



Colac Otway
SHIRE

SUBMISSIONS COMMITTEE MEETING

AGENDA

Wednesday 6 September 2023

at 4:00 PM

COPACC

95 - 97 Gellibrand Street, Colac



COLAC OTWAY SHIRE SUBMISSIONS COMMITTEE MEETING

Wednesday 6 September 2023

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COLAC OTWAY SHIRE SUBMISSIONS COMMITTEE MEETING

NOTICE is hereby given that the next **SUBMISSIONS COMMITTEE MEETING OF THE COLAC OTWAY SHIRE COUNCIL** will be held at COPACC on Wednesday 6 September 2023 at 4:00 PM.

AGENDA

1 DECLARATION OF OPENING

OPENING PRAYER

Almighty God, we seek your blessing and guidance in our deliberations on behalf of the people of the Colac Otway Shire. Enable this Council's decisions to be those that contribute to the true welfare and betterment of our community.

AMEN

2 PRESENT

3 APOLOGIES

4 WELCOME AND ACKNOWLEDGEMENT OF COUNTRY AND REASON FOR MEETING

Colac Otway Shire acknowledges the original custodians and law makers of this land, their elders past and present and welcomes any descendants here today.

RECORDING AND PUBLICATION OF MEETINGS

Please note: All Submissions Committee meetings live streamed and recorded when the meeting is held either at COPACC or online. This includes the public participation sections of the meetings. When meetings are held in other locations, Council will endeavour to make an audio recording of the meeting for community access. Matters identified as confidential items in the Agenda will not be live streamed or recorded regardless of venue or mode.

By participating in open Submissions Committee meetings, individuals consent to the use and disclosure of the information they share at the meeting (including any personal and/or sensitive information).

As soon as practicable following each open Submissions Committee meeting, the live stream recording will be accessible on Council's website. Recordings are also taken to facilitate the preparation of the minutes of open Council and Planning Committee meetings and to ensure their accuracy. Recordings will be retained by Council for a period of four years.

As stated in the Governance Rules, other than an official Council recording, no video or audio recording of proceedings of meetings will be permitted without specific approval by resolution of the relevant meeting.

This meeting will be livestreamed to the public via Council's You Tube channel (search Colac Otway Shire Council at www.youtube.com).

The sole purpose of this Submissions Committee meeting is to hear persons who indicated they wish to speak in support of their written submissions to the following:

- Development of Telecommunications Monopole at 100 Colac Lavers Hill Road Elliminyt
- Draft Environmental Sustainability Strategy and Climate Change Action Plan.

5 DECLARATIONS OF INTEREST

A Councillor who has declared a conflict of interest, must leave the meeting and remain outside the room while the matter is being considered, or any vote is taken.

6 CONFIRMATION OF MINUTES

- **Submissions Committee meeting held on Wednesday 16 August 2023.**

RECOMMENDATION

That the Submissions Committee confirm the minutes of the Submissions Committee meeting held on Wednesday 16 August 2023.

7 VERBAL SUBMISSIONS

The Mayor is to read out the names of the people who have confirmed they wish to make a verbal submission. These verbal submissions will be made in relation to each respective agenda item and must be directly relevant to the respective agenda item. A limit of 5 minutes will apply.

Item: 8.1

Development of Telecommunications Monopole at 100 Colac Lavers Hill Road Elliminyt

OFFICER	Ian Williams
CHIEF EXECUTIVE OFFICER	Anne Howard
DIVISION	Executive
ATTACHMENTS	1. Plans of proposal [8.1.1 - 4 pages]

1. PURPOSE

To hear verbal submissions from the applicant and objectors about a planning application for the construction of a 37.5m high telecommunications facility (monopole and antennae) and associated works at 100 Colac Lavers Hill Road, Elliminyt.

The role of the Submissions Committee is to hear submissions. The Submissions Committee meeting is not a decision-making forum, and the Committee has no authority to make a decision on the application.

2. EXECUTIVE SUMMARY

Planning permission is sought for the construction of a telecommunications monopole with associated equipment and works at the Colac Golf Club. The proposed monopole would be 35m in height, whilst the total height including antennae would be 37.5m.

The proposed facility would be owned by the Indara Group and would host Optus telecommunications equipment. The proposal includes one triangular headframe supporting three 4G panel antennae (each up to 2.8m in length), three 5G panel antennae (each up to 1m in length) and one parabolic antenna. Ancillary equipment associated with the operation and safety of the facility – including remote radio units, cabling and antenna mounts – is also proposed within a 10m x 10m lease area.

The applicant has advised that there are no feasible co-location opportunities in the area.

The telecommunications facility is not funded, or partly funded, by the Commonwealth through the Mobile Black Spot Program or the State of Victoria.

The application will be determined when a more detailed officer report, including a recommendation on whether a planning permit should be issued, is considered at the 13 September 2023 Planning Committee meeting.

3. RECOMMENDATION

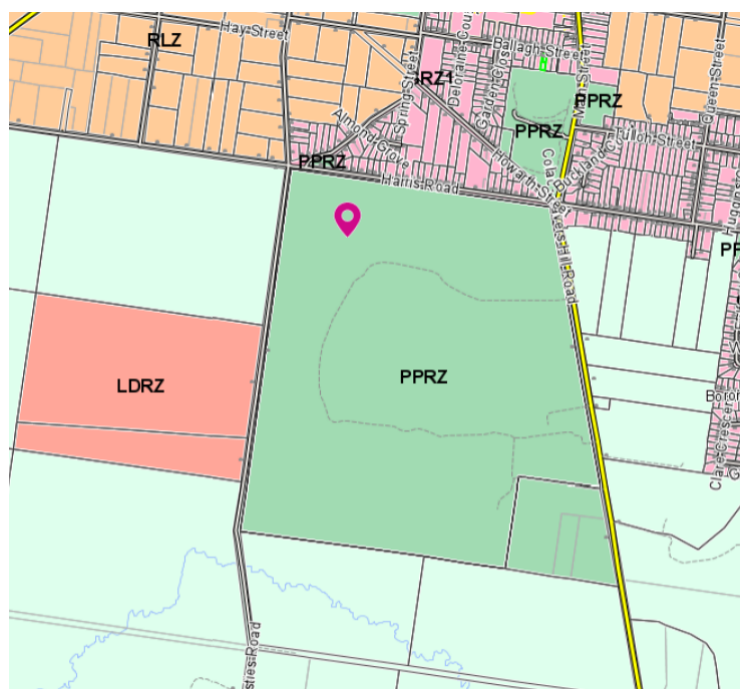
That the Submissions Committee:

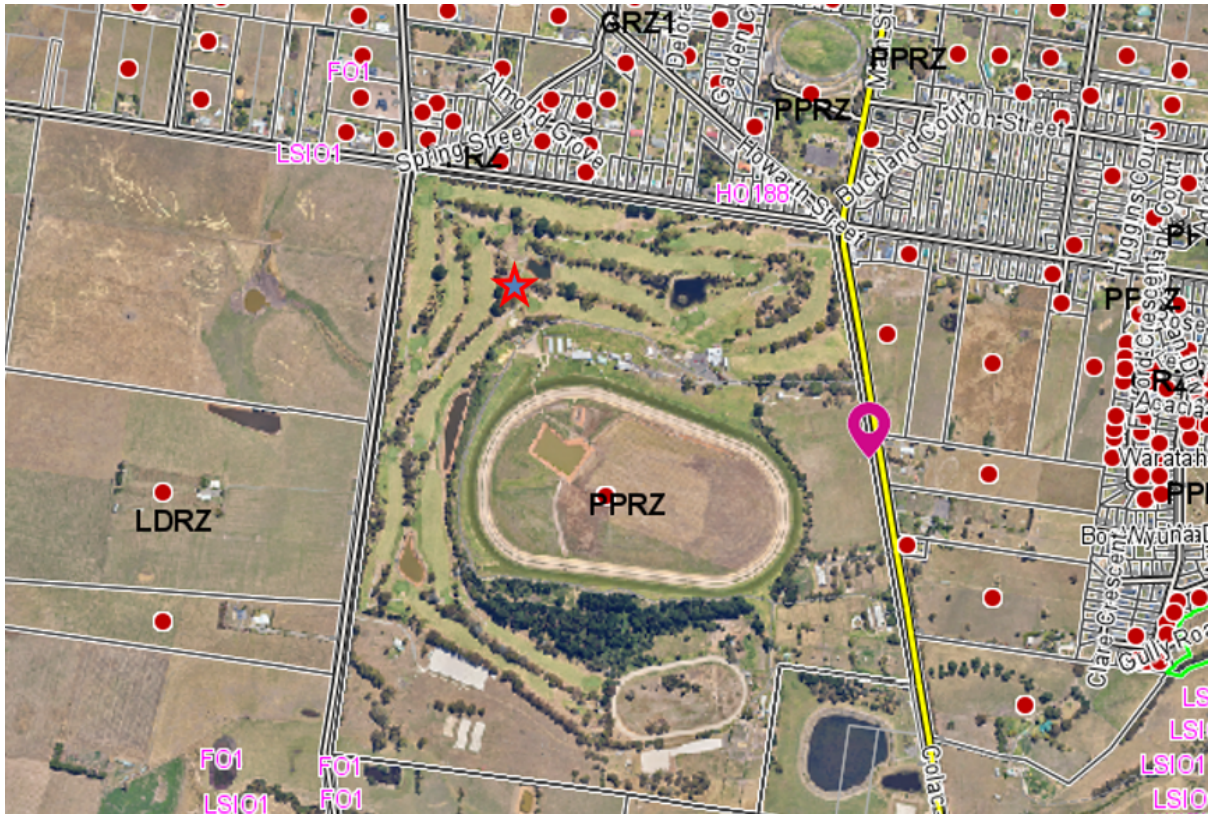
- 1. Acknowledges and notes the verbal comments made in support both of written submissions and of the application.*
- 2. Thanks the submitters and the applicant for their contribution to the submission process.*
- 3. Having heard all persons wishing to speak to their submissions and the applicant, recommends that Council consider the application and all submissions at the 13 September 2023 Planning Committee meeting.*

4. KEY INFORMATION

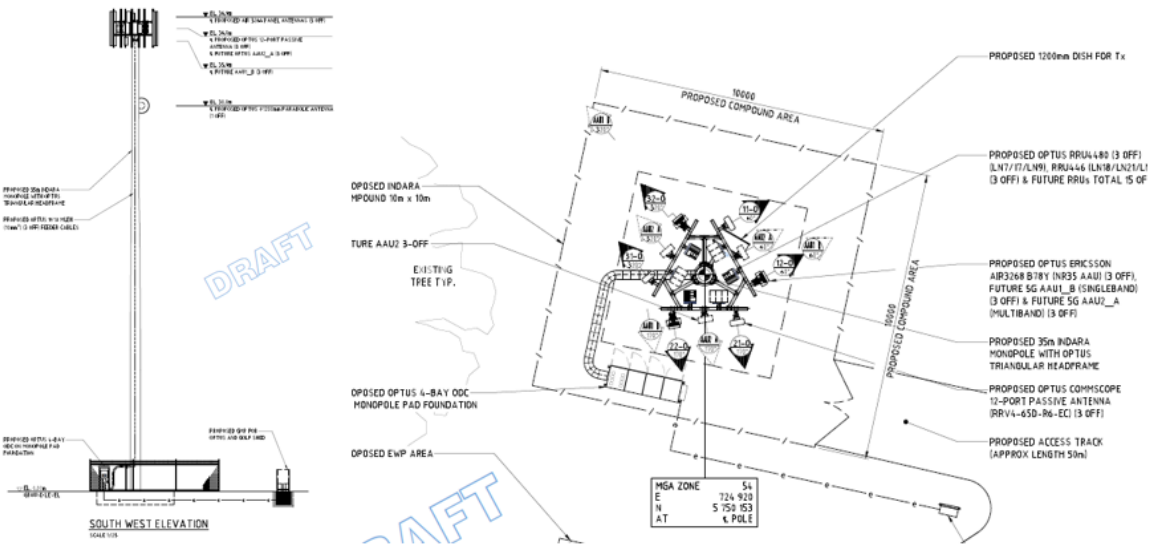
The site is in the Public Park and Recreation Zone (PPRZ) and is used by the Golf Club and Turf Club. The proposed facility would provide for enhanced 4G and new 5G phone and data services to the surrounding area. It would be designed as a neutral host facility, capable of supporting co-location by other carriers, government entities and wireless service providers.

The images below show the location of the site, with the red star in the second image showing the proposed location of the monopole. The nearest residences are located to the north of the site along Harris Road (the closest being at 119 Harris Road, approximately 210m north of the selected site).





The plan below shows the south-west elevation of the proposed monopole and the lease area:



Zoning

As shown in the first plan above, land to the north of the Golf Club on Harris Road is in the General Residential Zone (GRZ1). As will also be noted from that plan, the PPRZ land within which the monopole would be located is generally surrounded by land in the Farming Zone (FZ) to the south, east and west, apart from two lots to the west at 70 and 90 Christies Road which are in the Low Density Residential Zone (LDRZ). Each of those lots contains a dwelling. The nearest residence on the western side of Christies Road is located approximately 723m to the south-west of the location of the proposed monopole.

Permit Triggers

The permit triggers in this case are for buildings and works under Clause 36.02-2 of the PPRZ and under Clause 52.19-1 (Telecommunications Facility).

It should be noted that planning scheme amendment VC226 (dated 4 November 2022) made changes to the Victoria Planning Provisions (VPP) and all planning schemes, specifying that a permit is not required to use land for a telecommunications facility. This planning application seeks permission for the construction of the telecommunications facility only, and not to use the land for that purpose.

Other Candidate Sites

The applicant has advised that there are no feasible co-location opportunities in the area. The candidate sites considered are shown below.



Landowner Consent

As public land manager the Department of Energy, Environment and Climate Action (DEECA) confirmed on 3 May 2023 that, as delegate of the Minister for Environment, approval has been given to lease the land to Indara.

Public Notice

Public notice of the application was given in the form of a site notice and letters to adjoining landowners/occupiers. Eight objections were received. The grounds of objection are summarised as:

1. There are potential health risks to humans, livestock, flora and fauna. The electromagnetic emissions coming from the 5G network would be too close to homes, jockeys, children, disabled, and the public attending/participants of golf, gun and equine clubs.

2. EME (*electromagnetic energy*) towers cause tiredness, fatigue, headaches, lack of concentration, changes in memory, dizziness, sleep disturbances, including insomnia, disturbed immune function through various allergic and inflammatory responses, effects in tissue repair, increases the risk of diseases such as cancer, neuro-behavioural disorders, including circadian imbalance, anxiety, increases pro inflammatory cytokines making the inflammation of joints worse and can increase blood pressure. Council has not had an Independent Health Risk Assessment Study done on the impact and effects that this 5G EMF (*electromagnetic field*) tower is going to have on the community - the people, animals, environment.
3. The golf club/gun club is public land used for recreational use and this proposal would result in an unsafe environment and degradation to pristine recreation facilities. Patrons use the golf course, not just the clubhouse; as do patrons of the racecourse (accessed through golf course), racehorse training facility tenants and patrons of private functions at both Golf Club and Turf Club. There are schools, kindergarten and day care centres in close proximity.
4. The EME report does not reflect 'ramping up' of 5G output during times of high demand or the impact levels of future equipment placed on the proposed tower by other parties. Council has no control over future leases of the tower/part thereof and associated increased electronic impost on the reserve. Council has a duty of care for human and animal health, and safety of participants and bystanders when considering such developments.
5. There is no evidence to support the applicant's statement that there is an increase in demand for speed and data bandwidth in this area or that patrons of the Colac Golf Club and adjacent racecourse are placing increasing demands on existing mobile telecommunications services and additional capacity is required. Mobile users in the precinct have not voiced concern over lack of telecommunication services here, even on event days.
6. The other locations selected on lower elevated land [one is in Hart Street and the other in Armstrong Street] are not in Hart Street as the applicant has stated. One of the sites is owned by Colac Otway Shire. Why is it Colac Otway Shire unwilling to enter into a rental agreement for this type of development on its own property?
7. The Planning Report is inaccurate as it claims the 'Low Density Residential' zone land to the west is undeveloped.
8. The applicant claims the nearest residence is located approximated 1.8km from the selected site, which is incorrect.
9. Applicant claims the selected location's distance would provide a buffer zone between Golf Club patrons and the facility.
10. Planning Report states proposed tower would accommodate 3 x 4G panels, 3 x 5G panels and 1 antenna. EME report shows 6 x 5G panels and no antennae.
11. No details provided of owner who has given permission for application.

5. CONSIDERATIONS

Overarching Governance Principles (s(9)(2) LGA 2020)

This report aligns with relevant Governance Principles by seeking to ensure that the applicant and those who have made submissions on the planning application, including those objecting to the proposal under Section 57 of the *Planning and Environment Act 1987*, have the opportunity to do so verbally to Councillors as the decision-makers in this case.

Policies and Relevant Law (s(9)(2)(a) LGA 2020)

This report has had regard to the provisions of the *Planning and Environment Act 1987* and the Colac Otway Planning Scheme. A full report with an officer assessment of the proposal will be presented to a future Planning Committee meeting for consideration.

Environmental and Sustainability Implications (s(9)(2)(c) LGA 2020)

Any environmental and sustainability implications will be considered as part of the future officer report assessing the proposal.

Community Engagement (s56 LGA 2020 and Council's Community Engagement Policy)

Landowners and residents of land surrounding the application site were notified of the application and a sign was displayed at the property entry. Eight objections were received, as discussed above.

Public Transparency (s58 LGA 2020)

A Submissions Committee meeting provides an opportunity for people to speak to their submission, providing further clarity around key points they wish to convey to Councillors and for the applicant to respond to concerns raised. The applicant and objectors will also be invited to attend any future publicly held Planning Committee meeting at which the decision on the application will be made. The officer report on the application will be made publicly available prior to that meeting.

Alignment to Plans and Strategies

The officer report presented to a future Planning Committee meeting will make an assessment of how the proposal meets relevant planning policy.

Financial Management (s101 Local Government Act 2020)

Not applicable to this report.

Service Performance (s106 Local Government Act 2020)

Not applicable to this report.

Risk Assessment

Not applicable to this report, which is solely provided to the Submissions Committee as background to the planning application. The officer report put to the Planning Committee meeting on 13 September will include advice on matters that Council can take into account when assessing the application, including a discussion about objectors' concerns about health risks.

Communication/Implementation

Following the Submissions Committee meeting, a report on the planning application will be presented at a Planning Committee meeting for consideration. This will have regard to submissions received during the processing of the application. All submitters, and the applicant, will be advised of the meeting date.

Human Rights Charter

No impact.

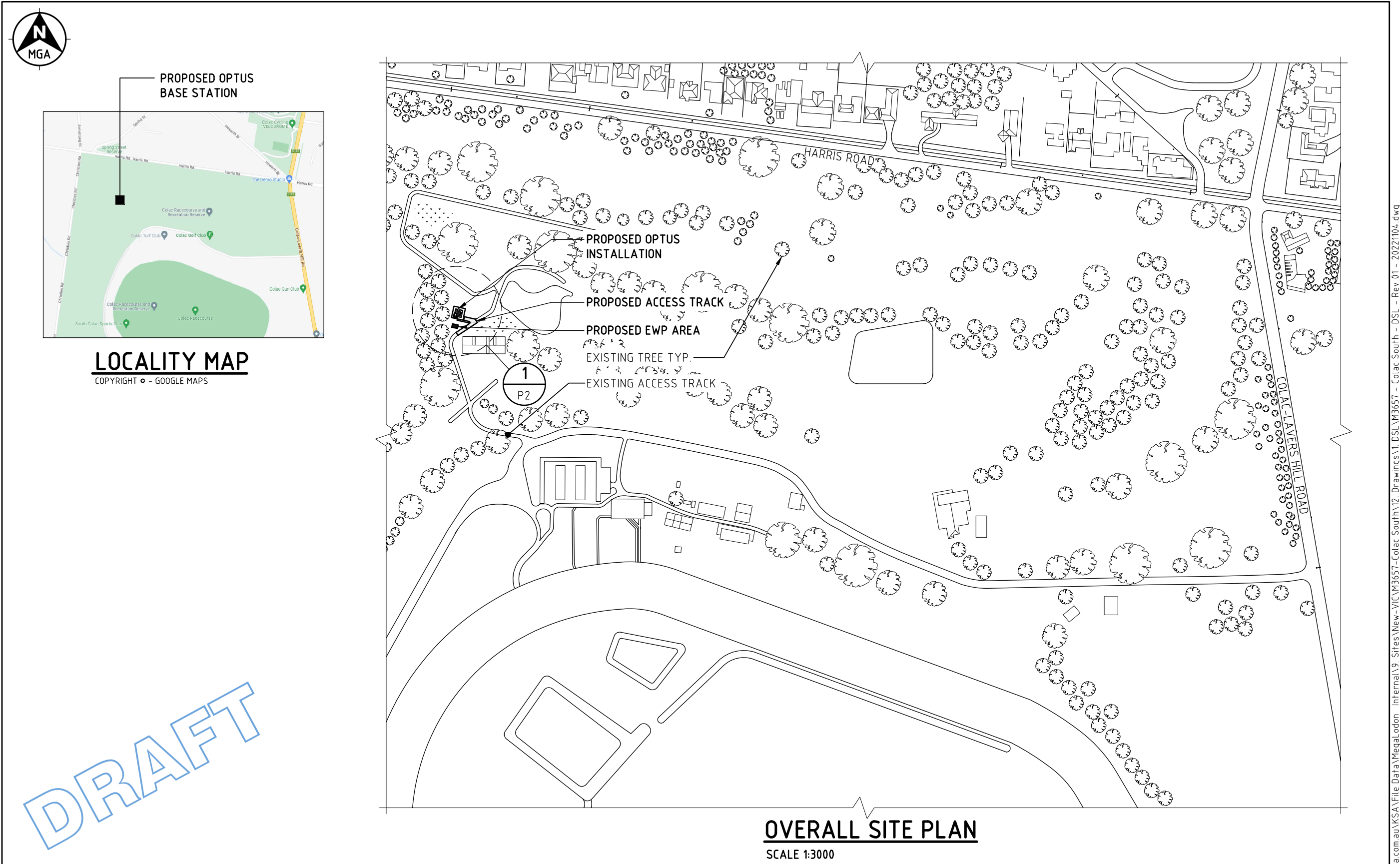
Officer General or Material Interest

No officer responsible for this report has declared an interest under the *Local Government Act 2020*.

Options

Option 1 – Note the verbal submissions

This option is recommended by officers, as the purpose of the meeting is to hear verbal submissions. The merits of the planning application will be considered at a future Planning Committee meeting.



