.3.1. Other considerations for Alexandrina Council preferred species

It is important to note that the Climate Assessment Tool is a guidance resource and not definitive. Its predictions are based on robust scientific data and global databases (e.g. GBIF, PlantSearch) and estimate which plant species are more likely to suit future climates; however, not all tolerances are documented.

While this modelling demonstrates predicted heat tolerance, there are other key considerations to species suitability that include:

- Drought or humidity tolerance.
- Salt tolerance.
- Response to climate extremes (e.g. heatwaves, frost).
- Local soil (particularly limestone rich).
- Niche climate patterns.

In general, the temperature ranges are more reliable indicators than precipitation for future survival, as irrigation can offset water stress (assuming available water and not drought conditions), but temperature extremes are harder to manage.

Another consideration is that plant success outside predicted ranges may result from:

- Natural genetic variability or adaptive capacity.
- Limited distribution data.
- Unique provenances adapted to warmer climates.
- Physical barriers restricting species range.
- Cultivation bias in certain climates.

This suggests that while CAT provides good insight into reducing climate-related risks in landscapes and green infrastructure, the information should be used in conjunction with other key considerations and factors to help guide diversification in plant selection. On-ground trialling with data recording and analysis is needed and should be continued and can be captured within a tree asset management system.

8. Discussion

8.1. Community engagement and role

8.1.1. Planting framework considerations

Successful tree planting programs rely not only on environmental planning but also on community support. A socially informed planting framework ensures that trees are valued, protected and maintained over time. Community consultation should inform township selection and planting locations. Areas where residents actively support greening efforts through participating in watering or local planting days offer greater potential for long-term success. In contrast, areas with past resistance to planting, like the removal of Araucarias in Middleton, highlight the risk of misalignment between species selection and community preferences.

Whilst outside the scope of this Study, planting plans and activity may want to consider early prioritisation for communities demonstrating strong stewardship. These areas are more likely to achieve successful establishment and broader community ownership. Townships less supportive may require further engagement or deferment until stronger alignment can be achieved.

To avoid costly removals or neglect, species and planting design must be context sensitive. Selecting appropriate species and engaging communities early in the process can ensure plantings are both ecologically beneficial and socially accepted.

8.1.2. Community planting and tube stock

Community planting initiatives are an effective means of fostering local engagement, enhancing biodiversity, and supporting Alexandrina Council's broader urban greening and climate resilience objectives. Within open space areas such as parks and reserves, community participation is both appropriate and highly beneficial, offering opportunities for environmental education, stewardship and tangible contributions to local biodiversity and amenity.

Members of Council's Section 41 Climate Emergency and Environment Advisory Committee (CEEAC) have expressed strong interest in facilitating community-led planting activities, particularly through the use of tube stock within parks and reserves. This approach is well supported in the literature as an effective means of fostering community ownership and contribution while delivering environmental benefits.

A study by the Arthur Rylah Institute (Jellinek, O'Brien, & Bennett, 2020) assessed the survival rates of tube stock plantings across Victoria. It found that, following the first summer, tube stock achieved an average survival rate of 61%, a figure consistent with comparable studies in rural and peri-urban

contexts. Notably, this Study included plantings undertaken without ongoing maintenance beyond the initial establishment.

Further evidence from the Australian Capital Territory during the millennium drought (2006–2009) demonstrated first-year survival rates of 56–66%. In wetter periods (2010–2012), survival improved significantly to 74–88%, with eucalypt species performing markedly better than shrub species (Hnatiuk et al., 2020). The study also noted that mortality was highest in the first year but declined in subsequent years, with an overall five-year survival rate of approximately 49%.

While these results are not specific to urban streetscapes, they provide a useful benchmark. In municipal open space settings where minimal watering, mulching or basic maintenance is provided, it is reasonable to anticipate tube stock survival rates between 50–70% over several years. Given Alexandrina's climate is characterised by declining and inconsistent rainfall, and the uncertainty around Council-funded watering programs, a conservative survival rate of 60% over four years has been applied to tube stock plantings in Milang (Scenario 8).

8.1.3. Tube stock suitability for streetscapes

While community planting is highly suitable for open spaces, it presents significant challenges within streetscapes. Targeted street tree planting is essential for addressing the Urban Heat Island (UHI) effect, improving local amenity and increasing canopy in areas of highest need. However, streetscapes pose substantial Occupational Health and Safety (OHS) risks to volunteers including traffic hazards and damage to underground and overhead services.

Urban environments differ significantly from parklands in terms of soil health, water availability, and exposure to human activity. This often results in lower survival rates and suboptimal growth for tube and small stock unless intensive care is provided.

Tube stock, due to its small size and limited root development, is particularly vulnerable to damage and removal. Additionally, smaller plantings may be perceived as temporary or insignificant, reducing public deterrence against removal or vandalism.

The use of tube stock in urban streetscapes generally results in poor establishment outcomes. Common issues include:

- Vandalism and accidental damage (e.g. from vehicles).
- Deliberate removal by residents opposed to planting locations.
- Poor root establishment due to compacted or highly modified soils lacking supportive microbiota and adequate drainage.

Given these constraints, streetscape plantings should be delivered primarily through professional contractors using advanced nursery-grown stock, in accordance with AS 2303:2018 – *Tree Stock for Landscape Use*. This ensures trees are structurally sound, resilient, and have a higher likelihood of successful establishment in challenging urban conditions.

8.1.4. Biodiversity

Community-led planting initiatives such as the Second Nature Revegetation / Restoration Action Plans for Milang Common play a significant role in enhancing biodiversity. Within parkland and open space environments these programs can contribute to biodiversity outcomes in several key ways:

1. **Species diversity and habitat complexity**

Community programs often focus on planting a mix of indigenous trees, shrubs, grasses and groundcovers. This increases plant species diversity, leading to more structurally complex habitats that support a wider range of wildlife, including insects, birds and small mammals.

Tube stock planting is particularly effective for understorey vegetation, which is often underrepresented in urban landscapes but critical for ecosystem function.

2. **Habitat restoration and connectivity**

Community plantings contribute to restoring degraded sites and improving ecological connectivity between fragmented habitats. This is especially important in semi-rural and peri-urban areas like Alexandrina, where patches of natural habitat are dispersed.

Well-planned plantings increase food resources, shelter and breeding sites for native fauna, supporting local ecological networks.

3. **Resilience to climate change and localised threats**

Increasing vegetation diversity through community planting enhances ecosystem resilience. Diverse plantings are better able to withstand pests, diseases and climate extremes compared to monocultures or heavily modified landscapes.

A greater variety of plant species also supports a more resilient pollinator and soil microbe community, further strengthening ecological stability.

4. **Community stewardship improves biodiversity outcomes**

When the community participates in planting, they are more likely to develop stewardship behaviours including informal monitoring, supplementary watering and protection against vandalism. This increases the survival rates of plantings and ensures that biodiversity benefits are realised over the long term.

Ongoing community involvement also encourages awareness of local ecosystems, fostering support for biodiversity-friendly management practices in the future.

5. **Complementing formal biodiversity programs**

While council-led ecological restoration typically focuses on high-conservation-value sites, community planting expands this effort into parks, reserves, and buffer zones. This creates semi-natural habitats that complement conservation efforts in remnant vegetation and formal reserves.

In summary, community planting programs within parks and reserves can directly contribute to increased canopy cover and improved biodiversity from increased species richness, enhanced habitat quality and through fostering ecological resilience. While tube stock overall survival rates may be lower than advanced stock, the cumulative effect of regular, well-supported community plantings contributes meaningfully to Alexandrina Council's canopy cover, biodiversity, climate resilience, and community engagement objectives (e.g. Alexandrina Council n.d b, Alexandrina Council n.d d). Scenario 8 demonstrates that overall cost savings may be available with such programs due to stock cost and ongoing management reductions.

8.2. Council tree and canopy cover management considerations

8.2.1. Carbon sequestration in urban and street trees

Urban and street trees play a critical role in climate change mitigation through carbon sequestration - the process by which trees absorb atmospheric carbon dioxide (CO_2) and store it as biomass. This natural function significantly contributes to the reduction of urban greenhouse gases.

Despite often being planted in constrained spaces and compacted soils, street trees continue to sequester carbon throughout their lifespan. Larger, mature trees provide exponentially greater carbon storage, making their preservation especially valuable. In addition to their role in carbon storage, urban trees offer numerous co-benefits, including improved air quality, reduced urban heat island effects, stormwater management and enhanced community wellbeing.

Maximising the carbon sequestration potential of the urban forest requires strategic species selection, favouring trees with high growth rates, long life expectancy, and structural resilience. Integrating these considerations into streetscape design, urban planning and asset management ensures that the climate mitigation benefits of urban trees are fully realised over time.

Alexandrina Council's Carbon Neutral Plan (Alexandrina Council 2022 b) explicitly recognises the value of urban greening as a carbon abatement strategy. The plan acknowledges that the sequestration potential of trees depends on species type, local growing conditions and individual tree longevity. Based on a scenario where 365 trees are planted each year from 2022 to 2039,

Council projects the potential to sequester approximately 1,401 tonnes of CO_2-e by 2040, which is a significant offset against its residual emissions profile.

Beyond carbon abatement, tree planting supports broader social and environmental objectives. In this context, urban greening not only supports Alexandrina Council's pathway to carbon neutrality but also helps build more resilient, liveable and ecologically vibrant communities for current and future generations.

8.2.2. Bushfire risk zones and powerline impact on tree planting

A limiting factor in achieving canopy cover within Alexandrina is the influence of Bushfire Risk Zones on species selections for planting and the impact of powerlines on tree canopies. Designated bushfire risk zones range from *Fire Risk*, *Prescribed No Fire Risk*, and *No Fire Risk* across Alexandrina's 11 townships, with these classifications informing the applicable vegetation clearance regulations around powerlines and the types of trees that may be planted near electricity infrastructure.

The Office of the Technical Regulator (OTR) provides two lists of approved species deemed suitable for planting under or near powerlines, considering their typical growth form and crown spread. The aim of these lists is to minimise long-term powerline clearance issues by selecting shrubs and trees based on their mature height and proximity to powerlines.

An issue with these lists is that they are not conducive to larger trees and those that provide significant canopy, with most species on the list being under 4m in height and generally classified as shrubs rather than trees. While exemptions may be sought from the OTR, this is a generally prohibitive approach to enhancing canopy cover. This is further complicated by clearance zones required around powerlines and the management of vegetation around these as described below.

Clearances around buildings for bushfire safety also results in clearing and limits new planting site options. Current exemptions apply for any tree located within 20m of a dwelling (even proposed) within a high or medium risk bushfire area. Currently, the only mechanism Council has available is, in collaboration with the Country Fire Service (CFS), to require retention of the tree via a Land Management Agreement (LMA) that is registered on the Certificate of Title.

8.2.3. Powerline clearance

In the Alexandrina Council region, vegetation management around powerlines is regulated under the *Electricity (Principles of Vegetation Clearance) Regulations 2021*. These regulations establish mandatory vegetation clearance and buffer zones to ensure public safety, reduce fire risk, and maintain reliable power supply.

- For Aerial Bundled Cables (ABC), a minimum 0.1 m clearance from poles and conductors is required in all directions, plus a 2.0 m buffer zone, creating a total pruning envelope of 2.1 m.
- For Low Voltage (LV) non-insulated lines, clearances are 0.1 m in non-bushfire risk areas and 0.5 m in bushfire risk areas, with a 2.0 m buffer zone resulting in total envelopes of 2.1 m and 2.5 m respectively.
- High Voltage (HV) non-insulated lines require 1.5 m clearance in non-bushfire risk areas and 2.5 m in bushfire risk areas, each with a 3.0 m buffer, resulting in total pruning envelopes of 4.5 m and 5.5 m (Table 21).

Table 21: Simplified clearance and buffer zone requirements for vegetation around powerline types within designated areas.

Powerline Type	Area Type	Clearance Zone	Buffer Zone	Total Pruning Envelope*
Aerial Bundled Cables (ABC)	All Areas	0.1m	2.0m	2.1m
LV Non-Insulated Lines	Non-Bushfire Risk	0.1m	2.0m	2.1m
	Bushfire Risk	0.5m	2.0m	2.5m
HV Non-Insulated Lines	Non-Bushfire Risk	1.5m	3.0m	4.5m
	Bushfire Risk	2.5m	3.0m	5.5m

* Noting that the span length of powerlines (distance between poles) may impact clearance requirements as longer spans typically require larger clearance zones due to conductor sag and movement.

In reviewing these clearance specifications on the ground, it can be seen that this has marked implications on canopy form and heights (Figure 33). This regular deforming of canopy may impact on Alexandrina achieving the desired canopy cover targets. While species selections that follow OTR guidelines may assist in reduced cutting, their smaller size does not assist in providing meaningful canopy cover. Given these competing objectives a review of vegetation clearance regulations with bespoke management plans and a Memorandum of Understanding (MOU) may be required. Without this, opportunities to plant larger-canopy or longer-lived species will remain constrained in bushfire designated areas with overhead powerlines.



Figure 33 : Example of heavy cutting impacting on tree form for insulated powerline clearance within Ashbourne.

It is also worth noting the variation in regulatory approaches across states in Australia. As example under the Electricity Safety (Electric Line Clearance) Regulations (2019), Victoria requires less overall clearance area when considering buffer zones; for instance, a 30 cm clearance zone around insulated cables within low bushfire risk areas (LBRA) which is less restrictive than South Australia's 2.1 m total zone (Table 22).

While both regulations aim to minimise fire risk and maintain public safety, this disparity raises valid questions regarding the rationale for differing buffer distances for fully insulated lines and may warrant further review and dialogue with SA Power Networks (SAPN). This may facilitate exploration of local flexibility opportunities and development of a Memorandum of Understanding (MOU) between Council and SAPN to achieve both outcomes.

Advanced GIS mapping tools may be useful in visually representing vegetation constraints, helping to guide decision-making in species selection and planting placement through desktop analysis and AI modelling. Risk versus benefit should also be a key consideration as part of this decision-making process as described in greater detail in the following section.

Table 22: Simplified clearance zone requirements for vegetation around powerline types within designated areas contrasted between South Australia and Victoria (not considering variance due to span distances)

Powerline Type	Area Type	South Australia (Alexandrina)	South Australia (with buffer)	Victoria Minimum Clearance
Insulated Cable	All Areas	0.1m	2.1m	0.3m
Low Voltage (LV) Non-Insulated	Non-Bushfire Risk	0.1m	2.1m	0.3m
	Bushfire Risk	0.5m	2.5m	0.5m
High Voltage (HV) Non-Insulated	Non-Bushfire Risk	1.5m	4.5m	1.5m
	Bushfire Risk	2.5m	5.5m	2.5m

8.2.4. Canopy cover risk and benefit

Risk is a big factor in all aspects of human life, and in today's modern society there is a general trend to eliminating risk, minimising the risk of harm to humans, and to personal and economic loss. Often a risk framework looks at the risk item/event unilaterally, without considering the benefits the source of the risk may provide.

This is often the case for trees which are frequently inspected and recorded for their risk factors such as limb failures but rarely for their benefits; and when a tree or tree part does fail, it is often sensationalised. This tends to lead to an overprescription of works, e.g. tree removals, or constraints to eliminate perceived risk.

Tree conflict with powerlines is an example where trees are constrained via a highly limited list of small-growing species. The Office of the Technical Regulator (OTR) prescribes the rules for planting new trees near power lines and within Bushfire risk areas (Office of the Technical Regulator (OTR) n.d). It is arguable that the constraints may be excessively conservative under certain scenarios.

There is no debate that vegetation contacting powerlines, particularly exposed high voltage lines can result in combustion leading to bushfires (Energy Networks Australia 2020; Australian Climate Service n.d.). It is also appreciated that while there may only be a low percentage of total bushfires

started from powerline contact (Energy Networks Australia (2020) indicated that 2.7% of bushfires were ignited by electrical faults), these have the potential for catastrophically destructive outcomes.

As a result, the OTR provides Approved Species Lists (List 1 and List 2) of trees that can be planted within certain distances of powerlines, which are generally small shrubs with limited canopy size that limits contribution to canopy cover and associated benefits. Councils can seek exemptions from the OTR for planting trees not on the approved list, although these generally have the same characteristics as those from the lists in that they will not grow into the prescribed clearance zone at maturity. Buffer Zones are also required around powerlines as described in Section 8.2.3 *Powerline clearance,* which further impacts upon tree form, longevity and potential for contributing meaningful canopy cover at maturity.

While this may factor the impact of vegetation on powerlines and reduce the likelihood of bushfires occurring from vegetation/powerline conflicts, it is unclear whether the constraints stipulated put sufficient weight on the benefits of tree canopy to the community, particularly in light of predicted climate change.

Between 2000 and 2018, extreme heat events led to at least 473 heat-related deaths in Australia, with approximately 25% occurring in South Australia. This equates to a fatality rate of approximately 0.31 per 100,000 people, among the highest in Australia (Coates et al. 2021 a, Coates et al. 2014, Herbst et al. 2014).

Melanoma incidence in South Australia is another significant public health concern (Preventive Health SA 2023), and in in 2019, 879 South Australians were diagnosed with melanoma (Preventive Health SA 2022).

Melanoma of the skin was the third most commonly diagnosed cancer in Australia in 2020, and in 2024 it is estimated that a person has a 1 in 17 (or 6.0%) risk of being diagnosed with melanoma of the skin by the age of 85, with1 in 14 (7.0%)for males and 1 in 21 (4.9%) for females (Cancer Australia 2025).

This underscores the pressing public health challenge posed by sun exposure and extreme heat in South Australia, highlighting the need for comprehensive strategies to mitigate exposure and heat-related risks.

In contrast, bushfire fatalities are episodic and relatively rare. This is further complicated in ascribing the cause of the fire directly to powerline vegetation contacts, with other ignition sources well documented (CFS South Australian Country Fire Service. n.d.).

Examples of bushfire fatalities in South Australia include

- Ash Wednesday (1983): 28 people died in SA as a result of the Ash Wednesday fires (Wikipedia n.d.; Australian Disaster Resilience Knowledge Hub n.d. a).
- Black Tuesday (2005, Eyre Peninsula): Resulted in 9 deaths (Climate Council n.d.).
- Kangaroo Island (2019-2020 Black Summer): 2 deaths (Australian Disaster Resilience Knowledge Hub n.d. b).
- Cudlee Creek (2019-2020 Black Summer): 1 death (Australian Disaster Resilience Knowledge Hub (b) n.d.). This was cause by a large tree falling in from outside the prescribed buffer zone.

The benefits of canopy cover for cooling effect are described, which may mitigate heat related deaths and illnesses within the general population. Shade is a highly effective and crucial strategy for preventing melanoma formation and other forms of skin cancer (Cancer Institute NSW 2025, Cancer Council n.d.). Melanoma is primarily caused by overexposure to harmful ultraviolet (UV) radiation from the sun, and shade directly reduces this exposure.

Shade significantly reduces exposure to UV radiation and, depending on the type and density of the shade, it can block anywhere from 50% to 95% of UV rays (Cancer Institute NSW 2025, Neale et al. 2023). These studies recognise that high-quality natural shade from dense tree canopies can block both direct UV exposure and where particularly where canopies are closer to the ground can reduce indirect UV exposure.

There are no national consensus or guidelines around vegetation-powerline clearances, and the topic is hotly debated.

Dr Greg Moore OAM, Senior Research Fellow at the University of Melbourne, has questioned the Victorian Government's recent dismissal of a unanimous recommendation from its own elected industry advisory group to reduce clearance space around low voltage (LV) conductors in low bushfire risk areas (LBRA) (Moore 2025). While he acknowledges that Energy Safe Victoria is right to consider the potential risks of electrocution and fire associated with conductors, Dr Moore highlights that there is no evidence linking such risks to LV conductors in LBRA.

Dr Moore observes that reducing powerline clearance distances would immediately support the retention of urban tree canopy—not only in metropolitan areas, but also in regional centres and country towns across Victoria. Given the ongoing decline in canopy cover nationwide, he emphasises that such a reform would deliver significant environmental, economic, and public health benefits, including improved resilience to heatwaves.

He contends that the Victorian Government's rejection of a well-supported, evidence-based proposal places disproportionate emphasis on a minimal fire or electrocution risk, while neglecting the far more certain and escalating threat of heat-related illness and mortality due to climate change. In this context, Dr Moore goes so far as to suggest that such inaction may constitute a form of negligence (Moore 2025).

This sentiment is echoed further in academic circles. Dr Thami Croeser from RMIT's Centre for Urban Research noted that "hard pruning for powerlines deprives communities of a proper urban forest" and may result in "trees providing less canopy cover, which become structurally imbalanced and lead to reduced lifespans" (Croeser 2025, pers. comm., 2 July).

With the potential for worsening climate conditions and increased heat-related morbidity, a comprehensive benefit-risk analysis should be undertaken to balance the risks of powerline damage and fires against the impacts of heat and sun exposure. This review may necessitate revisiting powerline clearance regulations and establishing a Memorandum of Understanding (MOU) between the Council and powerline service providers to better align vegetation management with broader environmental and community health objectives.

8.2.5. Planning and development - Tree retention and removal

Urban vegetation and green infrastructure are increasingly recognised for their contributions to healthier, more resilient communities. However, they remain under pressure from ongoing urban development and densification (Haaland & Bosch, 2015).

While recent reforms introduced on 16 May 2024 significantly updated the Regulated and Significant Tree Overlay for metropolitan Adelaide, these changes do not currently apply to the Alexandrina Council area (PlanSA, 2024, PlanSA. n.d.).

Notwithstanding this, it is understood that the State Government is reviewing the potential application of the Regulated and Significant Tree Overlay to townships within the Greater Adelaide region, including Alexandrina.

8.2.6. Current tree protections in Alexandrina

In the absence of the Regulated and Significant Tree Overlay, tree protection in Alexandrina is primarily governed by the *Native Vegetation Act 1991* (SA). Under the Planning and Design Code, development proposals that may result in the clearance of native vegetation are assessed against:

- The Native Vegetation Overlay; or
- The State Significant Native Vegetation Area Overlay.

If applicable, such proposals may be referred to the Native Vegetation Council (NVC) for assessment. However, not all clearance triggers referral. Referral is based on classification levels (Level 2, 3, or 4) and an assessment of the clearance against the principles of the Native Vegetation Act, including consideration of exemptions.

Referral triggers include:

- Area of clearance.
- Vegetation type and condition, including threatened ecological communities.
- Proximity to sensitive habitats.
- Purpose of clearance, such as firebreaks versus development.

Exemptions apply to certain types of clearance, including:

- Essential infrastructure works.
- Firebreaks (with conditions).
- Minor clearance for building footprints, setbacks or along property fence-lines.

(See PlanSA 2020 and Native Vegetation Council 2020 for examples).

In some instances, minor or exempt clearances may be handled directly by Council under delegated authority rather than requiring NVC referral.

8.2.7. Heritage and urban tree canopy overlays

Trees may also be protected where they form part of a Local Heritage Place or State Heritage Place, managed through the Local Heritage Place Overlay or the Heritage Adjacency Overlay. Protection requires development to respect the heritage values of the site. To specifically list a tree as a heritage place, a Code Amendment process must be completed under the Planning, Development and Infrastructure Act 2016 (SA).

The Urban Tree Canopy Overlay within the Code applies to limited locations in Alexandrina, including parts of Middleton and Strathalbyn (Figure 34 & Figure 35). This overlay mandates tree planting for new dwellings in designated greenfield areas or allows developers to contribute to the Tree Canopy Offset Fund as an alternative.



Figure 34: Urban Tree Canopy Overlay Middleton (yellow shaded).



Figure 35: Urban Tree Canopy Overlay Strathalbyn (yellow shaded).

However, the Overlay's design focuses primarily on lot-scale planting with smaller trees permitted for smaller lots and substitution of numerous smaller trees for larger trees. This does not fully address the disproportionate ecological benefits provided by mature trees. Research consistently demonstrates that large, mature trees provide exponentially greater benefits in terms of canopy

area, biodiversity, shade and ecosystem services compared to juvenile trees (Turner-Skoff & Cavender, 2019; Santin et al., 2023).

Substituting large trees with smaller species or juvenile stock results in a substantial loss of canopy volume, not always visible in plan-based assessments. This is a critical consideration for maintaining canopy quality, as discussed in Section 8.2.11 Planning design and vegetation quality for canopy cover.

8.2.8. Public tree management

The Tree Management Policy (Alexandrina Council 2023 a) and Tree Management Procedure (Alexandrina Council 2023 b) guide the protection, management, and removal of trees on Council-managed land such as streets, verges, parks, and reserves. While the Planning and Design Code discourages the removal of mature street trees, particularly for vehicle crossovers and new access points (DTS/DPF 3.5), tree removal may be considered as a last resort where no feasible alternative exists.

If removal is approved, fees are applied, including:

- Tree Removal Fee – Cost recovery basis if removed by Council, or at the applicant's cost with approval.
- Tree Replacement Fee – $750 (inc. GST) to contribute to Council's replacement planting program.
- Tree Valuation Fee – 25% of the tree's amenity value as calculated from the City of Melbourne Method, applied where a reasonable alternative to removal existed (e.g. design modification). This does not apply to pest species (described in the Tree Management Procedure (2023).

As an example, the Moreton Bay Fig at The Strand, Port Elliot has a Council calculated amenity value of $466,335 reflecting its amenity cultural and historical significance, which is effectively irreplaceable. Under the Tree Management Procedure (and if approved by Council) a tree valuation fee of $116,584 would be applicable which may not reflect the irreplaceable nature of this tree.

As further comparison, commonly observed street trees such as *Eucalyptus* species with a diameter at breast height (DBH) of 30–50cm generate amenity values ranging from $5,857 to $16,270, resulting in valuation fees of $1,464 to $4,068. This fee structure may not provide a sufficient deterrent against tree removal, particularly relative to the cost of development or driveway installation, which may run into tens or hundreds of thousands of dollars and provide lucrative

returns at point of sale or facilitate ease of use. There does not appear to be any precedent or justification for applying this 25% reduction value.

8.2.9. Potential future changes

If the Regulated and Significant Tree Overlay were to be extended to Alexandrina, it would introduce additional protections for trees meeting specific size and species criteria. Under this framework, removal of regulated or significant trees would trigger mandatory offset payments into a Council Fund (if established) or into the State Planning and Development Fund (Practice Direction 12 – Conditions 2020).

The March 2024 public agenda (Alexandrina Council 2024b) notes the possibility of pursuing the overlay's application to townships in the future, but as of October 2025 it still does not apply.

8.2.10. Implications and recommendations

Private land canopy loss has the greatest overall impact, as private holdings constitute the majority of land area in Alexandrina. Without stricter protections, there is a risk of cumulative canopy loss from piecemeal removal of public trees for access or development.

In the review of international approaches to protecting and retaining trees on private urban land, Barona et al. (2021) identifies that retention of trees on private land can only occur through the combined action of policies, planning schemes, local laws, and financial incentives with community engagement and stewardship.

The current valuation and fee structure may not adequately discourage tree removal nor compensate for the long-term loss of ecosystem services. The lack of clarity regarding replacement locations, tree age, Useful Life Expectancy (ULE), and canopy contribution raises concerns about whether lost canopy is genuinely replaced in the local context.

It is recommended that the 25% factor in tree value calculation for the Tree Valuation Fee is immediately withdrawn. It is also recommended that the AANZAA-Value method be considered to replace the City of Melbourne (CoM) method as the CoM calculation basis is several years old and, therefore, understated.

A comprehensive Council wide integrated tree inventory and canopy monitoring program would provide critical data to support better decision-making, strengthen urban greening outcomes, and improve future planning assessments. To facilitate tree inventory, risk and maintenance management, a TMS (tree management system) should be considered. The leading two systems in Australia are Forestree (SA based) and TreePlotter (US based).

8.2.11. Planning design and vegetation quality for canopy cover

In achieving urban canopy cover targets (particularly within areas of new development) it is essential to consider not only the quantity but also the quality of vegetation and the species selected. The effectiveness of canopy cover is influenced by factors such as tree maturity, structure, and ecological function, all of which impact the delivery of environmental benefits over time.

An internationally recognised example is Singapore, widely regarded as a global leader in urban greening. Between the mid-1980s and 2007, Singapore increased its vegetation cover from 35.7% to 46.5%, with Ong and Ho (2012) identifying the quality of vegetation as a critical factor in this transformation. To quantify and assess vegetation quality, tools such as the Leaf Area Index (LAI) and Green Plot Ratio (GnPR) were employed.

The Leaf Area Index (LAI) is a key ecological metric used to evaluate vegetation health. It measures the total leaf surface area per unit of ground area and is closely linked to the ecological functioning of vegetation, including photosynthesis, transpiration, and metabolic activity (Ong, 2002). LAI is also relative to tree height and volume, highlighting the superior performance of taller, mature trees in delivering canopy coverage and associated ecosystem services (see Figure 36).

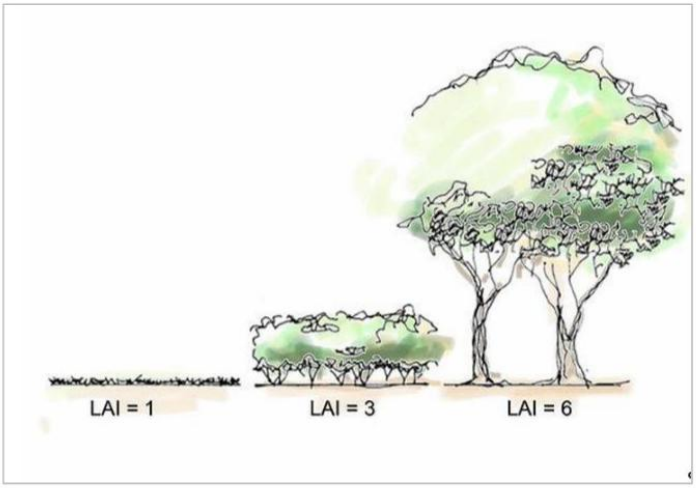


Figure 36: How LAI relates to height and volume, with larger height and volume attaining a higher LAI.

Research by Turner-Skoff & Cavender (2019) supports this approach, demonstrating that large trees provide exponentially greater environmental and social benefits than smaller trees. Similarly, Santin et al. (2023) found that taller trees deliver enhanced biodiversity outcomes, further reinforcing the importance of species selection and tree maturity in urban greening strategies.

The Green Plot Ratio (GnPR) complements LAI by providing a site-level measure of greening. It is calculated by dividing the total area of vegetated spaces such as parks, gardens, rooftop gardens, and vertical green walls by the total land area of a development (Ong & Ho, 2012; Figure 37). A higher GnPR reflects a more sustainable development with a stronger green infrastructure presence relative to built form, contributing to a more liveable and climate-resilient urban environment.

GnPR aims to mitigate the adverse impacts of urbanisation, including air pollution, the urban heat island effect, and biodiversity loss, by encouraging the integration of natural elements throughout the built environment. These include traditional green spaces as well as innovative features such as green roofs and vertical greening systems that provide both aesthetic value and ecological function.

Alexandrina may benefit from the adoption of tools like LAI and GnPR in providing a robust framework for guiding urban greening efforts and establishing clear, measurable targets for canopy cover in new developments. These tools can help ensure that urban forest strategies are not only focused on canopy percentage but also aligned with broader goals of climate resilience, biodiversity, and urban liveability.

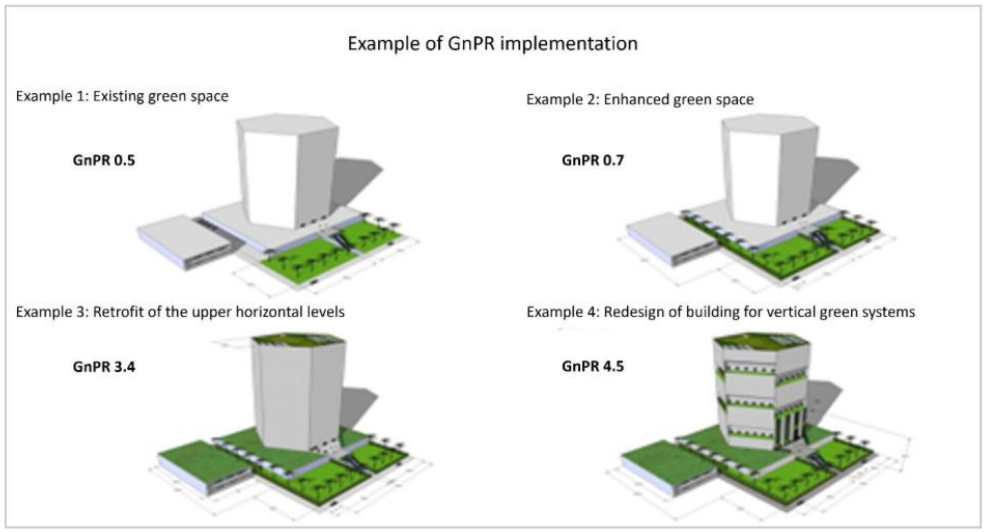


Figure 37: Example of GnPR values that incorporate LAI (Ong 2023).

An example of how this may apply to Council land is provided in Luard Street in Milang (Figure 38). The Norfolk Island Hibiscus (*Lagunaria patersonia*) on Council managed land provide limited canopy spread relative to what may be achievable to other urban tree species, which may constrain the effectiveness of the location in contributing to meaningful canopy cover.

To maximise canopy coverage and associated benefits at each location, it is useful to provide high planting densities for canopy maximisation and/or prioritising those with broad, well-structured canopies where space and site conditions allow while higher planting densities are limited.

In situations where narrow-canopied or low-performing species have been historically planted, supplementary infill planting may be required to improve canopy density and spatial distribution. In some cases, a targeted removal and replacement program may be warranted, particularly where long-term canopy outcomes can be significantly improved through the selection of higher-performing species.

Strategic species selection that aligns with site constraints, infrastructure proximity, soil volume and climate resilience considerations is fundamental to achieving optimal canopy outcomes and ensuring long-term urban forest sustainability.



Figure 38: Street view image of Luard Street in Milang with Norfolk Island hibiscus (Lagunaria patersonia) trees on Council managed land.

8.2.12. Conservation design over conventional design

The promotion of *Conservation Design* over *Conventional Design* represents a key opportunity for Alexandrina Council to better support canopy cover retention and the integration of existing vegetation within new development areas (see Figure 39). Conservation Design principles prioritise the preservation of existing natural assets such as mature trees, remnant vegetation, topography, and hydrological features during the subdivision and construction phases. In doing so, this approach allows for the strategic placement of public open space in areas where mature canopy already exists, thereby reducing the likelihood of vegetation clearance and minimising the impact of construction activities on ecological assets. This contrasts with conventional design approaches, which typically prioritise maximum lot yield and road access efficiency, often resulting in the removal of significant vegetation and fragmented open space of lower environmental value.



Figure 39: Conventional subdivision design (left) vs. Conservation subdivision design (Chester County Planning Commission n.d., accessed June 2024) https://www.chescoplanning.org/municorner/conservationsubdivision/Definition.cfm.

By integrating Conservation Design principles into development assessment and planning processes, Alexandrina Council can advance key objectives associated with urban greening, biodiversity protection and climate resilience. Importantly, Conservation Design can support the achievement of canopy cover targets in a cost-effective manner by retaining existing trees that would otherwise require decades to replace through new plantings. In parallel, it is essential that such designs still address tree equity by ensuring that shade provision and vegetative benefits are distributed throughout the development and not solely in isolated public reserves, so that all residents benefit from localised shade, thermal comfort and aesthetic value.

Tree retention strategies under Conservation Design must also consider infrastructure setbacks, soil volume requirements and the long-term viability of retained trees within urban environments. Establishing formal development and best practice guidelines, or overlay controls that support the implementation of Conservation Design, may help embed these principles into Council's broader planning framework. Additionally, public education and early engagement with developers and landowners will be critical in ensuring the successful uptake and long-term viability of these approaches.

Seachange and *Beyond* are residential developments provided below as case studies to contrast conservation vs conventional design and other planning implications on tree planting and canopy cover.

8.2.13. *Seachange* – Goolwa

The *Seachange Over 50s Lifestyle Community* in Goolwa serves as an example of poor planning and landscape design with respect to urban greening, shade provision, and heat mitigation. This is particularly concerning given its demographic of older adults who are disproportionately vulnerable to heat-related health issues.

Although the development includes a central spine aligned north–south, aerial imagery suggests that vegetation along this axis and throughout the development is dominated by low-growing shrubs, topiary species, or small ornamental trees. These plantings provide limited canopy cover, which is insufficient for shading hard surfaces such as roads, driveways, and footpaths, or for reducing radiant heat gain on buildings (Livesley, McPherson & Calfapietra 2016). As such, the site lacks functional vegetative infrastructure capable of significantly moderating urban heat.

Lot sizes within the development are compact, resulting in closely clustered housing with minimal spacing between properties (Figure 40) This configuration restricts available soil volume and root zones for larger tree establishment, which is a critical factor for healthy urban tree growth (Rahman et al. 2020). Additionally, the majority of frontages are dominated by impervious or semi-pervious surfaces (e.g. granitic gravel, concrete), often without street trees or any meaningful shading elements. These hardstand areas function as urban heat reservoirs, exacerbating surface and ambient temperatures during hot weather.



Figure 40: Aerial image of the Seachange development (image Metromaps 09/05/2025).

Such a design presents significant risks to older residents who are particularly susceptible to heat stress, heat stroke and related mortality. According to the Australian Medical Association (2023), elderly individuals account for the majority of heatwave-related deaths in Australia. Furthermore, during extreme heat events, increased reliance on air conditioning systems exacerbates localised warming through heat exchange, contributing to the urban heat island (UHI) effect and placing additional strain on energy infrastructure (Santamouris 2015). This has broader systemic implications, including energy demand spikes, power outages and economic disruption.

The absence of strategic canopy cover reflects a fundamental failure in climate-resilient design, especially for developments catering to vulnerable populations. While community members may express concern about the perceived risks of large trees, such as limb drop, root intrusion or maintenance burdens, the public health benefits of mature trees far outweigh these risks when

appropriately managed. Trees play a proven role in reducing ambient temperatures, improving air quality, and enhancing overall wellbeing (Norton et al. 2015, Nowak et al. 2014).

It is, therefore, essential that urban design frameworks for retirement and over-50s communities integrate large-canopy trees and vegetated open space to meet both environmental and health outcomes. Informed decision-making must be supported through community education, clearly articulating the risk-benefit trade-offs of vegetation versus heat exposure. This should include data on the statistical likelihood of injury from trees compared to heat-related health events, enabling residents to understand and participate meaningfully in planning discussions that affect their health and longevity.

8.2.14. *Beyond* – Chiton

In contrast to the *Seachange* development, the *Beyond* development located in Chiton on the border of Alexandrina Council and Victor Harbor Council (west of Port Elliot), is a residential development recognised for its high standard of environmentally sustainable design and biodiversity integration.

The subdivision was initiated by the original landholders, the Wright family, who retain ownership of the adjacent wetland to the east of the development. From the outset, the development was designed with the explicit objective of delivering strong environmental outcomes.

To achieve this, all allotments were sold with mandatory encumbrances governing both the design of dwellings and the approach to landscaping. These requirements were aimed at ensuring that the built form and surrounding environment contributed positively to climate resilience, sustainability and biodiversity.

Key development conditions included:

- Passive solar design to maximise energy efficiency.
- High insulation and building performance standards.
- Mandatory installation of solar energy systems.
- Landscaping focused on biodiversity, using predominantly native species.

The design of Beyond prioritises the integration of interconnected open space corridors, ensuring that all properties have either direct frontage to a reserve or are within close proximity to public open space (Figure 41). These reserves are purposefully landscaped and maintained to support local biodiversity, with a particular focus on providing habitat for the native skipper butterfly (*family Hesperiidae*), amongst other species.

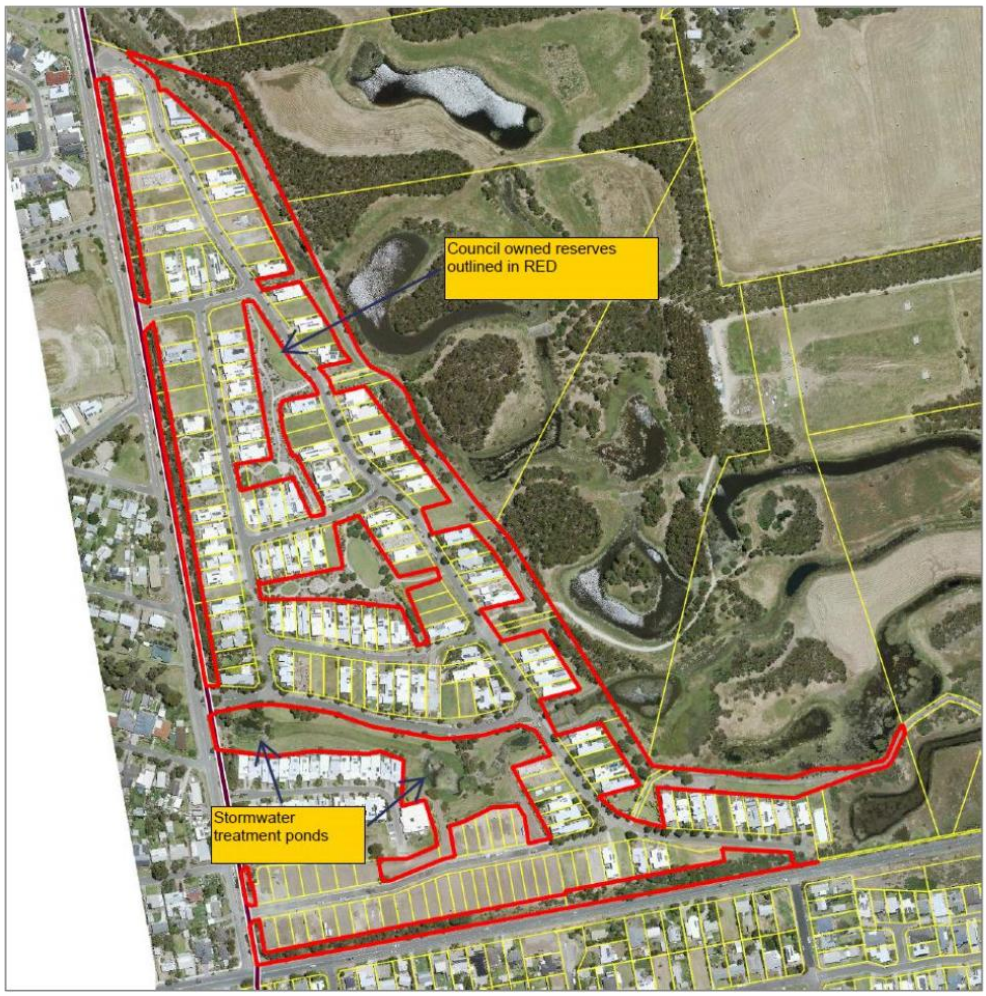


Figure 41: Beyond development with lot sizes indicated (yellow); Council owned and managed reserves (red).

Several reserves also feature community-oriented infrastructure, including shared fruit orchards and communal open spaces, designed to enhance social cohesion while delivering environmental benefits. Many of these areas are actively maintained by local residents, reflecting a strong sense of community ownership and stewardship.

A significant environmental asset within the development is the stormwater management system, which comprises multiple treatment basins connected by vegetated swales and weirs. This system is designed to effectively manage stormwater while simultaneously providing high-value habitat for native fauna. Notably, these stormwater basins have been successfully utilised for the conservation breeding and management of three endangered freshwater fish species, namely:

- Purple Spotted Gudgeon (*Mogurnda adspersa*)
- Murray Hardyhead (Craterocephalus fluviatilis)
- Southern Pygmy Perch (*Nannoperca australis*)

The success of these conservation outcomes highlights the capacity for urban infrastructure to deliver dual ecological and functional outcomes when appropriately designed.

For the past seven years, a resident volunteer group operating under the Alexandrina Council volunteer framework, has provided active assistance with the maintenance of these reserves. This includes weed management, pruning, revegetation, and general care of the biodiversity assets within the subdivision.

Despite the significant environmental achievements of Beyond, there are ongoing challenges associated with:

- Balancing community expectations regarding the appearance and use of naturalised open spaces.
- Maintaining an appropriate understanding of the ecological maintenance requirements amongst both residents and stakeholders.
- Managing the program within the constraints of available maintenance budgets and operational resources.

In summary, *Beyond* represents a strong and well-executed example of environmentally integrated residential development, demonstrating the feasibility of combining biodiversity conservation, sustainable urban design, and active community stewardship.

A critique of the development relates to dwelling footprints, which in many cases occupy the entire allotment width - similar although not as extreme in the layout observed in the *Seachange* development. Buildings are often constructed in close proximity to one another, which significantly limits opportunities for tree planting on private land and reduces the potential for canopy cover immediately adjacent to residences (Figure 42).



Figure 42: Example of close proximity buildings within the Beyond development.

The absence of proximate canopy contributes to a range of issues as previously described, including diminished cooling through shade and evapotranspiration, increased reliance on mechanical cooling, elevated energy demand, and associated increases in household energy costs.

Lot orientation is typically vertical to the road, with most property frontages measuring 13–15 metres; with larger frontages (around 20 metres) present but less common. Narrower lot widths reduce the capacity to accommodate adequate soil volumes necessary for the establishment of large trees, especially where dual driveways, footpaths, and underground services are present, compounding the risk of infrastructure conflict.

This reflects the broader challenge of balancing high land values and the desire to maximise built form against Conservation Design and retention/enhancement of vegetation. As demonstrated, developments are typically reliant on canopy cover and cooling benefits derived from adjacent public open spaces or larger neighbouring properties.

In some instances, this can result in a 'free rider' effect where private property owners benefit from shade provided by trees planted on surrounding parcels while being reluctant or unable to contribute to broader urban greening efforts themselves.

Despite these limitations, *Beyond* remains an important precedent, offering valuable lessons for the planning and design of future developments that aim to address climate resilience, urban biodiversity, and community liveability objectives across Alexandrina and comparable regional contexts.

8.2.15. New developments and developer-planted trees

Tree planting within new developments is often carried out by developers to satisfy streetscape and landscape design requirements. However, the long-term success and performance of these plantings are frequently variable and, in many instances, suboptimal. Common concerns include the selection of inappropriate species, poor-quality nursery stock, inadequate planting techniques, and insufficient maintenance during the critical establishment period (Moore, 2009; Hitchmough, 2017). At the point of handover to Council or the community, many trees already exhibit signs of stress, dieback or poor structural development, suggesting that survivability and canopy growth potential were not adequately considered during design or implementation (Saunders & Barclay, 2022).

To improve outcomes, stronger governance is needed over planting standards and developer obligations. This includes the integration of clear performance benchmarks, structured monitoring requirements and post-handover maintenance expectations. Newly planted trees should be entered into the Council's tree management system from the point of installation. Doing so enables effective condition monitoring and ensures that assets are either accepted into Council ownership or replaced/funded accordingly if they do not meet standards upon assessment (IPWEA, 2023).

Without these measures, the contribution of new development areas toward achieving long-term urban canopy targets remains limited. Moreover, poor establishment often results in higher replacement costs and diminished public trust in greening outcomes.

To support canopy continuity at the neighbourhood scale, Alexandrina Council is investigating mechanisms to reinvest offset funds collected from private tree removals into localised infill planting, thereby ensuring that replacement canopy is delivered within the same or adjacent areas. This approach promotes equitable access to urban shade, biodiversity, and heat mitigation benefits. A benchmark of ten replacement trees per removal has been proposed, which appears proportionate and practical in urban contexts (Alexandrina Council 2024).

In July 2025, the South Australian Government introduced the draft Design Standard 1 – Engineering Requirements for Land Division, as part of its Housing Roadmap to streamline development assessment and enable faster housing delivery (South Australian Government 2025). This standard applies particularly to larger developments in Master Planned Zones that involve public road construction or infrastructure vesting in Councils. It outlines consistent requirements across a range of infrastructure elements, including:

- Pavement design
- Stormwater and WSUD systems
- Road and corridor layout

- Service coordination
- Street landscaping, including trees.

The standard is supported by a draft technical manual and standard drawings, which aim to improve design consistency and reduce delivery costs. While these guidelines may assist with defining planting specifications and associated infrastructure design, it remains critical that all proposed trees for Council handover be recorded within a tree asset management system, ensuring transparent tracking, monitoring and accountability over the asset's life cycle.

8.2.16. Tree management system/Tree asset register

Many Councils across Australia are implementing Tree Asset Registers and Tree Management Systems (TMS) as a crucial part of their urban forest management. The value of this for council's is substantial, encompassing a wide range of environmental, economic, social and operational benefits. It's not just about knowing where the trees are; it's about strategically managing and accounting for vital living assets, identifying and quantifying these benefits, and determining how this informs policy and objectives at the wider Council level and action plan. The following provides a list of the functions and benefits a TMS can provide.

- **Enhanced asset management and operational efficiency**
  - Comprehensive Tree Inventory: A detailed and accurate database captures essential information for each public tree street trees, parkland trees and reserve trees, including species, age, health status, size, location (via GIS) and maintenance history.
  - Proactive Maintenance Planning: Enables strategic scheduling of pruning, watering, pest and disease management and nutrient application. This transition from reactive to proactive tree care significantly reduces emergency maintenance costs and disruptions.
  - Risk Management: Facilitates early identification of hazardous trees (e.g. diseased, dead, or structurally unstable), allowing councils to prioritise remediation or removal, thereby minimising public liability and the potential for injury or property damage.
  - Optimised Resource Allocation: Supports data-driven decision-making for the allocation of budgets, personnel, and equipment by highlighting areas of highest need based on tree condition and council priorities.
  - Improved Workflow Efficiency: Digital data collection in the field integrates directly into the system, streamlining work order management for arborists and reducing administrative overhead.

- Performance Monitoring: Tracks and evaluates tree maintenance activities, associated costs, and outcomes over time, enabling continuous improvement and evidence-based reporting.

- **Supporting environmental and sustainability goals**
  - Canopy Cover Tracking: Provides precise metrics on current tree canopy coverage, enabling councils to monitor progress toward targets (e.g. achieving 20% canopy cover by 2055) and to identify priority planting zones.
  - Biodiversity Enhancement: Informs species selection strategies to improve biodiversity, resilience to pests and diseases, and the provision of habitat for native fauna.
  - Climate Change Adaptation:
    - *Urban Heat Island Mitigation*: Identifies areas with low canopy density to prioritise shade tree planting, reducing ambient temperatures and decreasing energy consumption for cooling.
    - *Stormwater Management*: Tracks the role of trees in intercepting rainfall and reducing runoff, potentially lowering reliance on hard infrastructure.
    - *Carbon Sequestration*: Quantifies the volume of carbon stored by the urban forest, contributing to council-wide emissions reduction goals.
  - Air Quality Improvement: Assists in estimating the role of trees in removing airborne pollutants, thereby improving public health outcomes.
- **Economic and financial benefits**
  - Cost Reduction:
    - Decreases emergency response costs through proactive risk identification.
    - Increases operational efficiency through planned maintenance schedules.
    - Reduces residential and commercial energy costs via shading.
    - Minimises damage to infrastructure such as footpaths and underground utilities through appropriate species selection and root management.
    - Lowers capital expenditure on stormwater infrastructure by leveraging trees for natural water management.
  - Increased Property Values: Healthy, well-maintained urban forests enhance property values by 5–15% or more, which may also result in increased council rate revenue.
  - Economic Development and Tourism: Green public spaces attract visitors, residents, and businesses, encouraging economic activity and improving public realm appeal. Studies show people spend more time and money in treed commercial areas.

- Urban Tree Valuation: Supports the calculation of amenity, ecosystem service, and replacement values of trees. This is vital for development offset policies, insurance, and advocating for budgetary support.
- Return on Investment (ROI): Tree Management Systems (TMS) help councils identify planting opportunities and justify investment in urban forestry. Research indicates every $1 invested in urban trees yields between $1.88 and $12.70 in benefits.

- **Community engagement and public relations**
  - Transparency and Accountability: Offers open access to urban forest data and management plans, fostering public trust and support.
  - Community Involvement: Enables local engagement initiatives such as "Adopt-a-Tree" and community planting events, enhancing civic pride and stewardship.
  - Enhanced Liveability: Contributes to a more aesthetically pleasing, healthy, and comfortable living environment, directly impacting resident wellbeing.
  - Informed Public Decision-Making: Provides councils with the evidence required to balance diverse community priorities, such as consideration of views, safety, and green coverage, while making fair and consistent planning decisions.

