AGENDA

FOR ENVIRONMENTAL SUSTAINABILITY AND TREES SUB COMMITTEE MEETING TO BE HELD ON

12 MARCH 2024 AT THE CONCLUSION OF THE SALISBURY LIVING SUB COMMITTEE

IN WITTBER & DR RUBY DAVY ROOMS, SALISBURY COMMUNITY HUB, 34 CHURCH STREET, SALISBURY

MEMBERS
Cr L Brug (Chairman)
Mayor G Aldridge (ex officio)
Deputy Mayor, Cr C Buchanan
Cr J Chewparsad
Cr P Jensen
Cr S McKell (Deputy Chairman)
Cr S Ouk

REQUIRED STAFF
Chief Executive Officer, Mr J Harry
General Manager City Infrastructure, Mr J Devine
Deputy Chief Executive Officer, Mr C Mansueto
General Manager Community Development, Mrs A Pokoney Cramey
General Manager City Development, Ms M English
Manager Governance, Mr R Deco

APOLOGIES

LEAVE OF ABSENCE

PRESENTATION OF MINUTES

Presentation of the Minutes of the Environmental Sustainability and Trees Sub Committee Meeting held on 12 February 2024.

REPORTS

QUESTIONS ON NOTICE
There are no Questions on Notice

MOTIONS ON NOTICE
There are no Motions on Notice

OTHER BUSINESS
(Motions without Notice, Questions Without Notice, CEO Updates)

CLOSE

MINUTES OF ENVIRONMENTAL SUSTAINABILITY AND TREES SUB COMMITTEE MEETING HELD IN WITTBER & DR RUBY DAVY ROOMS, SALISBURY COMMUNITY HUB,

34 CHURCH STREET, SALISBURY ON

12 FEBRUARY 2024

MEMBERS PRESENT

Cr L Brug (Chairman)
Mayor G Aldridge (ex officio)
Cr J Chewparsad
Cr P Jensen
Cr S McKell (Deputy Chairman)

OBSERVERS

Cr B Brug
Cr D Hood
Cr A Graham

STAFF

Chief Executive Officer, Mr J Harry
General Manager City Infrastructure, Mr J Devine
Deputy Chief Executive Officer, Mr C Mansueto
Manager Governance, Mr R Deco
Manager Field Services, Mr M Purdie
Manager Urban, Recreation and Natural Assets, Mr J Foong
Team Leader Streetscape and Open Space Assets, Mr C Johansen
Governance Project Officer, Mrs M Woods

The meeting commenced at 6.30pm.

The Chairman welcomed the Elected Members, members of the public and staff to the meeting.

APOLOGIES

Apologies were received from Cr C Buchanan and Cr S Ouk.

LEAVE OF ABSENCE

Nil.

PRESENTATION OF MINUTES

Moved Mayor G Aldridge
Seconded Cr P Jensen

The Minutes of the Environmental Sustainability and Trees Sub Committee Meeting held on 4 December 2023, be taken as read and confirmed.

CARRIED
UNANIMOUSLY

REPORTS

ESATS1   Future Reports for the Environmental Sustainability and Trees Sub Committee

Moved Cr P Jensen
Seconded Cr S McKell

That Council;

1.   Notes the report.

CARRIED
UNANIMOUSLY

ESATS2   Tree Removal Requests - November and December 2023

Moved Cr P Jensen
Seconded Cr J Chewparsad

That Council;

1.   Notes the report.

2.   Approves the removal of the tree listed in Item 40 (Attachment 2, Environmental Sustainability and Trees Sub Committee; 12 February 2024, Item no ESATS2) located at 26 Jarman Avenue, Salisbury East due to safety concerns raised by residents.

CARRIED
UNANIMOUSLY

QUESTIONS ON NOTICE

There were no Questions on Notice.

MOTIONS ON NOTICE

There were no Motions on Notice

OTHER BUSINESS
(Questions Without Notice, Motions Without Notice, CEO Update)

There were no Other Business items.

CLOSE

The meeting closed at 6.35pm.

CHAIRMAN………………………………….

DATE……………………………………….

INFORMATION ONLY

ITEM	ESATS1
	ENVIRONMENTAL SUSTAINABILITY AND TREES SUB COMMITTEE
DATE	12 March 2024
HEADING	Future Reports for the Environmental Sustainability and Trees Sub Committee
AUTHOR	Corina Allen, City Infrastructure Administration Coordinator, City Infrastructure
CITY PLAN LINKS	4.2 We deliver quality outcomes that meet the needs of our community
SUMMARY	This item details reports to be presented to the Environmental Sustainability and Trees Sub Committee as a result of a previous Council resolution.

RECOMMENDATION

That Council:

1.   Notes the report.

ATTACHMENTS

There are no attachments to this report.

1. **BACKGROUND**

    1.1   A list of resolutions requiring a future report to Council is presented to each Sub Committee and standing Committee for noting.

    1.2   If reports have been deferred to a subsequent month, this will be indicated, along with a reason for the deferral.

2. **EXTERNAL CONSULTATION / COMMUNICATION**

    2.1   Nil.

3. DISCUSSION

3.1 The following table outlines reports to be presented to the Environmental Sustainability and Trees Sub Committee as a result of a previous Council resolution:

Meeting - Item	Heading and Resolution	Officer
23/10/23	**Review of the tree management removal framework** This report will address the following two resolutions: **27/11/23 - ESATS-OB1 - Other Business: Review of Tree Removal Policy** 1. Requests Administration to include in the Tree Removal Management Process Review, due in February 2024, a review of the tree removal criteria, management policy and procedures. **23/10/23 - ESATS1 - Review of the tree management removal framework** 4. Requests that the administration undertake an internal review of the tree management removal framework, to be reported to Environmental Sustainability and Trees Sub Committee by January 2024.	Mark Purdie
Due:	April 2024	
23/10/23 WMON2	**Tree Planting - Reactive Planting Timeframes** 1. Requests the administration to present a report to the Environmental Sustainability and Trees Sub Committee by March 2024 in relation to the current timeframes for planting a street tree upon request from a resident, giving consideration to opportunities and options to improve the response times	Simon Bartosak
Due:	March 2024	
Deferred:	April 2024	
Reason:	Administration are in the process of finalising the report after reviewing timeframes.	
18/12/23 ESATS3	**Sustainability Partnerships** 3. Approves pursuing establishment of a trial Regional Climate Partnership with the City of Playford, Town of Gawler, Local Government Association and Department for Environment and Water with a further report to be presented to Council with a Memorandum of Understanding.	Lara Daddow
Due:	December 2024	

4. CONCLUSION / PROPOSAL

4.1 Future reports for the Environmental Sustainability and Trees Sub Committee have been reviewed and are presented to Council for noting.

INFORMATION ONLY

ITEM	ESATS2
	ENVIRONMENTAL SUSTAINABILITY AND TREES SUB COMMITTEE
DATE	12 March 2024
HEADING	Tree Removal Requests - January 2024
AUTHOR	Nigel John, Team Leader Parks & Landscape, City Infrastructure
CITY PLAN LINKS	1.1 Our City is attractive and well maintained
	4.1 Members of our community receive an exceptional experience when interacting with Council
SUMMARY	This monthly report provides Elected Members with updates on tree removal requests received from residents.

RECOMMENDATION

That Council:

1. Notes the report.

ATTACHMENTS

This document should be read in conjunction with the following attachments:

1. Tree Removal Requests - January 2024

1. BACKGROUND

1.1 At its meeting held on Tuesday, 27 April 2021 Council resolved:

"That a standing report be established for every meeting of the Tree Management Appeals Sub Committee to inform Council of every application received for tree removal and the outcome of that request."

1.2 Staff currently upload a monthly tree removal request information table to the Elected Members Portal. This document has been adapted to provide further information and will now be reported to each meeting of the Environmental Sustainability and Trees Sub Committee.

2. EXTERNAL CONSULTATION / COMMUNICATION

2.1 Various residents.

3. DISCUSSION

3.1 The attached table is a summary of requests for tree removals received and actioned by staff during the past month and has been provided on the Elected Member Portal for January 2024.

3.2   January 2024:

   3.2.1   Fifty-seven (57) tree removal requests were received in January 2024.

   3.2.2   Of these requests, thirty-nine (39) were approved for removal including two (2) significant or regulated trees approved through development applications.

   3.2.3   Eighteen (18) requests were refused. Of these, twelve (12) are related to significant or regulated trees under the *Planning Development and Infrastructure Act 2016*.

3.3   Tree removal requests often result in ongoing dialogue between the owner of the property and Council on the proposed tree removal and subsequent discussions around the species type and location of the new street tree.

3.4   It is important to note that through various annual programs Council plants 2,000 trees each year. These programs include Street Tree Renewal Program, In-fill Planting Program, Tree Screen Renewal Program, Reserve Upgrade Program, Feature Landscape Renewal Program, Greening Program, School Tree Planting Program, Major Projects and ad-hoc planting requests. These tree renewal programs are cognisant of regulated, significant trees or those forming habitat corridors.

4.   FINANCIAL OVERVIEW

4.1   The budget allocation for reactive tree removals for 2023/24 is $363,000. As of the 31 January 2024, $302,541 has been committed to tree removal works leaving $60,458 budget allocation for the remainder of the financial year.

4.2   Additional budgets will be required based on current expenditure trends and hence a third quarter budget review is highly likely.

5.   CONCLUSION / PROPOSAL

5.1   It is proposed that the information contained in the report be noted.

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
1	Brahma Lodge	9 Gregory Street - Regulated - Council Meeting 27/3/23	3/01/24	C413480 DA 23038050			DA Refused - Regulated - APPEAL
2	Burton	Res Kaurna Park - 2 trees opp 40 Wattlebird Drive	31/01/24	E346318-Case 6993	Approved x 2		
3	Cavan	Port Wakefield Road - after bridge overpass opp verge to Palm World, Cardiff Court	25/01/24	E345617-Case 6222	Approved		
4	Gulfview Heights	side 2 Cornwall Drive - Wynn Vale Drive	9/01/24	E346986-Case 7724	Approved x 1		
5	Gulfview Heights	14 Marjorie Street - tree at front	16/01/24	E346640-Case 7330	Approved		
6	Gulfview Heights	side 2 Swansea Crct - Wynn Vale Drive - dead tree	12/01/24	E344473-Case 4836	Approved		
7	Gulfview Heights	10 Seville Avenue - 2 trees - 1 either side of driveway	24/01/24	E341734-Case1359	Approved x 2		
8	Gulfview Heights	6 Cuthbert Ave - Farmer Street - STREE-47936	31/01/24	E347648-Case 8513	Approved x 1		
9	Ingle Farm	opp 6A Ravel Avenue	8/01/24	E347786-Case 8683	Approved x 1		
10	Ingle Farm	18 Darrang Ave - dead tree	9/01/24	E345333-Case5895	Approved		
11	Ingle Farm	side 19 Milne Road - Monaco Court	19/01/24	E346844-Case 7567	Approved		
12	Ingle Farm	41 Elgar Avenue - tree nearest stobie pole	16/01/24	E346165-Case 6830	Approved		
13	Ingle Farm	10 Montague Road - 2 trees at front	24/01/24	E345734-Case6324	Approved x 2		

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

Item ESATS2 - Attachment 1 - Tree Removal Requests - January 2024

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
14	Mawson Lakes	30 Templeton Street - cnr Templeton and Weira	4/01/24	E345201-Case 5720		Refused- Tree reduction recommended	
15	Mawson Lakes	side 2A Carnegie Place	5/01/24	E341193-Case 0696	Approved x 1		
16	Mawson Lakes	side 300 Mawson Lakes Blve (Baird Street) - 3 Conifers	9/01/24	E344827-Case 5256	Approved x 3		
17	Mawson Lakes	Sanctuary Drive Reserve rear 60 Innes Crct - myoporum	12/01/24	E341618	Approved		
18	Mawson Lakes	7 Juniper Place	16/01/24	E344399-Case 4728	Approved		

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

Item ESATS2 - Attachment 1 - Tree Removal Requests - January 2024

TREE REMOVAL REQUESTS

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
19	Para Hills	2 Pauline Court	5/01/24	E344671-Case 5070		Refused- tree in good health	
20	Para Hills	15 Dutton Drive	16/01/24	E346031-Case 6683		Refused- tree in good health	
21	Para Vista	3 Ransome Court	5/01/24	E347375 - Case 8169	Approved		

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
22	Para Vista	12 Nalimba Avenue	8/01/24	E345574 - Case 6176		Refused- tree in good health	
23	Para Vista	22 Malbanda Avenue - Significant	25/01/24	E346407-Case7084			Refused - Significant Tree
24	Para Vista	5 Ransome Court	23/01/24	E347861-Case 8768	Approved		
25	Parafield Gardens	5 Laurel Crescent	5/01/24	E345612-Case 6215	Approved		
26	Parafield Gardens	Reg Groth Reserve opp 73 Lavender Drive - dead tree	22/01/24	E346812-Case 7534	Approved		
27	Parafield Gardens	327 Martins Road - dead tree - STREE-19736	29/01/24	E346073-Case 6728	Approved		
28	Paralowie	27 Koala Crescent	3/01/24	E341957 Case 1630	Approved		

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

Item ESATS2 - Attachment 1 - Tree Removal Requests - January 2024

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
29	Paralowie	17 Vincent Road - Regulated	4/01/24	E345153-Case5665			Refused - Regulated
30	Paralowie	side 63 Chartwell Cres - Regulated - Council Meeting 27/3/23	4/01/24	C411322 DA 24000011			DA Refused - Regulated - APPEAL
31	Paralowie	11 Whittlesea Street - nearest drive	5/01/24	E344747-Case 5156	Approved x 1		
32	Paralowie	4 Metala Road - Significant	4/01/24	E345771-Case 6379			Refused - Significant Tree

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

Item ESATS2 - Attachment 1 - Tree Removal Requests - January 2024

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
33	Paralowie	opp bus stop 44P Paralowie Plaza Shop Centre 337 Whites Rd - rear 8 Grosvenor Way - Regulated Tree	31/01/24	E339848	DA Approved - Regulated		
34	Paralowie	15 Tarqui Drive	29/01/24	E346426 - Case 7103	Approved		
35	Pooraka	6 Malkara Avenue - Significant	8/01/24	E345523-Case 6123			Refused - Significant Tree
36	Pooraka	6 Malkara Avenue - Not Regulated	8/01/24	E345523-Case 6123		Refused- tree in fair condition	

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
37	Salisbury	14 March Street - Regulated	22/01/24	E341098-Case0589			Refused - Regulated
38	Salisbury Downs	3 Tyson Avenue - dead tree	4/01/24	E345880 Case 6512	Approved		
39	Salisbury Downs	6 Down Crescent - Regulated	8/01/24	E346637-Case 7328 DA 24000232	DA Approved - Regulated Tree		
40	Salisbury Downs	side 1 Aaron Court - Thompson Avenue	15/01/24	E346515-Case 7203	Approved		
41	Salisbury Downs	19 Meath Avenue - tree nearest driveway	31/01/24	E346573-Case 7247	Approved x 1		
42	Salisbury East	13 Prince Street - Regulated - Council Meeting 27/3/23	3/01/24	C412923 DA 23038044			DA Refused - Regulated - APPEAL
43	Salisbury East	Cobbler Creek Reserve rear 4 Barwon Court	5/01/24	E345768 - Case 6377	Approved x 1		
44	Salisbury East	Tree Screen opposite 548 Bridge Road - STREE-40816	15/01/24	E346325-Case 6999	Approved x 1		

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

		ADDRESS	DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
45	Salisbury East	24 Adaleigh Avenue - Regulated - Appealed at Council Meeting 27/3/23 - DW 7711994	11/01/24	CRM 413423 DA 24000323			DA Refused - Regulated - APPEAL
46	Salisbury East	Bristow Reserve, rear 14 Jasper St - Regulated - Council Meeting 27/3/23	22/01/24	C415679 DA 24000914			DA Refused - Regulated - APPEAL
47	Salisbury Heights	46 Cobbler Circuit	5/01/24	E337202	Approved		
48	Salisbury Heights	opp 130 Stanford Rd - centre median - dead tree	31/01/24	E346148	Approved		
49	Salisbury North	7 Guernsey Crescent - middle tree on Guernsey Crescent	5/01/24	E347387	Approved x 1		

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria
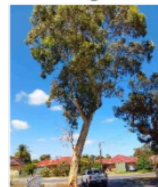
	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
50	Salisbury North	side 15 Degree Road - Harold Road - Regulated	12/01/24	E347553-Case 8404			Refused - Regulated
51	Salisbury North	29 Harold Road - dead tree	25/01/24	E348268-Case 9253	Approved		
52	Salisbury Park	7 Goldthorn Road - tree is exempt species	24/01/24	E345509-Case6107		Refused	
53	Salisbury Plain	Comley Court Reserve - 2 trees front/side 18 Harriet Court	4/01/24	E344737	Approved x 2		
54	Salisbury South	Res Kings Road East Plantations - dead tree on southern side of Kings Rd between Dakota Dve and Anderson Dve (adj to Parafield Airport)	30/01/24	E346066-Case 6720	Approved		
55	Valley View	7 York Street	15/01/24	E346352-Case 7030	Approved		
56	Valley View	5 Pepper Tree Pocket	16/01/24	E346122-Case 6778	Approved		

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

TREE REMOVAL REQUESTS

MONTH: January 2024

Assessed by Parks and Landscape Arborist on site and removed based on Councils Tree Removal Criteria

	ADDRESS		DATE	REFERENCE	APPROVED OR APPROVAL SUPPORTED	REFUSED NOT Regulated/Significant	REFUSED Regulated/Significant
57	Valley View	54 Eyre Crescent - APPEALED at Council Meeting 27/03/2023 - DW 7711994	10/01/24	C411251 DA 24000099			DA Refused - Regulated - APPEAL

FURTHER INFORMATION CONTACT NIGEL JOHN, TEAM LEADER - PARKS and LANDSCAPE - FIELD SERVICES - 0466 022 655

Item ESATS2 - Attachment 1 - Tree Removal Requests - January 2024

ITEM	ESATS3
	ENVIRONMENTAL SUSTAINABILITY AND TREES SUB COMMITTEE
DATE	12 March 2024
HEADING	Appeals Report - Tree Removal Requests - Various Locations for January 2024
AUTHOR	Nigel John, Team Leader Parks & Landscape, City Infrastructure
CITY PLAN LINKS	1.1 Our City is attractive and well maintained
	1.2 The health and wellbeing of our community is a priority
	2.1 Salisbury has a balance of green spaces and natural environments that support biodiversity
SUMMARY	In line with the approved tree removal procedure several decisions relating to the retention of trees have been appealed.

RECOMMENDATION

That Council:

1. Notes that the technical tree assessments undertaken for 3 Crown Crescent, Paralowie, 40 Firmin Street, Paralowie, and 36 Birch Avenue, Salisbury East do not conclude removal be recommended, based solely on the application of Council approved tree removal criteria.

2. Notes that, as part of the appeal process, the refused tree removal requests appealed during the month of January 2024, as outlined in the report (Item ESATS3 Environmental Sustainability and Trees Sub Committee, 12 March 2024), are now presented to the Environmental Sustainability and Trees Sub Committee for consideration and/or recommendation to Council as per the Environmental Sustainability and Trees Sub Committee's Terms of Reference.

That the Environmental Sustainability and Trees Sub Committee, using its delegated authority under its adopted Terms of Reference:

3. Refuses the removal of the one (1) Regulated Tree located at 3 Crown Crescent, Paralowie.

4. Refuses the removal of the one (1) Significant Tree located at 40 Firmin Street, Paralowie.

5. Refuses the removal of the one (1) Non reg/significant Tree located at 36 Birch Avenue, Salisbury East.

ATTACHMENTS

There are no attachments to this report.