OVERALL SITE PLAN

SCALE 1:3000

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
01	24.11.22	ISSUED FOR APPROVAL	VENTIA	SSM	XX	XX	XX

ventia
 Level 8, 80 Pacific Hwy, North Sydney, NSW 2060
 www.ventia.com

Client:
OPTUS

Project:
MOBILE NETWORK AUSTRALIA
 SITE No:- M3657
 COLAC SOUTH
 COLAC GOLF CLUB

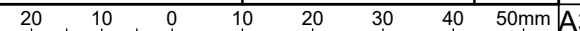
Drawing Title:
DRAFT SITE LAYOUT - SHEET 1 OF 2

Drawing Status:
FOR APPROVAL

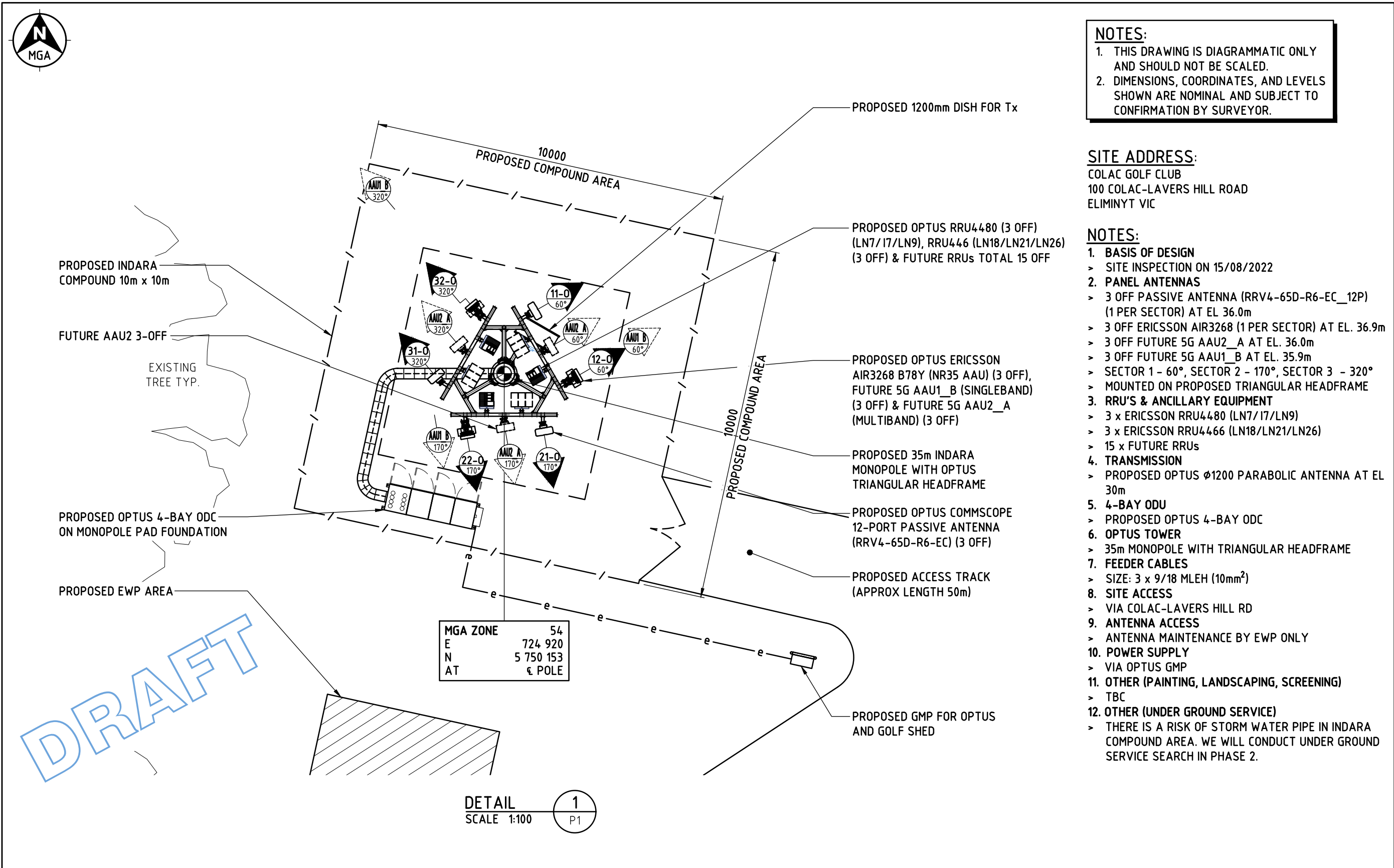
Drawing No.
M3657-P1

Revision
01

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CAD File: \\corp.ventia.com.au\KSA\Files\Data\MegaLodon_Internal\9_Sites>New-VIC\M3657-Colac South\12_Drawings\1_DSL\M3657-Colac South-DSL-Rev 01-20221004.dwg
 Plot By: Palnathian Rayappan Date: 30.01.23 5:03 PM



NOTES:

- THIS DRAWING IS DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED.
- DIMENSIONS, COORDINATES, AND LEVELS SHOWN ARE NOMINAL AND SUBJECT TO CONFIRMATION BY SURVEYOR.

SITE ADDRESS:
 COLAC GOLF CLUB
 100 COLAC-LAVERS HILL ROAD
 ELIMINYT VIC

- NOTES:**
- BASIS OF DESIGN**
 - SITE INSPECTION ON 15/08/2022
 - PANEL ANTENNAS**
 - 3 OFF PASSIVE ANTENNA (RRV4-65D-R6-EC_12P) (1 PER SECTOR) AT EL 36.0m
 - 3 OFF ERICSSON AIR3268 (1 PER SECTOR) AT EL. 36.9m
 - 3 OFF FUTURE 5G AAU2_A AT EL. 36.0m
 - 3 OFF FUTURE 5G AAU1_B AT EL. 35.9m
 - SECTOR 1 - 60°, SECTOR 2 - 170°, SECTOR 3 - 320°
 - MOUNTED ON PROPOSED TRIANGULAR HEADFRAME
 - RRU'S & ANCILLARY EQUIPMENT**
 - 3 x ERICSSON RRU4480 (LN7/I7/LN9)
 - 3 x ERICSSON RRU4466 (LN18/LN21/LN26)
 - 15 x FUTURE RRUs
 - TRANSMISSION**
 - PROPOSED OPTUS Ø1200 PARABOLIC ANTENNA AT EL 30m
 - 4-BAY ODU**
 - PROPOSED OPTUS 4-BAY ODC
 - OPTUS TOWER**
 - 35m MONOPOLE WITH TRIANGULAR HEADFRAME
 - FEEDER CABLES**
 - SIZE: 3 x 9/18 MLEH (10mm²)
 - SITE ACCESS**
 - VIA COLAC-LAVERS HILL RD
 - ANTENNA ACCESS**
 - ANTENNA MAINTENANCE BY EWP ONLY
 - POWER SUPPLY**
 - VIA OPTUS GMP
 - OTHER (PAINTING, LANDSCAPING, SCREENING)**
 - TBC
 - OTHER (UNDER GROUND SERVICE)**
 - THERE IS A RISK OF STORM WATER PIPE IN INDARA COMPOUND AREA. WE WILL CONDUCT UNDER GROUND SERVICE SEARCH IN PHASE 2.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
01	24.11.22	ISSUED FOR APPROVAL	VENTIA	SSM	XX	XX	XX



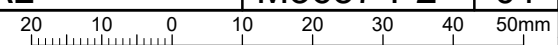
Client: MOBILE NETWORK AUSTRALIA
 Project: SITE No:- M3657
 COLAC SOUTH
 COLAC GOLF CLUB

Drawing Title: **DRAFT SITE LAYOUT - SHEET 2 OF 2**

Drawing Status: **FOR APPROVAL**

Drawing No: **M3657-P2**

Revision: **01**



CAD File: \\corp.ventia.com.au\KSA\Files>Data\Mega\odion_Internal\9_Sites>New-VIC\M3657-Colac_South\12_Drawings\1_DSL\M3657-Colac_South-DSL-Rev 01 - 2022104.dwg
 Plot By: Patinathan Rayappan Date: 30.01.23 5:03 PM

NOTES:
 1. THIS DRAWING IS DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED.

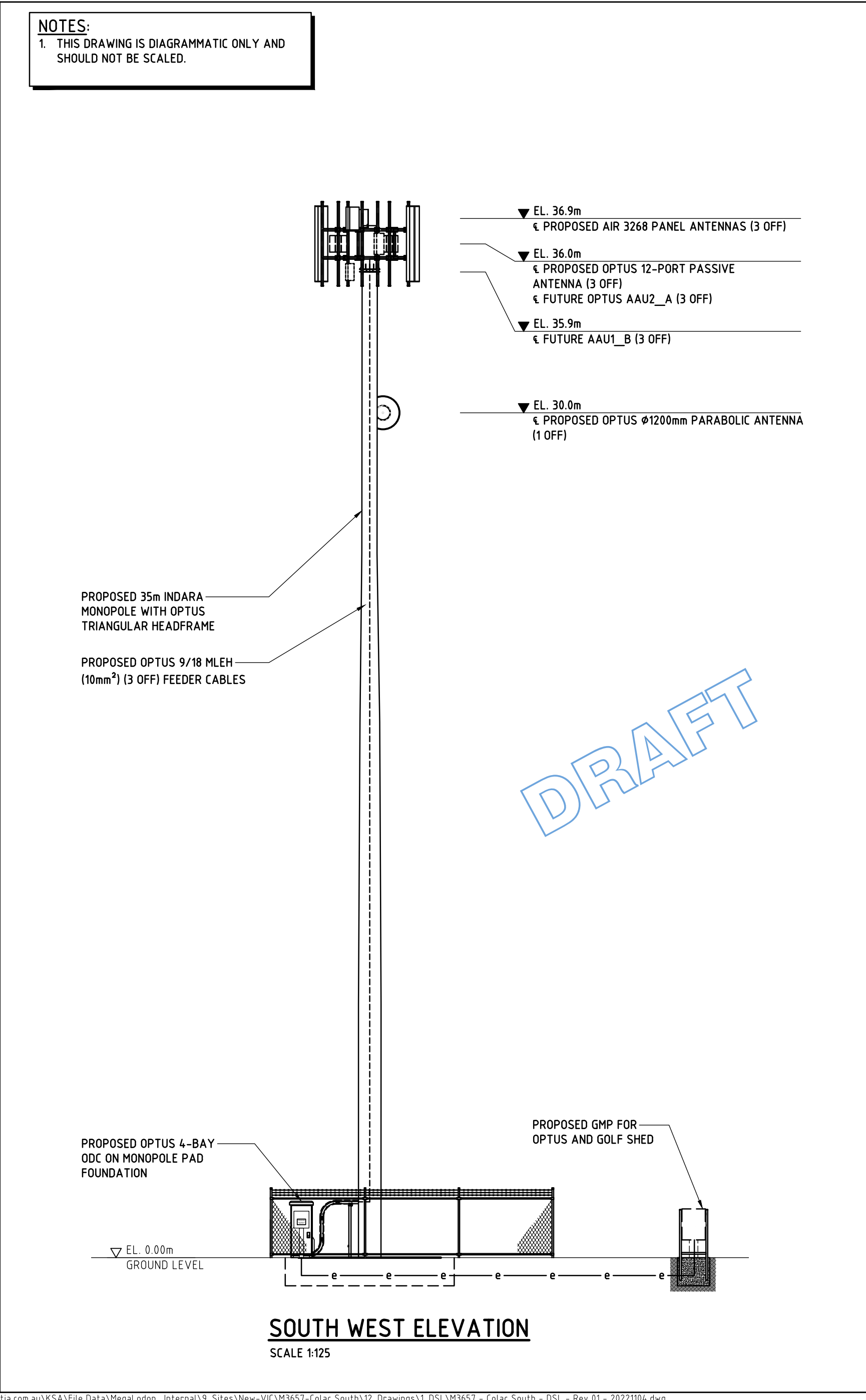
Rev	Date	Revision Details	Consultant	SSM	XX	XX	XX
01	24.11.22	ISSUED FOR APPROVAL	VENTIA	SSM	XX	XX	XX

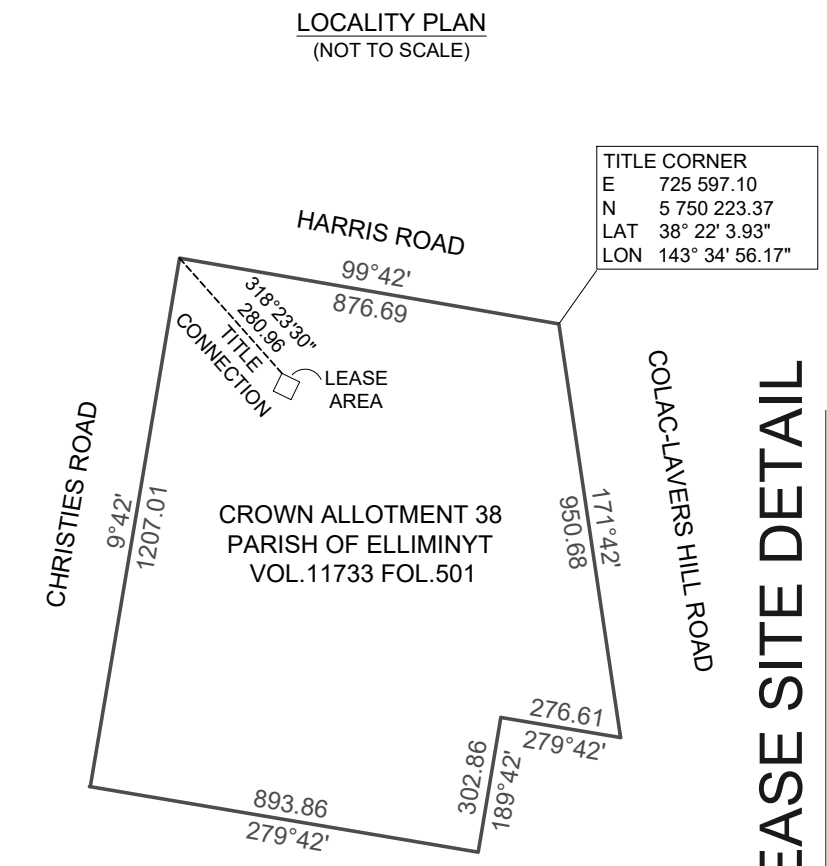
Client	Project	Drawing Title
ventia Level 8, 80 Pacific Hwy, North Sydney, NSW 2060 www.ventia.com	MOBILE NETWORK AUSTRALIA SITE No:- M3657 COLAC SOUTH COLAC GOLF CLUB	DRAFT SITE ELEVATION

Client	Project	Drawing Title
OPTUS	MOBILE NETWORK AUSTRALIA SITE No:- M3657 COLAC SOUTH COLAC GOLF CLUB	DRAFT SITE ELEVATION

Drawing Status	Drawing No	Revision
FOR APPROVAL	M3657-P3	01

Scale
0 10 20 30 40 50mm





TITLE CORNER
 E 725 597.10
 N 5 750 223.37
 LAT 38° 22' 3.93"
 LON 143° 34' 56.17"

LEASE CORNER
 E 724 919.49
 N 5 750 160.90
 LAT 38° 22' 06.57"
 LON 143° 34' 28.34"

NOTATIONS

1. THIS SITE HAS BEEN SURVEYED BY REEDS CONSULTING PTY. LTD. ON 09/03/2023.
2. ALL LEVELS ARE SHOWN IN METRES TO A.H.D. VIDE ELLIMINYT PM 46 WITH STATED RL: 142.484 AS AT 10/03/2023.
3. GRID CO-ORDINATES ARE TO MGA2020 ZONE 54.
4. LAND STATUS: CROWN FOLIO CROWN ALLOTMENT 38 PARISH OF ELLIMINYT VOL.11733 FOL.501
5. THE LEASE AREA IS CONTAINED WHOLLY WITHIN THE TITLE BOUNDARIES.
6. DETAILS FROM VENTIA PLAN M3657 (VERSION 01) AS SUPPLIED.
7. CONTOUR INTERVALS 0.2m

I THOMAS ANDREW MILLAR of REEDS CONSULTING Pty. Ltd., at 440 Elizabeth Street, Melbourne, Vic. 3000, certify that the M.G.A. Co-ordinates (GDA2020 Datum) and A.H.D. Height measurements are within a given accuracy of 1 (one) metre.

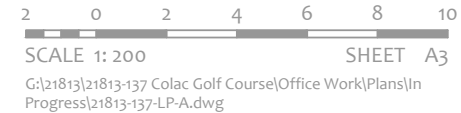
.....
 Licensed Surveyor
 16/03/2023 Date

LEASE SURVEY PLAN - LEASE SITE DETAIL

SITE NO: M3657 COLAC SOUTH
 COLAC GOLF CLUB, 100 COLAC-LAVERS HILL ROAD, ELLIMINYT, VIC 3250



MOBILE NETWORK AUSTRALIA
 SITE No: M3657 COLAC SOUTH
 COLAC GOLF CLUB, 100 COLAC-LAVERS HILL ROAD, ELLIMINYT, VIC 3250



Date: 17/03/2023
 Ref: 21813/137
 Rev: A

Drawn: CD
 Check: TO

Level 6,440 Elizabeth Street
 Melbourne, Vic 3000
 p (03) 8660 3000
 www.reedsconsulting.com.au
 survey@reedsconsulting.com.au



Item: 8.2

Draft Environmental Sustainability Strategy and Climate Change Action Plan

OFFICER	Dora Novak
CHIEF EXECUTIVE OFFICER	Anne Howard
DIVISION	Executive
ATTACHMENTS	<ol style="list-style-type: none">1. Colac Otway Shire Council Environmental Sustainability Strategy 2023-2033 for Consultation (watermar [8.2.1 - 39 pages]2. COS Climate Change Action Plan - Draft - 20230526 (watermarked) [8.2.2 - 39 pages]

1. PURPOSE

The purpose of this report is to hear verbal presentations from submitters to the draft Environmental Sustainability Strategy and draft Climate Change Action Plan.

2. EXECUTIVE SUMMARY

At its 24 May 2023 meeting, Council resolved to exhibit the draft Environmental Sustainability Strategy and draft Climate Change Action Plan for the purpose of seeking feedback from the community. The draft Environmental Sustainability Strategy and Climate Change Action Plan were publicly exhibited between 26 May and 7 July 2023. During the six-week period community members were able to provide feedback by written submission and/or via an online survey. A total of 40 survey responses and 78 written submissions were received. Fourteen submitters have requested to speak to their submissions. It is proposed that Council will formally consider the submissions, as well as officer analysis of the issues raised in these submissions, at a future Council meeting.

3. RECOMMENDATION

That the Submissions Committee:

- 1. Acknowledges the written submissions received.*
- 2. Acknowledges and notes the verbal comments made in support of written submissions.*
- 3. Thanks the submitters for their contribution to the submission process.*
- 4. Having heard all persons wishing to speak to their submissions, recommends that Council consider all verbal presentations and submissions to the draft Environmental Sustainability Strategy and Climate Change Action Plan at a future Council meeting.*

4. KEY INFORMATION

Council resolved at its meeting on 24 August 2023 to seek public feedback on a draft Environmental Sustainability Strategy and draft Climate Change Action Plan over a six-week public period in line with Council's Community Engagement Policy. The resolution was subject to the inclusion of a text box at the beginning of the introductions of both documents that states in bold font: ***“Council acknowledges its communities are facing a global climate change and biodiversity crisis, one that requires urgent action by all levels of government, including local councils.”*** This change to the documents was made in accordance with the resolution.

Stakeholders, community groups and community members were able to provide feedback either by written submission or via an online survey. 78 written submissions and 40 survey responses were received. A full copy of all submissions is provided to Councillors in a confidential attachment to this report.

Key Feedback from Written Submissions

The following is a summary of the key feedback from the written submission process, noting that a more detailed summary of feedback will be included in a future briefing to Council on submissions and in the officer report to the Council meeting at which Council will formally consider adoption of the documents:

- Many submitters commended Council for recognising a climate and biodiversity crisis, for creating the draft documents and circulating them for community feedback – highlighting the need for Council to take this feedback seriously.
- Timeframes, goals and targets were the subject of the most comments, in particular that more specific, measurable and time-defined goals and frameworks should be outlined in the documents.
- It was frequently stated that timeframes for actions should better reflect the urgency and time-critical nature of this work (e.g. ‘ongoing’ is inadequate and used too widely throughout the draft Climate Change Action Plan).
- There was a strong call for Council to engage and collaborate with the community on all aspects of the draft Environmental Sustainability Strategy and draft Climate Change Action Plan, and multiple requests for the establishment of a climate change committee involving representatives from community groups and other stakeholders.
- There was a preference for more committed language to ensure that undertakings made within the draft Environmental Sustainability Strategy and draft Climate Change Action Plan are firm and can easily be accounted for (rather than aspirational and broad).
- More frequent reviews of the documents and monitoring of progress on actions were requested.

- Council's allocation of resources to environment, sustainability, and adaptation and resilience to a changing climate was the subject of many comments. These primarily suggested that:
 - Council's budget allocation for implementation of the draft Environmental Sustainability Strategy and draft Climate Change Action Plan be significantly increased; and
 - Council employ more staff (potentially a team of people) to 'lead' implementation of the actions.
- There were many requests for Council to swiftly transition the Bluewater Leisure Centre from gas to renewable energy sources.

Other themes and requests that came through strongly were that:

- Council should focus on reducing its emissions and strongly investing in renewable energy generation.
- Council should play a direct role in supporting community transition away from gas and replacement with renewable energy sources (including through incentive programs and facilitation, particularly for vulnerable households).
- Council should lead by example in transitioning its fleet to electric vehicles and supporting community transition through installation of chargers across the region.
- There should be a strong focus on urban greening, increasing tree canopy cover in townships and supporting community efforts towards this, particularly in relation to nature strip plantings (including that Council should develop clear guidelines for this).
- Biodiversity protection and enhancement programs should be a focus.
- Council should advocate to all levels of government and other stakeholders to ensure wide-reaching collective action, and on behalf of the community on political matters of concern (such as ensuring there is no seismic testing in the Otway Basin).
- Council has a strong role to play in community environmental and sustainability education and helping to increase community resilience to a changing climate.
- Planning controls and measures should be strongly used as a mechanism to ensure sustainable building and design across the shire.
- Emergency management planning should be enhanced.
- Given agriculture accounts for 48% of shire's emissions, Council should partner with/actively work with local agricultural industries and landowners (farmers) to assist the sector in transitioning to more sustainable agricultural practices to lower emissions outputs in our shire.

There was also a small number of submissions in opposition to the draft Climate Change Action Plan and Council's commitment of any resources to this area.

Process

The Submissions Committee provides an opportunity for persons who made a written submission to speak to their submission. Fourteen submitters have requested to speak at the meeting.

Council will consider all submissions and other feedback such as the results of the online survey at a future Council meeting where the adoption of the final strategy and final action plan will be considered.

5. CONSIDERATIONS

Overarching Governance Principles (s(9)(2) LGA 2020)

The draft Strategy and Climate Change Action Plan are consistent with the Governance Principles by seeking, through extensive community engagement, to articulate the actions Council will take to address environmental and climate change challenges.

Policies and Relevant Law (s(9)(2)(a) LGA 2020)

Council is required to work within a range of state and federal legislative requirements relating to environmental and climate change considerations and outcomes that extend from weed and native vegetation management through to energy and resource use. The Strategy and Climate Change Action Plan will assist Council in meeting these obligations.

Environmental and Sustainability Implications (s(9)(2)(c) LGA 2020)

The development of a new Environmental Sustainability Strategy and Climate Change Action Plan demonstrates Council's commitment to continuous improvement of its environmental protection, management and environmental sustainability of the municipality and will provide both an overarching strategic roadmap and specific actions for delivering environmental sustainability targets and climate change actions for the next ten years.

Community Engagement (s56 LGA 2020 and Council's Community Engagement Policy)

Extensive community engagement has been undertaken in the development of the draft Strategy and Action Plan, in accordance with the principles outlined in Council's Community Engagement Policy. The draft documents were exhibited for six weeks seeking submissions from the community, and an on-line survey was also conducted. There was also a number of drop-in sessions across the Shire early in the process, and specific meetings with stakeholders.

Public Transparency (s58 LGA 2020)

Public transparency has been ensured through the public exhibition and community engagement process. The draft Strategy transparently outlines Council's strategic priorities in relation to environmental improvement and the draft Climate Change Action Plan provides clear climate change actions to reduce greenhouse gas emissions to mitigate against future impacts of climate change and adapt to the unavoidable impacts of climate change.

Alignment to Plans and Strategies

Alignment to Council Plan 2021-2025:

Theme 1 - Strong and Resilient Community

Objective 3: Key infrastructure investment supports our economy and liveability

Theme 2 - Valuing the Natural and Built Environment

Objective 1: We mitigate impacts to people and property arising from climate change

Objective 2: We operate sustainably with a reduced carbon footprint

Objective 3: Protect and enhance the natural environment

Objective 4: We will satisfy our community's reasonable expectations to reduce waste going to landfill, increase resource recovery and minimise waste charges

Objective 5: Provide and maintain an attractive and safe built environment

Theme 3 – Healthy and Inclusive Community

Objective 2: People are active and socially connected through engaging quality spaces and places

Theme 4 – Strong Leadership and Management

Objective 1: We commit to a program of best practice and continuous improvement

The Council Plan specifically states that Council will review its 2010 Environment Strategy and develop a Climate Change Action Plan. The draft Environmental Sustainability Strategy and Climate Change Action Plan will thus deliver key outcomes of the Council Plan and provide a platform for achievement of a range of other Council Plan objectives in future years by directing the allocation of resources and organisational activities.

Financial Management (s101 *Local Government Act 2020*)

The development of Council's new Environmental Sustainability Strategy and Climate Change Action Plan has been resourced from the Environment Unit's 2022-23 operational budget. Funding of specific actions and initiatives relating to the Strategy and Action Plan will be subject to future budget processes. The Strategy and Action Plan themselves do not commit resources to any specific initiative.

