

The Australian Institute of Landscape Architects


# Climate Positive Design

Volume 3

AILA Roadmap







The Australian Institute of Landscape Architects acknowledges and respects Aboriginal and Torres Strait Islander Peoples of Australia, as the traditional custodians of our lands, waters and seas.

We recognise their ability to care for Country and their deep spiritual connection with Country.

We honour Elders past and present whose knowledge and wisdom ensure the continuation of Aboriginal and Torres Strait Islander cultures.

# Climate Positive Design

## Volume three • AILA Roadmap

<b>Acknowledgment of Country</b>	<b>4</b>
<b>Foreword</b>	<b>5</b>
AILA's Climate Positive Design series.....	6
What is Climate Positive Design? .....	8
<b>Introduction</b>	<b>11</b>
<b>Support for AILA members</b>	<b>13</b>
<b>Objective 1.1</b> Provide climate positive design resources to guide and inform members .....	14
<b>Objective 1.2</b> Deliver Continuing Professional Development (CPD) .....	16
<b>Objective 1.3</b> Support AILA members to measure the impacts of their work.....	17
<b>Objective 1.4</b> Encourage and reward climate positive design .....	18
<b>Objective 1.5</b> Encourage discussion, dialogue and collaboration within the profession .....	19
<b>Objective 1.6</b> Support practices and AILA to operate as low to zero-carbon businesses....	20
<b>Objective 1.7</b> Increase emphasis on climate positive design across university education and the landscape architecture registration program.....	21
<b>Leadership and collaboration</b>	<b>23</b>
<b>Objective 2.1</b> Collaborate with international landscape architectural associations.....	24
<b>Objective 2.2</b> Work with allied built and natural environment professions to implement and advocate for climate positive design .....	25
<b>Objective 2.3</b> Engage with allied organisations, businesses and universities .....	26
<b>Objective 2.4</b> Develop relationships with agriculture / land sector managers.....	27
<b>Objective 2.5</b> Deliver on AILA's Reconciliation Action Plan actions to build internal and external relationships and investigate Aboriginal and Torres Strait Islander cultural learning and development. ....	27
<b>Policy and advocacy</b>	<b>29</b>
<b>Objective 3.1</b> Influence and advocate for local and national policy on the climate emergency .....	30
<b>Objective 3.2</b> Position climate positive design agenda with key national stakeholders.....	31
<b>Objective 3.3</b> Provide a vehicle for climate positive design in the profession via the media	32
<b>References</b>	<b>35</b>
<b>APPENDICES</b>	<b>39</b>
<b>Glossary</b> .....	40
<b>Acknowledgments</b> .....	43

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# Foreword

"Landscape Architects are uniquely placed to deliver climate positive design outcomes."

*International Federation of Landscape Architects - Climate Action Commitment 2021*

Good governance and good environmental policies are two out of three Sustainable Governance Indicators (SGIs). SGIs are qualitative and quantitative measures of how successful an organisation is in achieving sustainable policy outcomes, and a measure of an organisation's governance capacity.

Volume Three of the Climate Positive Design series is the AILA Roadmap. This volume is part of a suite of AILA policies. It is an environmental policy intended to address sustainability issues through a wide range of measurable activities. In this volume, we turn the lens inwards to see how we can reshape ourselves as an Institute to support landscape architects as we transition to a climate positive design profession.

How can we ensure emerging landscape architects are highly skilled climate positive design practitioners through education and registration? What professional development can we help provide to support and inform our members? How can we better influence and advocate for ambitious policy on local and national levels?

Volume three sets the framework, guidance, and time frames for the AILA Board, AILA CEO and AILA Chapter Executives and Committees to embed climate positive design across our organisation. It also outlines the support, leadership, collaboration, and advocacy required to transition Australian landscape architects into Climate Positive Design professionals.



Ben Stockwin  
AILA CEO



Claire Martin  
Fellow  
AILA President



Martin O'Dea  
Fellow  
Climate Positive Design  
Committee Chair

# AILA's climate positive design series

To help guide your climate positive journey, we have three separate documents, targeting three specific areas of our work and practice.



**Your projects**

## Volume one

Climate positive design action plan for Australian landscape architects

Volume 1 provides clear, simple advice on what Australian landscape architects can do to understand and deliver climate positive design through good planning, design, documentation, construction and renewal.



**Your office / business**

## Volume two

Organisation guide to climate positive

Volume 2 outlines the steps your practice, business or organisation can take to achieve carbon neutral certification and beyond to become climate positive.



**Our institute**

## Volume three

AILA roadmap to delivering climate positive design

Volume 3 sets the framework, guidance and time frames for the AILA Executive and State groups to roll out climate positive design to members, and provide engagement and policy direction.







Tullamore Southern Gully Reserve • MDG Landscape Architects • Photo: James Newman • Wurundjeri Woi Wurrung Country

## What is Climate Positive Design?

Landscape architecture designed to climate positive design principles creates a better future for our environment and communities.

Climate positive design means that over the life of a project, it sequesters more greenhouse gases than it emits. Climate positive design projects can also provide multiple social, cultural, environmental and economic co-benefits.

## Net positive climate outcomes must focus on emissions reductions first

Climate positive design is not just "net zero". It's taking steps to directly reduce greenhouse gas (GHG) emissions and draw down CO<sub>2</sub> from the atmosphere.

Emissions reduction is the starting point and the most important contribution we can make as landscape architects through our practice. Although offsets do make a difference, we cannot offset our way out of the situation we are in.

When looking at your organisation's journey to climate positive, you will see there are many co-benefits to taking climate action.

These include:

- Social
- Cultural
- Environmental
- Economic





### Social co-benefits

Climate action fosters equity and justice for all members of our community. As the planet gets hotter, acting on climate change provides social co-benefits including protection from extreme heat, resilience to extreme weather events and resilience and self-reliance for regional communities.

Some of the most vulnerable people in our community are the most at risk from climate change. Climate action provides the right to clean air and water, local food, aiding mental health, resilience and wellbeing.

### Cultural co-benefits

There are many examples of climate positive projects underpinned by traditional knowledge in Australia, like the Indigenous Ranger Programs across Australia. Indigenous ranger projects support Indigenous people to combine traditional knowledge with conservation training to protect and manage their land, sea, and culture.

Activities include bushfire mitigation, protection of threatened species, and biosecurity compliance. Indigenous ranger groups also develop partnerships with research, education, philanthropic and commercial organisations. This enables skills sharing and knowledge development, engagement with schools, and the generation of additional income and jobs in the environmental, biosecurity, heritage, and other sectors.