1. **BACKGROUND**

1.1 In line with the approved tree removal procedure, residents are able to appeal decisions relating to the retention of trees. This appeal process involves:

- On-site meeting with residents and ward members

- Report to the Environmental Sustainability and Trees Sub Committee (ESATS)

- Notification of outcome to residents

2. **EXTENERAL CONSULTATION / COMMUNICATION**

2.1 Residents

2.2 Ward Councillors in line with the adopted procedures

3. **DISCUSSION**

3.1 Significant and regulated trees are offered protection through the *Planning Development and Infrastructure Act 2016* (the Act) and require development applications for removal. Objectives for assessment of development applications are contained within the Regulated and Significant Tree Overlay of the Act:

Regulated trees are retained where they:

- *make an important visual contribution to local character and amenity;*
- *are indigenous to the local area and listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species; and/or*
- *provide an important habitat for native fauna.*

Significant trees are retained where they:

- *make an important contribution to the character or amenity of the local area;*
- *are indigenous to the local area and are listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species;*
- *represent an important habitat for native fauna;*
- *are part of a wildlife corridor of a remnant area of native vegetation;*
- *are important to the maintenance of biodiversity in the local environment; and/or*
- *form a notable visual element to the landscape of the local area.*

3.2 These objectives are distinct from City of Salisbury criteria for removal, which are not a consideration through the development assessment.

3.3 The following appeals have been lodged under the Tree Removal Policy and the residents are seeking removal of the trees.

CRM	Street	Suburb	Tree Species
422126	3 Crown Cres	Paralowie	Regulated Tree
434757	40 Firmin Street	Paralowie	Significant Tree
348688	36 Birch Ave	Salisbury East	Non reg/significant

3.4 The initial assessment for each appeal has identified that the trees are healthy, in good condition without any structural flaws and didn't meet City of Salisbury criteria for removal.

3.5 Where appropriate, pruning or canopy reduction has been undertaken to help alleviate concerns raised and actively manage the trees.

3.6 Following notification of appeal from the resident, and where appropriate, site meetings were arranged given the history with the trees.

3.7 Any further information provided by residents was reviewed and the appeals are presented directly to the Environmental Sustainability and Trees Sub Committee for recommendation to Council for consideration.

3.8 **3 Crown Crescent, Paralowie**

    3.8.1 The Euc sideroxylon tree is noted as regulated and has been inspected by two independent arborists.

    3.8.2 The tree is in good health and doesn't achieve removal through the current criteria frame work.

    3.8.3 Maintenance pruning over the years has produced a well-formed canopy.

    3.8.4 A preliminary planning assessment has concluded that removal of this Regulated Tree is unlikely to be approved through a Development Application.

3.9 **40 Firmin Street, Paralowie**

    3.9.1   The Euc sideroxylon tree is noted as significant and has been inspected by two independent arborists.

    3.9.2   The Eucalyptus sideroxylon is in good health.

    3.9.3   The tree is also a well-formed specimen that wouldn't normally achieve removal criteria.

    3.9.4   The tree was previously assessed and removal was rejected through a Development Application previously CRM 394796.

    3.9.5   A preliminary planning assessment has concluded that removal of this Significant Tree is unlikely to be approved through a Development Application.

3.10 **36 Birch Avenue, Salisbury East**

    3.10.1   Sophora sp has a health and structure rating of #1 good condition with no obvious structural defects.

    3.10.2   Pruning has previously been completed to reduce the canopy from the properties.

    3.10.3   Two independent arborists have inspected and do not support the removal based on debris and leaf fall.
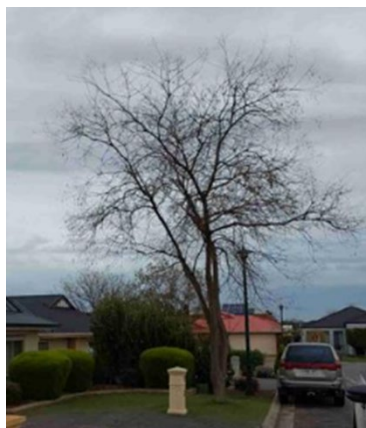
4.   FINANCIAL OVERVIEW

4.1   The approximate cost for the removal of trees is detailed in the below table

Street	Tree Species	Removal Cost	Comments
3 Crown Cres, Paralowie	Eucalyptus sideroxylon	$1,153.91	All costs are inclusive of development approval fee, tree removal cost, traffic management and stump grinding
40 Firmin St, Paralowie	Eucalyptus sideroxylon	$1,511.33	
34 Birch Ave	1 x Sophora sp	$768.94	

5.   CONCLUSION

5.1   In accordance with the approved tree removal procedure, some decisions relating to the retention of trees have been appealed.

5.2   Site meetings have been completed and the Environmental Sustainability and Trees Sub Committee can now decide to approve removal, refuse removal or recommend that a Development Application be lodged for removal in line with the Sub Committee's adopted Terms of Reference.

ITEM	ESATS4
	ENVIRONMENTAL SUSTAINABILITY AND TREES SUB COMMITTEE
DATE	12 March 2024
HEADING	Climate Change Risk Assessment
PREV REFS	ESATS ESATS5 13/11/2023
AUTHOR	Lara Daddow, Coordinator Strategic Sustainability, City Development
CITY PLAN LINKS	2.3 Our community, environment and infrastructure are adaptive to a changing climate
SUMMARY	A Climate Change Risk Assessment has been completed to assess Council's corporate risk exposure to the physical, economic transition and liability risks associated with climate change. Initial findings of this assessment were presented to Council at a CEO briefing on 6 November 2023.

The assessment identified 53 risks across ten themes that were each rated for two climate scenario timeframes. Of the 106 risk ratings, one is 'low' risk, 45 are 'medium' risks, 44 are 'high' risks and 16 are 'very high' risks spread across the three climate scenario timeframes of 2030, 2050 and 2090. It is proposed that a Climate Change Adaptation Action Plan is developed to guide and prioritise risk controls and next steps drawing on findings of the climate change risk assessment.

RECOMMENDATION

That Council:

1. Notes the Climate Change Risk Assessment Report prepared by consultants in Attachment 1 (Item ESATS4 Environmental Sustainability and Trees Sub Committee 12 March 2024).

2. Approves the development of a Climate Change Adaptation Action Plan to guide and prioritise risk controls and next steps drawing on findings of the climate change risk assessment, with a $50,000 budget bid to be included for consideration as part of the 2024/25 budget process.

ATTACHMENTS

This document should be read in conjunction with the following attachments:

1. Climate Change Risk Assessment Report

1. BACKGROUND

1.1 Climate risks are already impacting and will continue to impact all communities, and councils are at the frontline in managing climate risks to their communities and to their assets, operations and services.

1.2   Councils have a duty of care to manage climate risks.

1.3   Council's strategic risk register lists climate change adaptation and environmental sustainability as a risk.

1.4   A Climate Change Adaptation Governance Assessment was completed in 2021. Embedding climate risk management in Council's formal risk management system was identified as an area for improvement.

1.5   The City of Salisbury Sustainability Strategy 2035 includes an action to undertake a climate change risk assessment to understand the corporate exposure to the physical, economic transition and liability risks associated with climate change.

1.6   Consultants were engaged in July 2023 to complete a climate change risk assessment project that has culminated in a report finalised in January 2024.

1.7   A CEO briefing on the climate change risk assessment process and initial findings was presented to Council on 6 November 2023.

1.8   The climate change risk assessment initial findings were reported to the Environmental Sustainability and Trees Sub Committee on 13 November 2023 and Council resolved at its meeting held on 27 November that it:

    "Notes the report."

2.   EXTERNAL CONSULTATION / COMMUNICATION

2.1   Climate Change Consultancy July 2023.

3.   DISCUSSION

3.1   The climate change risk assessment approach was based on the Scan Cycle from the Climate Compass climate risk management framework (2018), a best practice approach endorsed by the Australian Government and consistent with the International Standard ISO 31000 for Risk Management (2018).

3.2   The climate change risk assessment provides a first pass assessment of the high level physical and transitional climate risks to Council assets, operations and services.

3.3   To identify and assess climate risks it is necessary to envision future scenarios. For this assessment climate scenarios for 2030, 2050 and 2090 were defined based on data and guidance from the Guide to climate projections for risk assessment and planning in South Australia released by the Department for Environment and Water in late 2022.

3.4   Engagement to inform the climate change risk assessment included:

- six workshops attended by 66 staff from across the organisation including community services, infrastructure, regulatory services, natural assets, buildings, property and corporate.
- follow up and targeted meetings with key staff.
- two Executive briefings.
- multiple Project Steering Committee meetings.
- a Senior Leadership workshop.
- a CEO briefing to Council on 6 November 2023.

- a report to the Environmental Sustainability and Trees Sub Committee on 13 November 2023.

3.5   Potential risks collated from the engagement process were consolidated and refined to form 53 risks across ten themes, with risk ratings determined for each risk against the two most relevant scenario timeframes (to create a total of 106 risk ratings).

3.6   The risk ratings are residual – they assume current controls are in place, with no further treatments applied. Risk ratings escalate in severity from 2030 through to 2090, influenced by greater and less certain climate impacts in 2090, and by the lack of viable market ready solutions to address some risks (for example, non-diesel heavy fleet alternatives for reaching net zero by 2050). The number of risks in 2090 is lower because many of the risks identified have shorter decision lifetimes.

3.7   Decisions made today must account for how long their effects will apply, which is why many risks for 2050 and 2090 need to be managed in the short term. Councils design assets and services for projected, not current, populations. Likewise, Councils need to design assets and services for the projected, not current, climate.

3.8   The treated risk ratings were not included in the report as they rely on a very early list of potential controls that have not been fully scoped, costed or approved. However, if proposed treatments were successfully applied, there is potential to significantly reduce risk ratings.

3.9   The figure below lists the ten risk themes and illustrates the spread of the 106 risk ratings across the three scenarios, including:

3.9.1   For 2030 the climate change risk assessment identified one 'low' risk, 20 'medium' risks and 7 'high' risks.

3.9.2   For 2050, there were 20 'medium' risks, 27 'high' risks and 6 'very high' risks.

3.9.3   For 2090, there were 5 'medium' risks, 10 'high' risks and 10 'very high' risks.

3.10   There were no 'very high' risks identified for 2030, however the 'medium' and 'high' risks identified for 2030 were predominately to staff and community. This highlights the significant importance of supporting staff and community wellbeing and resilience.

Summary of residual climate change risks identified
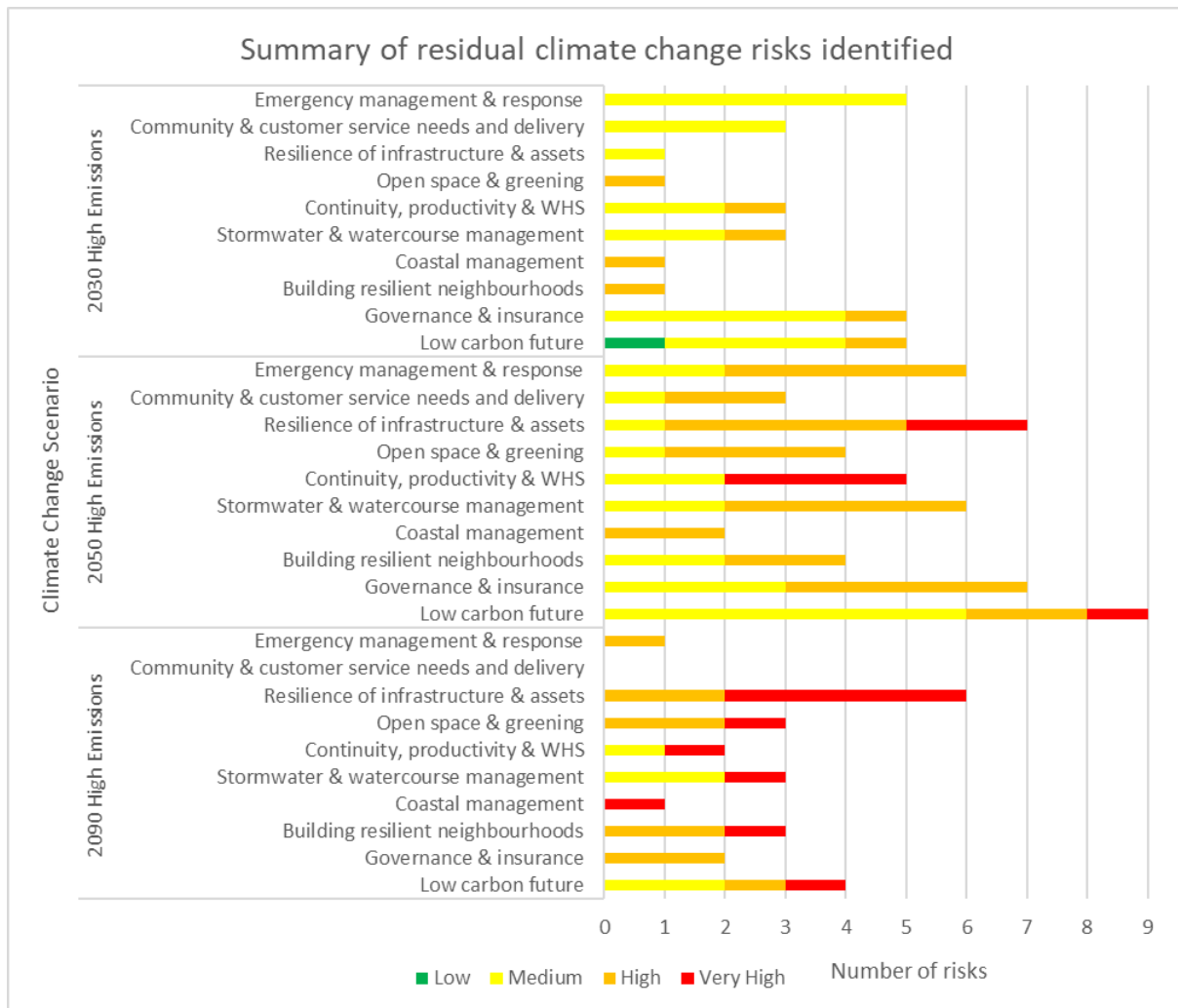
3.11 The very high risks in 2050 include:

3.11.1 The risk that long-lived assets are impaired, need replacement sooner, and/or require more maintenance, due to increased exposure to extreme weather (storms and heat) and progressive increases in temperatures.

3.11.2 In particular, roads may require earlier intervention to maintain service levels due to increased heat and expansive soils impacted by the drying trend.

3.11.3 Overall base operating costs may increase (related to infrastructure, depreciation, energy etc) due to climate-related events and changes in policy impacting costs of maintaining service levels.

3.11.4 Supply chain limitations and impacts on core services/supplies as the transition to low carbon materials and services, policy changes, extreme weather events delaying or cutting off supply chains, could increase material shortages and delay projects.

3.12 The 'very high' risks for 2050 are also 'very high' for 2090. Additional 'very high' risks for 2090 include:

3.12.1 The potential reduced use and change in needs for outdoor sport and recreation facilities due to increasing daytime temperatures and extreme heat that prevents safe play outdoors during summer, particularly for artificial turf/surfaces.

3.12.2 Increased energy demands and cost for cooling council buildings due to higher average temperatures and heatwaves especially if they are open for longer and have more people using them to keep cool.

3.12.3 Reduced street tree health and potential die back due to increased heat and reduced rainfall which increases vulnerability to pests and diseases, and more extreme weather that could increase maintenance and replacement requirements for street trees.

3.12.4 The risk that staff are unable to complete core work due to reduced productive time with implementation of stand down due to extreme heat procedures and/or staff assisting with a higher number of emergency events.

3.12.5 Increased exposure of workers to climate hazards impacting work health and safety particularly for outdoor workers.

3.12.6 Reduced ability to capture rainwater to meet current and future demand for Salisbury Water supply due to projected changes in rainfall (less rain overall but more intense downpours), along with potentially increased watering needs (eg. longer dry periods, more demand for greening).

3.12.7 Risk of coastal inundation impacting development and infrastructure due to a lack of adequate planning for and adaptation to sea level rise, in collaboration with stakeholders at a local and regional scale.

3.12.8 Insufficient consideration of climate change impacts and risks in growth area planning, development and infrastructure including Dry Creek, North-Western growth areas and Salisbury City Centre which compromises the long-term resilience of growth areas, including housing, businesses and Council infrastructure.

3.12.9 Assets that have high carbon emissions, are not climate resilient, and have high ongoing cost liabilities for Council due to lack of accounting for climate change in project lifecycle costs.

3.13 The findings of the climate change risk assessment demonstrate that many controls are in place to manage climate change risks, but further action is needed to reduce the risk exposure of the City of Salisbury within acceptable risk tolerance levels.

4. FINANCIAL OVERVIEW

4.1 The climate change risk assessment project was completed within the approved budget of $40,000 as part of the Strategic Urban Planning budget for 2023/24.

4.2 A budget bid for $50,000 to prepare a Climate Change Adaptation Action Plan including analysis of spatial data will be included for consideration as part of the 2024/25 budget process.

5. **CONCLUSION**

4.1 The climate change risk assessment report identifies the following next steps:

4.1.1 Continuing to build the case for investment in adaptation and long-term resilience such as by improving internal tools and processes to demonstrate the financial benefits of long-term investments.

4.1.2 Expanding on the climate change risk assessment by developing a climate adaptation action plan to guide investment in risk controls.

4.1.3 Exploring opportunities to embed climate risk management in business as usual, such as embedding the climate risk register in the CoS risk framework.

4.1.4 Continuing and expanding climate change capacity building and behaviour change including by establishing an internal climate risk community of practice and seeking knowledge and sharing with other Councils (such as through the trial Regional Climate Partnership for Northern Adelaide).

5.2 It is proposed that a Climate Change Adaptation Action Plan is developed to guide and prioritise risk controls and next steps drawing on findings of the climate change risk assessment (pending the outcome of a $50,000 budget bid to be included for consideration as part of the 2024/25 budget process).

Climate Risk Assessment Report

City of Salisbury | January 2024

Climate Cavalry

Version	Date	Author	Review	Rationale
0.1	30 August 2023	Kat Ryan & Jen St Jack	For Project Steering Group	Preview draft
0.2	9 October 2023	Kat Ryan & Jen St Jack	Lara Daddow	Draft
0.3	8 December 2023	Kat Ryan & Jen St Jack	Lara Daddow	Second Draft
0.4	25 January 2024	Kat Ryan & Jen St Jack	Lara Daddow	Final

Prepared by

Climate Cavalry

DISCLAIMER: This document has been prepared at the request of and for the purposes of assisting the City of Salisbury. It provides general information only and should not be used in substitution for appropriate legal, technical or financial advice. While Climate Cavalry has used all reasonable efforts to make information in this document current, accurate, complete, reliable and suitable for its purpose, it is provided in good faith without any express or implied warranty of any kind.

Executive summary

Climate risks are already impacting and will continue to impact all communities, and Councils are at the frontline in managing climate risks to their communities and to their assets, operations and services. Councils have a duty of care to manage climate risks.

The City of Salisbury has undertaken a first pass assessment of the high level physical and transitional climate risks (refer to Figure 1 for definitions) to Council assets, operations and services. Effectively managing short and long-term climate risks will help the Council ensure financial sustainability, minimise service disruptions, and improve community resilience. This is particularly true for longer lived assets, where investing more upfront to consider future climate conditions can safeguard assets long-term, and lower whole of lifecycle costs.

Physical		Transitional	
Acute	**Chronic**	**Transition**	**Liability**
Short-term extreme events, eg. bushfire, flood, storm, heatwave	Long-term changes, eg. sea level rise, heating and drying trends	Policy changes Technology innovation Social changes	Litigation Financial penalties Compliance

Figure 1: The four types of climate risk assessed in this project. Source: Adapted from TCFD (2017) and APRA (2021)

This report presents the findings of the climate risk assessment, alongside the project method and potential next steps.