Service Performance (s106 *Local Government Act 2020*)

The development and implementation of the new Environmental Sustainability Strategy and Climate Change Action Plan will ensure that Council continuously improves its service delivery to the community through environmental programs, projects and services and meets all environmental and climate change related regulatory and legislative requirements and obligations. The degree to which adopted actions and strategies are achieved will depend on future budget commitments to staff resources and funding of project specific initiatives.

Risk Assessment

There are significant reputational and financial risks to Council if it does not comply with its environmental legislative obligations or undertake actions within its remit to combat climate change. The draft Strategy and draft Climate Change Action Plan aim to assist Council in meeting these obligations and meeting community expectations.

Communication/Implementation

Council will consider all submissions together with the final Environmental Sustainability Strategy and Climate Change Action Plan at a future Council Meeting. Those that made submissions to the draft Environmental Sustainability Strategy and draft Climate Change Action Plan will be advised of the meeting.

Human Rights Charter

No impact.

Officer General or Material Interest

Doug McNeill, Manager Planning and Strategic Focus, has been involved in advising on and preparing this report and has declared a general conflict of interest under the *Local Government Act 2020* in relation to this matter.

Options

Options 1 – Note the verbal submissions

This option is recommended by officers as the purpose of the meeting is to hear verbal submissions. The decision on whether to amend the draft Environmental Sustainability Strategy and draft Climate Change Action Plan to include the issues raised in the submissions will be considered at a future Council meeting.



Colac Otway
SHIRE

Environmental Sustainability Strategy

2023-2033



Acknowledgement

The Colac Otway Shire proudly acknowledges the Gulidjan and Gadubanud peoples as the traditional custodians of the Colac Otway Region.

We acknowledge that the Colac Otway Shire is located and conducts business upon lands of the Gulidjan and Gadubanud people.

We pay our respects to their Ancestors and Elders, past, present and emerging.

We recognise and respect their unique cultural heritage, beliefs and relationship to their traditional lands, which continue to be important to them today and into the future.



Mayor's Message

As Mayor of Colac Otway Shire, I am delighted to be part of delivering the Environmental Sustainability Strategy 2023-2033. This strategy outlines the ambitious environmental objectives that Council will strive to achieve over the next decade. It will guide our work as we contribute to the necessary efforts to address the environmental and sustainability challenges most prevalent at this time.

Colac Otway is a large and vibrant shire with invaluable natural assets, home to many thriving communities, which have long placed a high value on the environment, consistently identifying climate change and the environment as leading issues of concern. The Otway forests, wildlife, rivers, volcanic plains and abundant grasslands form part of who we are.

By continuing to implement improved environmental stewardship and sustainable management practices we recognise our environment as intrinsically valuable, as well as essential to our wellbeing.

Council has an impressive history of environmental work, particularly given its large geographic area and small rate base, including its strong support for the development of projects to enhance the environmental welfare of our shire, including: solar panel installations on all major Council facilities; biodiversity and species protection; supporting community uptake of solar; working towards integrated water management and improving water solutions for unserved areas; stewardship for our communities; and ongoing reduction of carbon emissions.

Colac Otway Shire Council is delivering this strategy and associated Climate Change Action Plan in order to continue our leadership and strong advocacy in this space. Council greatly looks forward to working with communities across the shire to achieve success through the framework of this plan. I hope you will join us as we work towards our goals.



Executive Summary

Colac Otway Shire's Environmental Sustainability Strategy 2023-2033 will guide Council's environmental management over the next 10 years and provides a framework for Council to maintain a thriving, sustainable municipality, with healthy natural environments and communities.

The Strategy builds on the achievements of the Colac Otway Shire Environment Strategy 2010-2018, and is strongly aligned to the Colac Otway 2050 Community Vision, the Council Plan 2021-25, and Council's Environmental Sustainability Policy and Framework 2021. It also reflects extensive feedback from our community and stakeholders received throughout the strategy development engagement activities.

The Strategy has a clear vision, underpinned by the six themes of Council's Environmental Sustainability Framework 2021 and forms the long-term strategic policy position on environmental management and sustainability for Council. The findings of the community and stakeholder engagement that preceded the drafting of this strategy were at the core of its development and defined its structure, focus and emphasis. Engagement discussions centred around the following areas of concern: climate change; natural environment; built environment; water; waste and pollution; and partnership, leadership and advocacy.

Six key goals have been formulated to capture the breadth of environmental sustainability responsibilities and aspirations of Council for the next ten years. The goals are:

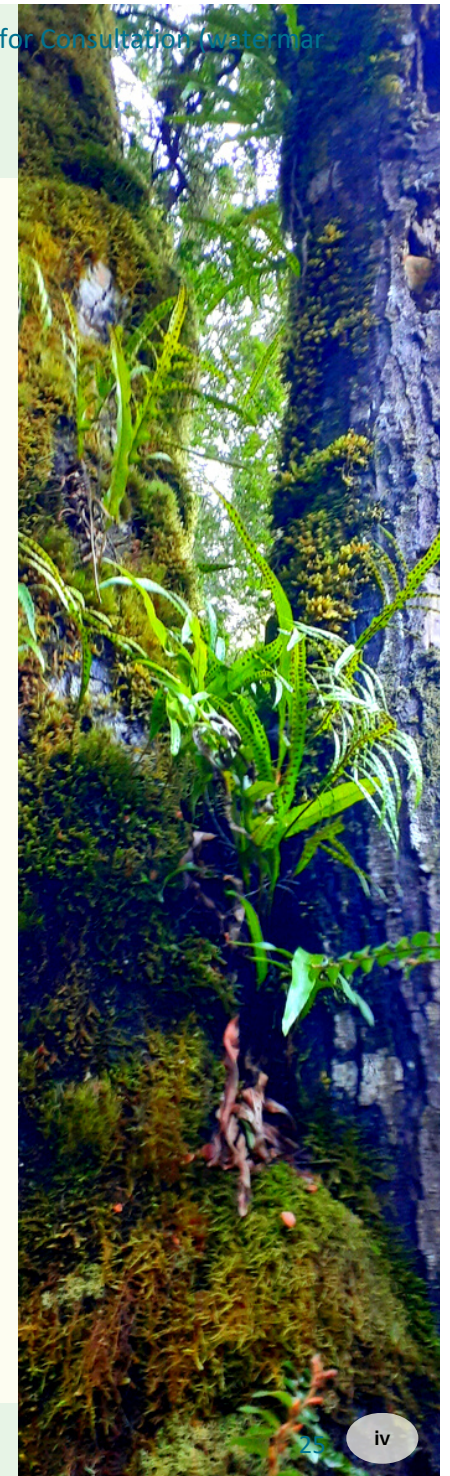
- Goal 1** Protected and thriving natural landscapes, ecosystems and habitats
- Goal 2** Environmentally sustainable and climate resilient public infrastructure, open spaces and urban settlements
- Goal 3** An adaptive and resilient Council and Shire moving towards a zero-emission future and limiting the impacts of climate change
- Goal 4** Green and sustainable local economies, industries and growth that protect intrinsic environmental values
- Goal 5** Enhanced environmental stewardship through environmental awareness raising and education
- Goal 6** Strong and inclusive environmental leadership, collaboration and advocacy



The strategy outlines each goal, followed by multiple objectives that will assist Council in delivering on its aims in a targeted and strategic fashion. Because local government is responsible for a vast range of infrastructure and land management, including parks, reserves, leisure centres, libraries, roads and bridges, sustainable management of Council resources is highly complex. In order to maximise efficacy of the strategy, Council has focused on areas directly within the control of the organisation, and matters it can effectively influence. Issues of major concern to the community over which Council has limited influence will continue to be acknowledged and addressed through targeted advocacy.

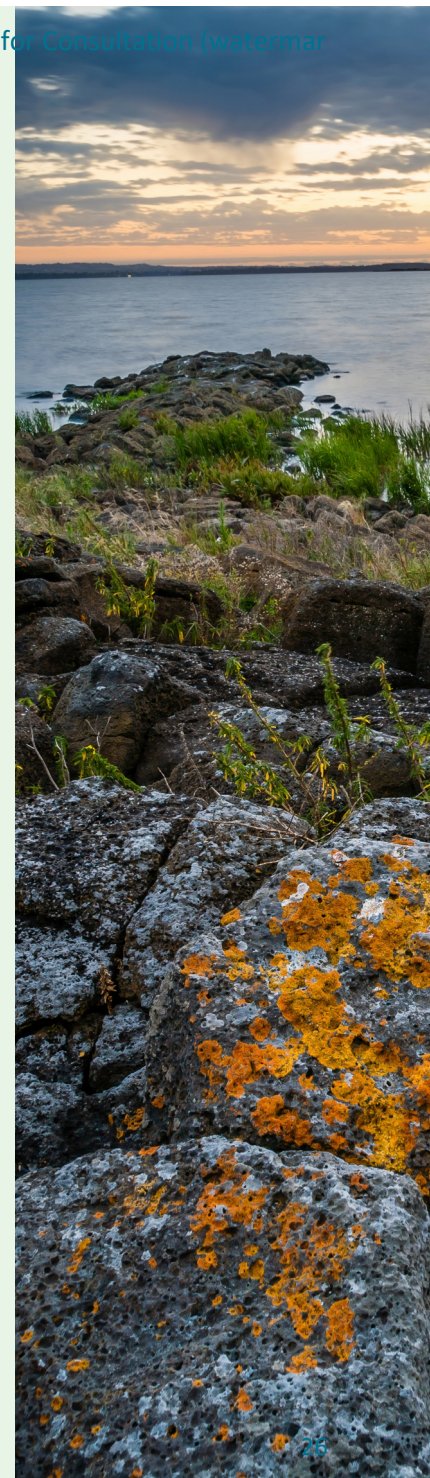
The strategy also sets key environmental sustainability targets that Council aims to achieve and maintain during the course of this strategy. These are: the use of 100 per cent renewable electricity; reduction in consumption and minimisation of waste sent to landfill; decreased reliance on potable water; increased uptake of sustainable technologies; and continuous improvement as responsible and adaptive land managers.

We hope that through the ten year implementation timeframe we will be able to raise greater awareness of, and concern about, the environment and its associated threats and challenges, as well as the sustainability opportunities we can all benefit from. We also aim to foster knowledge, skills, commitment and empowerment to work individually and collectively towards environmental and sustainability solutions to achieve a healthier and climate-safe future.



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1. Vision



Colac Otway
SHIRE

Colac Otway Shire is a place of thriving, resilient, diverse and connected natural landscapes and ecosystems, where the environment and green spaces are intrinsically valued.

Our community has a deep connection to nature and places and is inspired to actively care for, protect and enhance both the natural and the built environments.

As an active, environmentally aware and inclusive community, we live and work sustainably and consider climate change in our daily activities and decisions to create a climate-safe Shire now and for future generations.

2. Introduction

Council acknowledges its communities are facing a global climate change and biodiversity crisis, one that requires urgent action by all levels of government, including local councils.

Colac Otway Shire (the Shire) is regarded as one of the most environmentally diverse municipalities in Victoria. It comprises spectacular coastal areas, lush rain forested hinterlands and vast open plains with rare native grasslands.

The Shire is fortunate to have a very unique and precious natural environment that provides the basis for a healthy and thriving community.

The climatic conditions, the soils, the vegetation, the internationally recognised waterways and Great Ocean Road coastline all make our Shire a place where people want to live, work and visit.

Our environment is not only the physical and biological surroundings in which plants, animals and people live and interact, it also encompasses the conditions in which people live and work and the way those conditions influence people's health and wellbeing. It includes the natural environment, the built environment we create, and how we live and work in such environments.

Environmental sustainability describes the process where our patterns of living meet the needs of the present generations

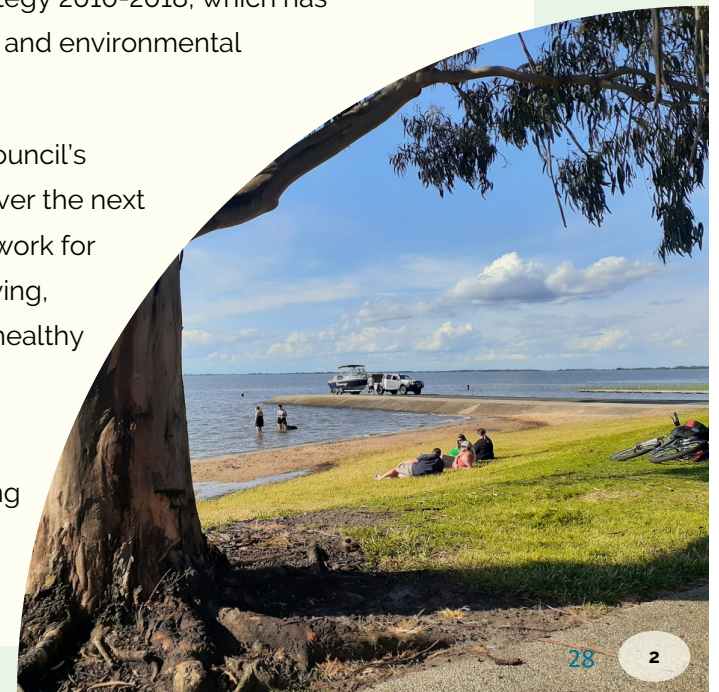
without compromising the ability to meet the needs of future generations.

Environmental sustainability needs to be highly proactive to minimise the negative impacts of how we live, work, play and travel, as well as to maintain a balance between environmental protection, economic prosperity, social justice and cultural inclusion.

Colac Otway Shire's Environmental Sustainability Strategy 2023-2033 replaces the Environment Strategy 2010-2018, which has shaped Council's conservation and environmental activities up to this time.

This new strategy will guide Council's environmental management over the next 10 years and provides a framework for Council to work towards a thriving, sustainable municipality, with healthy natural environments and communities.

Council is committed to working with the community to create a vibrant, sustainable future.



Achieving this vision relies heavily on protecting, enhancing and where possible restoring environmental values.

All areas of Council have responsibility for environmental management and sustainability.

Environmental considerations need to be embedded in all aspects of Council governance.

The Colac Otway Shire Environmental Sustainability Strategy 2023-2033 provides long-term strategic direction to shape the municipality and broader region by connecting the community to our environment, supporting environmentally sustainable development and economies, protecting and enhancing thriving ecosystems and providing well-designed built environments that support health and wellbeing of people as well as the environment that surrounds them.

The Strategy also identifies that through good leadership, governance, and strong partnerships Council can provide and support the transformational change required to maintain a healthy environment and liveable region.

Council hopes to take great strides towards achieving both the vision of this strategy and the Colac Otway 2050 Community Vision through direct action, advocacy and working in partnerships with our community, industry and other agencies.



3. Our Shire

3.1 Who we are

Located in Victoria's south west, the Shire is diverse, with volcanic lakes, craters and plains in the north; the hinterland forests of the Otway Ranges; and the spectacular Great Ocean Road coastline in the south. The Shire encompasses a total land area of 3,400 square kilometres of which a large proportion is National Park. The Shire has two main townships, with many small villages and localities.

Colac is the main residential, industrial and commercial service centre for the Shire and surrounding region with a population of 12,800 people. Colac is situated on the southern shoreline of Lake Colac, on the Princes Highway, 138 kilometres south west of Melbourne. Lake Colac is a significant natural feature in Colac, and is an important environmental, cultural heritage, aesthetic and recreational feature for the community and city.

Apollo Bay is our major tourism centre, along with the neighbouring hamlets of Marengo and Skenes Creek, with a permanent population of 2,400 that swells to over 20,000 people during the summer season. It is an iconic part of the heritage listed Great Ocean Road and a gateway to the spectacular natural attractions of the coastline and Otways hinterland. The current Shire population is approximately 22,400 people.

Much of the Shire's rural area is used for agriculture, with farming, cropping and dairying being the main agricultural pursuits. Agricultural activity is concentrated in the northern part of the Shire, although

timber and fishing are prevalent in the south. The Shire has a diverse range of other employment industries including: health care, social services, manufacturing, public administration, retail and tourism.

3.2 Environmental characteristics and values

Colac Otway Shire contains some of the most significant environmental assets in Australia, including 54 different native vegetation types and an extensive network of water bodies, some of which are Ramsar listed (i.e. of international significance), such as Lake Corangamite.

Bioregions reflect natural boundaries and relationships between biodiversity assets and natural resources. Four Bioregions are found in the Shire; Victorian Volcanic Plain (VVP), Warrnambool Plain, Otway Plain and the Otway Ranges (Figure 1):

- **Victorian Volcanic Plain Bioregion:** Colac Otway Shire covers in excess of 900 square kilometres of the VVP that once supported large tracts of the Ecological Vegetation Community (EVC) Plains Native Grassland and Plains Grassy Woodland vegetation. These are now only found in limited areas along roadsides and saline lakes, with some small remnant patches on private land. The VVP also hosts internationally protected Ramsar Lakes supporting several rare and threatened waterbirds.

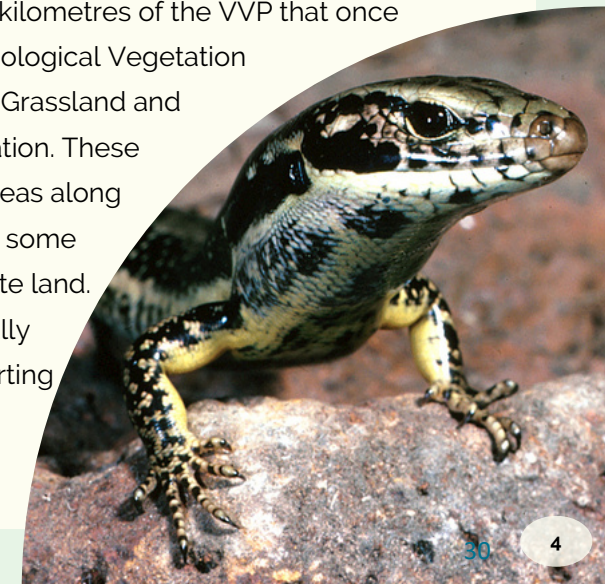
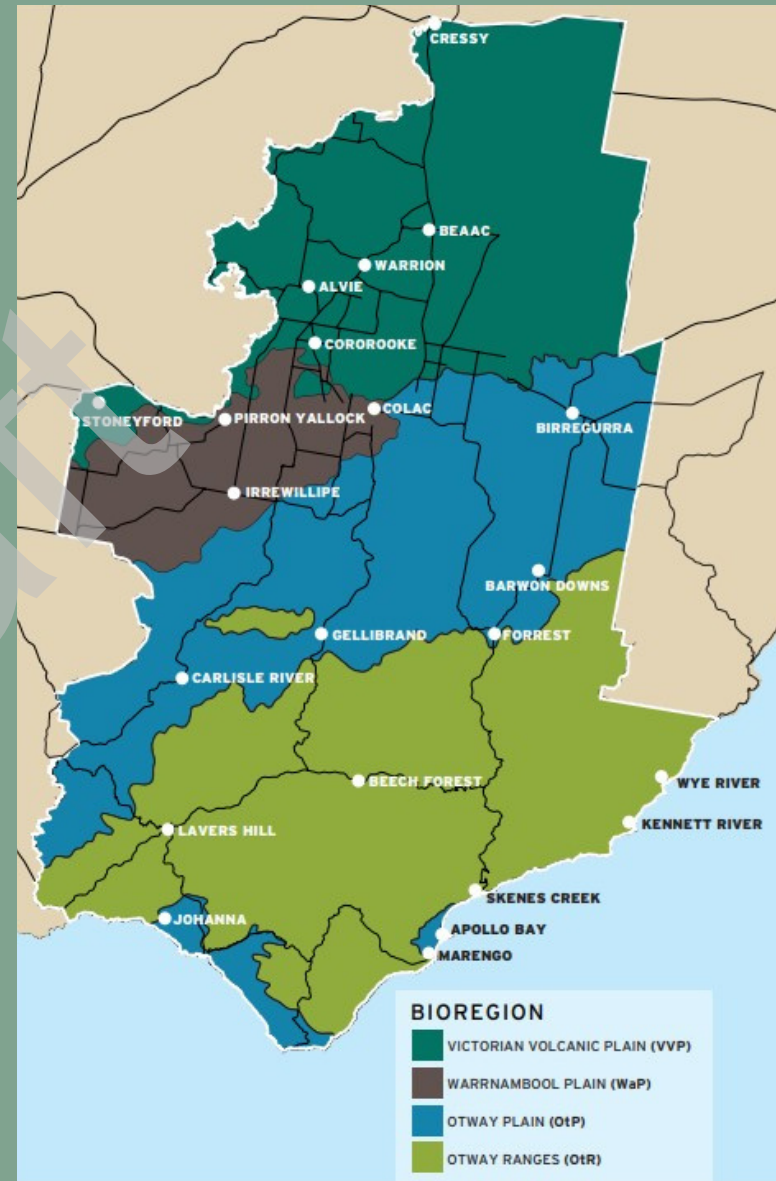


Figure 1: Colac Otway Bioregions

- Warrnambool Plain Bioregion:** The Warrnambool Plain extends into a relatively small area of the Shire from the west and is often referred to as the Coastal Plain. The identifying features of the Warrnambool Plain are nutrient deficient soils over low calcareous dune formations. Much of the limestone has been overlain by more recent sediments, and between the limestone dunes, areas of swamplands are characterised by highly fertile peats and seasonal inundation.
- Otway Plain Bioregion:** Similar to the VVP, the Otway Plain covers over 900 square kilometres of the Shire. This bioregion includes coastal plains and dunes, foothills with river valleys and swamps in the lowlands. The upper terrain supports Lowland Forest and Heathy Woodland ecosystems, whereas the floodplains and swamps predominantly contain Grassy Woodland and Floodplain Riparian Woodland. Much of this vegetation remains intact on private land and protected in Crown land.
- Otway Ranges Bioregion:** The largest, and most protected, bioregion within the Shire is the Otway Ranges. Consisting of moderately steep slopes and moist gullies, this bioregion supports Shrubby Wet Forest and Cool Temperate Rainforest ecosystems on the higher slopes; and Shrubby Foothill Forest on the lower slopes.



3.3 Environmental challenges and opportunities

Climate change

Climate change is a disruption of natural climate systems and weather patterns attributed directly or indirectly to human activity, predominantly caused by the burning of fossil fuels producing heat-trapping greenhouse gases. As a result, increased global temperatures, sea level rise and unprecedented extreme weather events and trends are already being experienced around the globe. Australia is especially vulnerable to these climate change impacts, demonstrated by drought, fire and flooding that are increasing in frequency and intensity.

These events emphasise the need for both mitigation and adaptation to respond to the threat of climate change. Impacts are already evident in both the natural and human environment, demonstrated through accelerated species extinction, and increased heat stress posing a challenge for human health.

Australia's weather has already become more variable. More frequent extreme and cascading weather events are impacting communities and the economy, and threatening the environment. At the same time, summers are becoming steadily hotter and drier, leading to adverse health impacts; increased bushfire risks and ecological damage; and threatening agricultural production.

Victoria's climate has also changed in recent decades, becoming warmer and drier. These changes are expected to continue. Understanding the drivers and impacts of these changes, as well as what we can expect in the future, will help us to plan and adapt.

Projections for Victoria indicate the state is likely to become hotter and drier in the future, but the timing and extent of changes will vary across regions. Comparison of observations and projections in Victoria suggest that temperature has been tracking towards the upper limit of projections, while winter rainfall has been tracking towards the drier end of projections. By the 2050s, if the current global warming rate continues, regional Victoria could experience around double the number of very hot days each year compared to the 1986–2005 average.

Barwon South West has been getting warmer and drier. In the future the region can expect...



Temperatures to increase all year around



More hot days and warm spells, and fewer frosts



Less rainfall in Winter and Spring



More frequent and more intense downpours



Harsher fire weather and longer fire seasons



Rising sea level



Increased frequency and height of extreme sea level events

Source: www.climatechange.vic.gov.au/?a=392919

Population growth

The Shire's attractive landscape, featuring both coastal and hinterland environments, has also led to permanent resident population growth, which is slated to continue to increase into the future. Managing development to cater for both permanent population growth and visitation whilst protecting natural assets is therefore a key ongoing challenge.

There is an increasingly pressing need for Council to plan for land, services and infrastructure for a larger population, and to use that investment to make sure that the Shire is an even better place to live.

It is important that we make sure growth happens in a positive way that fits with the community's vision and aspirations by ensuring that developments, new and old, are low-emissions, sustainable, waste wise, and energy and water efficient.