In essence, a Tree Asset Register and Management System transforms urban trees from simple landscape features into valuable, quantifiable infrastructure assets that deliver a multitude of benefits to the community and the environment. It allows councils to manage their urban forest strategically, proactively, and sustainably for long-term well-being.

8.2.17. Tree valuation

Tree valuation is the "...the process of allocating a monetary value to trees"....[and] .... " where a valuation method has been accepted for commercial or legislative use and that method fosters good management of trees, that is laudable irrespective of its origins or basis" (MIS506: Tree Valuation, Arboriculture Australia, 2024).

Tree valuation transforms the urban forest from a perceived maintenance liability into a measurable, multi-functional asset that delivers substantial economic, environmental, and social returns. For local governments, adopting a robust tree valuation framework is key to informed decision-making, strategic investment, revenue raising and effective communication of the urban forest's true value.

A comprehensive valuation system enables councils to justify expenditure, allocate budgets more effectively, and demonstrate return on investment through quantifiable data. It can also be used to raise revenues when development requires the removal of Council trees. By capturing the value of ecosystem services including shade, cooling, air quality improvement, carbon sequestration, and

stormwater management, these elements of tree valuation can be articulated to the community to help build awareness and appreciation that trees are valued as important community assets. Integration into existing inventory/green infrastructure asset management systems supports long-term planning and risk mitigation.

Valuation data also plays a crucial role in preventing unnecessary tree/canopy loss by enabling cost-benefit analysis and providing an objective foundation for risk amelioration and dispute resolution, including insurance claims and legal matters. When councils can articulate the financial worth of their urban forest, it reinforces the message that trees are not merely ornamental, but essential infrastructure delivering measurable public benefit.

As outlined in the Tree Management Procedure (2023 b) tree values are calculated using the City of Melbourne Method, although a critical update of the Base value (BV) is required as it doesn't appear to have been adjusted for inflation since 2012. It is recommended that that Alexandrina reviews this and updates as required.

While this method is recognised and used by numerous Councils throughout Australia (predominantly Victoria), there are several methods used by councils around Australia e.g. City of Melbourne (VIC), Thyer (NSW), Burnley (VIC, QLD), i-Tree (US based, used in VIC) and Helliwell (UK based, used in WA)). In response to this situation and the conjecture around which was "best", Arboriculture Australia and the New Zealand Arboriculture Association developed a minimum industry standard, MIS506: Tree Valuation (Arboriculture Australia, 2024), and a new, nationally standardised method – AANZAA-Value (Arboriculture Australia, 2024).

8.2.18. Tree valuation using AANZAA-Value

While variability in valuation methods can create confusion regarding tree values and the preferred approach across local government areas, the more critical consideration is the adoption of a method that is both effective, efficient and yields outcomes that are broadly accepted. This challenge was acknowledged by volunteer technical experts, industry representatives, and independent reviewers, who collaborated to develop a minimum industry standard MIS506: Tree Valuation and AANZAA-Value which adopted and consolidated the best practice elements of the existing methods; elements such as habitat value and cultural value. The method is available free of charge from the Arboriculture Austria website (trees.org.au).

While the method accounts for numerous influencing factors, the valuation process can be summarised through a simplified formula:

Valuation = B x Z x S x Q

Where:

B = Market baseline value

Z = Land use factor

S = Social factor

Q = Quality factor

Assigning a monetary value to trees provides a tangible and easily understood metric that can be more effective than attempting to articulate the full range of environmental, social, and economic benefits trees provide. This valuation approach supports the establishment of financial bonds in development contexts and enables the recovery of costs where legislative provisions exist for damage or loss. At the individual level, attributing asset value helps to highlight significant, high-value trees, while at the broader asset management scale, it facilitates informed decision-making through cost–benefit analysis, strategic budgeting, and prioritisation of works.

8.2.19. Budgeting for green infrastructure as valued assets

Recognizing green infrastructure as equal in asset management status to traditional 'grey' infrastructure is critical to addressing climate impacts, especially given that grey infrastructure contributes to 70% of global emissions and significant resource consumption. Embedding nature-based solutions into asset management will help ensure they are adequately funded, maintained, and able to deliver long-term community benefits.

The Institute of Public Works Engineering Australasia (IPWEA) and project partners have recently (2025) led an Asset Management for Green Infrastructure project in South Australia, publishing their *Green Infrastructure management Manual*. This initiative addresses the gap in asset management by integrating green infrastructure like street trees, urban forests, wetlands, green roofs, mangroves, and rain gardens into mainstream financial and asset planning.

Green infrastructure delivers essential, cost-effective, and climate-resilient services including health and well-being benefits, carbon sequestration, flood mitigation, air and water purification, shading, cooling, and biodiversity support. Despite these benefits, it is often un- or under-valued in asset management, resulting in underfunding, degradation and loss.

This project will produce an industry best-practice guideline and an online training program for asset managers, engineers, local governments, arborists, and ecologists. It will cover valuation, condition assessment, service delivery, lifecycle analysis, risk management, costings, and decision-making tools.

As IPWEA's CEO, David Jenkins, states: "Applying proven asset management frameworks to green infrastructure provides practical steps, a shared language, and international relevance." Simon Strauss of Arboriculture Australia adds, "Quantifying green assets in financial terms enables balanced, long-term decision-making for societal benefit."

Planting long-lived, large-growing trees forms a key part of establishing council urban forests and represents an investment in community infrastructure to deliver long-term environmental, social, and economic benefits. As such, tree planting programs could and should be funded, at least in part, through capital budgets. Based on review of other LGAs, the following provides examples of where planting programs are covered under capital budget programs:

- Melbourne City Council (VIC): Funds tree planting through their capital budget in two streams - renewal and maintenance– depending on the nature of the planting and its location. There is some crossover between operational and capital budgets in relation to staff wages, with additional contracting staff also paid through capital budgets.
- Brisbane City Council (QLD): Explicitly allocates funds in its capital budget for tree planting initiatives. For example, their 2025-26 budget includes $1.9 million for a two-year Olympic Corridors tree planting program (Property Council Australia 2025).
- Swan Hill Rural City Council (VIC): Their 2025-26 Budget includes funding for "expanded tree planting" within their capital works program, which also covers roads, footpaths, and community facilities (Swan Hill Rural City Council 2025).
- Surf Coast Shire Council (VIC): Their draft 2024-25 Budget features an ambitious capital expenditure program that includes the inaugural year of the "$1m Growing Our Urban Forest program" over five years, specifically for tree planting and canopy cover to adapt townships to climate change (Surf Coast Shire 2024). This clearly indicates a capital investment over multiple years.
- Glen Eira City Council (VIC): Their 2024–2025 Budget and Financial Plan allocate funds for their climate emergency response, including "urban greening" and continued tree planting to increase canopy cover, funded through capital spending on infrastructure and asset renewal (Glen Eira City Council 2024).
- Hobsons Bay City Council (VIC): Their 2025-26 budget will deliver over $63 million in capital works projects, specifically mentioning "Planting an additional 5,000 trees in line with the current Urban Forest Strategy".
- Central Coast Council (NSW): Their 2025-26 Operational Plan and budget allocates $150,000 to a "tree planting pilot program" (Central Coast Council 2025)..

These examples suggest that a well-conceived planting master plan program will support capital budget expenditure through a business case to Council, which would allow for greater flexibility, resources and security in budget provision and accountability in expenditure reporting.

In contrast, operational budgets allow for routine maintenance and replenishment, the ongoing care, replacement of dead or diseased trees, and regular small-scale infill planting in existing parks, streetscapes, and open spaces are generally considered operational expenses. For example:

1. Salaries for arborists, tree crews, and technical officers, as well as the costs of equipment, fuel, and materials for pruning, pest/disease management, watering of newly planted trees, and emergency tree work.
2. Council operated nurseries will generally associate the costs with growing seedlings, propagating trees and maintaining nursery stock.
3. Smaller-Scale Planting Initiatives where residents can request a free tree for their verge or participate in community planting days.

8.2.20. Grant funding

Targeted grant funding will play a critical role in enabling Alexandrina to deliver tree planting for urban greening, biodiversity enhancement and climate resilience initiatives. There is opportunity for Alexandrina to leverage a wide array of grant programs to support tree planting and climate adaptation activities. The following examples demonstrate the types of funding mechanisms have been available in South Australia and may become available again or develop similar grant funding programs for the future.

Green Adelaide – Urban Greening Strategy & Cooler, Greener, Wilder Grants

In 2024, the South Australian Government launched a metropolitan-wide Urban Greening initiative for Greater Adelaide. Backed by an initial $1.5 million in grants that were matched by five metropolitan councils, the strategy aims to increase Adelaide's urban canopy from 17% to 30%, cool urban areas and improve biodiversity (Government of South Australia 2024).

Projects funded include tree planting and water-efficient landscaping in public spaces such as the Banksia Park Sports Area (City of Tea Tree Gully) and Symonds Reserve (City of Onkaparinga). The program is coordinated by Green Adelaide in partnership with a wide range of stakeholders.

Grassroots Grants – Landscape Boards SA and Green Adelaide

Both Green Adelaide and the Hills and Fleurieu Landscape Board offer Grassroots Grants annually. These grants support tree planting, biodiversity restoration and land stewardship projects by local councils, community groups and schools. Funding of up to $20,000 is available per project, with an

emphasis on community co-benefits and climate adaptation (Landscape SA 2024; Green Adelaide 2024).

LGA of SA – Coastal Hazard Adaptation Grants

Administered by the Local Government Association of South Australia, this program supports councils in planning for and adapting to coastal hazards arising from climate change. While not limited to vegetation, integrated responses such as nature-based solutions (e.g. dune revegetation or foreshore plantings) are eligible and relevant in coastal Alexandrina townships (LGA SA 2024 a).

Local Government Research and Development Scheme

This scheme provides funding for projects that improve local government planning and service delivery. Previous grants have supported climate resilience modelling, strategic tree asset planning, and green infrastructure trials. Projects aligned with long-term adaptation and canopy development may be eligible (LGA SA 2024b).

Landcare Australia – Urban Tree Planting Grants

In partnership with corporate sponsors (e.g. Bupa), Landcare Australia provides grants between $5,000 and $25,000 to councils and community groups for planting native trees and shrubs in urban and peri-urban areas. These projects improve local biodiversity, address urban heat and engage communities in stewardship (Landcare Australia 2024).

Given the alignment with previous funding initiatives and the profile of successful recipients, Alexandrina Council is competitively positioned to pursue coordinated and strategic funding opportunities to support urban greening. The SMART targets outlined in this Study, along with supporting cost-benefit analyses, canopy modelling data and asset-based recommendations for tree management and planting location identification, provide a strong, evidence-based foundation for grant applications.

This integrated approach enhances the Council's ability to demonstrate readiness, accountability and measurable outcomes, which are common requirements across a range of state and national grant programs. In having proactively aligned the canopy cover project to previously successful eligibility criteria, particularly those relating to climate resilience, urban cooling, biodiversity and community wellbeing, Alexandrina can maximise its competitiveness for funding.

Further strengthening future applications, the Council may consider advocating for matched funding models in collaboration with community organisations, environmental groups, or private industry partners. Such partnerships not only leverage additional resources but also demonstrate shared commitment, local engagement and co-investment factors that are increasingly valued in competitive grant assessment processes.

8.2.21. Review, refinement and iteration

To ensure the long-term success and delivery of the agreed canopy cover targets, ongoing monitoring and adaptive management will be critical. Regular canopy mapping and data analysis should be undertaken to track progress toward township-specific and regional canopy targets, evaluate program effectiveness and identify areas requiring refinement.

A structured review process should include:

- **Canopy cover trajectory assessment:** Spatial analysis to contrast previous canopy cover and determine whether canopy cover is increasing at the expected rate across each township and land use type, and where it is decreasing.
- **Gap identification and diagnostics:** Investigation of locations or scenarios where canopy targets are not being met, with consideration of contributing factors such as land sales, development approvals, climatic constraints and limited planting space.
- **Adaptive response:** Where barriers to canopy expansion are identified and cannot be easily mitigated, these should be factored into revised planting scenarios or alternative greening strategies. For example, if canopy loss is anticipated from Council land divestment, this should be accounted for in future modelling.
- **Optimising where gains exceed targets:** In areas where canopy targets are on track to be exceeded, planting programs may be revised to reallocate resources more efficiently. This could include higher-cost, higher-impact interventions such as retrofitting engineered solutions (e.g. soil vaults, permeable paving) into heat-affected urban zones like car parks.

8.2.22. Iterative implementation and continuous improvement

An iterative five-year review and implementation cycle is recommended to maintain program responsiveness and effectiveness. This approach allows Council to:

- Adjust to new data, regulatory changes, or emerging urban development trends.
- Update priority planting locations and techniques.
- Incorporate lessons learned into program design.
- Reassess cost-benefit scenarios as economic or climate conditions change.

This adaptive cycle should continue until either:

1. Canopy targets are achieved; or
2. Gains become marginal and resources can be more effectively applied elsewhere.

Through this repeat-and-optimise model, Alexandrina Council can ensure that its greening initiatives remain strategic, flexible and outcome-driven, thereby maximising long-term canopy benefits for current and future communities.

9. Conclusion and key recommendations

The "Alexandrina's Township Greening: Setting Canopy Targets –a 'Greenprint' for Success" presents a coordinated and evidence-based framework to protect, enhance and expand the region's urban forest through to 2055. Through spatial analysis, scenario modelling and policy review, the modelling undertaken in this Study identifies clear priorities for equitable greening, climate resilience and community wellbeing. It also recognises that urban canopy is not merely an amenity, but critical infrastructure that delivers measurable benefits across health, liveability, biodiversity, and economic value.

This Study highlights the challenges Alexandrina Council faces including climate change, development pressures and legislative limitations while also identifying practical and cost-effective solutions. These include data-driven prioritisation of planting, improved developer compliance, better integration with planning and infrastructure design, and enhanced investment in green assets.

Importantly, outcomes of this Study reinforce the urgent need for long-term thinking and planning. Achieving township-wide canopy targets will depend not only on planting volumes but also on species efficacy, stock quality, spatial equity, policy reform, private landholder engagement, and the formal recognition of green infrastructure as an asset class.

By embedding urban forest management into asset and operational planning, development frameworks and community initiatives, Alexandrina Council can lead a regional approach to climate adaptation and liveable neighbourhood design.

Achieving long-term canopy targets will require an adaptive, data-driven approach. Regular canopy mapping, review and refinement of planting programs guided by scenario modelling and on-ground realities will help ensure continuous improvement and consistent decision-making. By adopting a five-year iterative review cycle, Alexandrina Council can remain responsive to emerging challenges and opportunities, optimising greening outcomes across its townships.

To implement the recommendations of this Study and realise the vision of Council's Greening Strategy, the following actions are recommended:

Strategic and policy alignment

1. **Adopt township-specific canopy targets**. Adopt Scenario 1 as a minimum whilst noting that front-loading is more cost effective in the long-term. Table 2 provides an overview of the pros and cons of each canopy target identified in Scenarios 1-5.
2. **Private land canopy preservation and enhancement**, encourage and advocate for no net loss of tree canopy cover on private landholdings.
3. **Plant trees early** to optimise community value and benefits, where budgets allow.
4. **Embed urban greening provisions** into development assessment processes, including incentives for canopy retention, on-site greening and Conservation Design principles in new subdivisions.
5. **Advocate for inclusion in state-wide planning reforms** including extension of the Regulated and Significant Tree Overlay to Alexandrina.

Investment and resourcing

6. **Prepare a detailed planting master plan and business case** to secure capital and/or grant funding for large-scale planting programs across high-priority locations.
7. **Allocate a portion of capital works budgets** to fund strategic tree planting, aligning with best practice examples from other Australian LGAs.
8. **Establish a Greening Fund or offset reinvestment mechanism** to channel removal fees into local infill planting, targeting areas of low canopy or high vulnerability.

Implementation and governance

9. **Develop and maintain a Tree Asset Management System (TMS)** with associated tree inventory, tree risk management (assessment, recording, amelioration works and re-assessment) and tree valuation method to support proactive planning, governance (risk management), revenue (valuation), maintenance, customer relations and lifecycle management. Forestree or TreePlotter is recommended.
10. **Review and update Council's tree valuation method** ensuring alignment with the latest Minimum Industry Standard (MIS506) and inflation-adjusted base values. AANZAA-Value is recommended.
11. **Strengthen governance of developer-planted trees** by requiring pre-planting approvals, asset registration, post-installation audits, and enforcement of maintenance periods.

Design and technical guidance

12. **Prioritise planting of broad-canopied, climate-resilient species**, especially in low-canopy townships, and avoid narrow-canopied or short-lived trees where space allows.
13. **For streetscape plantings, preference advanced nursery stock** (not tube-stock) grown in accordance with *AS 2303:2018 – Tree Stock for Landscape Use* and planted to specification.
14. **Use tools such as LAI and GnPR** to assess vegetation performance and support the addition of quality-based canopy metrics.
15. **Collaborate with SA Power Networks** to explore improved planting outcomes under powerlines, including potential development of a local Memorandum of Understanding (MOU).
16. **Appropriate tree stock selection** considering Council preferred species, climate resilience and the use of advanced tree stock for urban streetscapes, high traffic areas and constrained environments.

Community and capacity building

17. **Support community planting programs** in parks, reserves, and nature strips, and provide resources for understorey and biodiversity planting through local groups.
18. **Undertake public education campaigns** to build awareness of the benefits of urban trees, encourage private land planting, and promote tree care and stewardship.
19. **Train Council staff and development stakeholders** in climate-ready species selection, green infrastructure integration and tree maintenance standards.

Review and refinement

20. **Implement Regular Canopy Monitoring,** measuring canopy cover by township and landholder every five years - ideally every two to three years - to track changes and inform strategic decisions.
21. **Analyse Constraints and Opportunities** to identify barriers to canopy growth (e.g. land sales, infrastructure limitations) and integrate these into scenario modelling where relevant.
22. **Refine Planting Programs Based on Data** and adjust planting strategies to address underperforming areas or optimise where targets are being exceeded, including consideration of engineered solutions in constrained sites.
23. **Adopt an Iterative 5 Year Review Cycle** to review, refine, and reimplement so as to support continuous improvement in achieving canopy cover objectives. (Align canopy monitoring timing to inform these reviews).

24. **Align Resource Allocation with Performance** so as to direct resources strategically, focusing on high-priority areas or interventions that yield the greatest canopy and climate resilience benefits.

10. Reference list

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9.3. Expression of Interest – Market Licenses

Decision Report

Responsible Officer: Tash Hunt (General Manager Corporate)

Report Author: Lisa Hoyle (Manager Property and Procurement Services)

Previous Decisions:

- Rotary Club of Encounter Bay: ACM18185 - May 2018, ACM1542 - February 2015, ACM13433 & ACM13434 - December 2013, ACF10236 - June 2010, ACS06138 & ACS06137 - July 2006
- Cittaslow: ACM21967 - April 2021, ACM19170 - June 2019, ACM18186 - May 2018, ACM17231 - June 2017, ACM16310 - September 2016.

Report Purpose

To consider undertaking an Expression of Interest (EOI) process, to gauge commercial and community interest in operating public markets across the Alexandrina Council district.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Expression of Interest - Market Licenses.***
2. **Undertake an Expression of Interest process via Council's My Say platform in accordance with the community engagement plan provided at *Attachment 1* of this meeting report, to seek proposals by commercial or community third parties, to operate markets at any Council owned location within the Alexandrina Council district.**
3. **Authorise the Chief Executive Officer to make any minor amendments to the community engagement arrangements.**
4. **Receive a further report on close of the Expression of Interest, with all submissions received.**

Background

At the 21 September 2026 Council Meeting, a deputation was received from the Goolwa Community Association seeking an opportunity to apply to hold the community markets on Jaralde Park Goolwa Wharf, which are currently operated by the Rotary Club of Encounter Bay and Cittaslow Goolwa on alternative Sundays, as below:

- The Rotary Club of Encounter Bay Inc operate the Rotary Markets from Lakala Reserve Port Elliot on some Saturdays and Jaralde Park Goolwa Wharf every second Sunday. The Goolwa markets commenced in 1998 and were originally operated by South Coast Dune Care and assigned to the Rotary Club of Encounter Bay on request from South Coast Dune Care at the 16 December 2013 Council Meeting. The Rotary Club of Goolwa was approached at this time, to gauge their interest in taking on the markets; however, they advised that they did not have the resources required to manage the markets at that time.
- Cittaslow Goolwa markets commenced in 2016 as Farmers Markets on Jaralde Park Goolwa Wharf, on those Sundays that the Rotary Club markets did not trade. In 2021, the market model widened from a Farmers Market to a Produce and Artisans Market, to meet demand for a broader range of products for sale.

Council has also previously provided market licenses in Mount Compass and Strathalbyn for use of open space for public markets, however, these markets are no longer operating.

Discussion

Community markets, whether community-led or commercially-led, provide significant community benefits, such as supporting local businesses and producers, creating opportunities for social connection, attracting visitors, stimulating local economic activity and activating public spaces. It is recognised that markets attract significant numbers of residents and visitors to the region. It is also acknowledged that the ongoing operation of a market requires substantial resourcing, coordination and long-term commitment and, that the revenue generated by community-led Market Operators is generally reinvested into community projects.

With the two existing, four-year market licenses, are due to expire on the 30 June 2027. Noting previous interest in operating markets in this location and other townships, it is proposed that Council seek expressions of interest (EOI) from the broader community to operate markets across the Council district (including Goolwa Wharf) and any other locations where the applicant considers a public market could be achieved.

An EOI would gauge interest from community organisations (incorporated) and commercial operators (with an ABN) to hold markets, with the locations proposed remaining at the discretion of the applicants to put forward. When selecting a location, consideration to whether the site has or needs purpose built, specific infrastructure in place to hold markets forms a consideration.

What an EOI will do is:

- provide equal opportunity for community groups and commercial operators;
- test broader interest in operating markets;
- explore activation beyond current weekend arrangements;
- generate a range of locations and market models that activate the wider district that have not previously been considered;
- identify preferred days, locations and weekday trading gaps;
- resolve concerns regarding a lack of opportunity to operate markets in high profile public spaces;
- secure future market licenses with adequate notice prior to 30 June 2027; and
- resolve future market licenses prior to the 2027 Council Election caretaker period.

The EOI is proposed to be undertaken via Council's My Say platform for a period of four (4) weeks, as provided within the *Community Engagement Plan* at ***Attachment 1*** of this meeting report. Following close of the EOI, a public report would be presented to the December 2026 or January 2027 Council meeting, to consider the submissions received. In those instances, where the outcomes of the EOI identify competing interests for a market in the same location at the same time, the decision is intended to be resolved at this Council meeting.

Market licenses would come into effect from the 1 July 2027 onwards, or earlier, subject to location and decision of Council. Any existing market licenses would remain unaffected during the current term of that licence.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered Low.

Providing an adequate opportunity for interested parties to apply to hold markets within Alexandrina Council will ensure Council has tested the broader market as part of the decision-making process.

In accordance with Council's Annual Fees and Charges, the 2026/27 market fees are $83 per community market (operated by an incorporated association or similar not-for-profit, who provide a service for the benefit of the community) and $67 per five (5) square metre per commercial market (operated by a business).

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low.

Council's Community Land Management Plan 2023-2028 (CLMP) supports community and commercial activities and the grant of licences on community land, where Council is satisfied that the granting of the agreement will deliver a social or economic community and / or commercial benefit. The intention would be to offer market licence terms up to a maximum term of five (5) years (with less being preferrable for any new, untested market operator), to ensure consistency with the CLMP for those submissions that may be lodged for use of community land.

With an intent to restrict future licences to terms no greater than five (5) years, community engagement would not be required, however this would remain at the discretion of Council following review of the submissions received from the EOI process.

It is intended that the submissions received from the EOI process will be the formal applications on which the decision-making process will be made by Council. A further 'tender' procurement process is not proposed to seek further information from applicants. The My Say Expression of Interest Platform will seek and provide opportunity for applicants to lodge all the information required for Council to make an informed decision.

Attachments

Attachment 1 - Community Engagement Plan EOI for Market Licences

Community Engagement Plan

Market Licenses
Expression of Interest (EOI)



Name of Project: Expression of Interest - Market Licenses

Dates of Engagement: 9 am, Thursday 29 October 2026 until 5 pm, Friday 27 November 2026 (30 days)

Subject of Council Report:

☒ Yes, 19 OCTOBER 2026

or

☐ No

This project:

☐ Is included in the Annual Community Plan

☐ Is included in the A2040 Strategic Delivery Plan 2025–2035

☐ Is a Legislative requirement

☒ Has funding allocated through existing budgets

☐ Requires external or future funding to proceed

Purpose for engagement:

☒ Feedback from the community will shape the outcome.

or

☐ This engagement is designed to build community connection or inform, with no decision-making component.

Pre-engagement considerations

Consideration	Assessment
There is expectation within the Council or the community that the project will involve community engagement.	Yes
Risk level if community consultation is **not** undertaken. (*Legal, Regulatory and Policy and / or Reputation)*	Minor
Level of complexity / difficulty for decision-making.	Moderate
Key stakeholders highly invested in the decision.	Moderate

Engagement timeline

Milestones	Dates
Council Decision to proceed to community engagement	19 October 2026
Community engagement opens (EOI)	Thursday 29 October 2026
Drop-in sessions or engagement events	N/A
Community engagement closes (EOI)	Friday, 27 November 2026
Council Member Workshop to consider feedback	N/A
Council Meeting with feedback	21 December 2026 or 18 January 2027
Next steps	Market Licenses awarded, commencing 1 July 2027 or prior (subject to locations)

About the project

Community markets, whether community-led or commercially led, provide significant community benefits, such as supporting local businesses and producers, creating opportunities for social connection, attracting visitors, stimulating local economic activity and activating public spaces. They attract significant numbers of residents and visitors to the region and provide a good income source for market operators, which is usually reinvested in the local community.

It is also acknowledged that the ongoing operation of a recurring market requires substantial resourcing, coordination and long-term commitment.

Council is seeking interest from both community and commercial operators to hold markets on any Council owned land or buildings, within any of our townships across the Alexandrina Council District.

Council Administration will be able to assist with any enquiries you may have when considering a location, to ensure it is an available and Council managed building or parcel of land. When identifying a location, please consider whether it has or could have, the purpose built, specific infrastructure in place, or needed, to hold markets.

The commencement of markets that are successful as an outcome of this Expression of Interest, would be subject to the location proposed and whether existing markets are occurring at this location. Please read the 'Key Documents - Council Report and Minutes' for further information on existing market Licenses, which expire on the 30 June 2027.

Frequently Asked Questions

What is an Expression of Interest?

An Expression of Interest (EOI) is an equal opportunity for Council to receive broad interest from community groups and commercial operators to hold markets within the Alexandrina Council District. It is intended that the submissions received from the EOI process will be the formal applications on which the decision-making process will be made by Council. A further 'tender' procurement process is not proposed to seek further information. The My Say Expression of Interest Platform will seek and provide opportunity for applicants to lodge all the information required for Council to make an informed decision.

When Could I start my markets if my submission was successful?

Depending on where the markets were proposed to be held, market licenses would come into effect from the 1 July 2027 onwards or earlier, subject to location and decision of Council. Any existing licenses would remain unaffected during the current term of those licenses.

When would an outcome on my submission be known?

Following close of the EOI, a public report would be presented to the 21 December 2026 or the 18 January 2027 Council meeting, to consider the submissions received. In those instances where the outcomes of the EOI identify competing interests for a market in the same location at the same time, the decision is intended to be resolved at this Council meeting, however, Council reserves the right to undertake community engagement on any market proposal as an outcome of the information provided at the December 2026 or January 2027 Council meeting, based on the public interest on submissions received.

What would the fee be to hold the market?

In accordance with Council's Annual Fees and Charges, the 2026/27 market fees are $83 per community market (not per stall) and $67 per 5 square meters per commercial market (not per stall), which is reviewed annually and applied to markets held during that financial year. This fee is reviewed and set each financial year.

How long can I apply to hold a market?

The intention would be to offer market licence terms up to a maximum term of 5 years (with less being preferrable for any new market operator), to ensure consistency with Council's *2023-2028 Community Land Management Plan*. However, applicants can put forward any term up to 5 years.

Form (survey) questions

Standard questions will be populated as below:

Question 1

- Contact person for submitted application

Question 2 - Are you a:

- Community Not for Profit Organisation
- Commercial Business
- Other (open field for explanation)

Question 3 – Name of group or business you represent

- Open field for Name of Business or Association you are representing and contact details/email

Question 4 – Is this business or association located within the Alexandrina Council District?

- Yes – (Open field for Organisations Address)
- No - (Open field for business Address)

Additional questions:

Question 5 - Would you like to hold markets in a building or on land?

- Land
- Building

Question 6 - What is the location and area that you would like to use?

- Location (open field for address or location description),
- Area needed (open field for estimated square metre area needed)

Question 7 – Do you intend to put any infrastructure in place to support the infrastructure needed to run a market on your proposed site (e.g.: paths, water, lighting, parking, electricity, shelter, bins etc), noting that Council does not have any infrastructure improvements planned for market sites within its future planning.

- No – there is adequate and appropriate infrastructure in place for my intended market.
- Yes (open field for what infrastructure the site needs and how the applicant intends to provide it)

Question 8 – What type of market would you offer?

- (open field to describe scope of market including high level overview of products proposed for sale and whether they are local or other)

Question 9 - How often would you hold a market at this location? (Can select multiple options)

- Once-off (open fields for date)
- Daily (open field for days per week)
- Weekly (open field for dates)
- Fortnightly (open field for dates)
- Monthly (open field for dates)
- Periodically (open field for dates)

Question 10 – What times would you hold the market? (Can select multiple options or provide your preferred market times within the 'Other' option)

- Morning (6am - 12 midday)
- Daytime (10am – 4pm)
- Evening (4pm – 8pm)
- All day (6am – 6pm)
- Other times (open field to specify proposed times)

Question 11 – How long a market licence would you be seeking?

- 1 year
- 2 years
- 3 years
- 4 years
- 5 years
- Periodic (open field to explain)

Question 12 - When would you like the market licence to start?

- As soon as possible
- Commencing 1 July 2027
- Other (open field to explain)

Question 13 – What is the fee range you are proposing to charge stall holders?

- (open field)

Question 14 – Please describe your intended use for the revenue generated from the markets.

- (open field)

Question 15 – What value add would you provide at this market?

- (open field to expand on market scope such as; would like to have live music, play equipment, reinvestment in community projects, dogs allowed or not allowed etc).

Question 16 – Have you operated public markets before?

- Yes (open field to explain where and when)
- No

Question 17 – Do you understand that a fee per market would apply in accordance with Council's annual fees and charges, and reviewed annually?

- Yes
- No

Question 18 – What would your market be called?

- (open field)

Question 19 – Is there anything else you would like to tell us or provide to us to support your application?

- (open field for further information and upload option for proposal)

SUBMIT Button - ensure applicants are informed prior to pressing SUBMIT, that the information they have provided is all the information Council will assess in making an informed selection decision. Incomplete submissions may result in the application not proceeding to Council or being presented to Council as an 'incomplete' (non-compliant) application.

Who's listening

Manager Property and Procurement Services

Attached documents

Useful Documents attached:

- Council Report & Minutes
- Interactive map to pin proposed market location (if possible)
- Simple 'Expression of Interest' button and open field options via My Say

Additional content options:

☐	Swipe tool	Interactive before-and-after comparison of images or designs.
☐	Video presentation	Embed a video to explain the project or how to get involved.
☐	Newsfeed	Ongoing updates and announcements for the project.
☐	Subscribe for updates	Allows users to sign up for email updates about the project.

☐	Image slider	Scrollable series of images for visual storytelling.
☐	Gallery	Collection of images
☐	Other: Please specify.	All engagement tool options are here: https://demo.au.socialpinpoint.com/

Engagement Tools

☒	My Say project page: The hub of all consultation details.		
	☒	Form	Collect structured feedback through survey questions.
	☐	Social Map	Interactive map where users can pin comments or ideas by location.
	☐	Visioner Input	Ideas board for quick suggestions and creative input. Feedback looks like 'post it' notes.
	☐	Quick Poll	Single-question poll for fast community sentiment checks. This is considered 'informal' or 'pulse check' feedback.
	☐	Gather	A collaborative space for detailed ideas, discussions, and long-form feedback.
☒	Facilitate written submissions (via email and post)		
☐	Face-to-face engagement	E.g. Information Session, Drop-in sessions, market stall etc.]	

Stakeholders to be informed

Residents and Ratepayers	
☒	General Residents and Ratepayers
☐	Adjoining Property Owners / Business Owners
Government and key agencies	
☐	Ngarrindjeri Aboriginal Corporation
☐	Department for Environment and Water
☐	SA Water
☐	Department for Infrastructure and Transport (DIT)
☐	Department of Climate Change, Energy, The Environment and Water
☐	Environment Protection Authority (EPA)
☐	Surrounding Councils
☐	Landscape Boards SA
☒	Regional Development Australia
☐	Members of Parliament
☐	Minister of Planning

☐	Other: e.g. Miwi Inyeri Pelepi Aboriginal Corporation (MIPAAC)
☐	Not applicable
Section 41 Committees / Advisory Committees	
☐	Audit and Risk Committee
☐	Agricultural Advisory Group
☐	Cemeteries Advisory Group
☐	Climate Emergency and Environment Advisory Committee
☐	Heritage Advisory Group
☐	Ratalang Basham Beach and Horseshoe Bay Advisory Committee
☐	SA Wooden Boat Festival Committee
☐	Strathalbyn Recreation Precinct (Lot 10) Advisory Group
☒	Not applicable
Community groups, ratepayer associations and other organisations	
☒	Alexandrina Residents and Ratepayers Action Group
☒	Cittaslow
☒	Clayton Bay Community Association
☒	Goolwa Wharf Operators Group
☒	Langhorne Creek Progress Association
☒	Hope Forest Residents Association Inc.
☒	Middleton Community Association Inc. (formerly Middleton Town and Foreshore Association)
☒	Milang and District Community Association Incorporated
☒	Mount Compass War Memorial Community Association
☒	Murray River Lakes and Coorong Action Group
☒	Port Elliot Town and Foreshore Association
☒	Strathalbyn Business Group
☒	Strathalbyn Tourism Association
☒	Existing Council licensed market operators

Communication Tools

Audience	Channel	Responsibility
Residents/ Ratepayers	Council website - Latest news article on home page of corporate website (space permitting)	Marketing and Communications Officer
	Social media (Instagram and Facebook) – at the start and midway through consultation	Marketing and Communications Officer

	Council office displays - entryways	Community Engagement Officer
	Community noticeboards	N/A
	My Say e-newsletter subscribers	Community Engagement Officer
	Corflutes (large waterproof signage on site)	N/A
Adjoining Property Owners / Business Owners	Direct email or posted letter or	N/A
Government and key agencies	Direct email or posted letter	Manager Property and Procurement Services
Section 41 Committees / Advisory Committees/ Audit and Risk Committee	Direct email or posted letter	N/A
Community groups, resident and ratepayer associations	Direct email or posted letter	Manager Property and Procurement Services
Media	Fleurieu Sun, The Southern Argus and The Advertiser	Marketing and Communications Officer
Internal staff	Connect Intranet Announcement	Manager Property and Procurement Services
Council Members	Briefing to Council Members: ☐ Council Report ☐ CM Portal ☐ Email ☐ Council Information Session	N/A

Reporting

The My Say Alexandrina software will provide a report on close of the EOI with all submissions received. All submissions must be through the My Say site.

The Reports to Council will be public documents, available on Council's website after release.

Risks

Risk	Mitigation strategies
Reputation/ community expectation	• Communicate clearly and transparently about project scope and limitations. • Use FAQs to address common concerns.
Low community involvement	• Promote on multiple channels and target audiences where possible.
Single-issue dominance	• Set clear engagement guidelines. • Provide balanced information
Governance and compliance	• Ensure all processes align with legislative and policy requirements. • Document decisions and approvals.
Decision complexity	• Questions to obtain information to make an informed decision broken down into clear stages.
Potential for controversy	• Prepare key messages and Q&A sheets. • Discuss crisis management with the Communications Team prior to consulting.
Public impact importance	• Prioritise transparency and accessibility of information. • Use plain language summaries. • Offer multiple feedback opportunities.
Community engagement demand	• Allocate sufficient resources
Manage competing interests	• Provide opportunity for all interested parties to submit an application to run markets, through the Expression of Interest process.

Next steps for approval

☒ This Plan is to be attached to a Council Report for endorsement to commence Community Engagement.

Following endorsement by Council, send this Community Engagement Plan together with the Resolution from the Council Minutes to the Communications Team.

OR

☐ Seek approval from General Manager and CEO, by obtaining signatures below.

Send fully signed Community Engagement Plan to Communications Team.

Approved by:

.....	.....
Signature of General Manager	**Name of General Manager**

.....
Date

Approved by Chief Executive Officer:

.....
Signature of Andrew MacDonald

.....
Date

9.4. Goolwa Wharf Holistic Review – Draft Goolwa Wharf Strategy and Community Engagement Plan

Decision Report

Responsible Officer: Stacey Bateson (General Manager Community)

Report Author: Sarah Longden (Senior Economic Development Advisor - Industry and Projects), Lisa O'Donoghue (Manager Economic Development)

Previous Decisions: C151/05/25, C249/07/25, C048/02/26, C128/04/26

Report Purpose

To present to Council the *Draft Goolwa Wharf Strategy* (the Strategy) ***(Attachment 1)*** that has been delivered as part of Phase 4 – 'Develop' of the *Goolwa Wharf Precinct Holistic Review*.

The report also seeks to release the Draft Strategy for the purposes of community engagement, in accordance with the *Community Engagement Plan* contained at ***Attachment 2.***

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Goolwa Wharf Holistic Review - Draft Goolwa Wharf Strategy and Community Engagement Plan.***
2. **Approve the release of the *Goolwa Wharf Holistic Review - Draft Goolwa Wharf Strategy (Attachment 1)* for community and stakeholder engagement in accordance with the *Community Engagement Plan - Goolwa Wharf Holistic Review - Draft Goolwa Wharf Strategy (Attachment 2).***
3. ***Formally thank and acknowledge the contribution of the Tier 1 and 2 Stakeholders in sharing their time, knowledge, experience and perspectives which has culminated in the preparation of the draft Strategy***
4. **Authorise the Chief Executive Officer to make any minor amendments to:**
    a. **The *Goolwa Wharf Holistic Review - Draft Goolwa Wharf Strategy* prior to consultation; and**
    b. **The Community Engagement Plan and engagement arrangements as required.**

Background

During the early 2020s, Alexandrina Council undertook the revitalisation of the Goolwa Wharf Precinct (the Precinct), including renewal of the heritage wharf and Wharf Shed, public realm improvements, upgrades to the Signal Point Experience Centre and the development and installation of the Yuntulun Ku:li-war exhibition.

Following the physical revitalisation of the Precinct, an investment prospectus was developed to attract a diverse mix of business ventures to the Precinct. This saw activation through the settlement of the Wharf Wine Bar into Signal Point, the establishment of Imbiss On The Elbow in the Northern portion of the Wharf Shed, the opening of the Goolwa Riverport Heritage Centre and Friends of the Oscar W Ticket Office in the Southern portion of the Wharf Shed. Council also approved tenancies in Lot One (1) Cadell Street with Cittaslow, Superintendent's Cottage with Alex FM and in the Chart Room with Goolwa Visual Arts Group.

Alongside this, the Cittaslow and Encounter Bay Rotary markets provide Sunday activation in Jaralde Park. This period saw a layer of activation and tenancy achieved, but the Precinct still lacked some offerings and a complete visitor experience.

In May 2025, Council resolved to withhold progressing any further activation in the Precinct until such time as a holistic review of the Precinct could be undertaken, utilising what would be, a newly developed *Service Review Framework* (C151/05/25).

The *Service Review Framework* (the Framework) was adopted by Council at the 21 July 2025 Council meeting (C249/07/25). Following this, work began on the *Goolwa Wharf Precinct Holistic Review* (the Review) with the first phase of the Framework, 'Initiate'.

The 'Initiate' phase was completed, and the Project Brief was adopted by Council at the Ordinary Meeting held 16 February 2026 (C048/02/26). Following this, a streamlined and concurrent completion of phases two (2) and three (3), 'Discover' and 'Define', was undertaken. The findings of these two (2) phases were presented in the *Discovery Report* and adopted by Council at the Ordinary Meeting held 20 April 2026 (C128/04/26). Phase four (4) of the Framework, titled 'Develop' is now underway. This phase has seen further stakeholder engagement, idea generation and delivery action refinement, culminating in the preparation of the *Draft Goolwa Wharf Strategy.*

Discussion

It is important to acknowledge upfront that the success of the Review would not be possible without the genuine engagement of the identified T1 and T2 stakeholders that Council approved to be a strong voice throughout each stage. The Economic Development Team, Strategic Team and Council Members wish to acknowledge the Tier 1 and 2 Stakeholders, for their valued contribution throughout the review process.

Their willingness to share their time, knowledge, experience and perspectives has been instrumental in shaping a meaningful and authentic engagement process. The commitment, openness and constructive participation demonstrated throughout the journey have greatly enriched the review and its outcomes. Administration extends its heartfelt appreciation for the important role these stakeholders have played in helping inform the future direction of this work.

As per Recommendation 3 of this Report, it is recommended that Council formally thank the contribution of the Tier 1 and 2 Stakeholders in sharing their time, knowledge, experience and perspectives which has culminated in the preparation of the draft Strategy.

Tier 1 Stakeholders are Steve Grieve AM and Michael Veenstra.

Tier 2 Stakeholders listed below:

- Cittaslow
- Spirit of the Coorong
- Wharf Wine Bar
- Goolwa Riverport Experience Centre (PS Oscar W)
- Alex FM
- Goolwa Visual Arts Group
- Friends of Little Scotland
- Artworx &Goolwa Community Centre
- Ngarrindjeri Aboriginal Corporation
- Armfield Slipway
- SteamRanger
- Imbiss On The Elbow
- Fleurieu Distillery
- Rotary Markets
- Tenants in Stables at Sth Coast Regional Arts Centre
- Hectors Australian
- Hay St Bar and Kitchen
- Goolwa RSL
- Captain Sturt Marina
- Manager Community Connection & Activation
- Team Leader Community Activation
- Arts and Culture Development Officer
- Regional Development Australia
- Council Arts and Culture Volunteers
- Fleurieu Peninsula Tourism

Approach to the 'Develop' Phase:

The Framework identifies a number of key activities that should occur during the 'Develop' phase:

- Facilitate brainstorming and creative idea generation sessions
- Sort and organise generated ideas
- Evaluate ideas to identify those worth prototyping

Remaining aligned with the Framework, during May 2026 a total of three (3) idea generation workshops were undertaken, two (2) with the Tier 1 and Tier 2 Stakeholder groups held 20 May 2026 and one (1) with Council Members at an Information Session held 25 May 2026. These sessions were attended by the Tier 1 Stakeholders, more than 25 Tier 2 stakeholders and also Council Members. This process of engagement yielded more than 120 ideas for activities/actions that could enhance the existing offerings at the wharf and/or address one or more of the identified gaps in the Precinct.

Following the workshops, these ideas were grouped and triaged into feasible actions to be prioritised for delivery. A unique methodology was developed to assist this process, ensuring:

- The integrity of the Framework and the *Human Centred Design* methodology were retained.
- Insight was drawn from the A2040 Strategic Delivery Plan *2025-35* *Priority Actions* methodology.
- The actions remain consistent with, and support the achievement of, the purpose and outcomes of the Project Brief as approved by Council.
- The actions address one or more of the identified gaps and/or enhancement opportunities.
- The value, budget impact, effort and delivery timeframe along with any reference to the action in existing strategic work was considered.
- The frequency and sentiment of the action during stakeholder workshops also informed the assessment of the actions' level of priority.



Figure 1. – Graphic illustrating action refinement process

In funnelling the generated ideas through this methodology, eight (8) immediate short-term priority actions emerged. It is acknowledged that there will only be a certain amount of funds available for consideration of 'new projects' through the Annual Community Plan (ACP) budget deliberations, and there are only so many resources to deliver them. As a result, Administration may need some help or support throughout.

Each of these actions would turn into projects in their own right, with associated business cases developed in time for the ACP deliberations either for 2027/28, or in the following year in readiness for 2028/29 deliberations.

It is important to note that once the short-term actions are delivered, Council may choose to turn its mind to future activities/projects to continue developing and improving the Precinct, such as the medium to longer-term ideas captured throughout this engagement journey. These longer-term actions would require further investigation, refinement and stakeholder engagement with the proposed Community-led Governance Group, before considering any presentation to Council.

Each action is presented in detail within the Strategy. For clarity, the actions and their associated delivery year (in chronological order of delivery year only, not order of preference or priority), have been outlined in the following table, along with a high-level summary is provided below to assist Members' in understanding the sentiment and projected result of each action:

No.	Action	Delivery Year (if approved in ACP)
1.	**Establish a Community-Led Precinct Governance Group:** Create a community-led governance structure that provides clear leadership, strengthens collaboration and drives the long-term success of the Goolwa Wharf Precinct.	2027/28
2.	**Develop and implement a Destination Branding and Marketing Plan:** Establish a strong destination brand and coordinated marketing program that builds community pride, attracts visitors and investment, and promotes a shared vision for the precinct.	2027/28
3.	**Complete Public Realm Improvements:** Enhance the precinct's public spaces through landscaping, seating, lighting and amenity upgrades to create a more attractive, welcoming and comfortable environment.	2027/28
4.	**Improve usability of public jetties and moorings from the water:** Upgrade jetty and mooring infrastructure to make the precinct more accessible for recreational boat users and strengthen its role as a riverport destination.	2027/28 and 2028/29
5.	**Develop and implement Public Open Space Activation Plan:** Deliver coordinated activations across parks and public spaces to increase visitation, vibrancy and year-round activity within the precinct.	2027/28 and 2028/29

6.	**Develop and implement a Council Building Tenancy Plan:** Introduce a strategic, curated tenancy mix for Council-owned buildings that supports activation, complements public spaces and addresses identified gaps in the precinct's current offering.	2027/28 and 2028/29
7.	**Develop and Implement a Wayfinding (Directional) & storytelling signage suite:** Create an integrated wayfinding and storytelling network that helps visitors navigate the precinct while showcasing its unique history and character.	2028/29
8	**Develop and implement a Heritage Trail (self-guided tour):** Refresh and enhance the precinct's heritage trail experience through updated content, signage and digital resources that celebrate Goolwa's riverport heritage	2028/29

As suggested by the Framework, these eight (8) actions were 'tested' with the Tier 1 and Tier 2 stakeholders in a Workshop held 16 September 2026. This process engaged 24 Tier 1 and Tier 2 stakeholders, with incredibly positive sentiment expressed both at and following the session.

It is acknowledged that this process has taken some time, but it is important to note that the progress and trust that has been developed through honouring the engagement processes and taking the time to meaningfully undertake this framework is not lost time. The Strategy presents clear and concise actions, detail and associated timeframes for each activity from scope, to consider through to delivery.

Whilst some of these actions are relatively self-explanatory, a number of them are complex in nature and contain many moving parts, all of which are critical to achieving the best outcome for the Precinct.

The most complex of the eight (8) actions is *Action 6 - Develop and implement a Council Building Tenancy Plan.* Successful delivery of this action is critical for the Precinct and its success into the future.

The proposed Expression of Interest (EOI) Process will be deliberate in addressing things such as more variety in food and beverage offerings, including family friendly options, the need for more night-time activity, entertainment, and a premium accommodation offering in the Precinct. Information from the workshops highlighted that Goolwa has a strong reputation for being a talented artistic and culturally rich community, but this presence could be strengthened in the Precinct through something like an artist-in-residence program or a regional makers' showcase with retail, which can be specifically sought through the process.

More than just a typical EOI, this process will demonstrate an expert level of strategic thinking coupled with progressive implementation to bring together the grand vision for the Precinct. The EOI will not be restrictive, welcoming proposals across any approach for activation including lease, redevelopment or purchase models. Importantly, the EOI will seek a holistic, strategically positioned mix of offerings that is vital in ensuring the Precinct becomes the thriving and economically sustainable destination it has the potential to be.

As this process is progressed, there will undoubtedly be a period of change for the Precinct. The EOI and implementation of the tenancy plan is expected to occur progressively over several years as tenancy opportunities arise and strategic objectives are pursued. During this transition period, Council, existing tenants, stakeholders and the community will be required to navigate a period of change. Through a coordinated and strategic approach to tenancy outcomes, this process is intended to guide the Precinct toward a more cohesive, activated and economically sustainable future.

To do this successfully, all six (6) buildings must be considered together in a strategic and methodical way and Council must prepare to make brave and progressive decisions for the benefit and future success of the precinct.

Each building has such unique features and heritage character, along with their own set of positives and negatives, further emphasising the need to consider them as a holistic opportunity with deliberate and curated thinking applied to their activation.

For clarity, the following Council owned buildings and tenancies are not recommended to form part of the EOI, due to Council previously resolving longer term tenancies and leading to them not being considered a short term priority for consideration in this review:

- The Wharf Shed: Goolwa Riverport Heritage Centre and Imbiss on the Elbow
- Signal Point Experience Centre: Wharf Wine Bar, Visitor Information Centre, Art Gallery and Yuntulun Ku:li-war
- Lot 1 Cadell Street: Cittaslow Goolwa

Next steps:

It needs to be acknowledged that there are three (3) leases within the Precinct that are due to expire between December 2026 – June 2027. To enable open communications with the Lessees due to the proposed *Action 6, Develop and implement a Council Building Tenancy Plan*, the Railway Shed Lease, with an expiry of 30 December 2026, has been offered a month by month holding over arrangement, with a 6-month notice period should the lease not be renewed. The leases for the Chart Room and Superintendents Cottage are due to expire 30 June 2027, and depending on the Council decision in January 2027, discussions will be held with the Lessees in those buildings, to discuss holding over options which are yet to be worked through.

In accordance with the Framework, the Draft Strategy will be presented to the Tier 3 (wider community) stakeholders through a formal community engagement process, as per Recommendation 2 of this report. Following completion of community engagement, a summary of feedback and any recommended amendments to the draft Strategy will be discussed at a Council Information Session in December 2026, then presented to Council for adoption in January 2027.

The Review has identified a clear set of priorities that respond to current challenges, some needing brave and bold decisions, while positioning the Precinct to maximise future opportunities arising from increased visitation, investment and activation. Through continued collaboration and a shared commitment to the Precinct's future, the actions outlined in this Draft Strategy provide a practical pathway towards achieving that vision.

Financial Implications

In accordance with the Alexandrina Council's *Adopted Budget / Long Term Financial Plan,* the financial implications of adopting this recommendation are considered Low as there is no monetary value associated with seeking to proceed to community consultation.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered low.

The risk associated with not adopting the recommendation from a reputational and trusted organisation perspective is considered Medium to High. Over the last 7+ years, the Goolwa Wharf Precinct has been the subject of significant strategic and physical work by Council. This has also involved a number of high-profile community matters and stakeholder interactions, acknowledging that not all of it was positive.

Since the commencement of the Review utilising the Framework, strong and trusted relationships have been developed with both Tier 1 and Tier 2 stakeholders, with the process shining a light on the success of the style of engagement that has been used. To not adopt the recommendation as presented, and not proceed to full Tier 3 community engagement could detrimentally damage this progress and impact the outcomes of the review.

Attachments

Attachment 1 – Draft Goolwa Wharf Strategy

Attachment 2 – Community Engagement Plan

Draft Goolwa Wharf Strategy

Goolwa Wharf Precinct Holistic Review

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1.0 Introduction

The Goolwa Wharf Precinct is (the Precinct) one of Alexandrina's most significant community, heritage and tourism assets. Following substantial public investment in the revitalisation of the wharf, surrounding public realm and Council-owned buildings, the Precinct has continued to evolve as an important destination for residents, businesses, volunteers and visitors alike. As interest in the Precinct's future continues to grow, so has the range of ideas, expectations and opportunities being presented for its ongoing activation and development.

In May 2025, Council made the decision to pause further activation initiatives within the precinct and undertake a holistic review of the Goolwa Wharf Precinct (the Review) utilising what would be a new *Service Review Framework* adopted by Council (the Framework).