This roadmap aims to establish a base line of recommendations and should act as a starting point for individual research into the various initiatives that represent the breadth and diversity of Aboriginal and Torres Strait Islander peoples across Australia and their leadership within land management. Landscape Architects and Traditional Owners have a natural affinity towards gaining an understanding of each other, centred around landscape design, and caring for Country.<sup>1</sup>

### Environmental co-benefits

Climate positive projects improve local and global environments.

Through climate positive projects, displaced fauna species can return to restored habitats and those habitats can become self-sustaining. Improved biodiversity, soil retention and water quality are the building blocks for healthy and resilient ecosystems.

Healthy ecosystems are vital to humans as well, providing us with clean air, water and food.

### Economic co-benefits

Climate action provides economic benefits through investment in new and sustainable industries, increasing employment, providing relevant upskilling opportunities, and providing economic stability and growth for regional communities.

Climate positive investment in locally owned and run projects strengthens local economies.



Westmead Hospital Redevelopment – Central Acute Services Building \* Tract • Photo: Brett Boardman  
• Darug Country \* Westmead - Sydney NSW

# Introduction

"We are the first generation to feel the effect of climate change and the last generation who can do something about it."

*President Barack Obama. September 24th 2014<sup>2</sup>*

## Background

Having declared a climate and biodiversity emergency in 2019, the Australian Institute of Landscape Architects recognises the urgency of acting on climate. Equally the AILA Board of Directors believes that good governance and sustainable development go hand-in-hand.

The [IPCC 6th Assessment report](#) made it clear that to avoid the worst we we must act now by taking a long-term view of policies and priorities that are anchored in the interests of future generations.

## AILA Roadmap

This AILA Roadmap provides the framework for the AILA CEO and staff, Board and State and Territory Chapters to embed climate positive design across the organisation. It also highlights what AILA can do to support our members to embed climate positive design into their projects and practices.

The Roadmap has three pillars:

### 1. Support for AILA members

AILA will support its members to understand, undertake and advocate for climate positive design.

### 2. Leadership and collaboration

AILA will engage with other institutes, businesses and professional bodies to promote and enable climate positive design within Australia and beyond.

### 3. Policy and advocacy

AILA and its members will be positioned as leaders in climate positive design through advocacy and policy directives.

# 1.0

## Support for AILA members

Ensuring that all AILA members can understand, undertake and advocate for climate positive design is integral to tackling the climate and biodiversity emergencies.

This pillar is focused on what AILA can do to provide guidance, training and resources to our members to ensure that they are well equipped to address these emergencies.



# Support for AILA members

"We have the choice to use the gift of our life to make the world a better place – or not bother"

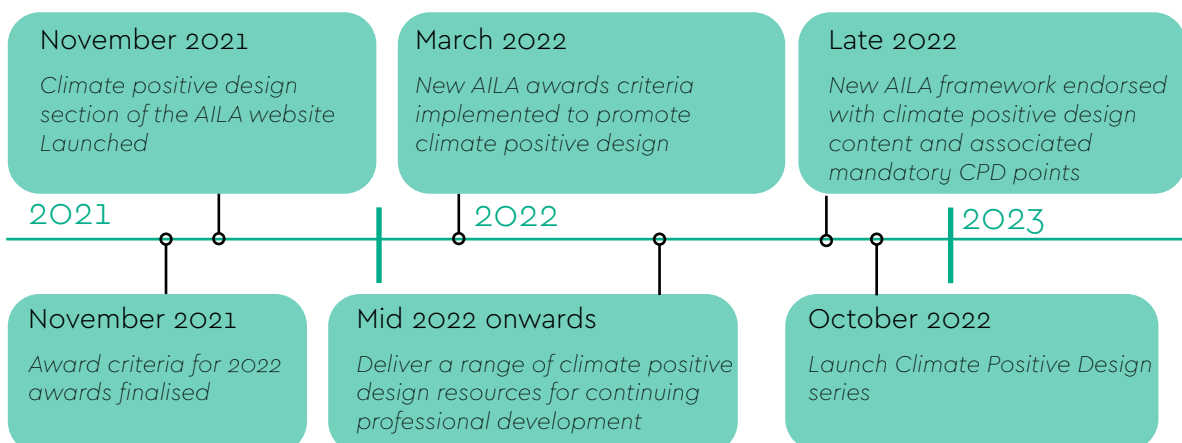
Jane Goodall, May 21st 2016 <sup>3</sup>

## Objectives:

- Provide climate positive design resources to guide and inform members
- Deliver Continuing Professional Development (CPD) on climate positive design
- Support AILA members to measure the impacts of their work
- Encourage and reward climate positive design
- Encourage discussion, dialogue and collaboration within the profession
- Support practices and AILA to operate as low to zero-carbon businesses
- Increase emphasis on climate positive design across university education and landscape architecture registration programme

## Success Indicators:

- Members' projects are climate positive by 2030, including maximum 25% offset greenhouse gas emissions by 2030, and without offsets by 2040. Refer to Volume 1: Action Plan targets.
- The number of climate positive design entries to the AILA Awards increases year on year.
- AILA members understand Climate positive design and can communicate it effectively to their clients, peers and allied professionals.
- AILA members know how to measure the climate impacts of their projects, and actively seek to improve their designs against current benchmarks outlined in Volume 1: Action Plan.
- Members have easy access to effective and instructive climate and biodiversity training resources for continuing professional development.
- AILA is recognised as the leading source of guidance and support for Australian landscape architectural practitioners on how landscapes can be designed, planned and managed to respond to the climate and biodiversity emergencies.
- AILA members and registered practices set CO<sub>2</sub>e/m<sup>2</sup> targets for their projects' carbon emissions and wider sustainability related impacts and report on them annually.



## Objective 1.1 Provide climate positive design resources to guide and inform members

Climate positive design is a multi-faceted, evolving and complex part of our work. There is a strong need for AILA to provide accessible, current and targeted resources focusing on climate positive design. These resources should aim to provide clear messaging across a range of topics, maintain currency of information and be targeted to Australian landscape architects.