Working with Traditional Owners

The Colac Otway Shire proudly acknowledges the Gulidjan and Gadubanud peoples as the traditional custodians of the Colac Otway Region. Colac Otway Shire is located and conducts business upon the traditional lands of the Gadubanud and Gulidjan people. Aboriginal culture is the oldest living culture in the world. Reconciliation with First Nations peoples is a fundamental and pressing need if we are to become a truly thriving, inclusive, fair society.

The Native Title Act 1993 and Aboriginal Heritage Act 2006, which recognise the rights and interests of Traditional Owners in land and water management, are evidence of progress, but the long history of injustice continues to impact on Aboriginal and Torres Strait Islander people.

Colac Otway Shire Council is seeking to build strong, ongoing relationships with Traditional Owners. Environmental management is a key avenue through which Council can enhance relationships with Traditional Owners, learn about traditional land practices, and support collective interests and goals for the future.

Council resources

In order to be able to provide services and facilities to the community, Council generates income through rates and government grants.

Given the limited potential to increase rate revenue, Council will continue to be constrained in its capacity to fund changes to services and programs. A large proportion of the Shire's land is National Park, meaning despite the large geographical size of the municipality, rateable land and therefore income to Council is low. Council is also entering a period where a significant proportion of its public facilities and assets are becoming due for renewal or costly upgrades.

Seasonal tourism

Our Shire experiences a dramatic increase in demand during the peak holiday periods throughout the year, and particularly in summer. For example, Apollo Bay has a permanent population of 2400 that swells to approximately 22,000 during the busy tourist season.

The seasonal nature of the Shire's



population poses a significant challenge for Council. Pressures on reserves, local roads, parking and other Council facilities significantly increase during the warmer months, and allocating sufficient resources to fairly spread the cost of infrastructure to support non-rate paying visitors is a key challenge.

Tourism sometimes poses a burden on the Shire's natural assets if high visitation rates are not carefully managed, particularly in terms of sustainable use of resources, threats to native flora and fauna, and waste management. A key challenge is therefore balancing visitation to ensure both environmental and economic sustainability.

Waste management

Waste generation is growing in line with increasing consumption and population growth. The composition of waste is also changing, with more organic matter being sent to landfill in Victoria, leading to increased methane gas emissions.

Council's responsibilities include waste management through kerbside collection, and therefore these issues pose a significant challenge. Reducing the burden of waste and reducing its environmental impacts will require effective management of waste streams, as well as a broader cultural change through education that guides the community towards a circular economy.

Council adopted a Waste Management Strategy in 2021 to set strategic direction in this area and to guide Council's operations

over the next decade. In order not to duplicate this strategy, the Environmental Sustainability Strategy will encompass waste matters without making this a primary focus.



4. State of the Environment

Victoria naturally has a diverse climate and ecosystem due to its varied geography. However, the state's climate and biodiversity are threatened by human activities and climate change.

Victoria's climate is generally classified as temperate, with mild to cool temperatures in winter and warm temperatures in summer. However, the climate varies across the region, with some areas experiencing hot and dry conditions, while others - such as most of Colac Otway Shire - receive high rainfall. Climate change is expected to exacerbate these variations and increase the frequency and severity of extreme weather events, such as heatwaves, droughts, and bushfires.

Victoria has a rich biodiversity, with over 3,000 plant species and many unique fauna species. However, this biodiversity is threatened by habitat loss, fragmentation, and degradation due to human activities such as land clearing, urbanisation, and agriculture. Invasive species also pose a significant threat to Colac Otway's biodiversity, with many introduced species preying on and outcompeting native species for resources. Climate change is also affecting our region's biodiversity, with some species unable to adapt to changing conditions and becoming increasingly vulnerable to extinction.

The Australian government published its latest State of the Environment Report in 2021 to assess the country's environmental condition and provide recommendations for environmental management. The latest report found that the country's environment is facing significant

challenges, including climate change, land-use change, invasive species, and pollution.

The report notes that the impacts of climate change are already being felt across Australia. Land-use change, including deforestation and urbanisation, is also having a significant impact on the country's environment, as is the introduction of invasive species.

The report highlights the importance of protecting and restoring biodiversity, noting that many species are under threat of extinction, and the loss of biodiversity can have significant, often unrecognised, economic and social impacts. It also emphasises the need to improve the management of natural resources, including water and land, to ensure their sustainability for future generations.

To respond to this, we need to: strengthen policy and governance frameworks, invest in action, research and monitoring, and engage with communities and stakeholders to promote sustainable practices.

5. Background

5.1 Previous strategy and review

Council's previous Environment Strategy 2010-2018 has shaped Council's conservation and environmental activities for the past twelve years. A review of that strategy was released in January 2022, providing a summary of the highlights and challenges associated with previous goals and objectives. This review also informed the initial process of identifying ongoing challenges and opportunities that could be addressed in the new strategy.

5.2 Community and stakeholder consultation and strategy development

Community and stakeholder consultation was at the centre of developing the new Strategy. Council has liaised with local residents and visitors via an online survey and drop-in sessions held in locations across the Shire.

Council also held workshops with environmental related government agencies, environmental community groups, business groups, Council staff and Councillors to allow for more in-depth discussion and enhance consultation findings. Incorporating community and stakeholder views was a strong priority in the development of the strategy.

The engagement activities were guided by the themes and strategic directions based on Council's Environmental Sustainability Policy and Framework 2021. These themes are detailed in Figure 2.

5.3 What we heard







An analysis of the engagement – including the survey, drop-in sessions and workshops – revealed the key areas of concern to be:

- Habitat protection and enhancement (revegetation, weed & pest control)
- Climate change adaptation & mitigation
- Energy and water conservation, clean and green supply and security
- Land use planning reform and innovation for a safe climate and sustainable, low emissions communities and places
- Integrated water management, waterway health & water conservation
- More collaboration with other levels of government, business, community groups and Traditional Owners
- Risks, opportunities and benefits associated with fire in our landscape
- Strong support and advocacy for improved coastal management
- Impacts and opportunities associated with farming & agriculture
- Urban greening and cooling
- Electrification of transport
- Council has a key role in advocacy, facilitation and leadership
- Environmental information, education and capacity building
- Waste reduction, reuse and recycling



Figure 2: Environmental Sustainability Strategy 2023-2033 Engagement Themes



STRATEGIC THEMES		STRATEGIC DIRECTION
	Climate Change	Council and the Shire focus on energy efficiency, emissions reduction and moving towards a zero-carbon future whilst improving resilience to changes in short and long-term climatic conditions.
	Natural Environment	A healthy and connected natural environment that protects indigenous landscapes and enhances natural ecosystems, public health and livability.
	Built Environment	Built Environment - Sustainable, resilient and inclusive infrastructure and places.
	Water	A water sensitive shire with a focus on integrated water management, water sensitive urban design, healthy waterways and reduced reliance on potable water.
	Waste & Pollution	A clean and safe Council and shire that minimises waste generation and maximises reuse and recycling, working towards a sustainable circular economy.
	Partnership, Leadership & Advocacy	Council provides leadership, advocacy, brokering, communication and conduit roles to help achieve environmental outcomes. Leadership will also be shown through the development, strengthening and nurturing of partnerships.

6. Our Strategy

Colac Otway Shire's Environmental Sustainability Strategy 2023-2033 will guide Council's environmental management over the next 10 years and provides a framework for Council to work towards a thriving, sustainable municipality, with healthy natural environments and communities.

6.1 Scope

Local government is responsible for a vast range of infrastructure and land management, including parks, reserves, leisure centres, libraries, roads and bridges. Council also provides a multitude of services, such as emergency management, support services for vulnerable people and the elderly, youth engagement, waste collection and pet registration, and is responsible for development and enforcement of local laws.

Issues of major concern to the community over which Council has limited influence will continue to be acknowledged and addressed through targeted advocacy.

Council is required to work within legislation that guides a broad range of matters, from weed and native vegetation management through to energy and resource use. Council has a key role in implementing certain legislation, such as the Victorian Local Government Act 2020 and the Victorian Planning and Environment Act 1987.

Other acts listed below have significant implications for environmental management, and therefore are important for guiding objectives of the strategy:

- Australian Environmental Protection and Biodiversity Conservation Act 1999

- Australian Climate Change Act 2022
- Victorian Flora and Fauna Guarantee Act 1988
- Victorian Catchment and Land Protection Act 1994
- Victorian Environment Protection Act 2017
- Victorian Water Act 1989
- Victorian Climate Change Act 2017
- Victorian Aboriginal Heritage Act 2006

Victorian legislation has also made action on climate change a key responsibility of local government. For example, the Climate Change Act 2017 sets a target of net zero carbon emissions by 2050 for Victoria. Under this Act state and local governments must have regard to climate change in public health and wellbeing planning. The Local Government Act 2020 now also requires Councils to address climate change in their Council Plans. Every council must promote the economic, social and environmental sustainability of the area, including mitigation and planning for climate change risks.

The Victorian Public Health and Wellbeing Plan 2019–2023 for the first time also prioritises action to tackle climate change and its impact on our health and wellbeing. Councils are required to formally respond to this priority; this is reflected in the 2021-25 Council Plan.

Council has endeavoured to establish a progressive new strategy, within the restraints of resourcing and its sphere of control and influence. To maximise efficacy of the strategy, Council has focused on areas directly within the control of the organisation, and matters it can effectively influence.

6.2 Development of goals and objectives

The Strategy builds on the achievements of the Colac Otway Shire Environment Strategy 2010-2018, and is strongly aligned to the Colac Otway 2050 Community Vision, the Council Plan 2021-25, and Council's Environmental Sustainability Policy and Framework. It also reflects extensive feedback from our community and stakeholders received throughout the strategy development engagement activities.

The Strategy has a clear vision, underpinned by the six themes of Council's Environmental Sustainability Framework 2021 and forms the long-term strategic policy position on environmental management and sustainability for Council.

Utilising the findings of the community and stakeholder engagement that preceded the drafting of this strategy, and the overarching themes and strategic directions guiding the Strategy development, six key goals were formulated to capture the breadth of environmental sustainability responsibilities and aspirations of Council.

These goals are high-level, forward thinking and provide a flexible and adaptive framework for onground delivery and implementation. They are supported by objectives that have been developed to further detail how Council intends to achieve those goals during the next decade.

The links between the themes and strategic directions and the Strategy's goals and objectives are shown by the use of symbols in the following pages.

6.3 Implementation

The Strategy is a broad framework of values and priorities to inform development of action plan. This action plan will detail how Council will achieve its goals and objectives, as defined by the strategy, and will be formed in accordance with current knowledge and the social, economic and environmental context.

The specific actions to achieve these goals and implement the objectives will be captured and detailed in the accompanying action plan, providing the opportunity to review and realign implementation actions to maintain their relevance.

The action plan will identify:

- Actions that align to the goals and objectives outlined in this Strategy;
- Timeframes for implementation of each action;
- Resource requirements and availability;
- Council's business units responsible for delivery of these actions; and
- Council's progress against any actions identified in the action plan when it is reviewed in 2028.

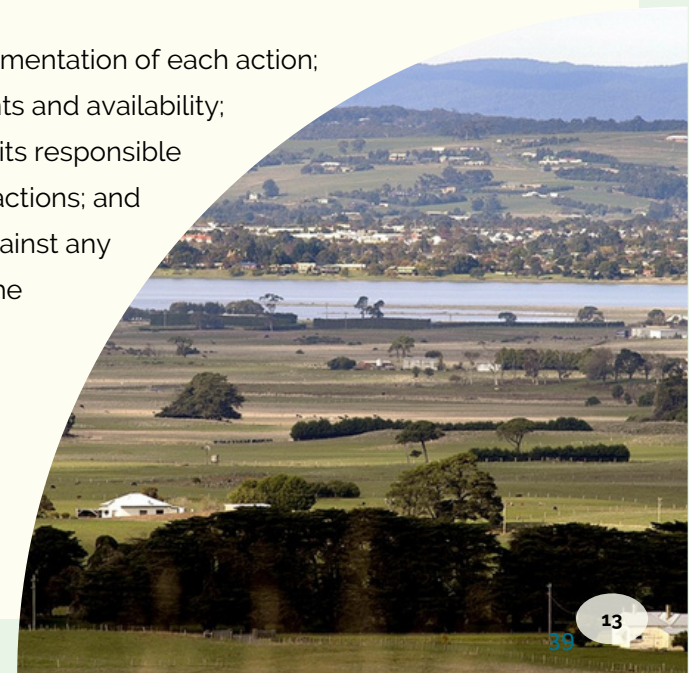
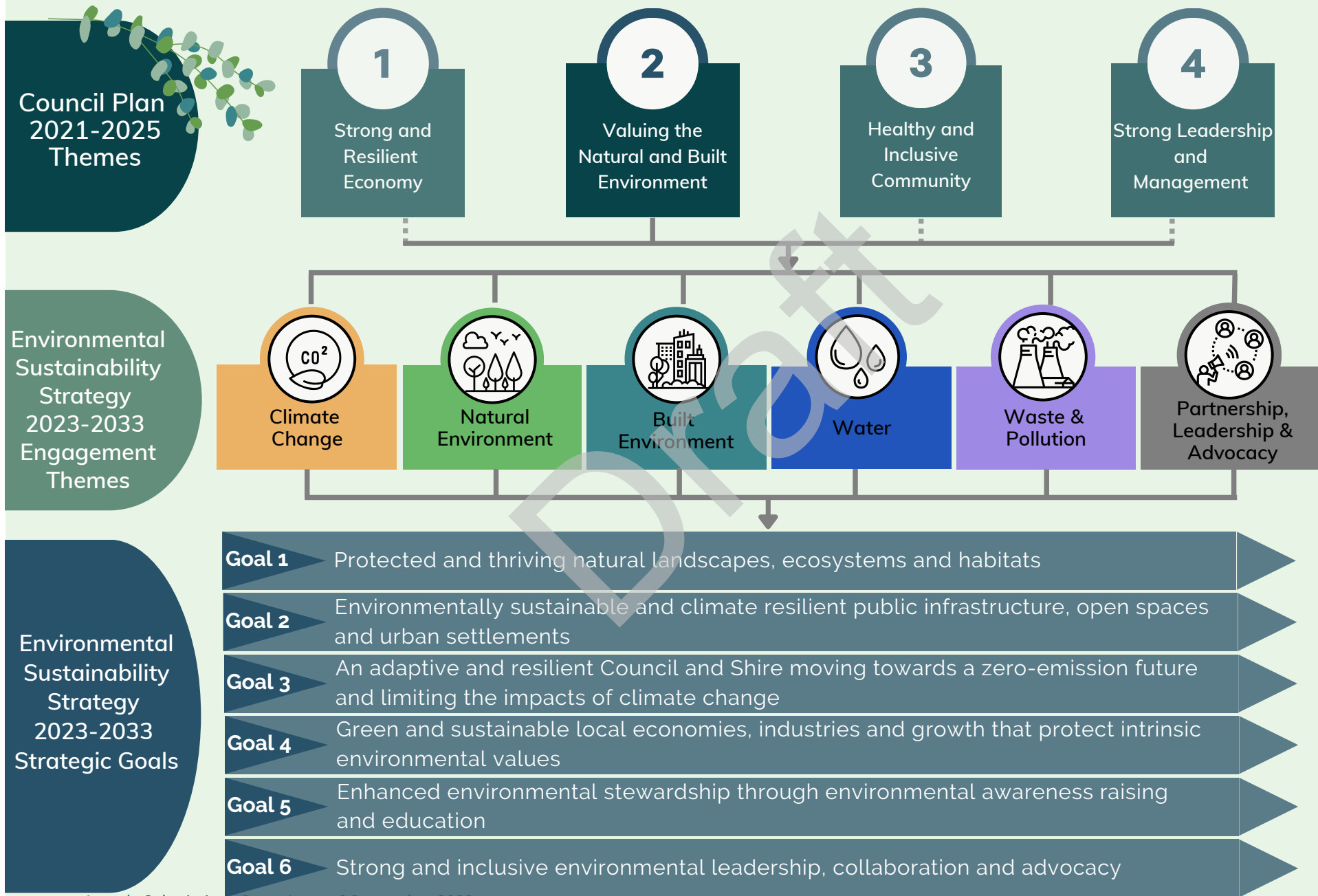







Figure 3: Relationships between the Council Plan, Engagement Themes and Strategy Goals



7. Our Targets

TARGET AREA	KEY TARGET	SPECIFIC TARGETS	SUPPORTING STATEMENT
 <p>Greenhouse Gas Emissions</p>	Net zero greenhouse gas emissions	<ul style="list-style-type: none"> Maintain Carbon Neutral Council Operations (Scope 1 & 2). Net Zero Corporate Emissions (Scope 1, 2 & 3) by 2035. Our community will have transitioned to a Zero Carbon Community by 2040. Reduce Council's corporate emissions by 75% by 2030 and 85% by 2040 (Baseline year 2010-11). Council's Light Fleet will comprise zero emissions vehicles by 2030 and its heavy plant and equipment by 2040. 	Council commits to reporting on corporate greenhouse gas emissions and implementing actions and delivering projects and programs to reach net zero emissions for Council operations.
 <p>Renewable Energy</p>	100% renewable electricity	<ul style="list-style-type: none"> Council will obtain 100% of its electricity from emissions free renewable energy sources. 	Council commits to obtain 100% of its electricity from emissions free renewable energy sources and increase its renewable energy generation capacity.
 <p>Waste</p>	Zero recoverable waste to landfill	<ul style="list-style-type: none"> Divert 80 per cent of waste from landfill by 2030.* Cut total waste generation by 15 per cent per capita by 2030.* 	Council commits to report on and reduce waste sent to landfill.
 <p>Water</p>	Reduce potable water use	<ul style="list-style-type: none"> Reduce Council's operational potable water consumption by 10% by 2030 and 20% by 2040. 	Council commits to reducing the overall volume of potable water through its operations used for non-potable purposes.
 <p>Biodiversity</p>	Responsible and adaptive land management	<ul style="list-style-type: none"> Increase tree canopy cover in urban settlements by 5% by 2030 and 10% by 2040. 	Council commits to protecting and enhancing biodiversity on Council owned and managed land and increasing urban canopy cover.

8. Our Goals

Goal 1: Protected and thriving natural landscapes, ecosystems and habitats

The protection of healthy natural landscapes and ecosystems, and the minimisation of negative impacts on native flora and fauna was identified as the highest environmental priority for our communities, as expressed through the engagement processes for the Council Plan and this Strategy. Victoria is experiencing significant degradation of native species due to various human activities, such as land clearing, introduction of non-native species, hunting, and changes in fire regimes.

After colonisation, land clearing for agriculture, timber harvesting, and urbanisation resulted in the loss of habitat for many native species. This was particularly devastating for forest-dependent species. Hunting for fur, food, and sport also had a significant impact on many native species, many of which are now extinct or critically endangered.

The introduction of non-native species, such as rabbits, foxes, pigs, deer and cats has had a devastating impact on native species throughout the Otways due to competition for food, predation, and extreme alteration to the natural balance of ecosystems. This has had a particularly significant impact on small marsupials and ground-dwelling birds, many of which are now endangered or extinct. Also many native plant species require fire to regenerate, and the alteration of fire regimes has resulted in the loss of habitat and changes to the composition of plant communities.

Revegetation is essential to preserving and restoring biodiversity and ecological resilience. Returning plants into the landscape also fosters environmental and social wellbeing, captures carbon and preserves healthy waterways and water quality. Council will continue to undertake significant revegetation projects and encourage natural regeneration in its environmental reserves, parklands and along Council managed habitat corridors, such as linear reserves. Council's natural resource protection initiatives will also focus on weed and pest control, and collaboration with agencies and stakeholders to ensure impactful cross-tenure projects are achieved.

Council's environmental management decisions will respect and integrate Traditional Owners' perspectives, culture and knowledge through meaningful engagement and collaboration. Council will proactively collaborate to integrate Traditional Owners' ecological knowledge and stewardship and other scientific knowledgebases to heal Country and restore environmental values, through meaningful recognition for Indigenous custodianship.

Underpinning Council's efforts to protect environmental values, restore ecosystems and enhance biodiversity is an appreciation that a healthy environment is a central element of a healthy and liveable community.

Goal 1: Protected and thriving natural landscapes, ecosystems and habitats

Supporting Policies, Strategies and Plans

Council Plan 2021-2025
Environmental Sustainability Policy 2021
Colac 2050 Growth Plan

Lake Colac Foreshore Masterplan 2016
Draft Urban Forest Strategy 2015
Weed Management Policy 2020

Objective 1.1 Enhance biodiversity values and habitat connectivity across the municipality



1.1.1 Increase biodiversity of remnant ecosystems through natural regeneration and revegetation programs to reduce habitat fragmentation and increase connectivity.

1.1.2 Protect indigenous biodiversity, habitat and natural landscapes in all council planning, decision making and operations.

1.1.3 Manage and control invasive species to reduce pest plant and animal impacts on indigenous biodiversity.

1.1.4 Collaborate with Traditional Owners and incorporate traditional knowledge of country to improve biodiversity planning and management practices and protect cultural heritage.

Objective 1.2 Build a strong knowledge base that improves understanding of local biodiversity to inform decision making and natural resource management programs



1.2.1 Continuously improve decision making tools (e.g. mapping, up-to-date scientific data), technologies and methods.

1.2.2 Embed and grow ecological and sustainability knowledge and understanding among Council staff for better design and delivery of Council services and operations.



Objective 1.3 Improve waterway health and water quality



1.3.1 Protect, restore and increase indigenous biodiversity and habitat that support healthy waterways, estuaries and wetlands.

1.3.2 Raise local awareness, knowledge and appreciation of water quality protection and healthy waterways.

1.3.3 Reduce pollution and litter entering waterways, wetlands, estuaries and the marine environment via Council's drainage and stormwater systems.

Our Goals

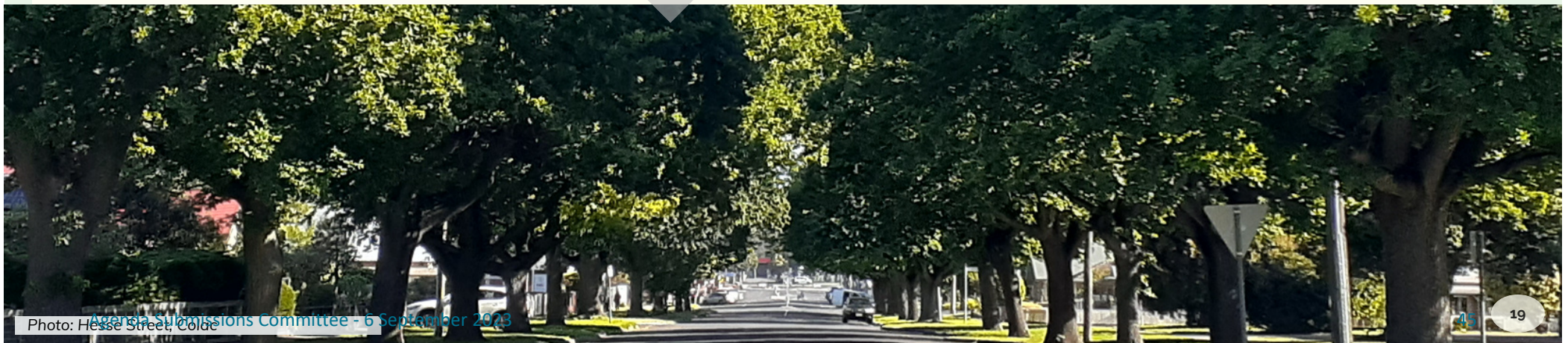
Goal 2: Environmentally sustainable and climate resilient public infrastructure, open spaces and urban settlements

Throughout recent community consultations for the Colac 2050 Growth Plan, Council Plan and this Strategy our community has voiced the urgent need to plan and respond to the challenges and impacts of a changing climate. Council also needs to manage the competing priorities of a growing population with maintaining the Shire's highly valued rural character and unique natural environment. This requires careful balancing of priorities and resources to meet community service and infrastructure needs now and as our community grows.

Collective investment by all levels of government and our community to facilitate this growth will provide opportunities to make the Shire an even better place to live and to create the sustainable future and communities we all aspire to by creating low carbon urban developments. Principles that must underpin successful new developments, public open space design and infrastructure renewal include universal design, functionality, resilience and low energy.

To achieve these things Council will improve land use planning instruments and controls to minimise the impacts of climate change on the environment, people and places, and to improve the efficiency, sustainability and resilience of housing, development and infrastructure. Council will also advocate and work with state government to ensure that our land use planning system and building regulations are contemporary, flexible and adaptive to deal with new challenges posed by climate change and the emerging low carbon and circular economies.