Rather than considering individual proposals in isolation, Council recognised the need for a coordinated and evidence-based approach that would establish a shared vision for the precinct and ensure future decisions were aligned, strategic and reflective of community aspirations.

Extensive engagement has been undertaken with precinct users, businesses, volunteers, community organisations, Industry Partners (such as Regional Development Australia and Fleurieu Peninsula Tourism) Government Agencies, Council Members and the wider community. This process has sought to understand not only what is working well within the precinct, but also the gaps, challenges and opportunities that should inform its future direction.

The *Draft Goolwa Wharf Strategy* (the Strategy) presents a stakeholder-led plan with a clear set of priority actions for implementation over the next 1-2 years. These actions have emerged through collaboration, evidence gathering and community insight. It reflects a shared commitment to ensuring the Goolwa Wharf Precinct remains a vibrant, authentic and sustainable destination that celebrates its heritage, embraces new opportunities and continues to serve the needs of both current and future generations.

2.0 Background

The *Service Review Framework* (the Framework) consists of five (5) phases, from initiating a review, through to delivering on agreed actions to improve the service being analysed. Having completed Phase 1 - Initiate, Phase 2 – Discover and Phase 3 – Define, the Review now progresses to Phase 4 – Develop.

In accordance with the Framework, the Develop Phase marks a transition from information gathering and analysis, to idea generation, testing and distilling into potential improvement opportunities. Through a Human Centred Design approach, ensures the experiences, needs and insights of service users are placed at the heart of the process.

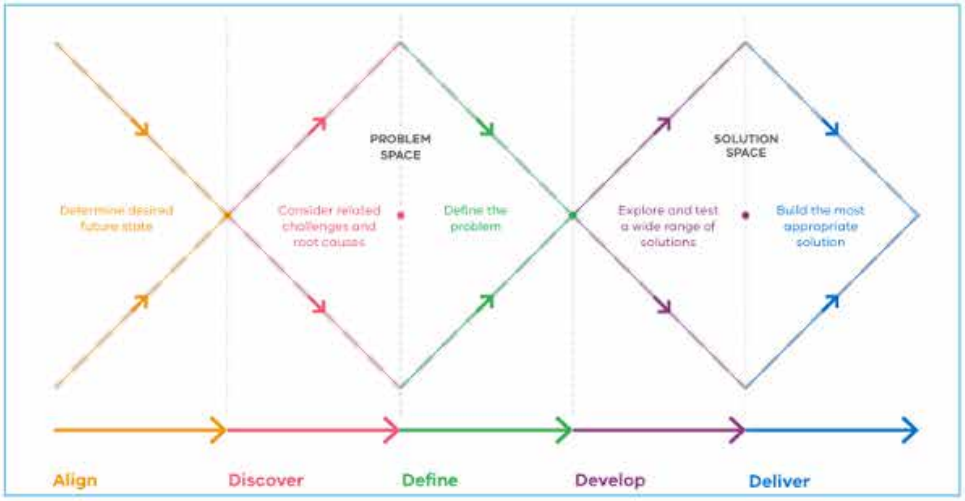


Figure 1 - Example of Human Centred Design Framework and associated phases

During May 2026, a series of collaborative workshops were undertaken with Tier 1 and 2 Stakeholders (approved by Council February 2026), together with Council Members. This process generated more than 100 ideas, aimed at addressing current challenges, and leveraging opportunities to enhance the long-term vitality of the Precinct.

The ideas produced through this engagement process were then cross-referenced with the Precinct gaps and enhancement opportunities identified throughout earlier stages of the Review. This critical analysis has informed the development of the *Draft Goolwa Wharf Strategy* (the Strategy), capturing a suite of improvement actions proposed as short-term.

The draft Strategy focusses on the prioritised short-term actions, with a 12 to 24 months delivery. It is important to note that the Strategy is an iterative process and not intended to be a definitive end-state. As actions are implemented and further insights are gained, additional opportunities may be identified and refined into future strategies and actions, to support the continued activation of the Precinct.

2.1 Stakeholder Engagement

The Framework is based on Human Centred Design, of which is powered by extensive stakeholder input and ensures users are at the centre of decision making. These Stakeholders include precinct users, businesses, volunteers, community organisations, Industry Partners (such as Regional Development Australia and Fleurieu Peninsula Tourism) Government Agencies, Council Members and the wider community.

The Economic Development Team and Strategic Team wish to acknowledge the Tier 1 and 2 Stakeholders, for their valued contribution throughout this holistic review process.

Their willingness to share their time, knowledge, experience and perspectives has been instrumental in shaping a meaningful and authentic engagement process. The commitment, openness and constructive participation demonstrated throughout the journey have greatly enriched the review and its outcomes. Administration and Council Members extend their heartfelt appreciation for the important role these stakeholders have played in helping inform the future direction of this work.

Tier 1 Stakeholders are Steve Grieve AM and Michael Veenstra.

Tier 2 Stakeholders listed below:

- Cittaslow
- Spirit of the Coorong
- Wharf Wine Bar
- Goolwa Riverport Experience Centre (PS Oscar W)
- Alex FM
- Goolwa Visual Arts Group
- Friends of Little Scotland
- Artworx &Goolwa Community Centre
- Ngarrindjeri Aboriginal Corporation
- Armfield Slipway
- SteamRanger
- Imbiss On The Elbow
- Fleurieu Distillery
- Rotary Markets
- Tenants in Stables at Sth Coast Regional Arts Centre
- Hectors Australian
- Hay St Bar and Kitchen
- Goolwa RSL
- Captain Sturt Marina
- Manager Community Connection & Activation
- Team Leader Community Activation
- Arts and Culture Development Officer
- Regional Development Australia
- Council Arts and Culture Volunteers
- Fleurieu Peninsula Tourism

2.2 Purpose and Intended Outcomes of the Review:

To set the scene for the Strategy, it is important to highlight the purpose and intended outcomes of the review, as approved by Council (C048/02/26),

The purpose of this Service Review is to:

Craft a vision for the Precinct encapsulating the key themes that underpin its identity

Investigate ways to maximise, enhance and activate Council owned buildings, public infrastructure and open spaces within the Precinct

Define gaps in the Precinct's current offering and develop methods to fill these gaps

Identify additional layers of activation and complementary activities that will build upon the precinct's existing and ongoing areas of success.

Explore the potential for destination branding and marketing of the Precinct

Delve into opportunities for storytelling, interpretation and wayfinding

Empower volunteers to support Precinct operations

Reduce the reliance on Council resourcing and in turn minimising Council's operational costs.

The Review aims to achieve the following outcomes:

Decreasing vacant tenancies in the Precinct

Activation through complementary new investment and experiences

Increasing visitation and economic activity

An **enhanced** experience for all users of the precinct (locals and visitors alike)

Empowered volunteers actively contributing to the vibrancy of the Precinct

Reduced operating costs for Council.

3. Gaps

During the 'Discover' and 'Define' phases of the Review, an extensive list of gaps was identified. These gaps were identified through extensive consultation with Tier 1 and Tier 2 stakeholders, along with inviting comments from the wider Tier 3 group as well.

A high-level summary of the identified gaps was presented in the Discovery Report. To enable the broad list of gaps to form part of the refinement approach during the 'Develop' phase, the gaps have been further grouped into the following 12 categories:

- Activation & Experience
- Vacant & underutilised assets
- Waterfront & Marine Function
- Arts, Culture & Creative Infrastructure
- Retail, Food & Visitor Offer
- Accommodation
- Connectivity & Access
- Wayfinding, Interpretation & Storytelling
- Amenity & Comfort
- Governance, Coordination & Management
- Funding, operational capacity & Precinct self-sufficiency
- Branding & Identity

4.0 Approach to 'Develop'

Moving into the 'Develop' phase of the Framework, key activities include facilitating brainstorming and creative idea generation sessions, sorting and organising generated ideas and evaluating ideas to identify those worth 'prototyping'. As the Review is a somewhat more complex project being conducted under the Framework, a customised approach was developed and applied to the idea refinement process. The approach resembled a funnelling effect and ensured:

- The integrity of the Framework and the Human Centred Design methodology were retained
- Insight was drawn from the A2040 Strategic Delivery Plan Priority Actions methodology
- The actions remain consistent with, and support the achievement of, the purpose and outcomes of the Project Brief as approved by Council
- The actions address one or more of the identified gaps and/or enhancement opportunities
- The value, budget impact, effort and delivery timeframe along with any reference to the action in existing strategic work was considered
- The frequency and sentiment of the action during stakeholder workshops also informed the assessment of the actions' level of priority



Figure 2 – Graphic illustrating action refinement process

More than 120 ideas were generated during stakeholder and Council Member workshops. The actions contained within this strategy are the immediate priority actions, having the strongest alignment with: the project brief, the identified gaps and the stakeholder sentiment.

4.1 Council's Role

As the custodian of many of the buildings and spaces within the Goolwa Wharf Precinct, Council undoubtedly has a role to play in activating and futureproofing it.

Having said this, there is only so much Council can do alone; as a Local Government organisation we are best placed to advocate for and support a future defined by rewarding partnerships, and proactive approaches to growth for our economy and communities. Alexandrina is a collaborator.

The A2040 vision sees Council pursuing advocacy and partnerships to progress our community's vision. Council's role in delivering for not only for the Goolwa Wharf Precinct, but for the whole of Alexandrina include:

Advocate for our community by influencing decision-makers and championing regional priorities
Deliver sustainable assets, funded projects, and improvements that create long-term value
Facilitate collaboration and supporting community-led initiatives aligned with strategic priorities
Lead through strategic direction, policy, planning, and governance to shape a resilient and thriving community
Partner with stakeholders to co-design and deliver initiatives that maximise community benefit
Regulate to uphold community wellbeing, safety, and compliance with legislation and policy.

Where it is appropriate for Council to deliver or take the lead on an action, implementation will remain consistent with the *A2040 Strategic Delivery Plan*. This includes the *Long-Term Financial Plan* review process and subsequently would feed into the relevant *Annual Community Plan and Budget*. It is important to note that each of these actions constitute a project in themselves, and hence will require consideration in the respective *Annual Community Plan* (ACP) and budget process.

5.0 Action Plan

The proposed actions within this Strategy are short-term, meaning the delivery timeframe is 1-2 years. It is important to note that this process also yielded many other unfiltered ideas and concepts that have been captured, which could be considered as longer-term projects. Once the short-term actions are delivered, Council may choose to turn its mind to future activities/projects to continue

developing and improving the Precinct. These longer-term actions would require further investigation, refinement and stakeholder engagement with the proposed Community-led Governance Group, before considering any presentation to Council.

Each action is presented individually and contains an overview of the action, deliverables and timeline broken down into '*scope*', '*consider*' and '*deliver*'. In some instances, there will be crossover between these timeframes.

For clarity, the actions themselves and the timeframe for delivery only, have been summarised in the following table:

No.	Action	Delivery Year (if approved in ACP)
1.	Establish a Community-Led Precinct Governance Group	2027/28
2.	Develop and implement a Destination Branding and Marketing Plan	2027/28
3.	Complete Public Realm Improvements	2027/28
4.	Improve usability of public jetties and moorings from the water	2027/28 and 2028/29
5.	Develop and implement Public Open Space Activation Plan	2027/28 and 2028/29
6.	Develop and implement a Council Building Tenancy Plan	2027/28 and 2028/29
7.	Develop and Implement a Wayfinding (Directional) & storytelling signage suite	2028/29
8.	Develop and implement a Heritage Trail (self-guided tour)	2028/29

Table 1 – Summary of actions and delivery year

The following section describes each action in alignment with Council's *A2040 Delivery Plan* approach, and is presented in order of delivery year only, not in order of perceived preference or pre-conceived priority.

1 Establish a Community-Led Precinct Governance Group

This action directly responds to stakeholder feedback about the need for stronger coordination and shared responsibility across the precinct.

Importantly, this project is not proposing a predetermined model. Rather, it would involve investigating and developing the most appropriate governance structure for the precinct. This could range from an informal advisory group through to a more formal incorporated organisation.

Whatever form it takes, this action will result in a coordinated and community-led governance structure being implemented that provides clear leadership, strengthens collaboration and identity, and drives the long-term success of the Precinct.

Deliverables

- Develop the appropriate governance model, stakeholder roles, funding framework and operational arrangements.
- Develop a shared vision, strategic priorities and implementation plan, seek Council endorsement, and establish the Governance Group.

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source
Facilitate Partner	Governance, Coordination & Management Funding, operational capacity and Precinct self-sufficiency	Yes (op-ex)	New Operational Expenditure Re-occurring operating expenditure

Timeline for Delivery

Scope 2026/27 → Consider 2027/28 → Deliver 2027/28

2 Develop and Implement a Destination Branding and Marketing Plan

Stakeholders consistently highlighted the need for a stronger and more unified identity that better communicates what makes the Goolwa Wharf Precinct special.

The aim is not simply to create a logo or marketing campaign, but rather a strong and distinctive destination brand that builds community pride, strengthens the precinct's identity, attracts visitors and investment, supports local businesses and community groups, and creates a shared vision for the future of the Precinct.

Importantly, the outcome of this project should be leveraged by the Community-Led Governance Group, and would be closely aligned with future wayfinding, storytelling, heritage trail and governance initiatives to ensure a consistent visitor experience across all precinct activities.

Deliverables

- Develop a destination brand framework that defines the precinct's identity, value proposition and shared story, connecting its heritage, culture, businesses and visitor experiences.
- Deliver a coordinated marketing, communications and visitor engagement program that promotes the precinct, strengthens partnerships and aligns with the Wayfinding, Storytelling, Heritage Trail and Governance Framework projects.

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source
Deliver	Governance, Coordination & Management Branding & Identity	Yes (op-ex)	New Operating Expenditure Re-occurring operating expenditure

Timeline for Delivery

Scope 2026/27 → Consider 2027/28 → Deliver 2027/28

3 Complete Public Realm Improvements

This action focuses on enhancing the physical environment of the precinct to make it a more attractive, welcoming and comfortable place for both locals and visitors. Community feedback consistently highlighted the importance of creating spaces where people want to spend time, connect and enjoy the precinct.

Deliverables

- Landscaping completed
- Additional seating and shade/wind shelters installed
- Bike rack installations
- Water fountains installed
- Lighting infrastructure installations for night-time economy
- Additional Power outlets installed (for events)

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source
Deliver	Connectivity & Access Amenity & Comfort	Yes (cap-ex)	New Capital Expenditure

Timeline for Delivery

Scope 2026/27 → Consider 2027/28 → Deliver 2027/28

4 Improve Usability of Public Jetties and Moorings from the Water

There are more than 1000 registered boats in the Goolwa area and whilst the wharf is a working wharf for the large tourist vessels such as PS Oscar W and Spirit of the Coorong, the Wharf's jetty and mooring infrastructure lacks easy usability for recreational vessels.

This action includes reviewing the infrastructure from a usability perspective for private vessels and working out what needs to be done to increase the usability, in turn, unlocking a whole new group of regular local users to the precinct who are accessing it from the water. This will assist in reinforcing the identity of the Wharf as a riverport destination.

Deliverables

- Audit of infrastructure (from an access to and from the water perspective)
- Consider how private vessels and passengers can easily moor and embark/disembark
- Undertake works to implement recommendations

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source
Deliver	Activation & Experience Vacant & underutilised assets Waterfront & Marine Function	Yes (combination op-ex and cap-ex)	New Capital Expenditure Re-occurring operating expenditure

Timeline for Delivery

Scope 2026/27 → Consider 2027/28 → Deliver 2027/28 & 2028/29

5 Develop and implement Public Open Space Activation Plan

There is significant opportunity to better activate the public open spaces at the Wharf. This includes spaces such as Jaralde and Jekejere Parks, Amelia Park and the Signal Point Lawns and Deck. This action isn't about displacing the existing activations that may be in place at these locations, but rather complementing them with more mid-week, evening, weekend and seasonal activations for a more consistent user experience.

Successful implementation of this action will result in increased precinct vitality through events and long-term activations that complement bricks and mortar offerings. This action is closely linked to the Building Tenancy Plan.

Deliverables

- Being closely linked with Building Tenancy Plan
- Activate public places across the week and seasons
- Spaces being offered to market through curated Expression Of Interest (EOI) process
- Spaces include: Jaralde Park, Jekejere Park , Signal Point Lawns and Deck, Amelia Park, The Square, The Morgue

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source
Deliver	Activation & Experience Vacant & Underutilised Assets Retail, Food & Visitor Offer	Yes (combination op-ex and cap-ex)	New Capital Expenditure Re-occurring operating expenditure

Timeline for Delivery

Scope 2026/27 → Consider 2027/28 → Deliver 2027/28 & 2028/29

6 Develop and Implement a Council Building Tenancy Plan

The Building Tenancy Plan will include the 6 Council owned buildings within the precinct that are currently vacant or have a lease that is approaching expiration in the next 12 months. The buildings are the Old Police Station, Old Post Office, Customs House, Railway Shed, Superintendents Cottage and the Chart Room.

These Council-owned buildings represent some of the most prominent and valuable commercial opportunities within the region. These buildings are not simply leasehold assets; they are foundational elements of the visitor experience and serve as key anchors within the broader precinct ecosystem.

For clarity, the following Council owned buildings and tenancies are not recommended to form part of the EOI, due to Council previously resolving longer term tenancies and leading to them not being considered a short-term priority for consideration in this review:

- The Wharf Shed: Goolwa Riverport Heritage Centre and Imbiss on the Elbow
- Signal Point Experience Centre: Wharf Wine Bar, Visitor Information Centre, Art Gallery and Yuntulun Ku:li-war
- Lot 1 Cadell Street: Cittaslow Goolwa

This plan will be closely linked with the public open space activation plan and will involve a carefully curated EOI process, ensuring that it addresses the gaps or enhances the opportunities that have been identified during this review process. Successful delivery of this action is critical for the precinct and its success into the future.

The EOI Process will be deliberate in addressing things such as more variety in food and beverage offerings, including family friendly options, the need for more night-time activity, music, entertainment, and a premium accommodation offering in the precinct. Goolwa has a fantastic reputation for being a talented artistic and culturally rich community, but this presence could be strengthened in the wharf precinct through something like an artist in residence program or a regional makers showcase with retail, which can be specifically sought through the process.

More than just a typical EOI, this process will demonstrate an expert level of strategic thinking coupled with progressive implementation to bring together the grand vision for the Precinct. The EOI will not be restrictive, welcoming proposals across any approach for activation including lease, redevelopment or purchase models. Importantly, the EOI will seek a holistic, strategically positioned mix of offerings that is vital in ensuring the Precinct is becomes the thriving and economically sustainable destination it has the potential to be.

As this process is progressed, there will undoubtedly be a period of change for the Precinct. The EOI and implementation of the tenancy plan will be a journey leading Council, the community and visitors through this period of change, ultimately resulting in a harmonised and activated Precinct for the future.

To successfully do this, all six buildings must be considered together in a strategic and methodical way and Council must prepare to make brave and progressive decisions for the benefit and future success of the precinct.

In simple terms, contributing to the prosperity of the Wharf will not depend on whether each individual building tenancy is successful. It will depend on whether all six buildings work together with the existing offerings, to create a destination that offers visitors compelling reasons to visit, stay longer, return more often and experience the precinct throughout the day and into the evening.

Deliverables	• Being closely linked with Public Open Space Activation Plan • Implement a holistic and strategic curated tenancy mix for Council's buildings • Spaces offered to market through curated EOI process: ▪ Old Police Station ▪ Old Post Office ▪ Customs House ▪ Railway Shed ▪ Superintendents Cottage ▪ Chart Room

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source

Deliver	Activation & Experience Vacant & Underutilised Assets Retail, Food & Visitor Offer Arts, Culture & Creative Infrastructure Accommodation	Yes (combination op-ex and cap-ex)	New Capital Expenditure Re-occurring operating expenditure

Timeline for Delivery

Scope 2026/27 → Consider 2027/28 → Deliver 2027/28 & 2028/29

7 Develop and Implement a Wayfinding (Directional) & Storytelling Signage Suite

This action is focused on improving how people navigate, understand and engage with the precinct. Community consultation identified an opportunity to strengthen both directional signage and the sharing of local stories and heritage throughout the area.

The action aims to create a more connected visitor experience by helping people easily find their way to and in the precinct, discover local history and gain a deeper understanding of what makes the precinct unique.

Deliverables

- Signage audit
- Tourism and storytelling plan (Goolwa & Wharf Precinct)
- Digital resource
- New signage installed

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source
Deliver	Connectivity & Access Wayfinding, Interpretation & Storytelling	Yes (combination op-ex and cap-ex)	New Capital Expenditure Re-occurring operating expenditure

Timeline for Delivery

Scope 2027/28 → Consider 2028/29 → Deliver 2028/29

8 Develop and Implement a Heritage Trail (Self-guided tour)

This action is reflective of what was heard during the stakeholder workshops early in the Develop phase. There are existing heritage trail products in Goolwa and throughout the Wharf precinct, but stakeholders strongly believe that there is an opportunity for review, consolidation and enhancements of these products to create a refreshed and interactive experience for visitors to learn about the significance of the riverport of Goolwa.

As such, this project includes the delivery of an audit of the existing products and a piece of work to develop a product inclusive of both physical and digital resources.

Deliverables

- Review existing heritage trails
- Consolidate, refresh and enhance content
- Linked to wayfinding and storytelling action
- Develop digital resources
- Replace existing/install new signage

Council's Role	Gap/s Being Addressed	Budget Impact	Funding Source
Deliver	Connectivity & Access Wayfinding, Interpretation & Storytelling Activation & Experience	Yes (combination op-ex and cap-ex)	New Capital Expenditure Re-occurring operating expenditure

Timeline for Delivery

Scope 2027/28 → Consider 2028/29 → Deliver 2028/29

6. Next Steps - Plan for Implementation and Success

In accordance with the Framework, this Strategy will be presented to the Tier 3 (wider community) stakeholders through a formal community engagement process. Following this process, the outcomes of community engagement and the Improvement Report will be presented to Council for endorsement.

The Framework articulates that the reports created during the Develop phase should remain flexible, with scope to update and continue to refine as implementation occurs. As such, success measures for the identified actions will be ongoing, and more relevant as each of the individual actions progress to the Deliver phase in their own right.

The completion of this Holistic Review marks the beginning of the next phase in the evolution of the Precinct. The Review has identified a clear set of priorities that respond to current challenges, while positioning the Precinct to maximise future opportunities arising from increased visitation, investment and activation.

The immediate focus will be on progressing the short-term priority actions identified in this Strategy. Recognising that not all actions can be delivered simultaneously, implementation will occur in a staged and coordinated manner. Over the next 12 to 24 months, Council will collaborate closely with business, community organisations, Strategic Partners and Government Departments, to begin with the foundational initiatives that establish the governance, planning and strategic direction required to support future investment and activation.

Importantly, this Strategy should be viewed as a living document rather than a fixed plan. The Goolwa Wharf Precinct will continue to evolve, and Council's approach must remain responsive to changing community expectations, market conditions, visitor trends and investment opportunities.

The success of the Strategy will ultimately be measured not only by the completion of individual actions, but by the extent to which the Precinct becomes a more vibrant, connected, economically sustainable and celebrated destination for residents and visitors alike. Through continued collaboration and a shared commitment to the Precinct's future, the actions outlined in this Strategy provide a practical pathway towards achieving that vision.

Community Engagement Plan

Goolwa Wharf Precinct Holistic Review – Draft Goolwa Wharf Strategy



Name of Project: Goolwa Wharf Precinct Holistic Review

Dates of Engagement: 22 October – 13 November 2026

Subject of Council Report:

☒ Yes, 19 October 2026

or

☐ No

This project:

☒ Is included in the Annual Community Plan

☒ Is included in the A2040 Strategic Delivery Plan 2025–2035

☐ Is a Legislative requirement

☐ Has funding allocated through existing budgets

☐ Requires external or future funding to proceed

Purpose for engagement:

☒ Feedback from the community will shape the outcome.

or

☐ This engagement is designed to build community connection or inform, with no decision-making component.

Pre-engagement considerations

Consideration	Assessment
There is expectation within the Council or the community that the project will involve community engagement.	Yes
Risk level if community consultation is **not** undertaken. (*Legal, Regulatory and Policy and / or Reputation)*	Major
Level of complexity / difficulty for decision-making.	Moderate
Key stakeholders highly invested in the decision.	Major

Engagement timeline

Milestones	Dates
Council Decision to proceed to community engagement	19 October 2026
Community engagement opens	22 October 2026
Drop-in sessions or engagement events	Nil
Community engagement closes	13 November 2026
Council Member Workshop to consider feedback	14 December 2026
Council Meeting with feedback	18 January 2027
Next steps	Consultation will help determine the priorities to be presented for inclusion through the Annual Community Plan process.

About the project

The Goolwa Wharf Precinct is one of our region's most significant waterfront destinations, valued for its heritage, tourism, recreation and community uses. Council is undertaking a holistic review of the precinct to better understand current opportunities and challenges, and to help guide future planning, investment and activation of the area.

Community engagement is an important part of this process. Based on research, stakeholder engagement and community feedback, a Strategy including a series of potential projects and initiatives have been identified. We are now asking the community to help us understand how the actions should be prioritised for delivery.

Frequently Asked Questions

Why is Council asking for feedback now?
Through the review process we have worked with key stakeholders to shape a series of actions for the future. Now we want to hear from the wider community about the prioritised actions that have been developed before they are finalised.

Are decisions already made?
No. These actions are currently in draft form.

How will my feedback be used?
Your feedback on these actions and their level of priority will be presented to Council Members for consideration in January 2027.

What happens next?
After the consultation, Council will consider the Improvement Report containing these actions. If further work is needed, another report may follow before any final decisions are made.

Form (survey) questions

1. Full name, email, connection to Alexandrina community (ratepayer and ongoing resident, ratepayer and seasonal/ holiday resident, local business owner, resident (ie. residential tenant), frequent visitor, infrequent visitor, interested stakeholder). *Required
2. Please rank the following draft actions for the Goolwa Wharf Precinct in order of priority (1 - most important to 8 – least important) *Required
3. *This ranking will help inform the prioritisation and timing of action delivery through the Annual Community Plan (Budget) process. While some actions may be considered equally important, please rank them as best you can based on your preferences.*

Action	Priority Ranking (1–8)
Establish a Community-Led Precinct Governance Group: Create a community-led governance structure that provides clear leadership, strengthens collaboration and drives the long-term success of the Goolwa Wharf Precinct.	
Develop and implement a Destination Branding and Marketing Plan: Establish a strong destination brand and coordinated marketing program that builds community pride, attracts visitors and investment, and promotes a shared vision for the precinct.	
Complete Public Realm Improvements: Enhance the precinct's public spaces through landscaping, seating, lighting and amenity upgrades to create a more attractive, welcoming and comfortable environment.	
Improve usability of public jetties and moorings from the water: Upgrade jetty and mooring infrastructure to make the precinct more accessible for recreational boat users and strengthen its role as a riverport destination.	
Develop and implement a Public Open Space Activation Plan: **Deliver coordinated activations across parks and public spaces to increase visitation, vibrancy and year-round activity within the precinct.** •	
Develop and implement a Council Building Tenancy Plan: **Introduce a curated tenancy mix for Council-owned buildings that supports activation, complements public spaces and addresses identified gaps in the precinct's offer.**	
Develop and implement a Wayfinding (Directional) & Storytelling Signage Suite: **Create an integrated wayfinding and storytelling network that helps visitors navigate the precinct while showcasing its unique history and character.**	
Develop and implement a Heritage Trail (self-guided tour): **Refresh and enhance the precinct's heritage trail experience through updated content, signage and**	

digital resources that celebrate Goolwa's riverport heritage	

4. Have we missed any critical actions? *Optional
5. Do you support the Draft Goolwa Wharf Strategy? Yes/ No/ Somewhat *Required
6. Further comments *Required for those that select 'No' or 'Somewhat', optional for 'yes'

Who's listening

Stacey Bateson, General Manager Community
Lisa O'Donoghue, Manager Economic Development
Sarah Longden, Senior Economic Development Advisor – Industry and Projects

Attached documents

Useful Documents attached:

- Project Brief and Council Report and resolution
- Discovery Report and Council Report resolution
- Draft Goolwa Wharf Strategy and council report/resolution

Additional content options:

☐	Swipe tool	Interactive before-and-after comparison of images or designs.
☐	Video presentation	Embed a video to explain the project or how to get involved.
☐	Newsfeed	Ongoing updates and announcements for the project.
☐	Subscribe for updates	Allows users to sign up for email updates about the project.
☐	Image slider	Scrollable series of images for visual storytelling.
☐	Gallery	Collection of images
☐	Other: Please specify.	

Engagement Tools

☒	My Say project page: The hub of all consultation details.	
☒	Form	Collect structured feedback through survey questions.
☐	Social Map	Interactive map where users can pin comments or ideas by location.
☐	Visioner Input	Ideas board for quick suggestions and creative input. Feedback looks like 'post it' notes.
☐	Quick Poll	Single-question poll for fast community sentiment checks. This is considered 'informal' or 'pulse check' feedback..
☐	Gather	A collaborative space for detailed ideas, discussions, and long-form feedback.
☒	Facilitate written submissions (via email and post)	
☐	Face-to-face engagement	E.g. Information Session, Drop-in sessions, market stall etc.]

Stakeholders to be informed

Residents and Ratepayers	
☒	General Residents and Ratepayers
☐	Adjoining Property Owners / Business Owners
Government and key agencies	
☒	Ngarrindjeri Aboriginal Corporation
☐	Department for Environment and Water
☐	SA Water
☐	Department for Infrastructure and Transport (DIT)
☐	Department of Climate Change, Energy, The Environment and Water
☐	Environment Protection Authority (EPA)
☐	Surrounding Councils
☐	Landscape Boards SA

- ☒ Regional Development Australia
- ☐ Members of Parliament
- ☐ Minister of Planning
- ☐ Other: e.g. Miwi Inyeri Pelepi Aboriginal Corporation (MIPAAC)
- ☐ Not applicable

Section 41 Committees / Advisory Committees

- ☐ Audit and Risk Committee
- ☐ Agricultural Advisory Group
- ☐ Cemeteries Advisory Group
- ☐ Climate Emergency and Environment Advisory Committee
- ☒ Heritage Advisory Group
- ☐ Ratalang Basham Beach and Horseshoe Bay Advisory Committee
- ☒ SA Wooden Boat Festival Committee
- ☐ Strathalbyn Recreation Precinct (Lot 10) Advisory Group
- ☐ Not applicable

Community groups, ratepayer associations and other organisations

- ☐ Alexandrina Residents and Ratepayers Action Group
- ☒ Cittaslow
- ☐ Clayton Bay Community Association
- ☒ Goolwa Wharf Operators Group
- ☐ Langhorne Creek Progress Association
- ☐ Hope Forest Residents Association Inc.
- ☐ Middleton Community Association Inc. (formerly Middleton Town and Foreshore Association)
- ☐ Milang and District Community Association Incorporated
- ☐ Mount Compass War Memorial Community Association
- ☐ Murray River Lakes and Coorong Action Group
- ☐ Port Elliot Town and Foreshore Association
- ☐ Strathalbyn Business Group
- ☐ Strathalbyn Tourism Association
- ☐ Not applicable

Communication Tools

Audience	Channel	Responsibility
Residents/ Ratepayers	Council website - Latest news article on home page of corporate website (space permitting)	Marketing and Communications Officer
	Social media (Instagram and Facebook) – at the start and midway through consultation	Marketing and Communications Officer
	Council displays – entryways at Council office and digital screen at SPEC	Community Engagement Officer
	Community noticeboards	N/A
	My Say e-newsletter subscribers	Community Engagement Officer
	Corflutes (large waterproof signage on site) Two signs placed at Wharf and Jaralde Park	Community Engagement Officer
Adjoining Property Owners / Business Owners	N/A	N/A
Government and key agencies	RDA – Email	Julie Marron/Sarah Longden
Section 41 Committees / Advisory Committees/ Audit and Risk Committee	SA Wooden Boat Festival Committee at Meeting of 19 October Heritage Advisory Group at meeting of 01 October 2026	Sarah Longden
Community groups, resident and ratepayer associations	Tier 1 & Tier 2 Stakeholder Group (includes Goolwa Wharf Operators and Cittaslow)	Julie Marron/Sarah Longden
Media	Fleurieu Sun, The Southern Argus	Marketing and Communications Officer
Internal staff	Connect Intranet Announcement	Julie Marron

Council Members	Briefing to Council Members: ☒ Council Report ☐ CM Portal ☐ Email ☒ Council Information Session	Sarah Longden

Reporting

The My Say Alexandrina software provides a report on close of the consultation, with all submissions received through the My Say site. In addition, written submissions are recorded and allocated to Sarah Longden.

A summary of key themes that emerge from the submissions received (all methods of engagement) are identified and included in the Council Report.

A detailed Community Engagement Report will be published on the My Say project page.

The Reports to Council will be public documents, available on Council's website after release.

Names, addresses and information that personally identifies the respondents will not be included in public Reports.

Risks

Risk	Mitigation strategies
Reputation/ community expectation	• Communicate clearly and transparently about project scope and limitations. • Use FAQs to address common concerns.
Low community involvement	• Promote on multiple channels and target audiences where possible. • Schedule sessions at convenient times.
Single-issue dominance	• Set clear engagement guidelines. • Use moderated forums or facilitated sessions. • Provide balanced information to broaden discussion.
Governance and compliance	• Ensure all processes align with legislative and policy requirements. • Document decisions and approvals.
Decision complexity	• Break down decisions into clear stages.

	• Provide visual aids (diagrams, summaries). • Engage subject matter experts and Council Members early.
Potential for controversy	• Prepare key messages and Q&A sheets. • Discuss crisis management with the Communications Team prior to consulting.
Public impact importance	• Prioritise transparency and accessibility of information. • Use plain language summaries. • Offer multiple feedback opportunities.
Community engagement demand	• Allocate sufficient resources (staff, budget). • Monitor engagement levels and adjust as needed.

Next steps for approval

☒ This Plan is to be attached to a Council Report for endorsement to commence Community Engagement.

Following endorsement by Council, send this Community Engagement Plan together with the Resolution from the Council Minutes to the Communications Team.

9.5. Horseshoe Bay Seawall Update

Decision Report

Responsible Officer: Alan Harvey (General Manager Infrastructure)

Report Author: Jon Smyth (Manager Assets)

Previous Decisions: Nil

Report Purpose

This report provides Council with a detailed update on the recent failure and deterioration of sections of the Horseshoe Bay Seawall at Port Elliot, outlines the immediate public safety and make-safe measures implemented to date, and sets out the proposed pathway for temporary stabilisation and the longer-term renewal of the seawall.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Horseshoe Bay Seawall Update*.**
2. **Notes the work of the Administration to make safe and remediate the wall.**
3. **Approves the Administration to progress engineering design for temporary stabilisation works to facilitate reopening of the affected area for the 2026/27 summer period.**

Background

Following recent significant rainfall events the seawall at Horseshoe Bay, Port Elliot has suffered deterioration and failure in sections.

Following the initial event, Council arranged an engineering assessment and implemented controls to manage the immediate public safety risk. A subsequent significant rainfall event resulted in further deterioration and wall collapse, requiring the site response and engineering advice to be reviewed and escalated.

Following receipt of the most recent engineering assessment, Council commenced the immediate make-safe actions identified as critical to public safety. These actions have included maintaining and expanding exclusion zones, installing temporary protection measures using concrete blocks to reduce exposure to storm and tide surges, and establishing ongoing monitoring of the affected area in accordance with engineering recommendations.

The recent engineering assessment identified that the poor condition of the seawall is not limited to the recently collapsed areas. Sections of the seawall have experienced significant long-term deterioration, with the southern and northern seawalls considered structurally inadequate for long-term serviceability. The engineering advice therefore recommends that Council consider fully engineered reconstruction options and undertake further assessment of the stormwater drainage system that outfalls through the wall and its capacity.

Administration subsequently commenced work with consulting engineers to define the scope of both short-term stabilisation and longer-term renewal. This work has considered the extent of the affected infrastructure, likely engineering requirements, staging opportunities, heritage matters, wave modelling report, community consultation outcomes and the need to integrate appropriate stormwater management into the future solution.

The potential temporary stabilisation measures are intended to facilitate the safe reopening of the area for the 2026/27 summer period, while longer-term renewal, design and construction options are developed for future consideration by Council.

Discussion

Next steps

Immediate and current action

The immediate priority remains public safety and preventing further uncontrolled deterioration while a robust permanent renewal solution is developed. The current exclusion arrangements have necessarily restricted access to part of the Horseshoe Bay precinct. Given the importance of Horseshoe Bay to residents, visitors, businesses, clubs and community organisations, Administration is seeking to establish whether an engineered temporary stabilisation solution can safely enable the affected area to be reopened for the 2026/27 summer period.

Short term action - Temporary stabilisation works and exclusion zone reduction

The next step is to obtain engineering designs for temporary stabilisation works. The objective of this design is to identify a practical, cost effective and structurally appropriate interim treatment that manages the identified risks and provides a safe basis for reopening as much of the affected area as practicable over summer. The temporary stabilisation works are also intended to limit further erosion and instability, reducing the risk of deterioration extending to adjacent structures and infrastructure before a permanent renewal solution is delivered. The final extent and configuration will be determined through engineering design and consideration of site, coastal and weather conditions. Noting that the remediation of the bluestone stairs adjacent to the lower car park will be made safe but not reinstated, as other accesses are available and this reduces the cost of the design and temporary construction works.

The design expenditure required to develop the temporary stabilisation solution can be accommodated within the current Annual Community Plan capital project funding. Progressing this design now will allow Administration to establish a defined construction scope and reliable cost estimate. Once design and costing are sufficiently developed, a further report will be presented to Council seeking the necessary direction and, where required, budget approval for construction.

Longer term action - Permanent renewal

In parallel, Administration will continue preparations for the development of the permanent seawall renewal. A permanent solution cannot be delivered before the upcoming summer period due to the scale and complexity of the works and the need for appropriate investigations, detailed engineering, approvals, funding, procurement and construction planning. The permanent design must provide a durable and resilient outcome rather than a short-term response to the immediate failure.

All permanent design work will be aligned with Council's Horseshoe Bay Wave Modelling Project (see Item 9.6 in this agenda) and the outcomes of the associated community consultation. The wave modelling provides an important technical basis for understanding coastal conditions at Horseshoe Bay and will inform the engineering response required for long-term resilience. Community feedback obtained through that process will also be aligned so that the development of permanent options responds appropriately to the broader use, character and community expectations of the precinct.

The permanent renewal process will also need to consider stormwater management, constructability, staging, heritage and landscape outcomes, coastal protection requirements, public access, interaction with adjoining infrastructure and businesses, procurement and funding. Administration will also explore all available funding opportunities during the process to support delivery of the permanent renewal works, including potential applications through the Coast Protection Board's Coast Protection Grants, SA Climate Ready Coasts or other coastal adaptation and resilience funding streams, and Australian Government disaster resilience programs such as the Disaster Ready Fund where eligibility and timing align with the project scope.

Insurance

An insurance claim process is currently pending in relation to the seawall failure and associated damage. While the outcome of that process is yet to be confirmed, any potential insurance payout will be considerably less relative to the likely cost of either the temporary stabilisation works or the permanent renewal works. Accordingly, the insurance process will be progressed in parallel with project planning, but it should not be relied upon as the primary funding source for the works required.

Further Council reporting

Further Council reporting will therefore occur in stages. The next report will provide the proposed temporary stabilisation design and associated construction cost estimates, together with an update on detailed design for permanent renewal. This approach will enable Council to separately consider the immediate works required to manage the coming summer period and the more substantial financial and strategic decisions associated with permanent reconstruction.

Community engagement

Targeted stakeholder engagement will form part of the project planning process for both the temporary stabilisation and permanent renewal works. Relevant stakeholders will include the Port Elliot Town & Foreshore Association, Heritage Society, Flying Fish Cafe, Bowling Club and Surf Club, together with other directly affected parties identified through project planning. Engagement will focus on keeping stakeholders informed of proposed works, access arrangements, likely timeframes and disruptions, while also providing an opportunity for relevant local, operational and heritage considerations to inform project development.

Until temporary works are designed and implemented, the site will continue to be monitored, and existing exclusion and protection measures will remain in place or be adjusted where engineering advice identifies a need. Public access will only be reinstated where Council is satisfied that the relevant safety risks have been appropriately controlled.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered Low.

The engineering design work required for the proposed temporary stabilisation can be accommodated within the current ACP project (200506 Horseshoe Bay Seawall Renewal) . This enables the investigation, design and cost estimate phase to proceed without an additional budget request at this stage.

The construction cost of the temporary stabilisation works has not yet been confirmed and will depend on the engineering solution developed. A further report will be provided to Council once the temporary design has advanced sufficiently to establish a reliable construction estimate and delivery approach.

The costs associated with the design and construction of the longer-term renewal solution are not yet known and will be subject to the outcomes of further investigation, engineering design, approvals, procurement and staging considerations. However, given the scale, complexity and coastal setting of the works, these costs are expected to be considerable and will need to be the subject of future Council consideration once more reliable estimates are available.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk associated with adopting the recommendation is considered Low, as the costs associated with undertaking the temporary stabilisation design can be accommodated within the existing Annual Community Plan.

Conversely, the risk associated with not adopting the recommendation is considered High, having regard to the current condition of the seawall, the potential for further deterioration or infrastructure failure, and the consequential risk to public safety. Further deterioration or failure of the seawall may present a risk to people accessing or using the foreshore and adjoining areas or risk additional infrastructure failures.

Attachments

Nil

9.6. Community Engagement Outcomes - Horseshoe Bay Beach Access Review and Design

Decision Report

Responsible Officer: Alan Harvey (General Manager Infrastructure)

Report Author: Jess Bridgman (Team Leader Open Space and Buildings)

Previous Decisions: C234/07/2025, C235/07/2025, C236/07/2025, C237/07/2025, C237/07/26 and C238/07/26

Report Purpose

The purpose of this report is to inform Council of the outcomes of community engagement undertaken for the Horseshoe Bay Beach Access Review and Preliminary Concept Design, and to seek Council's endorsement to progress the project.

Recommendation

Recommendation Group A

That Council:

1. **Receive and note the report titled *Community Engagement Outcomes - Horseshoe Bay Beach Access Review and Design*.**
2. **Receive and note the contents of the Horseshoe Bay Beach Access Review and Preliminary Concept Design Community Engagement Report.**

Recommendation Group B

That Council:

1. **Approve progression of the Horseshoe Bay beach access improvements project to detailed design**.

Background

At its meeting on 20 July 2026, Council considered a report seeking approval to undertake community engagement on the Horseshoe Bay Beach Access Review and Preliminary Concept Design. Council resolved (C238/07/26) to approve the preliminary concept design for public consultation, with the engagement period commencing on 23 July 2026 and concluding on 14 August 2026.

The review focused on the beach access points within Commodore Reserve & Horseshoe Bay, Port Elliot, where existing access infrastructure is ageing and sections of the network have reached, or are approaching, the end of their serviceable life.

Commodore Reserve is a highly valued and well-utilised coastal open space that serves local residents and visitors alike. The reserve provides opportunities for recreation, social activities, beach access, connections to the adjacent caravan park, and links to the coastal walking trail network. The preliminary concept design sought community feedback on proposed improvements to beach access arrangements, with a focus on enhancing safety, accessibility, sustainability, connectivity, and the long-term management of access infrastructure. This included consideration of the renewal, consolidation and rationalisation of existing access points.

A comprehensive communication and engagement plan was delivered, including publication on Council's My Say engagement platform, promotion through Council's website, e-newsletters and social media channels, installation of on-site corflute signage, displays on community noticeboards, media notices, internal staff communications, and direct correspondence with relevant government agencies, advisory committees, community organisations and key stakeholders.

Discussion

Summary of the engagement outcomes

The Community Engagement Outcomes Report is provided at ***Attachment 1***. The full details of the community feedback has been provided to Council Members via the Council Member Portal.

The community engagement outcomes provide a strong basis for progressing the Horseshoe Bay Beach Access Review and Design Project. Feedback demonstrated broad support for renewing ageing beach access infrastructure and improving safety, accessibility and connectivity across Commodore Reserve and Horseshoe Bay. Respondents generally recognised the need to balance practical beach access with environmental protection, coastal resilience and preservation of the area's valued coastal character. Many participants also highlighted the importance of maintaining access for a diverse range of users, including residents, visitors, families, older community members, people with mobility challenges and recreational users.

The consultation reinforced the significance of Commodore Reserve and Horseshoe Bay as important community and visitor destinations. Responses indicated strong support for projects that improve public safety and accessibility, particularly the renewal and realignment of Beach Access No. 4, upgrades to safety fencing, consolidation of Beach Access No 5 and improvements to the existing boat ramp. Feedback also identified opportunities to improve pedestrian connections throughout the reserve while reducing informal access paths that can contribute to dune degradation and environmental impacts.

A consistent theme throughout the consultation was the need for future design development to carefully balance multiple and sometimes competing considerations. These include maintaining convenient and practical beach access, improving accessibility outcomes, protecting dunes and native vegetation, responding to coastal processes such as erosion and sand movement, preserving the character and amenity of Horseshoe Bay, and ensuring infrastructure remains functional and resilient over the long term.

An additional written submission received from the Port Elliot Surf Life Saving Club represents an important consideration for the next stage of design development. While supportive of initiatives that improve public access to the beach, the submission raised concerns that replacing the existing boat ramp with a pedestrian-focused access solution may reduce the site's ability to support emergency response operations. The Club identified the central boat ramp as an important access point for lifesaving vehicles, emergency services and the movement of operational equipment, noting its role in supporting timely responses to incidents and facilitating casualty retrieval from the beach.

Key themes from the community engagement included -

Theme	Summary
Beach access and connectivity	Feedback highlighted the importance of maintaining practical and convenient beach access for all users. In response, the preferred design retains key access points while enhancing connectivity, accessibility and wayfinding. Respondents supported safer, more accessible and more durable access infrastructure, including appropriate gradients, surfaces, handrails and transitions between access structures and the beach.
Accessibility and safety	Community feedback supported safer, more accessible and durable beach access, with the preferred design incorporating accessible design principles and practical safety improvements, including appropriate gradients, surfaces, handrails and transitions where feasible.

Environmental protection and coastal resilience	Community feedback emphasised the importance of protecting dunes, native vegetation and the coastal environment, with the preferred design aiming to minimise environmental impacts while providing access infrastructure that is resilient to erosion, sand movement and other coastal processes.
Coastal character and amenity	Community feedback highlighted the importance of preserving the natural character of Horseshoe Bay and the amenity of Commodore Reserve, with the preferred design integrating sensitively with the coastal landscape while maintaining the area's recreational, visual and environmental values.
Project scope and communication	Community feedback highlighted the importance of clear information about the proposed access upgrades, including the rationale for access consolidation and how feedback would influence the project. Ongoing project updates and information on design development and construction timing will be communicated through the My Say Alexandrina platform.
Boat Ramp upgrades	Community feedback highlighted the value of renewing the central boat ramp to provide safer and more accessible beach access, particularly for people with mobility challenges. Feedback also recognised the ramp's important role in emergency response and recreational equipment movement, with the preferred design seeking to deliver fit-for-purpose, multi-use infrastructure that supports both community access and operational requirements.

In response to both community and stakeholder feedback, the next design phase should further investigate options for renewing the existing boat ramp as a fit-for-purpose, multi-use access facility. Consideration should be given to improving beach accessibility for all users, particularly people with mobility challenges, while also accommodating emergency response requirements, lifesaving operations and the movement of recreational and operational equipment. This assessment should be undertaken in consultation with relevant emergency service agencies, Port Elliot SLSC and Coastal Protection Board and be informed by site-specific coastal conditions, environmental constraints and long-term asset management objectives.

Overall, the engagement outcomes indicate strong support for continued design development, with feedback providing clear direction on the key principles that should guide the next stage of the design. Future design work should focus on delivering safe, accessible, environmentally responsible and operationally effective access infrastructure that maintains the recreational value and coastal character of Horseshoe Bay while meeting the needs of the broader community.

Next steps

Subject to Council's support the Horseshoe Bay Beach Access Review and Design Project would proceed to detailed design and incorporate the following aspects and further engagement:

a. Renewal of Beach Access Stairs No. 4 (as noted within the concept in Attachment 2), including realignment to improve connection with the stairs from Basham Parade.

b. Improved pedestrian beach access.

c. Consolidation with removal of Beach Access No. 5 (as noted within the concept in ***Attachment 2***) at the end of its useful life.

d. Ensure any future consolidation of access points is accompanied by upgraded alternative access that maintains or improves connectivity for residents, visitors and those with mobility requirements.

e. Review the design requirements for the existing boat ramp to ensure that the renewal outcome accommodates a fit-for-purpose beach access and supports an outcome that provides safe, practical and inclusive access for all users, including people with mobility needs, families, the Port Elliot Surf Life Saving Club and emergency services.

f. Consider opportunities to improve accessibility, safety and connectivity for residents and visitors while maintaining practical beach access.

g. Minimise impacts on dunes, native vegetation and the broader coastal environment, and incorporate coastal resilience measures where appropriate.

As part of undertaking the above targeted engagement with the Port Elliot Surf Life Saving Club, Port Elliot Town & Foreshore Improvement Association, Emergency Services, Coastal Protection Board and Department of Environment and Water will be undertaken

Additionally, we will publish updates on the My Say platform to communicate the final design outcomes to the community.

Financial Implications

In accordance with the Alexandrina Council Adopted Budget and Long Term Financial Plan, the financial implications of adopting these recommendations are considered Low. This is on the basis that future financial commitments and construction costs will be further assessed through the detailed design process, including cost planning and project scoping. Any future capital works funding requirements will be subject to consideration, prioritisation and adoption through future Capital Works Programs, Annual Community Plans and the Long-Term Financial Plan, including consideration of staged delivery options where appropriate.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low. This is on the basis that progressing the project to detailed design will enable Council to further assess and address risks associated with ageing coastal infrastructure, public safety, accessibility requirements, emergency access, environmental protection and long-term asset management. The detailed design process will also provide the opportunity to consider coastal processes, erosion, storm impacts, operational access needs, public liability considerations and any relevant statutory or environmental approvals prior to implementation.

Attachments

Attachment 1 - Community Engagement Feedback Report - Horseshoe Bay Beach Access

Attachment 2 - Concept Design Horseshoe Bay beach access review.

Community Engagement Feedback Report

Horseshoe Bay beach access points - Review and design

Consultation dates: 23 July - 14 August 2026

Contents

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1.Background

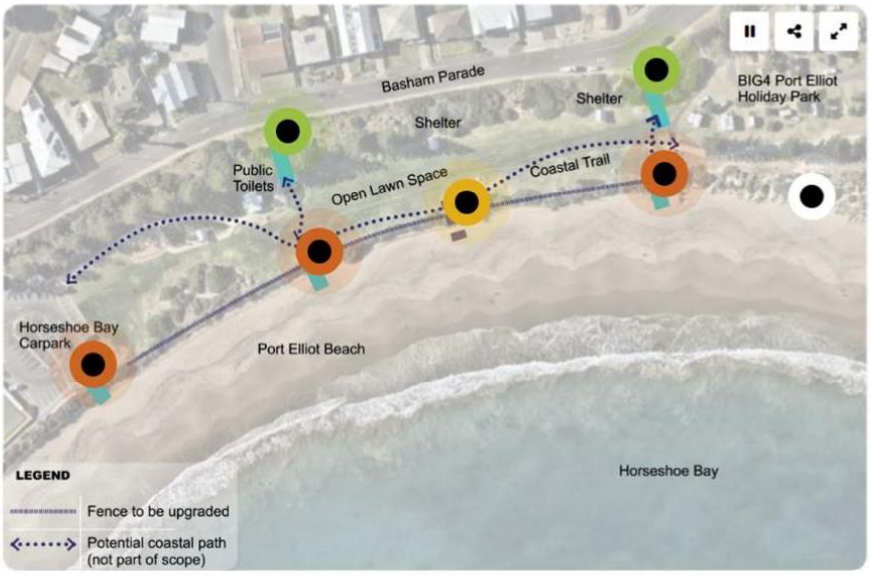
Council reviewed the beach access points at Commodore Reserve at Horseshoe Bay, Port Elliot, to explore safer and more accessible upgrades.