Action item	Timeline	Responsibility
<p><b>1.1.1 Maintain a Climate Positive Design Committee (CPDC)</b></p> <p>The CPDWG was established in January 2021, with a two year term. The intention of the CPDC is to:</p> <ul style="list-style-type: none"> <li>• Provide overall guidance and focus for climate positive design initiatives for AILA across States and Territories to best utilise resources and to avoid duplication</li> <li>• Provide a national point of contact for State and Territory environment and climate committees</li> <li>• Engage with members to identify short, medium and long term priority areas that need further development including effective actions, policies, tools and resources.</li> </ul>	<p>January 2021-January 2023 (current Committee)</p>	<p>AILA Board  Climate Positive Design Committee</p>
<p><b>1.1.2 Biannual Update the Climate Positive Design Climate Positive Design Action Plan</b></p> <p>Action Plan aims to provide clear actions on what our members can do to understand and deliver climate positive design through their projects and practice. Update with new information and member feedback.</p>	<p>October 2024  Review and update Biannually</p>	<p>AILA Board  Climate Positive Design Committee  Advocacy Committee</p>
<p><b>1.1.3 Embed a climate positive design section into the AILA website</b></p> <p><b>Completed:</b> A climate positive design section has been integrated into the relaunched AILA website.</p>	<p>August 2021</p>	<p>Climate Positive Design Committee  AILA Staff</p>
<p><b>1.1.4 Maintain the AILA website with climate positive design news and resources</b></p> <p>Review and update the resources on the AILA website to maintain their relevance.</p>	<p>Quarterly</p>	<p>Climate Positive Design Committee  AILA Staff</p>

Action item	Timeline	Responsibility
<p><b>1.1.5 Develop or source additional climate and biodiversity resources</b></p> <p>Develop a series of resources including toolkits, webinars, position statements and guides.</p> <p>Look at opportunities for possible joint training session with Australian Institute of Architects, Planning Institute of Australia etc. Consider opportunities to share knowledge and adapt/reuse with permission training resources from others (American Society of Landscape Architects, the Landscape Institute, Canadian Society of Landscape Architects, New Zealand Institute of Landscape Architects, etc). Topic areas may include:</p> <ul style="list-style-type: none"> <li>• Climate Change and Biodiversity 101 - Understanding the basics, global climate system, Earth system, sequestration / drawdown science</li> <li>• Green infrastructure and nature-based solutions</li> <li>• Software packages - training on various software tools such as Climate Positive Design Pathfinder Tool, Itree, Plant What Where etc.</li> <li>• Understanding of low carbon materials</li> <li>• How to specify low carbon materials and use Environmental Product Declarations (EPDs)</li> <li>• Low carbon precincts and planning</li> <li>• Climate change adaptation and mitigation - combating heat island effect, plants and materials for a changing climate</li> <li>• Cool cities resources</li> <li>• Advocacy and communication - How to talk to clients and government about going climate positive and designing the urban landscape to prepare cities to be 'climate ready'.</li> </ul>	<p>Beginning early-mid 2022, then ongoing</p>	<p>Climate Positive Design Committee</p> <p>State and Territory Groups and Committees</p> <p>Biodiversity Positive Design Committee</p> <p>CPD Committee</p> <p>Advocacy Committee</p>
<p><b>1.1.6 Provide case studies of exemplar Australian climate positive design projects</b></p> <p>Provide case study examples of Australian landscape projects. Draw on AILA awards submissions and encourage entries by members. Case studies would need to be compiled by members wishing to place them on the website, based on a fixed template and criteria. To be assessed by a review committee prior to uploading.</p> <p>Consider including an interactive map locating case studies, and including links to exemplar international cases studies.</p>	<p>To commence post series launch.</p> <p>Review member submitted projects and upload annually</p>	<p>Climate Positive Design Committee</p> <p>AILA Members</p>
<p><b>1.1.7 Investigate funding mechanisms for resources and Continuing Professional Development</b></p> <p>Develop a business case for future potential funding once initiatives that may require funding have been identified. Any business case would then be put to the AILA Continuing Professional Development Committee for approval.</p>	<p>Once initiatives requiring funding are identified</p>	<p>Climate Positive Design Committee</p>

## Objective 1.2 Deliver Continuing Professional Development

Landscape architects should understand the science behind climate positive design. How it works and what our profession can practically do? Continuing Professional Development (CPD) is a key pillar in this approach. Engaging members through webinars, talks, conferences, events and online resources will encourage conversation and build capacity and knowledge sharing.

AILA will need to develop a comprehensive and coordinated approach to climate positive design CPD. The development of resources to be a responsibility of the CPDC and the AILA CEO and staff. To cater for different interests, there may need to be more available points to the required minimum.

Action item	Timeline	Responsibility
<p><b>1.2.1 Develop a coordinated program of climate positive design related Continuing Professional Development (CPD)</b></p> <p>To be coordinated across AILA Committees, including the CPD Committee, and aligned with the Continuing Professional Development framework and Policy.</p> <p>The program is to focus on key priority areas, including those identified through surveys and feedback (see Actions 1.1.3 and 1.1.6).</p> <p>Budget allowances to be considered for delivery of climate positive design CPD across Australia - recommended to CEO for budgeting and board approval as required</p>	From June 2022	AILA Board Climate Positive Design Committee CPD Committee State Chapters AILA CEO and staff
<p><b>1.2.2 Deliver a minimum number of Climate positive design-related Continuing Professional Development points each year</b></p> <p>Work with the CPD committee to resolve what is an appropriate level of points that members should have per year in any given area. Consider making a certain number of CPD points related to Climate Change mandatory. Consider paywall for certain resources.</p> <p>Resolve what is the preferred ratio of points available, to points required. For example if a minimum number of points per year is three, then what is the minimum number of training session points available?</p> <p>Host CPD events focused on climate positive design, including supporting relevant events hosted by other organisations.</p>	Ongoing	AILA Board Climate Positive Design Committee CPD Committee State Chapters AILA CEO and staff
<p><b>1.2.3 Investigate and establish learning partners</b></p> <p>Partner with organisations who can provide education and training on climate change adaption and mitigation approaches, including online learning opportunities.</p>	2023 onwards	Climate Positive Design Committee CPD Committee State Chapters



## Objective 1.3 Support AILA members to measure the impacts of their work

Measuring impacts is a critical part of climate positive design. AILA to guide members on available tools such as the [Pathfinder Tool](#), and review a range of tools to help members, particularly with biodiversity net gain.