Council will also protect and continue to increase green public open spaces and tree canopy cover to create cooler urban settlements, protect biodiversity, reduce flood risks, and improve air quality and community health and wellbeing.



Goal 2: Environmentally sustainable and climate resilient public infrastructure, open spaces and urban settlements

Supporting Policies, Strategies and Plans	Council Plan 2021-2025	Colac Integrated Water Management Plan 2014
Colac 2050 Growth Plan	Environmental Sustainability Policy 2021	Draft Urban Forest Strategy 2015
Health & Wellbeing Plan 2021-2025	Active Transport Strategy 2013-2023	Colac Stormwater Development Strategy 2020
Colac Otway 2050 Community Vision	COS Climate Change Adaptation Plan 2017-2027	Waste Management Strategy 2021-2030

Objective 2.1 Land use planning innovation and reform to protect the Shire's environment and improve the livability of its human settlements



- 2.1.1 Ensure that land use planning policies and processes consider and implement best practice environmental protection and sustainability principles.
- 2.1.2 Protect and restore biodiversity in our parks, roadsides, reserves, waterways, streetscapes, coastal and rural landscapes through planning and design processes that prioritise regeneration and indigenous plants.
- 2.1.3 Establish a strategic approach to open space and landscape planning which promotes biodiversity, habitat connectivity and builds ecosystem resilience.

Objective 2.2 Urban greening and cooling for biodiversity, climate change resilience and community health

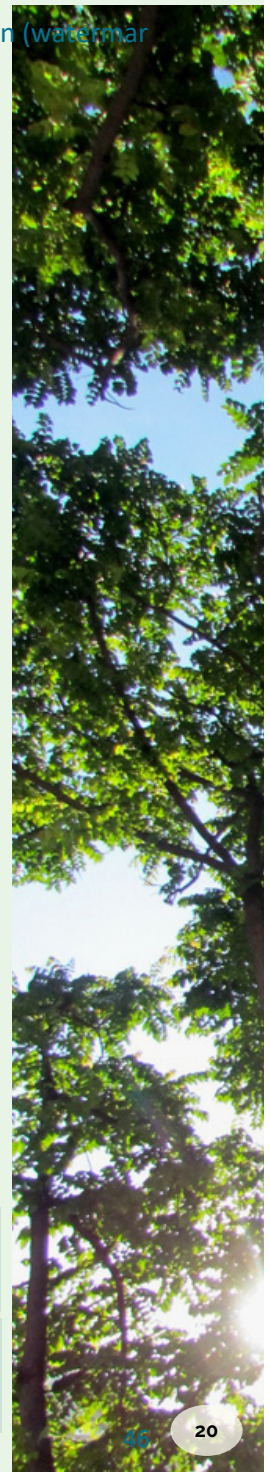


- 2.2.1 Design and deliver urban cooling programs using canopy trees and other greening options to increase community resilience to the impacts of climate change and improve the livability and sustainability of our urban settlements.
- 2.2.2 Protect and increase canopy cover and shade in public open spaces, around community facilities and along urban commuting routes to improve amenity and enable active and public transport options.

Objective 2.3 Waste Reduction, Recycling and Circular Economy



- 2.3.1 Support community and business efforts to avoid and reduce waste through education, behaviour change, capacity-building and the provision of innovative services, such as public glass recycling collection.
- 2.3.2 Build Council's capacity to understand and implement the waste hierarchy, litter management, life cycle analysis and sustainable procurement principles to better support the acceleration of a circular economy.



Objective 2.4 Foster and promote better integrated water management through decision making, planning and design



2.4.1 Plan, design and implement best practice stormwater management, treatment and harvesting systems and infrastructure.

2.4.2 Develop partnerships with governments, water corporations, key agencies, organisations and our community to plan and achieve sustainable water management outcomes.

2.4.3 Reduce reliance and demand on potable water supplies by prioritising the use of alternative water supplies.



Our Goals

Goal 3: An adaptive and resilient Council and Shire moving towards a zero-emission future and limiting the impacts of climate change

Australia's emissions have been steadily increasing for decades. The latest report from the United Nation's Intergovernmental Panel on Climate Change (IPCC Report No. 6 <https://www.ipcc.ch/assessment-report/ar6/>) states that industrialised nations must halve their greenhouse gas emissions by 2030 and be carbon neutral by 2050 if they wish to prevent the most catastrophic harms of global warming. The report reveals that failure to slash emissions will mean average global temperatures will rise more than 1.5°C above pre-industrial levels. Past this threshold, the impacts will be severe, including species extinctions, irreversible melting of ice sheets and extreme sea level rise.

Accelerated climate action is needed to make the best possible transition to a zero-emissions future and to restore a safe climate pathway for future generations. This requires substantial commitment to both climate change mitigation and adaptation actions now and into the future by all levels of government and our communities.

Colac Otway Shire has demonstrated its commitment and leadership in energy conservation and greenhouse gas reduction by significantly reducing energy use and greenhouse gas emissions in all Council operations over the last decade, and leading and participating in many regional collaborative



Goal 3: An adaptive and resilient Council and Shire moving towards a zero-emission future and limiting the impacts of climate change

projects to mitigate and adapt to the impacts of climate change. In 2022 Council also joined the Victorian Energy Collaboration (VECO), the largest emissions reduction project ever undertaken by the local government sector in Australia. Fifty one Victorian Councils have pooled their electricity needs into one long-term contract which provides the VECO councils with clean renewable energy generated from wind farms in south-west Victoria to power Council-owned infrastructure, such as offices, sports grounds, community venues, leisure centres and streetlights.

A Net Zero Emissions Target for Council was advocated for by our community, and after resolution by Council in the 2020-21 financial year was achieved and delivered. This was a significant milestone for Council, as part of its ongoing demonstration of meaningful environmental action, and provides an imperative for Council to strongly focus on opportunities to reduce its residual emissions further so that the offsetting required will continue to be minimised going forward.

To achieve this, Council will work to ensure its services and operations become increasingly efficient. Council will also support households and businesses to take their own steps to be more sustainable. This will involve our organisation leading by example to support efforts to reduce energy consumption, improve energy efficiency, and promote renewable energy production and storage solutions.



Goal 3: An adaptive and resilient Council and Shire moving towards a zero-emissions future and limiting the impacts of climate change

Supporting Policies, Strategies and Plans
Colac Integrated Water Management Plan 2014
Council Plan 2021-2025

Draft Urban Forest Strategy 2015
Environmental Sustainability Policy 2021
Health & Wellbeing Plan 2021-2025
Waste Management Strategy 2021-2030

Colac Stormwater Strategy 2020
Colac 2050 Growth Plan
COS Climate Change Adaptation Plan 2017-2027

Objective 3.1 Promote and increase clean energy production, energy efficiency and low-emission transport for Council and the community



3.1.1 Continue implementing energy efficiency and emissions reduction programs in Council-owned and operated facilities, services and operations and maintain Council's Carbon Neutral status.

3.1.2 Encourage community efforts to transition to a zero-carbon environment, including the electrification of transport and enhanced public transport services across the region.

Objective 3.2 Embed climate change adaptation into decision making, planning and design



3.2.1 Design and build climate resilient community infrastructure and services.

3.2.2 Increase awareness and understanding of climate change impacts and mitigation and adaptation responses across Council and the community.

3.2.3 Plan for climate change and related emergency management at the municipal level, provide relief and recovery services, and support emergency response operations.

Objective 3.3 Adaptive management and renewal of Council assets and infrastructure to build resilience to climate change



3.3.1 Prioritise innovative adaptation programs to reduce climate change induced extreme weather events impacts on people, infrastructure, places and the environment.

3.3.2 Promote and facilitate best practice integration of blue and green infrastructure within developments and urban settlements to improve climate resilience and health and wellbeing.



Our Goals

Goal 4: Green and sustainable local economies, industries and growth that protect intrinsic environmental values

Australia's population is expected to exceed 28 million by 2030. Population drivers lead to a range of pressures that directly affect the environment because of the spaces we take up and urbanise, the resources we use, our modes of travel, and the waste we produce. The production of goods and services to maintain our current and growing population also requires a large amount of energy and materials, all of which are sourced from the environment.

Ecosystem modification, resource extraction, production and consumption, and waste disposal all affect the health and resilience of natural capital, and the ecosystem services it provides. In order to create a global sustainable future, it is critical to recognise the relationships between economic activity, environmental degradation and social wellbeing.

Our region also has great opportunities to expand and grow, both for permanent populations and as a destination for domestic and international visitors. The growth seen in Colac and Apollo Bay and surrounds is a great example of the rapid expansion in our local communities. The Colac Otway region also supports a network of over 1,500 businesses and well over 800 farms and the Shire has a diverse range of industries including health care, social services, manufacturing, public administration, agriculture, forestry, fisheries, retail and tourism.

Given 48% of Colac Otway's 2020-21 community emissions were attributed to agriculture, Council will also need to explore opportunities to support the agricultural and farming sector to improve land management practices, better integrate environmental and biodiversity protection, and enhance resilience of these sectors to a changing climate.

Therefore, it is important to foster an environmentally sustainable economy by attracting new environmentally sustainable industries and encouraging existing businesses to reduce the environmental impact of their operations. Council is committed to developing green and circular economies within our region.



Photo: Aerial view of Apollo Bay and harbour, 6 September 2021

Goal 4: Green and sustainable local economies, industries and growth that protect intrinsic environmental values

Supporting Policies, Strategies and Plans

Council Plan 2021-2025
Environmental Sustainability Policy 2021
Health & Wellbeing Plan 2021-2025

COS Destination Action Plans
Colac 2050 Growth Plan
Waste Management Strategy 2021-2030

Objective 4.1 Explore opportunities to work with the agricultural and farming sector to enhance land management practices, operate sustainably and adapt to a changing climate



4.1.1 Promote and support integrated environmental and biodiversity protection within the commercial, industrial and agricultural sectors.

4.1.2 Assist local commercial, industrial and agricultural sectors to combat the impacts and explore the opportunities of climate change both environmentally and economically through adaptation and mitigation.

Objective 4.2 Green economy, tourism and growth



4.2.1 Protect and enhance environmental values, biodiversity and natural landscapes that draw visitors to and underpin the unique character, economy and prosperity of our Shire.

4.2.2 Advocate to state and federal governments for waste-minimising design, manufacturing and packaging policy and legislation toward a circular regional economy.

4.2.3 Foster and promote infrastructure that prioritises environmentally sustainable development and design principles that integrate and encourage amenity, accessibility, active and public transport and longer visitor stays.

4.2.4 Attract and support environmentally sound industry, such as recycling plants, commercial solar arrays and waste to energy, including all forms of associated manufacturing.

4.2.5 Foster and promote infrastructure that prioritises environmentally sustainable development and design principles that integrate and encourage amenity, accessibility, active and public transport and longer visitor stays.



Our Goals

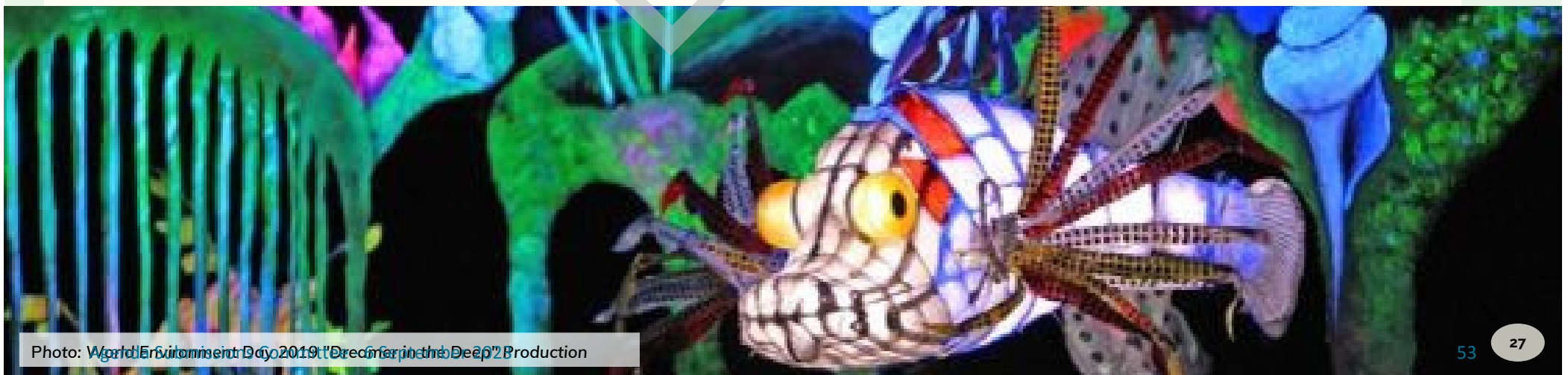
Goal 5: Enhanced environmental stewardship through environmental awareness raising and education

Colac Otway Shire has an important role to play as a level of government closely connected to local communities in which we live, work and conduct business. This creates powerful opportunities for Council to conduct meaningful and uniquely tailored education and stewardship initiatives in response to our community's expectations and requirements.

Council will provide opportunities for the community and Council staff to engage with nature, learn about the environment and its related challenges. These education and engagement initiatives and programs will enable residents and staff to be engaged and educated about environmental sustainability, build knowledge and capacity to use resources wisely, take positive steps and actions to reduce carbon emissions and adapt to a changing climate.

Council will also provide broad and regular communication about the importance of caring for the environment and living sustainably, both in rural and urban settings across all media and local publications.

The Shire has a thriving community of people keenly interested in participating in sustainability action and wide-ranging areas of environmental awareness raising. Under this strategy, Council will take up these opportunities for enhanced engagement and collaboration with groups and individuals with skills and interest in this space to help foster and support the local environmental groups' aspirations, goals and actions.



Goal 5: Enhanced environmental stewardship through environmental awareness raising and education

Supporting Policies, Strategies and Plans

Council Plan 2021-2025
Environmental Sustainability Policy 2021
Health & Wellbeing Plan 2021-2025

COS Destination Action Plans
Colac 2050 Growth Plan
Waste Management Strategy 2021-2030

Objective 5.1 Council will help build the community's environmental literacy and knowledge to increase community understanding and involvement in biodiversity conservation activities and foster sustainable behaviour, including wise resource use.



5.1.1 Council will provide broad and regular communication about the importance of caring for the environment and living sustainably both in rural and urban settings across multiple platforms.

5.1.2 Improved communication, engagement with local environmental groups to support their aspirations, goals and activities.

5.1.3 Support, develop and deliver education and engagement opportunities and resources for our community to engage with nature and live more sustainably.

5.1.4 Council will build internal capacity to understand and implement the carbon emissions hierarchy (i.e. reduction of emissions prioritised over offsetting), increased corporate knowledge and data capture of emissions.



Agenda Submissions Committee - 6 September 2023



Our Goals

Goal 6: Strong and inclusive environmental leadership, collaboration and advocacy

Council has a strong history of effective collaboration with community groups, stakeholders and other levels of government. To achieve Council's environmental sustainability objectives, strong leadership will also be shown through the strengthening and nurturing of these partnerships and relationships that will provide and deliver improved environmental sustainability outcomes for our community. Council aims to foster strong partnerships to achieve successful landscape and ecosystem scale protection and improvements that often require action and cooperation across land management boundaries with other government agencies and authorities; businesses and industry; community groups and landowners.

Integrating environmental sustainability across the organisation is also key to strong and consistent commitment from all staff. Leadership, cross-department collaboration and ongoing support is required to ensure staff have the awareness, information, capacity and confidence to deliver appropriate environmental outcomes through their daily work functions.

Under this strategy, Council will strive to be a leader, conduit and facilitator of collaboration, innovation and capacity building to increase and build environmental stewardship. In 2022 Council formally joined the Barwon South West Climate Change Alliance to collaborate with other Councils, water authorities and research institutions and to amplify advocacy and adaptive outcomes for the region. Council will also work to assist the community and private sector to better understand and appreciate the impacts and opportunities that climate change adaptation and mitigation will have both environmentally and economically.

Council will continue to advocate for new projects and initiatives, as well as in relation to environmental issues that are important to our communities.



Photo: Climate Resilient Communities BSW 6 Climate Change Conference, Geelong

Goal 6: Strong and inclusive environmental leadership, collaboration and advocacy

Supporting Policies, Strategies and Plans

Council Plan 2021-2025
Environmental Sustainability Policy 2021
Health & Wellbeing Plan 2021-2025

Colac 2050 Growth Plan
Colac Otway 2050 Community Vision
Waste Management Strategy 2021-2030

Objective 6.1 Lead and facilitate collaboration, innovation and advocacy to increase and build environmental stewardship of individuals, community and businesses.



6.1.1 Establish stronger relationships and partner with key stakeholders to achieve regional biodiversity protection and improvements.

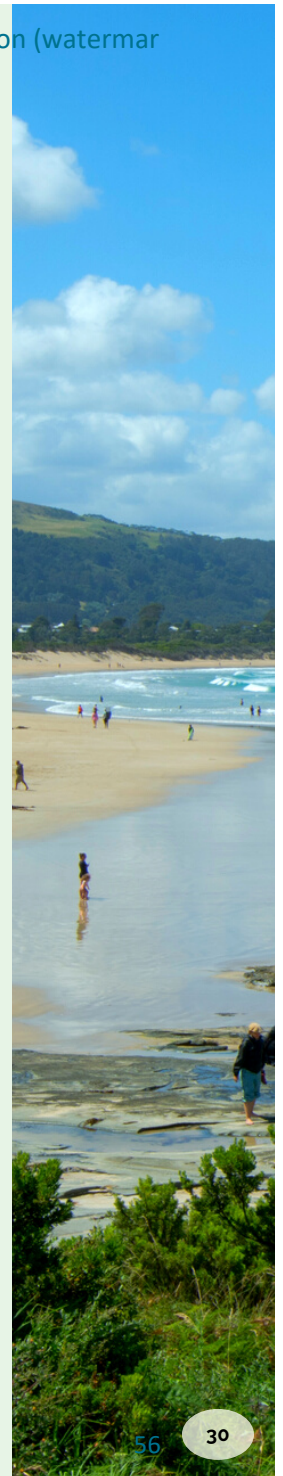
6.1.2 Establish stronger relationships and partner with key stakeholders to improve knowledge of, plan and implement responses to limit regional climate change impacts.

6.1.3 Participate in and support collaborative community led advocacy, projects and programs relating to biodiversity protection and environmental sustainability.

6.1.4 Strongly advocate for robust evidence-based climate action, policies and legislation at all levels of government to accelerate transition of our communities and economy to a clean, climate-safe future.



Agenda Submissions Committee - 6 September 2023



9. What Success Looks Like

The Outcomes we seek by 2033:

Goal 1 Protected and thriving natural landscapes, ecosystems and habitats

Biodiversity and connectivity of remnant ecosystems is increased through natural regeneration and revegetation programs.

Reduction in the coverage of invasive species across the Shire.

Increased number of water quality treatment systems installed to manage stormwater to support healthy and diverse aquatic ecosystems.

Goal 2 Environmentally sustainable and climate resilient public infrastructure, open spaces and urban settlements

Improved land use planning instruments and controls to minimise the impacts of climate change on the environment, people and places and improve the efficiency and sustainability of housing, development and infrastructure.

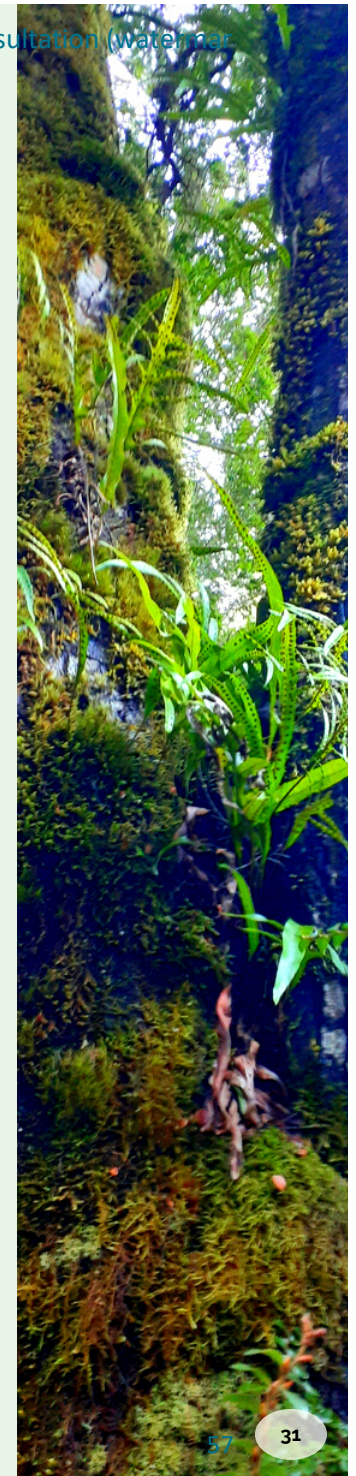
Green open space and tree canopy cover is increased across the Shire.

Increased diversion of household and commercial waste from landfill.

Goal 3 An adaptive and resilient Council and Shire moving towards a zero-emission future and limiting the impacts of climate change

Council's corporate greenhouse gas emissions are reduced or offset to achieve net zero emissions.

New developments in the Shire incorporate best practice water conservation and stormwater management measures through integrated water management and water sensitive urban design.



Goal 4 Green and sustainable local economies, industries and growth that protect intrinsic environmental values

There is an increase of green businesses and industries in the Shire.

Increased adoption of more environmentally sustainable practices and active protection of biodiversity and landscapes by businesses in the agriculture sector.

Goal 5 Enhanced environmental stewardship through environmental awareness raising and education

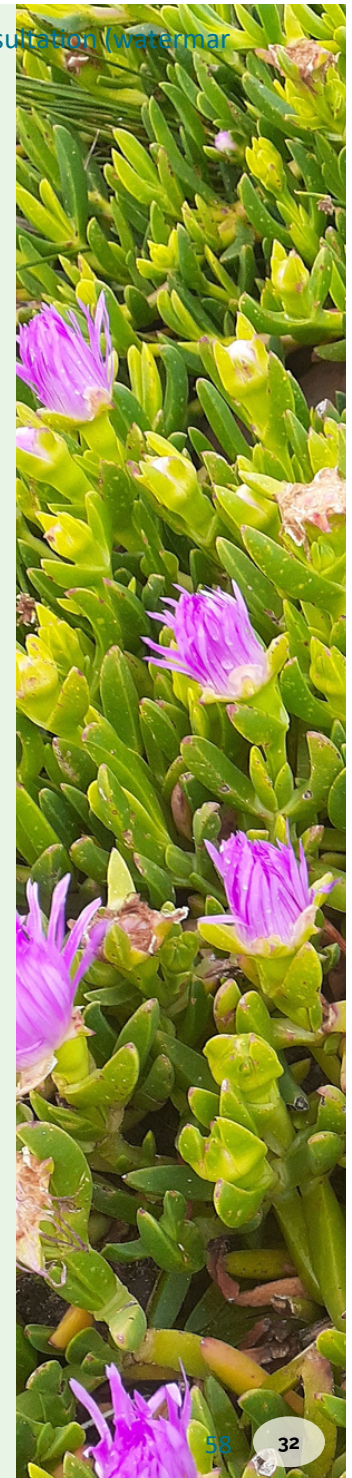
Increased community participation in environmental events and activities.

Goal 6 Strong and inclusive environmental leadership, collaboration and advocacy

Traditional Owner perspectives, culture and knowledge and their land management and environmental stewardship goals being reflected in Council's environmental management decisions.

Increased community satisfaction rating for overall performance in environmental sustainability (Annual Local Government Community Satisfaction Survey) and exceed the Victorian Council average.

Leadership will be shown by measuring and reporting progress in implementing the Environmental Sustainability Strategy and Climate Change Action Plan.





Climate Change Action Plan



Colac Otway
SHIRE

2023-2033

Acknowledgement of Country

The Colac Otway Shire proudly acknowledges the Gulidjan and Gadubanud peoples of the Eastern Maar Nation as the traditional custodians of the Colac Otway Region.

We acknowledge that the Colac Otway Shire is located and conducts business upon lands of the Gulidjan and Gadubanud people.

We pay our respects to their Ancestors and Elders, past, present and emerging.

We recognise and respect their unique cultural heritage, beliefs and relationship to their traditional lands and waters, which continue to be important to them today and into the future.



Executive Summary

Council recognizes the need for more urgent and extensive action to reduce greenhouse gas emissions and respond to climate change impacts.