Commodore Reserve is a popular coastal open space used by locals and visitors for recreation, social gatherings and access to the beach. The reserve includes a range of amenities including playground, public toilets, shower and connection to the Caravan Park and coastal walking trails.

Some beach access points are ageing, with sections recently removed after reaching the end of their useful life.

This is the first stage in community consultation.

Community members were invited to view the preliminary concept design and provide feedback on the proposed upgrades and consolidation. Feedback from consultation will help inform detailed designs that will be utilised for future improvements.



Green = no change

Orange = proposed changes

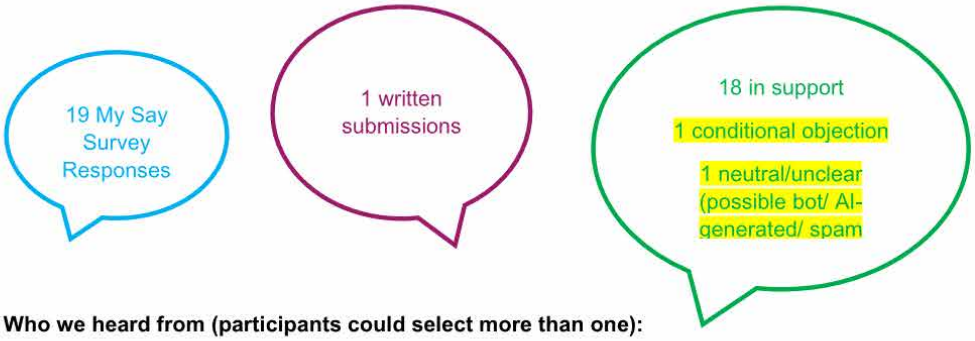
Yellow = Removal after end of asset life

White = Not included in project

2. Engagement Snapshot

During the consultation period from 23 July - 14 August 2026 **a total of 20 responses** were received across both the My Say platform and via email/hard copy.

Note: One additional written submission was received outside the My Say reporting system from Port Elliot Surf Life Saving Club. The submission supported improvements to public access but raised specific concerns regarding emergency vehicle access at the central beach access ramp. This correspondence has been considered separately due to its relevance to emergency response access and future detailed design.



Who we heard from (participants could select more than one):

Answer Choices	Percent	Count
Ratepayer and ongoing resident	65.2	15
Ratepayer and seasonal/ holiday resident	8.9	2
Resident (i.e. residential tenant)		
Ratepayer and business owner		
Frequent visitor	13	3
Infrequent visitor		
Interested stakeholder	13	3
Other		
Total		23

2.1 Engagement communications

Audience	Channel	Results
Residents/ Ratepayers	Council website - Latest news article on home page	Duration of consultation
	My Say page	Page visits: 278 Document downloads: 127
	My Say e-newsletter subscribers	23 July - Sent to 2,306 subscribers (46.7% open rate)
	Social media (Instagram and Facebook) – 27 July and 12/13 August	**Facebook** • Views: over 1.3k • Link clicks: 47 • Interactions: 6 **Instagram** • Views: 971 • Interactions: 13
	Council office displays - entryways	Duration of consultation
	Community noticeboards	Hotel Elliot Port Elliot Bakery Port Elliot Pharmacy Port Elliot Institute 
	Corflutes (large waterproof signage on site)	Three signs installed throughout consultation

Adjoining Property Owners / Business Owners	N/A	
Government and key agencies	Direct email	Ngarrindjeri Aboriginal Corporation Department for Environment and Water Landscape Boards SA
Section 41 Committees / Advisory Committees/ Audit and Risk Committee	Invited committee members to provide feedback as individual community members and share information with their networks via an out-of-session email	Climate Emergency and Environment Advisory Committee Heritage Advisory Group Ratalang Basham Beach and Horseshoe Bay Advisory Committee
Community groups, resident and ratepayer associations	Direct email	Port Elliot Town & Foreshore Improvement Association Port Elliot SLSC Port Elliot Bowling Club Flying Fish Café
Media	Fleurieu Sun, The Southern Argus	
Internal staff	Connect Intranet Announcement	24 July
Council Members	Briefing to Council Members via Council Report	20 July 2026

ALEXANDRINA COUNCIL
Community Consultations

Council seeks community feedback on the following two (2) consultations. Please direct all written submissions via **mysay.alexandrina.sa.gov.au**, email **alex@alexandrina.sa.gov.au** or by post to the CEO, PO Box 21, Goolwa SA 5214. Submissions for both consultations will be accepted by Council until **5 pm, Friday 14 August 2026**.

Milang Soldiers Memorial Garden Courts renewal - Design
The five tennis courts and recreation area located at the Anzac Park corner of Coxe Street and Luard Street at Milang contain ageing infrastructure and no longer serves the current recreational needs of the community. Council is inviting the community to consider a preliminary concept design for potential usage. Feedback will help to shape final priorities and detailed designs.

Horseshoe Bay Beach Access points - Review and Design
Council is reviewing beach access points at Commodore Reserve within Horseshoe Bay, Port Elliot, to explore safer and more accessible upgrades. Community members can view the preliminary concept design and provide feedback on the proposed upgrades and consolidation. Feedback from consultation will help inform detailed designs that will be utilised for future improvements.

For further information on both consultations, please call the Team Leader Open Space and Building Assets on 8555 7000.

3. Consultation Response Overview

3.1 Evaluation

Feedback received

The majority of respondents identified as ratepayers and ongoing residents, representing 78.95% of responses.

When asked about consolidating beach access through the removal of Beach Access No. 5 (as noted within the concept with Consultation Images section) from Commodore Reserve to the beach, 42.11% of respondents supported the proposal, 26.32% somewhat supported it, and 31.58% did not support it.

When asked whether upgrading the existing boat ramp to a pedestrian ramped access would be beneficial, 47.37% of respondents supported the proposal, 31.58% somewhat supported it, and 21.05% did not support it.

When asked about installing a pathway network through Commodore Reserve to connect access points, 22.22% of respondents supported the proposal, 38.89% somewhat supported it, and 38.89% did not support it.

Respondents expressed the strongest overall support for upgrading fencing to improve public safety, with 55.56% supporting the proposal and a further 38.89% somewhat supporting it. Only 5.56% did not support the proposed upgrade.

The complete renewal of Beach Access No. 4(as noted within the concept with Consultation Images section), including demolition, reconstruction and minor relocation to better align with the stairs from Basham Parade, also received majority support. A total of 47.37% of respondents supported the project, 31.58% somewhat supported it, and 21.05% did not support the proposed works.

When respondents were asked to rank the proposed projects in order of priority, the following order was identified:

1. Renew Beach Access No. 4 and slightly relocate it to better align with the stairs from Basham Parade.
2. Upgrade the existing boat ramp to provide pedestrian ramped beach access.
3. Consolidate beach access through the removal of Beach Access No. 5, with the intent of providing an upgraded and more accessible beach access point.
4. Upgrade fencing to improve public safety.
5. Install a pathway network through Commodore Reserve to connect access points.

Survey respondents reported the following frequency of visits to Commodore Reserve and Horseshoe Bay:

- Daily = 31.58%
- Weekly = 26.32%
- Monthly = 31.58%
- Occasionally = 10.53%

Respondents were also asked whether they, or someone they know, experience challenges or barriers accessing the beach from Commodore Reserve. The following responses were received:

- Yes= 36.84%
- No= 63.16%

Evaluation/summary of feedback:

Feedback on the Horseshoe Bay Beach Access Points Review and Preliminary Concept Design demonstrated strong community interest in balancing practical beach access, public safety, improved accessibility, environmental protection and the preservation of the area's coastal character.

The feedback indicates that Commodore Reserve and Horseshoe Bay are well-used community assets, with regular visitation reported by daily, weekly and monthly users. A notable proportion of respondents also identified access challenges for themselves or someone they know, reinforcing the importance of considering accessibility and ease of movement in the next stage of design.

Overall, the survey results showed support for renewing and improving existing access infrastructure, particularly works that improve public safety, accessibility and long-term asset condition. The highest level of support was recorded for fencing upgrades, the renewal and minor relocation of Beach Access No. 4, and upgrading the existing boat ramp to provide a renewed fit for use beach access.

Respondents also recognised the potential benefits of improved connectivity through Commodore Reserve, while identifying the need to carefully manage any consolidation or modification of existing access points. Future design work should therefore balance improved access and pedestrian connections with user convenience, coastal conditions, environmental protection and the character of the reserve.

Overall, the feedback recognised the need to renew ageing infrastructure and improve safety and accessibility outcomes at Commodore Reserve and Horseshoe Bay. It indicates broad support for progressing design work that maintains practical beach access for a diverse range of users, including residents, visitors, people with mobility challenges, recreational users and emergency service operators. Future design development should continue to balance accessibility, public safety and asset renewal with local site conditions, coastal processes, environmental values, existing recreational use patterns, emergency access requirements and the reserve's role as a significant coastal recreation destination for residents, visitors and nearby businesses.

Key Themes Identified

Theme	Summary of Feedback	Evaluation
Beach Access and Connectivity	Feedback highlighted the importance of maintaining practical, convenient and legible beach access for residents, visitors, families, older community members, people with mobility challenges and	Detailed design should demonstrate how practical access and connectivity will be maintained or enhanced for a broad range of users, particularly where access points are consolidated, renewed or

	recreational users. Respondents recognised the value of access points and emphasised the need to maintain connectivity between Commodore Reserve, Horseshoe Bay, the caravan park and surrounding coastal areas. Community feedback also identified opportunities to improve pedestrian connections and reduce informal dune crossings through well-planned access infrastructure.	modified. Consideration should be given to pedestrian movement between key destinations, user convenience, universal access outcomes and opportunities to reduce informal access paths and associated impacts on the dune system.
Accessibility and Safety	Respondents expressed strong support for improvements that enhance public safety, accessibility and the long-term condition of beach access infrastructure. Feedback highlighted the importance of accommodating people with varying mobility needs, including older residents, wheelchair users, families with prams and users transporting recreational or lifesaving equipment. Several submissions also emphasised the need to maintain access arrangements that support emergency services, surf lifesaving operations and beach management activities.	Detailed design should prioritise safe, durable, accessible and maintainable infrastructure, including appropriate gradients, surfaces, handrails and transitions between access structures and the beach. Design development should also consider emergency and operational access requirements where required, ensuring public accessibility outcomes are balanced with response and service needs.
Environmental Protection and Coastal Resilience	Protection of dunes, native vegetation and the broader coastal environment was a consistent theme throughout the consultation. Respondents recognised the need for access infrastructure to respond to fluctuating sand levels, erosion processes and storm impacts, while minimising disturbance to sensitive coastal environments and supporting sustainable long-term outcomes.	This feedback aligns with the project's objective to provide safe and sustainable access infrastructure that responds to dynamic coastal conditions. Detailed design should seek to minimise impacts on dunes and vegetation, manage erosion risks, reduce ongoing maintenance requirements and improve the resilience of access infrastructure to coastal processes.
Coastal Character and Amenity	Respondents highlighted the importance of ensuring future infrastructure complements the	Material selection, siting and design detailing should be carefully considered to ensure

	natural coastal setting and preserves the character of Horseshoe Bay and Commodore Reserve. Feedback indicated support for improvements that enhance the visitor experience, maintain recreational amenity and avoid unnecessary visual or environmental impacts on the foreshore environment.	new infrastructure integrates with the surrounding landscape, protects coastal character, maintains the reserve's recreational amenity and supports ongoing community use.
Project Scope and Communication	Respondents showed strong interest in understanding the proposed changes, the rationale for access upgrades and consolidation, and how community feedback will help inform future decision-making. Feedback also highlighted the value of continued, accessible communication as the project progresses, including clear updates on how preferred outcomes balance accessibility, safety, environmental protection, emergency access, user convenience and long-term asset management.	Future communications will continue to support transparency by clearly explaining the intent of proposed works, the reasons for prioritised projects, the implications of any access point consolidation, and how community feedback has informed design development. Feedback reports and project updates will be made available through the My Say platform.
Boat Ramp upgrades	Community feedback highlighted the value of renewing the central boat ramp to provide safer and more accessible beach access, particularly for people with mobility challenges. Feedback also recognised the ramp's important role in emergency response and recreational equipment movement.	The future design should seek to deliver fit-for-purpose, multi-use infrastructure that supports safer and more accessible beach access for all users, including people with mobility challenges, while also accommodating emergency response and movement of recreational equipment whilst recognising relevant coastal conditions and site constraints.

Additional Stakeholder correspondence

An additional written submission was received from Port Elliot Surf Life Saving Club outside the My Say reporting system. The submission supported improvements that enhance public access to Horseshoe Bay, but raised concern that the proposed redesign of boat ramp may not adequately consider emergency service operational requirements.

The letter identified the boat ramp, located between the Port Elliot Bowls Club and Commodore Reserve, as an important emergency response access route for Port Elliot Surf Life Saving Club vehicles and other emergency services, including SA Ambulance, SAPOL and SA State Emergency Service. The submission noted that this access has previously been used to reduce response times and improve patient access during incidents, including medical response, missing person response, stretcher retrieval and casualty transfer.

The submission also raised concern that relying on the alternative access point behind the Flying Fish Café may create operational risk, as this area can be affected by delivery vehicles, parked vehicles and high pedestrian activity during peak periods. Port Elliot Surf Life Saving Club recommended that emergency vehicle-capable access be retained at the central location, either by retaining the existing ramp or integrating a suitably designed vehicle-capable ramp into the new pedestrian access.

The submission further recommended that any bollard treatment avoid a key-lockable arrangement, due to previous issues with keys and lock deterioration in the coastal environment, and that Council consult directly with relevant emergency service agencies before finalising the design.

Recommendation:

It is recommended that Council note the outcomes of the community engagement undertaken for the Horseshoe Bay Beach Access Review and Preliminary Concept Design and use the feedback received to inform the next stage of detailed design.

It is therefore recommended that the detailed design progresses to include the following:

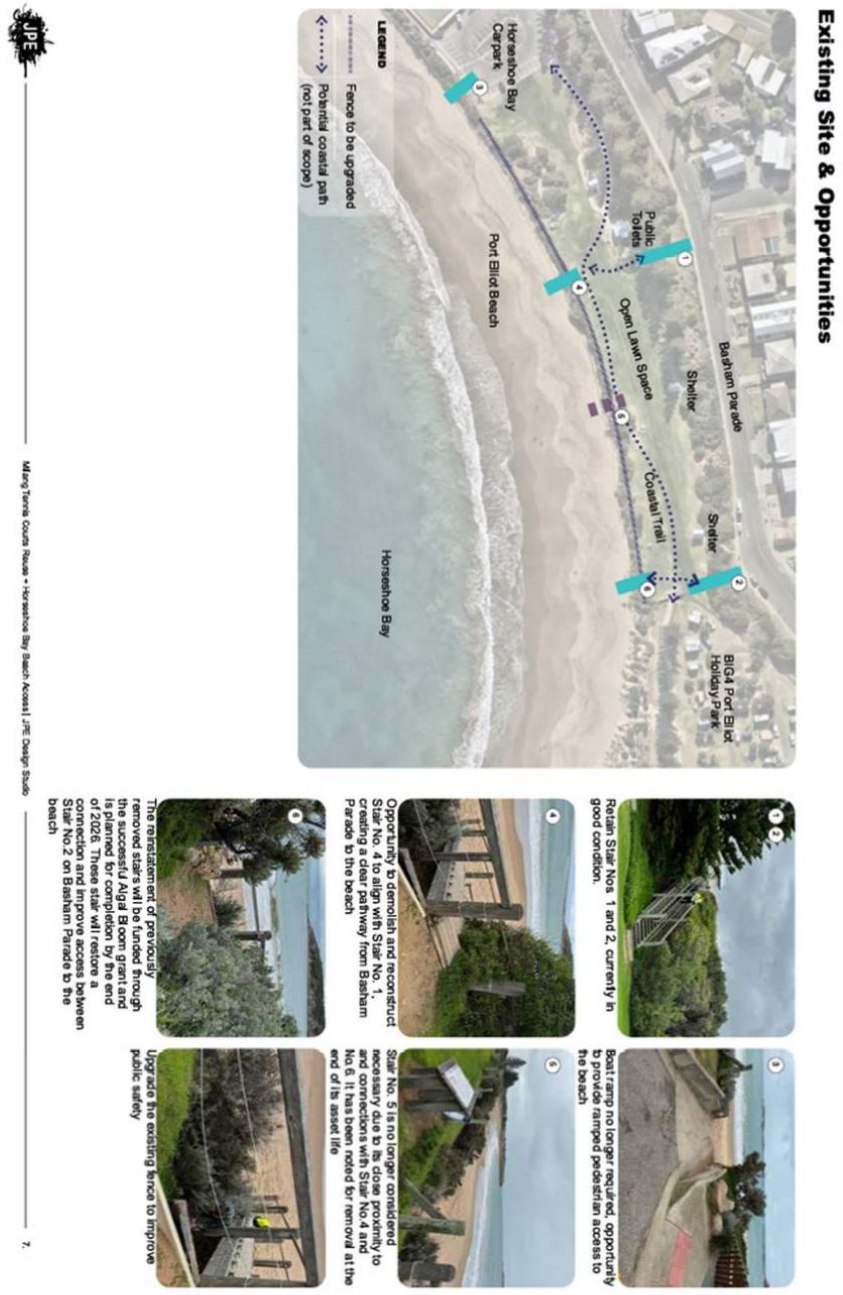
- Renewal of Beach Access Stairs No. 4(as noted within the concept with Consultation Images section), including realignment to improve connection with the stairs from Basham Parade.
- Improved pedestrian beach access.
- Consolidation with removal of Beach Access No. 5 (as noted within the concept with Consultation Images section) at the end of its useful life.
- Ensure any future consolidation of access points is accompanied by upgraded alternative access that maintains or improves connectivity for residents, visitors and those with mobility requirements.
- Review the design requirements for the existing boat ramp to ensure that the renewal outcome accommodates a fit-for-purpose beach access and supports an outcome that provides safe, practical and inclusive access for all users, including people with mobility needs, families, the Port Elliot Surf Life Saving Club and emergency services.
- Consider opportunities to improve accessibility, safety and connectivity for residents and visitors while maintaining practical beach access.
- Minimise impacts on dunes, native vegetation and the broader coastal environment, and incorporate coastal resilience measures where appropriate.
- An updated concept plan will be published on the My Say platform to communicate the final design outcomes from this engagement process and support future decision-making for the Horseshoe Bay Beach Access review project. The My Say page will

also continue to be used as the central location for future project updates, including information on detailed design development and the proposed approach to construction timing.

4. Self-nomination to participate

It is important to acknowledge that involvement in the public consultation process is voluntary, with participants self-nominating to contribute. As a result, the feedback gathered should not be regarded as statistically representative of all perspectives.

5. Consultation images



Precedent Images

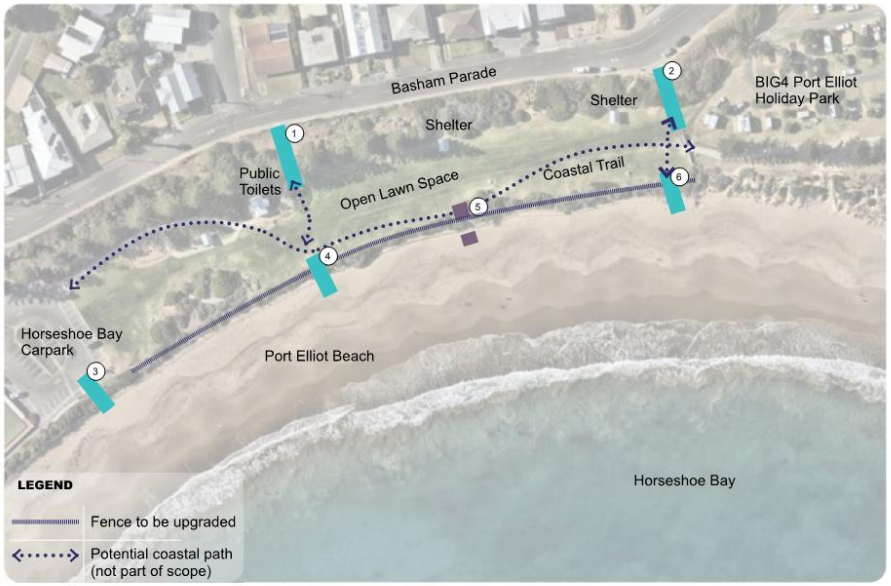
DDA access ramp to beach
East Beach, Low Head, Tasmania

DDA access ramp to beach
Point Nepean, Melbourne Australia

DDA access ramp to beach
Christies Beach South Australia

Horseshoe Bay Beach Access

Existing Site & Opportunities





Retain Stair Nos. 1 and 2, currently in good condition.



Boat ramp no longer required, opportunity to provide ramped pedestrian access to the beach



Opportunity to demolish and reconstruct Stair No. 4 to align with Stair No. 1, creating a clear pathway from Basham Parade to the beach



Stair No. 5 is no longer considered necessary due to its close proximity to and connections with Stair No.4 and No.6. It has been noted for removal at the end of its asset life



The reinstatement of previously removed stairs will be funded through the successful Algal Bloom grant and is planned for completion by the end of 2026. These stair will restore a connection and improve access between Stair No.2 on Basham Parade to the beach



Upgrade the existing fence to improve public safety

Horseshoe Bay Beach Access

Precedent Images



DDA access ramp to beach
East Beach, Low Head, Tasmania



DDA access ramp to beach
Point Nepean, Melbourne Australia



DDA access ramp to beach
Christies Beach South Australia

9.7. Proposed Land Dedication - Strathalbyn Railway Station

Decision Report

Responsible Officer: Tash Hunt (General Manager Corporate)

Report Author: Lisa Hoyle (Manager Property and Procurement Services)

Previous Decisions: C24483 - October 2024, QWN Item 6.2 - April 2026

Report Purpose

To seek consent to acquire the Strathalbyn Railway Station land parcel, by dedication from Crown Lands into Council's care, control and management pursuant to the *Crown Land Management Act 2009*. A dedication of land is an acquisition of land under Council's *Acquisition and Disposal of Land Policy.* There are no delegations in place to acquire land, and it is a decision of Council.

Recommendation

That Council:

1. **Receive and note the contents of the report titled Proposed *Land Dedication - Strathalbyn Railway Station.* -.**
2. **Approve applying to Crown Lands within the Department for Environment and Water (DEW) for the land parcel located at LT3 + 200 South Terrace Strathalbyn in Crown Record Volume 5741 Folio 511 and commonly referred to as the 'Strathalbyn Railway Station', to be dedicated to the care, control and management of Alexandrina Council, with a dedication purpose of 'Recreation and Tourism'.**
3. **Authorise the Chief Executive Officer and Mayor to sign all documentation necessary to complete the dedication process as applicable.**
4. **Include the land parcel located at LT3 + 200 South Terrace Strathalbyn, in Crown Record Volume 5741 Folio 511, as Community Land in accordance with Section 193 of the *Local Government Act 1999* and categorise the land parcel within Council's *Community Land Management Plan 2023-2028* as 'Community Facilities', should the dedication be achieved.**
5. **Notes a further report will be provided to Council with the details and estimated costs of the works required to the Strathalbyn Railway Station building.**
6. **Notes a further report will be provided to Council to consider the occupancy tenancy arrangements for the Strathalbyn Railway Station building.**

Background

For context, the land parcel, located on South Terrace Strathalbyn is identified in red below:



The land parcel the subject of this report includes the heritage listed Strathalbyn Railway Station, which houses the Strathalbyn Visitor Information Centre (Centre) and the Stationmaster Gallery (Gallery).

The Steamranger Heritage Railway, informally utilise the veranda shelter area along the rear of the building on the train station platform. The land parcel also contains Council-owned public toilets, a playground, barbecues, the Lions Club shelter and car parking spaces, with the grounds maintained by Council.

Following the acquisition of 22-24 South Terrace by Council in 2024, the property work on these adjacent land parcels identified that although Council has managed the Strathalbyn Railway Station land as a developed community reserve for a long time, there is no formal permissions in place to do so.

What Council does hold, is an annual licence agreement with the Department for Environment and Water (DEW) issued in 1992 as a temporary measure, described as '*until a more appropriate form of tenure could be determined over this parcel'.* This licence provides Council with a 'right to occupy' the site, for the assets on the land. The intent of the Licence is described as, for Council to *'maintain, restore and renovate the Station complex as appropriate, mindful of the latter's historic and heritage value and where necessary, upgrade facilities for the betterment of the local community and visitors.'*

Although the tenure for this site has been discussed within Council and DEW periodically over the years, it has not been resolved. Importantly, the Licence arrangement does not provide actual tenure, security of assets or give Council the ability to lease portions of the land or building to third parties. This makes the current tenure by Licence, unsuitable long term. This is particularly relevant when considering future uses for this building. As provided at the Information Session held at the Strathalbyn Town Hall on Monday 27 July 2026 and titled ‘Strathalbyn Visitor Information Centre – Proposed Operation Model with Strathalbyn Tourism Association’ and the subsequent Elected Member Portal Update of Monday 28 September 2026 titled ‘Strathalbyn Visitor Information Centre Update’, future community uses of this building are anticipated to be dealt with by lease or licence agreements which cannot currently occur.

Discussion

An approach to DEW has been made, to consider the options available to formalise a more secure tenure arrangement to reflect Council activities on this land parcel. Three (3) options have been considered, comprising of:

1. Council to purchase the land (at market value)
2. Council to lease the land from DEW (at annual market rent)
3. Council to have the land dedicated to its care, control and management (Cost limited to lodging the Application with DEW only).

Option 1 - Purchase

DEW's preference is for Council to purchase the land parcel at market value, with the 2026/27 Valuer General capital being $960,000. This option would achieve long term independent ownership of the land.

Option 2 - Lease

A Lease would provide Council with tenure over the land but not ownership. A Lease would incur an annual rental fee at market rent (unknown) and, unless Council has a clear intent to withdraw from the land later (and take our assets with us), there is minimal benefit in a lease arrangement for either party, as decision making would still require a level of consultation with DEW as the landlord.

Option 3 - Dedication

Dedication of the land will provide Council with the authority to manage the land how Council chooses to do so, as long as the uses support the broad dedication purpose of 'Recreation and Tourism'. Dedication will provide Council with certainty of long-term tenure of the site, with the cost limited to the $543.00 Application Form to DEW. Dedication will enable Council to provide additional benefits by providing:

- A clearer pathway for future third party tenure arrangements to occupy the land and building, such as the potential occupation of the main building by the Strathalbyn Tourist Association (STA) to deliver Visitor Information Services from this site; and, the need to resolve the current 'holding over' occupation of the Gallery space by the Stationmasters Gallery Group, and
- Assurance that the value of any Council capital or operational investment in the built infrastructure on the land is safeguarded.

If the dedication is supported by Council and DEW, a further report is proposed for the November 2026 Council Meeting, to consider the proposed Funding Agreement with the Strathalbyn Tourism Association (STA). Subject to the outcomes of these processes, a further report is proposed to seek consideration of the proposed future tenure arrangement with the STA. At this stage, a 1 July 2027 commencement date for the proposed arrangements is being considered, subject to Council approval and the relevant tenure arrangements being finalised with DEW. Future tenancy arrangements for the Gallery would also be addressed at this time.

Should the site be dedicated to Council, the intent is to include it in Council's Community Land Management Plan 2023-2028 (CLMP). To do so, the site must be given a 'category' which describes how the site can be used. The category options available are listed below, with the 'Community facilities' category considered most applicable to reflect anticipated use of the site.

- Reserves - 'Undeveloped Reserve' or 'Developed Reserve'
- Community Services - 'Community Facilities' or 'Sporting and Recreation' or 'Emergency Services' or 'Cemeteries and Memorials'
- Business Services - 'Commercial Property' or 'Marina's' or 'Holiday Parks / Camping Grounds'; or
- Multi-use Land - above category options allocated over different portions of the site

Regardless of whether the future visitor information service model is Council or third – party led as per the proposal from STA, Council still retains a level of obligation to provide a tourism service which is highly likely to continue at this location as is currently occurring. As Council retains a responsibility to provide and support tourism services at this location, the dedication of the land to Council is also required regardless of who is ultimately engaged to operate the facility.

For these reasons, the recommendation seeks consent to lodge an application with DEW to bring the land under Council's care, control and management through dedication of the land under Division 2 of the *Crown Land Management Act 1999* and if successful, categorise it within Council's CLMP as 'Community Facilities'.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered Medium.

The financial implications associated with applying to have the land dedicated to Council are limited to a one-off DEW fee of $543.00. If Council was successful in the dedication application, the current annual licence fee of $222.00 would cease and no further tenure costs would apply over future years.

However, dedication of the land and building incurs asset management costs.

The Railway Station building has an estimated replacement value of approximately $2.33 million and an annual depreciation expense of approximately $22,000. These figures exclude other Council-owned assets within the precinct, including the playground, public toilets and shelters, which are already maintained and managed in accordance with Council's *Strategic Asset Management Plan 2025-2035*. Unlike these assets, ownership and maintenance responsibilities for the Railway Station building have historically been unclear under the existing licensing arrangement, and the building has therefore not previously been recognised as a Council asset.

As a State Heritage Place, future repairs, renewals and upgrades to the Railway Station building may also be subject to heritage requirements and approvals, potentially affecting the scope, timing and overall cost of works.

The Department for Environment and Water (DEW) has recently advised that no request has been made through the Crown Land program for repairs or maintenance to the Railway Station building, and that financial support for such works is unlikely.

It is anticipated that should Council elect to vacate the site, make-good obligations may also necessitate expenditure prior to a return to DEW.

Initial building assessments have been undertaken on the Strathalbyn Railway Station, comprising two (2) tenancy spaces, identifying an estimated $250,000 (ex GST) in compliance and fit-for-purpose upgrades required to support occupation.

Should Council support the proposed Land Dedication of the Strathalbyn Railway Station land parcel, a further report on the costs associated with the works required to the building to support occupation, will be provided to Council as these works are not currently provided for within Council's adopted *Annual Community Plan 2026/27*.

As previously stated in this report, regardless of whether a future visitor servicing model is led by Council or an external organisation, building upgrades are necessary moving forward to ensure the facility meets minimum occupancy standards and is fit for purpose and ongoing service delivery.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Medium.

- Dedication of the land will improve Council's control over the assets on the land, providing greater capacity to manage risk and asset protection through a legal right to occupy.

- Care, control and management of the land will improve the Council's ability to enter leasing, licensing and permit agreements with third parties to utilise the land and building, which cannot be achieved under the current annual licensing agreement.
- The acceptance of the care, control and management of dedicated land pursuant to the Crown Land Management Act 2009 is one of the designated methods approved under Councils *Acquisition and Disposal of Land Policy*.
- The application of the category of 'community facilities' under the *Community Land Management Plan 2023-2028* will guide Council in protecting the land and ensuring uses of the land provide a community benefit.
- There is a possibility that current or future third-party user groups of this site may change over time, which could result in periods where the building is vacant. This risk can be mitigated through proactive strategies, such as undertaking expressions of interest or using other advertising mechanisms to attract suitable users.
- The 2025 Alexandrina Council ESCOSA Report recommended that Council consider a period of consolidation, with a focus on asset renewal and limiting expenditure on new or upgraded infrastructure. While the dedication of this land parcel does not fully align with that recommendation, it is acknowledged that securing the land is of interest due to the broader community benefit it will provide.
- There is favourable support from DEW for Council to lodge an application to have the land dedicated to Council's care and control.
- Native Title has been extinguished over the land.

Attachments

Nil

9.8. Proposed Funding Acceptance - Black Spot Program - Ashbourne Road

Decision Report

Responsible Officer: Alan Harvey (General Manager - Infrastructure)

Report Author: Jon Smyth (Manager Assets)

Previous Decisions: Nil

Report Purpose

To inform Council of the successful funding outcome under the 2026-27 Australian Government Black Spot Program and seek approval to incorporate the Ashbourne Road, Road Safety Improvement Project into the 2026/27 Capital Works Program.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Proposed Funding Acceptance - Black Spot Program - Ashbourne Road*.**
2. **Note the granting of $2,983,000 in funding under the Australian Government Black Spot Program for road safety improvements along Ashbourne Road, Strathalbyn, provided as a 100% grant contribution with no Council co-contribution.**
3. **Approve the inclusion of the Ashbourne Road, Road Safety Improvement Project within the 2026/27 Capital Works Program, noting project delivery will extend into the 2027/28 financial year.**
4. **Authorise the Chief Executive Officer to execute all necessary funding agreements and documentation associated with the project.**

Background

The Administration submitted an application to the Australian Government Black Spot Program seeking funding to improve road safety along Ashbourne Road between Strathalbyn and Ashbourne. Following assessment by the funding administrator, Administration was advised that its application had been successful in late August 2026.

See ***Attachment 1*** for a map showing the location of the works.

Discussion

Project details

The project will deliver a range of safety improvements including:

- Installation of sealed road shoulders;
- Construction of audio tactile edge line delineation; and
- Additional road safety treatments aimed at reducing crash risk and improving driver safety.

The approved funding allocation represents one of the largest externally funded road safety projects secured by Council and will deliver significant benefits to the regional transport network. The project is expected to improve safety outcomes for residents, freight operators, agricultural enterprises and visitors travelling through the district.

Funding agreement

Under the funding agreement, Council will receive an initial payment of 50% of the approved funding allocation ($1,491,500) upon execution of the agreement and completion of required associated documentation. The remaining 50% will be paid upon completion of the project.

In anticipation of Council's consideration of the funding offer, Administration is progressing project planning, concept design and associated documentation to facilitate execution of the funding agreement and commencement of project delivery. The project is required to be completed by 30 June 2028.

The successful funding outcome demonstrates Council's continued ability to attract significant external investment for community infrastructure projects and ensures a major road safety upgrade can be delivered without placing additional pressure on Council's capital works program.

Inclusion in the 2026/27 Capital Works Program

As this is a new project which will upgrade current assets it is essential that the project is brought into the 2026/27 Capital Works Program (CWP). This will ensure the project is managed and monitored alongside all other CWP projects and programs.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered Low. The project has been approved for funding of $2,983,000 under the Australian Government Black Spot Program and is fully funded by the grant program. No Council financial contribution is required.

Accordingly, delivery of the project will not result in any additional capital expenditure requirements for Council and will not adversely impact Council's existing capital works budget.

Funding will be received in two equal instalments, comprising an upfront payment of $1,491,500 and a final payment of $1,491,500 upon project completion.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low.

Potential risks relate to design completion, procurement processes, contractor availability and construction timing, which could impact project delivery milestones. These risks will be mitigated through effective project planning, governance and contract management practices. Council officers will closely manage the project to ensure all funding obligations are met and the works are completed by the required deadline of 30 June 2028, which provides a reasonable timeframe for delivery.

The project will reduce identified road safety risks along Ashbourne Road through the implementation of targeted infrastructure improvements designed to reduce crash potential and improve driver safety.

Attachments

Attachment 1 - Location map of works

Attachment 1 - Location Map of Works



9.9. Proposed Funding Acceptance and Community Engagement - West Terrace Footpath

Decision Report

Responsible Officer: Alan Harvey (General Manager Infrastructure)

Report Author: Jon Smyth (Manager Assets)

Previous Decisions: Nil

Report Purpose

This report provides Council Members with detail on grant funding received for a proposed new footpath on West Terrace Strathalbyn, seeks Council approval to proceed to community engagement and a recommendation to include the project into the 2026/27 Capital Works Program.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Proposed Funding Acceptance and Community Engagement - West Terrace Footpath.***
2. **Note the State Government funding offer of $300,000 for the improvement of walking trails in Strathalbyn, provided as a 100% grant contribution with no Council co-contribution identified in the funding correspondence.**
3. **Approve the inclusion of the West Terrace Footpath Project into Council's adopted the 2026/27 Capital Works Program.**
4. **Authorise the Chief Executive Officer, or delegate, to continue discussions with the Department for Housing and Urban Development and complete any required project documentation, to enable execution of the grant agreement.**
5. **Approve the Administration to undertake community consultation on the project in accordance with the draft Community Engagement Plan (Attachment 2).**
6. **Authorise the Chief Executive Officer to make minor amendments to the community engagement arrangements as required.**

Background

In July 2026, Council received ministerial correspondence advising of an election commitment funding allocation for walking trail improvements in Strathalbyn. The correspondence identified grant funding of $300,000 provided by the State Government to assist with the delivery of this walking trail improvements project, with the proposed project to be completed by the end of the 2026-27 financial year.

The funding offer was not initiated through a formal Council grant application process and arose independent of Council’s involvement or direct request, with project details initially unclear. The Department for Housing and Urban Development has subsequently advised that West Terrace is the preferred pathway location for the project.

Following review, Administration identified a section of West Terrace between Ashbourne Road and Coronation Road as the most strategically aligned and appropriate location for the proposed project. This section, as shown in ***Attachment 1*** is included in Council's Footpath Master Plan and is classified as a medium-priority project. The proposed connection would improve pedestrian access between the Strathalbyn township centre and sporting precinct and may support the delivery of formal pedestrian crossing points at this location.

Administration has advised the funding body that Council is committed to progressing the project and anticipates completing the works before the end of the current financial year, subject to appropriate consultation, design development, cost confirmation and completion of grant execution requirements.

Discussion

The West Terrace footpath project provides an opportunity to deliver a strategically supported pedestrian infrastructure improvement using external grant funding. While the original funding description referred broadly to walking trails in Strathalbyn, the West Terrace section between Ashbourne Road and Coronation Road aligns with Council's adopted pedestrian infrastructure prioritisation criteria and provides a practical scope that can be further developed within the grant timeframe.

The project would improve connectivity between key community destinations, including the township centre and sporting precinct. It also provides an opportunity to consider associated pedestrian safety improvements, including potential formalised crossing points, as part of detailed design and consultation.

Several matters require further resolution before final project delivery can proceed. The project is not currently listed in Council's adopted 2026/27 Capital Works Program, and therefore formal Council consideration is required for any new capital project or budget approval pathway. Design, costing and stakeholder assessment will also be required to confirm scope, constructability and delivery timing.

A site assessment undertaken with Telstra has identified seven telecommunications pits that will require adjustment or replacement to accommodate the proposed footpath construction. Four of these pits are understood to contain asbestos-containing materials and will require full replacement. Telstra have provided a quotation to remediate and replace affected pits at a cost of $43,000, early project scoping confirms that this cost can be accommodated within the funding allocation.

Council will undertake appropriate consultation, as per the Community Engagement Plan (***Attachment 2***),with the community and relevant stakeholders. The consultation process will provide an opportunity for the community to understand the project, raise matters for consideration, and assist Council in refining the design and delivery approach where appropriate.

As this is a new project which will provide new assets it is essential that the project is brought into the 2026/27 Capital Works Program . This will ensure the project is managed and monitored alongside all other 2026/27 Capital Works Program projects and programs.

Financial Implications

In accordance with Alexandrina Council's Adopted Budget and Long Term Financial Plan, the financial implications of adopting this recommendation are considered Low. The project is proposed to be fully funded through the $300,000 State Government grant allocation, with no Council co-contribution identified in the funding correspondence. Based on early scoping and current cost estimates, the grant funding is expected to be sufficient to deliver the project as intended, including the required Telstra service pit adjustments that have been formally quoted.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low. Although the outcome of community consultation is not yet known, it is expected that this initiative will be supported by the community and will proceed as intended, however should the consultation outcome be unfavourable, the grant offer can be declined. Whilst the cost of the service pit adjustments has been confirmed, the availability of Telstra contractors to undertake the works has not. Early engagement with Telstra, following the endorsement of the project, should mitigate this risk, however it is possible that this could complicate the delivery.

Attachments

Attachment 1 -West Terrace Footpath Map

Attachment 2 - Community Engagement Plan - West Terrace Pathway Grant

Attachment 1 - West Terrace Footpath Map



Community Engagement Plan

Proposed Footpath - West Terrace, Strathalbyn

Name of Project: Proposed Footpath - West Terrace, Strathalbyn

Dates of Engagement: 9 am, Thursday 22nd October 2026 until 5 pm, Friday 13th November 2026

Subject of Council Report:

☒ Yes, 19th October 2026

or

☐ No

This project:

☐ Is included in the Annual Community Plan

☐ Is included in the A2040 Strategic Delivery Plan 2025–2035

☐ Is a Legislative requirement [list which Act]

☒ Has funding allocated through State Government Grant

☐ Requires external or future funding to proceed

Purpose for engagement:

☒ Feedback from the community will shape the outcome.

or

☐ This engagement is designed to build community connection or inform, with no decision-making component.

Pre-engagement considerations

Consideration	Assessment
There is expectation within the Council or the community that the project will involve community engagement.	Yes
Risk level if community consultation is **not** undertaken. (*Legal, Regulatory and Policy and / or Reputation)*	Moderate
Level of complexity / difficulty for decision-making.	Minor
Key stakeholders highly invested in the decision.	Moderate

Engagement timeline

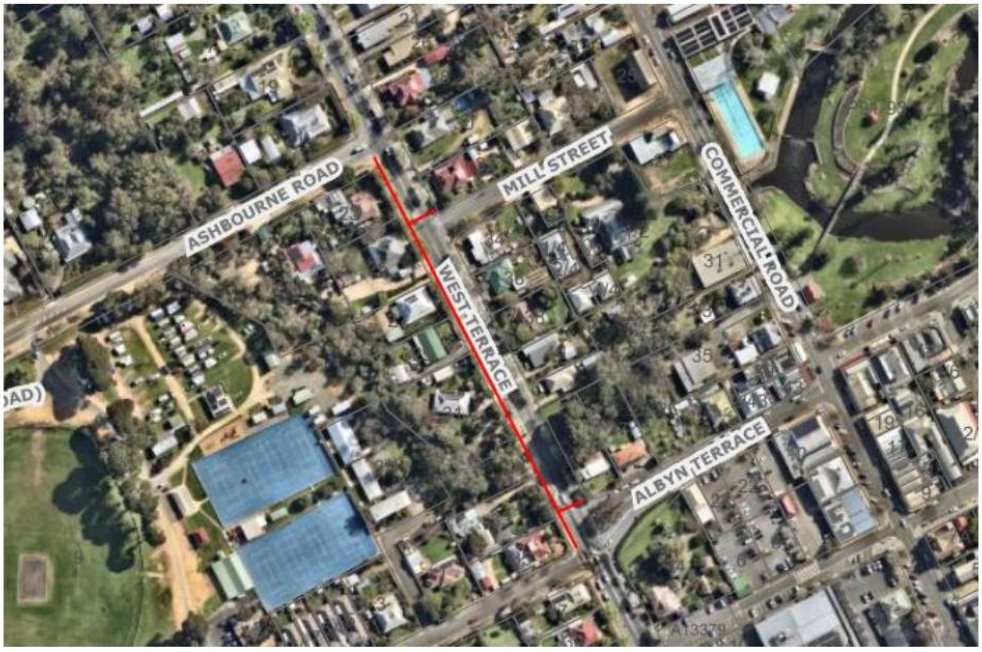
Milestones	Dates
Council Decision to proceed to community engagement	19th October 2026
Community engagement opens	22/10/26
Drop-in sessions or engagement events	N/A
Community engagement closes	13th November 2026
Council Member Workshop to consider feedback	N/A
Council Meeting with feedback	21st December 2026
Next steps	Design & Construct Footpath

About the project

In July 2026, Council received correspondence from the Department for Housing and Urban Development (DHUD) advising of a State Government election commitment to fund walking trail improvements in Strathalbyn. The Malinauskas Labor Government has committed $300,000 through the 2026/27 State Budget for the project, with works expected to be completed by the end of the 2026/27 financial year.

The funding was not requested by Council through a formal grant application and was not linked to an existing Council capital project. The DHUD has since advised that West Terrace is the preferred location for the project.

Following a review, Council Administration identified the section of West Terrace between Ashbourne Road and Coronation Road as the most suitable location. This section is already included in Council's pedestrian infrastructure planning as a medium-priority project. A new footpath in this location would improve pedestrian access between the Strathalbyn township centre and the sporting precinct and may also provide opportunities for formal pedestrian crossing points.



Proposed footpath and pedestrian crossings indicated in red

Council will undertake community consultation on the proposed West Terrace Footpath project. Feedback will be sought from affected residents, nearby property owners, key stakeholders and the wider community.

The consultation will seek feedback on the proposed footpath location, potential construction of pedestrian crossings and any potential localised issues that should be considered as part of the design and construction of the project.

Community feedback will help Council finalise the design, identify any site-specific issues and determine whether changes are needed before the grant agreement is signed and the project proceeds. If consultation identifies significant concerns that affect the project's feasibility, scope or community support, Council may reconsider whether to proceed with the project and accept the grant funding.

Frequently Asked Questions

1. **What is being proposed?**
   Council is proposing to construct a new asphalt footpath along West Terrace, Strathalbyn, between Ashbourne Road and Coronation Road.

2. **Why is this project being considered?**
   Council was contacted by the State Government with the proposal to construct a footpath on West Terrace, Strathalbyn. The project has been identified as an opportunity to improve pedestrian connectivity between the Strathalbyn township centre and the sporting precinct. This section of West Terrace is also included in Council's pedestrian infrastructure planning and has been identified as a medium-priority pedestrian infrastructure project.

2. **How is the project being funded?**
   The project is proposed to be fully funded through a $300,000 State Government grant provided by the Malinauskas Labor Government as part of the State Budget 2026/27. No Council co-contribution has been identified in the funding correspondence.

3. **Why was West Terrace selected?**
   The Department for Housing and Urban Development has advised that West Terrace is the preferred pathway location for the project. Council Administration has also identified the section between Ashbourne Road and Coronation Road as strategically aligned with Council's pedestrian infrastructure planning.

4. **What is Council asking the community about?**
   Council is seeking community feedback on the proposed footpath location, possible pedestrian crossings, and any local matters that should be considered during detailed design and delivery.

5. **How will community feedback influence the project?**
   Feedback will help Council refine the final design, identify site-specific issues, and consider whether any adjustments are required before the project proceeds. If consultation identifies significant concerns that materially affect the project's feasibility, scope or community support, Council may reconsider whether to proceed with the grant-funded project.

6. **When would construction occur?**
   Subject to Council endorsement, consultation outcomes, final design, contractor availability and grant execution, Council anticipates construction commencing in April 2027 and completing the works before the end of the current financial year.

7. **Will any trees be removed to construct the path?**
   No, Council will not be removing any trees as part of this project. Existing trees will be protected during construction with appropriate tree protection measures incorporated into the works.

8. **What will the footpath be constructed of?**
   To minimise impacts associated with existing vegetation and tree roots, the footpath will be constructed in asphalt. This will provide a flexible and durable surface that can be more readily maintained over time.

9. **Will the project affect nearby properties?**
   Should the project proceed to construction, some minor disruption to affected properties and temporary traffic restrictions may be necessary. Where possible, these impacts will be managed to minimise inconvenience during the works.

10. **Will the project include pedestrian crossings?**
    The project may provide an opportunity to consider formal pedestrian crossing points or other pedestrian safety improvements. These will be assessed through design development, stakeholder input and relevant technical requirements.

11. **What service works are required?**
    A site assessment with Telstra identified seven telecommunications pits requiring adjustment or replacement to accommodate the proposed footpath. Four of these are understood to contain asbestos-containing materials and require full replacement. Telstra has provided a quotation for these works, and early project scoping indicates the cost can be accommodated within the grant funding.

12. **Can Council decline the grant?**
    Yes. If consultation outcomes, delivery constraints or other matters materially affect the project's feasibility or suitability, Council may decide not to proceed with the grant offer.

Form (survey) questions

Standard questions will be populated as below:

Full name, email, connection to Alexandrina community (ratepayer and ongoing resident, ratepayer and seasonal/ holiday resident, ratepayer and business owner, resident (ie. residential tenant), frequent visitor, infrequent visitor, interested stakeholder).

Do you support the proposed new grant funded asphalt footpath and pedestrian crossings along West Terrace between Ashbourne Road and Coronation Road? (Required)

- Yes
- No
- Somewhat support

Is there anything else you would like Council to consider when developing the West Terrace footpath project? (Optional)

Open text

Who's listening

Civil & Traffic Engineer

Attached documents

Useful Documents attached:

- Council Report
- Map

Additional content options:

☐	Swipe tool	Interactive before-and-after comparison of images or designs.
☐	Video presentation	Embed a video to explain the project or how to get involved.
☐	Newsfeed	Ongoing updates and announcements for the project.
☐	Subscribe for updates	Allows users to sign up for email updates about the project.
☐	Image slider	Scrollable series of images for visual storytelling.
☐	Gallery	Collection of images
☐	Other: Please specify.	

Engagement Tools

☒	My Say project page: The hub of all consultation details.	
☒	Form	Collect structured feedback through survey questions.
☐	Social Map	Interactive map where users can pin comments or ideas by location.
☐	Visioner Input	Ideas board for quick suggestions and creative input. Feedback looks like 'post it' notes.
☐	Quick Poll	Single-question poll for fast community sentiment checks. This is considered 'informal' or 'pulse check' feedback..
☐	Gather	A collaborative space for detailed ideas, discussions, and long-form feedback.
☒	Facilitate written submissions (via email and post)	
☐	Face-to-face engagement	E.g. Information Session, Drop-in sessions, market stall etc.]

Stakeholders to be informed

Residents and Ratepayers

☒	General Residents and Ratepayers
☒	Adjoining Property Owners / Business Owners
Government and key agencies	
☐	Ngarrindjeri Aboriginal Corporation
☐	Department for Environment and Water
☐	SA Water
☒	Department for Infrastructure and Transport (DIT)
☐	Department of Climate Change, Energy, The Environment and Water
☐	Environment Protection Authority (EPA)
☐	Surrounding Councils
☐	Landscape Boards SA
☐	Regional Development Australia
☐	Members of Parliament
☐	Minister of Planning
☒	Other: Department for Housing and Urban Development
☐	Not applicable
Section 41 Committees / Advisory Committees	
☐	Audit and Risk Committee
☐	Agricultural Advisory Group
☐	Cemeteries Advisory Group
☐	Climate Emergency and Environment Advisory Committee
☐	Heritage Advisory Group
☐	Ratalang Basham Beach and Horseshoe Bay Advisory Committee
☐	SA Wooden Boat Festival Committee
☐	Strathalbyn Recreation Precinct (Lot 10) Advisory Group
☐	Not applicable
Community groups, ratepayer associations and other organisations	
☐	Alexandrina Residents and Ratepayers Action Group
☐	Cittaslow
☐	Clayton Bay Community Association
☐	Goolwa Wharf Operators Group
☐	Langhorne Creek Progress Association
☐	Hope Forest Residents Association Inc.
☐	Middleton Community Association Inc. (formerly Middleton Town and Foreshore Association)
☐	Milang and District Community Association Incorporated
☐	Mount Compass War Memorial Community Association
☐	Murray River Lakes and Coorong Action Group
☐	Port Elliot Town and Foreshore Association
☒	Strathalbyn Business Group

☒	Strathalbyn Tourism Association
☐	Not applicable

Communication Tools

Audience	Channel	Responsibility
Residents/ Ratepayers	Council website - Latest news article on home page of corporate website (space permitting)	Marketing and Communications Officer
	Social media (Instagram and Facebook) – at the start and midway through consultation	Marketing and Communications Officer
	Council office displays - entryways	Community Engagement Officer
	Community noticeboards	N/A
	Corflute sign (A1 waterproof sign at location)	Community Engagement Officer
	My Say e-newsletter subscribers	Community Engagement Officer
Adjoining Property Owners / Business Owners	Direct email or posted letter	Shaun Smith
Government and key agencies	N/A	N/A
Section 41 Committees / Advisory Committees/ Audit and Risk Committee	N/A	N/A
Community groups, resident and	Direct email	Shaun Smith

ratepayer associations		
Media	Fleurieu Sun, The Southern Argus	Marketing and Communications Officer
Internal staff	N/A	N/A
Council Members	Briefing to Council Members: ☒ Council Report ☐ CM Portal ☐ Email ☐ Council Information Session	Jon Smyth

Reporting

The My Say Alexandrina software provides a report on close of the consultation, with all submissions received through the My Say site. In addition, written submissions are recorded and allocated to the Civil & Traffic Engineer.

A summary of key themes that emerge from the submissions received (all methods of engagement) are identified and included in the Council Report.

A detailed Community Engagement Report will be published on the My Say project page.