This project built on the Climate Governance Risk Assessment conducted by the City of Salisbury in 2021, and aligns with the strategic commitments in the City Plan 2035 and Sustainability Strategy 2035, and with the principles of the Enterprise Risk Management Policy and Framework.

Project Method

The project methodology is detailed in the 'Climate change scenarios' and 'Risk assessment framework' sections of the report and included the following:

- Preparation of a tailored climate risk assessment framework which was applied to identify and prioritise climate risks including definition of four climate change scenarios (Figure 2), a risk matrix and risk register
- Engagement of Council Members, Executive, Managers and staff to inform the risk assessment, foster a collective understanding of climate change risks, and build capability in how to manage them
- Refinement and assessment of high level physical and transitional climate risks, including identification of existing risk controls and potential new strategies to control escalating future risk.

2030 High Emissions	2050 High Emissions	2090 High Emissions	2090 Medium Emissions

Figure 2: The four climate change scenarios applied in this project

4

Findings

Fifty-three high level risks were identified across ten themes, and risk ratings were determined for each risk against the two most relevant scenarios for the decision lifetime (refer to the definition of decision lifetime below). For example, coastal management risks on sea level rise were assessed for 2050 (medium term) and 2090 (long term), but not 2030 (current to short term). The 2030 scenario is considered current to short term, as '2030' represents the average projected change over the period 2020 to 2039, and some 2030 climate projections are already being observed now.

> **Decision Lifetimes – why 2030, 2050 and 2090?**
>
> Decisions made today must account for how long their effects will be felt – their 'decision lifetime'. Council manages a broad range of services and assets with very different decision lifetimes. For example, a stormwater system being designed today needs to withstand long-term climate conditions (2090), road surfaces need to consider medium-term climate conditions (2050), while a light vehicle purchase or new garden bed design need only consider short term conditions (2030). Climate projections for 2030, 2050 and 2090 were published by the South Australian Government in 2022, and are the best publicly available information on the City of Salisbury's future climate.

The ten themes combine risks by operation or asset type, noting that no risks are truly independent (for example, resilience of open space is strongly linked to water management, insurance risks are inherent to how well assets are adapted etc.). In addition, many risks are not the sole responsibility of Council, and require collaboration with other stakeholders (for example, building resilient neighbourhoods requires collaboration with state government).

Figure 3 lists the ten themes and illustrates the spread of the 106 risk ratings (53 risks each rated against two scenarios) across the three scenarios, including:

- For 2030 the climate change risk assessment identified one 'low' risk, 20 'medium' risks and 7 'high' risks.
- For 2050, there were 20 'medium' risks, 27 'high' risks and 6 'very high' risks.
- For 2090, there were 5 'medium' risks, 10 'high' risks and 10 'very high' risks.

There were no 'very high' risks identified for 2030, however the 'medium' and 'high' risks identified for 2030 were predominately to staff and community. This highlights the significant importance of supporting staff and community wellbeing and resilience.

The risk ratings are residual – they assume current controls are in place, with no further treatments applied. Risk ratings escalate in severity from 2030 through to 2090, influenced by greater and less certain climate impacts in 2090, and by the lack of viable, market ready solutions to address some risks (for example, non-diesel heavy fleet alternatives for reaching net zero by 2050). The total number of risks in 2090 is lower because many of the risks identified have shorter decision lifetimes.

The treated risk ratings have not been a focus of this report as they rely on a very early list of potential treatments that are summarised in the 'Risk assessment results' section, but have not been fully scoped, costed or approved. However, if proposed treatments were successfully applied, there is potential to significantly reduce risk ratings.
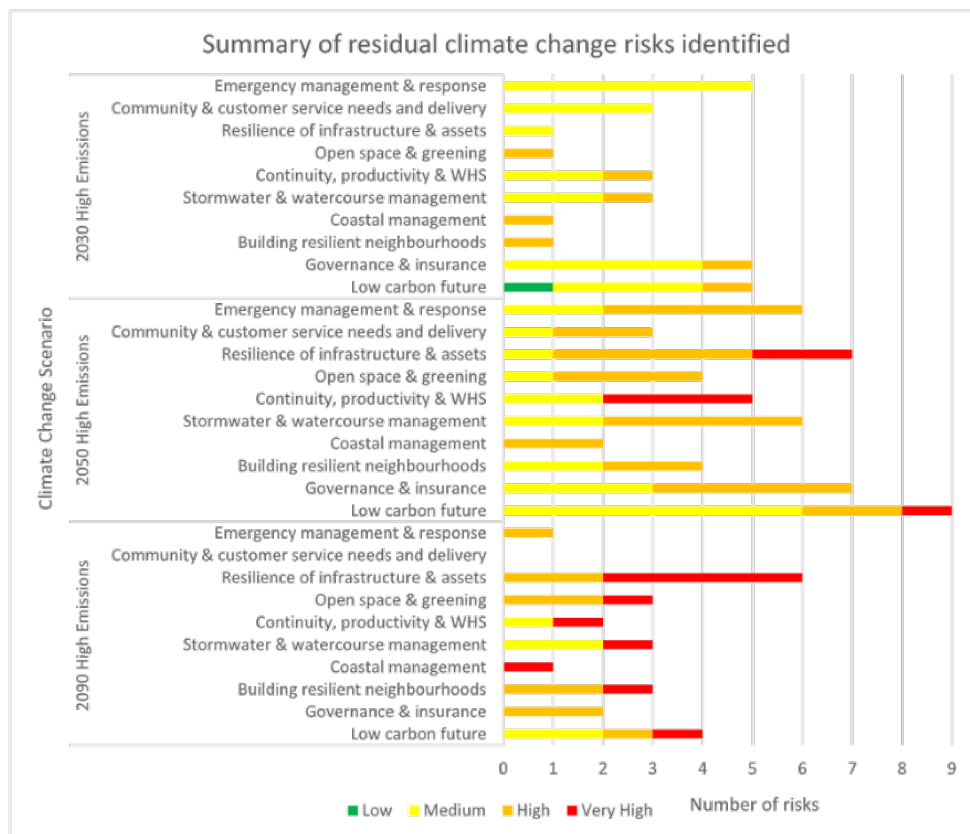
5

Figure 3: Summary of residual climate change risks identified.

A complete list of risks is provided in the 'Risk assessment results' section. The 'very high' risks are **described in bold**, *with examples in italics*, under the relevant themes in Table 1 below.

Table 1: Summary of risks assessed to become very high during timeframes considered.

#	Theme, **risk** and *description*	Scenario^		
	Infrastructure and assets	2030	2050	2090
10	**Reduced use and change in needs for outdoor sport & recreation facilities.** *Increasing daytime temperatures and extreme heat could frequently prevent safe play outdoors during summer, particularly for artificial turf/surfaces, impacting organised sports and community wellbeing.*		H	VH
11	**Longer lived assets are impaired, need replacement sooner, and/or require more maintenance.** *Increasing exposure to extreme weather (storms and heat) and progressive increases in temperatures could accelerate wear on infrastructure like buildings and bridges, increasing risks of failures, and requiring more budget to repair and/or replace.*		VH	VH
12	**Roads require earlier intervention to maintain service level due to increased heat and expansive soils impacted by the drying trend.** *An increase in hot conditions*		VH	VH

6

#	Theme, **risk** and description	Scenario^		
	speeds up oxidation of the road surface, and drying trends diminish the structural integrity of roads, making road condition deteriorate faster and require earlier intervention to maintain. As Council's extensive road network has been depreciated for replacement based on current climate conditions, there could be inadequate budget for repair and replacement in the future.			
16	**Increased energy demands for cooling.** *During heatwaves, community centres, libraries and other buildings could face higher electricity needs and costs, especially if they open for longer and have more people using them to keep cool.*		H	VH
	Open space and greening	2030	2050	2090
18	**Reduced street tree health and potential die back.** *Increased heat, reduced rainfall, increased vulnerability to pests and diseases, and more extreme weather could increase maintenance and replacement requirements for street trees.*		H	VH
	Continuity, productivity and work health and safety	2030	2050	2090
21	**Increased base operating costs (infrastructure, depreciation, energy etc).** *Intensified climate-related events and changes in policy (eg. low carbon transition) could increase costs of maintaining business as usual service levels across many sectors of Council.*		VH	VH
22	**Inability to complete core work due to reduced productive time.** *Staff could have less available time to complete tasks due to being stood down on extreme heat policy and/or assisting with a higher number of emergency events*	H	VH	
23	**Increased exposure of workers to climate hazards.** *There could be increased work health and safety implications of more frequent and intense heat, dust storms, floods, bushfire smoke etc. which need to be effectively managed, especially for outdoor workers.*	M	VH	
	Stormwater, water supply and watercourse	2030	2050	2090
27	**Reduced ability to capture rainwater to meet current and future demand for Salisbury Water supply.** *Current capacity may not be adequate to handle projected changes in rainfall (less rain overall but more intense downpours), along with potentially increased watering needs (eg. longer dry periods, more demand for greening).*		H	VH
#	Theme, **risk** and description	Scenario^		
	Coastal management	2030	2050	2090
32	**Coastal inundation impacting development and infrastructure due to a lack of adequate planning for and adaptation to sea level rise, in collaboration with stakeholders at a local and regional scale.** *Without coordinated efforts between Council, state government, developers and landowners, homes and infrastructure (eg. roads, community facilities) could be exposed to more extensive and frequent coastal flooding.*		H	VH
	Building resilient neighbourhoods	2030	2050	2090
35	**Climate change not sufficiently addressed in growth area planning, development and infrastructure including Dry Creek, North-Western growth areas and Salisbury City Centre.** *Failure to avoid hazard-prone areas and/or adequately adapt to those hazards (eg. passive cooling and energy efficiency, space for trees and shading, water management, resilience to flood, fire and storms) will compromise the long-*		H	VH

7

#	Theme, **risk** and description	Scenario^		
	term resilience of growth areas, including housing, businesses and Council infrastructure.			
	Low carbon future	2030	2050	2090
45	**Building and infrastructure project development process does not reflect climate change in lifecycle costs, resulting in assets that have high carbon emissions, are not climate resilient, and have high ongoing cost liabilities for council.** *Including more energy efficiency measures and recycled content may have higher design and build costs, but lower lifespan costs due to lower energy demands and less carbon offset requirements.*		H	VH
50	**Supply chain limitations and impacts on core services/supplies.** *The transition to low carbon materials and services, policy changes (eg. single use plastic bans), and extreme weather events delaying or cutting off supply chains, could increase material shortages and delay projects.*	H	VH	

^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Next steps

The City of Salisbury could consider the following next steps to address findings of this project and inform decision making processes (see 'Next steps' section for more detail):

1. **Funding** – Build the case for investment in adaptation and long-term resilience
2. **Planning** – Develop a climate adaptation action plan to guide investment in risk controls
3. **Governance** – Explore opportunities to embed climate risk management in business as usual
4. **Capacity building** – Continue and expand capacity building and behaviour change.

8

Contents

9

Context

Climate risks for Councils

Climate risks are already impacting and will continue to impact all communities, and Councils are at the frontline in managing climate risks to their communities and to their assets, operations and services[1].

Councils have a duty of care to manage climate risks. A number of legal opinions since 2016, including the 'Hutley Opinions'[2] and Raising the Bar[3], have counselled that climate risks are material, foreseeable and immediate, and that governments must manage them or face an exponentially rising risk of litigation.

In South Australia, this duty of care is embedded as a statutory responsibility in section 7(d) of the *Local Government Act 1999*, which states that the functions of a council include '*to take measures to protect its area from natural and other hazards and to mitigate the effects of such hazards*'.

It is a Local Government Association of South Australia (LGASA) policy[4] that:

> "*Climate risk and vulnerability assessments are vital in identifying climate impacts and determining appropriate actions. Councils shall ensure assessments are conducted with full consideration of available relevant information as part of all council strategic and operational planning processes across all functions and services.*" ... "*Local government understands that decisions made by councils must take account of all currently available climate data.*"

Globally, organisations of all kinds are increasingly being encouraged or compelled to understand, manage and disclose climate risks, aligned with the Taskforce on Climate-related Financial Disclosures (TCFD)[5]. In Australia (and most other countries), reporting against new global International Sustainability Standards Board (ISSB) Standards[6] for climate and sustainability disclosures is now mandatory for public companies (eg. ASX listed companies, financial institutions). Companies (such as financiers and insurers) may start requiring customers (including Councils) to disclose climate risks, and risk management processes, in order to access their services (to support their own reporting obligations). This is the case for the Local Government Association Mutual Liability Scheme, which considers climate risks and requests copies of Councils' climate risk management and planning documents.

Internal strategic alignment

The City of Salisbury has been proactive in managing climate risks for some time, and this project aligns with existing strategic commitments.

Climate change is already one of the leading risks identified on Council's Strategic Risk Register.

This Climate Risk Assessment contributes to commitments made in the City Plan 2035 to '*manage and plan assets so they are resilient to a changing climate*' and to '*manage the impacts of increased heat, flooding, intense storms and bushfires.*'

This project also delivers an action in the Sustainability Strategy 2035 under Theme 3 (Climate Resilient Salisbury), to undertake a climate change risk assessment to understand the corporate exposure to the physical, economic transition and liability risks associated with climate change.

10
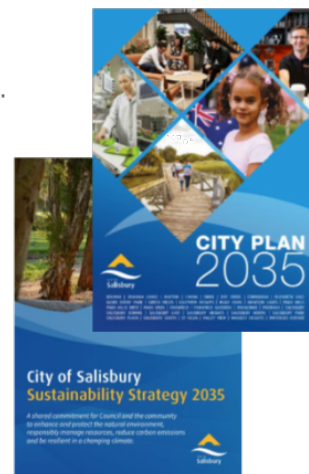
Climate Change Adaptation Governance Assessment

In 2021, Council took part in a Climate Change Adaptation Governance Assessment using the Informed.City[7] approach. At the time, the City of Salisbury was ranked in the top 10 of 341 assessed Australian local governments.

Embedding climate risk management in Council's formal risk management system was identified as an area for improvement, as illustrated in the quantitative scores for adaptation governance in Figure 4 below. The 'zero' score was assigned because no information was available to assess the category – the report recommended that Council make relevant documents publicly available to support transparency.
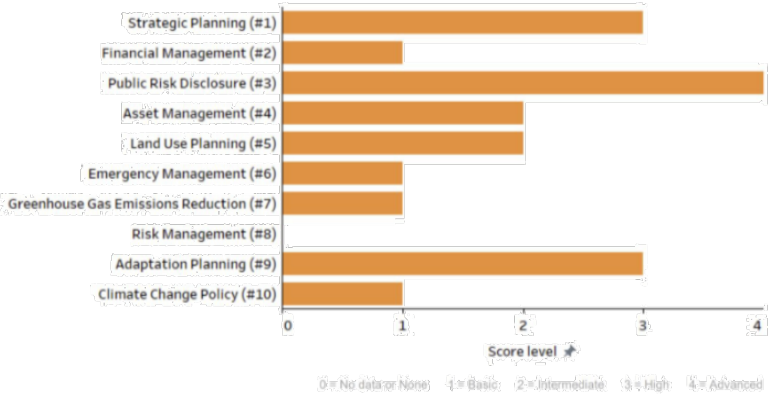

Figure 4: The City of Salisbury's quantitative scores for climate change adaptation governance.
Source: Climate Planning and Edge Environment (2021)

From its qualitative analysis of Council's adaptation governance, the report made a number of additional recommendations relevant to this project, as listed below.

Indicator 11: Climate Risk Assessments
11.1   *Undertake a detailed climate change risk assessment that explores (and quantifies) transition and physical risk.*
11.2   *Identify the process by which climate risk assessment results can feed into the Strategic Risk Register.*

Indicator 12: Climate Legal Risk
12.2   *Ensure that legal risks associated with climate change are included in the risk register, until well managed.*

Indicator 13: Staff Capacity and Resource Allocation
13.2   *Develop a capacity-building program to continue to raise staff awareness about climate change impacts and how they can be managed within different Council functions. This should be an ongoing program similar to how workplace health and safety training is conducted across the organisation.*

11

Salisbury – the place and its people

The City of Salisbury is a vibrant, diverse and growing community. Situated 25 kilometres north of Adelaide, the City covers an area of 158 square kilometres and is home to a population of 148,003[8]. Land at Dry Creek (over former saltpans) has been identified for future rezoning by the State Government to deliver a further 10,000 dwellings[9]. The City's Gross Regional Product is estimated at $8.65 billion, which represents 6.95% of the Gross State Product[10].

The City of Salisbury is a Refugee Welcome Zone, a Welcoming City and an Intercultural City, and over 60% of refugees entering South Australia settle in the Salisbury area[11]. Over 34% of Salisbury's residents were born overseas, and 32.5% speak a language other than English at home. 2.4% of the population are Aboriginal or Torres Strait Islander (above the Greater Adelaide average of 1.7%). The City is the second most socio-economically disadvantaged area in Greater Adelaide (second to Playford), with significant variance in relative advantage and disadvantage across the City[12].

The region currently has a classic Mediterranean climate, characterised by cool wet winters and warm to hot, dry summers. In the west, 14 kilometres of coastline on Gulf St Vincent is largely vegetated with mangroves and saltmarsh, backed by salt pans. A large portion of coastal land is owned and managed by parties external to Council. In the east is the Para Escarpment and the Mt Lofty Ranges foothills. Between the hills and coast, the landscape is largely low and flat, with major watercourses including the Little Para River and Dry Creek, and the City's well-known network of artificial wetlands.

The city has diverse industries and skills, led by manufacturing, technology and future industries. Key activity centres and assets include:

- Two airports (Parafield and the Edinburgh RAAF base)
- UniSA Mawson Lakes Campus
- Manufacturing, wholesaling, food production, transport and warehousing hubs (eg. Cavan, Pooraka, Greenfields and Salisbury South in the south, and Edinburgh and Burton in the north)
- Big box retail along Main North Road
- Bolivar Wastewater Treatment Plant
- St Kilda Adventure Playground, boat ramp (northern-most open water access within Metropolitan Adelaide) and mangrove trail
- Salisbury City centre, focused on the Salisbury Community Hub.

12

Climate change scenarios

To identify and assess climate risks, it is necessary to envision future scenarios based on:

- The timescales relevant to the decisions being made (decision lifetimes)
- The best available climate change information for the location at those timescales, using the greatest plausible change emissions pathway scenarios
- An understanding of the potential impacts arising from those changes.

For this project, four future scenarios were defined, as listed below. For each risk identified, only the relevant two scenarios were assessed.

2030 High Emissions	2050 High Emissions	2090 High Emissions	2090 Medium Emissions

To help Council staff envision the scenarios effectively enough to imagine and plan for the risks, potential impacts across Council business were identified, and animated verbally using localised stories. This narrative approach explored expected impacts in a more relatable way, going beyond facts and numbers.

The medium emissions scenario for 2090 was removed from the analysis following the risk assessment workshops, as only 2 of the 116 raw risks had been assessed using this scenario. The capacity building and concept to apply this scenario is still available to staff undertaking more detailed risk assessments.

Decision lifetimes

Decisions made today must account for how long their effects will be felt – their 'decision lifetime'[13].

Council manages a broad range of services and assets with very different decision lifetimes, as indicated in Figure 5. Climate planning is like planning for future population growth. Councils design assets and services for projected, not current, populations. Likewise, Councils need to design assets and services for the projected, not current, climate.

Climate projections for 2030, 2050 and 2090[14] were published by the South Australian Government in 2022. These three scenarios were used to represent short, medium and long-term decision lifetimes in this project. Risks were assessed against the two climate scenarios closest to the decision timeframe.