Colac Otway Shire Council's Climate Change Action Plan 2023-2033 articulates our vision for our organization, community and environment to thrive in a safe climate and outlines our key focus areas for climate action:

1. Sustainable Built Environments
 - Renewable Energy
 - Sustainable Buildings
 - Sustainable Transport
 - Urban Greening
 - Integrated Water Management
2. Resource Consumption, Waste Reduction & Circular Economy
3. Biodiversity Protection & Regeneration
4. Leadership, Partnerships & Advocacy
5. Adaptation & Resilience

It provides an overview of Council's progress so far on responding to the impacts of climate change and highlights some of the climate actions we have undertaken over the past 12 years.

The Action Plan also explains the challenges we face that make our collective climate action response so important. Adapting to the impacts of climate change and mitigating further impacts will require a collective effort by our whole community including governments, industry, service providers, the emergency management and health sectors, communities, households and individuals.

Council also recognises that our community is skilled and well placed to take, lead and mobilise local action on climate change and Council will ensure that we inspire, enable and work with our community to take action on climate change.

Therefore, the Plan also outlines the ways we will collaborate and work together in partnership with: governments and their agencies; our community; environmental and climate groups; local businesses and key industries.

The 10 year Plan identifies 48 actions we will undertake as an organisation over the next five years and beyond to adapt to a changing climate and urgently mitigate against further impacts. To ensure that the Action Plan remains agile and adaptive, its implementation will be monitored and reported to Council and the community, with a formal review after five years.

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1. Introduction

Council acknowledges its communities are facing a global climate change and biodiversity crisis, one that requires urgent action by all levels of government, including local councils.

The Colac Otway Shire, like many regions around the world, is increasingly experiencing the impacts of climate change. The region's natural environment is under threat, with changing weather patterns, rising temperatures and extreme weather events all having significant impacts on our natural landscapes, local community and economy.

One of the most visible impacts of climate change in the Colac Otway Shire is the change in frequency and intensity of extreme weather events, including droughts, floods, storm surge that exacerbates coastal erosion, and bushfires. These events have caused significant damage to the region's infrastructure, homes, and natural environment, as well as having significant economic consequences for the region.



Wye River Christmas Day Bushfire 2015



Colac CBD flooded



Coastal erosion at Apollo Bay

Climate projections highlight the likelihood that the impacts of climate change will significantly worsen over the coming decades and the urgency of the need for strong action if we are to prevent the most catastrophic harms of global warming.

Climate change impacts us at national, state, regional and local levels, down to households and individuals. Climate action must therefore be collectively undertaken through strategic planning, shared responsibility, partnerships and collaboration.

This Action Plan has been developed to provide the Shire with a pathway of clear and achievable climate change targets and actions to be undertaken over the coming decade. Our response centres around actions that Council and our community can take for climate change mitigation, adaptation and building climate change resilience. Colac Otway Shire Council recognises the important role it can play in working with, supporting and empowered our communities in their efforts to respond to a changing climate, to reduce emissions, to make sustainable choices, and to build resilience for the future.

2. State of the Climate

The demonstrable and impending impacts of a changing climate are recognised as a significant global challenge, requiring a concerted and unified response.

The latest report from the United Nation's Intergovernmental Panel on Climate Change (IPCC Report No. 6 <https://www.ipcc.ch/assessment-report/ar6/>) reveals that industrialised nations must re-evaluate their climate change targets to halve greenhouse gas emissions by 2030 and be carbon neutral by the early 2050s if they wish to prevent the most catastrophic harms of global warming. The report states that failure to slash emissions will mean average global temperatures will rise more than 1.5 degrees Celsius above pre-

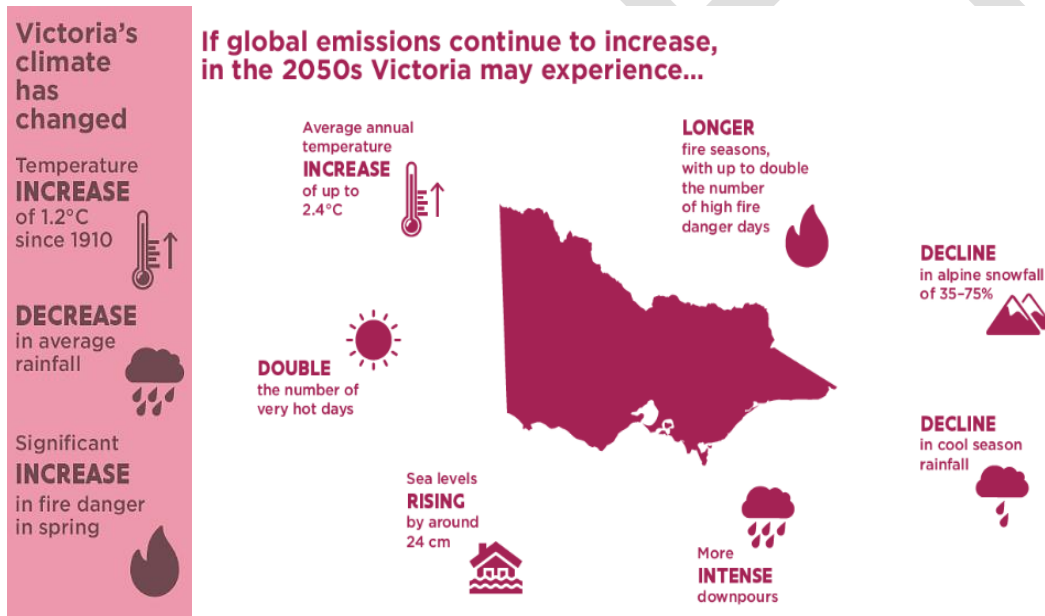
industrial levels. Past this threshold, the impacts will be severe, including species extinctions, irreversible melting of ice sheets and extreme sea level rise.

Australia is already feeling the effects of climate change. Our weather is becoming increasingly variable. More frequent extreme and cascading weather events are impacting communities and the economy, and threatening the environment. At the same time, summers are becoming steadily hotter and drier, leading to adverse health impacts, increased bushfire risks and ecological damage, and threatening agricultural production.

Victoria's climate has also changed in recent decades, becoming warmer and drier. These changes are expected to continue. Understanding the drivers and impacts of these changes, as well as what we can expect in the future, will help us to plan and adapt.

Projections for Victoria indicate the state is likely to become hotter and drier in the future, but the timing and extent of changes will vary across regions.

Comparison of observations and projections in Victoria suggest that temperature has been tracking towards the upper limit of projections while winter rainfall has been tracking towards the drier end of projections. By the 2050s, if the current global warming rate continues, Victorian towns could experience around double the number of very hot days each year compared to the 1986–2005 average.










Source: <https://www.climatechange.vic.gov.au/victorias-changing-climate>



Current climate change trends mean hotter and drier conditions for the future of South West Victoria, less rain in winter, more intense rainfall events, biodiversity loss and sea level rise.

Barwon South West has been getting warmer and drier. In the future the region can expect...

	Temperatures to increase all year around		More hot days and warm spells, and fewer frosts
	Less rainfall in Winter and Spring		More frequent and more intense downpours
	Harsher fire weather and longer fire seasons		Rising sea level
	Increased frequency and height of extreme sea level events	Source link	

Source: [Regional Adaptation Snapshot Barwon South West](#)

Current predictions suggest that by 2030 we can expect the Barwon South West to experience:

- An average temperature rise of almost 1 degree C;
- An increase in the number of hot days (over 30 degrees C);
- A decrease in rainfall over spring of 7% and a decrease in the annual average rainfall of 4%.

Unless emissions are drastically reduced in the short to medium term, by 2070 the region can expect to see:

- An average temperature increase of 2.4 degrees C
- Significant biodiversity losses
- More hot days over 30 degrees C
- Total rainfall decline
- Higher evaporation rates, reducing available water
- Run off decline into catchments by as much as 50%.



3. Impacts and Risks for our Region

The changing weather patterns we are experiencing, including rising temperatures and changing rainfall patterns, have significant impacts on the region's natural environment, including the health of forests and water resources. For example, rising temperatures and reduced rainfall can lead to increased stress on plant life, resulting in drought, wildfires, and other environmental hazards.

Climate change is one of the most significant threats to biodiversity. Our unique and diverse flora and fauna face multiple impacts, including changing temperatures, altered rainfall patterns, rising sea levels, and more frequent extreme weather events.

Climate change also has the potential to cause significant economic consequences for the region. Agriculture, forestry, and tourism are all vulnerable to climate change impacts, with changes in weather patterns and extreme weather events having significant impacts on these industries. For example, droughts and bushfires can lead to significant crop, stock and farm infrastructure losses, while changes in rainfall patterns can impact the growth of forests and impact the availability of water resources for agriculture and tourism.

[Victorian Public Health and Wellbeing Plan 2019-23](#) states that "Climate change also affects health in many ways – directly by the increased intensity and frequency of extreme weather events such as prolonged heatwaves, floods and bushfires, and indirectly through worsening air quality, changes in the spread of infectious diseases, risks to food safety and drinking water quality, and effects on mental health." Climate change also has consequences for growing health inequalities, with population groups such as the elderly, young children, people with a chronic disease and low-income households disproportionately affected by the effects of climate change.

Climate change impacts will increasingly impact on Council services. High fire danger days and extreme rainfall events are already impacting when it is safe for Council officers to work outdoors or travel to different parts of the Shire to deliver services. Maintaining and growing green open spaces is challenging in a hotter and drier climate, and drainage infrastructure has difficulty coping with more flooding and higher intensity rain events.

The demand on Council services will change and increase because of climate impacts. Climate change increases community vulnerability and will significantly impact on vulnerable cohorts such as low-income households, people with disabilities, as well as infants and the elderly.

Climate change also creates risks for Council. It poses financial risks through the cost of retrofitting infrastructure and rebuilding in cases of damage to property and assets from impacts such as extreme weather events, flooding and landslides. Insurers are beginning to factor climate change into premiums and are limiting their coverage of significant risks. Governments are also increasingly exposed to legal action for failing to proactively adapt to climate change.

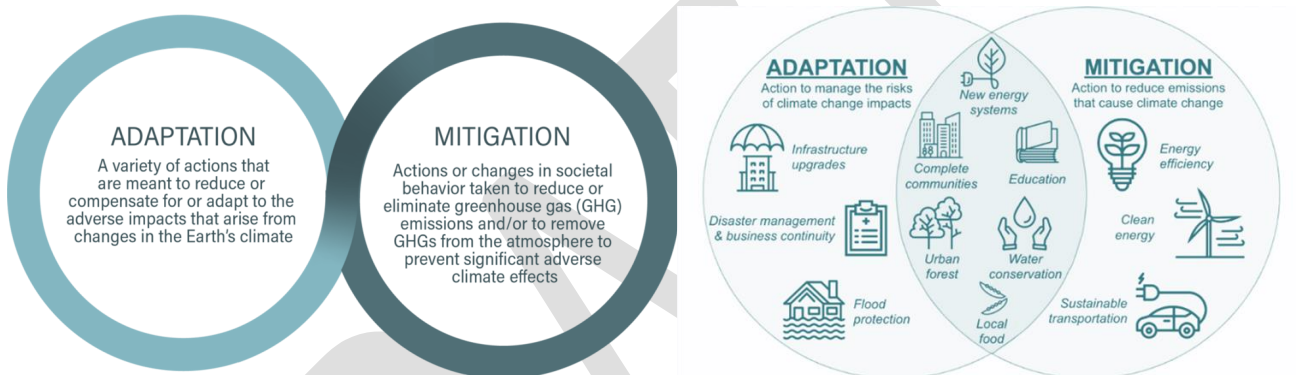
Planned, well-informed and coordinated action is needed to manage climate change impacts and continue providing quality public services and minimise negative outcomes for human or ecological systems due to climate impacts.

Early action also has significant financial and social benefits. Proactive climate change adaptation and mitigation saves money by avoiding larger risks and future impacts, rather than bearing the cost of remediating impacts and retrofitting adaptation responses. It also supports social cohesion, equity, and wellbeing and resilience by reducing vulnerability and harnessing opportunity. Many of the actions we can take to reduce greenhouse gas emissions and tackle climate change bring with them environmental, economic, social and health co-benefits.

4. Approaches to Addressing the Challenges of Climate Change

Climate change adaptation and mitigation are two complementary approaches to addressing the challenges of climate change. At the core of effective climate change action are the dual approaches of minimising the factors contributing to further anthropogenic changes to global climate and adapting to those consequences that can no longer be avoided. Adaptation measures are necessary to reduce the negative impacts of climate change that are already being felt (manage the unavoidable), while mitigation measures are important for reducing greenhouse gas emissions and preventing further climate change (avoid the potentially unmanageable).

Mitigation involves reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by minimising sources of these gases (for example, reducing the burning of fossil fuels for electricity, heat or transport) or enhancing the systems that accumulate and store these gases, such as oceans, forests and soil. Mitigation strategies include transitioning to renewable energy sources, improving energy efficiency, and implementing carbon capture and storage solutions.



Adaptation (adapting to life in a changing climate) involves adjusting to actual or expected future climate. Adaptation measures are typically designed to help communities and ecosystems adjust to the impacts of climate change that are already occurring or are expected to occur in the future. The goal is to reduce our vulnerability to the harmful effects of climate change (such as sea level encroachment, more intense and extreme weather events or food insecurity). These actions also encompass opportunities capitalizing on changes in future agricultural production by diversifying to build resilience and sustainability (e.g. growing warmer climate crops).

A comprehensive approach that incorporates both adaptation and mitigation measures will be necessary to ensure a sustainable future by building resilience and reducing the impacts of climate change on communities and ecosystems.

Adaptation and resilience actions also offer opportunities to maximise environmental and social benefits such as improved quality of urban biodiversity and waterways, carbon storage potential, positive health outcomes, and increased community safety.

5. Current National, State and Local Strategic and Legislative Context

The Federal *Climate Change Act 2022* was introduced at a national level to create ambitious new targets for Australia's greenhouse gas emissions reductions and to establish a framework for strong action on climate change, recognising the urgent need for this.

Through this legislation Australia has pledged to reduce greenhouse gas emissions by 43% below 2005 levels by 2030 and to achieve net zero emissions by 2050. It recognises that we must: anticipate, prepare for and

adapt to the impacts from a warming climate; and that we must mitigate catastrophic climate change by reducing our emissions and playing a leadership role in supporting other nations to reduce theirs.

This will require an economic transformation on a large scale. Despite the significant challenges, it is also recognised that this transformation will provide great opportunity for regional Australia. As industries emerge, adapt and grow, they will create demand for workers in electricity generation, manufacturing and many other sectors. Decarbonised and emerging industries will provide a sustainable future for regional economies and communities.

Victoria adopted a *Climate Change Act 2017* that committed to net-zero emissions by 2050, establishing a 5-yearly framework to reduce emissions and ensure that state-wide systems are prepared to adapt to the impacts of climate change. In recent years the government established more ambitious new targets to cut emissions: 28–33% by 2025 below 2005 levels, 50% by 2030 below 2005 levels, with a commitment to reduce emissions by 75% to 80% (on 2005 levels) by 2035 and net zero by 2045. The Victorian government has also committed to a 95% renewable energy target by 2035 and has also adopted Climate Adaptation Action Plans for seven sectors, namely: agriculture; energy; industrial processes and product use; land use, land use change and forestry; transport; waste; and whole of government. It has also supported the development of community-led Regional Climate Adaptation Strategies, including the Barwon South West Regional Climate Adaptation Strategy.

Through the adoption of the Colac Otway Shire Environmental Sustainability Strategy 2023-2033 and this Action Plan, Council will continue to strive to achieve best outcomes for our climate and the greatest opportunities for our communities.

Over the life of this plan, we will make significant progress in adapting to and mitigating the impacts of climate change across the five focus areas outlined in this plan. We will achieve this by completing or facilitating the forty eight individual actions identified in this plan. Many actions involve partnerships and collaboration, with community action and stakeholders playing a key role in achieving the targets.

6. Colac Otway Community Emissions Profile

Like all regions, Colac Otway Shire and its community and economy contributes to greenhouse gas emissions through various activities such as agriculture, transportation, and energy use.

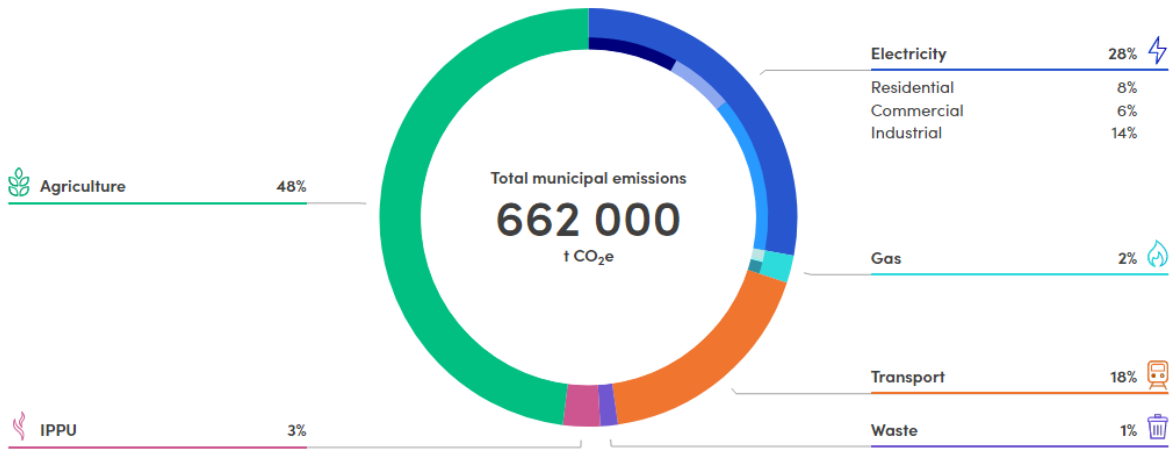
Colac Otway Shire as a municipality produced 662 kilotons of carbon dioxide equivalent (CO₂-e) emissions in 2020/2021, accounting for 0.76% of the state's total emissions. The largest source of emissions in the shire was from agriculture, which accounted for 48% of the total, followed by energy use (30%) and transportation (18%).

The Snapshot Community Emissions Profile (<https://snapshotclimate.com.au/> below outlines the major sources of carbon emissions for the entire municipality. It has been developed to be consistent with the Global Protocol of Carbon Emissions reporting (GPC Protocol) BASIC+, the international standard for cities and local government areas.

Due to the approximate nature of the profile, the emission values are represented as rounded numbers. This profile includes the following sources:

- Stationary energy - grid supplied electricity/gas
- Transport - on-road use and domestic passenger air travel
- Waste - landfill and wastewater
- Agriculture – methane produced by livestock digestive processes, manure management and synthetic fertilizer use
- Land Use Change - land clearance and reforestation
- Industrial Processes and Product Use (IPPU) - industrial processes, refrigerant use.

Colac Otway Community Emissions Profile (2020/21)



Source: <https://snapshotclimate.com.au/locality/municipality/australia/victoria/colac-otway/>

7. Our Climate Active Community in Colac Otway Shire

Colac Otway Shire Council communities are passionate and committed to protecting the environment and undertaking action on climate change. Communities across the shire have urged Council to lead in this space and to work collaboratively to support local efforts to reduce environmental impacts. Many community members are already undertaking significant steps towards this, including by installing renewable energy and increasing home energy efficiency, reducing consumption, reusing and recycling, and composting organic waste.

Colac Otway is home to an impressive range of local businesses and community-led grassroots action. Businesses and community groups alike are resilient, organised and self-driven. Many businesses within Colac Otway have implemented energy efficiency and waste reduction programs, leading the way in their own sectors. These businesses have realised many added benefits, including a reduction in operating costs whilst building sustainable brands.

Local community sustainability and climate action groups create and deliver targeted programs and offer support in areas such as waste minimization, energy efficiency, renewables, food security and community gardens, while also advocating for urgent climate change action by all levels of government. Local conservation organisations are also delivering on sustainability outcomes through land management and biodiversity improvements.

Council is committed to leadership, advocacy and partnership to support our communities' and businesses' aspirations for a climate-safe future and to help amplify their climate change action advocacy priorities.

Solar power generation system at the Australian Lamb Company, Colac



8. About this Plan

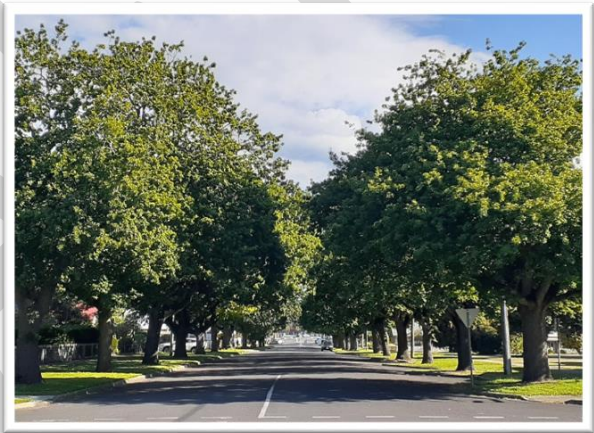
Climate change is a critical issue that requires urgent action at all levels of government, including local government. In Victoria, local governments have developed climate change action plans to address the impacts of climate change and reduce greenhouse gas emissions. These plans are designed to guide local communities in taking action on climate change and provide a framework for sustainable development and adaptation to climate change impacts.

The City of Melbourne was the first local government in Victoria to develop a climate change action plan in 2002. Since then, many other local governments across the state have followed suit, with more than 30 local councils in Victoria now having climate change action plans in place. These plans vary in scope, scale, and content, but all aim to reduce greenhouse gas emissions, build resilience to climate change impacts, and promote sustainable development.

The objective of Colac Otway Shire Council's Climate Change Action Plan is to provide a pathway of clear and achievable climate change actions for Council to undertake over the coming decade. Embedded in forming this Action Plan is the imperative to prevent and ameliorate climate change impacts. Our response centres around actions that Council and our community can take for climate change mitigation, adaptation and building climate change resilience.

The Action Plan includes a range of measures aimed at reducing greenhouse gas emissions, including energy efficiency and renewable energy, waste reduction and recycling, and sustainable transport. The Plan also includes initiatives aimed at building resilience to climate change impacts, such as emergency management planning, land use planning, urban greening, and biodiversity conservation programs. Further, it outlines actions to support community engagement and education aimed at raising awareness about climate change, promoting sustainable living, reducing greenhouse gas emissions and encouraging community action.

Council's work through this process will enable Council to continue to reduce its operational emissions; maintain its commitment to broad emissions reductions and net zero emissions; and to provide support to communities and businesses to become more resilient to, mitigate the impacts of, and adapt to, a changing climate.



Mature street trees providing shade and urban cooling in Hesse Street, Colac

How we developed this plan

We undertook a range of activities to inform the development of this document.

These included:

- [Review of Council's Environment Strategy 2010-2018](#) and its targets.
- review of Council's greenhouse gas emission reduction and other climate change mitigation and adaptation actions and achievements since 2010;
- staff workshops to inform and gather ideas and climate change action opportunities;
- research and review of literature such as other council's climate change action and/or response plans and climate science articles/reports;

- community survey and 10 community drop-in sessions to inform the development of Council's overarching Environmental Sustainability Strategy and climate change related themes;
- targeted stakeholder workshops to inform the development of Council's overarching Environmental Sustainability Strategy and climate change related themes and suggested implementation actions;
- discussions with Council staff, community members, other councils, climate change networks and government agencies;
- development of environmental sustainability targets;
- development of Council's Environmental Sustainability Strategy and its strategic goals;
- prioritisation of climate change actions based on level of Council control and with consideration given to resourcing limitations.

Colac Otway Shire is committed to supporting building adaptive capacity to climate change in all areas of Council's control and influence, with the support and collaboration of all levels of government and our passionate local communities.

We hope with leadership, collaboration and advocacy this will support our communities, the wider region and the world towards a sustainable and climate-safe future.

This plan has been developed in consultation with community groups, businesses and agencies from across the municipality.