The Reports to Council will be public documents, available on Council's website after release.

Names, addresses and information that personally identifies the respondents will not be included in public Reports.

Risks

Risk	Mitigation strategies
Reputation/ community expectation	• Communicate clearly and transparently about project scope and limitations. • Use FAQs to address common concerns.
Low community involvement	• Promote on multiple channels and target audiences where possible.

Governance and compliance	• Ensure all processes align with legislative and policy requirements. • Document decisions and approvals.
Public impact importance	• Prioritise transparency and accessibility of information. • Use plain language summaries. • Offer multiple feedback opportunities.

Next steps for approval

☒ This Plan is to be attached to a Council Report for endorsement to commence Community Engagement.

Following endorsement by Council, send this Community Engagement Plan together with the Resolution from the Council Minutes to the Communications Team.

OR

☐ Seek approval from General Manager and CEO, by obtaining signatures below.

Send fully signed Community Engagement Plan to Communications Team.

Approved by:

.....	Alan Haarvey
Signature of General Manager	**Name of General Manager**
.....	
Date	

Approved by Chief Executive Officer:

.....
Signature of Andrew MacDonald

.....
Date

9.10. Proposed Community Engagement - Revocation of Community Land for Alexandrina Wastewater purposes.

Decision Report

Responsible Officer: Tash Hunt (General Manager Corporate)

Report Author: Lisa Hoyle (Manager Property and Procurement Services)

Previous Decisions: Nil

Report Purpose

To consider formally commencing a process to revoke the community land classification over 11 land parcels utilised for Alexandrina Wastewater (AWW) purposes which are not already exempt from the community land classification. The location of the 11 land parcels the subject of this Report are provided at ***Attachment 1*** of this meeting report.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Proposed Community Engagement - Revocation of Community Land for Alexandrina Wastewater purposes.***
2. **Note the properties listed at *Attachment 1* of this meeting report are the land parcels proposed to proceed to community engagement for the purpose of revoking the community land classification under Council's *Community Land Management Plan 2023-2028.***
3. **Is satisfied pursuant to Section 194 of the *Local Government Act 1999* with the proposal to revoke the classification of community land over the following land parcels:**
    a. **Lot 141 Sand Mine Road Mount Compass, Certificate of Title Volume 5344 Folio 657 in Deposited Plan 37929.**
    b. **300 Michelmore Road Strathalbyn, Certificate of Title Volume 6036 Folio 814 in Deposited Plan 78800.**
    c. **Lot 3 Michelmore Road Strathalbyn, Certificate of Title Volume 5444 Folio 561 in Deposited Plan 22096.**
    d. **Lot 602 Braemer Drive Strathalbyn, Certificate of Title Volume 5975 Folio 708 in Deposited Plan 22096.**
    e. **Lot 601 Hampden Way Strathalbyn, Certificate of Title Volume 5975 Folio 707 in Deposited Plan 72267.**
    f. **Lot 177 St Andrews Drive Strathalbyn, Certificate of Title Volume 6047 Folio 943 in Deposited Plan 81992.**
    g. **Lot 1 Commercial Road Strathalbyn, Certificate of Title Volume 5471 Folio 518 in Filed Plan 18031.**
    h. **249 Boettcher Road Middleton, Certificate of Title Volume 5413 Folio 625 in Section 2354 Hundred of Goolwa.**
    i. **249 Boettcher Road Middleton, Certificate of Title Volume 5413 Folio 824 in Filed Plan 166538.**
    j. **151 Gun Club Road Milang, Certificate of Title Volume 6312 Folio 955 in Deposited Plan 136727.**

k. **Lot 312 Boston Street Goolwa North, Certificate of Title Volume 6074 Folio 534 in Deposited Plan 76769**

4. **Grant consent to proceed to community engagement on the proposal to revoke the community land classification, in accordance with the *Community Engagement Plan* (*Attachment 2*).**
5. **Authorise the Chief Executive Officer to make any minor amendments to the community engagement arrangements.**
6. **Note that a further report on the community engagement outcomes will be presented at the conclusion of the public consultation process.**

Background

Council land is defined as either 'community land' in accordance with the *Community Land Management Plan 2023-2028* (CLMP) or as 'operational land'.

- Community Land is land set aside for public access and uses under categories within the CLMP that protect the public's right to the land. The community land classification provides a range of permitted uses for the land, with the intent being to provide a public benefit or access for recreation or community activities.
- Operational land is land that is not classified as community land, because the uses on the land require an operational flexibility to deliver a function or service without the limitations imposed under the Plan. These land parcels are used for activities such as Council depots, landfills, emergency services and some (but not all) wastewater activities, where public access is, or should be, restricted or prevented.

The 11 land parcels the subject of this proposal are currently classified as Community Land under the *Local Government Act 1999* (the Act) and included within the CLMP. In addition to these 11 community land sites, AWW utilise 10 other sites as operational land, excluded from the community land classification.

The primary function of each of the 11 land parcels the subject of this report, is to accommodate active uses for essential wastewater treatment plants, lagoons, storage, pumping, disposal, maintenance and associated infrastructure necessary for the effective operation of Council's critical wastewater network. Following a recent review, these 11 land parcels would benefit from exclusion as Community Land, so that Council can treat all of its wastewater sites consistently as operational land. This would ensure regulatory works required for the provision of essential wastewater services could proceed without the limitations imposed by a community land classification, as in many instances, the works are required regardless of the community land status because they are regulatory or essential service provisions.

The review also recognised that generally, these land parcels are not available for public recreation, open space, community gatherings or other purposes typically associated with community land. As the community cannot reasonably access these land parcels, their current classification as Community Land is inconsistent with their established use as operational land, rather than land available for broader community use. The existence of 10 other Council-owned wastewater land parcels that are already exempt from the community land classification demonstrates an established precedent for the management of wastewater infrastructure sites as operational land.

Discussion

This report seeks consideration to proceed to community engagement to revoke the classification of community land over the 11 land parcels identified in ***Attachment 1***, to ensure the land can be more appropriately managed as Operational Land and public access can be formally excluded to ensure public safety, mitigate risk and manage site security.

Revocation of the Community Land classification would:

- Enable Council the flexibility to manage these parcels in accordance with their primary purposes of wastewater operations.
- Mitigate the risk of public access and security measures to protect the infrastructure on these sites.
- Establish a consistent approach to the management of wastewater land, by aligning all of the Council's wastewater asset portfolio as operational land, exempt from a community land classification.
- Enable introducing a blanket approach to exclude the public from operational wastewater land.
- Facilitate inevitable future renewal, expansion or rationalisation of wastewater land and infrastructure, should operational requirements change.
- Ensure third party contracts, leases or license tenures are efficiently secured without the necessity for community engagement; and
- Resolve the anomaly that the CLMP classification is not aligned with the operational role of wastewater sites.

This proposal is not to cease Alexandrina Wastewater operations on these land parcels or, an intent to dispose of the land. This proposal addresses the anomaly that the community benefit derived from the site cannot be consistently achieved while a CLMP category is in place, because the land use is for operational activities rather than through direct public access or recreational use.

A Council may revoke the classification of land as community land by preparing and making publicly available, a report on the proposal which must contain specific information as provided in the *Community Engagement Plan* proposed at ***Attachment 2*** of this meeting report. To be able to further an approach to the Minister of the *Local Government Act 1999* to consider a revocation of the community land classifications, this report seeks approval to progress to community engagement on the proposal to gauge community appetite for revoking the community land classification over some or all of these sites.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered Low. The proposed revocation of the community land classification is not being undertaken for the purpose of selling, disposing of, or otherwise alienating the affected land parcels. The land will remain in Council ownership and continue to be used for Alexandrina Wastewater operations and infrastructure. As a result, there are no direct financial gains or losses anticipated from the proposal, with the primary benefits being efficiencies in administrative and operational tasks in management of Council's wastewater services.

Costs to progress this matter to consultation are limited to the advertising fees for the community engagement process, which are estimated at $900 and can be accommodated within existing budget.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low.

The key risk associated with the proposal is that the community may perceive the removal of the community land classification as reducing protections over the land. Given each of these sites currently provide limited or no public access, any direct impact on the public by revoking the community land classification is anticipated to be minimal.

The risk to Council if the sites remain as community land, is the inability for these sites to effectively function as community land, when competing operational obligations and external wastewater management legislation is required to apply to these sites. The review has identified that the on-ground uses of these land parcels are inconsistent with the intended purpose and objectives under the CLMP. As these land parcels are already occupied for Alexandrina Wastewater purposes, the intent of this proposal is simply to formalise this occupation 'on paper' and, potentially, permit the installation of fencing and security to prevent public access (if required).

The 11 land parcels the subject of this report are categorised in the CLMP as either Undeveloped Reserve, Developed Reserve or Commercial. The only other category that the land parcels could be transferred to is 'Emergency Services', which could be considered if the revocation of the community land classification could not be achieved, however this category would still limit land use and restrict the flexibility needed to respond to operational on-site demands and external wastewater legislation.

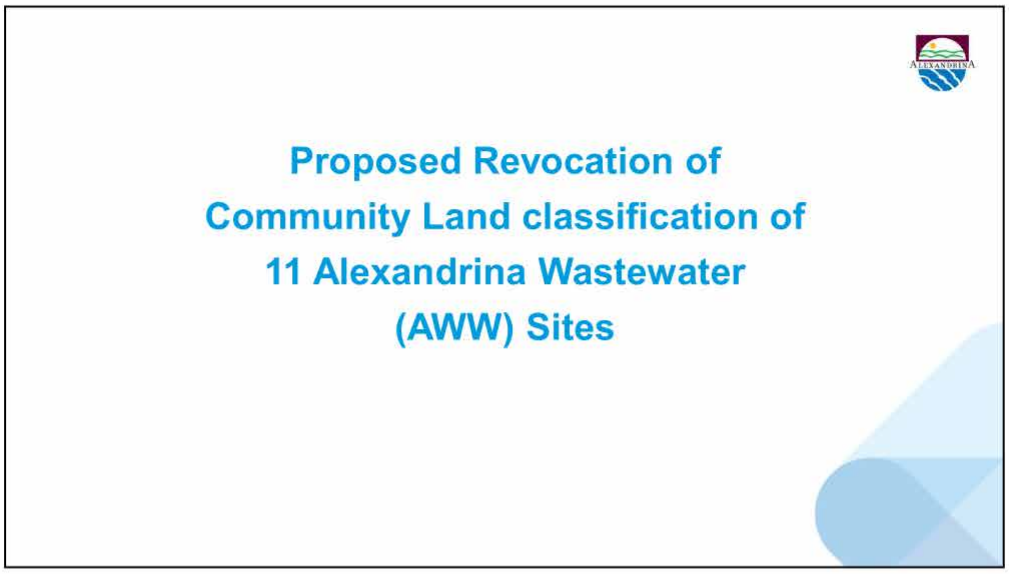
Under Section 194 of the *Local Government Act 1999*, Council may revoke the classification of Community Land subject to public consultation, Ministerial approval and consideration of any community impacts arising from the proposal, usually as an outcome of community engagement on the proposal. The proposed community engagement will inform Council of the community's interest in revoking the classification over, all or some of these land parcels.

Attachments

Attachment 1 - Alexandrina Wastewater land parcels proposed for revocation

Attachment 2 - Community Engagement Plan

Attachment 1 - Alexandrina Wastewater Land Parcels Proposed for Revocation



AWW Exempt Land Parcels

The following AWW land parcels are already excluded from the classification of Community Land, for the purpose of AWW, wastewater infrastructure, storage and operational purposes.

2


Lot 12 Boettcher Road, Middleton
Lot 1 Berry Road, Mount Compass
210 Excelsior Parade, Hindmarsh Island
Lot 3500 Randell Road, Hindmarsh Island
Lot 337 Sand Mind Rd, Mount Compass


Lot 21 Kessell Road, Goolwa
126 Kessell Road, Goolwa
Lot 862 Elliot Street, Port Elliot
1-19 Hill Street, Port Elliot
Lot 37 Swamp Road, Strathalbyn

AWW land parcels
classified as Community Land

The following 11 land parcels are used for AWW purposes on land classified as Community Land.

The proposal is to revoke the community land classification over all or some of these land parcels, to support their existing use as operational land.

a. Lot 141 Sand Mine Road, Mount Compass

Title Details: CT 5344/657

Landowner: Alexandrina Council

Land Size (approx.): 5,635m²

Site Value: $132,000

Capital Value: $132,000

Current CLMP Classification: Developed Reserve

Current Use: Decommissioned wastewater treatment plant

Infrastructure: Treatment plant

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land limited.



b. 300 Michelmore Road, Strathalbyn

Title Details: CT 6036/814

Landowner: Alexandrina Council

Land Size (approx.): 50,162.65m²

Site Value: $470,000

Capital Value: $580,000

Current CLMP Classification: Developed Reserve

Current Use: AWW Treatment and Recycled Wastewater Storage

Infrastructure: Wastewater Treatment Plant & Recycled Wastewater Storage Lagoon

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land restricted.



c. Lot 3 Michelmore Road, Strathalbyn

Title Details: CT 5444/561

Landowner: Alexandrina Council

Land Size (approx.): 364,966m²

Site Notional Value: $370,000

Rateable Value: $425,000

Current CLMP Classification: Multi Use (Undeveloped Reserve & Developed Reserve)

Current Use: AWW Recycled Wastewater Storage Lagoon & Cropping Licence

Infrastructure: Recycled Wastewater Storage Lagoon

Dedication or Trust: Nil

Local Impact: Minimal.The land will continue to be used for purposes complementary to the surrounding wastewater infrastructure, with public use of the land restricted.



d. Lot 602 Braemer Drive, Strathalbyn

Title Details: CT 5975/708

Landowner: Alexandrina Council

Land Size (approx.): 203m²

Site Value: $12,500

Capital Value: $12,500

Current CLMP Classification: Undeveloped Reserve

Current Use: AWW 'Braemar Drive' Wastewater Pumpstation

Infrastructure: Wastewater Pumpstation, Emergency Storage Tank

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land limited.



e. Lot 601 Hampden Way, Strathalbyn

Title Details: CT 5975/707

Landowner: Alexandrina Council

Land Size (approx.): 223m²

Site Value: $39,000

Capital Value: $39,000

Current CLMP Classification: Undeveloped Reserve

Current Use: AWW 'Hampden Way' Wastewater Pumpstation / Pump Station Chamber

Infrastructure: Wastewater pumpstation and emergency storage tank

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land limited.



f. Lot 177 St Andrews Drive, Strathalbyn

Title Details: CT 6047/943

Landowner: Alexandrina Council

Land Size (approx.): 35m²

Site Value: $5,000

Capital Value: $5,000

Current CLMP Classification: Developed Reserve

Current Use: AWW 'St Andrews Drive' Wastewater Pumpstation

Infrastructure: Wastewater pump station

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land limited.



g. Lot 1 Commercial Road, Strathalbyn

Title Details: CT 5471/518

Landowner: Alexandrina Council

Land Size (approx.): 81m²

Site Value: $97,000

Capital Value: $97,000

Current CLMP Classification: Developed Reserve

Current Use: AWW 'Old Flour Mill' Wastewater Pumpstation

Infrastructure: Wastewater pumpstation

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land limited.



h. 249 Boettcher Road, Middleton

Title Details: CT 5413/625

Landowner: Alexandrina Council

Land Size (approx.): 319,636m²

Site Value: $2,025,000 (combined with i.)

Capital Value: $2,100,000 (combined with i.)

Current CLMP Classification: Commercial Properties

Current Use: Turf Farm Lease with water use agreement for recycled wastewater irrigation

Infrastructure: Pivot irrigator, Lateral Irrigators and associated pipework

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land restricted.



i. 249 Boettcher Road, Middleton

Title Details: CT 5413/824

Landowner: Alexandrina Council

Land Size (approx.): 330,805m²

Site Value: $2,025,000 (combined with h.)

Capital Value: $2,100,000 (combined with h.)

Current CLMP Classification: Commercial Properties

Current Use: Turf Farm Lease with water use agreement for recycled wastewater irrigation

Infrastructure: Pivot irrigator, Lateral Irrigators and associated pipework

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land restricted.



j. 151 Gun Club Road, Milang

Title Details: CT 6312/955

Landowner: Alexandrina Council

Land Size (approx.): 39,018m²

Site Value: $305,000

Capital Value: $305,000

Current CLMP Classification: Developed Reserve

Current Use: Milang AWW Wastewater Treatment Plant and Treated Wastewater Storage

Infrastructure: Facultative (treatment) Lagoons, Recycled Wastewater Storage Lagoons and Recycled Wastewater Pump Station

Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land restricted.



k. Lot 312 Boston Street, Goolwa North

Title Details: CT 6074/534

Landowner: Alexandrina Council

Land Size (approx.): 19,883m²

Site Value: $495,000

Capital Value: $520,000

Current CLMP Classification: Undeveloped Reserve

Current Use: Wastewater vacuum pump station & stormwater

Infrastructure: Vacuum Pump Station & stormwater retention

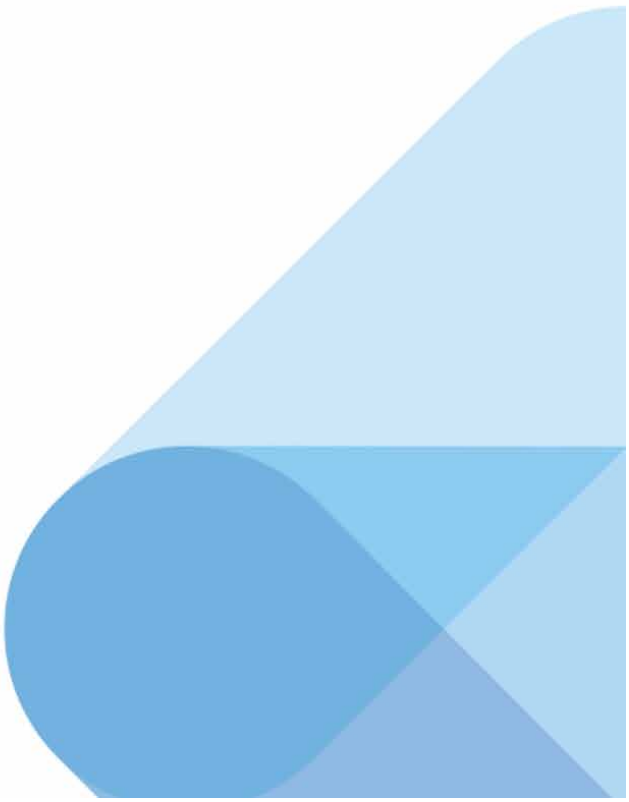
Dedication or Trust: Nil

Local Impact: Minimal. The land is currently utilised for essential wastewater services, with public use of the land limited.



Community Engagement Plan

Proposal to revoke the Community Land Classification of 11 Alexandrina Wastewater (AWW) land parcels



Name of Project: Proposal to revoke the Community Land Classification of 11 Alexandrina Wastewater (AWW) land parcels

Dates of Engagement: 9 am, Thursday 5 November 2026 until 5 pm, Friday 27 November 2026.

Subject of Council Report:

☒ Yes, 19 October 2026

or

☐ No

This project:

☐ Is included in the Annual Community Plan

☐ Is included in the A2040 Strategic Delivery Plan 2025–2035

☒ Is a Legislative requirement *[Local Government Act 1999 – Section 194]*

☒ Has funding allocated through existing budgets

☐ Requires external or future funding to proceed

Purpose for engagement:

☒ Feedback from the community will shape the outcome.

or

☐ This engagement is designed to build community connection or inform, with no decision-making component.

Pre-engagement considerations

Consideration	Assessment
There is expectation within the Council or the community that the project will involve community engagement.	Yes
Risk level if community consultation is **not** undertaken. (*Legal, Regulatory and Policy and / or Reputation)*	Major
Level of complexity / difficulty for decision-making.	Moderate
Key stakeholders highly invested in the decision.	Minor

Engagement timeline

Milestones	Dates
Council Decision to proceed to community engagement	19 October 2026
Community engagement opens	5 November 2026
Drop-in sessions or engagement events	N/A
Community engagement closes	27 November 2026
Council Member Workshop to consider feedback	N/A
Council Meeting with feedback	21 December 2026
Next steps	Subject to outcomes from December 2026 Council Meeting

About the project

Council operates its Alexandrina Wastewater (AWW) network across 21 parcels of land. Ten (10) of these land parcels are classified as operational land and 11 of these land parcels are classified as community land in accordance with Council's *2023-2028 Community Land Management Plan (CLMP)*.

What this means, is that the 10 sites classified as 'operational land' are exempt from the requirements of the *2023-2028 Community Land Management Plan* and therefore can be used and developed for Alexandrina Wastewater purposes with flexibility to respond to demand and without the limitations imposed on the land under the Community Land classification.

The 11 land parcels used for Alexandrina Wastewater purposes under the Community Land classification are proving problematic. The intent of a community land classification is to provide a public benefit such as spaces for recreation and community activities, which cannot be achieved on these sites. Instead, these sites have been developed over the years to contain critical wastewater treatment plants, lagoons, storage, pumping, disposal, maintenance and associated infrastructure necessary for the effective operation of Council's wastewater network, with public access restricted or denied in most instances.

This proposal seeks to recognise that the community benefit derived from these land parcels is through the provision of essential wastewater services rather than through direct public access or recreational use, by revoking the community land classification, so the sites can be developed as needed to accommodate increasing demand for wastewater services.

Frequently Asked Questions

What difference does it make if they are or are not community land?

(A summary of the reasons for the proposal)

Council is seeking to revoke the community land classification over these 11 community land parcels, so that all the Alexandrina Wastewater sites can be treated consistently as operational land for the purpose of providing Community Wastewater Management services to the community and, risk management of these sites can be mitigated by formally restricting public access to these operational land parcels.

The revocation would enable Council the flexibility to manage these parcels in accordance with their primary purposes of Alexandrina Wastewater operations, without the limitations and extensive timeframes associated with the processes for land management under the community land classification (such as restrictions on use and public consultation). It would also ensure that the use of the land parcels is not inconsistent with the 2023-2028 Community Land Management Plan intent for these land parcels.

Does Council want to sell these land parcels?

The intent of this proposal is not to sell the land parcels. What Council is looking to resolve, is to ensure all Alexandrina Wastewater sites are treated consistently as operational land, so that regulatory and other works required for the provision of essential wastewater services can proceed without the limitations imposed by a community land classification as, in many instances, the works will be required regardless of the community land classification because they are regulatory or essential service provisions.

But can Council sell these land parcels?

(A statement of whether the revocation of the classification is proposed with a view to sale or disposal of the land)

Yes, Council could still sell these land parcels, but any land sale is by decision of Council, not the Administration. If the land parcels were no longer community land and became operational land, community feedback on the sale would not be required, however it remains at the discretion of the Council members as to whether to undertake community engagement or otherwise.

As these sites contain critical wastewater infrastructure and networks, it is not intended, at this stage, to dispose of these land parcels unless an alternative solution for the infrastructure on site could be established, supported and delivered. Council's Alexandrina Wastewater is under a 30-year Alexandrina Wastewater Infrastructure Plan as an operating project within the 2026/27 Annual Community Plan (Plan), so the future sale of any of the land parcels currently occupied for wastewater purposes could be considered in the future as part of this Plan.

How do you revoke the classification?

Section 193 of the *Local Government Act 1999* specifies that all local government land except roads that are owned by a Council or under a council's care, control and management is taken to have been classified as community land unless it has been excluded.

A number of land parcels used for Alexandrina Wastewater purposes were in place when Section 193 of the Act was introduced, but were not excluded at the time and, a number of land parcels have been purchased over the years for Alexandrina Wastewater purposes, but were also not excluded from the classification of community land at the time.

A Council may revoke the classification of land as community land by preparing and making publicly available, a report on the proposal which must contain specific information as provided in this Community Engagement Plan. This community engagement informs of Council's proposal, enables community members to form a view and make a submission should they choose to do so.

Following close of the public consultation process, a further report is put to Council. Should the Council resolve at this meeting to progress the revocation process for all or some of the land parcels based on the community feedback, the Council would make a resolution to submit the proposal (application) to the Minister responsible for the Local Government Act 1999 (Minister) for approval to the proposal or, make a resolution not to proceed.

The nature and outcomes of this public consultation are integral and relevant to the Minister's exercise of their discretion to consent to the revocation of the community land classification or otherwise. If the application proceeds, the Minister will review the process followed by Council in submitting a proposal for a revocation of community land classification and assess the merits of the proposal. The proposal to the Minister, must include a report on the content of all submissions made in the course of public consultation.

If the Minister is satisfied that the Council has complied with the legislative requirements, the Minister can then assess the merits of the proposal in determining whether to approve or not approve the proposal. If the Council has not followed the requirements set out in the legislation, the Minister cannot exercise their discretion to approve a proposal.

The Council will be advised of the Minister's decision in writing. If the Minister does not approve the proposal or the application does not comply with the Act, the matter will not proceed, however, it remains open for the Council to submit a further proposal in relation to that land at a later time. The Minister's approval, if it determines to do so, gives Council the authority to pass a Council resolution to revoke the community land classification and the land parcels will remain Council owned land parcels, but revoked from the community land classification.

Standard questions will be populated as below:

Full name, email, connection to Alexandrina community (ratepayer and ongoing resident, ratepayer and seasonal/ holiday resident, ratepayer and business owner, resident (ie. residential tenant), frequent visitor, infrequent visitor, interested stakeholder).

Additional questions:

The community engagement will provide options for the public to provide feedback on each of the 11 land parcels. The consultation will list the land parcels with images and provide multiple choice buttons for respondents to select those land parcels that they support progressing for revocation of the community land classification.

- Do you support the proposal to revoke the community land classification of the below land parcels?
- Please select from the below list (1- 11 with multiple choice buttons and images)
- Yes (optional comments)
- No (mandatory comments)
- Not sure (mandatory comments)

Who's listening

Lisa Hoyle (Manager Property and Procurement Services)

Attached documents

Useful Documents attached:

- Council Report and Minutes
- Council Attachment
- Maps and images of each location
- Excerpt from the *2023-2028 Community Land Management Plan*

Additional content options:

☐	Swipe tool	Interactive before-and-after comparison of images or designs.
☐	Video presentation	Embed a video to explain the project or how to get involved.
☐	Newsfeed	Ongoing updates and announcements for the project.
☐	Subscribe for updates	Allows users to sign up for email updates about the project.
☐	Image slider	Scrollable series of images for visual storytelling.
☒	Gallery	Collection of images
☐	Other: Please specify.	All engagement tool options are here: https://demo.au.socialpinpoint.com/

☒	My Say project page: The hub of all consultation details.		
	☒	Form	Collect structured feedback through survey questions.
	☐	Social Map	Interactive map where users can pin comments or ideas by location.
	☐	Visioner Input	Ideas board for quick suggestions and creative input. Feedback looks like 'post it' notes.
	☐	Quick Poll	Single-question poll for fast community sentiment checks. This is considered 'informal' or 'pulse check' feedback..
	☐	Gather	A collaborative space for detailed ideas, discussions, and long-form feedback.
☒	Facilitate written submissions (via email and post)		
☐	Face-to-face engagement	E.g. Information Session, Drop-in sessions, market stall etc.]	

Stakeholders to be informed

Residents and Ratepayers	
☒	General Residents and Ratepayers
☐	Adjoining Property Owners / Business Owners
Government and key agencies	
☐	Ngarrindjeri Aboriginal Corporation
☐	Department for Environment and Water
☐	SA Water
☐	Department for Infrastructure and Transport (DIT)
☐	Department of Climate Change, Energy, The Environment and Water
☐	Environment Protection Authority (EPA)
☐	Surrounding Councils
☐	Landscape Boards SA
☐	Regional Development Australia
☐	Members of Parliament
☐	Minister of Planning
☐	Other: e.g. Miwi Inyeri Pelepi Aboriginal Corporation (MIPAAC)
☒	Not applicable
Section 41 Committees / Advisory Committees	
☐	Audit and Risk Committee

☐	Agricultural Advisory Group
☐	Cemeteries Advisory Group
☐	Climate Emergency and Environment Advisory Committee
☐	Heritage Advisory Group
☐	Ratalang Basham Beach and Horseshoe Bay Advisory Committee
☐	SA Wooden Boat Festival Committee
☐	Strathalbyn Recreation Precinct (Lot 10) Advisory Group
☒	Not applicable
Community groups, ratepayer associations and other organisations	
☐	Alexandrina Residents and Ratepayers Action Group
☐	Cittaslow
☐	Clayton Bay Community Association
☐	Goolwa Wharf Operators Group
☐	Langhorne Creek Progress Association
☐	Hope Forest Residents Association Inc.
☐	Middleton Community Association Inc. (formerly Middleton Town and Foreshore Association)
☐	Milang and District Community Association Incorporated
☐	Mount Compass War Memorial Community Association
☐	Murray River Lakes and Coorong Action Group
☐	Port Elliot Town and Foreshore Association
☐	Strathalbyn Business Group
☐	Strathalbyn Tourism Association
☒	Not applicable

Communication Tools

Audience	Channel	Responsibility
Residents/ Ratepayers	Council website - Latest news article on home page of corporate website (space permitting)	Marketing and Communications Officer
	Social media (Instagram and Facebook) – at the start and midway through consultation	Marketing and Communications Officer
	Council office displays - entryways	Community Engagement Officer
	Community noticeboards	N/A

	My Say e-newsletter subscribers	Community Engagement Officer
	Corflutes (large waterproof signage on site)	N/A
Adjoining Property Owners / Business Owners	N/A	N/A
Government and key agencies	N/A	N/A
Section 41 Committees / Advisory Committees/ Audit and Risk Committee	N/A	N/A
Community groups, resident and ratepayer associations	N/A	N/A
Media	Fleurieu Sun, The Southern Argus	Marketing and Communications Officer
Internal staff	Connect Intranet Announcement	N/A
Council Members	Briefing to Council Members: ☐ Council Report ☐ CM Portal ☐ Email ☐ Council Information Session	N/A

Reporting

The My Say Alexandrina software provides a report on close of the consultation, with all submissions received through the My Say site. In addition, written submissions are recorded and allocated to the Manager Property and Procurement Services.

A summary of key themes that emerge from the submissions received (all methods of engagement) are identified and included in the Council Report.

A detailed Community Engagement Report will be published on the My Say project page.

The Reports to Council will be public documents, available on Council's website after release.

Names, addresses and information that personally identifies the respondents will not be included in public Reports.

Risks

Risk	Mitigation strategies
Reputation/ community expectation	• Communicate clearly and transparently about project scope and limitations. • Use FAQs to address common concerns.
Low community involvement	• Promote on multiple channels and target audiences where possible.
Single-issue dominance	• Set clear engagement guidelines. • Use moderated forums or facilitated sessions. • Provide balanced information to broaden discussion.
Governance and compliance	• Ensure all processes align with legislative and policy requirements. • Document decisions and approvals.
Decision complexity	• Break down decisions into clear stages. • Provide visual aids (diagrams, summaries).
Potential for controversy	• Prepare key messages and Q&A sheets.
Public impact importance	• Prioritise transparency and accessibility of information. • Use plain language summaries. • Offer multiple feedback opportunities.
Community engagement demand	• Allocate sufficient resources (staff, budget).

Next steps for approval

☒ This Plan is to be attached to a Council Report for endorsement to commence Community Engagement.

Following endorsement by Council, send this Community Engagement Plan together with the Resolution from the Council Minutes to the Communications Team.

OR

☐ Seek approval from General Manager and CEO, by obtaining signatures below.

Send fully signed Community Engagement Plan to Communications Team.

Approved by:

.....	.....
Signature of General Manager	**Name of General Manager**

.....
Date

Approved by Chief Executive Officer:

.....
Signature of Andrew MacDonald

.....
Date

9.11. Community Land Management Plan 2023-2028 - 6 Monthly Report - 1 March 2026 to 31 August 2026

Decision Report

Responsible Officer: Tash Hunt (General Manager Corporate)

Report Author: Lisa Hoyle (Manager Property and Procurement Services)

Previous Decisions: C089/03/26, C296/09/25, C090/03/25, September 2024 - C24456, March 2024 - C24096, August 2023 - C23302, June 2023 - C23226, December 2022 - ACM221755, October 2022 - ACS106, September 2010 - ACF10372, July 2009 - ACF09312

Report Purpose

To provide Council with the six (6) monthly report on all property additions or amendments (not of a minor editorial or formatting nature) that affect the *Community Land Management Plan 2023 - 2028* (CLMP) since its adoption at the 21 August 2023 Council Meeting (C23302).

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Community Land Management Plan 2023-2028 - 6 Monthly Report - 1 March 2026 to 31 August 2026.***
2. **Approve the amendments to the *Community Land Management Plan 2023-2028* at *Attachment 1* as contained in this meeting agenda.**

Background

The CLMP was adopted at the 21 August 2023 Council Meeting (C23302). The CLMP ensures that community land is managed in accordance with the criteria established within the CLMP. Although the CLMP is a static document, there are instances during the life of the CLMP where Council will:

- Acquire or dispose of land as an outcome of subdivisions, new developments or similar.
- Enter or end an Agreement over the land (lease or Licence).
- Require a land parcel classification to be amended; or
- Need to make minor technical or formatting changes to the Plan.

Alexandrina Council experiences a relatively high volume of property movement within its CLMP as an outcome of new developments, internal property reviews and the progression of the Strategic Land Program. With legal assistance, a solution was developed to ensure this property movement was appropriately recorded and provided to Council Members and the community because Council is unable to simply amend the CLMP to include these changes each time they arise. The solution is a six-monthly Report to Council as a formal notification process on changes to land parcels that affect the CLMP.

Discussion

This 6-month report captures those amendments that impact on the CLMP for the period 1 March 2026 to 31 August 2026. The amendments are contained in this meeting agenda at ***Attachment 1*** of this report.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered Low and are limited to the management of newly acquired land parcels in accordance with Council's Parks and Gardens Service Standards.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low as all administrative processes relating to Council's CLMP are undertaken in accordance with the legislative processes stipulated within the *Local Government Act 1999*. Amendments endorsed within the *'6 monthly CLMP Amendments Report'* will be added to the CLMP at its next review, which is currently scheduled for 2028 (or earlier as required).

The CLMP is accompanied by a *Community Land Register*, which is a public document available on Council's website. In the years between the existing CLMP and its next review in 2028, changes to land parcels that affect the CLMP are provided within the *Community Land Register* and publicly updated approximately every 6 months.

Attachments

Attachment 1 - 6 Monthly Community Land Management Plan Report 1 March 2026 to 31 August 2026

AMENDMENTS TO 2023-2028 COMMUNITY LAND MANAGEMENT PLAN

1 March 2026 – 31 August 2026

Date of change	Title Reference	Address	Proposed CLMP Category	Removed, Added or Amended	Reason
04.02.2026	CT 6327/528	Closed Road Marked F Road Plan 3176 (Finniss Road)	Undeveloped Reserve	Amended	The title has been issued to Council for the old, closed road behind the Finniss General Store. Council was unaware that it owned the land at the time the LGA 1999 was introduced and had therefore never been excluded from community land classification. It is not actually 'new' land, but Councils CLMP requires amending now that there is a title.
07.04.2026	CT 6329/967	Allotment (Reserve) 500 Strathalbyn	Undeveloped Reserve	Added	Land parcel transferred to Council as required by sub-division
07.04.2026	CT 6329/968	Allotment (Reserve) 501 Strathalbyn	Undeveloped Reserve	Added	Land parcel transferred to Council as required by sub-division
20.04.2026	CT 6330/669	Allotment (Reserve) 606 Hindmarsh Island	Undeveloped Reserve	Added	Land parcel transferred to Council as required by sub-division
16.06.2026	CT 6334/269	Lot 20 Rankine Street, Strathalbyn	Developed Reserve	Amended	Portion of Council Reserve sold to adjacent landowner as per Council resolution from the Council Meeting, with the new CT 6334/269 File Plan D139350, replacing CT 6218/62 in File Plan F10659 to recognise the new reserve area.

16.06.2026	CR 5763/660	Section 495 Denver Road Hindmarsh Island	Undeveloped Reserve	Removed	Outcome of proposal from the Department for Environment and Water (DEW), requesting to revoke the dedication to Alexandrina Council of these five (5) parcels of Crown land, located at the eastern end of Hindmarsh Island, for the purpose of inclusion in a proclamation as an addition to the Coorong National Park, using section 20A of the *Crown Land Management Act 2009* to revoke the classification of community land. Resolved to accept the DEW proposal at the 20 April 2026 Council Meeting (C136/04/26).
16.06.2026	CR 5763/661	Lot 496 & 497 (Reserve 14) Denver Road Hindmarsh Island	Undeveloped Reserve	Removed	
16.06.2026	CR 5763/662	Section 498 + 499 (Reserve 13) Waterfront Hindmarsh Island	Undeveloped Reserve	Removed	
31.08.2026	CT 5329/138	Lot 326, Government Road Goolwa Beach	Undeveloped Reserve	Removed	Legally a thoroughfare (defined as road), which is exempt from the CLMP classification by definition, under Section 193 of the *Local Government Act 1999.*

9.12. Establishment of Alexandrina Wastewater Advisory Board

Decision Report

Responsible Officer: Alan Harvey (General Manager Infrastructure)

Report Author: Gary Lyons (Manager Alexandrina Wastewater)

Previous Decisions: January 2024 - C24004

Report Purpose

This report provides Council with a summary of recent governance advice regarding the structure of the Alexandrina Council wastewater business. The purpose of the report is to outline the context, key issues and drivers influencing the need for change, available governance options, and seek Council approval on establishing a Skills-Based Advisory Board and the adoption of the Terms of Reference.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Establishment of Alexandrina Wastewater Advisory Board*.**
2. **Approve, with an effective date on 1 November 2026, the proposed Alexandrina Wastewater governance model and the establishment of an Alexandrina Wastewater Advisory Board.**
3. **Approve the draft *Alexandrina Wastewater Advisory Board Terms of Reference* as contained in Attachment 2.**
4. **Authorise the Chief Executive Officer to make changes of a minor nomenclature, technical or formatting nature to the Terms of Reference prior to and during the period of effect.**
5. **Approve the Chief Executive Officer to progress the implementation of the Alexandrina Wastewater Advisory Board based on the Terms of Reference.**

Background

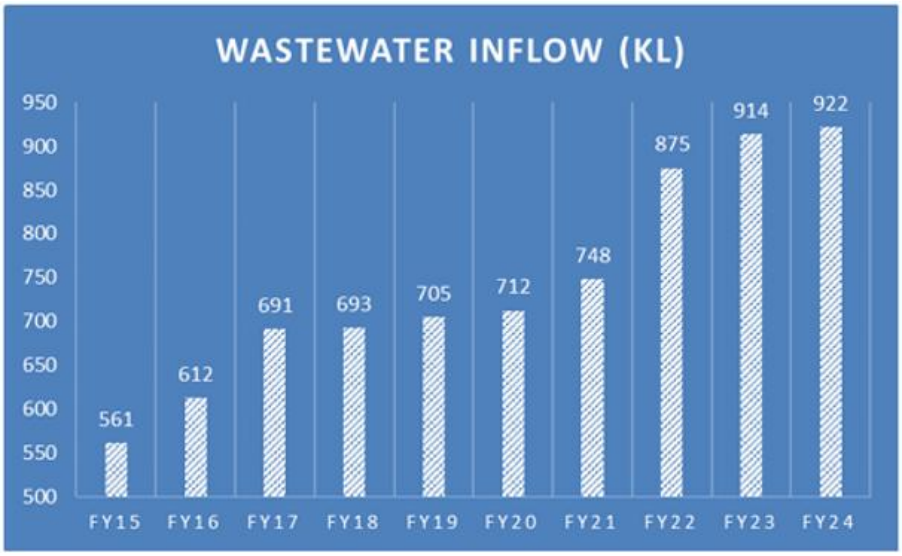
Wastewater Management in Alexandrina

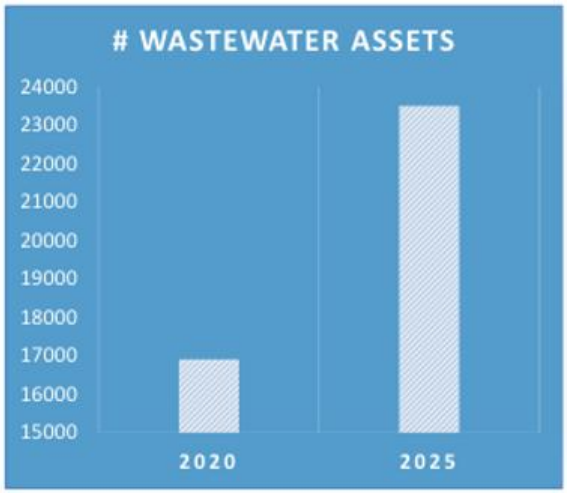
Alexandrina Council owns and operates one of the largest wastewater retail businesses in South Australia.

Alexandrina Wastewater (AWW) oversees regional strategic development, capital works programs, maintenance and operations of five (5) diverse wastewater systems, more than $100M in water assets. These responsibilities provide a 24/7 essential service to more than 20,000 residents within the region. AWW has the principal responsibility to effectively lead the delivery and the long-term sustainability of the Council owned water utility.

The AWW business has undergone and continues to see significant growth in scale and complexity over recent years, with population growth and private wastewater schemes acquisition across the region. This growth has driven the need for increased wastewater infrastructure investment, network expansion, and service capability across multiple townships. As a result, the wastewater service now operates within a more complex operating environment than when current governance arrangements were established.

To illustrate these changes and historical growth the following two charts show the increase in the volume of wastewater being processed and the number of assets being managed and maintained.

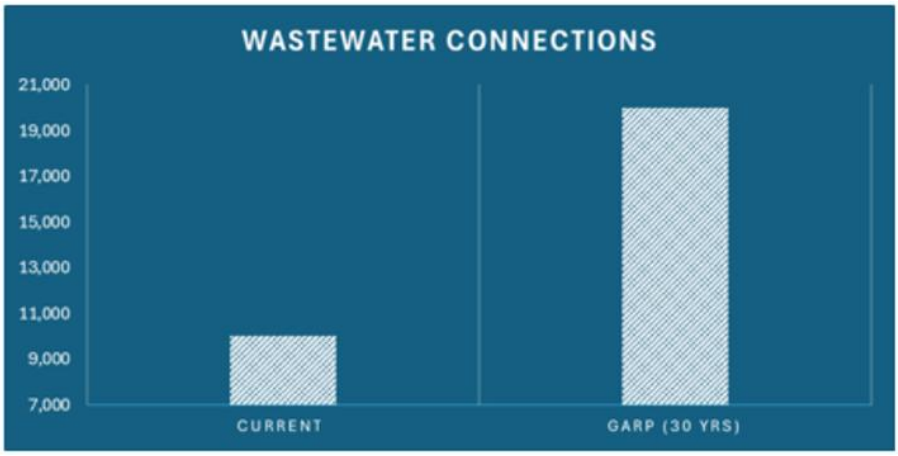




The wastewater business also operates in a highly regulated environment, with direct public health, environmental protection, pricing, and customer service obligations. Council retains full ownership, operational responsibility, and risk exposure for the service, including long-term asset management, regulatory compliance and financial sustainability. As the scale of operations increases, so too does the level of governance oversight, technical expertise and financial transparency required to support informed decision-making.

The Alexandrina region continues to experience sustained population growth and development activity across multiple townships, with regional growth forecasts indicating ongoing demand for new housing, infill development, and supporting infrastructure. This growth places increasing pressure on AWW to deliver timely network expansions, capacity upgrades, and treatment performance improvements, often ahead of or in parallel with development. Meeting these demands requires long-term infrastructure planning, significant investment, and the ability to clearly demonstrate financial sustainability and cost reflective pricing. As the wastewater business grows in scale and complexity, greater operational independence and enhanced financial transparency become essential to provide confidence to regulators, developers and funding bodies for access to funding.

Extrapolated growth based on Greater Adelaide Regional Plan (GARP)*



*excluding expansion to other townships or existing suburbs

AWW Governance and Sustainability Arrangements

In January 2024 the Council considered and resolved the following -

7.2. Cr Peter Oliver - CWMS and Water Assets business case

Cr Sue Miller declared a material conflict of interest in the matter for consideration due to her employment and advised she would leave the Chamber. Cr Miller left the Chamber at 6.14 pm.

C24004

Moved Cr Peter Oliver seconded Cr Bill Coomans

That Council requests the CEO to provide a Business Case for the separation and operation of the CWMS (Community Wastewater Management System) and Water Assets as a separate business 'Alexandrina Water' with Council as the Foundational Shareholder. The scope of the business case to include physical CWMS Assets and commercial trading of water.

CARRIED UNANIMOUSLY

Further to the above resolution and as a means of generating information required to address the resolution, the adopted *Annual Community Plan 2025/26* (at page 22) contained a continuous improvement project - *Service Review – Alexandrina Water Structure & Funding Model* which included (relevant to this report) 'consider the potential for separation from Council governance while retaining oversight'; and

In November 2025 Council commissioned legal advice from Norman Waterhouse to review alternative governance models and assess their suitability in supporting a growing, technically complex wastewater business. The review considered Council's objectives of improved strategic oversight, financial transparency, risk management and long-term sustainability, while retaining appropriate Council control. The final advice, as at February 2026, is provided in ***Attachment 1***.

The advice assessed a range of governance models available to Council under the *Local Government Act 1999* (the Act), including maintaining the current governance arrangements, adopting a Business Unit-Advisory Board model, establishing a Section 41 Committee or establishing a Section 42 subsidiary.

The current governance model was identified as increasingly misaligned with the wastewater business' evolving scale and complexity. Key limitations include the absence of dedicated specialist oversight, limited operational independence, and insufficient separation from broader Council structures to support commercial agility and focused risk management.

The Business Unit-Advisory Board model was identified as a practical near-term option. Under this model, the wastewater business would continue as a Council business unit, supported by a skills-based advisory board providing targeted governance advice to the Chief Executive Officer. This approach improves access to specialist expertise, strengthens oversight, enhances financial transparency, and supports clearer accountability, while remaining relatively low risk and less disruptive to implement.

A Section 41 Committee model was considered but identified as offering limited benefit, given its advisory nature and procedural constraints, which may restrict the flexibility required to govern a complex wastewater operation effectively.

The advice also identified a Section 42 subsidiary as a longer-term option should Council seek greater operational autonomy, commercial flexibility and financial accountability. While this model offers strong alignment with many long-term governance objectives, it introduces higher levels of cost, complexity and change risk, including the need for Ministerial approval and the establishment of a separate legal entity.

Importantly, the advice recommended a phased approach, enabling Council to strengthen governance through a Business Unit-Advisory Board model in the near term, while retaining the option to transition to a Section 42 subsidiary as the wastewater business continues to grow and mature.

At the 23 February 2026 Council Information Session, Council Members were provided with an update which included a presentation of the advice provided by Sean Keenihan of Norman Waterhouse. That advice which has been supplied to Council Members through the CM Portal proposed a phased approach:

- Phase 1 - that Council move to establish a Business Unit Advisory Board.
- Phase 2 - further investigate the opportunity for AWW to become a Section 42 Subsidiary.

In that advice Mr Keenihan suggested that this phased approach could provide the following benefits to Council and AWW:

- Provides a relatively quick and straightforward means to achieving many of Council's objectives - with significantly lower change risk, cost and complexity.
- Enables Council to pilot a more independent governance structure, with flexibility to transition to a subsidiary if greater autonomy is needed.
- Phase 1 experience and structures could help to reduce the risks of moving to a subsidiary
- This balances immediate priorities while progressively advancing the Council's objectives.

Mr Keenihan advised that the Business Unit Advisory Board could have the following high level characteristics:

- Accountable to the Council CEO who is supported by an advisory board.
- Be skills based, supported by key staff and external subject matter experts.
- Have targeted oversight and expertise, with a dedicated focus on key service functions - strategy, resourcing, accountability, retention of Council control, pathway to future evolution.
- A level of independence and accountability while providing dedicated oversight and control.

In addition, the Administration met with the Local Government Finance Authority to discuss how AWW could be financially set up to provide for sustainability, growth and regulatory compliance. This discussion recognised the need for the development and implementation of a separate Long Term Financial Plan (LTFP) and supporting strategic documentation. Noting that these documents would sit alongside Council's own Strategic Management Plan (SMP) suite including its LTFP.

Discussion

The progression of the Advisory Board concept is consistent with the adopted *Annual Community Plan 2026/27* (at page 23) which contains a continuous improvement project - *Wastewater governance and sustainability* which requires ‘implement findings of the 2025/26 examination of the governance and sustainability of Alexandrina Wastewater…’

Establishment of an AWW Advisory Board

The establishment of an AWW Advisory Board (Board) requires the resolution of Council to establish a Board and approve the Terms of Reference as provided for in Recommendation Group B.

Terms of Reference

The draft Terms of Reference for the Board is provided in ***Attachment 2***.

Consistent with the legal advice referred to above, the Board is designed to be a capability-building advisory body focused on supporting long-term sustainability, strategic planning and operational maturity, as distinct from a governing board with fiduciary or oversight responsibilities.

To be clear, the Elected Council retains the accountability, control, and ownership of AWW under this structure.

Similar to other 'internal' committees (such as the Strategic Team) the Board will not have a legal structure under the Act (i.e. not a s41 committee or advisory group) and does not hold any legislative or financial delegations. The Board provides advice directly to the CEO, which is communicated to Elected Members, as appropriate, through Council reports to support Members in fulfilling their decision-making responsibilities.

The Board will be made up of eight (8) members, including the CEO (Chairperson), up to five (5) independent members (not Council Members or Council Officers) and two (2) Council Officers.

The Board when considered as whole must have skills, knowledge and experience in areas such as:

- wastewater utility operation
- water regulation and pricing;
- financial management;
- legal and governance;
- engineering;
- asset management;
- strategic and public policy; and
- risk and compliance management
- customer experience and organisational culture

The CEO will appoint all Board members with the independent members being selected through an Expression of Interest process.

Due to the intention for Board Members to provide input and advice in relation to key documents outside of Board meetings, the remuneration structure consists of both sitting fees and an hourly rate for out-of-session work.

The draft Terms of Reference for the Board is provided in ***Attachment 2***.

Next steps

Subject to Council's decision on the establishment of a Board and approval of the Terms of Reference, the next steps will involve the following:

- November 2026 - Expression of Interest for the up to five (5) Independent Board Member positions
- December 2026 - Appoint the Board

- February 2027 - Commence meetings of the Board. Initial considerations:
    - Development of an AWW Long Term Financial Plan
    - Development of a 5-year Infrastructure Delivery Plan
    - Prioritisation of other strategies, plans and policies

Financial Implications

The establishing of an Advisory Board is anticipated to increase annual OPEX spending by approximately $50,000 p.a.

As per Norman Waterhouse's advice, the recommendation is considered a sensible transition with low levels of cost, risk and/or change management complexity.

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting this recommendation are considered Low as the cost of the Board can be accommodated within current operational budgets.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low due to minor consequence ratings. Risks of adoption are negligible because the Advisory Board will not have any decision-making powers.

Attachments

Attachment 1 – Wastewater Business Structuring Options – Norman Waterhouse – February 2026

Attachment 2 – Alexandrina Wastewater Advisory Board Terms of Reference v0.4

Norman Waterhouse

19 February 2026

Our Ref: SDK\DCT\M0515921F03468-2380-7816

By Email:
Andrew.MacDonald@alexandrina.sa.gov.au

Andrew MacDonald
Chief Executive Officer
Alexandrina Council
PO Box 21
GOOLWA SA 5214

Dear Andrew:

Wastewater Business Structuring Options

We refer to our previous correspondence regarding the above matter, including our workshop on the 8th of August 2025 and subsequent discussions with Council staff.

You have sought our advice around governance model options to support Alexandrina Council (the **Council**) in the administration of its wastewater business (**Alexandrina Wastewater**).

1. **BACKGROUND**

1.1 In recent years, the context and environment in which Alexandrina Wastewater operates has become increasingly complex. In particular:

1.1.1 the scale of Alexandrina Wastewater's operations has grown exponentially, with ongoing significant and rapid growth forecast. This means more infrastructure to procure, roll out, maintain and manage and a larger, more diverse customer base to service; and

1.1.2 the external regulatory and operating environment for wastewater businesses is becoming increasingly complex.