For example, a stormwater system being designed today needs to withstand long-term climate conditions (2090), road surfaces need to consider medium-term climate conditions (2050), while a light vehicle purchase or new garden bed design need only consider short term conditions (2030).
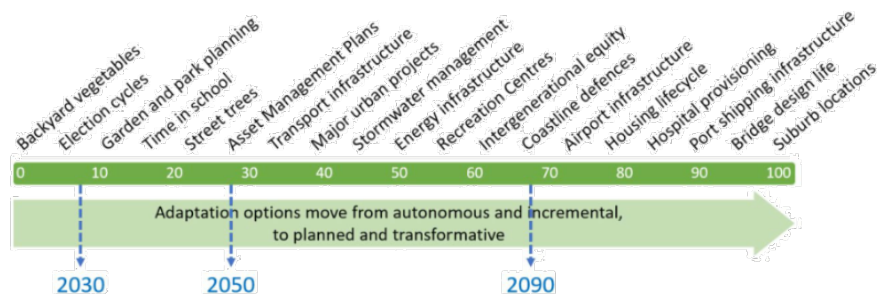
13

Figure 5: Timeline illustrating the lifetimes of different decisions, with this project's scenario timescales superimposed. Adapted from: Smith MS, Horrocks L, Harvey A and Hamilton C (2011) Rethinking adaptation for a 4C world. Philosophical Transactions of the Royal Society A. 369:196-216

Greatest plausible change – preparing for high emissions scenarios

Managing risk is managing uncertainty, and uncertainty increases under longer decision lifetimes. Preparing for high emissions scenarios ensures that all plausible risks are considered, and helps to mitigate the fact that people often underestimate the amount of change that may happen[15].

The CSIRO[16] and the Department of Environment and Water (DEW)[17] recommend assessing risk based on the climate conditions projected under the highest emissions scenario (RCP8.5[18]) up to 2050.

Using the high emissions scenario (RCP8.5) to assess climate risks for decisions with a lifetime up to 2050 is recommended by DEW because:

- There are relatively minor differences between emissions trajectories and the resulting projected temperature changes, and
- Observed temperature changes in Australia have been tracking towards the upper end of projected ranges in model simulations.

Over longer timescales (beyond 2050), uncertainty on both emissions trajectories and climate projections diverge more significantly, as illustrated in Figure 6. It may therefore be wise to consider both greatest plausible change and mid-range emissions scenarios for 2090, to enable a balanced assessment of the likely costs of impacts against the likely costs of risk mitigation.

14
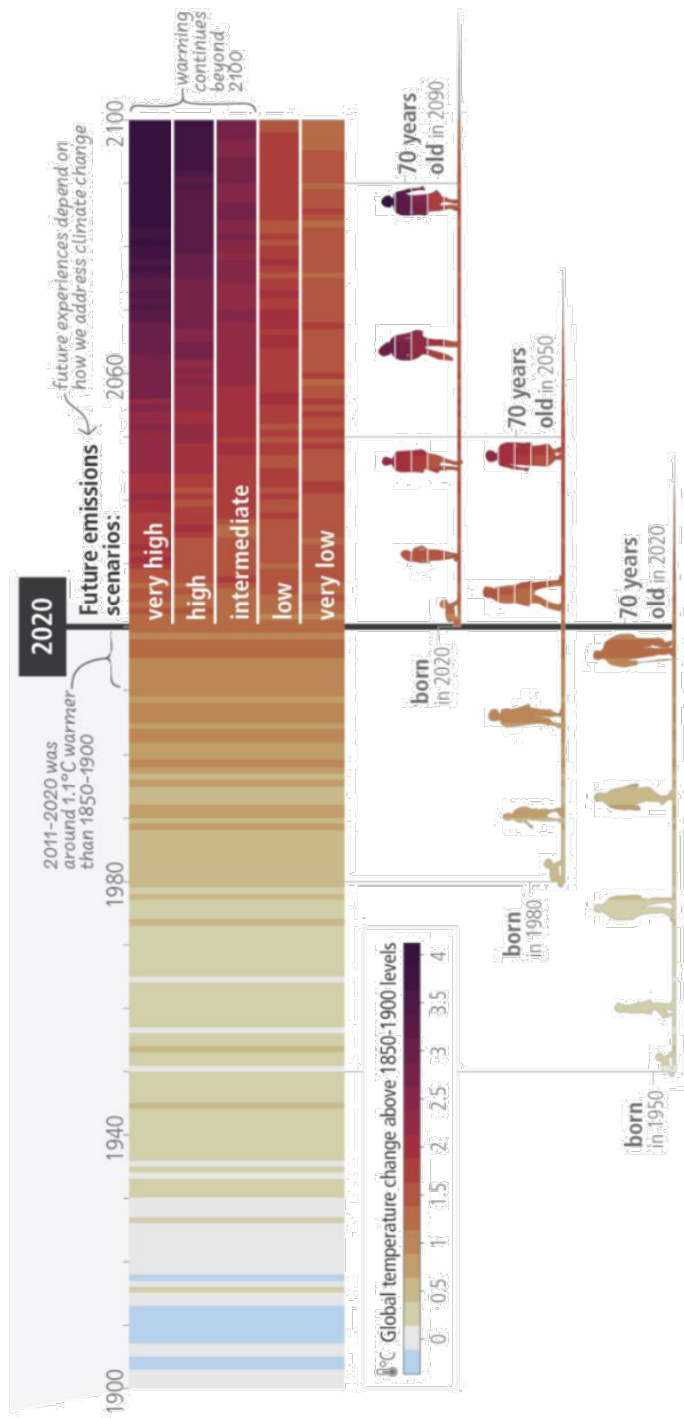
Figure 6: Observed (1900–2020) and projected (2021–2100) changes in global surface temperature (relative to 1850–1900), which are linked to changes in climate conditions and impacts, illustrate how the climate has already changed and will change along the lifespan of three representative generations (born in 1950, 1980 and 2020). Source: IPCC AR6 Synthesis Report: Climate Change 2023, accessible at: https://www.ipcc.ch/report/ar6/syr/

Climate scenarios data

The project used the nationally recognised climate change projections for the Green Adelaide Landscape Board region, from the *Guide to Climate Projections for Risk Assessment and Planning in South Australia* (Department for Environment and Water, 2022)[19].

Below is a summary of the expected changes to climate conditions under the four scenarios. This is the best publicly available information on the City of Salisbury's future climate. It is at the appropriate scale for a high-level, Council-wide assessment.

Table 2: Summary of climate scenarios data for the City of Salisbury

		BASELINE Rain: 1981–2010 Temp: 1986-2005 Sea: 1986–2005	SCENARIO~			
			2030 HIGH	2050 HIGH	2090 HIGH	2090 MEDIUM
	Mean projected change in annual rainfall*	530 mm	-1%	-3%	-29%	-7%
	Extreme rainfall events (mean days per year above 99.9th percentile)*	0.38	0.60 (+58%)	0.59 (+55%)	0.84 (+121%)	0.71 (+87%)
	Mean daily minimum temperatures*	12.2 °C	+ 1.0°C	+ 1.5°C	+ 3.0°C	+ 1.7°C
	Mean daily maximum temperatures*	21.8 °C	+ 1.1°C	+ 1.6°C	+3.7°C	+ 2.0°C
	Number hot days over 35°C*	13.1	+6.5	+9.3	+23.4	+10.2
	Fire weather danger (number severe fire danger days)^	4.2	4.7 (+12%)	-	6.9 (+64%)	5.3 (+26%)
	Sea level rise increase#	-	13cm	25cm	61cm	46cm

Data Sources & Confidence
Department for Environment and Water (2022). Guide to Climate Projections for Risk Assessment and Planning in South Australia 2022
~: 'High' refers to RCP8.5, and 'Medium' to RCP4.5
*: Table 4-1 Projected change in climate variables for Adelaide RCP4.5 and Table 4-2 Projected change in climate variables for Adelaide RCP8.5. Very high confidence in temperature projections, high confidence in rainfall projections.
^ Table 10-1 Climate Change in Australia cluster projection statements for fire weather and Table 10-2 Number of severe fire danger days (FFDI > 50). High confidence in frequency, low confidence in magnitude.
# Table 11-1 Climate Change in Australia cluster projection statements for sea level rise. And Table 11-2 Projected change in sea level rise relative to 1986–2005 (m) (Port Adelaide). Very high confidence.

The City of Salisbury is also involved in climate projection research with Forty2 Science. When the research outputs become available, they may be suitable for assessing localised climate risks, for example to specific assets or projects.

16

Risk assessment framework

The risk assessment is a high-level, first pass scan for the priority physical and transitional risks across Council business. The project used dual guiding principles: to be practical, and to build staff capability.

The risk assessment framework and engagement plan were developed in consultation with and endorsed by both the Project Steering Committee and Executive team.

Information on project design is provided in this section, including key variations from a conventional risk assessment and endeavours made to integrate the project with the existing Salisbury Risk Framework.

Scan Cycle

The risk assessment approach for this project was based on the Scan Cycle from the Climate Compass[20] climate risk management framework (CSIRO, 2018), a best practice approach endorsed by the Australian Government and consistent with the International Standard ISO 31000 for Risk Management (2018)[21].

Scan Cycle is also referred to as a high-level, strategic or 'first pass' assessment. See Figure 7 for an overview of the approach.

Using the Scan Cycle approach, the project was able to scan for the highest priority risks across all categories of Council assets, operations, and services, while providing opportunities to build capability across the business and identify areas that require further detailed work.
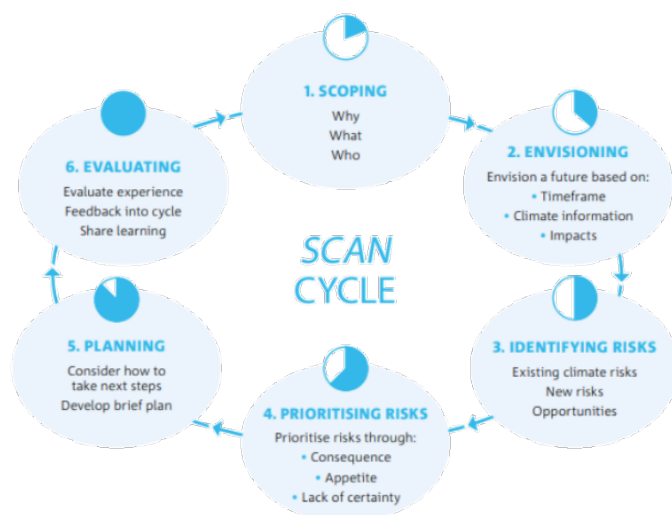

Figure 7: Overview of the Scan Cycle approach to climate risk management outlined in Climate Compass, CSIRO 2018

17

Method

The aim of the project method was to engage with the organisation and enable learning by doing – providing a shared framework and tools, a shared language, and shared experience for Council staff to pick up and apply in business as usual. Together, City of Salisbury staff identified and assessed climate risks relevant to their work, captured the effective adaptation actions already in place, and identified potential strategies to escalate adaptation into the future. Climate Cavalry provided supporting knowledge and tools, and facilitated the process.

The risk assessment was undertaken collectively by Council staff through a four-part process:

- **Collect** – facilitated workshops and interviews with 71 staff to build capacity and gather data
- **Clarify** – looped back to clarify and fill gaps, and sought feedback from management
- **Consolidate** – grouped aligned and duplicate risks, and categorised them into ten themes
- **Calibrate** – ensured consistency in how risks were expressed and assessed.

Internal communication was delivered by the project manager throughout the process, guided by an Engagement Plan with consistent key messages.

Collect

The initial 'Collect' phase was completed across six 2-hour, in-person workshops in the first week of August 2023, with 66 staff from across the organisation participating. A wide range of strategic and on-ground perspectives were included. Each workshop followed the same format, with staff split by business category, reflecting that many risks are shared across asset and service classes:

- **Outreach Services** – Library, volunteers, seniors' programs, homelessness, customer service centre, recreational services, environmental education, community centre services, events, youth programs, Indigenous communities, community transport services, aged care
- **Infrastructure** – Roads, stormwater, operations, transport, waste, footpaths, lighting, signage
- **Compliance Services** – Regulatory services, parking inspectors, planning & building, environmental health, fire & weed compliance
- **Natural Assets** – Coast, street trees, emergency management, operations, playgrounds, wetlands, parks & reserves
- **Buildings & Property** – Energy, fleet, swimming pool, recreation centres, buildings, cemeteries, sports clubs, strategic property development
- **Corporate** – Procurement, finance, people management, WH&S, governance & risk, water business unit, property leasing, commercial business.

A summary of the agenda for each workshop is provided below:

- Understanding climate risk (what, why)
- Relatable scenario-setting (numbers and narrative)
- Risk and opportunity identification
- Risk assessment method (how)
- Risk assessment completed by staff (learn by doing)
- Reflections (collective evaluation and insights).

Follow up interviews with five key staff were also held to accommodate annual leave, ensuring they had the opportunity to both build capacity and provide input to the risk assessment.

18

Clarify

After the gathered data was entered into a draft risk register, this was provided to participants to ensure accuracy, and where needed, to seek further detail or clarify what was captured.

Feedback on and input to the draft register was also gathered from the project team, senior management, and from a CEO briefing.

Consolidate

One hundred and sixteen risks collected in the first phase were consolidated into 53 risks in the final risk register, in partnership between key Council staff and Climate Cavalry.

This process highlighted the complexity of climate change risks and provided more well-rounded assessments. Different sections of Council identified the same risks, reinforcing their importance, and provided different perspectives and a broader range of treatment ideas. For example, the risk of heat stress on outdoor staff had input from both corporate and outdoor staff.

Calibrate

Finally, all risk descriptions and their assessments were calibrated to ensure consistency in both language and interpretation, in partnership between key Council staff and Climate Cavalry.

Climate Risk types

The City of Salisbury sought to include both physical and transitional climate risks in this assessment. Those two categories were first defined in the Recommendations of the Task Force on Climate-related Financial Disclosures (2017)[22], along with a number of sub-categories, and have been since been adapted by others including the Australian Prudential Regulation Authority (2021)[23].

For this project, four types of climate risk were assessed, covering all the most relevant climate risks to Councils – Acute and Chronic physical risks, and Transition and Liability transitional risks (see Figure 8).

Physical		Transitional	
Acute	**Chronic**	**Transition**	**Liability**
Short-term extreme events, eg. bushfire, flood, storm, heatwave	Long-term changes, eg. sea level rise, heating and drying trends	Policy changes Technology innovation Social changes	Litigation Financial penalties Compliance

Figure 8: The four types of climate risk assessed in this project
Source: Adapted from TCFD (2017) and APRA (2021)

19

Modified risk matrix

Conventional risk ratings are based on a matrix of the likelihood and consequence of each risk. Although all risks are *'the effects of uncertainty on objectives'*[24], climate risks can be inherently less certain, and more transitional than conventional risks. For example, policy changes to accelerate the transition to the low carbon economy may occur suddenly or unexpectedly. Likewise, natural disasters are unpredictable.

A slightly modified risk matrix was used to enable prioritisation of risks that are highly uncertain or transitional, and have potentially significant consequences (see Figure 9). As recommended in Climate Compass (CSIRO, 2018), uncertain risks had higher risk ratings (consistent with 'almost certain' risks).

Risk Rating		CONSEQUENCE				
		INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
LIKELIHOOD	UNCERTAIN	Medium	Medium	High	Very High	Very High
	ALMOST CERTAIN	Medium	Medium	High	Very High	Very High
	LIKELY	Low	Medium	High	High	Very High
	POSSIBLE	Low	Medium	Medium	High	High
	UNLIKELY	Low	Low	Medium	Medium	Medium
	RARE	Low	Low	Low	Low	Medium

Figure 9: Modified risk matrix, introducing a new 'uncertain' category for likelihood
Source: Adapted from Salisbury Risk Framework and Climate Compass (2018)

Enterprise Risk Management Framework integration

To support integration of climate risk management into business as usual, all tools and methods used in this project aligned as closely as possible with the existing Enterprise Risk Management Framework.

However, climate risk management does not readily fit conventional methods, due to more significant uncertainties and longer timeframes with varying potential scenarios. A number of tweaks were made to the Salisbury risk register template to create a new climate risk register, including:

- Removing 'Treatment Owner', 'Date Identified' and 'Status' columns[25]
- Changing 'Causes' to 'Climate Hazard'
- Adding 'Climate Risk Type' column
- Adding likelihood category 'Uncertain' (see above)
- Adding to consequence definitions
- Removing inherent risk rating, so the initial risk rating is after current controls are applied (ie. the residual risk rating)
- Adding new risk evaluation steps for each climate scenario
- Removing 'Acceptance' ratings[26] and the 2090 Medium Emissions Scenario[27].

Key staff (including risk and governance managers) were actively engaged to ensure project outcomes could be integrated into existing processes, despite these amendments.

Three resources have been created for the City of Salisbury to support integration (see Appendices):

- Climate risk register template (delivered as a separate Excel file)
- A one-page risk matrix, including all existing definitions (of likelihood, consequence and risk tolerance), as an ongoing resource for both conventional and climate risk management
- Climate Risk Assessment Worksheet.

20

Limitations

The findings and conclusions in this report are based on the collective understanding and inputs of City of Salisbury staff, as informed and facilitated by Climate Cavalry. It is important to acknowledge certain limitations of the process and report, to inform interpretation and next steps.

High-level, first pass assessment – This report may only be used for the purpose of a first-pass risk assessment, to understand high-level risks across the business and inform high-level climate adaptation planning. It should not be depended on for more specific or detailed risk assessments (eg. at project, program or asset-specific scales).

Resource limits – The risk assessment was collectively delivered by 71 City of Salisbury staff during six two-hour workshops and five follow-up interviews, plus follow-up clarification, consolidation and calibration. The risks identified, the risk ratings, and the current and potential controls identified, were all limited by the resources available during the project. There may be errors, omissions or discrepancies arising from resource limits.

Projections, not predictions – In identifying and assessing risks, staff were guided by the climate scenario data outlined in this report (relevant to the Green Adelaide landscape board region), and the narrative provided during workshops. As with all future climate projections, scenarios are an indication of possible futures informed by the best available information today, and are not a guaranteed outcome.

Knowledge gaps – The risk assessment relied on staff experience, knowledge and ingenuity to identify risks and potential risk controls. Risk identification omissions may have arisen from knowledge gaps in climate impacts. There were knowledge gaps (to varying degrees) in identifying potential risk treatments. These knowledge gaps are expected, and can be addressed in the future (see next steps section below). However, the range of adaptation / risk treatment options presented may not reflect contemporary, best practice adaptation options. They should be considered a first step towards more detailed adaptation planning.

Any errors, omissions, or discrepancies related to these limitations are beyond the control of Climate Cavalry. To the best of our ability, we have collected information from City of Salisbury staff during workshops and interviews, and actively supported key staff to clarify, consolidate and calibrate risks and assessments (see Methodology section above).

Further opportunities to fill any gaps and advance climate risk capability and management are provided at the end of this report.

21

Risk assessment results

Summary

Fifty-three high level risks were identified across ten themes, and risk ratings were determined for each risk against the two most relevant scenarios for the decision lifetime. For example, coastal management risks focused on sea level rise were assessed for 2050 (medium term) and 2090 (long term), but not 2030 (current to short term).The 2030 scenario is considered current to short term, as '2030' represents the average projected change over the period 2020 to 2039, and some 2030 climate projections are already being observed now.

The ten themes combine risks by operation or asset type, noting that no risks are truly independent (for example, resilience of open space is strongly linked to water management, insurance risks are inherent to how well assets are adapted etc). In addition, many risks are not the sole responsibility of Council, and require collaboration with other stakeholders (for example, building resilient neighbourhoods requires collaboration with state government).