We would like to extend our gratitude to many individuals and organisations whose enthusiasm, commitment and contributions helped shape the plan, and with whom we will continue to work closely to deliver it:

COMMUNITY GROUPS & NON-GOVERNMENT

ORGANISATIONS

- Otway Climate Emergency Action Network
- Climate Action Team
- Southern Otway Sustainability
- Central Otway Landcare Network
- Upper Barwon Landcare Network
- Southern Otway Landcare Network
- Birregurra Community Group
- Friend of the Barwon
- Colac Sustainability Group

BUSINESS & TOURISM PEAK BODIES

- Colac Chamber of Commerce
- Apollo Bay Chamber of Commerce
- Great Ocean Road Regional Tourism
- Colac Large Employers Group

GOVERNMENT AGENCIES

- Sustainability Victoria (SV)
- Great Ocean Road Coast & Park Authority (GORCAPA)
- Parks Victoria (PV)
- Wannon Water
- Barwon Water
- Department of Energy, Environment and Climate Action (DEECA)
- Corangamite Catchment Management Authority (CCMA)



Strategic Alignment

Council's Environmental Sustainability Strategy outlines a number of key strategic directions and goals that this plan, and the implementation of the actions outlined within it, directly addresses and will help council work toward achieving:

STRATEGIC THEMES	STRATEGIC DIRECTION
Climate Change	Council and the Shire focus on energy efficiency and rapidly moving towards a zero-carbon future whilst improving resilience to changes in short and long-term climatic conditions.
Natural Environment	A healthy and connected natural environment that protects indigenous landscapes and enhances natural ecosystems, public health and liveability.
Built Environment	Sustainable, resilient and accessible infrastructure and places.
Water	A water sensitive shire with a focus on integrated water management, water sensitive urban design, healthy waterways and reduced reliance on potable water.
Waste & Pollution	A clean and safe Council and shire that minimises waste generation and maximises reuse and recycling, working towards a sustainable circular economy.
Partnership, Leadership & Advocacy	Council provides leadership, advocacy, brokering, communication and conduit roles to help achieve environmental outcomes. Leadership will also be shown through the development, strengthening and nurturing of partnerships.

Strategic goals of the Council's Environmental Sustainability Strategy 2023-2033:

Goal 1	Protected and thriving natural landscapes, ecosystems and habitats
Goal 2	Environmentally sustainable and climate resilient public infrastructure, open spaces and urban settlements
Goal 3	An adaptive and resilient Council and Shire moving towards a zero-emission future and limiting the impacts of climate change
Goal 4	Green and sustainable local economies, industries and growth that protect intrinsic environmental values
Goal 5	Enhanced environmental stewardship through environmental awareness raising and education
Goal 6	Strong and inclusive environmental leadership, collaboration and advocacy

The action tables in Section 11 of this plan indicate which strategic goal of Council's Environmental Sustainability Strategy each action relates to.

Council's Climate Change Action Plan strongly aligns with Council's other key strategic plans and strategies that include goals, objectives or targets relating to climate change:

- Council Plan 2021-2025
- Environmental Sustainability Strategy 2023-2033
- Environmental Sustainability Policy and Framework 2021
- Colac Otway Health & Wellbeing Plan 2021-2025
- Colac Otway 2050 Community Vision
- Colac 2050 Growth Plan
- Colac Otway Climate Change Adaptation Plan 2017-2027

- Active Transport Strategy 2013-2023
- Colac Stormwater Development Strategy 2020
- Resource Recovery and Waste Management Strategy 2021-2030
- Lake Colac Foreshore Masterplan 2016
- Draft Urban Forest Strategy 2015
- Colac Integrated Water Management Plan 2014

9. What has Colac Otway Shire achieved so Far

Climate Change Mitigation

In 2010, Council set an ambitious target to achieve carbon neutrality by 2020. Council has worked towards this goal over many years and through a range of initiatives reductions of 68 per cent have been achieved by the end of 2021-22.

Council formally became Carbon Neutral for the 2020-21 financial year by purchasing Climate Active certified carbon offsets for its remaining residual emissions (Scope 1 & 2).

We will continue to maintain our Carbon Neutral status moving forward and will endeavour to expand our operational emissions boundary to include more Scope 3 emissions as the Council's and its supply chains' associated data capture mechanisms improve over time.

Council invested \$1.46 million in energy efficiency and renewable energy generation projects with an average payback period of 4.8 years. \$456,000 (30%) of this has been received from grants by State and Federal Governments and \$1 million has been contributed by Council.

Council's investment was paid back by the savings generated (avoided electricity costs relating to solar PVs and reduced electricity consumption) by the end of 2020.

Council has 4 small (<6kw), 2 medium (30kW) and 2 large (100kW) solar PV systems installed on council facilities with a total of 275 kW generation capacity. This provides Council with approximately 350,000 kWh of clean, emissions free electricity generated per annum, saving approximately \$70,000 per annum in avoided electricity costs.

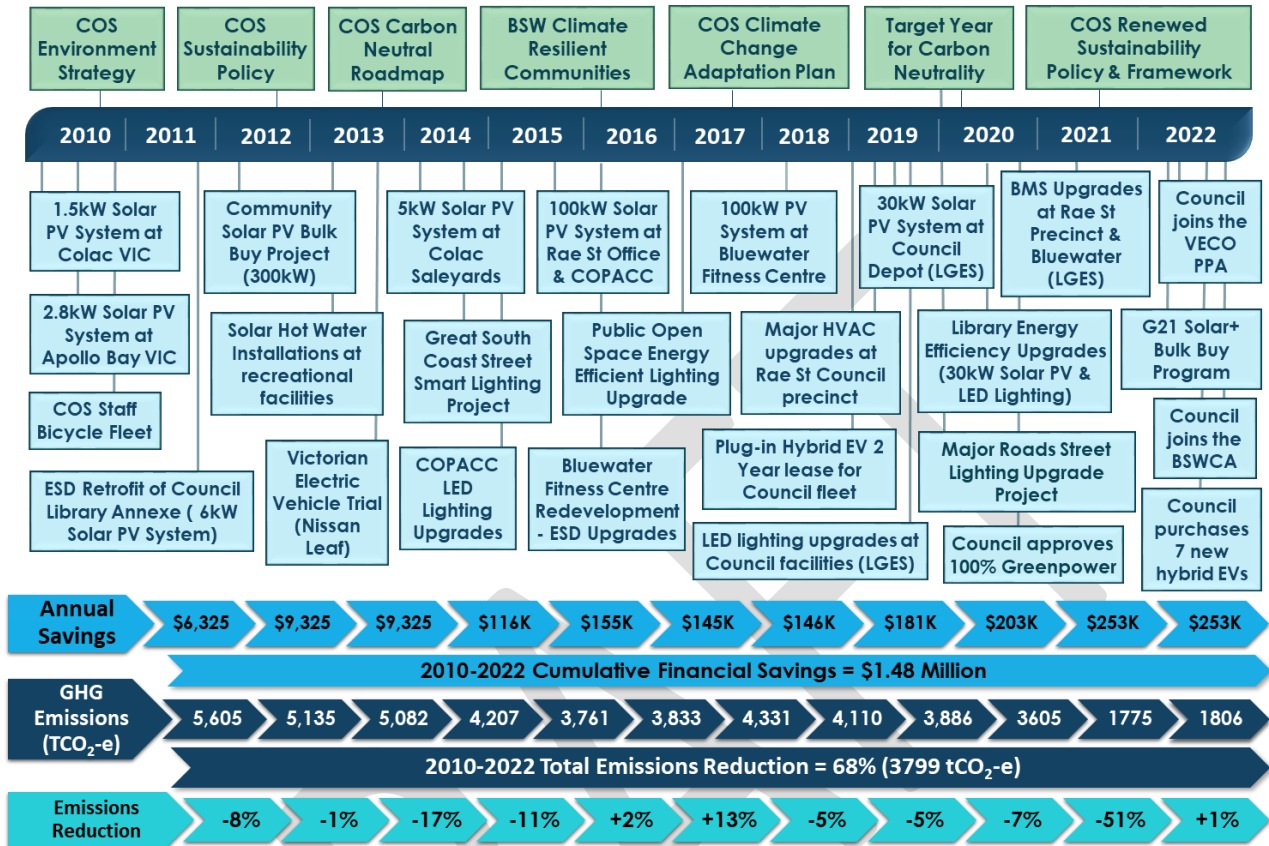
ORGANISATIONAL EMISSIONS FOR 2021-22

Total COS Greenhouse Emissions (CO2-e tonnes)					
Year	Buildings	Gas	Street/ Public Lighting	Fleet	Total
2010-11	1,999	311	1,181	2,114	5,605
2011-12	1,916	290	1,202	1,727	5,135
2012-13	1,879	323	1,182	1,698	5,082
2013-14	1,484	186	1,014	1,523	4,207
2014-15	1,356	3	872	1,530	3,761
2015-16	1,846	282	436	1,269	3,833
2016-17	1,881	478	412	1,560	4,331
2017-18	1,887	488	406	1,329	4,110
2018-19	1,747	470	406	1,263	3,886
2019-20	1,389	466	417	1,333	3,605
2020-21	0* (1,199)	451	0* (379)	1,324	1,775 (3,353)
2021-22	0* (1,341)	464	0* (334)	1,342	1,806 (3,481)

*Numbers in brackets show emissions avoided by purchasing 100% Greenpower.



Colac Otway Emissions Reduction Timeline 2010-2022



Climate Change Adaptation

In 2012 Colac Otway Shire commenced a collaborative project called Climate Resilient Communities of the Barwon South West (CRC BSW). The project involved 10 Councils within the Barwon South West region and a range of partners, including Catchment Management Authorities and water authorities. Its aim was to help communities throughout the region to understand what risks and opportunities might be presented by future extreme weather events.

The project built municipal preparedness to extreme climate events through a wide range of planning and embedding projects ensuring that all 10 BSW Councils developed a Climate Change Adaptation Plan. With the support of regional partners, Colac Otway Shire Council applied for and received funding to create a regional climate change alliance to build on the strong community of practice that was established through the project. In October 2021 this resulted in the formal incorporation of the Barwon South West Climate Alliance, of which Council is a committed member.






In 2017 Colac Otway Shire adopted a ten-year Climate Change Adaptation Plan, which has guided Council's significant adaptive achievements to date. Many of actions identified are well underway or have been successfully completed. These include:

- Western District Lakes Adaptation Pathways Project (led by the CCMA);
- Colac Stormwater Strategy was developed in 2019 and considered impacts of higher intensity rainfall in Colac on its drainage system and impact on flood potential;

- State Government funded 'Preparing Local Government for Climate Change and Emergency Management' program, to assist in building council's capacity to prepare and respond to emergency events. Projects delivered were focused on the development of a better understanding of where natural hazards, triggered by extreme weather events, have the potential to cause serious damage and disruptions to communities, services and infrastructure to assist in planning for and to minimise the impacts of future emergency management events;
- capacity building training to local communities relating to community leadership of bushfire preparedness and recovery;
- C90 Planning Scheme amendment that implements changes to the Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO) maps and schedules to improve the performance of the Colac Otway Planning Scheme in responding to flood events in Colac and surrounds;
- Strengthening Telecommunications Against Natural Disasters (STAND) Project – improved resilience of communications to provide resilient public internet access at buildings that may be used by communities during emergencies or natural disasters in Barwon Downs, Forrest, Carlisle River, Gellibrand, Beech Forest, Lavers Hill, Wye River and Apollo Bay;
- G21/Geelong+ Solar Bulk Buy program that was run by Geelong Sustainability (240 kW of Solar and 167 kWh of Battery Storage installed in Colac Otway - 292.4 Tonnes of CO2 Emissions abated per annum);
- Supporting community groups that are delivering projects that address the impacts of climate change and improve community and environmental resilience (e.g. Apollo Bay 100% Renewable Roadmap; Apollo Bay Neighbourhood Battery Feasibility Study; Residential Energy Audits and Educational Videos);
- Birregurra Flood Study which incorporated climate change scenarios; and
- Urban Street Tree Planting Program.



10. Our Targets

TARGET AREA	SPECIFIC TARGETS	SUPPORTING STATEMENT
 <p>Net zero greenhouse gas emissions</p>	<ul style="list-style-type: none"> Maintain Carbon Neutral Council Operations (Scope 1 & 2). Net Zero Corporate Emissions (Scope 1, 2 & 3) by 2040. Our community will have transitioned to a Net Zero Carbon Community by 2040. Reduce Council's corporate emissions by 75% by 2030 and 85% by 2040 (Baseline year 2010-11). Council's Light Fleet will comprise zero emissions vehicles by 2030 and its heavy plant and equipment by 2040. 	<p>Council commits to reporting on corporate greenhouse gas emissions and implementing actions and delivering projects and programs to reach net zero emissions for Council operations.</p>
 <p>100% Renewable Electricity</p>	<ul style="list-style-type: none"> Council will obtain 100% of its electricity from emissions free renewable energy sources. 	<p>Council commits to obtain 100% of its electricity from emissions free renewable energy sources and increase its renewable energy generation capacity.</p>
 <p>Zero recoverable waste to landfill</p>	<ul style="list-style-type: none"> Divert 80 per cent of waste from landfill by 2030.* Cut total waste generation by 15 per cent per capita by 2030.* 	<p>Council commits to report on and reduce waste sent to landfill.</p>
 <p>Reduce potable water use</p>	<ul style="list-style-type: none"> Reduce Council's operational potable water consumption by 10% by 2030 and 20% by 2040. 	<p>Council commits to reducing the overall volume of potable water through its operations used for non-potable purposes.</p>
 <p>Adaptive biodiversity protection and land management</p>	<ul style="list-style-type: none"> Increase tree canopy cover in urban settlements by 5% by 2030 and 10% by 2040. 	<p>Council commits to protecting and enhancing biodiversity on Council owned and managed land and increasing urban canopy cover.</p>

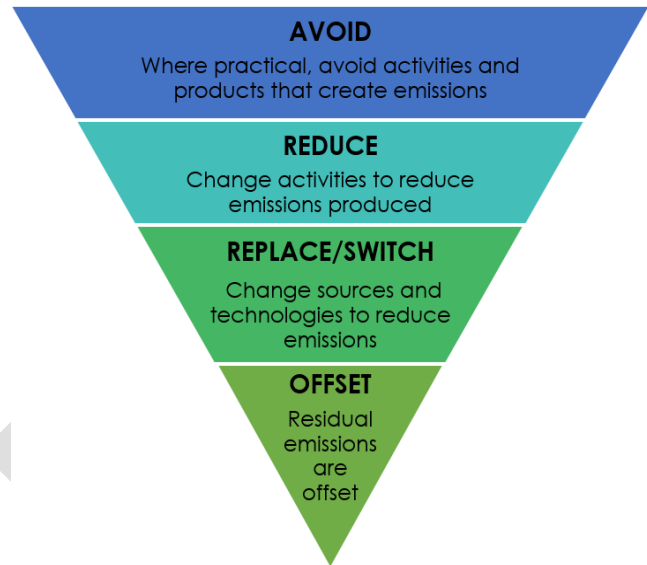
* [Resource Recovery and Waste Management Strategy 2021-2030](#)

This plan prioritises actions related to greenhouse gas emissions reduction and zero emissions renewable energy use and transition as they offer Council significant opportunities to have the most direct impact on mitigating climate change.

Council's commitment to maintain its Net Zero Emissions status will be underpinned by the principles of the Emissions Reduction Hierarchy, to ensure that emissions reduction is the key focus of our work so that Council can reduce its reliance on offsets in the future. Actions in the top section of the hierarchy are preferable and should be prioritised to those towards the bottom because they are more transformative, long-lasting and are more sustainable over the long term.

Carbon emission offsets acquired by Council to compensate for its residual emissions that cannot be avoided or reduced at present will be fossil fuel avoiding offsets.

Emissions Reduction Hierarchy



11. Climate Action Focus Areas

This plan will support Council's ambition to deliver on the first key strategic direction of the Environmental Sustainability Strategy 2023-2033 that Council and the Shire will 'focus on energy efficiency and rapidly moving towards a zero-carbon future whilst improving resilience to changes in short and long-term climatic conditions'. The five focus areas that underpin this action plan are:

Sustainable Built Environments

From renewable energy to urban greening and integrated water management, this focus area will help Council to implement effective measures to improve existing infrastructure, and to design and construct buildings that prioritise sustainability. Through the actions of this focus area Council will also support our residents to reduce their carbon footprints, preserve natural resources, and build communities that are functional, sustainable and aesthetically pleasing.

Delivering sustainable design outcomes in our built environments and transitioning to renewable energy will help develop greater resilience to our changing climate. Actions implemented through this focus area will also support the development of Integrated Water Management and sustainable transport.



Rainwater Garden in Elliminyt



Council's Kerbside Waste Collection Bins

Resource Consumption, Waste Reduction & Circular Economy

Resource consumption and waste reduction are critical components of addressing climate change, and there has been a growing focus on circular economy principles to achieve this. The circular economy concept aims to create a model that will minimise waste and resource consumption by keeping materials and products in use for as long as possible.

This focus area relates in particular to consumption of fuel, electricity, water and materials, and covers how both individuals and Council can contribute to positive change by taking a more considered approach to what we consume and our waste outputs. It also includes measures to help our communities transition to a circular economy, in which we seize opportunities to extensively reuse, recycle and repurpose.

Resource consumption and waste are significant contributors to carbon emissions that drive climate change through emissions associated with landfills and production and transport of materials and goods.

Biodiversity Protection & Regeneration

This focus area aims to ensure Colac Otway's diverse and invaluable natural landscapes are protected and enhanced now and into the future. Healthy local ecosystems are vital for a sustainable future for our region and beyond. Only by fostering resilience in local environments will we – and native flora and fauna – be able to thrive in changing climate conditions.

Work in this area will include strategic and adaptive management, stewardship, on-ground works and collaboration to: enhance habitat for native flora and fauna; extensively replant and regenerate degraded areas; reduce the coverage of and impacts caused by invasive species; protect waterways; and sequester and drawdown carbon that is already present in the environment.



Barongarook Creek revegetation

Leadership, Partnerships & Advocacy

The leadership, partnerships and advocacy focus area empowers Council to lead in areas of governance within its sphere of control and influence, as well as to undertake meaningful collaboration with, and support mobilisation and empowerment of, our communities.

Through this focus area, Council will develop and foster partnerships with leaders, stakeholders and communities across the region. Actions in this area will also foster grassroots community action, empowering our communities to take strong collective action and implement climate solutions. Council will advocate for ongoing adaptive and flexible approaches to managing and join with others to respond to our changing climate.



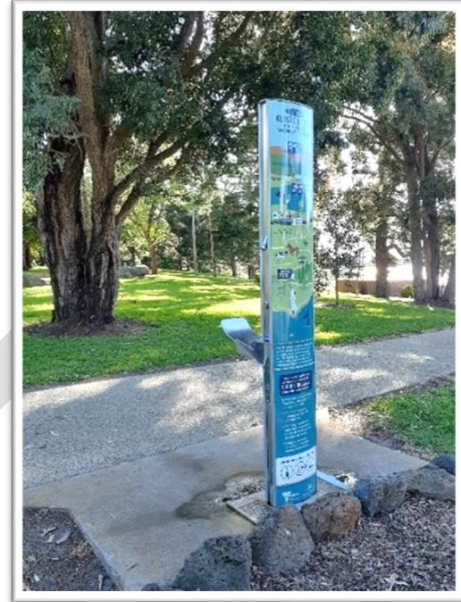
Climate Resilient Communities of the BSW Project Team

Adaptation & Resilience

Adaptation and resilience are key pillars in Council's response to a changing climate. As the changes in our environment accelerate, we can expect to see ever increasing incidence of disasters and extreme weather events.

The actions in this focus area will help Council to effectively respond to these challenges and to build both Council and community preparedness for them.

It will help us to deliver and foster the practices necessary to create resilience in communities and individuals and protect our way of life. At the forefront of Council's targeted actions in this area are: human health, resilience to extreme weather events, emergency and disaster preparedness, and education.



Hydration Station in the Colac Botanic

The Action Tables on the following pages provide more context and detail about each focus area and include the related climate change actions, their timeframe for implementation and resourcing requirements.

As you read ahead, you'll find some coding within the Action Tables relating to the estimated cost of implementation, current resourcing status and timeframes:

- Cost: Low (\$0–\$50,000), Med (\$50,000–\$150,000), High (150,000+)
- Resourcing: F = Funded within existing resources or S = Subject to external funding and/or funding by Council as part of an Annual Budget process in the applicable years
- Timeframe: Short (1–3 years), Medium (4–6 years), Long (7–10 years), or Ongoing

Sustainable Built Environments

Buildings and infrastructure account for a significant proportion of global greenhouse gas emissions. To address this, sustainable design and construction are essential to reduce energy use and greenhouse gas emissions, while improving indoor air quality and occupant comfort. Examples of sustainable building practices include the use of energy-efficient lighting and appliances, passive solar design, and the use of sustainable materials such as recycled steel and timber.

Renewable energy is an extremely important part of sustainable built environments. This includes the use of solar, wind, and geothermal energy to power homes and buildings. The implementation of renewable energy can help to reduce reliance on fossil fuels and reduce greenhouse gas emissions.

Transport is another key component of sustainable built environments. Electric and hybrid vehicles, cycling and walking infrastructure, and public transport systems all contribute to reducing greenhouse gas emissions. This can help to reduce air pollution, improve public health, and enhance the liveability of urban areas.

Urban greening, including parks and street trees, can help to mitigate the effects of climate change by providing shade, improving air quality, reducing the urban heat island effect, and increasing biodiversity. Initiatives such as this will also create many opportunities for recreation and social interaction.

Finally, integrated water management is critical for sustainable built environments. This includes the capture and reuse of stormwater, the use of water-efficient fixtures and appliances, and the implementation of water-sensitive urban design. Integrated water management can help to reduce water consumption and protect water resources, while also providing opportunities for enhanced urban amenity.

Action No.	ACTION	TYPE OF RESPONSE	LEAD	COST	RESOURCING	TIMEFRAME	Related COS ESS Goal
Renewable Energy							
1.1	Pursue new opportunities and clean technologies to reduce Council's operational emissions: a. Determine the achievable renewable energy generation capacity for Council and identify assets suitable for alternative energy infrastructure, including the analysis of lifecycle costs and benefits. b. Maximise solar energy and battery storage on all Council buildings and facilities. c. Council will build internal capacity through staff education and training to understand and implement the carbon emissions hierarchy (i.e. reduction of emissions prioritised over offsetting).	Mitigation	Council	Medium	S	Short	Goal 2 Goal 3

Attachment 8.2.2 COS Climate Change Action Plan - Draft - 20230526 (watermarked)

1.2	Actively participate and support education, investigation, feasibility and development of community energy innovation and initiatives, led by the community.	Mitigation Adaptation	Community	Low	F	Ongoing	Goal 2 Goal 3 Goal 5 Goal 6
Sustainable Buildings							
1.3	Review Council's processes for the design of new Council buildings, as well as maintenance and renewal programs, and develop an ESD Policy to ensure resource efficiency measures are consistently delivered and to improve environmental sustainability and climate change resilience.	Mitigation	Council	Low	F	Medium	Goal 3
1.4	Support Environmentally Sustainable Design (ESD) outcomes through planning controls, policy and education and the National Construction Code (NCC).	Adaptation	Council	Medium	F & S	Ongoing	Goal 2 Goal 3
1.5	Support and facilitate/partner with other organisations in bulk-buy programs for energy efficient technologies, including but not limited to solar panels, batteries, solar-boosted hot water systems and heat-pumps to increase uptake in the community.	Mitigation	Other Stakeholders	Low	F	Ongoing	Goal 2 Goal 3 Goal 4 Goal 6
Sustainable Transport							
1.6	Develop a Fleet Transition Plan (FTP) and transition Council's operational fleet and equipment to zero emissions vehicles: in accord with the FTP.	Mitigation Adaptation	Council	High	S	Short (FTP) & Long	Goal 3 Goal 6
1.7	Encourage and support the installation of public electric vehicle charging infrastructure powered by renewables throughout the shire.	Mitigation Adaptation Influence	Council	Low	F	Ongoing	Goal 2 Goal 3 Goal 4 Goal 6
1.8	Support and encourage increased use of sustainable and active transport within the community by: a. Advocating for public transport providers to improve quality, connectivity, frequency and reach of current and future public transport services (including increased rail service frequency between Colac and Geelong). b. Increasing the interconnectivity of pathways in urban environments and activity corridors across the shire. Council's Planning to ensure well-connected cycling and	Adaptation Influence	Council	Low	F	Ongoing	Goal 1 Goal 2 Goal 3 Goal 6

	walking paths are delivered in all new greenfield developments.						
Urban Greening							
1.9	Encourage and foster urban greening a. Adopt minimum greening requirements and methodologies for the development of sustainable and biodiverse streetscapes, infrastructure and open space areas in new developments. b. Support measures to green and mitigate urban heat in new developments. c. Utilise climate resilient flora species that support biodiversity outcomes in community spaces.	Adaptation Mitigation	Council	Medium	S	Short to Medium	Goal 1 Goal 2 Goal 3 Goal 6
1.10	Develop Nature Strip Planting Guidelines to encourage neighbourhood and street-scale urban greening and urban gardening.	Mitigation Adaptation	Council	Low	F	Short	Goal 1 Goal 2 Goal 3
1.11	Accelerate Council's Tree Planting Program (road reserves, nature strips and public open spaces) to increase urban cooling and carbon drawdown/sequestration.	Mitigation Adaptation	Council	Medium	F & S	Ongoing	Goal 1 Goal 2 Goal 3
Integrated Water Management							
1.12	Increase the application of Integrated Water Management principles and practices to: a. Embed them in all strategic decision making and town planning, especially relating to alternative water use and waterway, wetland and coastal health. b. Use adaptation programs to reduce stormwater flooding impacts on people, infrastructure, places and the environment. c. Integrate stormwater reuse into natural and built environments to create multifunctional community spaces.	Adaptation	Council	High	F & S	Short to Medium	Goal 1 Goal 2 Goal 3
1.13	Increase adoption of nature-based, green-blue infrastructure solutions: a. Prioritise the use of nature-based solutions and infrastructure to adapt to climate change impacts such as coastal erosion, sea level rise, urban heat, stormwater management and bushfire resilience.	Adaptation	Council & Other Stakeholders	High	Subject to external funding and/or operational budget	Long	Goal 1 Goal 2 Goal 3 Goal 6

<p>b. Explore alternative water supplies suitable for use in the irrigation of public open spaces to reduce Council's reliance on potable water.</p> <p>c. Encourage passive irrigation techniques for urban landscapes.</p> <p>d. Adopt Water Sensitive Urban Design practices to increase stormwater infiltration, promote evapotranspiration, mitigate flooding and remove pollutants from stormwater runoff.</p> <p>e. Implement best practice stormwater treatment and harvesting infrastructure and practices.</p>				requests		
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Resource Consumption, Waste Reduction & Circular Economy

Electricity production is one of the biggest sources of greenhouse gas emissions, and reducing electricity consumption is an important component of climate change mitigation by the use of renewable energy sources, energy-efficient appliances and buildings, and the adoption of smart grid technologies.