Action item	Timeline	Responsibility
<p><b>1.3.1 Provide guidance and support on using the Climate Positive Design Pathfinder Tool</b></p> <p>Continue ongoing work with the developers of Pathfinder and provide additional resources and training for members on using the tool if required.</p> <p><b>Completed:</b> Training webinar on the Pathfinder tool, and associated Questions and Answers and Australian cheat sheet.</p>	Ongoing	Climate Positive Design Committee
<p><b>1.3.2 Investigate and provide guidance and support on additional means of calculating carbon and biodiversity impacts</b></p> <p>Review other existing schemes, software and web resources, which may include:</p> <ul style="list-style-type: none"> <li>• Carbon (embodied carbon / sequestration) calculators and software plug-ins</li> <li>• Sustainability ratings schemes (including climate / carbon and biodiversity ratings)</li> <li>• Biodiversity calculators</li> <li>• Developing materials databases with embodied carbon (e.g. <a href="http://epicdatabase.com.au">epicdatabase.com.au</a>)</li> </ul>	2023 onwards	Climate Positive Design Committee

## Objective 1.4 Encourage and reward climate positive design

AILA should encourage, reward and promote good climate positive design strategies, research and outcomes through awards, honours and recognition.

Action item	Timeline	Responsibility
<p><b>1.4.1 Incorporate climate positive design into the AILA Awards</b></p> <p><b>Completed:</b> Climate Positive Design category added to the 2022 Awards. CPDWG to assist with awarding the climate positive design category.</p> <p>Review, update and refine the awards requirements based on feedback from entrants and AILA staff.</p> <p>Investigate how climate positive design outcomes arising from research, planning, design and student work could be evaluated in future awards</p>	<p>Incorporated into 2022 Awards</p> <p>Review and update as required</p>	<p>AILA Board AILA CEO</p> <p>Climate Positive Design Committee</p> <p>Awards Committee</p>
<p><b>1.4.2 Investigate other means of providing incentives for members to invest in climate positive design</b></p> <p>Investigate options to encourage the uptake of climate positive design, such as:</p> <ul style="list-style-type: none"> <li>• Providing opportunities for practices to showcase climate positive design through case studies</li> <li>• Look into options for how practices might publish climate-related data / reporting</li> <li>• Develop competitions or awards for visionary / hypothetical projects</li> <li>• Investigate grant opportunities</li> <li>• Investigate options for comparing performance of good and bad examples.</li> <li>• Consider partnering with Universities.</li> </ul>	<p>2023 onwards</p>	<p>Climate Positive Design Committee</p>

## Objective 1.5 Encourage discussion, dialogue and collaboration within the profession

Collaboration and sharing are essential to solving the climate crisis. AILA should facilitate and foster ways for open dialogue and ongoing learning.

Action item	Timeline	Responsibility
<p><b>1.5.1 Facilitate a discussion forum</b></p> <p>Create a climate positive design discussion stream on AILA's Memberscape platform.</p> <p>Continually monitor, engage with and respond to climate positive design related discussions on Memberscape.</p>	Ongoing	Climate Positive Design Committee
<p><b>1.5.2 Investigate opportunities for a climate positive design focus conference or series of talks / events</b></p> <p>Host a symposium or annual conference centred on climate change and climate positive design. Potentially tie into the Landscape Festival or other forum.</p> <p>Investigate other opportunities for a climate positive design focused conference or series of talks/events.</p> <p>Consider including influential climate advocates from diverse backgrounds as part of the festival. For example Australian and international Landscape architects, farmers, ecologists, artists, activists, politicians, comedians, policy specialists, biodiversity experts, scientists etc.</p>	2023 onwards	<p>AILA Board and CEO sign off required</p> <p>Festival Creative Directors</p> <p>AILA Climate Positive Design Committee</p> <p>State groups</p>

## Objective 1.6 Support organisations and AILA to operate as low to zero-carbon businesses

Promoting climate positive design can start within an organisation's own carbon footprint. We should aim to support practices to become certified carbon neutral and then climate positive.

Action item	Timeline	Responsibility
<p><b>1.6.1 Create a Climate Positive Design: Organisation Guide to Climate Positive</b></p> <p><b>Completed:</b> The Organisation Guide to Climate Positive has been developed for businesses, organisations and institutions.</p> <p>The Organisation Guide sets out the steps your practice / business / organisation needs to take to achieve carbon neutral certification and beyond to become climate positive.</p>	Review annually	Climate Positive Design Committee
<p><b>1.6.2 AILA to become climate positive</b></p> <p>Review how AILA as a business can become climate neutral, and then investigate options to become climate positive, using the Organisation Guide to Climate Positive.</p> <p>Allocate a staff member to co-ordinate, and set a workable timeframe.</p> <p>The process should be documented and used as a case study.</p>	Target of 2025 or earlier	AILA Staff

## Objective 1.7 Increase emphasis on climate positive design across university education and the landscape architecture registration program

The next generation of landscape architects will be future leaders in climate positive design. This can start with gaining an understanding and appreciation of climate positive design within their programs by embedding it into the curriculum, and reinforcing it through the landscape architect registration process.

Action item	Timeline	Responsibility
<p><b>1.7.1 Engage with universities to gauge emphasis on, and opportunities to increase, climate positive design within the Landscape architecture programs</b></p> <p>Work with the Education Committee to investigate opportunities to further embed climate positive design into the curriculum and accreditation. Opportunities may include training in the Pathfinder tool and Climate Positive Design as an elective or selective studio.</p>	2023 onwards	Climate Positive Design Committee  Education Committee
<p><b>1.7.2 Embed climate positive design understanding as a requirement of becoming a Registered Landscape Architect</b></p> <p>Work with the Membership Committee to investigate opportunities to ensure climate positive design understanding is a requirement of becoming a registered Landscape Architect.</p>	2023 onwards	Climate Positive Design Committee  Membership Committee

# 2.0

## Leadership and collaboration

Landscape architects are very good at seeing the big picture. Our domain is the public realm with nature-based solutions a key component of our toolkit. To deliver at scales that matter we need to provide design leadership and collaboration.

This pillar helps AILA and its members to provide that leadership, so we can work across silos to provide some of the solutions to the climate and biodiversity crises.