Figure 10 lists the ten themes and illustrates the spread of the 106 risk ratings (53 risks each rated against two scenarios), across the three scenarios, including:

- For 2030 the climate change risk assessment identified one 'low' risk, 20 'medium' risks and 7 'high' risks.
- For 2050, there were 20 'medium' risks, 27 'high' risks and 6 'very high' risks.
- For 2090, there were 5 'medium' risks, 10 'high' risks and 10 'very high' risks.

A summary of the very high risks are presented in Table 2 in the Executive Summary for reference. There were no 'very high' risks identified for 2030, however the 'medium' and 'high' risks identified for 2030 were predominately to staff and community. This highlights the significant importance of supporting staff and community wellbeing and resilience.

The risk ratings are residual – they assume current controls are in place, with no further treatments applied. Risk ratings escalate in severity from 2030 through to 2090, influenced by greater and less certain climate impacts in 2090, and by the lack of viable, market ready solutions to address some risks (for example, non-diesel heavy fleet alternatives for reaching net zero by 2050). The number of risks in 2090 is lower because many of the risks identified have shorter decision lifetimes.

The treated risk ratings have not been a focus of this report as they rely on a very early list of potential treatments that are summarised in this section, but have not been fully scoped, costed or approved. However if proposed treatments were successfully applied, there is potential to significantly reduce risk ratings.

The following sections provide a summary of the risk register by theme, including a summary of the future hazard and impact, identified risk descriptions, residual risk ratings, an overview of the current controls in place, and examples of potential new controls identified. The final risk register was delivered as a separate excel spreadsheet.
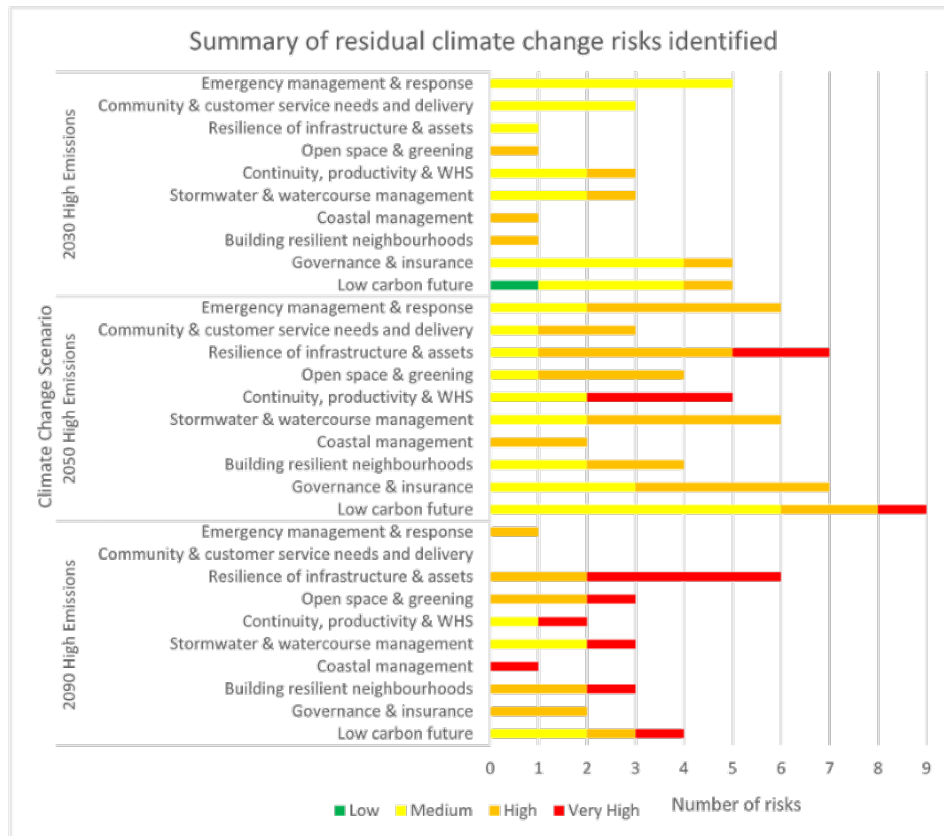
22

Figure 10: Summary of residual climate change risks identified

23

1. Emergency management and response

Climate change is expected to amplify the number, frequency and scale of future emergencies (flood, storms, bushfire etc) beyond current capacity, especially in 2090 under the high emissions scenario. Cascading impacts are also expected, with increased service demand in other parts of Council business (eg. building inspections and approvals) after events.

Table 3: Risks related to emergency management and response

#	Risks	Type	2030	2050	2090^
1	Increased frequency and duration of **Council staff/services responding to emergency events** (eg. to storms, bushfires etc) including street and waterway clean up, safety inspection services and responses to informal, spontaneous community led volunteer response efforts	A	M	H	
2	Increase in blackouts and **unreliable electricity supply** impacting Council facilities	A	M	M	
3	Inadequate **community preparedness** for increased fire risk causing strain on Council fire prevention services and increased risk to Council assets	A	M	H	
4	Increased **fire risk on Council land** particularly in seasons with high fuel load (vegetation suitable to support large bushfire)	A	M	H	
5	Inadequate fire emergency services and state government planning to manage fire risk causing increased **risk to Council assets**	A	M	H	
6	Increased occurrence of **waterborne illness** outbreaks due to contamination of water sources from flood events requiring environmental health officer inspections and monitoring	A		M	H

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability
^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future.

Existing controls

Council staff have training and experience in emergency response management, with policies and protocols around asset management, condition auditing, bushfire prevention works, stormwater network, generators at some locations, liaison with external agencies, continuity and emergency response plans, and clean up/reinstatement operations. There are debrief and improvement processes, and detailed work health and safety and wellbeing support programs for staff and volunteers. In addition, Council is currently updating its Emergency Risk Management Assessment (to be completed by the end of 2024) and is involved in the Northern Adelaide Zone Management Committee. In 2023-24 Council is participating in the Red Cross RediCommunities Community-led Disaster Resilience program which will engage a group of culturally and linguistically diverse community leaders to collaborate on disaster resilience capability building and planning.

Potential new controls

- Review asset standards to increase resilience, informed by updated mapping
- Maintain preparedness including emergency response training for staff and build cross-team skills for service efficiency and continuity
- Increase communication between Council and emergency services

24

- Build resilience of energy, communications and response systems in emergencies, for example solar plus battery backup on all Council facilities, radios retained in fleet, and hard copy manuals
- Review and update Business Continuity and Emergency Management Plans with ownership and updates at a Divisional level
- Increase patrol frequency as bushfire seasons increase in duration
- Work with State Government and neighbouring councils on controls and water supply security for firefighting
- Review plans for making community hubs and centres suitable as evacuations centres
- Reduce reliance on external utilities to maintain electricity supply (eg. solar and batteries etc)
- Ongoing community education resilience programs to reduce the community's reliance on government intervention, and create individual ownership and community led initiatives.

2. Changing community and customer service needs and delivery

Climate change is expected to amplify community service demands beyond current capacity, both during more frequent and severe extreme weather events, and more generally due to increasing community pressures and disruption. There may be cascading social changes and pressures that not only impact demand for services and changing physical needs but also mental health, anxiety, and morale. Coping with climate change can be overwhelming, and how people deal with stress and the unknown can vary. There are also flow on consequences to workers mental health as they work to support more customers struggling with climate change day to day consequences, extreme weather events and general climate anxiety.

Table 4: Risks related to changing community and customer service needs and delivery

#	Risks	Type	2030	2050	2090^
7	Disproportionate increase in people experiencing **poverty and disadvantage** in some parts of the City due to climate change disruption (eg. higher cost of living, reduced health, reduced food security) compounding already high levels of disadvantage, reducing overall community wellbeing, and increasing demand on council services such as customer service, community development and security	C	M	H	
8	Increased number of community and neighbour **complaints** to Council (eg. shade, trees, infrastructure, lack of services, lack of preparedness)	C	M	M	
9	Increased **security, community development and customer service demands** due to use of Council buildings as refuge sites during extreme heat or other emergencies	A	M	H	

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability
^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future.

Existing controls

Council has a range of services available to support the community, particularly vulnerable people, including access to free programs and safe, air-conditioned public facilities and welcoming outdoor spaces. Many Council spaces are multi-use (eg. library shelves on wheels), with potential to adapt to refuge and response sites. City of Salisbury uses a range of communication channels to reach wide demographics, including translated key documents, education workshops, relationships with community

25

leaders, and partnerships with external community service providers. There are also many initiatives and programs to support community wellbeing outlined in the THRiVE Strategy and action plan.

People seeking Council services can be under significant strain, particularly in relation to compliance matters, and staff are trained in conflict management and managing stressful situations, and in implementing the unreasonable complaints guideline. Council also delivers defensive infrastructure design, and crime prevention, compliance, crowd control and response activities.

Council has an Extreme Heat Policy that defines the City of Salisbury's commitment to supporting the community in relation to managing the impact of extreme heat conditions and the role of Council in the provision of information and services to the Salisbury community during extreme heat conditions.

Potential new controls

- Regularly review opening hours and staffing, with budget and service flexibility for emergencies, for example heatwave warnings, Code Red and Code Blue responses
- Provide staff opportunities to work across other services in times of greater demand
- Increase online services, community education and translation of information
- Review payment policies
- Explore solar panel subsidies or other mechanisms to reduce cost of energy for the community
- Support community wellbeing and resilience including through initiatives such as more neighbour day events and neighbour mediation services
- Improve messaging on phoneline, social media, web and automated webchat bots
- Provide access to additional counselling services after extreme events
- Increase community education, resilience, social and economic development initiatives
- Promote active and natural surveillance in streets and parks
- Cityscape for greening to reduce extreme weather impacts
- Provide more free water fountains, sunscreen etc. across the City
- Strengthen partnerships with support services and connect community to relevant services
- Continually optimise spaces and services, adjusting as service needs change (eg. click and collect offsite services).
- Take proactive, practical action on climate adaptation across all departments including continuous training for staff
- Provide ongoing programs to educate and build awareness and resilience of staff
- Provide specific training and resources to support frontline staff discussing climate change and related topics with customers

26

3. Infrastructure and assets

Council infrastructure is generally built for historic climate conditions and may not be fit for purpose for the more extreme weather expected in the mid to long term future. This includes both the structural integrity of the assets themselves and their capacity to meet user demands. Hazards to infrastructure can vary between assets, but include more reactive soils, which increase maintenance requirements on the road network. Lower service standards, shorter lifespans, and increased depreciation and maintenance costs were identified across all asset classes. Any new capital asset work with an expected lifespan of 60+ years (such as a building) should consider the most distant climate scenarios (2090) into its design.

Table 5: Risks related to infrastructure and assets

#	Risks	Type	2030	2050	2090^
10	Reduced use and change in needs for **outdoor sport & recreation facilities** due to increase in daytime temperatures and extreme heat (particularly for artificial turf/surfaces)	C		H	VH
11	**Longer lived assets** are impaired, need replacement sooner, and/or require more maintenance	C		VH	VH
12	**Roads** require earlier intervention to maintain service level due to increased heat and expansive soils impacted by the drying trend	C		VH	VH
13	**Material choices** no longer fit for purpose (eg. contact burns at playgrounds)	C		H	H
14	Increased **street lighting** needs (eg. street lights need to be on during the day in dust storms and bushfires)	A		M	H
15	Existing public facilities not able to meet **community refuge** needs (eg. indoor capacity, air conditioning and energy demands)	A	M	H	
16	Increased **energy demands** for cooling	T		H	VH

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability
^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

Council owns and manages a wide range of public infrastructure including roads, street lighting, buildings and sports facilities. Asset management includes detailed asset management planning, service levels, condition auditing, preventative and reactive maintenance. Efficiency is typically sought in procurement, such as implementation of voltage power factor control strategies to reduce electricity cost.

Potential new controls

- Review asset management plans to more consistently consider climate change, including building to climate ready standards and/or replacing like for better
- Review asset standards to increase resilience (eg. shade over playgrounds, repaint or use cooling surface treatments)
- Plan more regular condition assessment and interventions to avoid high cost replacements
- Build facilities suitable to deal with more extreme conditions, and in later decades increase number of indoor recreation centres
- Replace certain equipment ahead of its expected renewal schedule (eg. un-shaded steel playground products)

27

- Measure and monitor real impacts over time to inform infrastructure reviews
- Include climate considerations in business cases and budget bids
- Integrate adaptation strategies to extend life of road into asset management plan
- Increase education (internal and external) on the importance of climate ready infrastructure
- Source emergency funding to replace assets (like for better) that are impaired ahead of schedule by extreme events
- Investigate alternatives and options for greater use of cooler surfaces for sports fields
- Plant more trees at sports grounds to mitigate heat and improve playability
- Rationalise and reduce the amount and/or service level of public infrastructure to ensure budget can cover increased maintenance and greater replacement costs
- Review energy efficiency of buildings to optimise air conditioning and also plan for upgrades as applicable
- Design buildings with passive cooling and electricity control systems to optimise efficiency.

4. Open space and greening

Heating and drying trends are expected to continue, with more frequent and severe weather extremes, leading to more vegetation being lost, damaged, stressed and vulnerable to pests. Greening outcomes may reduce, local biodiversity may be impacted or lost, and watering and maintenance requirements and costs may increase. Demand for alternatives such as indoor sports facilities may increase, alongside the potential for more injury risks arising from reduced condition of outdoor sports surfaces.

Table 6: Risks related to open space and greening

#	Risks	Type	2030	2050	2090^
17	Reduced **biodiversity in parks and reserves** due to decline in vegetation health and impacts on fauna, leading to increased maintenance and replacement, including after extreme weather	C		M	H
18	Reduced **street tree health** and potential die back due to increased heat, reduced rainfall and increased vulnerability to pests and diseases, causing increased maintenance requirements and replacement, including after extreme weather	C		H	VH
19	**Turf management** does not evolve to address changing climate, resulting in reduced condition and amenity, including for sports fields	L		H	H
20	Lack of **community support for greening efforts** (eg. fear of fire risk or limb fall due to storms, lack of recognition of cooling and amenity value of trees) and therefore less greening benefits across city and increased maintenance costs due to vandalism etc	T	H	H	

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability

^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

Open space and greening are proactively managed and maintained, including parks, street trees and sporting turf. For public safety, certain sport and exercise can be ceased when required in accordance with extreme heat policy. Recycled and alternate water initiatives, efficient water use, and drought tolerant species are being used where practical. Systems are in place to increase watering hours in hot weather periods, and crews are available to support with storm clean up. Vegetation management

28

considers landscape design, revegetation planting, habitat creation, and pest management. Recognising the importance of urban greening for climate adaptation, Council's Sustainability Strategy includes actions to increase greening and biodiversity on Council land, and subsidies to provide natives to plant on private land. A partnership with Green Adelaide involves hosting of education officers who provide support for school and community education on sustainability and biodiversity in the northern Adelaide region.

Potential new controls

- Expand new species trials to determine species that can tolerate hotter, drier climates
- Support research into alternate turf for the changing climate and reduced irrigation requirements
- Expand community education on the value of greening, addressing fears and concerns
- Set a policy on open space provision, including regular service level reviews and long-term financial plan adjustments
- Buffer/offset planting adjacent to private property to reduce landowner fuel load fears
- Expand community greening education and planting programs
- Expand communications to encourage community participation in adaptation action, eg. social media asking residents to put a bucket of water out for fauna during heatwaves
- Adapt turf maintenance activities and schedules
- Assess projected demand and feasibility of sport facility conversions from outdoor to indoor
- Explore use of non-council facilities to supplement and meet open space demand requirements
- Continuously upskill open space and greening teams and embrace technology innovations
- Increase watering fleet, staffing and schedules as needed
- Increase investment in kerb inlets, WSUD assets and their maintenance, to increase passive watering and tree health, and reduce failures.

5.   Continuity, productivity and work health and safety

Risks associated with limited operating budgets, outdoor workers, compliance services and volunteers are nothing new to Council. Climate change may amplify these risks, via more frequent, severe and longer extreme events (eg. heatwaves), and via the cascading social changes and pressures which may increase operating costs, service demands and safety risks, while reducing productivity, revenue and morale. There may be an increasing tension between the requirement to keep workers safe and a commitment to service delivery and continuity. This is particularly true for services to vulnerable community members and outdoor asset maintenance.

Table 7: Risks related to continuity, productivity and work health and safety (WHS)

#	Risks	Type	2030	2050	2090^
21	Increased **base operating costs** (infrastructure, depreciation, energy etc)	C		VH	VH
22	Inability to complete core work due to **reduced productive time** (eg. watering needs, with staff stood down on WHS extreme heat procedure)	C	H	VH	
23	Increased **exposure of workers** to climate hazards	A	M	VH	

29

#	Risks	Type	2030	2050	2090^
24	Increased difficulty to program **community services/events** and increased number of cancelled or modified events	A	M	M	
25	Community **climate education/communication** is not adequate	T		M	M

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability

^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

The health and safety of workers and the effective and efficient use of public funds are central to Council business, with many existing mechanisms in place to safeguard them. These include the ongoing review of operating budgets, efficiency projects (eg. LED rollout to reduce energy costs), long term financial and asset planning, policies and procedures (eg. WHS, leave provisions, extreme heat policy, WHS procedures, hazard management procedures, injury management procedures), emergency response plans, personal protective equipment (eg. duress device), employee assistance program and resilience and wellbeing programs (eg. healthy minds sessions, conflict management training). There are also practical adaptations such as planning tasks around forecast inclement weather where possible, risk management processes, and planning events to suit likely conditions (eg. shaded outdoor or indoor venues for community events in summer). Council also provides a range of climate related information to community, including school education programs supported through Green Adelaide hosted officers.

Potential new controls

- Integrate climate risk requirements to procurement, scoping and project planning documents
- Safety in design process to consider weather impacts and relationship to operators and maintainers of plant or structures
- Redirect spend on proposed new assets to future-proof existing assets
- Seek grant funding for climate adaptations to reduce impact on council budgets
- Identify under-used public facilities to provide alternative venues for events
- Provide power to outdoor event spaces to enable use of misters, fans etc
- Strengthen existing communication methods, especially on climate data and impacts, for both community education and political advocacy
- Adopt technology and innovations to increase productivity, and assist staff to work safely in heat (eg. remote controlled mowers, medical tracking devices, automatic system sensors)
- Review actual conditions of different areas and use more location-specific work practices (ie. not a blanket 'stop work' policy)
- Increase the labour force to reduce exposure on individuals, and/or train staff to deliver multiple functions, for increased flexibility
- Change operating hours to suit weather conditions
- Debrief inclement weather event responses and adopt lessons learnt
- Introduce hydration and humidity monitoring programs.

30

6. Stormwater, water supply and watercourse management

Climate change modelling indicates there will be lower average rainfall overall, but rain events are more likely to be short (minutes to hours) and intense, with an increased potential for flash flooding. These trends could cause a decline in the number and health of natural assets, and in the volume of stormwater able to be harvested for reuse. They could increase irrigation and maintenance requirements, watercourse erosion, and flood risks, including increased repair, replacement, clean-up costs, insurance claims and liability risks for Council.

Table 8: Risks related to stormwater, water supply and watercourse management

#	Risks	Type	2030	2050	2090^
26	Reduced access to **reliable water supply** for operations, irrigation and watering of trees due to reduced rainfall, and possible water restrictions and / or diversion for fire fighting	C		M	M
27	Reduced ability to **capture rainwater** to meet current and future demand for Salisbury Water supply	C		H	VH
28	Asset failure of **wetland clay liner** at Salisbury Water due to extended dry periods	A		M	M
29	Increased **watercourse erosion**	A	H	H	
30	Increased flooding due to **capacity of stormwater systems** not being adequate for intense rainfall	A	M	H	
31	Increased volume of vegetation limb and debris drop **blocking stormwater systems** and watercourses	A	M	H	

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability
^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

Council has a wide range of stormwater management and irrigation assets and practices in place (eg. stormwater harvesting, wetlands and efficient water use through design), including under Salisbury Water. Stormwater management planning, inspections, monitoring and maintenance are used to manage stormwater and support water efficiency. The civil maintenance team supports maintenance and cleanout after significant events, such as clearing debris/obstructions in watercourses. In addition, an emergency flood response plan has been developed and Council is collaborating with the State Government on a project (funded by the Disaster Risk Reduction Grant Program) that will pilot flash flood forecasting systems for the Dry Creek and Brownhill Creek catchments in metropolitan Adelaide.