1.2 It is on this basis that the Council has prompted a review of Alexandrina Wastewater's governance model to ensure it remains fit for purpose in this evolving landscape and can meet identified future challenges and opportunities.

1.3 As a result of this evolved (and evolving) context, the Council has identified the following key objectives to guide the development of Alexandrina Wastewater's future governance model:

Norman Waterhouse Lawyers Pty Ltd ACN 621 909 395
Level 11, 431 King William Street, Adelaide SA 5000
GPO Box 639, Adelaide SA 5001
www.normans.com.au
T +61 8 8210 1200

1.3.1 strategic direction and dedicated oversight provided by professionals with expertise in and relevant to the wastewater industry and a wastewater business;

1.3.2 improved financial transparency, accountability, and long-term sustainability for the Council and Alexandrina Wastewater;;

1.3.3 independence and objectivity in Alexandrina Wastewater's strategic direction and decision-making;

1.3.4 Alexandrina Wastewater is positioned as a lean, agile and competitive water business in the open retail water market;

1.3.5 Alexandrina Wastewater has the ability to independently source and engage service providers; and

1.3.6 increased risk mitigation for the Council, the community and Alexandrina Wastewaters' customers.

1.4 In light of the above, the Council has sought our advice on governance options for Alexandrina Wastewater, with a particular focus on alignment with the Council's identified objectives having particular regard to the relative risks, costs, and complexity of each model.

2. EXECUTIVE SUMMARY

2.1 There are a limited number of governance models available to the Council in respect of Alexandrina Wastewater. Of these, the Business Unit-Advisory Board and Section 42 Subsidiary models best align with the Council's identified objectives for Alexandrina Wastewater.

2.2 Given Alexandrina Wastewater's current and evolving context, the Council could consider a phased approach to governance reform for Alexandrina Wastewater as the most sensible and effective way forward in all the circumstances. Such an approach would be less costly and disruptive in the near term, while also providing valuable insights and a clear purpose for considering the more complex and costly requirements of a Section 42 Subsidiary structure in the medium to long term. A phased approach could be:

2.2.1 **Phase 1 (near term):** Alexandrina Wastewater is managed by a (mostly) dedicated team within a separate business unit of the Council, governed by a skills-based advisory board to the Council CEO, comprising relevant senior Council officers and external independent relevant subject matter experts;

(hereafter referred to as the **Business Unit-Advisory Board** governance model)

2.2.2 **Phase 2 (medium to long term):** Subject to the outcomes of Phase 1 and taking into account Alexandrina Wastewater's context and requirements at that time, a subsidiary under Section 42 of the *Local Government Act 1999 (SA)* (**LG Act**) could be established to manage Alexandrina Wastewater (**Section 42 Subsidiary**).

2.3 The Business Unit-Advisory Board model offers a relatively quick and straightforward means of achieving many of the Council's objectives, with significantly less change risk, cost, and complexity than a Section 42 Subsidiary.

2.4 Importantly, it allows the Council to pilot a more focused and independent governance structure, providing flexibility to retain the model if it proves effective, or to transition to a Section 42 Subsidiary if greater autonomy and accountability are required. The experience and structures developed in Phase 1 will help mitigate the risks and challenges of more substantial organisational change.

2.5 In our view, this phased approach strikes an appropriate balance between addressing immediate needs and progressively advancing the Council's objectives. It enables the Council to manage the risks and complexities of organisational change in a measured way, adapting as experience and circumstances evolve.

2.6 A more detailed analysis follows.

3. GOVERNANCE MODELS CONSIDERED

3.1 There are a limited number of governance models that the Council could adopt in respect of Alexandrina Wastewater, including:

3.1.1 Current governance structure;

3.1.2 Business Unit-Advisory Board governance model;

3.1.3 Committee established under Section 41 of the LG Act; and

3.1.4 Section 42 Subsidiary.

3.2 The following is not an exhaustive exploration of the advantages and disadvantages of the various structures discussed. It is aimed to address threshold issues associated with each structure in light of the Council's key objectives and the success criteria provided

4. ANALYSIS OF GOVERNANCE MODELS

Current Governance Model

4.1 Recent developments in the operating landscape for Alexandrina Wastewater have prompted a reassessment of the suitability of the current governance model. While continuing with the current governance arrangements would cause the least disruption to 'business-as-usual' operations, it is increasingly clear that it is unlikely to meet the Council's identified objectives for Alexandrina Wastewater both in the near term and the medium to longer term.

4.2 We understand through workshops with the Council's staff that the key drawbacks of the current governance model, having regard to Alexandrina Wastewater's current and evolving context and objectives, include:

4.2.1 limited organisational influence and input from relevant subject matter experts, particularly within the context of an increasingly large, complex and multifaceted Council service;

4.2.2 the absence of a dedicated strategy, sufficient staff resources, clear reporting lines, and an accountability framework proportionate to the unique characteristics of Alexandrina Wastewater, relative to other Council services;

4.2.3 challenges in achieving a material change in the risk profile for the Council, the community, or Alexandrina Wastewater's customers;

4.2.4 Alexandrina Wastewater may not be optimally positioned as a lean and agile water business, limiting its ability to compete in the open market (which is essential to delivering best value for its customers); and

4.2.5 challenges in achieving operational independence (with associated efficiencies and capacity to meet regulatory obligations), as Alexandrina Wastewater remains integrated within the Council's existing structures.

4.3 On this basis, the internal Council view is that continuing with the current model is unlikely to enable the Council to achieve its objectives for Alexandrina Wastewater, which has prompted this request for advice around alternative governance models.

Section 41 Committee

4.4 The Council has the ability to establish a Committee under section 41 of the LG Act (a **Section 41 Committee**) to:

4.4.1 assist the Council in the performance of its functions (e.g., carrying out a project, managing or administering property, facilities or activities, and/or oversee works – in each case - on behalf of the council);

4.4.2 inquire into and report to the Council on matters within the ambit of the Council's responsibilities;

4.4.3 provide advice to the Council; and

4.4.4 exercise, perform or discharge delegated powers, functions or duties.

4.5 A Section 41 Committee can include persons who are not Council members, allowing the Council to appoint external personnel to the Committee to complement the Council's existing skill sets and experience. That said, due to the requirements of the LG Act, meetings of a Section 41 Committee may closely resemble Council meetings. This can unduly constrain the proceedings, which would ideally be more flexible, dynamic, and commercially focused, given the subject matter and the Council's identified objectives.

4.6 Furthermore, the Local Government Act provides that the Council may delegate various powers and functions to a Section 41 Committee. Delegations can be an effective tool to ensure that the Committee retains a degree of independence from the Council's other functions and processes, thereby enabling more streamlined decision-making. However, the extent to which the Committee can operate independently is entirely dependent on the scope and adequacy of the delegations conferred by the Council. If the delegations are limited or insufficient, the Committee's ability to act flexibly and efficiently may be significantly constrained, resulting in proceedings that closely mirror those of the Council and potentially undermining the intended benefits of establishing the Committee.

4.7 While a Section 41 Committee could provide focused and independent advice to the Council in relation to its wastewater functions, it does not provide the dedicated leadership, operational autonomy, or commercial flexibility required to meet the Council's identified objectives for Alexandrina Wastewater.

4.8 Having regard to the characteristics of the Section 41 Committee governance model and the Council's identified objectives for Alexandrina Wastewater, we do not consider this model to be the most appropriate in the circumstances.

Business Unit-Advisory Board Governance Model

4.9 Under the Business Unit-Advisory Board Governance Model, Alexandrina Wastewater would be managed by a (mostly) dedicated team within a separate business unit of the Council. That team is accountable to the Council CEO who is supported by an advisory board comprising relevant senior Council officers and external independent relevant subject matter experts.

4.10 Similar to the governance framework successfully adopted by Salisbury Water, the advisory board is constituted by a charter and provides advice to the Council's CEO on matters brought to the advisory board.

4.11 This model aligns well with the Council's identified objectives for Alexandrina Wastewater, offering several advantages:

4.11.1 **Targeted Oversight and Expertise:** It delivers focused governance and access to external expertise, supporting the development of Alexandrina Wastewater's capacity and performance at a time of increasing scale and complexity.

4.11.2 **Independence and Flexibility:** The advisory board structure allows for a tailored degree of operational independence, enabling the Council to respond dynamically to emerging challenges and opportunities.

4.11.3 **Streamlined Implementation:** Compared to more formal structures such as a Section 42 Subsidiary, this model is less disruptive to establish and maintain, with lower compliance and resource demands.

4.11.4 **Retention of Council Control:** The Council maintains clear authority over key decisions through the Council CEO, addressing concerns about loss of control often associated with more independent governance models (such as the Section 42 Subsidiary).

4.11.5 **Pathway to Future Evolution:** This approach can serve as a transitional step towards a more formal governance structure if greater independence is required in the future.

4.12 The primary limitation of the Business Unit–Advisory Board governance model, in light of Alexandrina Wastewater's identified objectives, is that its operations remain embedded within the Council's broader structures. This may restrict Alexandrina Wastewater's ability to act independently and respond dynamically, particularly in commercial matters. For instance, all commercial arrangements must ultimately be entered into by the Council, and (unless specific policies or new provisions in existing policies are developed by the Council having regard to the evolving requirements of Alexandrina Wastewater) are subject to Council policies designed for a variety of contexts - not solely those relevant to a wastewater service - which may further constrain operational flexibility.

4.13 Having regard to Council's current circumstances and its objectives for Alexandrina Wastewater, we consider the Business Unit–Advisory Board Governance Model to be a suitable option in the near term. However, if Council's long-term goal is for Alexandrina Wastewater to achieve greater operational independence and financial accountability, it may be necessary to consider an

alternative governance model-such as a Section 42 Subsidiary-which is better equipped to deliver that level of autonomy and oversight.

Section 42 Subsidiary

4.14 Section 42 of the LG Act enables the Council to establish a subsidiary to deliver specific services or functions on its behalf. This provides the legal basis for the Council to establish a subsidiary to manage its wastewater service.

4.15 A Section 42 Subsidiary is a body corporate, and its establishment requires the approval of the Minister for the conferral of corporate status under the LG Act. As such, moving forward with a subsidiary for the Council's wastewater business is contingent on securing this approval.

4.16 The Section 42 Subsidiary must operate within the framework of a charter prepared by the Council. The charter sets out the subsidiary's powers, functions, and duties, and serves as its legal and operational framework.

4.17 The relative advantages of the Section 42 Subsidiary model in the Council's present circumstances include:

4.17.1 **Enhanced Independence and Autonomy**: As a separate legal entity, a subsidiary can focus exclusively on Council's wastewater functions and operate at arm's length from other Council activities. This structure enables the subsidiary to enter into commercial arrangements independently, providing a greater degree of operational autonomy than alternative models. Furthermore, pursuant to section 44 of the LG Act, the Council may delegate certain powers and functions to the subsidiary.

4.17.2 **Financial Accountability and Planning**: The subsidiary is subject to its own financial reporting requirements, supporting higher levels of financial transparency and accountability. This framework also facilitates the development and implementation of long-term financial plans tailored to Alexandrina Wastewater's requirements.

4.17.3 **Access to External Expertise**: The LG Act requires a Section 42 Subsidiary to have a board of management, which may include external specialists. This allows the Council to supplement its internal capabilities with dedicated oversight and strategic guidance from independent experts, similar to the benefits offered by an advisory board.

4.17.4 **Retention of Council Control**: Importantly, while the subsidiary enjoys operational independence, it remains subject to the Council's overall control and direction under the LG Act. This ensures the Council retains ultimate authority over its wastewater business, providing reassurance that key decisions remain within its purview.

4.18 Despite its advantages, the Section 42 Subsidiary model presents several challenges in the Council's current context:

4.18.1 **Change Risk, Cost and Complexity**: Transitioning to a subsidiary structure involves significant change management and operational complexity. Establishing a subsidiary requires ministerial approval and introduces additional governance, regulatory, and operational requirements, such as developing a subsidiary charter, preparing a business plan, establishing service level agreements, forming or adjusting risk and audit committees, determining board composition and

appointment processes, ensuring compliance with licensing requirements, preparing separate financial statements and budgets, and implementing new operational frameworks for HR and staffing. These steps can be resource-intensive and may disrupt existing processes.

4.18.2 **Perceived Loss of Control**: The creation of a separate legal entity with its own board may give rise to concerns that the Council is relinquishing control over its wastewater service. While the LG Act ensures the Council retains ultimate authority, this perception can be mitigated through proactive stakeholder engagement and by embedding robust accountability mechanisms for the subsidiary. This however can be both time-intensive and resource-intensive, demanding sustained effort to build trust, clarify governance arrangements, and ensure all parties remain confident in the Council's oversight.

5. GOVERNANCE MODEL COMPARISON

We have provided in Figure 1 below a summary table highlighting the key outcomes of each governance model considered for Alexandrina Wastewater, focusing on alignment with the Council's objectives and key considerations of complexity, risk, and cost.

Governance Model	Alignment with Council Objectives	Complexity	Risk	Cost
Current Governance Model	Acknowledgement by the Council that current governance model does not align with objectives; absence of dedicated strategy and resources; difficulties in achieving operational independence.	Least complex; minimal disruption to current operations.	No material change in risk profile; limited risk mitigation.	Lowest cost; no additional reporting or compliance obligations.
Business Unit-Advisory Board	Moderate alignment; improves focus and efficiency, but lacks independence and ability to compete in open market.	Low to moderate; limited change complexity.	No material change in risk profile; some improvement via. dedicated advisory board.	Low; limited additional cost or compliance obligations.
Section 41 Committee	Limited alignment; can provide advice but lacks operational independence and leadership.	Moderate; requires establishment and delegation of powers.	No material change in risk profile; limited risk mitigation.	Moderate; some additional governance and reporting requirements.
Section 42 Subsidiary	Strong alignment; provides operational and financial autonomy, independent board, and ability to compete.	Highest; significant change complexity and regulatory requirements. Managing stakeholder perceptions and transition requires substantial time and resources. Change complexity issues could be mitigated via. interim skills-based advisory board	Improved risk mitigation through independent oversight and dedicated governance structures; however, introduces transition, compliance, and reputational risks, and requires robust management to ensure alignment with the Council's objectives.	Highest; additional costs for establishment, compliance, and ongoing operations.

Figure 1: Summary table highlighting indicative key outcomes for each governance model considered. The following table provides an indicative comparison of governance models against key criteria. The assessment is general in nature and intended to guide initial consideration. A more definitive evaluation of risks, costs, and alignment with Council's objectives would require detailed analysis of Council's specific circumstances, the scope of proposed changes, and the practicalities of implementation.

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6. RECOMMENDED GOVERNANCE MODEL

6.1 Adopting the Business Unit-Advisory Board model as an initial step offers the Council with a practical and flexible governance solution for Alexandrina Wastewater, aligning with current objectives while minimizing disruption and complexity. This model enables the Council to enhance oversight, build internal expertise, and introduce a degree of operational independence without the immediate resource demands and change risks associated with establishing a Section 42 Subsidiary.

6.2 As Alexandrina Wastewater's scale and strategic needs evolve, this approach provides a solid foundation from which the Council can assess the benefits and readiness for a more formal, autonomous structure. If greater independence and financial accountability become long-term priorities, the Council can transition to a Section 42 Subsidiary, leveraging the experience and capacity developed under the advisory board model to ensure a smoother and more effective implementation.

7. NEXT STEPS

We trust the above analysis will assist Council as it determines its proposed path forward for Alexandrina Wastewater. We would be pleased to assist the Council in providing more detailed advice in relation to any of the issues outlined above, or on any other queries it may have in relation to governance models for Alexandrina Wastewater.

We are also able to clarify, expand or re-cast our advice based on a more detailed understanding of the Council's objectives and requirements, and would be pleased to assist with the establishment of the Council's preferred governance model if instructed.

Please feel free to contact us if you have any questions, or if we can be of any further assistance.

Yours faithfully
Norman Waterhouse



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Alexandrina Wastewater Advisory Board

Terms of Reference

1. ESTABLISHMENT

1.1 On 19 October 2026, Council resolved (CXXXX) to establish the Alexandrina Wastewater Advisory Board (the Advisory Board).

1.2 The Advisory Board is one of the initiatives adopted by the Council to provide independent professional advice on the strategic direction and long-term sustainability of Alexandrina Watewater, taking into account growth pressures, increasing infrastructure demand and operational compliance obligations.

1.3 In contrast to the more formal meeting structures such as Council and Council Committees (created under Section 41 of the *Local Government Act 1999*), the Board does not have any separate legal standing under the *Local Government Act 1999*.

1.4 The Advisory Board will continue in existence until dissolved by the Council.

1.5 The Advisory Board does no hold any legislative or financial delegations or other authorisations.

1.6 The Mayor and Council's CEO will be the media spokespersons on behalf of the Advisory Board.

2. DEFINITIONS

Unless the context indicates otherwise, the following terms have the following meanings in these Terms of Reference:

Act	means the *Local Government Act 1999* (the Act)
Administration	means staff of the Alexandrina Council. Clause 8 refers secretariat support given to the Board (agenda preparation, minute taking etc)
Advisory Board	means the Alexandrina Wastewater Advisory Board
Chairperson	means the chairperson of the Advisory Board, as set out in clause 5 of this Terms of Reference
CEO	means the Chief Executive Officer of the Alexandrina Council
Council	means the Alexandrina Council
Electronic means	includes a telephone, computer or other electronic device used for communication.
Independent Advisory Board Member	is a Member of the Advisory Board who is not a Council Member or Employee
Employee Advisory Board Member	is a Member of the Advisory Board who is a Council Employee

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Term of Office	the amount of time a member will be appointed to the Advisory Board
Terms of Reference	means these Terms of Reference

3. ROLE AND FUNCTIONS OF THE BOARD

3.1 The role of the Advisory Board is to provide advice to the CEO on the strategic management of Alexandrina Wastewater.

3.2 The specific functions of the Advisory Board in pursuing its role are to provide advice to the CEO in relation to:

3.2.1 the development and review of key plans, including but not limited, to:

3.2.1.1 planning, governance and project management framework(s);

3.2.1.2 strategic plans;

3.2.1.3 infrastructure and asset management plans;

3.2.1.4 long term financial plans; and

3.2.1.5 business plans and budgets.

3.2.2 the development and review of key operating documents, including but not limited, to:

3.2.2.1 policy and procedure framework;

3.2.2.2 risk management plans and strategies;

3.2.2.3 safety management plans and strategies; and

3.2.2.4 stakeholder and regulatory management plans and strategies;

3.2.2.5 pricing models

3.2.3 governance, structure, and operating models;

3.2.4 any other matters related to wastewater management as determined by the CEO.

4. MEMBERSHIP

4.1 Membership of the Advisory Board shall consist of each of the following persons:

4.1.1 the Chief Executive Officer;

4.1.2 up to five (5) natural persons appointed by the CEO being persons who are not a Council Member or an Employee of the Council (Independent Advisory Board Member); and

4.1.3 up to two (2) Council Employees (Employee Advisory Board Members).

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4.2 Members of the Advisory Board (when considered as a whole) must have skills, knowledge and experience relevant to the Board's role including, but not limited to:

4.2.1 wastewater utility operation;

4.2.2 water regulation and pricing;

4.2.3 financial management;

4.2.4 legal and governance;

4.2.5 engineering;

4.2.6 asset management;

4.2.7 strategic and public policy; and

4.2.8 risk and compliance management

4.2.9 customer experience and organisational culture

4.3 The Advisory Board Chairperson may, invite members of the Administration, observers or specialists to attend meetings of the Board. Such invitees are not Members and are, therefore, entitled to be present at the discretion of the Board but are not entitled to vote at meetings of the Board.

4.4 The Independent Advisory Board Members will be appointed following a publicly advertised expression of interest (EOI) process.

4.4.1 A selection panel will be formed by the CEO to assess applications and make recommendations for appointment to the Advisory Board. Council Employees and/or Advisory Board Members may be included on the selection panel.

4.4.2 If a vacancy occurs within 12 months of an EOI, a suitable but unsuccessful candidate from the most recent EOI may be approached to fill the vacancy.

4.4.3 If a suitable candidate under clause 4.4.2 is not available or the vacancy occurs more than 12 months after the most recent EOI, the CEO should consider the ability to continue the Advisory Board's function by 'carrying' the vacancy. If however this is not practical, a special EOI may be required.

4.4.4 Recommendations for appointment to the Board will be made by the selection panel to the CEO.

4.5 Independent Advisory Board Members membership terms will normally be for a maximum of four (4) years and will ideally be staggered via the EOI (under clause 4.4) being advertised on a two (2) yearly basis to allow for retained knowledge and continuity. Members may be re-appointed but may not serve for more than eight (8) years continuously.

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4.6 Changes to the above membership composition (i.e. adding, subtracting, or substituting any membership positions) require the approval of Council via an amendment to these Terms of Reference.

4.7 A Member will hold office as a member of the Advisory Board until their office becomes vacant by virtue of clause 4.8 of these Terms of Reference.

4.8 A person ceases to be a Member of the Advisory Board upon any of the following circumstances occurring[1]:

4.8.1 the Member is removed from office by decision of the CEO under clause 7.6 of these Terms of Reference;

4.8.2 the Member resigns from office by written notice to the CEO;

4.8.3 in relation to an Employee Advisory Board Member, they cease to be an employee of the Alexandrina Council

4.8.4 the term of appointment for the Member expires; or

4.8.5 the Member dies.

5. CHAIRPERSON

5.1 The Chairperson will be the CEO.

5.2 The Advisory Board may make an appointment to the position of Deputy Chairperson for a term.

5.3 If the Chairperson is absent from a meeting of the Advisory Board, the Deputy Chairperson (if there is one) will preside at the meeting. If the Deputy Chairperson is absent or there is no Deputy Chairperson, a Member will be chosen from those present to preside at the meeting as the Acting Chairperson.

5.4 The role of the Chairperson includes:

5.4.1 overseeing and facilitating the conduct of meetings in accordance with applicable legislation, any meeting procedures determined by the CEO to apply to the Board, and these Terms of Reference;

5.4.2 ensuring all Advisory Board Members have an opportunity to participate in discussions in an open and encouraging manner; and

5.4.3 establishing and maintaining good communications within and between the Advisory Board and the Administration.

[1] Please seek Governance advice prior to any person ceasing to be a Member

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6. REMUNERATION

6.1 The Independent Advisory Board Members will receive:

6.1.1 a sitting fee for attendance at formal Advisory Board meetings. The fee will be determined annually by the CEO (following consideration of comparable committee/advisory board roles in the Local Government sector); and

6.1.2 an hourly fee for the out-of-session consideration of matters relating to the Advisory Board, this could include (but not be limited to) attendance at training/information sessions or the review of draft documents. The hourly fee will only be payable for out-of-session work specifically commissioned by the CEO on each separate occasion (with a maximum duration payable to be specified on each occasion). The fee will be determined annually by the CEO (following consideration of comparable committee/advisory board roles in the Local Government sector).

6.1.3 no additional payments will be made to reimburse Independent Advisory Board Members for travel or other expenses incurred in undertaking the Board Member role.

6.2 Employee Board Members will not receive any sitting or hourly fees.

7. CONDUCT OF ADVISORY BOARD MEMBERS

7.1 Members appointed to the Advisory Board will be expected to:

7.1.1 be honest;

7.1.2 act with reasonable care and diligence;

7.1.3 not make improper use of information acquired by virtue of their position to gain advantage for self/others or cause detriment to the Council;

7.1.4 not making improper use of their position with Council to gain advantage for self/others or cause detriment to the Council;

7.1.5 not disclose information or a document that the Member knows, or ought to reasonably know, is information or a document to be treated confidentially;

7.1.6 be aware of any conflicts (actual or perceived) between their role as an Advisory Board Member and their private interests and disclose these conflicts either prior to the relevant matter being discussed or as soon as the conflict becomes apparent;

7.1.6 endeavour to provide accurate information to the Advisory Board at all times;

7.1.7 endeavour to establish and maintain respectful relationships with all Advisory Board Members, the CEO and the Administration, regardless of difference of views and opinions; and

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7.1.8 refrain from making any public comment in relation to the Council, unless specifically authorised, in advance, by the CEO.

7.2 In relation to the Employee Board Members, where there is any inconsistency between the provisions of clause 7.1 and the duties and obligations associated with their employment, the latter will prevail to the extent on any inconsistency.

7.3 Matters presented to the Advisory Board as confidential shall be dealt with and remain in confidence until such time as confidentiality is withdrawn as advised by the CEO.

7.4 Alleged breaches of the Advisory Board Member behavioural expectations, contained in clause 7.1, must be reported to the CEO.

7.4 The alleged breach report will be referred to a Reference Panel comprising the CEO (or delegate) and the Manager Governance and Communications for investigation as to whether to remove the Member from office for a breach of the Member behavioural expectations contained in clause 7.1.

7.5 The Reference Panel will observe the principles of natural justice in making any decision to remove a Member from office. That is, the Member will be given an opportunity to provide a submission in relation to any adverse allegations against them and in relation to any proposal that they be removed from office. Any submissions made by the Member will be taken into account by the Reference Panel before a decision is made.

7.6 The Reference Panel will make a recommendation to the CEO who has the delegation from Council remove the Member from office.

8. ADVISORY BOARD SECRETARIAT

8.1 The CEO shall provide sufficient administrative resources to the Advisory Board to adequately carry out its functions.

8.2 The Advisory Board will be provided with appropriate and timely training, both in the form of an induction program for new Members and on an ongoing basis for all Members.

9. MEETINGS

9.1 Frequency of Meetings

9.1.1 The Advisory Board will meet as and when required to provide advice to the CEO in accordance with the role and functions set out in clause 3.

9.2 Quorum

9.2.1 The quorum necessary for the transaction of Advisory Board business shall be half the total number of Board Members in office, ignoring any fraction plus one.

9.2.2 No business can be transacted at a meeting of the Advisory Board unless a quorum is present.

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9.2.3 A Member attending the Advisory Board meeting by electronic means, subject to satisfying the provisions of clause 9.4.3, is included in the calculation of the quorum.

9.2.4 A time limit of 30 minutes shall apply from the advertised commencement time of the Advisory Board meeting in which to achieve a quorum.

9.3 Notice of Meetings

9.3.1 A notice of each Advisory Board meeting confirming the venue, time, and date, together with an agenda of items to be discussed, shall be forwarded to each Member of the Advisory Board no later than three (3) clear days before the date of the meetings. Supporting papers shall, whenever possible, be sent to Members (and to other attendees as appropriate) at the same time.

9.3.2 All Advisory Board Members must keep confidential all documents and any information provided to them in confidence for their consideration prior to a meeting of the Board.

9.4 Meeting Procedures

9.4.1 Insofar as the Act, these Terms of Reference, and any procedures determined by the CEO to be applicable to the Advisory Board do not specify a procedure to be observed in relation to the conduct of a meeting of the Advisory Board, then the Board may determine its own procedure.

9.4.2 Only Members of the Advisory Board are entitled to vote in meetings.

9.4.3 Members of the Advisory Board can participate in the meeting via electronic means provided that its technically feasible and advance notice has been provided to the Chairperson. The Member must be able to hear and be heard during all discussions of the Advisory Board.

9.4.4 All matters for decision at a meeting of the Board will be decided by a simple majority of the Board Members present and entitled to vote on the matter.

9.4.5 The Chairperson has a deliberative vote on a question arising for decision at the meeting and, in the event of an equality of votes, does not have a casting vote.

9.5 Access to meetings and documents

9.5.1 Meetings of the Advisory Board will be closed to the public.

9.5.2 The CEO will determine whether any other persons are permitted to attend an Advisory Board Meeting.

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9.6 Meeting Agenda

9.6.1 The CEO will determine the matters to be discussed at the Advisory Board meeting on the basis of the advice required by the CEO.

9.6.2 Only matters listed on the published Agenda will be discussed during the Advisory Board meeting.

9.6.3 The Agenda will be distributed to Members by email no later than three clear (3) days prior to the meeting date (where practicable).

9.6.4 Advisory Board agendas will not be available to the public, subject to applicable legislative provisions.

9.7 Meeting Minutes

9.7.1 As an Advisory Board is not a formal Council or Committee meeting, the minutes will reflect this lack of formality but will (as a minimum) record:

- the place, date and time at which the Advisory Board meeting was held;
- the names of the Members present at the meeting and apologies;
- the topics discussed; and
- recommendations arising from the discussion and advice provided to the CEO.

9.7.2 The minutes of the proceedings at a meeting of the Advisory Board must be submitted for confirmation at the next meeting of the Advisory Board or, if that is omitted, at a subsequent meeting.

9.7.3 Minutes of Advisory Board meetings shall be circulated to Members within five (5) days after a meeting to the Board.

9.7.4 The meetings will not be recorded.

9.7.8 Advisory Board minutes will not be available to the public, subject to applicable legislative provisions.

10. REVIEW

10.1 The Advisory Board will:

10.1.1 Undertake an annual self-assessment of operations of the Advisory Board in relation to the provisions of these Terms of Reference; and

10.1.2 Undertake a biennial review of these Terms of Reference.

10.2 The Council may, by resolution, alter these Terms of Reference at any time.

Version Control		
Version	**Version Date**	**Council adoption**
V0.4	30 September 2026	TBC

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9.13. End of Year Closure and Festive Season Operating Hours

Decision Report:

Responsible Officer: Andrew MacDonald (Chief Executive Officer)

Report Author: Sarah Rose (Executive Assistant to the CEO)

Previous Decisions: Nil

Report Purpose

The purpose of this report is to seek Council's approval of the 2026/27 Christmas closure dates of the principal office, libraries and depots and to provide information on the operating hours of other Council venues over the festive season.

Recommendation

Recommendation

That Council:

1. **Receive and note the contents of the report titled *End of Year Closure and Festive Season Opening Hours*.**
2. **Approve that the principal office, libraries and depots will be closed from 12pm on Thursday 24 December 2026, and will reopen at 9am Monday 4 January 2027.**

Background

In previous holiday periods, Council has closed its principal offices, libraries and depots during the Christmas and New Year period, where customer volume is anticipated to be low. Such holiday closures have been considered successful in reducing Administration's leave, liability and budgeted goods and services expenditure. The closure period is communicated via Council's communication channels and a contact number provided in the event of an emergency relating to Council.

Section 45 of the *Local Government Act 1999* (Act) provides that the principal office of council must be open to the public for the transaction of business during hours determined by the council. Further that a council should consult with its community about the manner, places and times that its offices are open to the public and about any significant changes to these arrangements.

Discussion

Coinciding with the Christmas holiday period, the principal office, libraries and depots will close from 12pm on Thursday, 24 December 2026, and will reopen at 9am on Monday, 4 January 2027. Notwithstanding the closure, there will be a skeleton staffing level maintained with the ability to access additional resources if required.

Throughout the Christmas closure, Council's general contact number is 8555 7000 will be monitored by Council's out-of-hours service provider.

Details of the closure period will be communicated to residents leading up to the Christmas closure period through Council's communication channels and advertised on Council's website, social sites and Council's advertising boards.

The festive season operating hours for Council's other venues; Strathalbyn Visitor Information Services (VIS), Signal Point Experience Centre (SPEC) venue includes Goolwa Visitor Information Service (GVIS), South Coast Regional Arts Centre (SCRAC), Fleurieu Aquatic Centre (FAC) and the Strathalbyn Swimming Pool (SSP) are outlined below.

Facility	Thu 24 Dec	Fri 25 Dec	Sat 26 Dec	Sun 27 Dec	Mon 28 Dec	Tue 29 Dec	Wed 30 Dec	Thu 31 Dec	Fri 1 Jan	Sat 2 Jan	Sun 3 Jan
SCRAC	Closed	Closed	Closed	Closed	10am-3pm	10am-3pm	10am-3pm	10am-3pm	Closed	10am-3pm	10am-3pm
SPEC (including GVIS)	Closed	Closed	Closed	Closed	10am-3pm	10am-3pm	10am-3pm	10am-3pm	Closed	10am-3pm	10am-3pm
SVIC	Closed	Closed	Closed	Closed	10am-3pm	10am-3pm	10am-3pm	10am-3pm	Closed	10am-3pm	10am-3pm
FAC	6am-4pm	Closed	10am-4pm	10am-4pm	10am-4pm	6am-8pm	6am-8pm	6am-4pm	10am-4pm		
SSP	6am-8:30am	Closed	Open*	Open*	Open*	Open*	Open*	Open*	Closed		

** Refer to YMCA website for Strathalbyn Swimming Pool opening hours.*

Council's offices, libraries and depots will return to standard operating days and times for the new calendar year on Monday 4 January 2027. During 24 December 2026 to 4 January 2027, administration will operate under after-hours conditions where emergency requirements will still be able to be met.

Consistent with s45 of the Act, the Administration is recommending that Council approve the changes to the opening hours for the principal office over the festive season. Further, the festive season changes to Council facilities is not considered to be a significant change for the purposes of s45 and therefore public consultation is not considered to be required.

From an election preparation perspective, enrolments close at 5.00pm on Monday 4 January 2027 and Administration staff will be available in the lead up to the office closure and on the 4 January to assist members of the public with their enrolments for the Council (Supplementary) Roll.

Financial Implications

The financial and economic risks are considered Low, as holiday closures have been considered successful in reducing Administration's leave liability and budgeted goods and services expenditure.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low, with no negative feedback having been received for the reduced hours over the past four (4) years.

Attachments

Nil

9.14. Local Government Association President Election 2026-2028 and SAROC Group A Election Results

Decision Report

Responsible Officer: Tash Hunt (General Manager Corporate)

Report Author: Lachlan Miller (Manager Governance and Communications)

Previous Decisions: C284/08/26, C284a/08/26, C295/09/25, October 2024 - C24509, September 2022 - ACM221672, July 2022 - ACM221615

Report Purpose

To seek Council's determination of its preferential vote for the election of the President of the Local Government Association of South Australia (LGA) for the 2026-2028 term and provide an update regarding the South Australian Regional Organisation of Councils (SAROC) Group A election results.

Recommendation

That Council:

1. **Receive and note the contents of the report titled Local Government Association President Election 2026-2028 and SAROC Group A Election Results.**
2. **Determine its preferential vote for the office of President of the Local Government Association of South Australia for the 2026-2028 term as follows:**
    a. **Preference 1. [Candidate_____]**
    b. **Preference 2. [Candidate_____]**
    c. **Preference 3. [Candidate_____]**
    d. **Preference 4. [Candidate_____]**
3. **Note that Mayor Darryl Houston (District Council of Yankalilla) and Mayor Moira Jenkins (City of Victor Harbor) have been elected to the Group A Regional Grouping of the South Australian Regional Organisation of Councils (SAROC).**
4. **Authorise the Chief Executive Officer to complete the ballot paper and to sign and submit an extract of the Council minutes containing Council's resolution to the Local Government Association of South Australia Returning Officer in accordance with the prescribed voting requirements.**

Background

Election of LGA President 2026-28

On 9 July 2026, the LGA called for nominations for the position of LGA President. At the close of nominations at 5.00pm on Tuesday, 1 September 2026, four (4) eligible nominations had been received, and an election was subsequently called in accordance with the LGA Constitution.

The four (4) candidates are:

- Mayor Simone Bailey, Mid Murray Council
- Mayor Moira Jenkins, City of Victor Harbor
- Mayor Dean Johnson, District Council of Kimba
- Mayor Leon Stephens, Port Pirie Regional Council.

Voting instructions and Candidate information provided by the LGA is included at ***Attachment 1*** to this report.

The LGA has advised of changes to the election process from 2026, including the introduction of preferential voting, removal of physical sealed ballot papers and the use of signed Council minutes, or an extract of the minutes, as the formal ballot. Nevertheless, a ballot paper provided by the LGA is at ***Attachment 2***.

Election of Group A Regional Grouping Representatives to SAROC

On 9 July 2026, the LGA wrote to Member Councils of SAROC calling for nominations to fill two (2) positions allocated to each Regional Grouping.

At its 17 August 2026 Ordinary Council Meeting, Council considered the LGA request along with the Southern and Hills Local Government Association (SHLGA) recommendation regarding the two SAROC positions allocated to the Group A regional grouping.

Council resolved (C284a/08/26) to support the nominations of Mayor Darryl Houston, District Council of Yankalilla, and Mayor Michael Pengilly, Kangaroo Island Council, and authorised the Chief Executive Officer to complete and lodge the nomination in accordance with Council's determination.

Following the meeting, Administration sought clarification regarding the nomination process. The SHLGA advised that the District Council of Yankalilla and Kangaroo Island Council intended to submit the formal nomination documentation for their respective Mayors. Courtesy correspondence was sent to the Mayors and Chief Executive Officers of the District Council of Yankalilla and Kangaroo Island Council advising of Alexandrina Council's resolutions and our understanding that nominations were being submitted by their respective Council's. On this basis, no further nomination documentation was required from Alexandrina Council.

Council has since been informed that Mayor Michael Pengilly did not ultimately submit a nomination.

Discussion

Election of LGA President 2026-28

Under the preferential voting process, each Member Council must determine its order of preference for all four (4) candidates. The number 1 must be assigned to Council's preferred candidate, with consecutive numbers assigned to each remaining candidate in order of preference. All four (4) candidates must be ranked for the ballot to be valid.

Following Council's determination, the Chief Executive Officer is required to sign a copy of the minutes, or an extract of the minutes, containing Council's resolution. The signed document is deemed to be Council's ballot and must be submitted to the LGA Returning Officer by **5.00pm Tuesday, 3 November 2026**.

The counting of votes will take place on Monday, 9 November 2026. Where no candidate receives an absolute majority of first preference votes, preferences will be distributed until one (1) candidate achieves an absolute majority. The successful candidate will be declared at the LGA Annual General Meeting on Friday, 4 December 2026 and will hold office until the conclusion of the 2028 Annual General Meeting.

To assist the Council to consider the candidates and preferences, the Council may determine to suspend meeting procedures for the purposes of an informal discussion. A suspension of meeting procedure must be initiated by the Presiding Member and approved by two-thirds of the Members present at the meeting. While the meeting procedure elements are suspended, the conflict of interest and behavioural standards apply through a suspension, and no motion may be moved, seconded or voted upon other than the suspension be brought to an end. The suspension is ended if the Presiding Member determines that the period be brought to an end or if two-thirds of the Members present resolve that the period be brought to an end.

Election of Group A Regional Grouping Representatives to SAROC

On 7 September 2026 Council receive correspondence for the LGA (see ***Attachment 3***) advising that at the close of nominations, the LGA received two (2) nominations for the two (2) available Group A positions:

- Mayor Darryl Houston, District Council of Yankalilla
- Mayor Moira Jenkins, City of Victor Harbor.

As the number of nominations received equalled the number of available positions, both nominees were declared duly elected to the SAROC Group A Regional Grouping for the 2026-2028 term.

Financial Implications

In accordance with Alexandrina Council's Adopted Budget and Long Term Financial Plan, the financial implications associated with this report are considered Low, with no additional budget allocation required. Administrative requirements will be managed within existing resources.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk associated with adopting the recommendation is considered Low.

Council's resolution must rank all four (4) candidates for the ballot to be valid, and the signed extract of minutes must be submitted to the LGA Returning Officer by the prescribed closing date.

Attachments

Attachment 1 - 2026 LGA Elections - Notice of Election and LGA President Candidate Information

Attachment 2 - 2026 LGA Elections - Ballot Paper - LGA President

Attachment 3 - 2026 SAROC Group A Election Results

Attachment 1 - 2026 LGA Elections - Notice of Election and LGA President Candidate Information

Erin Howard

From:	LGA South Australia <lgasa@lga.sa.gov.au>
Sent:	Monday, 7 September 2026 10:44 AM
To:	Andrew MacDonald
Cc:	Customer Contact - Alexandrina Council (External Use Only)
Subject:	2026 Notice of Election for LGA President (with voting instructions)
Attachments:	ECM_879194_2026 LGA Elections - Letter to CEOs - LGA President Election - Alexandrina Council.pdf; ECM_880234_2026 LGA Elections - Combined Candidate Information, LGA President.pdf; ECM_880392_2026 LGA Elections - Ballot Paper - LGA President.docx

Good morning

Please see attached correspondence from LGA CEO, Victoria MacKirdy.

In addition to the attached, LGA considers it important that elected members have an opportunity to hear directly from the LGA Presidential candidates before casting their council's vote. To support this, an online candidate session has been scheduled for **Thursday 17 September 2026 from 1:00pm to 2:30pm**.

The session will provide elected members with an opportunity to hear from each candidate about:

- their priorities for LGA;
- their vision for South Australian local government;
- key issues facing councils and communities; and
- their approach to representing the local government sector.

Registrations for the **Meet the LGA Presidential Candidates** session can be completed online, with attendees also able to submit questions for candidates as part of the registration process.

Please share details of this session with your elected members.

Kind regards

Melanie Dickinson
Manager Corporate Governance and Administration

Helping local government build **stronger communities.**

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T 08 8224 2097
E melanie.dickinson@lga.sa.gov.au
Local Government Association South Australia
148 Frome Street Adelaide 5000, GPO Box 2693 Adelaide SA 5001

1

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Our reference: ECM 879194 MD/MB

7 September 2026

Mr Andrew MacDonald PSM
Chief Executive Officer
Alexandrina Council
Emailed: andrew.macdonald@alexandrina.sa.gov.au

Dear Andrew

Notice of Election for LGA President

On 9 July 2026, LGA wrote to Member Councils calling for nominations for the position of LGA President.

I wish to advise that at the close of nominations (5:00pm on Tuesday 1 September 2026), LGA received nominations for four eligible candidates.

I hereby advise that in accordance with clause 29.4 of the LGA Constitution, an election for the position of LGA President will take place.

The four candidates for election are listed below (in alphabetical order by last name):

- Mayor Simone Bailey (Mid Murray Council)
- Mayor Moira Jenkins (City of Victor Harbor)
- Mayor Dean Johnson (District Council of Kimba)
- Mayor Leon Stephens (Port Pirie Regional Council)

Enclosed is a copy of each candidate's information together with voting instructions for your council's completion.

Please note the following summary of relevant changes to the LGA Constitution and ancillary documents since the 2024 LGA Elections:

- Preferential Voting has been introduced from 2026 as the vote-count method for the election of LGA President.
- Physical sealed ballot papers have been removed from 2026 for the election process for LGA President, SAROC Committee members, and GAROC Committee members.
- Provision of council minutes (or an excerpt of the minutes) signed by the council's CEO is now deemed to be a council's ballot.

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148 Frome Street, Adelaide SA 5000
GPO Box 2693, Adelaide SA 5001
(08) 8224 2000 | lgasa@lga.sa.gov.au | lga.sa.gov.au

Ballots must be received by the returning officer no later than 5:00pm Tuesday 3 November 2026.

Voting Instructions

Pursuant to clause 29 of the LGA Constitution, the casting of the vote by your council must be conducted as follows:

- Each Member Council must determine which candidate it wishes to elect by passing a resolution that:
    - places the number 1 next to the name their preferred candidate;
    - places consecutive ascending numbers next to all remaining candidates in order of the Member Council's preference;

All four candidates must be assigned a number *in the resolution for the ballot to be valid.*

- The Member Council's chief executive officer, or in the chief executive officer's absence, the person acting in that position, must sign a copy of the minutes or an extract of the minutes of the meeting at which the resolution is passed (in a manner consistent with section 91(11) of the *Local Government Act 1999*)
- A copy of the signed minutes, which shall be deemed to be the ballot of the Member Council, must be sent to the Returning Officer. This may be returned via email to lgasa@lga.sa.gov.au or via post to GPO Box 2693 Adelaide SA 5001;

Refer to the attached Ballot Paper form. As mentioned, the ballots must be received by ***no later than 5:00pm Tuesday 3 November 2026****.*

- On receipt of the ballots, the Returning Officer will compile and securely store the ballots for counting;
- The Returning Officer shall nominate the date, time and place for the counting of votes and shall invite each candidate and a person nominated as the candidate's scrutineer to be present;

The counting of votes will take place on Monday 9 November 2026 commencing at 2:15pm.

- At the counting of the votes, the Returning Officer shall produce the compiled ballots, reject all informal or invalid ballots and count the valid first preference votes;
- The candidate with the most first preference votes, if that number constitutes an absolute majority of valid votes cast in the election, shall be deemed elected;
- If no candidate receives an absolute majority of first preference votes, the Returning Officer shall proceed to count the valid votes as follows:

- the candidate who has received the fewest first preference votes will be excluded, and each ballot counted to that candidate is to be counted to the candidate next in the order of the voter's preference;
- if no candidate then has an absolute majority of votes, the process of excluding the candidate who has the fewest votes, and counting each of that candidate's ballot papers to the unexcluded candidate next in the order of the voter's preference, is to be repeated until one (1) candidate has received an absolute majority of votes;
- the candidate who has received an absolute majority of votes shall be deemed elected;

LGA will communicate the results of the vote count to Members Councils.

- The Returning Officer shall declare the candidate elected at the Annual General Meeting; and

LGA's Annual General Meeting is scheduled for Friday 4 December 2026.

- In the case of candidates receiving the same number of votes at any stage in the count or distribution of preferences, the Returning Officer shall draw lots and the lot drawn will be the candidate elected or not excluded (as the case may be).

The successful candidate will take office from the conclusion of the LGA's 2026 Annual General Meeting for a term ending at the conclusion of the 2028 LGA Annual General Meeting.

If you have any questions in relation to LGA Elections, please contact me or LGA Manager Corporate Governance and Administration, Melanie Dickinson via email to melanie.dickinson@lga.sa.gov.au or by phoning 8224 2097.

Yours sincerely



Victoria MacKirdy
Chief Executive Officer
Telephone: (08) 8224 2000
Email: Victoria.MacKirdy@lga.sa.gov.au

Enclosed: ECM 880234 – 2026 LGA Elections – Combined Candidate Information, LGA President
ECM 880392 – 2026 LGA Elections – Ballot Paper – LGA President
Link – LGA Constitution

Copy to: alex@alexandrina.sa.gov.au

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2026 LGA Elections

LGA President – Candidate Information

1. Mayor Simone Bailey – Mid Murray Council
2. Mayor Moira Jenkins – City of Victor Harbor
3. Mayor Dean Johnson – District Council of Kimba
4. Mayor Leon Stephens – Port Pirie Regional Council

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LGA President Candidate Information Sheet 2026

(word limit is strictly 1,000 words)

Name	Mayor Simone Bailey
Council	Mid Murray Council
Local Government Experience & Knowledge	My local government experience spans both administration and elected leadership, giving me an understanding of local government from both sides of the Council table. I commenced with Mid Murray Council as Council Accountant in 2016 before being elected as an Elected Member in 2018, serving as Deputy Mayor from 2020 and Mayor since 2022. I am also currently Vice President of the Murraylands and Riverland Local Government Association. My time as Mayor has included leading through significant challenges, including the 2022–23 River Murray flood, ongoing drought in my region, financial sustainability pressures and the increasing demands placed on regional councils with large infrastructure networks and relatively small populations. These experiences have reinforced for me the importance of strong governance, sound financial management, collaboration and effective advocacy. I have developed a strong working knowledge of local government legislation, governance and financial management, while building constructive relationships across local, State and Federal government. I understand that SA's 68 councils are incredibly diverse and that effective LGA leadership must represent the whole sector; metropolitan, regional, large and small.
Local Government Policy Views & Interests	I am passionate about the future sustainability of local government and ensuring councils have the capacity to deliver the services and infrastructure their communities need. I believe the LGA must continue to challenge cost shifting and advocate when responsibilities, regulatory requirements or community expectations placed on councils are not accompanied by adequate resources. Strong advocacy requires strong relationships. I want the LGA to be a respected, constructive and influential partner of State and Federal governments; prepared to work collaboratively wherever possible, but equally prepared to advocate firmly when the interests of councils and their communities require it. I believe the LGA itself must demonstrate the same financial discipline and accountability expected of its member councils. Membership must provide genuine value, with resources focused on the areas where collective action can achieve outcomes individual councils cannot achieve alone. Most importantly, I believe the LGA's strength comes from its diversity. Equity does not mean treating every council identically. It means understanding different circumstances, listening to different perspectives and ensuring the collective voice of local government represents councils and communities across the whole of South Australia.

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Other Information	I hold a Bachelor of Commerce and bring a strong financial, governance and leadership background to the role. My broader experience includes more than 20 years working across local and State government and the community sector, including serving as Executive Officer of Mid Murray Homes for the Aged and as a member of the Country Arts SA Board, where I also chair the Governance and Finance Committee. My leadership experience has taught me that leadership is about listening, building relationships, understanding different perspectives and finding common ground. It is also about being prepared to ask difficult questions and challenge established systems when change is needed. I have seen what can be achieved when councils work together and speak with a strong collective voice. I have also seen the pressures confronting our sector; financial sustainability, ageing infrastructure, natural disasters, increasing legislative and regulatory responsibilities and growing community expectations. I am nominating for LGA President because I believe I can use my experience, relationships and understanding of the sector to help strengthen that collective voice. If elected, I would bring energy, openness and a strong work ethic to the role. I would seek to listen to and engage with councils across SA, build constructive relationships across all levels of government and focus the LGA's advocacy on practical outcomes that make a genuine difference to councils and the communities we serve. I am prepared to ask questions, listen to the answers and advocate respectfully but persistently for change where change is needed.

This form must accompany the Nomination Form.

lgasa@lga.sa.gov.au

Close of nominations is 5:00pm Tuesday 1 September 2026

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LGA President Candidate Information Sheet 2026

(word limit is strictly 1,000 words)

Name	Dr Moira Jenkins
Council	City of Victor Harbor
Local Government Experience & Knowledge	I have been actively involved in local government for the past 12 years, including the last eight years as Mayor of the City of Victor Harbor. Throughout that time, I have developed a strong understanding of the challenges, opportunities and responsibilities facing councils across South Australia, as well as the critical role the Local Government Association (LGA) plays in supporting and representing the sector. I currently serve as President of the Southern & Hills Local Government Association, am a member of the South Australian Regional Organisation of Councils (SAROC), a Director on the LGA Board. I am a Director on the LGA Procurement Board, and a member of the LGA Nominations Committee and Research and Development Committee. These roles have provided valuable insight into governance, advocacy, strategic planning, procurement, intergovernmental relations and the diverse needs of councils across metropolitan, regional, rural and remote South Australia. Having recently provided evidence to a Parliamentary Inquiry into local government funding and financial sustainability, I have firsthand knowledge of the challenges councils face when relying heavily on rates, tied grants and borrowings to meet growing community needs. Continued advocacy for fairer and more sustainable funding models is an important responsibility of the LGA President. Drawing on my professional background in psychology, behavioural management and conflict resolution, I was invited to join the LGA's Early Intervention Behavioural Management Committee. This committee has been developing practical early intervention processes to help councils manage behavioural complaints constructively, through independent early intervention and reduce the likelihood of escalation.
Local Government Policy Views & Interests	Local government is facing a period of significant change. Councils are being asked to do more than ever before while managing increasing community expectations, financial pressures, workforce challenges, infrastructure demands and complex relationships with other levels of government. During times such as these, our sector requires strong, practical and collaborative leadership.