# Leadership and collaboration

"Landscape architects are great storytellers and incredible communicators. We are good listeners and know how to work with communities"

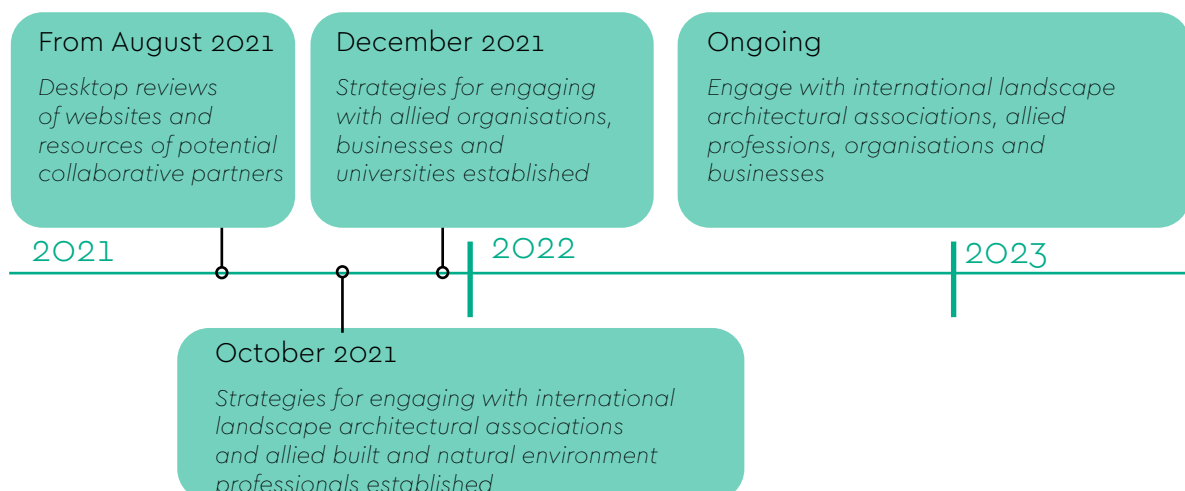
Martha Schwartz, IFLA conference August 22nd 2021<sup>4</sup>

## Objectives:

- Co-design a process with AILA's Cultural Ambassadors to agree a culturally responsive approach to guide non-Indigenous designers to producing respectful, authentic and informed outcomes when representing [Indigenous] cultures<sup>5</sup> and learning from cultural knowledge systems, in relation to Climate Positive Design.
- Collaborate with international landscape architectural member associations
- Engage with allied organisations, businesses and universities
- Work with allied built environment professions to implement and advocate climate positive design
- Develop relationships with agriculture / land sector managers

## Success Indicators:

- AILA is seen as a leading climate solutions collaborator, providing the big picture that links allied built environment professionals.
- AILA has strong collaborative relationships with landscape architecture associations and institutes in the Asia Pacific region and around the world.
- Landscape architects are represented on key decision making, committees, advisory groups and peak bodies related to climate and biodiversity in Australia and internationally.
- AILA is recognised as an industry leader amongst professional bodies in sustainable practice, influencing the work of others



## Objective 2.1 Collaborate with international landscape architectural associations

These three AILA climate positive design guides have drawn from excellent work carried out overseas by the UK's Landscape Institute, the CSLA, ASLA and the Landscape Architecture Foundation. Continued collaboration on an international level is essential to continuing to share creative solutions.

Action item	Timeline	Responsibility
<p><b>2.1.1 Undertake a desktop review of the different approaches of international associations towards implementing climate positive design</b></p> <p><b>Completed:</b> Review global associations' websites and key resources to inform as required work to be undertaken by AILA. Provide a summary table as the deliverable of this action.</p>	Completed	Climate Positive Design Committee
<p><b>2.1.2 Develop an engagement strategy</b></p> <p>Establish what we want to achieve and by when. Any engagement should be strategic if the aim is towards common goals and best use of resources.</p>	Ongoing	Climate Positive Design Committee
<p><b>2.1.3 Engage with allied landscape architecture organisations to share knowledge</b></p> <p>Engage with organisations, including (but not limited to) the following:</p> <ul style="list-style-type: none"> <li>• Canadian Society of Landscape Architects (CSLA)</li> <li>• American Society of Landscape Architects (ASLA)</li> <li>• New Zealand Institute of Landscape Architects (NZILA)</li> <li>• International Federation of Landscape Architects (IFLA)</li> <li>• Landscape Institute (UK)</li> <li>• Landscape Architecture Foundation (LAF) USA</li> <li>• Asia Pacific regional associations</li> <li>• Landscape Foundation of Australia</li> </ul> <p><b>Completed:</b> AILA Representative on the IFLA Climate Change Working Group (Claire Martin - Representative of IFLA Asia-Pacific Region)</p> <p>AILA involvement in drafting the 2021 IFLA climate Action Commitment.</p>	Ongoing	<p>AILA CEO and Board</p> <p>Climate Positive Design Committee</p>
	Completed	



## Objective 2.2 Work with allied built and natural environment professions to implement and advocate for climate positive design

Our built environment colleagues have policies and strategies for climate action and policies that relate to the public realm. We need to further collaborate to ensure that AILA can provide that big picture overview of the built environment and land sector stewardship.

Action item	Timeline	Responsibility
<p><b>2.2.1 Undertake a brief desktop review of the different approaches of allied professions towards implementing climate positive design</b></p> <p>Review allied professions' websites and key policies and resources on climate action. Look at areas of overlap with AILA, and specialisation of each association. Investigate marketing/ social media promotion</p>	2023 onwards	Climate Positive Design Committee
<p><b>2.2.2 Develop an engagement and climate leadership strategy for built environment professionals</b></p> <p>Landscape architects have the skills to see the big picture. The built environment professional associations are all working towards climate action. While focused in their areas of expertise there are, however, areas of overlap.</p> <p>Explore the opportunity for AILA to provide overviews into public realm and land stewardship to enable other built environment associations to prioritise clear pathways within their expertise.</p> <p>Aim to establish a round table alliance of built environment climate professionals so we are all aware of each others' actions. Engagement should be strategic with the aim towards common goals and best use of resources to avoid duplication.</p> <p>E.g. throughout PIA on policy and legislation / AIA on buildings and Net Zero construction standards / AILA on public realm and Urban Green Infrastructure standards.</p>	2023 onwards	Climate Positive Design Committee
<p><b>2.2.3 Collaborate with allied organisations</b></p> <p>Collaborate on climate positive design by furthering relationships with allied built and natural environment organisations, including:</p> <ul style="list-style-type: none"> <li>• Australian Institute of Architecture (AIA)</li> <li>• Engineers Australia</li> <li>• Planning Institute of Australia (PIA)</li> <li>• Landscape Contractors Association</li> <li>• Australian Institute of Landscape Designers and Managers (AILDM)</li> <li>• Ecological Society of Australia</li> <li>• Farmers for Climate Action</li> </ul>	Ongoing	AILA CEO and Board  Climate Positive Design Committee

## Objective 2.3 Engage with allied organisations, businesses and universities

There are a number of excellent organisations and agencies doing incredible work on climate. Developing partnerships with these agencies has benefits for landscape architects' technical understanding. This includes opportunities for research partnerships, with agencies and universities, training, and other collaborative opportunities.