Council has experience dealing with water restrictions during the millennium drought. To ensure a secure, sustainable and resilient water supply for the future, Council is participating in the process led by SA Water to develop a Resilient Water Futures Strategy.

Consultation on Stormwater Management Plans for Adams Creek and Greater Edinburgh Park is planned in early 2024, and a Stormwater Management Plan for Dry Creek is under development.

Potential new controls

- Increase frequency of inspections and maintenance of watercourse and dam structures
- Develop programs to future proof the City from major floods, including 2090 flood mapping

31

- Finalise stormwater management plans and seek funding to implement the plans
- Increase stormwater harvesting capacity and stormwater network to manage heavier, more intense rainfall events
- Improve Council building designs to resist heavier rainfall and minor flood events
- Build more detention infrastructure to temporarily store stormwater in peak events
- Install water fill points in key wetlands that are at risk of drying out, and monitor wetland water coverage of clay liner to maintain integrity of clay liner
- Secure water supply for maintaining green spaces
- Mulch around trees to drip line instead of allowing turf to grow up to the trunk, to reduce watering requirements.

7. Coastal management

Climate models indicate with high confidence that sea level rise is unavoidable for centuries to millennia due to continuing deep ocean warming and ice sheet melt[28]. Expected impacts include loss of coastal ecosystems like mangroves, salinisation of groundwater, coastal inundation and erosion (due to chronic high tide flooding and storm surges). Sea level rise may reduce useable land, increase flood risk where coastal and watercourse flooding overlap, and increase coastal asset damage and cleanup costs. The inter-tidal zone on Dry Creek already extends into Mawson Lakes, and saline intrusion into the more western wetlands is expected to worsen with sea level rise. Scenarios for sea level rise may be quite conservative – there is a significant range of upward uncertainty due to unknowns about icesheet collapse.

Table 9: Risks related to coastal management

#	Risks	Type	2030	2050	2090^
32	Coastal inundation impacting development and infrastructure due to a lack of adequate planning for and adaptation to **sea level rise** in collaboration with stakeholders at a local and regional scale	C		H	VH
33	**Saltwater incursion** along Dry Creek into wetlands due to sea level rise	C	H	H	

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability
^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

Coastal management is largely outside of City of Salisbury control and requires collaboration with all stakeholders including state government (eg. Department for Energy and Mining and the National Parks and Wildlife Service) and adjacent private landholders (including owners of the saltfields).

Council has an existing sea wall, high level flood modelling data, and is raising key infrastructure such as roads when assets are renewed. Waterways in the council area are already experiencing saltwater incursion (eg. Greenfields is brackish), which reduces ability to harvest freshwater for reuse, and increases treatment costs for use. Solutions to address saltwater incursion along Dry Creek and to help manage inundation are under consideration.

Council has supported the work of the St Kilda Alliance and recently released the St Kilda Mangroves Community Vision and Strategic Plan, including providing ongoing monitoring support. Council is

32

providing input to the new SA Climate Ready Coasts[29] program and is working collaboratively to improve coastal management and accelerate coastal adaptation planning in South Australia.

Potential new controls

- Continue active participation in the SA Climate Ready Coasts program
- Collaborate with stakeholders to support mangrove health and retreat where possible
- Advocate for clearly defined coastal retreat zones to be integrated into planning controls, with limits on new development in areas subject to sea level rise risks
- Increase public education and awareness of coastal climate risks
- Work with stakeholders to raise sea wall heights to be suitable for the 2090 scenario
- Identify and improve capacity to defend critical at-risk assets
- Use more saline tolerant vegetation where possible.

8. Building resilient neighbourhoods

Risk drivers affecting the resilience of neighbourhoods include climate change, infill and greenfield development trends and master plans, the quality of design and materials, and the ability to retrofit existing infrastructure and housing assets. Typical homes (ie. older homes and those that meet current baseline code requirements) are at risk of absorbing extreme heat, being damaged by intense storms, and adding hard surfaces that increase the risk of flash flooding. Developments in low lying areas are also susceptible to sea level rise and flood risks. Consequences may include increasing litigation risks to Council, increasing vulnerability of residents, increasing demand for Council services, and increasing expectations to provide public green space.

Table 10: Risks related to building resilient neighbourhoods

#	Risks	Type	2030	2050	2090^
34	Increasing **urban heat** impacting community health and wellbeing, amenity and liveability due to increasing temperatures, increased hard surfaces (infill) and reduced tree canopy	C	H	H	
35	Climate change is not sufficiently addressed in **growth area** planning, development and infrastructure, including Dry Creek, North-Western growth areas and Salisbury City Centre	C		H	VH
36	Increasing demand for **additional green space provision** in strategic development projects may reduce rate revenue and increase maintenance costs	C		M	H
37	**Development approval** decisions don't account for climate risk	T		M	H

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability

^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

Council performs an administrative and compliance role for planning and building under the State Government's planning system, including assessing development applications against the Planning and Design Code. When undertaking urban design and developing Council facilities, Council considers urban heat management, including trial of road treatments to reduce urban heat, open space provision, and stormwater capacity. Council demonstrates sustainable design in strategic development projects through

33

specifying design guidelines. Council is also participating the Dry Creek Salt Pans cross government CEOs working group and cross government North-Western growth and infrastructure Executive Steering Group.

Potential new controls

- Expand assessment of urban heat in developments
- Assess social impact, changing social expectations/norms and consider alternative service delivery models
- Use updated heat mapping to identify priority areas (particularly vulnerable communities) for urban cooling treatments, integrate priorities into asset management plans, and seek funding to implement
- Educate staff and community on urban heat principles, effects and mitigation options
- Prepare or advocate for Planning and Design Code amendment to update mapping of hazards, and include heat as a hazard
- Advocate to the state government to consider long term climate risk as part of the growth area code amendment and infrastructure planning process
- Undertake independent studies to inform feedback to the state government and infrastructure planning and development proposals
- Increase planning of appropriate green spaces
- Continue research into new technologies
- Continue to review and advocate for improvements to policy, planning and development codes
- Build increased stormwater capacity
- Develop assumptions to inform flood modelling that accounts for current and future development (infill and greenfield)
- Showcase sustainable design in Council's own developments.

9. Governance and insurance

Climate hazards, especially extreme weather events, may increase insurance claims and associated insurance costs, and may lead to uninsurable assets or hazard types (known as perils), as well as putting Council at risk of failure to meet contractual obligations under its lease agreements. Insurance and leasing risks are highly interrelated with how well Council builds resilience into its assets, operations and services. Tension points could arise with increased costs and inability to provide adequate assets to meet service level requirements. This could be further hampered if policy, process and tools are not readily available to support informed decisions.

Table 11: Risks related to governance and insurance

#	Risks	Type	2030	2050	2090^
38	Council does not consider climate risk and potential impact on life / maintenance of asset when entering **leases**, especially sports facilities	L		M	H
39	Increase in the number and severity of **insurance claims** submitted to Council	L	M	H	
40	Assets or risks become **uninsurable** or prohibitively expensive to insure (eg. insurance may exclude flood cover)	L	H	H	

34

#	Risks	Type	2030	2050	2090^
41	**Climate risk assessment is not embedded** or is insufficient in planning, asset management and project management, resulting in poor adaptation or maladaptation	T	M	H	
42	Inadequate **data and tools** to identify risk areas with confidence (eg. flood/fire due to lack of detailed mapping and matching policy)	T	M	H	
43	Compounding risk of increased community disadvantage and reduced liveability (due to asset decline) compared to other Council areas causing reduced property value and **reduced rate income**	T		M	H
44	Reduced community **trust of government** on action/inaction and increase in radicalised groups affecting Elected Member decision making and staff service delivery	T	M	M	

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability

^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

Council works within existing statutory requirements and a range of policies and procedures to responsibly manage its governance, liability and insurance related risks. This includes the risk framework, governance and reporting systems, asset management plans, financial management and service level agreements including insurance, inspections and ongoing maintenance. Adaptations related to its lease obligations for sporting facilities include lighting upgrades at some locations to allow night play, which allows flexibility in hot weather. There is a culture of fostering innovation, climate related strategy, and past performance of ongoing improvements. There are overlays regarding hazards and heat maps but these are minimal. Council has existing security management, media protocols, and communications and education campaigns raising profile and reputation of Council

Potential new controls

- Increase capacity in insurance claim team as demand increases
- Take proactive, practical action on climate adaptation across all departments including continuous training for existing staff, Elected Members and adding climate training into the induction process
- Provide more climate guidance in reporting, asset management plans and financial plans
- Improve prioritisation of long-term outcomes, including managing community expectations for short-term initiatives
- Advocate to modernise the Local Government Act to clarify climate related obligations
- Increase engagement with tenants to better plan for and enable adaptability of properties
- Increase safety of players and manage service level expectations of tenants by adapting lease agreements regarding the functionality and suitability of use

35

10.Low carbon future

The final risk theme relates to the potential challenges and uncertainties in moving toward a low carbon, climate resilient future while meeting changing regulations, social expectations and global shifts like supply chain variation. These shifts may occur in unexpected or transformative ways, and at a faster pace than what has been typical. Some transitions are relatively straightforward (eg. fleet electrification), while others are still waiting on suitable viable options (eg. heavy diesel plant and concrete).

Ensuring a smooth, planned transition with minimal disruption and lower long-term costs may come at the expense of larger upfront investment costs. Failure to address transition risks in a timely and efficient manner may increase costs (eg. energy, maintenance, replacement parts), create stranded assets (eg. assets not compliant with service standards), lock in carbon emissions (eg. progressing with gas infrastructure), disrupt service provision and project delivery (eg. planned inputs unavailable), and reduce community satisfaction. Failure to meet emissions reduction targets and community expectations for change may damage Council's reputation. Litigation, penalties, and liabilities may arise from preventable actions that compromise public safety or fail to meet climate targets.

Table 12: Risks related to low carbon future

#	Risks	Type	2030	2050	2090^
45	Building and infrastructure project development process does not reflect climate change in **lifecycle costs**, resulting in assets that have high carbon emissions, are not climate resilient, and have high ongoing cost liabilities for council	T		H	VH
46	**Local businesses** do not adapt to climate change and are unable to maintain continuity leading to cascading negative consequences for community and council (eg. rate debt, service demand)	T	M	M	
47	Not being prepared for increased climate change **reporting requirements**	T	L	M	
48	Need for replacement of **gas plant and appliances** earlier than planned due to high gas prices, high carbon emissions and obsolete technology	T		M	M
49	Degradation of solar panel output and adverse environmental impact if **replacement of solar PV panels** on council buildings and recycling of old panels is not planned	T		M	M
50	**Supply chain limitations** and impacts on core services/supplies (eg. data storage, asphalt) causing increased material shortages due to higher demand for low carbon, climate resilient services/supplies and disruptions due to extreme weather/disasters	T	H	VH	
51	If **waste services** are not transformed to improve resource recovery, reduce carbon emissions and adapt to climate change there is a risk of stranded assets, higher landfill costs and non-compliance with environmental protection licensing responsibilities	T		H	H
52	Risk of stranded assets, carbon emissions and high fuel costs if Council is too slow to transition to **zero carbon**	T	M	M	

36

#	Risks	Type	2030	2050	2090^
	fleet (including electric vehicles) and provide adequate electric charging stations				
53	Installation of **gas infrastructure** in council strategic property development projects which locks in fossil fuel use, carbon emissions and exposure to gas prices	T	M	M	

Risk Type Legend: C=Chronic, A = Acute, T= Transitional, L = Liability
^ Each risk was assessed against the two climate scenarios closest to their decision timeframe. All are likely to still be risks in 2090 but should be re-assessed in the future

Existing controls

Council has demonstrated its adaptability while managing rapid regulation changes and supply chain disruption, including during the pandemic. Importantly, Council decided to install three electric heat pumps instead of gas-powered water heating at the new aquatic centre. City of Salisbury has a range of relevant strategy, policy and plans in place, including a procurement framework, budget bid and review process, and Sustainability Strategy with actions on both climate risk and emissions reduction. Efficiency is typically sought in procurement, including fit for purpose fleet. Innovation is fostered, with recent examples including an EV transition feasibility study and research trials into recycled lower carbon materials. New technology is embraced, with some AI tools already in use, and automatic monitoring systems at Salisbury Water. Customer expectations are actively managed to improve clarity on standard service levels. Existing infrastructure renewal process includes an intent to accommodate like for better (or more climate resilient), however this is regularly restricted due to limited budgets.

Potential new controls

- Partner with neighbouring Councils, research bodies and industry to accelerate transition
- Provide more climate guidance in reporting, asset management plans and financial plans
- Future team reviews and restructures consider and embrace opportunities in climate change
- Invest in research, new technology, and process improvements, including alternative materials and substitution
- Analyse work schedules, reduce unnecessary travel, and utilise fleet more effectively to reduce emissions while maintaining community expectations and service levels
- Continue education and training on climate change topics, both internally and externally, including economic development network of local businesses
- Improve asset management plans and long-term financial planning to better reflect low carbon transition and minimum standards for infrastructure design
- Fast-track replacement or retrofitting of existing buildings where possible
- Rationalise asset holdings when they fail if replacement is not practical
- Budget for transition based on feasibility studies and evidence of increased lifecycle costs
- Investigate alternate landfill opportunities
- Investigate alternative transport to work principles eg. carpooling.

37

Observations

In addition to the 53 specific risks identified, a number of other general findings from the process are worth noting.

Existing staff capacity and capability

- Staff participation and engagement on a challenging topic was excellent. Despite varying risk maturity across the business, there is a universally strong drive to adapt.
- Staff could readily identify high-level risks to their business area.
- Identifying potential risk controls was more of a challenge, and staff tended to focus on their own team's sphere of influence, rather than cross-team adaptation options. There is potential to accelerate awareness and adoption of adaptation options.
- Staff captured many adaptations / risk controls already being applied.

Recurring themes of workshop discussions

- Supporting vulnerable people, including those with adaptation challenges (eg. socio-economic disadvantage, disability, English as a second language, and a lack of experience in extreme weather).
- Balancing protection of staff and volunteers and with continuity of services in extreme events.
- Managing flood risk to limit private property damage to the current target of <300 homes per event.
- Potential need to support gradual transition from outdoor and/or day time to indoor and/or night time sport (eg. by building more indoor facilities).
- Building resilient neighbourhoods (eg. 10,000 new greenfield houses in Dry Creek, urban infill) and the need for an enabling state and federal policy framework to support this.
- Tree management and planting to increase canopy cover to manage urban heat.
- Capitalising on the unique opportunity for coastal protection and managed coastal retreat provided by the mangroves and saltfields.
- Resourcing adaptation:
  - Managing capacity to pay: Community has, on average, a relatively low capacity to fund their own adaptations at home, and may have an increasing demand for Council services, but a low capacity to pay for them.
  - Making the case for investment: Finding the balance between funding short and long-term priorities, and building the case for adaptation.

Complexity and interdependence of risks

- Staff understood that climate risk management is complex, iterative and challenging, especially due to uncertainties and inter-dependencies across future hazards, exposure and vulnerabilities.
- The ten risk themes generally split risks by operation or asset type, but no risks are truly independent. There is much overlap between risks, sections of Council and the potential risk reduction treatments identified. Frequently, the same or similar treatment ideas were offered within and across the grouped risks. This points to opportunity for coordinated efforts in risk treatment and controls across Council to optimise collective climate change risk reduction impact.

38

Capacity building outcomes

Shifts in understanding and confidence

At the end of each workshop, staff were asked to anonymously rank how their understanding of climate risks to their work, and their confidence in managing them, had improved. Forty-two of the 66 workshop participants completed the Mentimeter poll.

Most participants agreed the risk assessment workshop increased their knowledge of climate risks relevant to their work, with average score of 3.8.

The shift in confidence was slightly lower. A majority of recipients agreed they were more confident in assessing climate risks (average 3.6). This lower score is expected, as for many participants the workshop was their first opportunity to formally consider climate change risks. Confidence in a new skill takes time and practice.
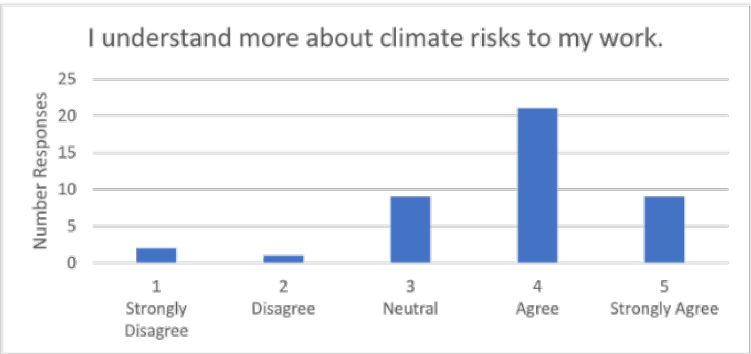

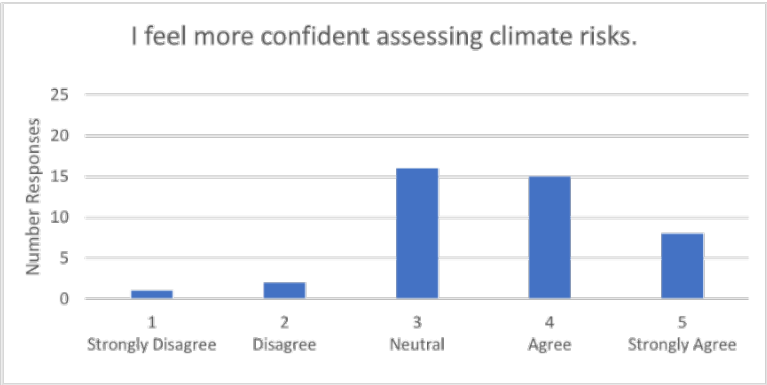Figure 4: Increase in staff understanding of climate risk to their work

Figure 5: Increase in confidence of staff to assess climate risks to their work

39

Staff reflections

At the end of each workshop, staff were asked to offer reflections, which are summarised below. These main ideas show the different ways staff members felt and thought during the workshops, reflecting the breadth of perspectives that contributed to this risk assessment.

Complexity – Staff acknowledged the complexity of climate risk assessment and adaptation. They talked about different types of risks, how they were often interlinked, and how they were sometimes unsure about the best way to handle them.

Awareness – Many commented on their increased awareness and understanding of climate scenarios, potential impacts and how to apply climate risk thinking into their everyday work.

Working together – Staff reflected on the need for everyone in the City to work together on climate change, share ideas and help each other prepare for changes. A few mentioned the process had opened their eyes to how climate risks were beyond just extreme weather events and touched all sectors.

Mixed emotions – Some staff members felt hopeful and motivated, while others were worried and overwhelmed. Some participants were energised by the prospect of tangible changes, while others grappled with the gravity of climate impacts and the challenges ahead.

Recognition of unknowns – Participants acknowledged the uncertainties and knowledge gaps, such as heat tolerances of certain vegetation and detailed flood mapping. They understood the need to keep learning and adapting as they go.