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	As a member-based association, I see opportunities to strengthen the engagement and communication of the LGA with members. One of my key priorities would be ensuring elected members have a clearer understanding of what the LGA is doing on their behalf, what it is advocating for, and how decisions are being made. As a member-funded organisation, the LGA exists to serve councils, and it is important that elected members feel informed, connected and genuinely listened to and represented. I am also committed to strengthening the flow of information between the LGA, SAROC and the GAROC, ensuring that discussions occurring at both regional and metropolitan levels are effectively communicated back to their constituent councils and elected members. The knowledge, expertise and experience that exist across our sector are among our greatest strengths, and I believe we can do much more to share and harness those strengths for the benefit of all councils. Transparency, accountability and communication are not simply governance principles. They are fundamental to building confidence, trust and engagement throughout the local government sector. Financial sustainability is one of the greatest challenges facing local government, particularly for regional and growth councils. Councils are often required to deliver infrastructure ahead of population growth, without a sufficient rate base to fund it. The LGA must continue advocating for Federal Financial Assistance Grants to be restored to at least 1% of Commonwealth taxation revenue to reduce overreliance on rates and borrowings and ensure councils can meet future infrastructure and service demands. The President must be able to understand these issues and bring people together, listen to differing perspectives, find common ground and advocate effectively on behalf of all councils. A unique aspect of my experience is my understanding of both regional and metropolitan issues. While Victor Harbor is a major regional center, we are also a regional council with our economy shaped by tourism, agriculture and population growth. We also experience many of the challenges facing regional South Australia, including workforce attraction, financial sustainability,

	infrastructure needs, transport challenges, housing and climate adaptation. Climate resilience is one area of significant importance. Supporting councils to prepare for, adapt to and respond to these challenges will remain an important priority for local government in the years ahead. I am a psychologist, trained negotiator and conflict resolution specialist with extensive experience in mediation, behavioural management, negotiation, and stakeholder engagement. These skills have been invaluable in my roles in local government, where effective leadership often requires navigating complex issues, balancing competing interests and bringing people together to achieve positive outcomes. I believe these capabilities would serve the LGA and its members well as we continue to address the opportunities and challenges facing our sector. Above all, I believe the LGA must continue evolving as a responsive, member-focused organisation that delivers value, supports councils and speaks with a strong and united voice on behalf of the sector. In conclusion, a strong and effective Local Government Association must be more than a representative body. It must be a responsive service organisation that understands the needs of its members and advocates forcefully on their behalf. Effective advocacy requires strong communication, constructive relationships and a willingness to engage in genuine negotiation. Throughout my career as Mayor, President of the Southern & Hills Local Government Association and through my broader governance roles, I have worked extensively with state ministers, members of parliament, government agencies and key stakeholders to secure positive outcomes for my community and region. These experiences have reinforced my belief that successful advocacy is built on trust, respect, preparation and persistence. The LGA must continue to be a strong and respected voice at the state level, ensuring that local government is recognised as a genuine partner in addressing the challenges facing our communities. By strengthening communication, improving member engagement and advocating with a united and informed voice,

	the LGA can deliver greater value to councils and better outcomes for the communities they serve. I would be honored to earn your support and look forward to engaging with elected members across South Australia in the months ahead.
Other Information	

This form must accompany the Nomination Form.

lgasa@lga.sa.gov.au

Close of nominations is 5:00pm Tuesday 1 September 2026

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LGA President Candidate Information Sheet 2026

(word limit is strictly 1,000 words)

Name	DEAN JOHNSON
Council	DISTRICT COUNCIL OF KIMBA
Local Government Experience & Knowledge	• 23 years Local Government experience as an elected member • 12 years as Mayor of District Council of Kimba • President Eyre Peninsula Local Government Association • Local Government Association Board Director • Past President LGA SA • SAROC Board member • Director of Australian Local Government Association • Various conference presentations and speaking engagements • Completed Australian Institute of Company Directors course • IAP2 training
Local Government Policy Views & Interests	• Governance and Process • Experienced and effective media and communications leader • Audit and Risk • Institute of Public Works Engineering Australasia – Infrastructure Asset Management Planning for Elected Members course. • Chair Northern Eyre Peninsula Health Alliance • Successful history of Negotiation and Strategy to other levels of Government
Other Information	• Diploma Retail Management and Director of my own SME • Various Financial Management courses • Various leadership courses • Extensive Networks at both State and Federal levels

This form must accompany the Nomination Form.

lgasa@lga.sa.gov.au

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Document Set ID: 876593
Version: 1, Version Date: 31/07/2026

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LGA President Candidate Information Sheet 2026

(word limit is strictly 1,000 words)

Name	MAYOR LEON STEPHENS
Council	PORT PIRIE REGIONAL COUNCIL
Local Government Experience & Knowledge	• Mayor, Port Pirie Regional Council (8 years) • Deputy Mayor and Elected Member (16 years total service) • Chair, SAROC • Active involvement with the Northern and Yorke Regional Local Government Association • Chairperson Spencer Gulf Cities (8 years) • Found of an intergovernmental panel bringing together Spencer Gulf Cities, State Government Ministers and key agencies through quarterly meetings. • Two-term member of the LGA Board • Committee involvement with CWMS, LGTAP and SABFAC
Local Government Policy Views & Interests	• Deep understanding of the issues facing councils across metropolitan and regional South Australia. • Commitment to ensure every council has a strong voice, strengthen engagement between the LGA and its members, and deliver practical outcomes that benefit our communities. • Fostering stronger connections between the LGA Board and member councils, ensuring local government voices are heard, respected and represented.
Other Information	• Provides proven leadership with a strong advocacy focus.

This form must accompany the Nomination Form.

lgasa@lga.sa.gov.au

Close of nominations is 5:00pm Tuesday 1 September 2026

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Return Ballot Paper to lgasa@lga.sa.gov.au
Close of voting is 5:00pm Tuesday 3 November 2026

BALLOT PAPER – LGA President (2026-2028)

Pursuant to clause 29.5.4 of the LGA Constitution, *the chief executive officer of the Member or in the chief executive officer's absence, the person acting in that position, shall sign a copy of the minutes or an extract of the minutes of the meeting at which the resolution is passed (in a manner consistent with section 91(11) of the Local Government Act 1999) and send a copy of the signed minutes, which shall be deemed to be the ballot of the Member, to the [LGA] Chief Executive.*

Pursuant to clause 29.5.3 of the LGA Constitution, *each Member shall determine by resolution the candidate it wishes elected by passing a resolution which places the number 1 next to the name of the candidate for whom it votes as its first preference, and consecutive numbers next to the names of all of the remaining candidates, so as to indicate the order of preference for all candidates.*

All four candidates must be assigned a number in the resolution for the ballot to be valid.

Name of Council Submitting Ballot	
Extract of minutes	*(insert meeting date and resolution number)* *(insert extract of minutes with council resolution)*
CEO signature	
CEO name	
Date signed	
Preference	**Candidate Names**
#1	
#2	
#3	
#4	

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Return Ballot Paper to lgasa@lga.sa.gov.au
Close of voting is 5:00pm Tuesday 3 November 2026

BALLOT PAPER – LGA President (2026-2028)

Pursuant to clause 29.5.4 of the LGA Constitution, *the chief executive officer of the Member or in the chief executive officer's absence, the person acting in that position, shall sign a copy of the minutes or an extract of the minutes of the meeting at which the resolution is passed (in a manner consistent with section 91(11) of the Local Government Act 1999) and send a copy of the signed minutes, which shall be deemed to be the ballot of the Member, to the [LGA] Chief Executive.*

Pursuant to clause 29.5.3 of the LGA Constitution, *each Member shall determine by resolution the candidate it wishes elected by passing a resolution which places the number 1 next to the name of the candidate for whom it votes as its first preference, and consecutive numbers next to the names of all of the remaining candidates, so as to indicate the order of preference for all candidates.*

All four candidates must be assigned a number in the resolution for the ballot to be valid.

Name of Council Submitting Ballot	
Extract of minutes	*(insert meeting date and resolution number)* *(insert extract of minutes with council resolution)*
CEO signature	
CEO name	
Date signed	

Preference	Candidate Names
#1	
#2	
#3	
#4	

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Attachment 3 - 2026 SAROC Group A Election Results

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Our reference: ECM 879330 MD/MB

7 September 2026

Mr Andrew MacDonald PSM
Chief Executive Officer
Alexandrina Council
Emailed: andrew.macdonald@alexandrina.sa.gov.au

Dear Andrew

"Group A" Regional Grouping Representatives to SAROC – Appointments Finalised

On 9 July 2026 I wrote to Member Councils of the South Australian Regional Organisation of Councils (SAROC) calling for nominations to fill two (2) positions allocated to each Regional Grouping of Members on SAROC.

I wish to advise that at the close of nominations (5.00pm on Tuesday 1 September 2026) I received the following two (2) nominations for the two (2) positions allocated to the "Group A" Regional Grouping:

- Mayor Darryl Houston (District Council of Yankalilla)
- Mayor Moira Jenkins (City of Victor Harbor)

As a result of receiving equal nominations to available positions, I hereby declare that in accordance with clause 4.4.3 of the SAROC Terms of Reference, the above nominees are duly elected to the "Group A" Regional Grouping of the SAROC Committee 2026-28.

The successful candidates will take office at the conclusion of the 2026 LGA Annual General Meeting (AGM), at which time a special meeting of the newly appointed SAROC Committee will take place to select a Chairperson and elect representatives to the LGA Board of Directors.

Members of SAROC will hold office for a two-year period, until the conclusion of the 2028 LGA Annual General Meeting.

I have written to the successful nominees directly advising them of the outcome of this election.

lga South Australia

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Helping local government
build stronger communities.

If you have any queries in relation to this matter, please contact Manager Corporate Governance and Administration, Melanie Dickinson via email to melanie.dickinson@lga.sa.gov.au or 08 8224 2097.

Yours sincerely



Victoria MacKirdy
Chief Executive Officer
Telephone: (08) 8224 2000
Email: VictoriaMacKirdy@lga.sa.gov.au

Attach: Link – SAROC Terms of Reference

Copy to: alex@alexandrina.sa.gov.au

Document Set ID: 6257386
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9.15. Declaration of Prescribed Officers

Decision Report

Responsible Officer: Tash Hunt (General Manager Corporate)

Report Author: Lachlan Miller (Manager Governance and Communications)

Previous Decisions: April 2022M221456, May 2023 - C23195, and March 2024 C24102

Report Purpose

To consider and declare the employee positions to be 'prescribed officers' for the purposes of Section 111 (Register of Interest) provisions under the *Local Government Act 1999*.

Recommendation

That Council:

1. **Receive and note the contents of the report titled *Declaration of Prescribed Officers*.**
2. **Having reviewed the classification of 'Prescribed Officers', declares that prescribed officers within the Council for the purposes the Register of Interests provisions of Section 11(b) of the *Local Government Act 1999*, be applied to any positions with a Financial Delegation of $200,000 or greater (including new positions within that class, as appointed from time to time), and the Person Primarily Responsible for Internal Audit, effective from 1 November 2026.**

Background

Employee Register of Interests

Under Chapter 7, Part 4, Division 1, Subdivision 2 (i.e. sections 111 to 119) of the *Local Government Act 1999* (the Act), the Chief Executive Officer (CEO) must maintain an 'Employee Register of Interests' containing the information supplied in Primary and Ordinary Returns by 'prescribed officers' in relation to their interests.

The regime is similar to the requirements for Council Members under Chapter 5, Part 4, Division 1, Subdivision 2 (i.e. sections 64 - 72). A key difference in the regimes is that while the Council Member Register of Interests must be displayed on the Council website, the Employee Register of Interests is not a public document but is available for viewing upon request by a Council Member.

Section 111 states that the Employee Register of Interests provisions apply to the CEO and any other officer of a class, declared by a council (i.e. prescribed officers). Across the local government sector there are varying arrangements from councils not declaring any additional (to the CEO) prescribed officers, through to executive team equivalents, management team equivalents, to all financial or legislative delegation holders.

In March 2024, Council reviewed the prescribed officer criteria as resolved as follows:

> **9.18. Declaration of Prescribed Officers**
>
> **C24102**
>
> **Moved Cr Michael Scott seconded Cr Peter Oliver**
>
> **That Council:**
>
> 1. **having reviewed the classification of 'Prescribed Officers', declares that prescribed officers within the council for the purposes of section 111(b) of the Local Government Act 1999 (Register of Interests), be applied to all Executives, Senior Leadership Team Managers, Team Leaders and staff with a Financial Delegation of $10,000 or greater with in Council (including new positions with that class, as appointed from time to time), effective from 30 June 2024.**
> 2. **declares pursuant to section 111(b) of the Local Government Act 1999, the position listed in the attachment 1 as 'Prescribed Officers' effective from 30 June 2024 until further declaration is made.** **CARRIED UNANIMOUSLY**

With the current organisational structure and delegation levels, the above declaration involves approximately 85 employees, although when employees outside of this cohort act in positions within the cohort, this adds additional numbers to complete the required Returns.

Employee Conflict of Interest Policy

Section 120 of the Act sets out the conflict of interest (COI) provisions that apply to Employees. By way of comparison, the requirements are similar to the Material COI provisions for Council Members under section 75 of the Act. An important difference is that while the Council Member COI provisions only apply when the Member is in a Council or Committee meeting, the Employee COI provisions apply at all times in the course of official duties.

In February 2026, as part of a program to strengthen the Administration's integrity management systems, the CEO adopted an operational policy, known as the *Employee Conflict of Interest Policy*, which expanded the COI provisions that apply to employees to include Perceived COIs, again there are similarities to the Council Members' obligations in relation to General COIs under section 74 of the Act. The expanded COI management regime for Employees is likely to be one of the most rigorous in the SA local government sector.

Discussion

It is important to distinguish between the Employee Register of Interests requirements and the Employee Conflict of Interest (COI) requirements.

The Register of Interests provisions require employees in prescribed officer positions to disclose specified categories of interests annually and update those disclosures as circumstances change. In contrast, the COI provisions relate to interests that may give rise to an actual, perceived or potential conflict in relation to a specific matter being considered as part of an employee's duties. Where a conflict is identified and disclosed, the employee may only continue to participate in the matter with the approval of the CEO.

While there is some overlap between the two regimes, they serve different purposes. Certain interests disclosed through a Primary or Ordinary Return may also constitute a COI if they arise in connection with a matter being dealt with by the employee in the course of their duties. In such circumstances, the employee may be required to make a COI declaration and refrain from acting unless authorised by the CEO. However, many interests required to be disclosed on the Register of Interests would not give rise to a COI under section 120. For example, employees are required to disclose certain debt arrangements as part of their Register of Interests return, notwithstanding that such arrangements do not constitute a COI under section 120.

As outlined in the Background section above, the current prescribed officer declaration captures approximately 85 employees each year, with close to 100 employees completing returns when acting arrangements are taken into account.

It is conservatively estimated that the process consumes approximately 100 hours annually, including both the time required for prescribed officers to complete their returns and the administrative effort required by the Governance Team to maintain the Register and provide it to the CEO.

The Administration considers that maintaining such a broad cohort of prescribed officers delivers limited practical benefit. Resources are considered to be more effectively directed towards initiatives that actively support integrity and ethical decision-making, examples being the expanded employee COI framework and the recent Duties of Public Officers training provided to all staff.

Accordingly, it is proposed that the prescribed officer cohort be limited to the following position category, in addition to the CEO who is prescribed by section 111 of the Act:

- Employees holding a financial delegation of $200,000 or greater (including any future positions that fall within this class).
- The Person Primarily Responsible for Internal Audit.

Based on current financial delegations, this approach would reduce the prescribed officer cohort to nine (9) employees.

An implementation date of 1 November 2026 is proposed to allow sufficient time for communication with affected employees and associated administrative arrangements.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, there would be no financial implications of adopting this recommendation. It is an internal Governance process completed on a yearly basis.

Risk Implications

In accordance with Council's Risk Assessment Matrix, the key risk associated with this matter is:

> *Poor governance practices occur which lead to a loss of stakeholder (i.e. customer and regulator) confidence and/or legislative breaches.*

There is a large range of processes that contribute to the governance internal controls, with overall control effectiveness is rated as Partially Effective and the residual risk is assessed as Low (Unlikely x Moderate).

The reduction in the Prescribed Officer cohort is not anticipated to adversely impact the current residual rating.

Attachments

Nil

9.16. Chief Executive Officer's Report

Decision Report

Responsible Officer: Andrew MacDonald (Chief Executive Officer)

Report Author: Andrew MacDonald (Chief Executive Officer)

Previous Decisions: Nil

Report Purpose

To provide Council with a monthly report of key activities, finances and current events of the Chief Executive Officer.

Recommendation

That the Chief Executive Officer's Report for September 2026 be received.

Discussion

The Chief Executive Officer Report is designed to give Council an update of key activities and issues undertaken by the Chief Executive Officer in the previous calendar month. In addition to regular meetings with staff and the Mayor, the Chief Executive Officer attended the following meetings and events in the previous month. Meetings outside of the Goolwa offices are provided in brackets.

Date	Meeting
10 September 2026	CEO Network and General Managers and Directors Network Forum (Adelaide)
11 September 2026	Audit and Risk Committee Meeting
14 September 2026	Special Council Meeting
15 September 2026	Fleurieu Aquatic Centre - Direct Energy Australia Feasibility Assessment with Bluefit
17 September 2026	Fleurieu CEO & Mayors Country Cabinet preparation meeting
18 September 2026	Strathalbyn & Surrounds Town Plan Tour (Strathalbyn & Mount Barker)
21 September 2026	Strathalbyn developer meeting request
21 September 2026	Ordinary Council Meeting
24 September 2026	Australian Citizenship Ceremony
25 September 2026	Regular monthly meeting with Lou Nicholson MP, Member for Finniss
28 September 2026	Information Session

Attachments

Nil

9.17. Council Resolution Register

Decision Report

Responsible Officer: Andrew MacDonald (Chief Executive Officer)

Report Author: Andrew MacDonald (Chief Executive Officer)

Previous Decisions: Nil

Report Purpose

To update Council on the status of outstanding resolutions at the time of the agenda preparation and allow Council to confirm resolutions marked as 'complete'.

Recommendation

That Council receive and note the Council Resolution Register as presented in this meeting agenda, as a true and correct record, and confirms that it is satisfied that decisions marked as 'complete' have been fully enacted to the satisfaction of Council.

Discussion

The attached register lists all Council resolutions since April 2022 that are still in progress or not yet confirmed. It includes the meeting date, the latest progress commentary (if applicable), the status of each decision (Not Started, In Progress, On Hold or Complete), the intended date of completion and the responsible officer.

A Council decision that acknowledges the Council Resolution Register as a true and correct record, will confirm that Council is satisfied that decisions marked as 'complete' have been fully enacted to the satisfaction of Council. These decisions will then be closed by Administration and will no longer appear on the next Council Resolution Register.

Confidential decisions that are still outstanding are listed separately in the *Council Resolutions Register - Confidential Only,* available on the Council Member Portal. This eliminates the need to move into a confidential session when Council reviews the Resolution Register, therefore maintaining greater public transparency.

If a Council Member wishes to discuss a confidential decision, Council must move into confidence in accordance with section 90 of the *Local Government Act 1999.*

The attached Resolution Register does not include decisions that are fully completed and confirmed or those that are procedural and marked as closed. A full version, including all resolutions, is available to Council Members upon request.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, there are no financial implications of adopting this recommendation.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered low.

Attachments

Attachment 1 - Council Resolution Register as at 13 October 2026

Attachment 1 - Council Resolution Register as at 13 October 2026

Alexandrina Council Resolutions Register

Alexandrina Council Ordinary Meeting - Public Report

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/11/2023	2.7.6	C23436 First Australian Grand Prix Track	That Alexandrina Council acknowledge the significance of the heritage value and tourism potential of the track of the first Australian Grand Prix at Pt Elliot and Hayborough and that a working group comprising interested local residents and Council Staff be formed to progress the project with a report being presented at or before the Council Meeting in May 2024.	Stacey Bateson	No

Action Date	Comments
1/10/2026	COMPLETE: The Centennial Grand Prix event was successfully held on 26 and 27 September 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
18/12/2023	2.8.19	C23521 Cats By-Law and Fees	That Council: 1.Notes and receives the report. 2.Undertakes a budget review to allocate $22,800 to fully implement the Cats By-Law in the current financial year, 2023/24 (and $82,300 in subsequent years adjusted for CPI) to ensure adequate funds are available to ensure the effective management of cats and the enforcement of the Cats By-Law. 3.Commit to introducing cat registration fees in the 2025/26 financial year and that a report be prepared to Council meeting in late 2024 with recommendations and options of proposed fees.	Stacey Bateson	No

Action Date	Comments
1/10/2026	DELAYED: Council Administration recommends awaiting the outcome and implementation of the proposed reforms to the Dog and Cat Management Act 1995, which are anticipated to provide greater statewide clarity within the legislative framework and support more effective management of cats across all Council areas. Once outcome and implementation of proposed reforms occur, Administration will review options and bring back a report to Council.;;

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

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22/01/2024	2.7.2	C24004 CWMS and Water Assets Business Case	That Council requests the CEO to provide a Business Case for the separation and operation of the CWMS (Community Wastewater Management System) and Water Assets as a separate business 'Alexandrina Water' with Council as the Foundational Shareholder. The scope of the business case to include physical CWMS Assets and commercial trading of water.	Alan Harvey	No

Action Date	Comments
24/07/2026	IN PROGRESS - Information Session has been held and a report will be presented to Council in the coming months.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
18/03/2024	3.8	C24097 Strategic Land Program Group 1 - Proposal to Revoke a community land classification at Strathalbyn	1.That Council receive the Community Engagement submissions on the proposed revocation of the classification of community land over Sections 131 and 134-137 Hundred of Kondoparinga as provided in this meeting agenda at Attachment 1 of this Report. 2.That Council: 1.Has considered the community feedback on the proposal to submit a Revocation of Community Land proposal (application) to the Minister responsible for the Crown Land Management Act 2009 (Minister), for consideration to approve a proposal to revoke the dedication to Alexandrina Council of Sections 131 and 134-137 Hundred of Kondoparinga as contained within Crown Records Volume 5693 Folio 750, Volume 5693 Folio 751 and Volume 5696 Folio 869 and has determined to proceed with lodging an application with the Minister to revoke the dedication. 2.Receive a further report following the decision of the Minister for Climate, Environment and Water.	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Community engagement on the associated road closures has been completed. A Report on the engagement outcomes will be provided at the 16 November 2026 Council meeting, which will, in turn, permit finalisation of the land parcels the subject of this report.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

15/04/2024	2.8.5	C24142 Langhorne Creek Code Amendment	That Council: 1.Note the outcomes of the Langhorne Creek Village Conversation undertaken on 23 November 2023 and the Communities preference for more accommodation within the region. 2.Approve the commencement of a scoping study to inform a Code Amendment that would increase accommodation options within the Langhorne Creek region. 3.Requests a further report following completion of the scoping study to endorse the preparation of a Proposal to Initiate a Code Amendment (PICA) to create more accommodation opportunities within the Langhorne Creek region, including a review of current Zoning and Overlays applicable to the area. 4.Endorse an application to the Federal Housing Support Program for grant funding to the value of $50,000 to enable a review of flood mapping and an accommodation analysis and review for the Langhorne Creek region, as part of the scoping study to inform the proposed Code Amendment.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: Scoping being undertaken to inform the procurement of this project. The Minister for Planning has announced that the State will be undertaking a Rural Areas review, which will crossover with Council's project. Ultimately, this will form part of Council's broader Local Area Plan.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

20/05/2024	2.8.1	C24205 Langhorne Creek Discovery Trail - Community Engagement Feedback and Next Steps	That Council: 1.Note and approve the amended plans for the Langhorne Creek Discovery Trail that have been prepared for the submission of a grant funding application, following review and consideration of consultation feedback. 2.Initiate the process of opening a section of road over a portion of the parcel of land identified as Certificate of Title Volume 5246 Folio 616 by the deposit for a plan pursuant to Section 223LF of the Real Property Act 1886. 3.Note that should Council be successful in being awarded a grant through the Regional Precincts and Partnerships program, and the abovementioned road opening process requires actioning, a subsequent report with additional detail will be presented to Council.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: 1. Completed. 2&3 In Progress: Construction of the project has commenced.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
16/09/2024	2.8.10	C24441 Proposal to Develop a High-level Alexandrina Community Recovery and Resilience Plan	That Council: 1.receive and note the report. 2.consider an additional $5,000 (ex GST), to the 2024/25 operational budget during the first quarter budget review, for engaging a specialist consultant to prepare a detailed Project Scope for the development of a Community Recovery and Resilience Plan. 3.receive a further report on the process, requirements, cost and benefits for the development of a Community Recovery and Resilience Plan.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: Administration has reviewed the consultant's recommendations and are collaborating across the organisation to implement the identified actions. A progress update report is being drafted. This report will be presented at the November 2026 Council meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

21/10/2024	2.7.1	C24499 Change in Banking Services Provider	That: (as varied) The Chief Executive Officer undertake research and provide a report in regard to changing the provider of Council's Banking Services Provider to the local Fleurieu Community Bank.	Andrew Alderson	No

Action Date	Comments
10/12/2025	IN PROGRESS: Due to resourcing constraints the tender has been delayed until early 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
18/11/2024	2.8.3	C24574 Business Services Review	That Council: 1.approve the development of a 12 and 24 month implementation plan to align with the Economic Development strategy to support a Council wide approach to growing the economy. 2.dissolve the use of the Business Alexandrina Branding. 3.continue to support the operation of the Business Hub as part of Alexandrina Council's Business Support services. 4.investigate how to bring an equivalent Business Hub model and business support service to the North and West Wards.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: 1. Investigations into potential demand for a Business Hub model is yet to be investigated for the West Ward. 2. Business Hub options for the North Ward were explored with the Strathalbyn Business Group in June 2026. Feedback indicated that a formal Business Hub model is not currently required, as Council-owned meeting facilities are available for business use. Stakeholders expressed a preference for accessing support from Council's Economic Development Team on an as-needed basis through established and ongoing relationships.;;

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

18/11/2024	2.8.7	C24579 South Coast Townships Local Heritage Code Amendment	That Council: 1.receive and note the report containing historic context and information surrounding the South Coast Townships Local Heritage Survey and policy work. Separate the South Coast Towns Local Heritage Survey into two (2) smaller, more manageable projects: a. the Port Elliot and Waterport Local Heritage Code Amendment; and b. the Goolwa and Middleton Local Heritage Code Amendment. 2.approve the preparation of a Proposal to Initiate a Code Amendment document for a Port Elliot and Waterport Local Heritage Code Amendment, within existing operational budget. 3.approve the preparation of a Proposal to Initiate a Code Amendment document for a Goolwa-Middleton Local Heritage Code Amendment, within existing operational budget.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: The Port Elliot and Environs Local Heritage Code Amendment has been endorsed by Council for community consultation and is now with the Minister to seek approval to commence the consultation period. The Goolwa/Middleton Heritage Code Amendment will be progressed in early 2027 (the Strathalbyn Heritage review will occur following the Port Elliot review).

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
17/02/2025	2.8.2	C032/02/25 Dog Park in Strathalbyn	That Council: •investigates the establishment of a dog park as part of any initial stage of development at the Strathalbyn Recreation Precinct, located at Lot 10 Langhorne Creek Road, Strathalbyn, in accordance with the TSA Riley Business Case and Master Plan options; and •if a dog park is established, or approved to be established, at the Strathalbyn Recreation Precinct, that it be noted within Council's draft Recreation and Open Space Strategy in accordance with Council resolution C24210.	Matt Atkinson	No

Action Date	Comments

	25/08/2026	IN PROGRESS: Scoping underway for Stage 1 detailed designs. This project is incorporated into the Strathalbyn Recreation Precinct (Lot 10) Stage 1 project. Currently on hold as Council considers the Unsolicited Proposal for Lot 10.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
17/03/2025	2.9.13	C088/03/25 Youth Homelessness Research Project	That Council: 1.Support Administration's continued involvement in the Southern Fleurieu Youth Network's efforts to explore improved data collection about youth homelessness, strengthen interagency collaboration and development of a youth service directory. 2.Support including youth homelessness strategies, and homelessness more broadly, within Council's proposed Local Affordable Housing Plan, with a view to having these strategies inform a holistic Housing Strategy. 3.Note that a budget to undertake the Local Housing Plan will be presented and considered as part of the 2025/26 Annual Business Plan and Budget deliberations.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: 1. Council's Community Development team remain active in the Southern Fleurieu Youth Network, as it relates to youth homelessness and is now considered part of ongoing business as usual activities. 2 & 3. Funding has been included with the 2025/26 Annual Community Plan via the proposed Housing Strategy (Local Area Plan) budget line to enable the completion of a Local Affordable Housing Plan (LAHP) within the 2025/26 year. Council's LAHP is currently being scoped prior to procurement.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

22/04/2025	2.10.7	C128/04/25 Report from Heritage Advisory Committee - Road Naming in Chiton	That Council: 1.Receive and note the content of the report. 2.Note the recommendations made by Council's Heritage Advisory Committee (HAC2505) at their meeting held on 25 February 2025. 3.Note the advice provided by Administration within the body of this report as it relates to Council's Naming of Roads, Reserves and Public Places Policy. 4.Does not approve the use of 'Adams Close' as requested by Mr Craig Adams for the private road located off New Road. 5.Approves the application of a road name to the private roads, that are contained within the Pre-approved Road Name list, for use within the extended Port Elliot area; or a sea-bird themed name consistent with road names in the locality (e.g. Osprey, Cormorant, Pelican, etc.), subject to confirmation from Council's Administration that the name is not already being used within the South Coast area. 6.Does not approve any change of road name or re-numbering of allotments, without first undertaking community consultation in accordance with Council's Naming of Roads, Reserves and Public Places Policy and the requirements of the Local Government Act 1999. If this option is preferred by the Applicant, Council approves the commencement of the relevant notification requirements and reserves its decision on the allocation of a name until the consultation is completed.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: Correspondence has been sent to the applicant, Adams and Co., to advise that the name 'Adams Close' was not endorsed by Council or the Heritage Advisory Committee. The applicant was invited to select a name from the Pre-approved Road Name list or to use a 'sea-bird' themed name consistent with existing street names in the locality. The Applicant has selected the name 'Osprey' and it is anticipated that formal consultation may commence in September or October 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

22/04/2025	2.10.6	C127/04/25 Report from Heritage Advisory Committee - Road Naming at Coorong Quays	That Council: 1.Receive and note the content of the report. 2.Note the recommendation made by Council's Heritage Advisory Committee to not endorse the name 'Windward Court' for the piece of road highlighted in Figure 1 of this report. 3.Write to the applicant for the relevant land division that created the road to request that they select an available name from Council's Pre-approved Road Name List or from the booklet titled 'The Marina Hindmarsh Island introduces you to the history behind your Street names & Lagoon Names'. 4.Delegate the authority to Council's administration to apply a name included in Council's Pre-approved Road Name List or from the booklet titled 'The Marina Hindmarsh Island introduces you to the history behind your Street names & Lagoon Names', and to undertake the necessary notifications in accordance with Council's Naming of Roads, Reserves and Public Places Policy and the Local Government Act 1999.	Matt Atkinson	No

Action Date	Comments
13/10/2026	COMPLETE: The new road name 'Renmark' Court, as selected by the developer (Coorong Quays), was allocated to the portion of the road, formerly known as Vesta Drive, effective 31 July 2026. Community consultation and replacement street sign installation is now complete.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

19/05/2025	2.9.1	C151/05/25 Future Direction on Customs House	That Council: 1.Following the adoption of the Framework, in close collaboration with key community stakeholders including but not limited to Cittaslow, The Friends of Little Scotland and all parties who submitted an Expression of Interest in the last two (2) years to lease Customs House, undertake a review of the Goolwa Wharf Precinct in line with the Framework, considering the precinct holistically - inclusive of the Customs House, Old Post Office and Old Police Station buildings (and their current tenancies/services), to be completed by December 2025. 2.The review includes but is not limited to the clarification of the past and current community land status and future options available in this regard of each Council owned land parcel in the Wharf Precinct.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: Administration is undertaking Stage 4 Develop of the Service Review Framework. The draft Goolwa Wharf Strategy and actions (formerly known as Draft Improvement Report) have been shared with T1 & T2 stakeholders on 16 September and a Council Information Session on 28 September. A report is being presented at the 19 October 2026 Council Meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
19/05/2025	2.9.10	C164/05/25 Recreational Vehicle (RV) Park Scoping Study - Community Engagement Outcomes	That Council approve Administration to progress a Campervan and Motorhome Club of Australia (CMCA) "RV Friendly Town" accreditation for the Langhorne Creek township.	Alan Harvey	No

Action Date	Comments
28/05/2026	IN PROGRESS - Application has been submitted to Campervan and Motorhome Club of Australia (CMCA) for RV Friendly Town accreditation for Langhorne Creek. Awaiting new potable water tap to be installed in township to enable accreditation to be granted.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
19/05/2025	2.9.1	C149/05/25 Future Direction on Customs House	That Council resolve not to consider the sale or future use of Customs House until Council has undertaken a refreshed review of future opportunities for the site.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: Administration is undertaking Stage 4 Develop of the Service Review Framework. The draft Goolwa Wharf Strategy and actions (formerly known as Draft Improvement Report) have been shared with T1 & T2 stakeholders on 16 September and a Council Information Session on 28 September. A report is being presented at the 19 October 2026 Council Meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
19/05/2025	2.9.1	C150/05/25 Future Direction on Customs House	That Council withhold progressing any activation or service change to the Customs House, Old Police Station (South Coast Regional Arts Centre) and Old Post Office (Goolwa Visitor Information Centre) buildings until a Service Review Framework (the Framework) has been presented to Council at the July 2025 Council meeting.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: Administration is undertaking Stage 4 Develop of the Service Review Framework. The draft Goolwa Wharf Strategy and actions (formerly known as Draft Improvement Report) have been shared with T1 & T2 stakeholders on 16 September and a Council Information Session on 28 September. A report is being presented at the 19 October 2026 Council Meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
18/08/2025	2.8.3	C256/08/25 Arts Advisory Group	That Council establish an Arts Advisory Group, to receive advice from community experts on the delivery of services, programs and infrastructure to support art and culture in our region.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: Administration are planning to bring a brief report to Council in the new Term of Council on proposed next steps.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

18/08/2025	2.8.2	C255/08/25 Billabong Road Footpath Project Reinstatement	1.That the footpath project (design and construction) along Billabong Road, Goolwa South, be considered as part of the 2026/27 Annual Community Plan process, following completion of the kerbing and stormwater drainage project at the western end, and in line with the Council Footpath Masterplan and the endorsed Pathways Prioritisation Guidelines. 2.That, upon completion of the current kerbing and stormwater drainage project, a report be presented to elected members with an updated recommendation on whether the footpath should be installed along the southern or northern side of the road.	Alan Harvey	No

Action Date	Comments
20/08/2026	IN PROGRESS - The project remains on hold pending the completion of the Billabong Road drainage project. The drainage design is nearing completion, with construction to follow. Footpath options will be received once drainage works are complete.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/10/2025	2.9.5	C334/10/25 Proposed 2025/26 Grant Recipients	That Council approve the allocation of $18,200 from the 2025/26 Community Environment Grant budget to support the awarding of 7 grants to the following applicants: oCEG2526008 Mount Compass Area School $3,000; oCEG2526006 Kumarangk Hindmarsh Island Landcare Group Inc $4,000; oCEG2526003 Friends of Nurragi Association Inc $2,200; oCEG2526009 Freemans Knob Coastcare $2,000. oCEG2526004 Radio Goolwa - Alex FM $1,500. oCEG2526007 Captain Sturt Revegetators $4,000; and oCEG2526001 Port Elliot Community Garden $1,500	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: 6 of 7 grant payments processed, 1 awaiting funding conditions being met (CEG2526007).

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

20/10/2025	2.9.5	C336/10/25 Proposed 2025/26 Grant Recipients	That Council approve the allocation of $50,000 from the 2025/26 Community Wellbeing Grant budget to support the awarding of 17 grants to the following applicants within the 'Active and Healthy', 'Connected and Inclusive' and 'Places and Spaces' streams: oCWG2526004 Goolwa Bowling Club Incorporated $5,000; oCWG2526038 Woodchester (Richardson) Hall $5,000; oCWG2526024 The Milang Vintage Machinery Club Inc. $2,500; oCWG2526017 Port Elliot Community Garden $5,000; oCWG2526023 Yundi War Memorial Hall $2,500; oCWG2526033 Strathalbyn Tennis Club $3,475; oCWG2526009 The Goolwa Girl Guide and Scout Hall Management Committee Inc. $2,500; oCWG2526036 Clayton Bay Community Association Community Garden $2,500; oCWG2526001 New Years Eve Fireworks Off The Bridge 2025-2026 $2,500; oCWG2526008 Armfield Wooden Boats Inc $1,900; oCWG2526028 Goolwa Children's Centre $2,100; oCWG2526039 Clayton Bay Community Association Inc $2,000; oCWG2526041 Ashbourne War Memorial Centre Inc. $2,000; oCWG2526018 Belvidere Memorial Hall Inc. $3,870; oCWG2526006 Port Elliot Tennis Club $3,000; oCWG2526020 Goolwa Aquatic Club $2,500; and oCWG2526019 Coorong Dragons Incorporated $1,655.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: 16 of 17 grant payments have been processed, 1 awaiting funding conditions being met (CWG2526038).

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/10/2025	2.9.5	C337/10/25 Proposed 2025/26 Grant Recipients	That Council approve the allocation of $17,500 from the 2025/26 Heritage Grant budget to support the awarding of 7 grants to the following applicants: oHG2526003 Lyndall Anderson $2,500; oHG2526008 Katie Stevens $2,500; oHG2526001 Peter Moeck $2,500; oHG2526005 Craig Williamson $2,500; oHG2526006 The Potts Vintage Collection Inc. $2,500; oHG2526007 Bleasdale Vineyards Pty Ltd $2,500; and oHG2526002 Armfield Wooden Boats Inc $2,500	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: 6 of 7 grant payments have been processed, 1 awaiting funding conditions being met (HG2526007).

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/10/2025	2.9.5	C333/10/25 Proposed 2025/26 Grant Recipients	That Council approve the allocation of $20,000 from the 2025/26 Business Initiatives Grant budget to support the awarding of 9 grants to the following applicants: oBIG2526016 Strathalbyn Tourism Association $2,500; oBIG2526019 Grommets Play Cafe $2,500; oBIG2526001 Middleton Tavern $1,050; oBIG2526003 Away at Ancel $2,500; oBIG2526007 kuti shack $2,500; oBIG2526013 Langhorne Creek Grape and Wine Inc. $2,500; oBIG2526021 Follett's Lake Breeze Pty Ltd $2,300; oBIG2526005 Bremerton Wines $2,500; and oBIG2526012 Advanced Seeds Australia Pty $1,650.	Stacey Bateson	No

Action Date	Comments
1/10/2026	IN PROGRESS: 8 of 9 grant payments have been processed, 1 awaiting funding conditions being met (BIG2526019).

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
17/11/2025	2.8.2	C373/11/25 Installation of a Memorial Park Bench in Rotary Park, Strathalbyn	That Council approves the installation of a Memorial Park Bench within Rotary Park at Strathalbyn with all associated costs to be borne by the Rotary Club.	Alan Harvey	No

Action Date	Comments

20/08/2026	IN PRORESS - Concrete slab has been installed ready for the memorial bench installation. Current delay in supply of benches and awaiting supplier to confirm delivery date.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
15/12/2025	2.9.6	C426/12/25 Goolwa Skate Park Renaming and Sponsorship	That Council: 1.Receive and note the contents of the report titled Goolwa Skate Park Renaming and Sponsorship. 2.Note the decision not to proceed with consultation on the addition of "and Bike" in the existing Goolwa Skate Park naming. 3.Approve the renaming of the Goolwa Skate Park to Goolwa Skate and Bike Park taking affect from the 2 February 2026. 4.Approve the acceptance of a $2,000 sponsorship from Bicycle Centre Goolwa for the Goolwa Dirt Jumps located on Glendale Grove, Goolwa, for an initial period of 12 months. 5.Authorise the Chief Executive Officer to finalise and execute a sponsorship agreement with Bicycle Centre Goolwa.	Alan Harvey	No

Action Date	Comments
29/07/2026	IN PROGRESS - Administration provided a Council Member portal update on 20 May 2026 regarding the sponsorship agreement. The signage renewal and rebranding is proceeding and installation of new signage is expected in the next couple of months.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
19/01/2026	2.9.6	C015/01/26 Sugars Beach New Public Toilet - Preferred Location	That Council: 1.Receive and note the contents of the report titled Sugars Beach New Public Toilet - Preferred Location. 2.Receive and note the outcomes of the Walk on Country with the Ngarrindjeri Aboriginal Corporation as it relates to the proposed new public toilet facility. 3.Endorse the preferred position of a proposed new public toilet facility as per Option 2 detailed within this report. 4.Approve the progression of the new public toilet facility to detailed design and construction.	Alan Harvey	No

Action Date	Comments

28/09/2026	IN PROGRESS - The procurement process has been completed and a contractor awarded the project. Detailed design is currently being finalised, with the project to progress through to Development Application process.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
16/02/2026	2.10.4	C060/02/26 Report from Audit and Risk Committee - Quarterly Internal Audit Report - February 2026	That Council: 1.Receive and note the contents of the report titled Report from Audit and Risk Committee - Quarterly Internal Audit Report - February 2026. 2.Approve the proposed Strategic Internal Audit Plan 2025-2028 as provided at Attachment 1 contained in this meeting agenda. 3.Approve the scope of the proposed Internal Audit of Fraud and Corruption Prevention as contained within the report.	Tash Hunt	No

Action Date	Comments
1/10/2026	COMPLETED: The internal audit of fraud and corruption prevention was undertaken in July with results presented to the 11 September 2026 Audit and Risk Committee meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
16/02/2026	2.9.2	C049/02/26 Fleet and Major Plant Service Review Project Brief	That Council: 1.Receive and note the contents of the report titled Fleet and Major Plant Service Review Project Brief. 2.Approve the Fleet and Major Plant Service Review Project Brief as provide at Attachment 1 contained in this meeting agenda.	Alan Harvey	No

Action Date	Comments
28/09/2026	IN PROGRESS - A report is currently being prepared to present at the Council Meeting scheduled to be held on 16 November 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

26/02/2026	2.9.1	C072/02/26 South Coast Growth Strategy	That Council, in relation to the land identified as Area Q in the consultation draft of the South Coast Growth Strategy: 1.Recognise the cultural, environmental and landscape values. 2.Hold discussions with relevant Federal and State Ministers and other related stakeholders to request that Federal and/or State Government to purchase and acquire the sensitive wetland portion of the land in Area Q and amalgamate the land into the adjacent Tokuremoar Reserve to ensure the protection, conservation and management of this environmentally and culturally important area.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: A meeting was held with the Minister for the Environment, Emily Bourke on Tuesday 30 June and with the Minister for Planning, Hon Nick Champion and the Member for Finniss, Lou Nicholson on Wednesday 1 July 2026 where Administration presented the case for the purchase and protection of the land identified within 'Area Q' to ensure its long-term recognition, protection and management. The Minister for the Environment has advised Council that they are currently seeking a valuation of the subject land.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
16/03/2026		C079/03/26 Cr Sue Miller - Ratalang Basham Beach Conservation Reserve Lease Review	That Council: 1. Request Administration conduct a review of the terms of the ninety-nine (99) year lease at Attachment 1 between Council and the State Government for the care and control of the Ratalang Basham Beach Horseshoe Bay land given the lease was executed in 1981, has never been reviewed, and many of the lease terms and conditions appear no longer relevant or applicable. 2. Ensure the review findings can be considered by the incoming Council when it reviews Advisory Committees and Groups after the November 2026 council elections, the review is to be completed no later than 30 June 2027.	Alan Harvey	No

Action Date	Comments
25/06/2026	IN PROGRESS - Administration will work through this and present review findings to Council, prior to 30 June 2027.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
16/03/2026		C081/03/26 Ratalang Basham Beach Conservation Park Masterplan Actions Review - Consultation Outcomes	That Council: 3. Approve the removal of actions from the Ratalang Basham Beach Conservation Park Masterplan 2018: a. 4.2.3, Zone 2 Port Elliot Caravan Park relating to investigating alternative water sources for irrigation supply to main turf activity areas of the Caravan Park. b. 4.2.7, Zone 6 Main Park Entry relating to improving park signage at the main Port Elliot entry point. c. 4.2.7, Zone 6 Main Park Entry relating to retaining open grassed site to the South West of the entry road for future caravan park extension. d. 4.2.9, Zone 8 Basham Beach Hinterland in relation to reinstatement of a windmill. e. 4.2.9, Zone 8 Basham Beach Hinterland in relation to creating a link path in existing road reserve to connect residents of Frenchman's Drive area. f. 4.2.10, Overall, Park Recommendations relating to improving park signage at major entry points 4. Approve the change in action priority from medium to low within the Ratalang Basham Beach Conservation Park Masterplan 2018: a. 4.2.5, Zone 4 Crockery Bay relating to upgrading the existing creek crossing. b. 4.2.9, Zone 8 Basham Beach Hinterland relating to increasing facilities and interpretive material adjacent existing ruins including additional picnic tables, potential shelter and interpretive material. c. 4.2.9, Zone 8 Basham Beach Hinterland relating to restoring the historic copper mine for improved safety and educational benefit. 5. Approve the change in action priority from medium to high within the Ratalang Basham Beach Conservation Park Masterplan 2018: a. 4.2.10, Overall Park Recommendations relating to undertaking a coastal hazard assessment and develop adaptation plans in response to climate change impacts 6. Request advice from the Ratalang Basham Beach and Horseshoe Bay Advisory Committee on a work plan to complete the remaining actions	Alan Harvey	No

Action Date	Comments
28/09/2026	COMPLETED - Report presented to Council 21 September 2026 where Council resolved to adopt the actions and indicative timeframes for the Workplan to deliver the remaining Master Plan actions.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

20/04/2026	2.9.7	C133/04/26 Alexandrina Community Survey - Delivery and Methodology	That Council: 1.Receive and note the contents of the report titled Alexandrina Community Survey Methodology. 2.Approve the methodology for the Alexandrina Community Survey as contained within this report. 3.Note a further report presenting the results of the Alexandrina Community Survey will be provided following completion of the survey	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Timing has been revised, with the draft report now anticipated to be presented by newfocus at the Council Information Session on 9 November 2026 and subsequently to the next available Council Meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
18/05/2026	2.10.3	C182/05/26 Report from Audit and Risk Committee - Various Financial Policies Review	That Council: 1.Receive and note the contents of the report titled Report from Audit and Risk Committee - Various Financial Policies Review. 2.With an effective date of 29 June 2026 to revoke the current versions and: 1.Adopt the draft Rating Policy as provided at Attachment 1 contained in this meeting agenda; 2.Adopt the draft Annual Budget and Budget Performance Policy, as provided at Attachment 2 contained in this meeting agenda; 3.Adopt the draft Hardship Policy, as provided at Attachment 3 contained in this meeting agenda; 3.Authorise Administration to make changes of a minor technical or formatting nature to the draft Rating Policy, draft Annual Budget and Budget Performance Policy, draft Hardship Policy and draft Internal Hardship Guidelines prior to and during the period of effect.	Andrew Alderson	No

Action Date	Comments
29/05/2026	IN PROGRESS: Effective date of 29 June 2026

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

18/05/2026	2.10.4	C186/05/26 Report from Climate Emergency and Environment Advisory Committee (CEEAC) - Various recommendations	That Council request that a report be presented to a future meeting of Council to discuss the merits and implications of establishing and maintaining a public register of trees and mature shrubs that are removed or destroyed on public land within the Council area, with details of the resources committed by Council to undertake enforcement.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: Coordinating a report on the creation of a Tree Register for trees that are removed from public land, with Council's Field Services team. Currently anticipating that this report will be presented to Council in September or October 2026 as part of the Register of Trees of Local Importance report.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

18/05/2026	2.9.4	C168/05/26 Strategic Land Program Group 1 - Strathalbyn Redevelopment Road Closure	1.That Council receive and note the contents of the report titled Strategic Land Program Group 1 - Strathalbyn Redevelopment Road Closure. 2.Resolve to commence a 'Road Process Order' in accordance with the legislative process stipulated within the Roads (Opening and Closing) Act 1991 and the Roads (Opening and Closing) Regulations 2021, to progress the proposal to close a portion of 10,360 m of unmade roads located within the Whittam's Transport Depot at Strathalbyn, consistent with the proposed preliminary plan provided at Attachment 1 contained in this meeting agenda. 3.Authorise the Chief Executive Officer to sign the proposed preliminary plan that is required to form part of the community engagement process. 4.Grants consent to proceed to community engagement on the proposal to close and sell the unmade roads as described in the preliminary plan at Attachment 1 in accordance with the Community Engagement Plan provided at Attachment 2 contained in this meeting agenda. 5.Authorise the Chief Executive Officer to make any minor amendments to the community engagement arrangements. 6.Note that a further report on the community engagement outcomes will be presented at the conclusion of the public consultation process. 7.Treat the sale price for the unmade roads as an exception to the Acquisition and Disposal of Road Policy and rather than obtain an Independent Valuation, use the Financial Assessment Formula to calculate the value of the 'whole' (rather than 'part of') of the roads to be sold and closed. 8.Approve an Agreement for Transfer at a disposal price of $137,723 with the owner of the adjoining land in accordance with the requirements of section 12 of the Roads (Opening and Closing) Act 1991 and delegate the Mayor and CEO to execute the Agreement, with such Agreement to be void if Council does not progress a road	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Community Engagement on the proposed road closure has been completed with a report on the outcomes of the consultation to be presented at the 16 November 2026 Council Meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

18/05/2026	2.9.1	C166/05/26 Goolwa Wharf One Way Traffic Flow - Community Engagement Results	That Council do not approve the installation of dedicated long vehicle parking bays on Hutchinson Street, Goolwa and consider alternative options including Coddington Street and Beach Road, Goolwa.	Alan Harvey	No

Action Date	Comments
28/05/2026	IN PROGRESS - Administration will investigate alternative options and bring a report back to a future meeting of Council.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
18/05/2026	2.9.2	C167/05/26 Friends of the Oscar W Lease Variation - Community Engagement Outcomes	That Council: 1.Receive and note the contents of the report titled Friends of the Oscar W Lease Variation – Community Engagement Outcomes. 2.Receive and note the Community Engagement Report on the proposed variation to the Friends of the Oscar W Inc Lease and Licence terms and conditions, as provided at Attachment 1 contained in this meeting agenda. 3.Grant consent to a 'Deed of Variation' to vary the conditions of the existing lease with the Friends of the Oscar W Incorporated, for the operation of the Goolwa Riverboat Centre, in a portion of the Goolwa Wharf Shed located at Certificate of Title Volume 5956 Folio 100 Goolwa, to provide an option for a renewal term of five (5) years following expiry of the initial five (5) year term in June 2029. 4.Grant consent to a 'Deed of Variation' to vary the conditions of the existing Mooring Licence with the Friends of the Oscar W Incorporated for mooring activities associated with the PS Oscar W 'Lease, Operation and Maintenance Agreement' (LOM), to provide an option for a renewal term of five (5) years following expiry of the initial five (5) year term in June 2029. 5.Authorise the Mayor and Chief Executive Officer to sign and seal all documentation required to facilitate the lease and licence variations.	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: The Deed of Variation documents to amend the lease and licence are with the Friends of the Oscar W for signing.