Action item	Timeline	Responsibility
<p><b>2.3.1 Undertake a desktop review of the different approaches of international associations towards implementing climate positive design</b></p> <p><b>Completed :</b> Review websites and key resources. This review can then influence the approach and work undertaken by AILA.</p>	Completed	Climate Positive Design Committee
<p><b>2.3.2 Develop an engagement strategy</b></p> <p>Establish what we want to achieve and by when. Any engagement should be strategic if the aim is towards common goals and best use of resources.</p>	2023 onwards	Climate Committee
<p><b>2.3.3 Engage with allied landscape architecture organisations to share knowledge</b></p> <p>Engage with organisations, including (but not limited to) the following:</p> <ul style="list-style-type: none"> <li>• Commonwealth Scientific and Industrial Research Organisation (CSIRO)</li> <li>• The Centre for Co-operative Research for Low Carbon Living</li> <li>• Climate Works Australia</li> <li>• The Climate Council</li> <li>• Beyond Zero Living</li> <li>• The University of Western Sydney</li> <li>• Eucface</li> <li>• TERN</li> <li>• Universities, including those teaching Earth Science and/or researching climate science and relevant technologies</li> </ul> <p><b>Completed:</b> Build on existing involvement with the following agencies to promote green infrastructure and climate positive design and biodiversity net gain outcomes:</p> <ul style="list-style-type: none"> <li>• Australian Sustainable Built Environment Council (ASBEC)</li> <li>• Materials and Embodied Carbon Leaders' Alliance (MECLA)</li> <li>• Green Building Council of Australia (GBCA)</li> </ul>	Partially completed / ongoing	Climate Positive Design Committee representatives  AILA CEO and executives

## Objective 2.4 Develop relationships with agriculture / land sector managers

Agricultural land holdings cover nearly 50% of Australia's land mass. To take climate action at scales that matter, we need to enable land stewardship and nature-based solutions.

There is enormous opportunity to involve Indigenous land owners and managers/rangers as well as farmers, national park and state forest managers.

Action item	Timeline	Responsibility
<p><b>2.4.1 Investigate opportunities for relationships with agriculture / land sector managers etc</b></p> <p>Regenerative farming and Indigenous Ranger programs and projects have the opportunity to make significant differences at the national scale</p> <p>Engage with other leaders in this space - eg Anika Molesworth / Farmers for Climate Action, Charles Massey, Vicktor Steffenson / Firesticks Alliance</p>	Ongoing	<p>Climate Positive Design Committee</p> <p>AILA executive</p> <p>Connection to Country Committees Australia wide</p>

## Objective 2.5 Deliver on AILA's Reconciliation Action Plan actions to build internal and external relationships and investigate Aboriginal and Torres Strait Islander cultural learnings and development.

For over 65,000 years Aboriginal and Torres Street Islander people managed and sustained Australia. They tell us that if you "care for Country, Country cares for you" The idea of working with nature is very much an approach that is at the heart of landscape architecture.

Australia has some of the world's highest greenhouse gas emissions per person, with Indigenous Peoples in Australia contributing the least emissions, but among those most affected by the consequences. Recognition of the role of First Nations people in identifying solutions to problems caused by climate change is only slowly being recognised.

Action item	Timeline	Responsibility
<p><b>2.1 Co-design a process for appropriate cultural knowledge sharing</b></p> <p>Engage with AILA's Cultural Ambassador programme and Connection to Country Committee - develop appropriate protocols for how Australian landscape architects engage and work with Indigenous knowledge holders towards Climate Positive Design outcomes.</p> <p>Co-design a process with AILA's Cultural Ambassadors to agree a culturally responsive approach to guide non-Indigenous designers to producing respectful, authentic and informed outcomes when representing [Indigenous] cultures and learning from cultural knowledge systems, in relation to Climate Positive Design.</p>	Ongoing	<p>Connection to Country Committee</p> <p>AILA Cultural Ambassadors</p> <p>Climate Positive Design Committee</p> <p>AILA chapters</p>

# 3.0

## Policy and advocacy

Influencing policy is one of our biggest levers to improve climate positive design outcomes. Policy and legislation can make it mandatory for our clients to act.

The land sector and built environment are critical areas that are often overlooked in Australian climate policy. It is vital that our voice be heard as part of the national agenda on climate action. AILA and our members can do more to drive policy change at local, state and federal levels.

# Policy and advocacy

"The most important thing you can do about climate change is to talk about it."

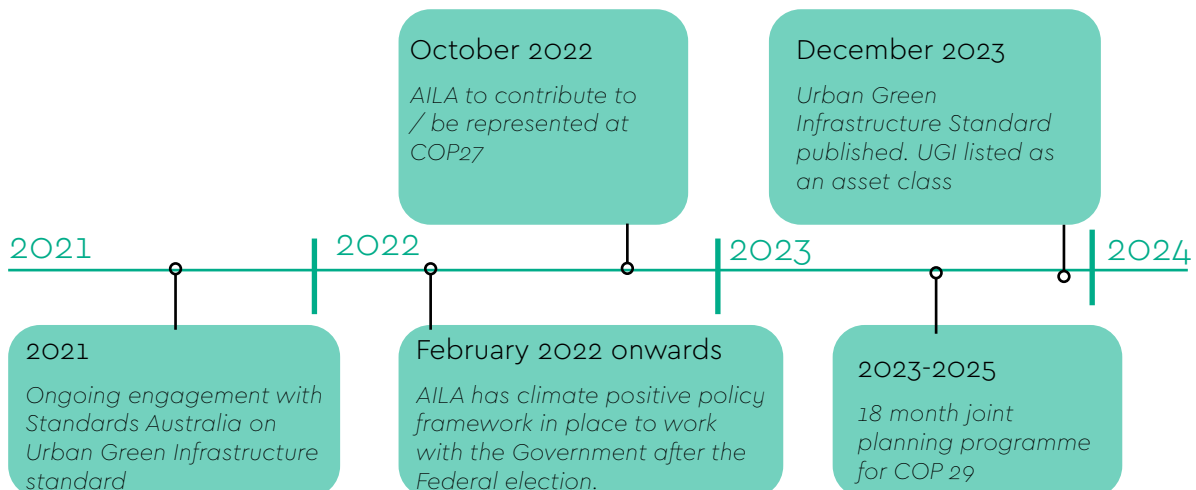
*Katherine Hayhoe. Climate Scientist and communicator. TED talk December 14th 2018<sup>6</sup>*

## Objectives:

- Influence and advocate for local and national policy on the climate emergency
- Position climate positive design agenda with key national stakeholders
- Built environment agency push for the Australian Government to host the United Nations Conference of the Parties 29 (COP29) in 2025

## Success Indicators:

- AILA policy and climate positive design objectives are referenced and guide local, state and federal policy on climate action.
- AILA and our members have good relationships with key political decision makers, to ensure our voice is part of the political debate.
- The media see AILA as a trusted source when reporting and seeking comment on the public realm and climate related journalism.
- Urban Green Infrastructure is recognised as an asset class in Australia.
- COP29 hosted in Australia



## Objective 3.1 Influence and advocate for local and national policy on the climate emergency

Further outreach and engagement at both community and all government levels is needed to strengthen AILA's engagement and commitment to promote climate positive design in the Australian community. AILA is well positioned to leverage its Australia wide committees to further this aim.