The use of fossil fuels is another major contributor to greenhouse gas emissions, and reducing fuel consumption is critical for addressing climate change. This includes initiatives such as promoting public transportation, the use of electric vehicles, and the development of alternative fuels such as biofuels and hydrogen.

The production and consumption of materials is another major contributor to emissions, and the circular economy seeks to reduce waste and resource consumption by reducing the use of virgin materials, promoting the use of recycled materials, and designing products for durability and reuse.

Waste reduction is another critical component of the circular economy. Examples of this are promoting and enabling recycling and composting, reducing food waste, and designing products for easy disassembly and recycling.

Water is a critical resource, and reducing water consumption in our everyday lives is a key component of sustainable resource management. This includes initiatives such as water conservation, the use of recycled water, and the promotion of sustainable water management practices in agriculture, industry and our communities.

By reducing water and electricity consumption, promoting alternative fuels, reducing material consumption, and implementing waste reduction initiatives, we can create a more sustainable future and reduce our emissions and impact on the environment.

Action No.	ACTION	TYPE OF RESPONSE	LEAD	COST	FUNDING	TIMEFRAME	Related COS ESS Goal
2.1	Reduce Council's waste and environmental impacts by integrating the waste and emissions reduction hierarchy, life cycle analysis and sustainable procurement within Council projects, contracts and tenders.	Mitigation Adaptation Influence	Council	Medium to High	F & S	Medium	Goal 2 Goal 3 Goal 4 Goal 5 Goal 6
2.2	Protect the environment from waste impacts: a. Protect the environment from litter pollution in public open spaces through enforcement, education and control measures. b. Monitor, review and improve litter reduction measures for wetlands and waterways. c. Partner with key agencies to better educate the community about illegal dumping and litter prevention.	Mitigation Influence	Council	Medium	F & S	Ongoing	Goal 1 Goal 2 Goal 4 Goal 5 Goal 6

	<p>d. Promote programs and businesses that reduce the impact of waste on the environment.</p> <p>e. Advocate for increased enforcement, technical advice and support from the Victorian Environment Protection Authority.</p>						
2.3	<p>Avoid creating waste and recover and reuse more resources in all points of the circular economy:</p> <p>a. Continue to deliver and improve a sustainable kerbside recycling system.</p> <p>b. Support new and existing markets for recovered resources (e.g. recycled content products).</p> <p>c. Review and improve waste data capture and reporting processes for landfill, kerbside collection and resource recovery.</p> <p>d. Partner with other agencies to promote research and the development of clean technologies that increase reuse, recovery and recycling.</p> <p>e. Encourage events to minimise waste production.</p>	Mitigation Influence	Council & Other Stakeholders	Low to Medium	F & S	Ongoing	Goal 1 Goal 2 Goal 4 Goal 6
2.4	Increase public recycling infrastructure, including glass only public recycling bins.	Mitigation	Council	Medium	S	Short	Goal 1 Goal 2 Goal 4 Goal 5
2.5	Increase use of recycled materials in Council's road, building and other infrastructure constructions.	Mitigation	Council	Medium to High	S	Medium	Goal 2 Goal 3 Goal 4
2.6	Improve management and efficiency of Council-operated facilities by actively monitoring and managing energy and water consumption through data capture, smart technology and accurate reporting.	Mitigation	Council	Low	F	Short	Goal 2 Goal 3
2.7	Reduce potable water usage in existing and future Council owned facilities, assets and operations.	Mitigation Adaptation	Council	Medium	S	Short to Medium	Goal 1 Goal 2 Goal 3
2.8	Continue implementing energy efficiency and emissions reduction programs in Council-owned and operated facilities, services and operations where practicable.	Mitigation Adaptation	Council	High	S	Ongoing	Goal 2 Goal 3

2.9	<p>Foster a thriving green business economy:</p> <ul style="list-style-type: none"> a. Attract new sustainable industries. b. Encourage existing businesses to reduce the environmental impact of their operations. c. Support and promote regional/State/Federal programs that encourage and promote environmentally sustainable business practices. 	Adaptation Influence	Council & Other Stakeholders	Medium	S	Ongoing	Goal 1 Goal 2 Goal 3 Goal 4
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Biodiversity Protection & Regeneration

Climate change is one of the most significant threats to biodiversity in Victoria. Our unique flora and fauna face multiple impacts, including habitat loss, changes in species distribution, increased extinction risk, and increased fire risk. Effective conservation planning, habitat restoration, and carbon sequestration are essential strategies to mitigate these impacts and protect Victoria's biodiversity for ecological health and future generations.

One of the most effective ways to mitigate the impacts of climate change on biodiversity is through habitat restoration. Restoring degraded habitats can provide critical refuges for many species and help maintain ecosystem services such as carbon storage, water purification, and erosion control. This includes reducing the impacts of invasive species, increasing habitat connectivity, and implementing fire management strategies that promote biodiversity.

Adaptive conservation planning is also essential to protect Victoria's and our Shire's biodiversity from the impacts of climate change by identifying key areas for conservation, developing management plans, and monitoring species and ecosystems to track changes and identify new threats.

Species may be able to adapt to some of the impacts of climate change, but only if they have enough time and suitable habitats to do so. Providing suitable habitats and reducing other stressors, such as pollution, invasive species and habitat loss, can help increase the resilience of ecosystems and species to the impacts of climate change.

Increasing the amount of carbon stored in vegetation and soils can help mitigate the impacts of climate change and provide multiple benefits for biodiversity. This can be achieved through carbon sequestration and drawdown actions such as reforestation, land management practices that promote carbon storage, and restoration of wetlands.

Action No.	ACTION	TYPE OF RESPONSE	LEAD	COST	FUNDING	TIMEFRAME	Related COS ESS Goal
3.1	<p>Reduce the impact of invasive species on natural systems, agriculture, and the community:</p> <ul style="list-style-type: none"> a. Manage invasive species and their impacts on Council owned and managed land. b. Prioritise invasive species control activities in areas of high biodiversity values and environmental reserves. c. Manage invasive species and their impacts on private land through effective land use planning where appropriate. d. Establish and support partnerships with other agencies, community groups and education providers to facilitate cross-boundary invasive species management. e. Advocate for increased funding, programs and enforcement relating to invasive species control on public and private land. 	Adaptation Influence	Council	Medium	F	Ongoing	Goal 1 Goal 6

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3.2	Investigate and implement where possible suitable techniques and approaches to reduce domestic and feral animal impacts on native wildlife.	Adaptation	Council & Other Stakeholders	Low	F	Short	Goal 1 Goal 6
3.3	Partner with Barwon Water, Wannon Water, the CCMA, GORCAPA and our community to improve the biodiversity values and ecological health of our waterways.	Adaptation	Other Stakeholders	Medium	F & S	Long	Goal 1 Goal 6
3.4	Support the restoration of indigenous biodiversity and ecological processes in rural and coastal landscapes through planning controls, education and incentives.	Adaptation	Other Stakeholders	Low	F	Medium	Goal 1 Goal 5 Goal 6
3.5	Prioritise the protection and establishment of biolinks and native vegetation corridors to reduce habitat fragmentation and increase biodiversity, connectivity and help nature adapt to climate change.	Adaptation	Council & Other Stakeholders	Medium	F	Medium	Goal 1 Goal 5 Goal 6
3.6	Engage and partner with and learn from Traditional Owners to: a. Promote knowledge exchange and cultural education. b. Support and advocate for greater access to country to facilitate stronger cultural connections. c. Conduct ecological burns in primarily Council managed landscapes and ecosystems that benefit from or need fire to thrive.	Adaptation	Council & Other stakeholders	Medium	F & S	Long	Goal 1 Goal 3 Goal 5 Goal 6
3.7	Foster and support environmentally sustainable agriculture and local food production by working in partnership with local business, government and community: a. Promote sustainable agriculture practices through planning controls, policy, education and incentives. b. Support local farming industries and community groups to learn about and implement environmentally sustainable practices in the agriculture sector. c. Support programs that engage our community in local sustainable food production. d. Promote adaptive farming opportunities to remain competitive in a changing climate and achieve optimised food and fibre production while ensuring long-term sustainability.	Mitigation Adaptation	Other stakeholders	Low	F	Ongoing	Goal 3 Goal 4 Goal 5 Goal 6

e. Investigate and support local drawdown and carbon offset opportunities to sequester carbon in our local landscape e.g. regenerative farming, revegetation, seaweed farming, blue carbon.						
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Leadership, Partnerships & Advocacy

Climate change is one of the most pressing challenges facing the world today, and addressing it requires strong leadership, partnerships, and advocacy. This involves collaboration, governance, and mobilization actions to empower people to implement climate solutions at work, support communities to take action, advocate for change, and join with others in responding to the climate challenges. Effective governance is also critical for addressing climate change, and it involves developing policies, regulations, and strategies that support climate action.

Joining with others is an important climate change action that involves collaborating with other organizations, governments, businesses and the community to share knowledge and resources, to develop and implement climate change solutions and to amplify the impact of climate solutions. This includes engaging with communities and stakeholders to ensure that their perspectives are taken into account in decision-making processes and participating in collaborative climate action opportunities and programs and engaging in regional and local climate change networks to share best practices and coordinate action to achieve shared goals.

Empowering people to take action on climate change via initiatives like training programs, educational campaigns, and community engagement is important to help them implement climate solutions and create opportunities for participation and strong partnerships.

Advocacy involves promoting and advancing climate change solutions by communicating the importance of action to decision-makers and the public. This includes advocating for policies and programs that support climate action, engaging with stakeholders and communities to build support, and using media and other communication channels to raise awareness about the need for concerted climate action now.

Action No.	ACTION	TYPE OF RESPONSE	LEAD	COST	FUNDING	TIMEFRAME	Related COS ESS Goal
4.1	Continue to partner across the region and government sector to deliver on climate change initiatives through a collaborative approach; e.g. Barwon South West Climate Alliance, Sustainability Victoria programs and energy efficiency and partnership opportunities.	Adaptation Mitigation Influence	Other Stakeholders	Low to High	F & S	Ongoing	Goal 1 Goal 2 Goal 3 Goal 4 Goal 5 Goal 6
4.2	Strongly advocate for Environmentally Sustainable Design (ESD) and climate change adaptation and mitigation principles and policies to be incorporated within the Planning Scheme by the State government.	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.3	Advocate to State and Federal government for urgent and impactful action on climate change that benefits our local community, including households, local businesses, and the agricultural sector.	Mitigation Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6

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4.4	Encourage and foster the uptake of electric vehicles throughout the region through partnerships, advocacy and strategic support.	Mitigation Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.5	Advocate with and on behalf of coastal and small rural communities for programs and funding that address energy security and independence; and vulnerability to secondary impacts of climate change due to location, terrain or vegetation type (e.g. landslips, trees over roads and power lines, erosion and inundation).	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.6	Work with other levels of government and community partners to apply Integrated Water Management across the municipality and region to retain water in the landscape to improve water security, protect against drought, bushfire and heat.	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.7	Engage with Traditional Owners, local growers, peak bodies and land managers to promote resilient land management and regenerative agriculture practices, including indigenous land management techniques such as the sensitive use of fire to regenerate habitat.	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.8	Advocate for support and equitable access for vulnerable community members to renewable energy and emissions reduction opportunities.	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.9	Support community groups and networks including 'Friends of' groups, Landcare and sustainability groups to undertake direct action and community led knowledge sharing and advocacy.	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.10	Identify, amplify and act upon shared advocacy goals between the Shire and the community (groups and businesses), by facilitating networking opportunities.	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6
4.11	Explore models of genuine collaboration with the Shire's community to facilitate wherever possible active, wide-ranging and meaningful community participation across all action areas of the Climate Change Action Plan.	Adaptation Influence	Council in partnership with others	Low	F	Ongoing	Goal 3 Goal 6

Adaptation & Resilience

In recent years there has been a growing recognition of the importance of adaptation measures and the need for resilience building. This can involve measures such as increasing the resilience of infrastructure and ecosystems, improving water management and planning, and developing heatwave and extreme weather plans.

Adaptation measures are critical in reducing the vulnerability of communities and ecosystems to the impacts of climate change. Adaptation actions include improved and adaptive infrastructure and building design and construction, natural resource management, emergency management and community engagement, as well as research and innovation. By continuing to invest in these actions, we can build a more resilient future and protect our communities and natural resources from the impacts of climate change.

By understanding the risks we face, adapting the way Council operates, supporting community resilience and building plans for effective emergency responses, Council will support a thriving future for our region. Actions in this area will also help Council to seize the positive opportunities that are likely to arise from a changing environment.

Adaptation measures are important because even if we are to reduce greenhouse gas emissions to zero today the impacts of climate change will still be felt for decades to come.

Action No.	ACTION	TYPE OF RESPONSE	LEAD	COST	FUNDING	TIMEFRAME	Related COS ESS Goal
5.1	Update Council's key policies, strategies and plans to promote economic, social and environmental sustainability, while mitigating and planning for climate change risks.	Mitigation, Adaptation Influence	Council Community Other Stakeholders	Medium	F & S	Ongoing	Goal 2 Goal 3 Goal 6
5.2	Identify areas and ecosystems vulnerable to flooding, inundation, erosion and landslips and investigate monitoring and adaptation options: a. Identify vulnerable, priority sites at risk of environmental degradation and damage to infrastructure. b. Incorporate current research and data and advocate for and participate in detailed Local Hazard Assessments to build knowledge base and assist decision making. c. Work with relevant partners and stakeholders to protect priority vulnerable ecosystems. d. Advocate for greater protection for vulnerable ecosystems within the Planning Scheme by the State Government.	Mitigation, Adaptation Influence	Council Community Other Stakeholders	High	S	Medium to Long	Goal 2 Goal 3 Goal 6

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5.3	Support local communities to overcome barriers to investing in climate resilience measures, including energy efficiency, water harvesting, renewables and energy storage.	Mitigation Adaptation Influence	Council Community Other Stakeholders	Low	F	Ongoing	Goal 2 Goal 3 Goal 6
5.4	Pursue financial divestment away from fossil-fuel-aligned investments.	Influence	Council	Low	F	Ongoing	Goal 6
5.5	Support the reduction of non-energy carbon emissions and increase carbon storage: a. Support business and community efforts to reduce non-energy emissions. b. Advocate for and support community efforts in relation to carbon sequestration through revegetation, soil carbon capture, and seaweed cultivation.	Adaptation Influence	Council Community Other Stakeholders	Low	F	Ongoing	Goal 1 Goal 3 Goal 6
5.6	Monitor and adapt public health programs as required to respond to a changing climate and its impacts on human health and wellbeing, in line with the related priorities outlined in the Victorian Health and Wellbeing Plan 2019-2023 and Council's Municipal Health and Wellbeing Plan.	Adaptation Influence	Council Other Stakeholders	Low	S	Ongoing	Goal 3 Goal 6
5.7	Build on our existing bushfire prevention, relief and recovery programs by developing a Bushfire Prevention Action Plan in line with the Barwon South West Regional Strategic Bushfire Management Plan.	Adaptation Influence	Council Other Stakeholders	Low	S	Short	Goal 1 Goal 2 Goal 3 Goal 6
5.8	Advocate to the Department of Transport and Planning, DEECA and key emergency management organisations to evaluate and improve road networks and communications infrastructure that facilitate emergency management coordination and access.	Adaptation Influence	Other Stakeholders Council	Low	S	Ongoing	Goal 2 Goal 6



12. Monitoring, Evaluating and Reporting

The Action Plan's implementation and the impact of the actions delivered will be monitored and evaluated in three key ways:

1. Quantitative measurement and analysis of environmental outcomes such as emissions reductions;
2. Assessment of the effectiveness of changes to organisational processes and procedures; and
3. Community recognition and approval of Council's efforts in taking climate change action.

The Action Plan and its implementation will be reviewed in 2028 and the Plan will be updated based on the findings of the review. This approach will enable us to respond to the evolution of climate change science, information, technology, legislation and available solutions, and to the impacts being experienced locally.

Council's Environment Team will provide annual reporting to Council's Executive Management Team, Councillors and the community about the progress of the Action Plan's implementation and progress towards Council's Environmental Sustainability Targets.

Council acknowledges the strong and ongoing interest and contributions from the community in its efforts to progress environmental sustainability outcomes and climate change action. Environmental, sustainability and climate action groups will continue to be informed about Council's progress in climate change action. Additionally, broad scale media like Council's social media pages, used to promote the development and exhibition of the draft Climate Change Action Plan, will continue to be utilised.

13. Appendix A: References and Useful Resources

The following resources have underpinned and heavily informed the development of this plan:

- [Climate Change Act 2022](#)
- [Climate Change Act 2017](#)
- [AR6 Synthesis Report: Climate Change 2023](#)
- [Climate Action - Victoria's path to a net-zero emissions and climate resilient future](#)
- [Victoria's Climate Science Report 2019](#)
- [Victorian Climate Projections data](#)
- [Snapshot Climate - Australian Emissions Profiles](#)
- [Barwon Climate Change Projections 2019](#)
- [Barwon South West Regional Climate Adaptation Strategy 2020-2025](#)
- Colac Otway Shire Environmental Sustainability Strategy [link to be inserted]

14. Appendix B: Glossary – Key Climate Terms to Understand

Active Transport Physical activity undertaken for transport purposes, rather than recreation e.g. cycling or walking.

Adaptation Preparedness and resilience to the impacts of climate change occurring now and into the future.

Alternative Water Non-drinking water from sustainable sources such as rainwater, stormwater, recycled and grey water.

Anthropogenic of, relating to, or resulting from the influence of human beings on nature. Environmental change caused or influenced by people and their activities, either directly or indirectly.

Blue Carbon / Blue-Green Carbon Carbon that is captured and stored by wetlands and coastal ocean ecosystems, typically in seagrass, mangrove and saltmarsh environments.

Biodiversity The variety of all life-forms and the ecosystems of which they are a part, including plants, animals, fungi, protists (including algae) and bacteria, and their encoded genes.

Carbon Neutral A state of net zero carbon emissions, commonly achieved through reducing emissions, as well as purchasing offsets.

Carbon Drawdown Drawing carbon down from existing levels of greenhouse gases in the atmosphere to reverse global warming

Carbon Offset An exchange or reduction of emissions to compensate for emissions made elsewhere, commonly measured in tonnes of carbon dioxide-equivalent (CO₂-e).

Carbon Sequestration The removal of carbon from the atmosphere by capturing or storing it through biological, chemical and physical processes

Circular Economy A closed system in which reuse, recycling and disposal channels are in-built to consumer and industrial products, to eliminate waste.

Climate Change The long-term rise in global average temperature, caused by human influence, resulting in negative effects such as sea level rise, ocean acidification, extreme weather events, loss of biodiversity and increase in human suffering.

Climate Change Impacts A wide range of current and future physical, environmental, social and financial effects.

Community The people or organisations that live, work, visit or are connected to the region.

Community Resilience The sustained ability of a community to respond to, withstand and recover from shocks and stressors. Acute shocks include disasters like fires, floods and terror events.

Decarbonisation The transition to a low or zero carbon economy to limit the effects of climate change.

Divestment Reducing and then eliminating connection to funds invested in fossil-fuel supporting industries, typically through banking, loans, shares and other financial portfolios.

Environmentally Sustainable Design (ESD) A school of design that seeks to improve building performance, reduce environmental impact, resource use and waste, and create healthy environments for occupants and users.

Extreme weather events Unseasonal or extreme weather events for the affected region.

Greenhouse Gas (GHG) Gases such as carbon dioxide, methane and others that, when present in the atmosphere, increase the amount of solar radiation absorbed, leading to a rise in global average temperature. GHGs are primarily released by the combustion of fossil fuels.

Inter-governmental Panel on Climate Change (IPCC) United Nations body for assessing the science related to climate change. The panel provides regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

Life Cycle Analysis (LCA) Assessing the total cost of an asset throughout its useful life taking account of the planning, design, construction, acquisition, operational, maintenance, rehabilitation and disposal costs.

Mitigation Limiting and avoiding the most harmful effects of climate change, primarily achieved through reducing global carbon emissions.

Natural disaster A sudden or violent event in nature (e.g. earthquakes, hurricane or flood) that kills a lot of people or causes a lot of damage.

Net Zero (emissions) Carbon emissions are produced, but balanced out with equivalent offsets. Carbon dioxide is captured and sequestered equivalent to the CO₂ emitted. Organic Living things or material from living things, such as food and garden waste or animal manure.

Non-energy emissions GHG emissions created through industrial and manufacturing processes, agriculture and livestock production, and waste management practices.

Recycled Products Products that are made from or contain recycled materials such as plastic, glass, rubber or any material that would otherwise be sent to landfill.

Regenerative Agriculture A conservation and rehabilitation approach to food and farming systems. It focuses on topsoil regeneration, increasing biodiversity, improving the water cycle, enhancing ecosystem services and supporting biosequestration. Agroecology or Sustainable Agriculture are alternative terms.

Renewable Energy Energy generated from renewable sources such as solar, wind or geothermal, in contrast to the energy from fossil fuels such as coal, natural gas or oil.

Residual Emissions The emissions still being generated after reductions through avoidance, efficiency and renewable energy generation.

Resilience Ability to recover or adapt to changes in environmental and/or living conditions at a personal, community, economic and ecological level.

Shire/Corporate Emissions Greenhouse gas emissions from Shire projects and operations, included within the scope of the Climate Active Carbon Neutral Standard.

Shire/Community Emissions All Greenhouse Gas emissions from within the Shire boundaries, including residential and commercial energy use, transport and waste.

Soil Carbon Carbon stored in the soil ecosystem in various forms.

Sustainable Agriculture Farming practices and research that replenish soil and improve crop yields and plant health while minimising the use of non-renewable resources. Also referred to as regenerative agriculture.

Urban Heating An increase in localised temperature due to the urban built environment, primarily due to high amounts of concrete and asphalt, and a reduction in vegetation. Increasing tree canopy cover is a key method to reduce these effects.

Water Sensitive Urban Design (WSUD) A holistic approach to water management that integrates urban design and planning with social and physical sciences in order to deliver water services and protect aquatic environments in an urban setting.

Zero-emissions Vehicle A vehicle with no tailpipe emissions, typically powered by electricity from a battery or hydrogen.

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