Alexandrina Council Resolutions Register

Alexandrina Council Ordinary Meeting - Public Report

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
18/05/2026	2.10.4	C185/05/26 Report from Climate Emergency and Environment Advisory Committee (CEEAC) - Various recommendations	That Council request that a report be presented to a future meeting of Council to provide available options for, and the feasibility of, undertaking a Code Amendment to rezone environmentally significant and culturally sensitive land located outside of the south coast townships to Conservation Zone (or the equivalent), and to scope the potential of creating a single coastal conservation park including the City of Victor Harbor and the District Council of Yankalilla.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: This resolution will be noted within Council's Local Area Plan when drafted, such that it can inform a future Code Amendment. Further collaboration will be required with the City of Victor Harbor and the DC of Yankalilla regarding the proposed single coastal conservation park. This matter was raised with the Minister for Planning at our meeting held on 1 July 2026. The Minister's office were of the view that a single integrated coastal conservation park across the South Coast would be challenging, particularly if including separate land. Lou Nicholson MP was also in attendance and may pursue this with her proposed Character Preservation Bill.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

15/06/2026	2.9.4	C200/06/26 Community Engagement Outcomes - Belluna New Lease and Licence Proposal	That Council: 1.Receive and note the contents of the report titled Community Engagement Outcomes - Belluna Pty Ltd and Belluna No 2 Pty Ltd New Lease Proposal. 2.Receive and note the Community Engagement Feedback Report - Goolwa Wharf Ground Leases and Mooring Licence on the proposed new 20-year ground lease and associated licence proposals for Belluna Pty Ltd and Belluna No 2 Pty Ltd, as provided at Attachment 1 contained in this meeting agenda. 3.Grant consent for the Chief Executive Officer to finalise negotiations with Belluna Pty Ltd for a new twenty (5+5+5+5) year Commercial Ground Lease and two (2) associated Mooring Licenses, for a boarding station / ticket office and associated vessel moorings on portion of the Goolwa Wharf, Crown Record Volume 5956 Folio 100, in accordance with the below essential terms and conditions: a.Twenty (5+5+5+5) year commercial ground lease b.Commencement date of 1 July 2026 c.Expiry date of 30 June 2046 d.Purpose of Ticket Office, Boarding Station and ancillary uses e.Lease area and mooring licence locations as identified within this Report f.Commencement lease fee of current rent on date of commencement of the new lease plus March Quarter CPI g.Lease fees determined by CPI h.Mooring Licence Fees determined per annum in accordance with Council's Annual Fees and Charges i.Lease renewal and rent review to occur every 5 years j.That all improvements and outgoings to the land are severed from the land and lease including buildings, services, insurances, business model, outgoings, capital works and maintenance and are at the full cost and responsibility of the Lessee. 4.Authorise the Mayor and Chief Executive Officer to sign and seal the Lease and Mooring Licence Agreements.	Tash Hunt	No

Action Date	Comments
1/10/2026	COMPLETED: All Lease and Licence documents have been executed.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

15/06/2026	2.9.5	C201/06/26 Community Engagement Outcomes - Strategic Land Program Group 2 - 15 Cadell Street, Goolwa Proposed Sale	That Council: 1.Receive and note the contents of the report titled Community Engagement Outcomes - Strategic Land Program Group 2 - 15 Cadell Street, Goolwa Proposed Sale. 2.Receive and note the Community Engagement Report - 15 Cadell Street, Goolwa - Proposed Sale on the proposed sale of 15 Cadell Street, Goolwa, as provided at Attachment 1 contained in this meeting agenda. 3.Authorise the sale of the property located at 15 Cadell Street, Goolwa, Certificate of Title Volume 5386 Folio 431, by open market or public auction, as determined by the Chief Executive Officer. 4.Grant consent for the Chief Executive Officer to set the reserve price for the sale of 15 Cadell Street, Goolwa. 5.Authorise the Mayor and Chief Executive Officer to sign and seal all documentation required to facilitate the sale.	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: 15 Cadell Street was placed on the open market for sale on the 1 September 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

15/06/2026	2.9.10	C206/06/26 Appointment to Position - Audit and Risk Committee Independent Member Selection Panel	That Council: 1.Receive and note the contents of the report titled Appointment to Position - Audit and Risk Committee Independent Member Selection Panel. 2.Acknowledge the resignation of Mr Andrew Haste and extends its gratitude for his service as an Independent Member of the Audit and Risk Committee since December 2020. 3.Note that the Chief Executive Officer will commence the recruitment process for an Independent Member of the Audit and Risk Committee in accordance with the Committee Terms of Reference. 4.Appoint the Independent Chairperson of the Audit and Risk Committee to be a member of the selection panel for the Audit and Risk Committee Independent Member recruitment process, and authorises payment of the sitting fee for their attendance at the interview panel. 5.Appoint Cr Peter Oliver as the Council Member representative on the selection panel for the Audit and Risk Committee Independent Member recruitment process.	Tash Hunt	No

Action Date	Comments
1/10/2026	COMPLETED: The Audit and Risk Committee Independent Member recruitment selection panel recommendation report included in this October Ordinary Council Meeting agenda for Council's consideration and appointment.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

20/07/2026	2.9.4	C239/07/26 Horseshoe Bay Pontoon - Funding and Maintenance Update	That Council: 1.Receive and note the contents of the report titled Horseshoe Bay Pontoon - Funding and Maintenance Update. 2.Thank Mr David Basham for his generous donation of funds to assist in the maintenance of the pontoon, noting that Mr Basham has given notice to terminate the funding agreement, which will cease on 6 April 2027. 3.Thank Goolwa Jetty Builders for their ongoing generous contributions. 4.Note that funding for the reasonable maintenance of the pontoon will now be borne by Council through current operational budgets. 5.Approve the amendment of the Recreational Pontoon Policy to include a definition of "Reasonable Maintenance" which would be defined as routine inspection, minor repairs and general maintenance required to maintain the pontoon in a safe and functional condition.	Alan Harvey	No

Action Date	Comments
31/08/2026	IN PROGRESS - Policy being updated.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/07/2026	2.9.2	C236/07/26 Horseshoe Bay Wave Modelling Project Final Report	That the question be adjourned until a future workshop is held on the entire Council coastline prior to considering Horseshoe Bay.	Matt Atkinson	No

Action Date	Comments
13/10/2026	COMPLETE: A Council workshop (information session) was held regarding this matter on 28 September 2026. The adjourned report will be presented to Council at the October Council meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

20/07/2026	2.9.1	C234/07/26 Changes to Local Government Periodic Elections arrangements	That Council: 1.Receive and note the contents of the report titled Changes to Local Government Periodic Elections arrangements. 2.Note that the: a.Current council term has been extended by 5 months to April 2027; and b.Close of voting for the 2027 Local Government Periodic Elections will be at 5pm on Wednesday 7 April 2027. c.That the new term of Council will be extended by 7 months from April 2027 to November 2031. 3.Authorise Administration to update the Caretaker Policy to incorporate any changes arising from the changes to the Local Government Periodic Elections arrangements including, but not necessarily limited to, the commencement of the caretaker period.	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Administration is undertaking a review of election planning and governance processes in response to the changes to Local Government Periodic Elections arrangements.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/07/2026	2.9.6	C242/07/26 Proposed Community Engagement - Milang Tennis Court Reuse Concept	That Council: 1.Receive and note the contents of the report titled Proposed Community Engagement - Milang Tennis Court Reuse Concept. 2.Approve the Milang Tennis Court reuse concept for public consultation as per the draft Community Engagement Plan, as provided at Attachment 1 contained in the meeting agenda, subject to the following amendments: •The project be referred as Milang Soldiers Memorial Garden Courts renewal - design – Project ID 200411 •Replacement and/or planting of additional trees to be considered	Alan Harvey	No

Action Date	Comments
31/08/2026	Consultation closed. Report being prepared for future Council meeting.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/07/2026	2.9.7	C244/07/26 Community Engagement Outcomes - Proposed Road Closure - West Creek Road (Portion of)	That Council: 1.Resolve to proceed with the proposed closure of the subject portion of West Creek Road to vehicular traffic under Section 32 of the Road Traffic Act 1961. 2.Confirm that the subject portion of West Creek Road be closed for public vehicular access.	Alan Harvey	No

Action Date	Comments
31/08/2026	Being progressed as other priorities permit.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/07/2026	2.9.7	C245/07/26 Community Engagement Outcomes - Proposed Road Closure - West Creek Road (Portion of)	That Council: 1.Acknowledge the concerns raised by adjoining landowners and road users regarding vehicle speeds, dust generation and interactions between through traffic and agricultural activities. 2.Request Administration investigate traffic management and intersection treatments along McAnaney Road.	Alan Harvey	No

Action Date	Comments
31/08/2026	Being progressed as other priorities permit.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

20/07/2026	2.8.1	C233/07/26 Rating Structure Review Priority Action ID 1.1.3 in Council's A2040 Strategic Delivery Plan	That Council: Request administration provide to the Council by no later than 30 June 2027 a report for decision that prepares to plan for the Rating Structure Review identified as Priority Action ID 1.1.3 in the adopted A2040 Strategic Delivery Plan and budgeted for in the adopted Long Term Financial Plan to occur in the 2027/28 financial year. The report address, but not be limited to: 1.Steps involved (including legislative considerations and mandatory community consultation periods) 2.Timeline (including council meeting dates for council decision making) 3.Draft Scope for the review (for adoption by the Council) 4.Inclusions and exclusions 5.Estimate of costs (to inform the 2027/28 budget deliberations) 6.Procurement Process (including internal and external resources) 7.Community Engagement Plan; and 8.Include as background the previous review that commenced during the 2018-2022 term of Council, and any considerations or decisions of Council since November 2018.	Andrew Alderson	No

Action Date	Comments
25/08/2026	IN PROGRESS: To be presented to Council following the 2027 Local Government Elections.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
20/07/2026	2.9.3	C238/07/26 Proposed Community Engagement - Horseshoe Bay Beach Access Review and Design	That Council approve the Horseshoe Bay beach access review and design concept for public consultation as per the draft Community Engagement Plan, as provided at Attachment 1 contained in the meeting agenda	Alan Harvey	No

Action Date	Comments
24/07/2026	IN PROGRESS - Consultation commenced on 23 July 2026 and closes 14 August 2026. A report detailing the outcomes of consultation will be presented at the Council meeting on 19 October 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
17/08/2026	2.9.3	C272/08/26 Community Engagement Outcomes - Middleton Pioneer Community Hall new lease request	That Council, having considered the position of the Lease and Licence Policy: 1.Apply a 100% rate rebate during the initial 5-year lease term, in accordance with Council's 'Rating Policy and Discretionary Rate Rebate Operational Guidelines' and review this allowance at the commencement date of the 5-year renewal option. 2.Treat the lease fee of $1.00 per annum payable on demand, as an exception to the Lease and Licence Policy 'Minor Commercial / Community' category and review this fee on the commencement date of the 5-year renewal option in accordance with Council's Annual Fees and Charges during the term of the lease.	Tash Hunt	No

Action Date	Comments
1/10/2026	COMPLETED: Lease documents are with the Middleton Pioneer Community Hall Committee for final review and signing, and the Finance team informed of rate rebate.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
17/08/2026	2.9.6	C277/08/26 Proposed Community Engagement - Naming Request for Bridge on Lake Road, Milang	That Council: 1.Receive and note the contents of the report titled Proposed Community Engagement - Naming Request for Bridge on Lake Road, Lake Plains. 2.Approve community engagement regarding the proposed naming of the bridge over the Bremer River on Lake Road, Lake Plains as 'Findlater Bridge' in accordance with the Community Engagement Plan provided at Attachment 1 contained in this meeting agenda, and Council's Naming of Roads, Reserves and Public Places & Street Numbering Policy.	Matt Atkinson	No

Action Date	Comments
25/08/2026	Community consultation opens at 9am on Thursday 27 August and will continue until Friday 18 September 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

17/08/2026	2.9.1	C267/08/26 Community Engagement Outcomes - Future planning for Goolwa Main Street Trees	That Council approve the development of Option 2, with further reporting being provided on: a.Increasing the streetscape level of service in Cadell Street (from Gardiner Street to Goolwa Terrace). b.Development and implementation of a specific tree management plan for the existing Cadell Street trees. c.Scoping and execution of specific plans to manage the interaction of trees within the state heritage area and heritage listed buildings. d.Investigation and development of corella management strategies from a regional and local perspective for the 19 October 2026 Council meeting. e.Investigation of better engagement with businesses within Cadell Street to support the ongoing management of the street and the trees. f.Note that as a matter of priority elements a, b and d are proposed to be reported first over the coming few months followed by elements c and then e.	Alan Harvey	No

Action Date	Comments
31/08/2026	Work underway on priority options.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

17/08/2026	2.9.12	C281/08/26 Proposed 2026/27 Grants Program Recipients	That Council: 1.Receive and note the contents of the report titled Proposed 2026/27 Grants Program Recipients. 2.Approve the allocation of $20,000 from the 2026/27 Business Initiatives Grant budget to support the awarding of ten grants to the following applicants: oBIG2627012 Strathalbyn Tourism Association $2,500; oBIG2627024 Newman's Farm Pty Ltd $2,500; oBIG2627015 SouthRun Airport Transfers $2,500; oBIG2627002 Bleasdale Vineyards Pty Ltd $2,000; oBIG2627011 First Step Health Collective $2,000; oBIG2627014 Yeo Haus $2,000; oBIG2627007 Artworx Gallery & Gifts Goolwa $2,000; oBIG2627018 Mintz Family Holdings Pty Ltd trading as Merilli1885 $2,000; oBIG2627006 Kimbolton Vineyards Pty Ltd $1,250; and oBIG2627026 Fleurieu Bike Pty Ltd $1,250. 3.Approve the allocation of $16,078 from the 2026/27 Community Environment Grant budget to support the awarding of five (5) grants to the following applicants: oCEG2627003 Freemans Knob Coastcare $2,000; oCEG2627004 River Lakes and Coorong Action Group Inc $4,000; oCEG2627005 Angas River Catchment Group $2,723; oCEG2627006 Cittaslow Goolwa Inc $3,355; and oCEG2627008 Kumarangk Hindmarsh Island Landcare Group Inc $4,000. 4.Approve the allocation of $30,000 from the 2026/27 Community Wellbeing Grant budget to support the awarding of nine (9) grants to the following applicants within the "Vibrant and Artistic" stream: oCWGVA2627012 Strathalbyn Aboriginal Action Reference Group Inc. $2,000; oCWGVA2627002 Goolwa Community Association $4,075; oCWGVA2627008 Lost for Words Writers' Group $3,000;	Stacey Bateson	No

Action Date	Comments

			1/10/2026	IN PROGRESS: All applicants have been notified of the outcome of their applications.;;;;Business Initiatives Grant: 2 of 10 grant payments have been processed.;;o BIG2627012 Strathalbyn Tourism Association $2,500 - payment requested 21/9/26.;;o BIG2627024 Newman's Farm Pty Ltd $2,500 - awaiting funding conditions being met.;;o BIG2627015 SouthRun Airport Transfers $2,500 - payment requested 21/9/26.;;o BIG2627002 Bleasdale Vineyards Pty Ltd $2,000 - awaiting funding conditions being met.;;o BIG2627011 First Step Health Collective $2,000 - awaiting requisition approval.;;o BIG2627014 Yeo Haus $2,000 - payment requested 28/9/26.;;o BIG2627007 Artworx Gallery & Gifts Goolwa $2,000 - payment requested 28/9/26.;;o BIG2627018 Mintz Family Holdings Pty Ltd trading as Merilli1885 $2,000 - payment requested 28/9/26.;;o BIG2627006 Kimbolton Vineyards Pty Ltd $1,250 - grant paid 28/9/26.;;o BIG2627026 Fleurieu Bike Pty Ltd $1,250 grant paid 28/9/26.;;;;Community Environment Grant: 0 of 5 grant payments processed.;;All awaiting confirmation of funding conditions and provision of funding agreements by Grants Officer.;;;;Community Wellbeing Grant "Vibrant and Artistic" Stream: 0 of 9 grant payments have been processed:;;o CWGVA2627012 Strathalbyn Aboriginal Action Reference Group Inc. $2,000 - awaiting funding conditions being met.;;o CWGVA2627002 Goolwa Community Association $4,075 - payment requested 28/9/26.;;o CWGVA2627008 Lost for Words Writers' Group $3,000 - awaiting funding conditions being met.;;o CWGVA2627004 Cittaslow Goolwa Inc $5,000- payment requested 28/9/26.;;o CWGVA2627011 Port Elliot Primary School $2,600- payment requested 28/9/26.;;o CWGVA2627009 Patch Theatre Company Inc $3,500 - awaiting funding conditions being met.;;o CWGVA2627015 SA Jazz Festivals Inc $2,445- payment requested 30/9/26.;;o CWGVA2627006 Plein Air Strathalbyn Committee $3,690 - payment requested 21/9/26.;;o CWGVA2627016 Middleton Community Association Inc $3,690 - payment requested 30/9/26.;;;;Community Wellbeing Grant: 3 of 15 grant payments have been processed:;;o CWG2627019 Strathalbyn Wood Craft Group Inc		

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
17/08/2026	2.9.7	C278/08/26 Proposed Revocation of Dedicated Land and closure of Unmade Roads for inclusion in Coorong National Park	That Council: 1.Receive and note the contents of the report titled Proposed Revocation of Dedicated Land and Closure of Unmade Roads for Inclusion in Coorong National Park. 2.Receive and note the (redacted) letter from the Department for Environment and Water (DEW) as provided at Attachment 1 of this meeting agenda, requesting to revoke the dedication to Alexandrina Council of two (2) parcels of Crown land at the eastern end of Hindmarsh Island and, to close various unmade roads on Mundoo Island and in the Lawari Conservation Park on the eastern end of Hindmarsh Island for the purpose of an addition to the Coorong National Park. 3.Resolve to notify the Department for Environment and Water (DEW) that it agrees to the revocation of the dedication to Council of the two (2) parcels of land contained in Crown Record Volume 5763 Folio 659, for the purpose of proclamation as an addition to the Coorong National Park. 4.Note that the Department for Environment and Water (DEW) intends to use Section 20A of the Crown Land Management Act 2009 to revoke the classification of community land from the subject land, meaning that community engagement and the revocation of the land parcels as community land is not required to be undertaken by Council. 5.Resolve to notify the Department for Environment and Water (DEW) that it agrees to the closure and transfer to the Crown, of the unmade roads on Mundoo Island as shown in yellow at 3a provided at Attachment 1 of this meeting agenda. 6.Note that the Department for Environment and Water (DEW) intends to use the power under Section 6 of the Roads (Opening and Closing) Act 1991, to close and transfer to the Crown, the unmade roads on Mundoo Island prior to their proclamation as an addition to the Coorong National Park. 7.Commence a road process order in accordance with the Roads	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Community engagement on the road closures is schedule to occur from Thursday 5 November 2026 to Friday, 4 December 2026, with a further report presented to the 18 January 2027 Council Meeting.

17/08/2026	2.9.10	C279/08/26 Rotary Club of Goolwa - New Lease Request	That Council: 1.Receive and note the contents of the Report titled Rotary Club of Goolwa - New Lease Request. 2.Receive the proposal from the Rotary Club of Goolwa for a new 10-year community ground lease as provided at Attachment 1 contained in this meeting agenda. 3.Grant consent for the Chief Executive Officer to finalise negotiations with the Rotary Club of Goolwa, for a new lease of Area 6 at the Goolwa Community Precinct, Certificate of Title Volume 6016 Folio 891 on Kessell Road, Goolwa, in accordance with the following essential terms and conditions of the lease: oCommunity Ground Lease o'Community' Category Lease fee ($1.00 per annum payable on demand) o10-year lease term oInitial 5-year term with a 5-year renewal option oCommencement date of 1 September 2026 oExpiry date of 31 August 2036 oLease purpose of storage of rotary property and equipment. oLease area as identified within this Report. oLessee responsible for all applicable outgoings (rates, taxes and services). oLessee responsible for public liability and contents insurance. oLessee responsible for all improvements to the land, which remain in the ownership of the Rotary Club of Goolwa during and on expiry of the lease. 4.Authorise the Mayor and Chief Executive Officer to sign and seal the community ground lease agreement.	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Lease documents are with the Rotary Club of Goolwa for final review and signing.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

17/08/2026	3.5	C265/08/26 Petition - Requesting Council to reinstate lethal culling of Little Corellas as part of a Corella Action Plan	That Council receive the petition requesting Council to reinstate lethal culling of Little Corellas as part of a Corella Action Plan by October 2026 and that it be forwarded to the Infrastructure division for assessment and response to Head Petitioner and further: 1.Note the deputation by Ms L Bradey regarding 'the management of the impact of the large flocks of Little Corella in the Goolwa Township' 2.Note the deputation by Mr M Ferry of Strathalbyn on behalf of the Strathalbyn Eastern Fleurieu School and Community regarding 'Strathalbyn-Corella Action Plan – October 2026' 3.Note item 9.1 to be considered later in this agenda 'Community Engagement Outcomes - Future planning for Goolwa Main Street Trees' references corella management; 4.Note on page 186 of this agenda that Environment, Rural Land and Natural Assets key messages arising from the Strathalbyn and Surrounds Town Plan engagement included calls for culling of Little Corellas expressing concerns about environmental balance; and 5.Request administration as an interim short-term solution prepare a report including costings and budget impact for the 19 October 2026 council meeting for the purpose of commencing lethal culling of Little Corellas in Strathalbyn and Goolwa and other townships as required, as soon as possible. 6.Write to the State Members for Hammond, Heysen and Mawson in addition to writing to the State Member for Finniss to seek advice and support for the management of Little Corellas from a regional and local perspective.	Alan Harvey	No

Action Date	Comments
12/10/2026	IN PROGRESS - Report being presented to Council at its meeting on 19 October 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

17/08/2026	2.9.5	C276/08/26 Proposed Community Engagement - Draft Strathalbyn and Surrounds Town Plan	That Council: 1.Receive and note the contents of the report titled Proposed Community Engagement - Draft Strathalbyn and Surrounds Town Plan. 2.Approves the release of the Draft Strathalbyn and Surrounds Town Plan (Attachment 3 contained in this meeting agenda) for community and stakeholder engagement in accordance with the Community Engagement Plan - Stage 2 Draft Strathalbyn and Surrounds Town Plan (Attachment 2 contained in this meeting agenda). 3.Authorises the Chief Executive Officer to make amendments to the draft Strathalbyn and Surrounds Town Plan and/or the associated Community Engagement Plan, provided that there are no changes to the intent of either plan.	Matt Atkinson	No

Action Date	Comments
13/10/2026	COMPLETE: Consultation has commenced.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
17/08/2026	2.9.2	C269/08/26 Community Engagement Outcomes - Goolwa Rowing Club Landowner Consent	That Council: 1.Grant landowner consent to the Goolwa Rowing Club's amended plans for their Clubroom facility located on portion of Lot 8 Barrage Road, Goolwa South, Crown Record Volume 6164 Folio 814, so Development Application 25024296 can proceed to the Fleurieu Regional Assessment Panel for decision. 2.Authorise the Chief Executive Officer to execute a Deed of Variation to the Lease to reflect an approved development.	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: The Development Application for the Goolwa Rowing Club build was approved at the 22 September 2026 FRAP Meeting. The Deed of Variation to the lease, will occur once a final footprint for the build is approved under the PDI Act 2016.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

17/08/2026	2.9.3	C271/08/26 Community Engagement Outcomes - Middleton Pioneer Community Hall new lease request	That Council: 1.Grant consent for the Chief Executive Officer to finalise negotiations with the Middleton Pioneer Community Hall Association, for a new ten (5+5) year community building lease for ongoing occupation of portion of 3 Walker Place, Crown Record Volume 5899 Folio 376, Middleton. 2.Endorse the following essential terms of the lease: oCommunity Building Lease oTerm of ten (10) years oInitial 5-year term with a 5 year renewal option oCommencement date: 1 September 2026 oExpiry date: 31 August 2036 oPurpose of the lease being meeting hall, community uses and other minor commercial revenue raising activities as approved by Council. oLease area as identified in red within this report oLessee responsible for all applicable outgoings (rates, taxes and services) oLessee responsible for maintenance. oCouncil responsible for replacement of infrastructure at end of useful life. oLessee responsible for public liability and contents insurance; and oCouncil responsible for building insurance. 3.Authorise the Mayor and Chief Executive Officer to sign and seal the lease Agreement.	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Lease documents are with the Middleton Pioneer Community Hall Committee for final review and signing.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

21/09/2026		C336/09/26 Quarterly Internal Audit Report - September 2026	That Council: 1.Receive and note the contents of the report titled Report from Audit and Risk Committee - Quarterly Internal Audit Report - September 2026. 2.With an effective date of 1 October 2026, adopt the revised Strategic Internal Audit Plan 2025-2028 v1.1a as provided at Attachment 1 contained in this meeting agenda. 3.Authorise Administration to make any changes of a minor content or formatting nature to the Strategic Internal Audit Plan 2025-2028 v1.1a prior or during the period of effect.	Tash Hunt	No

Action Date	Comments
1/10/2026	COMPLETED: The Strategic Internal Audit Plan v1.1 has been finalised.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
21/09/2026		C331/09/26 Middleton Floods Update	That Council: 1.Receive and note the contents of the report titled Middleton Floods Update. 2.Authorise the Administration to write to the Member of Parliament for Finniss concerning matters previously raised with various state government departments.	Alan Harvey	No

Action Date	Comments
12/10/2026	IN PROGRESS - Administration have noted this resolution and will progress this.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
21/09/2026		C340/09/26 Rabbit Control Program	That Council: 1.Receive and note the contents of the report titled Report from Ratalang Basham Beach and Horseshoe Bay Advisory Committee - Rabbit Control Program. 2.Approve the continuation of the integrated rabbit management program at the Ratalang Native Grassland, including the implementation of targeted rabbit shooting as a supplementary control measure.	Alan Harvey	No

Action Date	Comments

12/10/2026	COMPLETED - Administration will continue with the integrated rabbit management program which will now also include targeted rabbit shooting at Ratalang Basham Beach Conservation Reserve.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
21/09/2026		C325/09/26 Short Term Dry Area Application - Schoolies Festival 2026 and New Years' Eve	That Council: 1.Receive and note the contents of the report titled Short Term Dry Area Application - Schoolies Festival 2026 and New Years' Eve. 2.Approve an application being submitted to Consumer and Business Services for Short Term Dry Areas as provided at Attachment 1 contained in the meeting agenda: •Schoolies Festival 2026: o8.00am on Thursday, 19 November 2026 to 10.00am on Monday, 23 November 2026, covering: ?Middleton Point Foreshore, Middleton Beach (Middleton Area 1), and ?The Harbour Masters Reserve, Port Elliot (Port Elliot Area 3). •New Year's Eve 2026/27: o6.00pm on Wednesday, 30 December 2026 to 6.00am on Saturday, 2 January 2026, covering: ?Chiton Rocks Car Park (Chiton Rocks Area 1), ?Port Elliot - Boomer Beach to Horseshoe Bay (Port Elliot Area 2), ?Middleton Point Foreshore, Middleton Beach (Middleton Area 1), ?Goolwa Wharf Precinct (Goolwa Area 3), ?Goolwa Beach Car Park (Goolwa Beach Area 1), and ?Basham Beach incorporating Ratalang Basham Beach Conservation Reserve (Basham Beach Area 1).	Tash Hunt	No

Action Date	Comments
1/10/2026	IN PROGRESS: Letters of support from SAPOL and Member for Finniss received. Application submitted to Consumer and Business Services for processing ahead of events.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

21/09/2026	C339/09/26 Master Plan Review Outcomes and Delivery Workplan	That Council: 1.Receive and note the contents of the report titled Report from Ratalang Basham Beach and Horseshoe Bay Advisory Committee - Master Plan Review Outcomes and Delivery Workplan. 2.Adopt the following actions and indicative delivery timeframes to form part of the Ratalang Basham Beach and Horseshoe Bay Advisory Committee Workplan – •2026/27 – i.Seek grant funding to continue progressing Item 4.2.5 (High) Zone 4, Crockery Bay ii.Concerted effort to remove woody weeds from Crockery Creek to continue progressing Item 4.2.7 (High) Zone 6, Main Park Entry iii.Weed control of Stage 1, and Sowing of Seeds and construction of a berm in the Stage 2 area, to continue progressing Item 4.2.9 (High) Zone 8, Basham Beach Hinterland iv.Finalise coastal dune adaptation assessment reporting for Stage 2 and Stage 2A to continue progressing Item 4.2.10 (High) Overall Park Recommendations – Ratalang Conservation Reserve v.Determine the heritage value of the old Dairy building to help understand the future development requirements to continue progressing Item 4.2.9 (Medium) Zone 8, Basham Beach Hinterland vi.Administration to provide a report on the opportunities to reuse existing timbers (i.e. wharf timbers, railway sleepers) and costs associated with upgrading the stock fencing along Basham Beach Road to commence progressing Item 4.2.9 (Medium) Zone 8, Basham Beach Hinterland vii.Install new Native Grasslands interpretive signage to educate community about the site and its purpose, to commence Item 4.2.9 (Low) Zone 8, Basham Beach Hinterland •2027/28 – i.Undertake an audit of all signage within the park to develop an inventory of signage and understand where signage is located, to determine if any gaps or opportunities for additional interpretive	Alan Harvey	No

Action Date	Comments
12/10/2026	COMPLETED - Administration working with the Ratalang Basham Beach and Horseshoe Bay Advisory Committee will continue to progress these actions as detailed in the resolution of Council C339/09/26.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

21/09/2026		C338/09/26 Crockery Creek Wetland Project - Funding Opportunities	That Council: 1.Receive and note the contents of this report titled Report from Ratalang Basham Beach and Horseshoe Bay Advisory Committee - Crockery Creek Wetland Project - Funding Opportunities. 2.Approve the Administration to prepare a submission for grant funding under the Coast Protection Grant Program to construct the Crockery Creek Wetland and associated infrastructure.	Alan Harvey	No

Action Date	Comments
12/10/2026	IN PROGRESS - Resolution noted by Administration and will be progressed.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
21/09/2026		C329/09/26 Extension of Council Committee and Advisory Group Appointments	That Council: 1.Receive and note the contents of the report titled Extension of Council Committee and Advisory Group Appointments. 2.Extend the Community Member terms that are due to expire on 30 June 2027 to 30 September 2027 for the following Committees and Advisory Groups: a.Climate Emergency and Environment and Advisory Committee (CEEAC); b.Ratalang Basham Beach and Horseshoe Bay Advisory Committee (RBBHBAC); c.South Australian Wooden Boat Festival Committee (SAWBFC); d.Agricultural Advisory Group (AAG); e.Cemeteries Advisory Group (CAG); f.Heritage Advisory Group (HAG).	Tash Hunt	No

Action Date	Comments
1/10/2026	COMPLETED: Affected Community members have been advised and the Council website updated.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
21/09/2026		C321/09/26 Corella Management	That Corella Management Plans be escalated with the objective of reduction in super flock numbers by 30% by 31/12/2026.	Alan Harvey	No

Action Date	Comments

12/10/2026	IN PROGRESS - A report is being presented to Council at its meeting on 19 October 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
21/09/2026		C322/09/26 Strathalbyn Township Heritage Review	That Council: 1.receive and note the contents of the report titled Strathalbyn Township Heritage Review as provided at Attachment 1 contained in this meeting agenda; and 2.adopt the Review as an informing document for the finalisation of the Strathalbyn and Surrounds Town Plan; 3.note that any recommendations arising from the Review that may subsequently be endorsed as actions in the final Strathalbyn and Surrounds Town Plan may require further investigation and funding; and 4.authorise administration to correct as a short term priority the number of errors and anomalies found relating to the Local Heritage Place Overlay Review	Matt Atkinson	No

Action Date	Comments
24/09/2026	IN PROGRESS

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

21/09/2026	C330/09/26 Legislative Updates - Delegation Consideration for Chief Executive Officer	That Council: 1.Receive and note the contents of the report titled Legislative Updates - Delegation Consideration for the Chief Executive Officer. 2.In exercise the power contained in section 44 of the Local Government Act 1999, the powers and functions under the Local Government Act 1999 and specified Acts as provided at Attachment 1 contained in this meeting agenda and Section 19(6)(b) of the Local Nuisance and Litter Control Act 2016 are hereby updated to the powers and functions delegated to the person occupying the office of the Chief Executive Officer (and anyone acting in that position) on this 21 day of September 2026 subject to the conditions and/or limitations specified herein. 3.Such powers and functions may be further sub-delegated by the Chief Executive Officer (and anyone acting in that position) in accordance with sections 44 and 101 of the Local Government Act 1999 as the Chief Executive Officer sees fit, unless otherwise indicated herein the Instrument of Delegation and specified in the Conditions and Limitations contained in Attachment 1. 4.Authorise Administration to make updates to the Delegations Register as published on Council's website as a result of changes to legislation in the attachment to this report contained in the meeting agenda.	Tash Hunt	No

Action Date	Comments
1/10/2026	COMPLETED: Council delegation register has been updated.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential

21/09/2026		C328/09/26 Policy Development - Public Lighting Policies and Procedure	That Council: 1.Receive and note the report titled Policy Development - Public Lighting Policies and Procedure. 2.With an effective date of 2 October 2026, adopt the draft Public Lighting Policy - General as provided at Attachment 1 contained in the meeting agenda. 3.With an effective date of 2 October 2026, adopt the draft Public Lighting Policy - Clayton Bay Dark Sky Zone as provided at Attachment 2 contained in the meeting agenda. 4.Authorise the Chief Executive Officer, or delegate, to make minor administrative, nomenclature, technical or formatting amendments to the adopted documents prior to publication and during the period of effect, provided those amendments do not alter the intent of the policies or procedure.	Alan Harvey	No

Action Date	Comments
12/10/2026	COMPLETED - Policy came into effect on 2 October 2026.

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
21/09/2026		C326/09/26 Policy Review - Kerbside Waste Collection Policy Review	That Council: 1.Receive and note the contents of the report titled Policy Review - Kerbside Waste Collection. 2.With an effective date of 2 October 2026: a.Revoke the Kerbside Waste Collection Policy (September 2012); and b.Approve the draft Kerbside Waste Collection Policy (September 2026) as provided at Attachment 2 contained in the meeting agenda. 3.Authorise Administration to make changes of a minor nomenclature, technical or formatting nature to the Kerbside Waste Collection Policy (September 2026) prior to and during the period of effect.	Alan Harvey	No

Action Date	Comments
12/10/2026	COMPLETED - Policy came into effect on 2 October 2026. Communications have been sent to existing customers regarding the policy changes.

Alexandrina Council Resolutions Register

Alexandrina Council Special Meeting - Public Report

Meeting Date	Agenda Item	Title	Description	Officer	Resolution Confidential
3/03/2025	2.4.2	C068/03/25 Strathalbyn Recreation Precinct (Lot 10) - Stage 1	That Council: (as varied) 1.Note that the Business Case prepared by TSA Riley for the Strathalbyn Recreation Precinct, titled 'Lot 10 Community Sport and Recreation Precinct' (received by Council at the February Council meeting – C028/02/25), contains two (2) Master Plan options, Option 1A (excluding a Harness Racing Facility) and Option 2A (including a Harness Racing Facility) and acknowledges both options provide potential opportunities for the Strathalbyn community. 2.Subject to securing an appropriate level of external funding, further considers the development of the Strathalbyn Recreation Precinct commencing with Stage 1, which is to include as a minimum a two (2) court indoor facility (designed to be increased to a four (4) court facility), a dog park, playing fields and an RV Park / campground. 3.Further considers a proposal from the Strathalbyn Harness Racing Club to establish a harness racing facility at Lot 10 Langhorne Creek Road, Strathalbyn, subject to the Club conducting due diligence to the satisfaction of Council in relation to construction costs associated with proposed concept designs, the costs associated with providing essential services to the site, and business modelling that demonstrates financial sustainability, including a formal commitment from Harness Racing South Australia in relation to future racing events at Strathalbyn.	Matt Atkinson	No

Action Date	Comments
25/08/2026	IN PROGRESS: Council has allocated $200k in the Annual Community Plan for detailed design of part of Stage 1. The indoor recreation facility will proceed via a design and construct tender once funding is secured. An unsolicited proposal has been received and is being progressed relating to this project. Once the UP is resolved, the detailed design work will be engaged.

10. Committee Reports

10.1. Fleurieu Aquatic Centre Advisory Committee Meeting - 30 June 2026 and Appointment of a Committee Member

Decision Report

Responsible Officer: Stacey Bateson (General Manager Community)

Report Author: Stacey Bateson (General Manager Community)

Previous Decisions: Nil

Report Purpose

To receive a recommendation from the Fleurieu Aquatic Centre Joint Venture Advisory Committee from its meeting held 30 June 2026, and to consider further information and recommendations from Administration.

Recommendation

Recommendation Group A

That Council:

1. **Receive and note the contents of the report titled *Report from Fleurieu Aquatic Centre Joint Advisory Committee Meeting - 30 June 2026 and Appointment of a Committee Member*.**

Recommendation Group B

That Council:

1. **Determine to appoint a Council Member to the Fleurieu Aquatic Centre Joint Venture Advisory Committee for the period from 18 August 2026 until the conclusion of the April 2027 Local Government periodic elections.**

2. **Utilise the Indicative Voting Process as contained in Clause 4.8.2 of the Council's *Code of Practice - Council Meeting Procedures* to identify the preferred candidate for appointment to the Fleurieu Aquatic Centre Joint Venture Advisory Committee.**

Recommendation Group C

That Council:

1. **That Council resolve that the meeting be adjourned for the purposes of conducting an Indicative Voting Process to identify the preferred candidate for appointment to the Fleurieu Aquatic Centre Joint Venture Advisory Committee and for the meeting to resume at the conclusion of the Indicative Voting Process.**

Recommendation Group D

That Council:

1. **That Council appoint _____ as member to the Fleurieu Aquatic Centre Joint Venture Advisory Committee from 18 August 2026 until the conclusion of the April 2027 Local Government periodic elections.**

Background

Effective 1 August 2024, the Fleurieu Regional Aquatic Centre Authority (FRACA) was dissolved by the Minister for Local Government. In its place, a Joint Venture Agreement (JVA) was established between Alexandrina Council and the City of Victor Harbor to jointly own and oversee the management of the Fleurieu Aquatic Centre (FAC). As part of the Joint Venture Agreement, the FAC Joint Venture Advisory Committee (the Committee) was established, with representatives nominated by each Constituent Council Committee.

Terms of Reference were adopted to define the Committee's purpose, scope, structure and reporting responsibilities, with a primary focus on strategic oversight rather than operational management.

The Committee met on 30 June 2026 and discussed a range of matters, with a recommendation needing consideration by Alexandrina Council regarding the resignation of Lou Nicholson.

Discussion

At the meeting on 30 June 2026, the Committee formally noted that Lou Nicholson, former Alexandrina Council Member, had resigned from the Council. As per the Terms of Reference for the Committee, there should be two (2) Council Members per Constituent Council as part of the Committee. Currently, Cr Margaret Gardner is the only Council Member from Alexandrina Council on the Committee.

The Committee addressed that Alexandrina Council would need to consider and appoint another Member to form part of the Committee and resolved to recommend the following to Alexandrina Council:

JVAC0058

Moved: **Cr Schiller**

Seconded: **Cr Henderson**

That the Committee recommends to Alexandrina Council:

1. **Notes that Alexandrina Council will need to consider and appoint an additional Council Member to form part of the *Fleurieu Aquatic Centre Joint Venture Advisory Committee*, as Lou Nicholson resigned from Alexandrina Council.**

CARRIED

As the Joint Venture Advisory Committee is a Commercial In Confidence venture, the full meeting agenda and minutes are provided for Council Members on the Council Members Portal.

If Council opts to fill the vacant Committee Member position on the Fleurieu Aquatic Centre Joint Venture Advisory Committee, it will need to use a process to select the Member for appointment. Clause 4.8.2 of the *Code of Practice - Council Meeting Procedures* contains a process (Indicative Voting Process) for the selection and appointment of a candidate. While there are not allowances or sitting fees associated with membership on the Fleurieu Aquatic Centre Joint Venture Advisory Committee, the process provides for the management of conflicts of interest in accordance with the *Local Government Act 1999*.

If Council intends to make an appointment and to use the Indicative Voting Process, it should resolve as recommended in Recommendation Group B. Once Council as determined its appointment process, it should put in into action via Recommendation Group C. Doing so will adjourn the meeting into an Informal or Briefing Session to be chaired by the CEO.

At the conclusion of the Indicative Voting Process, the meeting will resume. Candidates for appointment should consider their conflict of interest obligations under sections 75B and C of the *Local Government Act 1999* and undertake appropriate actions. Council should then resolve its preferred candidate for the Fleurieu Aquatic Centre Joint Venture Advisory Committee, which Recommendation Group D provides for.

Notwitthstanding the above, a pragmatic approach may be for the Mayor to seek an indication of interest from Members in order to determine whether the full Indicative Voting Process is required.

Financial Implications

In accordance with the Alexandrina Council's Adopted Budget / Long Term Financial Plan, the financial implications of adopting these recommendations are considered Low as no additional budget is being sought.

Risk Implications

In accordance with Alexandrina Council's Risk Assessment Matrix, the risk of adopting this recommendation is considered Low, as they are procedural and in line with the Joint Venture Agreement and associated Terms of Reference, as well as Council procedures.

Attachments

Nil

11. Council Member Reports

11.1. Presiding Member's Report - Mayor Keith Parkes

Information Report

Responsible Officer: Andrew MacDonald (Chief Executive Officer)

Previous Decisions: Nil

Recommendation

That Council receive and note the Presiding Member's Report for September 2026.

Purpose

To note the report from the Presiding Member on meetings and functions attended for the month of September 2026.

Date	Event
3	Langhorne Creek Discovery Trail sod turning ceremony
3	2026 Mayor's Short Story Challenge, Victor Harbor Library
5	Port Elliot Bowling Club 2026-2027 Season Opening
7	Briefing on Essential Services Commission of SA (ESCOSA) second cycle of the Local Government Advice Scheme webinar
11	Audit and Risk Committee meeting
14	Deputation Request Review Meeting - September Council Meeting
14	Port Elliot Oval Changerooms Design Review - On site meeting
14	Special Council Meeting
16	SA Coastal Councils Alliance Committee meeting via video conference
17	Preparation discussions for the upcoming Country Cabinet meeting on 8 October 2026, City of Victor Harbor
17	Review meeting with CEO - September Council meeting Agenda
19	Official Opening of the SA Jazz Festival, Goolwa
21	Council Meeting
23	Radio Interview | Happy FM via phone
24	Meeting with resident at Strathalbyn regarding Planning
24	Conducted Australian Citizenship Ceremony, Centenary Hall, Goolwa
25	With CEO, regular meeting with Lou Nicholson MP, Member for Finniss
28	Council Information Session

11.2. Council Member Activity Report

Nil

11.3. Council Member Activity Report - Verbal Updates

Information Report

Responsible Officer: Andrew MacDonald (Chief Executive Officer)

Previous Decisions: Nil

Recommendation

That Council note the verbal Council Member Activity Reports.

Purpose

To advise that the Presiding Member will invite Council Member's to share verbal updates on events or meetings they have attended in their capacity as a Council Member.

12. Confidential Items

12.1. (Confidential) Unsolicited Proposal Stage 1 - Middleton

Exclusion of the Public Recommendation

Pursuant to section 90(2) of the *Local Government Act 1999*, the Council orders that all members of the public be excluded, with the exception of the Chief Executive Officer, General Manager Infrastructure, General Manager Community, General Manager Corporate, General Manager Growth, Chief Governance Officer, Team Leader Communications, Manager Property and Procurement Services, and Executive Assistant to the Mayor and Council Members on the basis that it will receive and consider Agenda 12.1 (Confidential) Unsolicited Proposal Stage 1 Middleton .

The Council is satisfied, pursuant to section 90(3)(d) that the information to be received, discussed or considered in relation to this Agenda Item is information the disclosure of which

- **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**
- **would, on balance, be contrary to the public interest**

The Council is satisfied that the principle that the meeting should be conducted in a place open to the public has been outweighed in the circumstances because it includes commercial information as required in Council's *Unsolicited Proposal Policy*, of which clause 9 provides for the matter to be considered in confidence.

Retention in Confidence Recommendation

1. **That subject to the Chief Executive Officer, or their delegate, disclosing information or any document (in whole or in part) for the purpose of implementing the Council's decision(s) in this matter in the performance of the duties and responsibilities of office, the Council having considered Agenda Item 12.1 (Confidential) Unsolicited Proposal Stage 1 – Middleton in confidence under section 90(2) and (3)(d) of the *Local Government Act 1999* the Council, pursuant to section 91(7) of the *Local Government Act 1999*, orders that the minutes, report, attachments and audio recording relative to the Agenda Item 12.1 (Confidential) Unsolicited Proposal Stage 1 - Middleton be retained in confidence until further order.**
2. **That pursuant to section 91(9)(c) of the *Local Government Act 1999* the Council delegates to the Chief Executive Officer the power to revoke, in whole or in part, the order made in paragraph 1 of this resolution.**

12.2. (Confidential) Audit and Risk Committee - Independent Member Appointments and Terms of Reference Amendment

Exclusion of the Public Recommendation

Pursuant to section 90(2) of the *Local Government Act 1999*, the Council orders that all members of the public be excluded, with the exception of the Chief Executive Officer, General Manager Infrastructure, General Manager Community, General Manager Corporate, General Manager Growth, Chief Governance Officer, Team Leader Communications, and Executive Assistant to the Mayor and Council Members on the basis that it will receive and consider Item 12.2 (Confidential) Audit and Risk Committee - Independent Member Appointments and Terms of Reference Amendment.

The Council is satisfied, pursuant to section 90(3)(a) of the Act, that the information to be received, discussed or considered in relation to this Agenda Item is information that would disclose information the disclosure of which would involve the unreasonable disclosure of information concerning the personal affairs of any person (living or dead).

The Council is satisfied that the principle that the meeting should be conducted in a place open to the public has been outweighed in the circumstances because receiving, considering and discussing the report and associated documentation contains/involves discussing the particulars of applicants to the Audit and Risk Committee Independent Member role.

Retention in Confidence Recommendation

1. **That subject to the Chief Executive Officer, or their delegate, disclosing information or any document (in whole or in part) for the purpose of implementing the Council's decision(s) in this matter in the performance of the duties and responsibilities of office, the Council having considered Agenda Item 12.2 (Confidential) Audit and Risk Committee - Independent Member Appointments and Terms of Reference Amendment in confidence under section 90(2) and (3)(a) of the *Local Government Act 1999* the Council, pursuant to section 91(7) of the *Local Government Act 1999*, orders that the minutes, report and attachments and audio recording relative to the Agenda Item 12.2 (Confidential) Audit and Risk Committee - Independent Member Appointments and Terms of Reference Amendment.**
2. **That pursuant to section 91(9)(c) of the *Local Government Act 1999* the Council delegates to the Chief Executive Officer the power to revoke, in whole or in part, the order made in paragraph 1 of this resolution.**

12.3. (Confidential) Expression of Interest Outcomes - Telecommunication Tower in Goolwa North

Exclusion of the Public Recommendation

Pursuant to section 90(2) of the *Local Government Act 1999*, the Council orders that all members of the public be excluded, with the exception of the Chief Executive Officer, General Manager Infrastructure, General Manager Community, General Manager Corporate, General Manager Growth, Chief Governance Officer, Team Leader Communications, Manager Property and Procurement Services, and Executive Assistant to the Mayor and Council Members on the basis that it will receive and consider Item 12.3 *(Confidential) Expression of Interest Outcomes - Telecommunication Tower in Goolwa North*.

The Council is satisfied, pursuant to section 90(3)(b) of the Act, that the information to be received, discussed or considered in relation to this Agenda Item is information the disclosure of which -

- **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**
- **would, on balance, be contrary to the public interest.**

The Council is satisfied that the principle that the meeting should be conducted in a place open to the public has been outweighed in the circumstances because it includes competitive commercial offers to lease a portion of Council land at the highest return to Council.

Retention in Confidence Recommendation

1. **That subject to the Chief Executive Officer, or their delegate, disclosing information or any document (in whole or in part) for the purpose of implementing the Council's decision(s) in this matter in the performance of the duties and responsibilities of office, the Council having considered Agenda Item 12.3 *(Confidential) Expression of Interest Outcomes - Telecommunication Tower in Goolwa North* in confidence under section 90(2) and (3)(b) of the *Local Government Act 1999* the Council, pursuant to section 91(7) of the *Local Government Act 1999*, orders that the minutes, report and attachments and audio recording relative to the Agenda Item 12.3 *(Confidential) Expression of Interest Outcomes - Telecommunication Tower in Goolwa North* be retained in confidence until further order.**
2. **That pursuant to section 91(9)(c) of the *Local Government Act 1999* the Council delegates to the Chief Executive Officer the power to revoke, in whole or in part, the order made in paragraph 1 of this resolution.**

12.4. (Confidential) Proposed Land Purchase - Alexandrina Wastewater - Goolwa

Exclusion of the Public Recommendation

Pursuant to section 90(2) of the *Local Government Act 1999*, the Council orders that all members of the public be excluded, with the exception of the Chief Executive Officer, General Manager Infrastructure, General Manager Community, General Manager Corporate, General Manager Growth, Chief Governance Officer, Team Leader Communications, Manager Alexandrina Wastewater, Water Strategic Infrastructure Planner and Executive Assistant to the Mayor and Council Members on the basis that it will receive and consider Item 12.4 *(Confidential) Proposed Land Purchase - Alexandrina Wastewater - Goolwa.*

The Council is satisfied, pursuant to section 90(3)(b) of the Act, that the information to be received, discussed or considered in relation to this Agenda Item is 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.**

The Council is satisfied that the principle that the meeting should be conducted in a place open to the public has been outweighed in the circumstances because the information provided in this report if disclosed, may result in damage to a party's commercial interests.

Retention in Confidence Recommendation

1. **That subject to the Chief Executive Officer, or their delegate, disclosing information or any document (in whole or in part) for the purpose of implementing the Council's decision(s) in this matter in the performance of the duties and responsibilities of office, the Council having considered Agenda Item 12.4 in confidence under section 90(2) and (3) Item 12.4 *(Confidential) Proposed Land Purchase - Alexandrina Wastewater - Goolwa* of the *Local Government Act 1999* the Council, pursuant to section 91(7) of the *Local Government Act 1999*, orders that the minutes, report and attachments and audio recording relative to the Agenda Item 12.4 *(Confidential) Proposed Land Purchase - Alexandrina Wastewater - Goolwa* be retained in confidence until further order.**
2. **That pursuant to section 91(9)(c) of the *Local Government Act 1999* the Council delegates to the Chief Executive Officer the power to revoke, in whole or in part, the order made in paragraph 1 of this resolution.**

12.5. (Confidential) Proposed Commercial Ground Lease – Recycled Water Reuse - Middleton

Exclusion of the Public Recommendation

Pursuant to section 90(2) of the *Local Government Act 1999*, the Council orders that all members of the public be excluded, with the exception of the Chief Executive Officer, General Manager Infrastructure, General Manager Community, General Manager Corporate, General Manager Growth, Chief Governance Officer, Team Leader Communications, Manager Property and Procurement Services, Manager Alexandrina Wastewater and Executive Assistant to the Mayor and Council Members on the basis that it will receive and consider Item 12.5 *(Confidential) Proposed Commercial Ground Lease – Recycled Water Reuse - Middleton*.

The Council is satisfied, pursuant to section 90(3)(b) of the Act, that the information to be received, discussed or considered in relation to this Agenda Item is 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.

The Council is satisfied that the principle that the meeting should be conducted in a place open to the public has been outweighed in the circumstances because it includes a commercial in confidence lease negotiation for strategic operational services on Council land.

Retention in Confidence Recommendation

1. **That subject to the Chief Executive Officer, or their delegate, disclosing information or any document (in whole or in part) for the purpose of implementing the Council's decision(s) in this matter in the performance of the duties and responsibilities of office, the Council having considered Agenda Item 12.5 *(Confidential) Proposed Commercial Ground Lease – Recycled Water Reuse - Middleton* in confidence under section 90(2) and (3) (b) of the *Local Government Act 1999* the Council, pursuant to section 91(7) of the *Local Government Act 1999*, orders that the minutes, report and attachments and audio recording relative to the Agenda Item 12.5 *(Confidential) Proposed Commercial Ground Lease – Recycled Water Reuse - Middleton* be retained in confidence until further order.**
2. **That pursuant to section 91(9)(c) of the *Local Government Act 1999* the Council delegates to the Chief Executive Officer the power to revoke, in whole or in part, the order made in paragraph 1 of this resolution.**

12.6. (Confidential) Strategic Land Program - Group 1 Progress Report

Exclusion of the Public Recommendation

Pursuant to section 90(2) of the *Local Government Act 1999*, the Council orders that all members of the public be excluded, with the exception of the Chief Executive Officer, General Manager Infrastructure, General Manager Community, General Manager Corporate, General Manager Growth, Chief Governance Officer, Manager Property and Procurement Services and Executive Assistant to the Mayor and Council Members on the basis that it will receive and consider Item 12.6 *(Confidential) Strategic Land Program - Group 1 Progress Report*.

The Council is satisfied, pursuant to section 90(3) (b) of the Act, that the information to be received, discussed or considered in relation to this Agenda Item is 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.

The Council is satisfied that the principle that the meeting should be conducted in a place open to the public has been outweighed in the circumstances because it includes information relating to proposed property disposal values, and disclosure of that information prior to Council's consideration of the matter could prejudice Council's interests.

Retention in Confidence Recommendation

1. **That subject to the Chief Executive Officer, or their delegate, disclosing information or any document (in whole or in part) for the purpose of implementing the Council's decision(s) in this matter in the performance of the duties and responsibilities of office, the Council having considered Agenda Item 12.6 *(Confidential) Strategic Land Program - Group 1 Progress Report* in confidence under section 90(2) and (3)(b) of the *Local Government Act 1999* the Council, pursuant to section 91 (7) of the *Local Government Act 1999*, orders that the minutes, report and attachments and audio recording relative to the Agenda Item 12.6 *(Confidential) Strategic Land Program - Group 1 Progress Report* be retained in confidence until further order.**
2. **That pursuant to section 91(9)(c) of the *Local Government Act 1999* the Council delegates to the Chief Executive Officer the power to revoke, in whole or in part, the order made in paragraph 1 of this resolution.**

13. Closure