Action item	Timeline	Responsibility
<p><b>3.1.1 Promote our commitment to addressing the emergency to the public</b></p> <p><b>Completed:</b> Develop a climate positive design position statement for advocating all public policy change</p>	<p>Ongoing</p> <p>Completed</p>	<p>Climate Positive Design Committee</p> <p>Advocacy Committee</p> <p>AILA CEO and staff</p>
<p><b>3.1.2 Develop national planning policies</b></p> <p>Create policies that address the climate and biodiversity emergencies through design quality frameworks on land clearing, mitigation, adaptation and co-benefits.</p> <ul style="list-style-type: none"> <li>• Advocate for landscape and nature-based solutions.</li> <li>• Continue to promote the climate and biodiversity benefits of urban green infrastructure and address issues of funding, quality and management.</li> <li>• Collaborate with others on how biodiversity net gain (BNG) can be better realised and expanded into a wider environmental net gain/ biodiversity positive outcomes</li> <li>• Challenge national debates on broader climate and biodiversity issues such as coal, agricultural land-use, bushfire/ Indigenous / sea level or afforestation and greenfield developments.</li> <li>• Contribute to city wide planning objectives for climate sensitive cities</li> </ul>	Ongoing	<p>Climate Positive Design Committee</p> <p>IFLA</p> <p>Advocacy Committee</p> <p>Victorian Environment Committee</p>
<p><b>3.1.3 Review and recommend changes to AILA policies to embed climate positive design in key areas</b></p> <p><b>Completed:</b> Review completed and reported to Board</p>	Completed	Climate Positive Design Committee

## Objective 3.2 Position climate positive design agenda with key national stakeholders

AILA has developed strong relationships with the international community through its representation in like-minded international forums and organizations. Opportunities exist for AILA to develop a nationally aligned framework that facilitates consistent terms of engagement with government bodies, institutions and professional organisations.

Action item	Timeline	Responsibility
<p><b>3.2.1 Engage with all levels of government</b></p> <p>Grow our relationship with the national agencies and government departments, across all states and territories.</p> <ul style="list-style-type: none"> <li>• Include climate positive design in discussions on Parliamentary Group for Better Cities and Infrastructure Australia.</li> <li>• Work collaboratively with other built environment agencies such as the Planning Institute of Australia, and the Australian Institute of Architects at Local government level (eg through the Global Covenant of Mayors for Climate &amp; Energy), as well as State and Federal environment/climate changes/emissions Ministers.</li> <li>• Prepare and deliver a document of key requests or policy manifesto by Landscape Architects related to Climate Change to the federal government: See example <a href="#">here</a>.</li> </ul>	Ongoing	<p>AILA Board</p> <p>Climate Positive Design Committee</p> <p>Advocacy Committee</p> <p>Environment committees</p>
<p><b>3.2.2 Strengthen links with universities across Australia</b></p> <p>Consider facilitating an annual national education summit to further the climate positive agenda. Involve allied peak bodies.</p>	2023 onwards	<p>AILA Board and CEO sign off required</p> <p>Climate Positive Design Committee</p> <p>Education Committee</p>

## Objective 3.3 Provide a vehicle for climate positive design in the profession via the media

Opportunities exist for AILA to engage with policymakers and thought-leaders in allied professions by co-hosting events and promoting our contributions and achievements to the climate positive agenda.

Action item	Timeline	Responsibility
<p><b>3.3.1 Provide guidance to AILA State and Territory groups on an agreed set of language, use of terms, definitions, and meanings around these issues to coordinate submissions nationally.</b></p> <p>Continue to develop a glossary on technical issues of adaptation, mitigation, co-benefits and design and developing language relevant to future submissions to align with AILA pillars.</p> <p>Update social media policy to ensure appropriate use of language to address climate related issues.</p>	Early mid-2022, then ongoing	Climate Positive Design Committee  State environment committees
<p><b>3.3.2 Facilitate discourse and debate within the sector.</b></p> <p>Develop links to co-host or co-organise events with allied professional bodies such as PIA and AIA.</p> <p>Host industry roundtables and webinars with policymakers and thought leaders beyond our sector.</p>	Early mid-2022, then ongoing	Climate Positive Design Committee  Advocacy Committee
<p><b>3.3.2 Engage with and develop a relationship with the media.</b></p> <p>The intent being that the media see AILA as a trusted agency when reporting and seeking comment on the public realm and climate related journalism</p>	2023 Onwards	Climate Positive Design Committee  Advocacy Committee





Coastal Woodland Garden • Robyn Barlow Design • Photo Sue Stubbs • Bunurong Country



Private Residence Tasmania • Play Street • Photo: Playstreet • Paredarmerne Country

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A scenic view of a park with a wooden walkway, a large tree, and a stream. The walkway has a lattice railing and a person and a child are walking on it. The stream is in the foreground, and there are benches and more trees in the background.

# Climate Positive Design

## ALA Roadmap

# Appendices

Reimagining Your Creek • REALMstudios | Alluvium Consulting | E2DesignLab |  
Mosaic Insights • Photo: Rory Gardiner • Kulin Nation

# Glossary

**1.5 degrees** The countries that signed the Paris Agreement in 2015 agreed to limit the increase in global temperatures to well below 2 degrees above pre-industrial levels, but preferably to 1.5 degrees.<sup>7</sup>

**Carbon budget** - This is the amount of CO<sub>2</sub> that humans can add to the atmosphere between 2015 and 2050 before we reach 65% probability that we will exceed a global warming of 1.5degrees. The median range is 180-520Gt. Given annual planetary emissions are approximately 36Gt, we will hit 1.5degrees in the late 2020's to mid 2030's without drastic action. Australia's Carbon budget from 2020 onwards is estimated by the climate council as 4.7Gt or approximately 8 years of current emissions.<sup>8</sup>