> *"We all want to keep our communities and ourselves safe."*
>
> *"We've got a mammoth task ahead, but there's a genuine interest in staff. Now we need to get an adaptation plan in place."*
>
> *"We're an adaptive organisation and I'd back this staff to tackle the challenge."*
>
> *"It's not easy to swallow, but I'm proud we are one of the leading Councils in this area and I'm motivated to get on with it."*
>
> *"This opened my eyes in how to apply climate risk to my role."*
>
> *"Before, climate was a blank page – now it has some colour."*

Educational imperative – A recurring theme emphasised the need for broader education and awareness. Staff highlighted the necessity of empowering both colleagues and the community to better understand and effectively address climate change risks and adaptations.

Call for action and a shift in perspective – The urgency of climate impacts resonated strongly. There were a number of reflections on how to accelerate to more tangible action, and to transition thinking away from short-term priorities to a long-term perspective aligned with future goals and resilience.

Balancing ideas and reality – There was a tension between the aspiration for innovative solutions and the practical constraints of limited resources and unknowns. The workshops sparked discussions on the balance between ambition and feasibility.

Proud of progress – People were happy the City was already taking action to address climate change. They felt the City was a leader in this area and that they should keep building on what they've started.

Thinking about the community – Staff members thought deeply about how climate change affects the Salisbury community, especially the people who live here. They observed that the City needs to communicate better and put adaptations in place to support the community.

40

Next steps

The City of Salisbury could consider these potential opportunities to amplify the impact of this project:

1. **Funding** – Build the case for investment in adaptation and long-term resilience, for example:
    a. Use the risk register as an evidence base to support state and federal grant applications (eg. Disaster Ready Fund)
    b. Improve internal tools or processes to demonstrate the financial benefits of long-term investments (eg. avoided future costs).
2. **Planning** – Develop a climate adaptation plan to expand on this initial work in identifying adaptation options, for example:
    a. Embrace the complexity and inter-relatedness of the risks by collectively planning for integrated risk treatments
    b. Strategically determine priority actions to progress, and when.
3. **Governance** – Explore opportunities to embed climate risk management in business as usual, for example:
    a. Establish a climate risk management policy and procedure, to set expectations for when and how to manage climate risks
    b. Strengthen climate considerations in Council's Integrated Design Framework
    c. Embed the climate risk register into Salisbury's existing risk framework (eg. embed future scenarios into the standard risk template).
4. **Capacity building** – Continue and expand capacity building and behaviour change, to help shift risk management into business as usual, for example:
    a. Establish an internal climate risk community of practice (CoP), capitalising on momentum and staff enthusiasm
    b. Share knowledge and expertise with other Councils, for example:
        i. Join existing Climate Risk and Resilient Housing CoPs facilitated by the Climate Practitioners Network
        ii. Work with neighbouring Councils to start a Regional Climate Partnership
        iii. Learn from Resilient South's Resilient Asset Management Project (RAMP).

41

Appendix 1: Workshop Materials

Climate Risk Assessment Matrix Guide

Quick Reference Guide of risk matrix criteria, adapted from City of Salisbury Risk Management Framework with focus on non-project risks.

Climate Cavalry

		CONSEQUENCE				
Consequence Criteria Examples		INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
Environment/Political/Community		Nil	Minor short term issue	Incident requiring city intervention	Med-term issue with major impact	Long-term issues with major impact
Reputation		Nil	Minor media interest	Moderate media interest	High media interest	Public censure/government inquiry
Finance / Budget		Less than $20K Or 2.5% of project budget	$20 - $100K Or 2.5-10% of project budget	$100K - $500K Or 10-14% of project budget	$500K - $1M Or 15-20% of project budget	Over $1M Or over 20% of project budget
Legal or regulatory		None	Minor legal, reg or policy failure	Limited legal, reg or policy failure	Major legal, reg or policy failure	Critical legal, reg or policy failure
Injury/Operational		Nil	Unplanned staff absence. Potential minor injury. First aid required.	Unplanned key staff absence. Medical treatment required	Unplanned several staff in one area absence. Significant injury.	Unplanned absence significant number staff. Death/critical injury.
Asset / Infrastructure Damage		Very minor damage to some assets	Minor but repairable damage to some assets	Moderate damage to many assets	Major widespread damage to assets	Widespread destruction of assets
Service Interruption		minor (less 4 hours)	Limited disruption requiring altered operational arrangements, e.g. 1 day	Some disruption requiring altered operational arrangements, (1-7days)	Significant impairment of service provision (1-4 weeks)	Total loss of service provision capability for more than 1 month.
LIKELIHOOD	Uncertain (F) event occurrence is uncertain based on best available information*	UNCERTAIN	Medium	Medium	High	Very High	Very High
	Almost Certain (E) event is expected to occur in most circumstances - at least 1/year	ALMOST CERTAIN	Medium	Medium	High	Very High	Very High
	Likely (D) event will probably occur at most times - probability within 1 to 2 years	LIKELY	Low	Medium	High	High	Very High
	Possible (C) event might occur at some time - probability within 3 to 9 years	POSSIBLE	Low	Medium	Medium	High	High
	Unlikely (B) event could occur at some stage - probability at least once in 10-20yr period	UNLIKELY	Low	Low	Medium	Medium	Medium
	Rare (A) event may occur in exceptional circumstances - could occur once in a period greater than 20 years	RARE	Low	Low	Low	Low	Medium

*Higher risk ratings for uncertain risks are recommended in Climate Compass (CSIRO, 2018)

Following table can assist you work out if the risk rating is acceptable or not.

Risk Category	Risk Appetite Description (level and degree of tolerance limits)
Strategy	In order to achieve its objectives Council must be willing to take risk. Council is willing to take a **medium to high** level of risk tolerance in pursuit of objectives that support and improve our community overall. There is a **low** willingness to accept risk that does not support Council's strategic objectives outlined in City Plan 2035
Financial and Commercial	Council has **zero** tolerance for theft or fraud. Council is focussed on the prudent and responsible management of financial resources and has a **low** tolerance for activities that threaten the long-term financial sustainability of the Council. Council has a **low** risk tolerance for financial loss or the waste of valuable resources of any kind. Council has a **medium to high** tolerance for financial investment in activities that support and improve our community overall.
Work Health and Safety, and People	Council has **zero** tolerance of unsafe practices undertaken by its employees knowingly compromising the safety of members of public. Council has a **low** tolerance of any activity or issue that exposes the health and safety of our people and/or the community. Council recognises that often there is inherent risk in the work people do and the actions taken by the members of community. A strong focus on health and safety for both our people and community is to be adopted.
Reputation	Council has a **medium** tolerance of reputational risk where the risk undertaken is focussed on the improvement and prosperity of the entire community or protecting and promoting the sustainability of the environment. Council has **low** tolerance for reputational risks where the activities undertaken that do not support the achievement of Council's objectives.
Performance and Service Delivery	Council has a **medium to high** risk tolerance for activities that demonstrate value to the community and improve services. Council has a **low** tolerance for any risk that might give rise to an interruption or degradation of services to our community.
Environment	Council has a **low** risk tolerance for any activity that irreversibly damages our environment. Council has **medium to high** appetite for activities that protects and enhances our natural and built environment and promotes sustainable living
Governance & Compliance	Council has **zero** tolerance for intentional breaches of legislative compliance requirements. Council operates within a strong statutory and regulatory environment. Council strives to meet all statutory and good governance requirements and has **low** tolerance for compliance failures

Item ESATS4 - Attachment 1 - Climate Change Risk Assessment Report

Climate Risk Assessment Worksheet

Climate Cavalry

RISK IDENTIFICATION & CURRENT CONTROLS

1. Name(s)	
2. Risk Identify a potential risk, and briefly describe it	

3. Decision Lifetime (please circle the nearest decade) What is the typical lifespan of the asset, operation or service at risk?	2030	2050	2090

4. Climate Hazard(s)
What are the relevant climate hazards?
(eg. bushfire, flood, storm, heatwave, drier, hotter, sea level rise, policy change, social change, technology change, litigation, other penalties)

5. Risk Type (please circle)	Acute short term physical risks eg. natural disasters like heatwaves or storms	Chronic long term physical risks eg. sea level rise, heating and drying trends	Transitional risks from policy, social, and technology change eg. shift to electric cars	Liability risks from litigation or other penalties for not considering climate risks

6. Consequences
(please list)
What are all the potential impacts arising from the risk?

7. Current Controls – What is already being done to manage this risk?

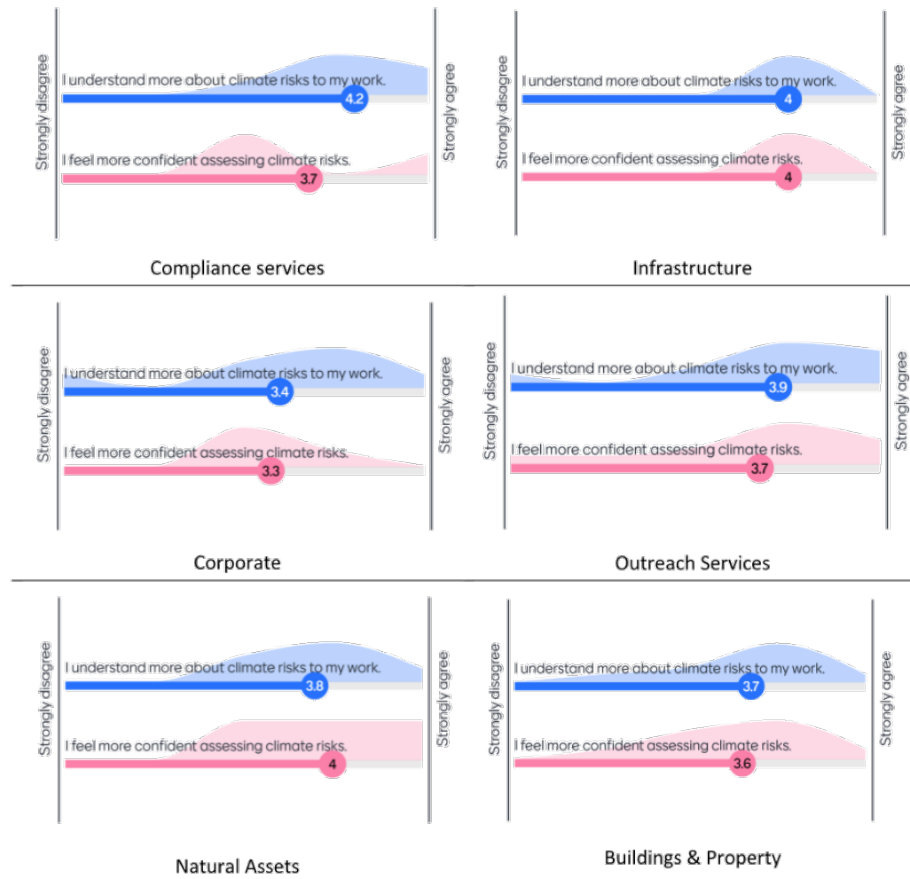| **Defensive** (list any controls put in place before the event to prevent (reduce likelihood) or prepare (reduce consequences))	**Reactive** (list any controls put in place after the event to respond and recover (reduce consequences))

RISK EVALUATION – FIRST SCENARIO

8. First Scenario (please circle) Based on the risk's decision lifetime, what is the first scenario you are assessing?	2030 high	2050 high	2090 high	2090 medium

9. Risk Assessment Rating With the controls in place in 2023, what is the residual likelihood, consequence and risk rating in this scenario? (refer to risk matrix for ratings, and only use uncertain if it really is!)	Likelihood	Consequence	Risk Rating

Is this risk acceptable? (please circle)	At acceptance	Below acceptance

10. New Controls (please tick whether each action should be started now or later)
If the risk is below acceptance, what further controls could be introduced to manage the risk?

Defensive (list any controls to be put in place before the event to prevent (reduce likelihood) or prepare (reduce consequences))	Start Now	Start Later	**Reactive** (list any controls to be put in place after the event to respond and recover (reduce consequences))	Start Now	Start Later

11. Residual Risk Assessment Rating What is the risk rating after those controls have been applied?	Likelihood	Consequence	Risk Rating

Is the residual risk acceptable? (please circle)	At acceptance	Below acceptance

RISK ASSESSMENT – SECOND SCENARIO

12. Second Scenario (please circle) What is the second scenario you are assessing?	2030 high	2050 high	2090 high	2090 medium

13. Risk Assessment Rating With the controls you have identified so far in place, what is the residual likelihood, consequence and risk rating in this scenario?	Likelihood	Consequence	Risk Rating

Is this risk acceptable? (please circle)	At acceptance	Below acceptance

14. New Controls (please tick whether each action should be started now or later)
If the risk is below acceptance, what further controls could be introduced to manage the risk?

Defensive (list any controls to be put in place before the event to prevent (reduce likelihood) or prepare (reduce consequences))	Start Now	Start Later	**Reactive** (list any controls to be put in place after the event to respond and recover (reduce consequences))	Start Now	Start Later

15. Residual Risk Assessment Rating What is the risk rating after those controls have been applied?	Likelihood	Consequence	Risk Rating

Is the residual risk acceptable? (please circle)	At acceptance	Below acceptance

16. Any further comments?

43

Appendix 2: Feedback Results per Workshop

Compliance services

Infrastructure

Corporate

Outreach Services

Natural Assets

Buildings & Property

Notes

_____

[1] Australian Local Government Association (ALGA, 2023), Address the Risks of Climate Change, available at: https://alga.com.au/policy-centre/climate-change/; and Climate Council (2021), Neighbourhood Issue: Climate Risks and Costs for Council, available at: https://www.climatecouncil.org.au/resources/neighbourhood-issue-climate-costs-risks-council/

[2] The Centre for Policy Development has commissioned three Memorandums of Opinion from Noel Hutley SC and Sebastian Hartford Davis, all entitled Climate Change and Directors' Duties – the second (2016) and third (2021) being supplementary to the first (2016). Collectively, these are known as 'the Hutley Opinions', and are widely considered the leading legal opinions on climate risk in Australia. All available at: https://cpd.org.au/2021/04/directors-duties-2021/

[3] The Centre for Policy Development (2022) Raising the Bar: Managing climate change risk in public authorities, available at: https://cpd.org.au/2022/09/raising-the-bar/

[4] Local Government Association of SA (LGASA), 4.4 Managing the Risks of Climate Change, LGA Policy Manual, available at: https://www.lga.sa.gov.au/about/overview-of-the-lga/corporate-documents/lga-policy-manual/environment-and-natural-resources/4.4-managing-the-risks-of-climate-change

[5] Taskforce on Climate Related Financial Disclosures (2017), Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures, available at: https://www.fsb-tcfd.org/publications/

[6] The ISSB Standards bring together the TCFD and other voluntary metrics into a single, mandatory global standard. Under these standards, climate disclosures are required on physical and transitional risks, as well as on governance, strategy, risk management process, and performance against metrics and targets (including reporting Scope 1, 2 and 3 emissions). More information and the ISSB Standards are available at: https://www.ifrs.org/news-and-events/news/2023/06/ten-things-to-know-about-the-first-issb-standards/

[7] Climate Planning and Edge Environment (2021) Climate Change Adaptation Governance Assessment Report for the City of Salisbury, prepared for the City of Salisbury, June 2021

[8] 2022 Australian Census

[9] https://plan.sa.gov.au/state_snapshot/better-housing-future/residential-land-release-and-rezoning

[10] 2022 NIEIR, via id. Profiles at https://economy.id.com.au/salisbury

[11] https://www.refugeecouncil.org.au/city-of-salisbury/

[12] Under the 2021 Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD, a SEIFA index), the City of Salisbury scores 898 (on par with Renmark and Mount Gambier; Greater Adelaide score 982), with large variance in relative advantage and disadvantage across the City (from Mawson Lakes at 1029 to Salisbury North – Edinburgh at 802). Source: https://profile.id.com.au/salisbury/

[13] 'Decision lifetime' has been defined as the sum of the lead time (the time from when the decision is first identified to the execution of the decision) and the consequence time (the time period over which the consequences of the decision emerge) (Source: Stafford Smith M, Horrocks L, Harvey A & Hamilton C (2011), _Rethinking adaptation for a 4C world_, Philos. Trans. Royal Soc. A, 369, pp. 196-216)

[14] Climate models provide outputs over different time frames. To smooth out variations in model outputs, climate data are commonly presented as an average over a 20-year time period, reported as mean annual values centred on a future marker year, commonly 2030 (2020–2039), 2050 (2040–2059), 2070 (2060–2079) and 2090 (2080–2099). (Department for Environment and Water, 2022)

[15] CSIRO and Department of the Environment and Energy (2018) Climate Compass: A climate risk management framework for Commonwealth agencies, available at: https://research.csiro.au/compass/

[16] CSIRO and Department of the Environment and Energy (2018) Climate Compass: A climate risk management framework for Commonwealth agencies, available at: https://research.csiro.au/compass/

[17] Department for Environment and Water (2022) Guide to Climate Projections for Risk Assessment and Planning in South Australia 2022, available at: https://www.environment.sa.gov.au/topics/climate-change

[18] The Intergovernmental Panel on Climate Change (IPCC) developed Representative Concentration Pathways (RCP) to represent plausible future trends of greenhouse gas emissions, taking into account plausible global responses to mitigate them. The four RCPs range from very low emissions to very high – RCP2.6, RCP4.5 ('medium' in this project), RCP6.0 and RCP8.5 ('high' in this project). RCP8.5 is a pathway where emissions continue to grow unmitigated (ie. business as usual).

[19] Department for Environment and Water (2022) Guide to Climate Projections for Risk Assessment and Planning in South Australia 2022, available at: https://www.environment.sa.gov.au/topics/climate-change

[20] CSIRO and Department of the Environment and Energy (2018) Climate Compass: A climate risk management framework for Commonwealth agencies, available at: https://research.csiro.au/compass/

[21] https://www.iso.org/iso-31000-risk-management.html

45

[22] Task Force on Climate Related Financial Disclosures (2017), available at
https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf

[23] APRA (2021) Prudential Practice Guide: CPG 229 Climate Change Financial Risks, available at:
https://www.apra.gov.au/news-and-publications/apra-releases-guidance-on-managing-financial-risks-of-climate-change

[24] Risk definition from ISO31000 Risk Management (2018), available at: https://www.iso.org/iso-31000-risk-management.html

[25] Treatment owner, date identified and status columns removed for simplicity, and reflecting that this is a high-level scan at a point in time.

[26] Acceptance ratings removed - This change was made following the risk assessment workshops, as acceptance would have been based on potential, not actual, controls, and analysis indicated that participants had insufficient time and information to assess acceptance level.

[27] Following the risk assessment workshops it was identified only 2 of the 116 raw risks had used the 2090 medium emissions scenario (in conjunction with 2090 high emissions), and decision was made to refine the risk register and report by its removal. The capacity building and concept to apply this scenario is still available to staff for more detailed risk assessments.

[28] Intergovernmental Panel on Climate Change (IPCC, 2023), Summary for Policymakers, in Sixth Assessment Report, available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf

[29] https://www.lga.sa.gov.au/about/what-we-do/sa-climate-ready-coasts

46

ITEM	ESATS5
	ENVIRONMENTAL SUSTAINABILITY AND TREES SUB COMMITTEE
DATE	12 March 2024
HEADING	Sustainability Strategy 2035 Progress Report
AUTHOR	Lara Daddow, Coordinator Strategic Sustainability, City Development
CITY PLAN LINKS	2.1 Salisbury has a balance of green spaces and natural environments that support biodiversity
	2.2 We make the most of our resources including water, waste and energy
	2.3 Our community, environment and infrastructure are adaptive to a changing climate
SUMMARY	This report constituents the first six-month progress report since the Sustainability Strategy 2035 was adopted in June 2023.

RECOMMENDATION

That Council:

1. Approves the provision of six-monthly reports on the progress of implementation of the Sustainability Strategy as detailed in Attachment 1 of the report (Item No ESATS5 Environmental Sustainability and Trees Sub Committee 12 March 2024).