**Carbon budget to 1.5degrees**- This is amount of CO<sub>2</sub> that humans can add to the atmosphere between 2015 and 2050 before we reach 65% probability that we will exceed a global warming of 1.5degrees. The median range is 180-520Gt. Given annual planetary emissions are approximately 36Gt, we will hit 1.5degrees in the late 2020's to mid 2030's without drastic action. Australia's Carbon budget from 2020 onwards is estimated by the climate council as 4.7Gt or approximately 8 years of current emissions.<sup>9</sup>

**Carbon neutral** - This term refers to Net zero carbon dioxide (CO<sub>2</sub>) emissions are achieved when anthropogenic CO<sub>2</sub> emissions are balanced globally by anthropogenic CO<sub>2</sub> removals over a specified period. Net zero CO<sub>2</sub> emissions are also referred to as carbon neutrality.<sup>10</sup>

**Climate positive design** – climate positive design projects provide net positive climate outcomes. They aim to provide environmental, social, cultural, and economic co-benefits. Over a 50 year, cradle to cradle assessment they sequester more greenhouse gases than they emit.<sup>7</sup>

**Climate sensitive** - The change in the annual global mean surface temperature (GMST) in response to a change in the atmospheric carbon dioxide (CO<sub>2</sub>) concentration or other radiative forcing.<sup>7</sup>

**CO<sub>2</sub>e** – Global warming potential is the heat absorbed by any greenhouse gas in the atmosphere, as a multiple of the heat that would be absorbed by the same mass of carbon dioxide. The main difference between CO<sub>2</sub> and CO<sub>2</sub>e is that CO<sub>2</sub> only accounts for carbon dioxide, while CO<sub>2</sub>e accounts for carbon dioxide and all the other gases as well: methane, nitrous oxide, and others.<sup>11</sup>

**Environment Product Declaration (EPD)** - An independently verified and registered document that communicates transparent and comparable information about the life-cycle environmental impact of products and services in a credible way.<sup>12</sup>

**Global warming** - An increase in global mean surface temperature (GMST) averaged over a 30-year period, or the 30-year period centred on a particular year or decade, expressed relative to pre-industrial levels unless otherwise specified. For 30-year periods that span past and future years, the current multi-decadal warming trend is assumed to continue.<sup>7</sup>

**Embodied emissions** – The Embodied emissions refers to the embodied carbon (CO<sub>2</sub>) emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure.<sup>13</sup>

**Greenhouse gas (GHG)** - Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of radiation emitted by the Earth's ocean and land surface, by the atmosphere itself, and by clouds. This property causes the greenhouse effect.<sup>14</sup> Water vapour (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>) are the primary GHGs in the Earth's atmosphere. Human-made GHGs include sulphur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs) and perfluorocarbons (PFCs); several of these are also O<sub>3</sub>-depleting (and are regulated under the Montreal Protocol).

**GT** - (one **Gigatonne** = 1 billion tonnes, or 1,000,000,000 tonnes or 1 trillion kg)

**Integrated Catchment Management (ICM)** - may be defined as "the co-ordinated and sustainable management of land, water, soil vegetation, fauna and other natural resources on a water catchment basis".<sup>15</sup>



**Intergovernmental Panel on Climate Change (IPCC)** - the United Nations body for assessing the science related to climate change.<sup>7</sup>

**Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)** - is an intergovernmental organization established to improve the interface between science and policy on issues of biodiversity and ecosystem services.<sup>16</sup>

**The International Federation of Landscape Architects (IFLA)** - is an organization which represents the landscape architectural profession globally.

**Life Cycle Assessment (LCA)** - is a technique for assessing the environmental aspects associated with a product over its life cycle.<sup>10</sup>

**Mt** - (one **Mega tonne** = 1million Tonnes or 1,000,000 metric tons or 1,000,000,000 kg)

**Net-zero** emissions are achieved when anthropogenic emissions of greenhouse gases (e.g. CO<sub>2</sub>) to the atmosphere are balanced by anthropogenic removals. Net-zero CO<sub>2</sub> emissions are also referred to as carbon neutrality. Where multiple greenhouse gases are involved, the quantification of net-zero emissions depends on the climate metric chosen to compare emissions of different gases (such as global warming potential, global temperature change potential, and others, as well as the chosen time horizon).<sup>7</sup>

**Natural capital** - the world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this natural capital that humans derive a wide range of services, often called ecosystem services. Natural capital has financial value as the use of natural capital drives many businesses.<sup>17</sup>

**Offsetting** - carbon offsetting refers to the reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere. Offsets are measured in tonnes of carbon dioxide-equivalent (CO<sub>2</sub>e).<sup>18</sup>

**Operational emissions** - the amount of carbon emitted during the operational or in-use phase of a building. This includes the use, management, and maintenance of a product or structure. Operational carbon currently accounts for 28% of global greenhouse gas.<sup>19</sup>

**Sea level rise** - Sea level rise is caused by a combination of thermal expansion as the oceans absorb heat and meltwater from land based ice. Sea levels are rising at approximately 3.6mm per year with predictions ranging from 600mm to 1100mm by 2100, and between 3000mm and 5000mm by 2300.<sup>20</sup>

**Sequestration** - the process of storing carbon in a carbon pool. Biological (or terrestrial) sequestration involves the net removal of CO<sub>2</sub> from the atmosphere by plants and micro-organisms and its storage in vegetative biomass, woody stems and in soils.<sup>21</sup>

**Scope 1 emissions:** The release of greenhouse gases into the atmosphere as a direct result of activities occurring within a responsible entity's control (or geographic boundary).

**Scope 2 emissions:** The release of greenhouse gases into the atmosphere from the consumption of electricity, heating, cooling or steam that is generated outside of a responsible entity's control (or geographic boundary).

**Scope 3 emissions:** Greenhouse gases emitted as a consequence of a responsible entity's activities but emitted outside the responsible entity's control (or geographic boundary) **t** - (One **Metric tonnes** = 1000kg)

**T** - (One imperial **Ton** = 2,240 pounds, about 1,016 kg)

**WSUD / Water-Sensitive Urban Design** - is a land planning and engineering design approach which integrates the urban water cycle, including stormwater, groundwater and wastewater management and water supply, into urban design to minimise environmental degradation and improve aesthetic and recreational appeal.<sup>22</sup>



Riverbank House • Wilson Architects | John Harrison | Ilka Salisbury • Photo: Alex Chomicz • Yuggera Country

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## The AILA Climate Positive Design Committee

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### AILA Board Representative.

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Jock Marshall Reserve Nature Walk • Urban Initiatives • Photo: Vantage Drones • Kulin Nations



South Riverside • Hassell • Photo: Scott Burrows  
Turbal & Jagera Country

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