ATTACHMENTS

This document should be read in conjunction with the following attachments:

1. Sustainability Strategy 2035 - Status of Actions February 2024

1. BACKGROUND

1.1 On 26 June 2023, Council adopted the *Sustainability Strategy 2035* ([Sustainability Strategy 2035 • City of Salisbury](#))

1.2 This report constituents a progress report on the first six-months of implementation of the *Sustainability Strategy 2035*.

2. EXTERNAL CONSULTATION / COMMUNICATION

2.1 N/A

3. DISCUSSION

Status of Actions

3.1 Of the 48 actions in the Sustainability Strategy the status of progress includes:

- 30 (63%) actions that are on track.
- 17 (35%) actions that are progressing, but scope or funding needs to be resolved (e.g. pending outcomes of strategy development or budget bids).

- The remaining action is highly dependent on State Government partnership and funding - "Partnering with the State Government to deliver a Sustainability Centre for Excellence and eco-tourism destination at St Kilda to support biodiversity conservation and education."

3.2   A list of Sustainability Strategy 2035 actions and the status of actions is provided in Attachment 1.

Biodiversity Salisbury Theme

3.3   The key achievements during July to December 2023 against the Biodiverse Salisbury theme actions are summarised in points 3.3.1 to 3.3.7.

   3.3.1   Engagement and support of the community across seven biodiversity planting events where over 5,000 local native plants were planted (with funding support from Green Adelaide and the Department for Infrastructure and Transport).

   3.3.2   Ongoing monitoring and management at six key biodiversity sites including planting of an additional 1,300 local native plants.

   3.3.3   Delivery of the grant funded Railway Corridor rehabilitation project at Pooraka.

   3.3.4   Provision of free native plants for education sites (1,850 in total) and subsidised native plants for residents (2,050 in total).

   3.3.5   Collaboration with the Green Adelaide Education Team on the establishment of the community led Our Big Backyard project in the Little Para River area with multiple schools, NGOs and the Kaurna community.

   3.3.6   Agreement on the terms of reference for a working group with the National Parks and Wildlife Service (NPWS) to discuss management of the St Kilda mangrove trail and visitor centre.

   3.3.7   Council endorsement of the St Kilda Mangroves Alliance Community Vision and Strategic Plan and an advocacy letter to the Minister for Environment and Water.

3.4   The key plans during January to June 2024 to progress against the Biodiverse Salisbury theme actions are summarised in points 3.4.1 to 3.4.7.

   3.4.1   One community planting event and one school planting event is scheduled at Little Para River for June 2024.

   3.4.2   Revegetation works will commence in May 2024 at key biodiversity sites with just over 1,000 plants proposed to be planted by Field Services.

   3.4.3   Two plant propagation workshops will be held in partnership with Green Adelaide and Provenance Indigenous Plants.

   3.4.4   The Our Big Backyard project in the Little Para River area will be launched in early 2024 including maps and educational material.

   3.4.5   The voucher scheme offering education sites 50 free native plants and residents subsidised native plants will be opened and promoted from May 2024 to coincide with the start of planting season.

3.4.6   Feedback on two grant applications (submitted on 9 February 2024) for the Open Space Grant Program will be received by the end of June 2024. The applications were for Baloo playground incorporating Biodiversity Sensitive Urban Design principles as part of the Walkleys Road Strategic Development Project and for work on the Green Trails Program for Dry Creek Trail at Valley View.

Carbon Responsible Salisbury

3.5   The key achievements during July to December 2023 against the Carbon Responsible Salisbury theme actions are summarised in points 3.5.1 to 3.5.7.

3.5.1   85% completion of the new Aquatic Centre which will be an all-electric facility with high efficiency heat pumps and 150kW of solar PV reached.

3.5.2   Commencement of the development of a Fleet Low Emission Feasibility Study and Transition Plan.

3.5.3   Council approval of sustainability grant guidelines (as part of the Community Grant Program) for projects from 1 July 2024.

3.5.4   CoS was invited and agreed to participate in the LGA Net Zero 'Accelerate' Program for Local Government.

3.5.5   Commencement of a partnership with 10 other councils (and led by City of Charles Sturt) on a project to develop decision support tools for lower carbon emission roads and footpaths co-funded by the Local Government Research and Development Scheme.

3.5.6   Council approval to pursue establishment of a trial Regional Climate Partnership (RCP) for Northern Adelaide (pending a MoU being brought back to Council).

3.6   The key plans during January to June 2024 to progress against the Carbon Responsible Salisbury theme actions are summarised in points 3.6.1 to 3.6.8.

3.6.1   Identification of potential energy efficiency and carbon emission reduction projects for submission to the Australian Government Community Energy Upgrade Program which opened on 21 December 2023 and is due 30 April 2024.

3.6.2   The Fleet Low Emission Feasibility Study and Transition Plan will be completed in early 2024 and presented to Executive and Council before June 2024.

3.6.3   The documentation, processes and marketing material will be finalised for the new sustainability grant ready to be launched 1 July 2024.

3.6.4   The LGA Net Zero 'Accelerate' Program will commence and include collation of emission source data as part of development of a baseline carbon inventory and delivery of a summary report including emission reduction opportunities linked to Scope 1, 2 and 3 emissions by mid-2024.

3.6.5   The project to develop decision support for lower carbon emission roads and footpaths project in partnership with 10 councils is scheduled to be completed by the end of 2024.

3.6.6   Discussions will be held with representatives from City of Playford, Town of Gawler, Green Adelaide, Department for Environment and Water, NAWMA and LGA on scope and governance of an RCP trial including development of a MoU for Council consideration.

3.6.7   Development of an Economic Development Strategy including consideration of opportunities to support business in the low carbon and circular economy.

3.6.8   Council has the opportunity to advocate for increased support and infrastructure for active travel as part of a submission on the Department for Infrastructure and Transport Adelaide North Transport Study announced in January 2024.

Climate Resilient Salisbury

3.7   Key achievements during July to December 2023 against the Climate Resilient Salisbury theme actions are summarised in points 3.7.1 to 3.7.12.

3.7.1   Review of draft tree canopy and heat mapping data outputs (captured during 2022/23 summer) as part of a partnership project with the Department for Environment and Water (DEW) and metropolitan Adelaide councils.

3.7.2   Identification of climate adaptation and sustainability design guideline options for the Walkleys Road Corridor project.

3.7.3   Commencement of the pilot flash flood forecasting system project in partnership with multiple agencies co-funded by the Disaster Risk Reduction Grant program.

3.7.4   Commencement of the RediCommunities Community-led Disaster Resilience Project in partnership with Red Cross and multiple key stakeholders including a community information session.

3.7.5   Commencement of a research project on use of and connection to green space among CALD communities led by University of Adelaide in partnership with Cities of Port Adelaide Enfield and Charles Sturt, funded by Green Adelaide.

3.7.6   Council approval of an updated Extreme Heat Policy incorporating a policy position that Council may extend opening hours of community facilities during extreme heat events if needed/requested to provide a safe and comfortable environment for the community.

3.7.7   Support for and increased community participation in the national Grow it Local program.

3.7.8   Commencement of partnership discussions with NGO's on community food relief initiatives.

3.7.9   Commencement of a research project to develop new decision support tools that incorporate economic quantification of health and environmental benefits of trees and green space, led and funded by the University of Adelaide in partnership with City of Unley and State Government agencies.

3.7.10   Commencement of an Emergency Risk Assessment, completion of staff engagement and commencement of reporting.

3.7.11   Commencement of a Climate Change Risk Assessment, completion of engagement and near completion of reporting.

3.7.12   Approval of the CoS Regional Public Health Plan by the Chief Public Health Officer.

3.8   Key plans during January to June 2024 to progress against the Climate Resilient Salisbury theme actions are summarized in points 3.8.1 to 3.8.10.

3.8.1   Review of the final 2022/23 tree canopy and heating mapping data and reporting from DEW.

3.8.2   Finalisation of climate change adaptation initiatives and design guidelines for Walkleys Road Corridor project.

3.8.3   Presentation of the three draft Stormwater Management Plans (Adams Creek, Greater Edinburgh Park and Dry Creek) to Council and then community consultation (pending Council decision).

3.8.4   Community workshops will be held as part of the RediCommunities project in February and May 2024.

3.8.5   Opportunities to support residents through the escalating cost-of-living and food security crisis will be considered as part of development of a Cost of Living Strategy (as identified in the Thrive Strategy and Action Plan).

3.8.6   Partnership discussions with Puddle Jumpers, food relief agency, will continue with likely service at Bagster Road Community Centre commencing in March 2024.

3.8.7   A range of community gardening workshops will be delivered across Community Centre and Hub sites including at the Burton and Para Hills communal gardens in collaboration with Green Adelaide and the Grow It Local program.

3.8.8   The Emergency Risk Assessment will be completed and reported to the Audit & Risk Committee and Council.

3.8.9   A workshop facilitated by University of Adelaide will be held with CoS staff as part of the economics of trees research project in April 2023 with findings of research discussed later in 2024.

3.8.10   The Climate Change Risk Assessment report will be provided to Council in March 2024 with recommendations on next steps.

Resourceful Salisbury

3.9   Key achievements during July to December 2023 against the Resourceful Salisbury theme actions are summarised in points 3.9.1 to 3.9.7.

3.9.1   Reporting to Council on the successful and quick take up of free Food Organics Green Organics (FOGO) bins by residents (78% over 2 years) and incorporation of free FOGO bins as BAU (as the avoided landfill levy cost more than covers the provision of FOGO bins).

3.9.2   Finalisation of waste education material in languages other than English by NAWMA with input from the Salisbury Intercultural Community Alliance.

3.9.3   Completion of a CoS supported PhD study on the use of recycled aggregates in kerb concrete.

3.9.4   Support provided to NAWMA to hold two community collection days for old, worn-out linens to be recycled by BlockTexx.

3.9.5   Council agreed to establishing two circular economy sharing initiatives (e.g. tool libraries, repair cafes, community gardens) as part of the Thrive Action Plan.

3.9.6   Review of waste management for large CoS events and a Council decision to engage waste management contractors to provide a three bin system for six large events in 2024.

3.9.7   Engagement of a consultant by NAWMA to complete a feasibility study on an alternative waste management system.

3.10   Key plans during January to June 2024 to progress against the Resourceful Salisbury theme actions are summarised in points 3.10.1 to 3.10.7.

3.10.1   Development of a communication plan in collaboration with NAWMA to educate the community about the different waste streams, the benefit of diversion from landfill and other related waste management issues, including promotion and distribution of the waste education material for CALD communities.

3.10.2   A new service agreement for kerbside waste collection will be developed by NAWMA based on feedback from CoS with the possibility to consider performance measurements to understand community behaviour in relation to waste.

3.10.3   Representatives from the University of South Australia and industry partners will present to CoS staff on findings of the research on recycled aggregates in kerb concrete.

3.10.4   A project plan for a community skills sharing / circular economy initiative will be developed.

3.10.5   An Economic Development Strategy for CoS will be developed including consideration of opportunities in the low carbon and circular economy.

3.10.6   A contractor will be engaged to deliver three bin systems for CoS six large events in 2024.

3.10.7   In accordance with a Council decision in December 2023 a report will be prepared on replicating the City of Adelaide's Reuse and Recycling Hub program in CoS.

Waterwise Salisbury

3.11   Key achievements during July to December 2023 against the Waterwise Salisbury theme actions are summarised in points 3.11.1 to 3.11.4.

3.11.1   Expansion of the Salisbury Water network with connections to Bush Park at Pooraka, Fairbanks, Venturi and Delamere Reserves at Paralowie, and Bunya, Strathpine and Fern Grove Reserves at Salisbury East.

3.11.2   Collaboration between the Green Adelaide Education Team and Salisbury Water staff at the Greenfields Wetland to provide resources for self-guided tours and presentations to 60 high school students on the recycled water process, water quality and management.

3.11.3   Agreement to partner on a University of SA PhD project for 3.5 years on mechanistic design of permeable paving, including water-transferring solutions, to improve permeable paving design for roads, with multiple council and industry partners.

3.11.4   Commissioning of the Railway Corridor Detention basin at Pooraka.

3.12   Key plans during January to June 2024 to progress against the Waterwise Salisbury theme actions are summarised in points 3.12.1 to 3.12.4.

3.12.1   Camelot Reserve irrigation will be connected to the Salisbury Water network and Springback Boulevard Reserve irrigation will be upgraded.

3.12.2   White Green at Salisbury East and Kara Crescent Reserve at Para Hills will be connected to the Salisbury Water network.

3.12.3   A 5-yearly review of all (emerging) pollutants of concern as part of full catchment risk assessments will be completed and this will inform a revision of the Water Quality Monitoring and Reporting Program.

3.12.4   Work will continue with DEW to secure Australian Government funding for the Bellchambers project at Edinburgh North including upgraded litter and sediment removal prior to the existing detention basin and new filtration, harvest and MAR infrastructure.

4.   FINANCIAL OVERVIEW

4.1   No financial implications. All budgets for Sustainability Strategy actions are assessed as part of the annual budget bid and business planning process.

5.   CONCLUSION

5.1   Of the 48 actions in the Sustainability Strategy the status of progress includes:

- 30 (63%) actions that are on track.
- 17 (35%) actions that are progressing, but scope or funding needs to be resolved (e.g. pending outcomes of strategy development or budget bids).
- The remaining action is highly dependent on State Government partnership and funding - "Partnering with the State Government to deliver a Sustainability Centre for Excellence and eco-tourism destination at St Kilda to support biodiversity conservation and education."

5.2   The next progress report will be provided in August 2024 and will assist to inform the City of Salisbury Annual Report.

5.3   It is proposed that a key highlights version of the Sustainability Strategy progress report for 2023/24 is graphically designed for community release.

Action Item Code	Action	Action type	Status of Progress
Theme 1. Biodiverse Salisbury			
B1	Enhancing our five biodiversity corridors and completing the Green Trails Network in partnership with State Government	Existing	🟩
B2	Managing and monitoring our key biodiversity sites	Existing	🟩
B3	Partnering with Green Adelaide, Kaurna community, community groups, schools and NGOs to deliver and expand our biodiversity and sustainability education programs and events	Existing	🟩
B4	Supporting residents, schools and community groups to enhance and protect biodiversity on private and public land through offering vouchers for local indigenous plants at subsidised prices	Existing	🟩
B5	Partnering with the State Government to deliver a Sustainability Centre for Excellence and eco-tourism destination at St Kilda to support biodiversity conservation and education	New	🟥
B6	Reviewing the Biodiversity Corridors Action Plan (2010) and establishing Biodiversity Management Plans for key sites	New	🟨
B7	Investigating opportunities to create new biodiversity links and sites	New	🟨
B8	Improving and creating Best Practice Biodiversity and Sustainability Spaces in partnership with peak bodies and industry stakeholders (e.g. Biodiversity Sensitive Urban Design)	New	🟨
Theme 2. Carbon Responsible Salisbury			
C1	Tracking of energy use and deploying energy efficiency and demand management technologies to improve energy productivity in Council buildings and assets, reduce carbon emissions and provide financial savings	Existing	🟨
C2	Installing solar photovoltaic (PV) and energy storage on Council assets (e.g. buildings, reserves, pump stations, etc) where appropriate	Existing	🟨
C3	Progressively transitioning to low emissions and electric vehicles as products become available and cost effective in the Australian market	Existing	🟩
C4	Supporting sporting and community clubs to reduce carbon emissions and operating costs through the provision of electricity advice and expanding it to provide water and waste advice	Existing	🟩
C5	Progressively update and publicly disclose the organisational carbon inventory	New	🟩
C6	Develop a new Organisational Carbon Emissions Reduction Action Plan 2030 to work towards carbon neutrality by 2035	New	🟩
C7	Partnering with the State Government to deliver community education programs to build understanding of the impacts of climate change and how to reduce their carbon footprint	New	🟨
C8	Provide support and education to businesses to address sustainability of their operations and reduce carbon emissions	New	🟩
C9	Work with third party providers to find suitable locations to install electric vehicle chargers	New	🟩
C10	Support active travel including walking and cycling connections and safety as part of precinct, streetscape and infrastructure upgrades and advocate to the State Government and other parties for inclusion of active travel infrastructure in developments and upgrades	New	🟩
Theme 3. Climate Resilient Salisbury			
CR1	Implementing existing climate adaptation and resilience projects, strategies and plans	Existing	🟩
CR2	Implementing climate resilience into Council housing developments through inclusion of sustainability measures such as recycled water and specification of design guidelines for purchasers	Existing	🟩
CR3	Implementing Major Flood Mitigation Projects to reduce risk of flooding to homes and businesses	Existing	🟩
CR4	Collaborating with State Government, Councils and NGOs to deliver Community Support and Education Programs that build resilience to climate change	Existing	🟩
CR5	Supporting and promoting community gardening and other community led food security initiatives	Existing	🟩
CR6	Expanding the Salisbury Water Distribution Network to supply recycled water to reserves to improve greening and cooling outcomes	Existing	🟩
CR7	Undertaking emergency management planning and responding to natural hazards and extreme weather	Existing	🟩
CR8	Continuing to improve tree canopy cover in open spaces	Existing	🟨
CR9	Undertaking a Climate Change Risk Assessment to understand the corporate exposure to the physical, economic transition and liability risks associated with climate change	New	🟩
CR10	Incorporating climate change risks into asset management and financial planning	New	🟨
CR11	Reviewing and updating the Regional Public Health Plan	New	🟪
Theme 4. Resourceful Salisbury			
R1	Partnering with Green Industries SA and NAWMA to expand green waste service by providing green bins, kitchen caddies, compostable bags and educational material to residents	Existing	🟩
R2	Maintaining a weekly kerbside collection service and delivering educational resources for our culturally and linguistically diverse community to assist to reduce waste generation and increase resource recovery	Existing	🟩
R3	Building a Circular Economy through developing new markets and using recycled materials	Existing	🟨
R4	NAWMA conducting audits of all kerbside bins every three years	Existing	🟩
R5	Implementing waste, recycling and organics bin systems in Council facilities supported by education and resources	New	🟨
R6	Applying the waste hierarchy to Council operations, services, events and facilities	New	🟨
R7	Providing options for the collection of specialised waste items (e.g. batteries/mobile phones) in Council facilities	New	🟨
R8	Reviewing our procurement policies to encourage recycled material in purchasing to deliver sustainability outcomes and stimulate the circular economy	New	🟨
R9	Advocating to State and Federal Government for collaborative research opportunities to build a circular economy	New	🟨
R10	Investigate alternative waste management systems	New	🟩
R11	Develop a Resource Recovery Action Plan to reduce waste and increase diversion from landfill	New	🟨
Theme 5. Waterwise Salisbury			
W1	Delivering the Watercourse Management Works and the Drainage and Waterways Programs	Existing	🟩
W2	Investigating and implementing water optimisation and efficiency measures	Existing	🟩
W3	Identifying additional customer demand for alternative water and developing new sites and opportunities to capture and store more stormwater to meet the demand	Existing	🟩
W4	Collaborating with State Government, Water Sensitive SA and NGOs to deliver community engagement and education programs	Existing	🟩
W5	Monitoring water quality within city catchments	Existing	🟩
W6	Continue to collaborate with State Government and SA Water on development of the Resilient Water Futures Strategy	Existing	🟩
W7	Evaluating opportunities for 'greening' the city, particularly in locations where it will mitigate urban heat and increase urban biodiversity	New	🟨
W8	Increasing onsite capture, reduce runoff and improving stormwater quality to protect waterways and the marine environment.	New	🟨

🟩 Status - On track

🟨 Status - Progressing, but scope or funding needs to be resolved

🟥 Status - Progress is highly dependent on securing State Government partnership and funding

City of Salisbury

Item ESATS5 - Attachment 1 - Sustainability Strategy 2035 - Status of Actions February 2024