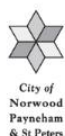


RESILIENT EAST

Annual Report 2020 - 2021

Climate Ready
Eastern Adelaide



Resilient East is a regional climate partnership between state and local government organisations in eastern Adelaide. We work together to ensure the eastern region remains a vibrant, desirable, and productive place to live, work and visit, and that our businesses, communities, and environments can respond positively to the challenges and opportunities presented by a changing climate.

This partnership includes Campbelltown City Council, the Cities of Adelaide, Burnside, Norwood Payneham and St Peters, Prospect, Tea Tree Gully, Unley, the Town of Walkerville, and the Government of South Australia. Resilient East coordination and initiatives are jointly funded by the eight partner councils and the Green Adelaide Board.

Resilient East regularly works with agencies and organisations from all levels of government, NGOs, community groups, individuals and the private sector.

ACKNOWLEDGEMENT OF COUNTRY

Resilient East councils are located on the Adelaide Plains, the traditional lands for the Kaurna people. We acknowledge this land as the traditional lands for the Kaurna people and we respect their spiritual relationship with their country. We also acknowledge the Kaurna people as the custodians of the Adelaide region and their cultural and heritage beliefs are still as important to the living Kaurna people today. We also pay respects to the cultural authority of Aboriginal people visiting from other areas of South Australia and Australia.

Cover Photos: Front [City of Burnside]; Back [Town of Walkerville]

This report was prepared by Resilient East.

Created: December 2021

The report does not reflect formal Council consideration and / or endorsement by any of the constituent Councils or Government of South Australia. Quoted statistics collected from Councils are estimates and are conservative.

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Visit resilienteast.com for more information.

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1. EXECUTIVE SUMMARY

Resilient East is a regional climate partnership (RCP) between eight councils and the Government of South Australia. We are working together to prepare the eastern Adelaide region for climate change and we are guided by our [Regional Climate Change Adaptation Plan \(2016\)](#). Our commitment is shown through a [Climate Change Sector Agreement](#) under the *Climate Change and Greenhouse Emissions Reduction Act 2007*, and our Action Plan 2020-2024.

This report summarises our key actions and achievements in the 2020/21 financial year against key themes:

- Green Cover;
- Water Sensitive Urban Design (WSUD);
- Resilient Communities;
- Planning Reforms and Advocacy;
- Climate Risk; and
- Monitoring and Evaluation.

This year, we delivered a range of research, collaboration, community engagement and partnership outreach projects, many of which are highlighted below.

- Renewed our Climate Change **Sector Agreement 2020-2025**.
- Finalised our **Action Plan 2020-2024**.
- Completed a **Street Tree Species Guide**.
- Employed a **full-time coordinator position**, supported partly by Green Adelaide grant funding
- Completed a **Creating More Spaces for Trees** study, which prompted further research and collaboration on this subject.
- Analysed **canopy LIDAR data** to understand current status and provide a consistent regional benchmark.
- Completed a **Climate Change Governance Assessment** for four councils.
- Seconded a council **Communications Officer** part-time for four months.
- Developed a **Communications Strategy** and streamlined our messaging.
- Developed a **Water Smart Campaign** and **capacity building program**, in partnership with Green Adelaide and Water Sensitive SA.
- Launched two new public outreach channels, an **e-newsletter** and **LinkedIn profile**, and continued to update our website.
- Released six interactive **Urban Heat Mapping Factsheets**.
- Supported **community programs**, such as the Australian Red Cross Climate Ready Champions and Green Adelaide Climate Ready Schools.
- Hosted regional community workshops, such as **Water Smart Solutions** and **Speed Dating for Trees**.
- Developed a draft **Monitoring, Evaluation and Reporting Plan** (understood to be the first of its kind in South Australia for climate adaptation).
- Continued advocacy to the **State Government Planning Reform**, contributing to an increase in the minimum number of trees per new property included in the Planning and Design Code Phase 3.
- Continued advocacy, submissions and inspiration provided for the **Green Adelaide Regional Plan 2021-2026** and **Annual Business Plan 2021/22**.
- Submitted and presented to the **Natural Resource Committee Parliamentary Inquiry** into Urban Green Spaces.

This year, our partners and stakeholders delivered on critical plans and commitments that enabled on-ground action, supported by the delivery of our Action Plan. Resilient East adaptation priorities and collaboration efforts are strengthened by key plans, such as, the *South Australian Government Climate Change Action Plan 2021-2025*, and the draft *Green Adelaide Regional Landscape Plan 2021-2026*. Our efforts have been acknowledged through the ongoing and new commitment from our partners to financially support Resilient East.

Resilient East has experienced setbacks from the COVID-19 pandemic, for instance it has been challenging to collaborate effectively. Despite this, we have received recognition of our expertise and efforts amongst stakeholders. We continue to work to overcome the shared challenge and remain well placed to deliver regional projects, work with stakeholders in innovative ways, advocate on issues and prepare our region for the ongoing challenges of climate change. Key highlights for this year are summarised on the following page.

RESILIENT EAST Highlights 2020/21

We are preparing the eastern Adelaide region for the impacts of climate change as we experience more heat, less rainfall, and more extreme weather events.

6,670 trees & 62,430 plants

added to our urban streets, parks and creek corridors



815 trees & 10,000 plants

provided to residents through giveaways and vouchers

28%

of total land area is covered by tree canopy*
*3m above ground, 2018/19

7

Resilient East councils have above average canopy cover in comparison to Metropolitan Adelaide



Resilient East councils have **discouraged or banned artificial turf on verges**

18

council programs, events or initiatives support greening on private property

9

Grassroots Grants for community greening and biodiversity projects (Green Adelaide)

245

B-pods

Verge Soakers

785

Street Tree Inlets

54

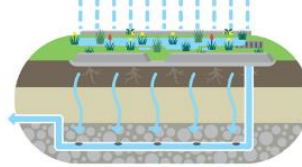
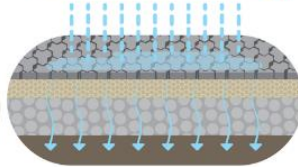
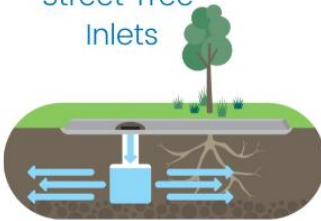
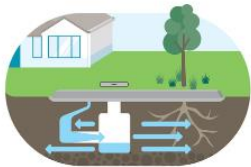
sites with Permeable Paving

88

Raingardens

17

Wetlands



Regional work complete

- ✓ Action Plan 2020-24
- ✓ LIDAR canopy mapping
- ✓ Street Tree Species Guideline
- ✓ Urban Heat Mapping Factsheets
- ✓ Creating More Spaces for Trees

268 staff

across 4 councils participated in climate risk governance surveys



44 Climate Champions



created in April
Followers = **227**
Posts = **18**

38

Stories / resources added to website

94

Subscribers to our first e-news sent (April)

24

Resources created for partners to use and share

resilienteast.com



2. BACKGROUND

Who we are

Resilient East is a regional climate partnership between Campbelltown City Council, the Cities of Adelaide, Burnside, Norwood Payneham & St Peters, Prospect, Tea Tree Gully, Unley, the Town of Walkerville, and the Government of South Australia (state government). Resilient East holds a strong relationship with the Eastern Regional Alliance (ERA) and work closely with our funding partner, Green Adelaide.

“Our goal is to improve the resilience of our communities, assets and infrastructure, local economies and natural environment so they can cope with the impacts and challenges of climate change”

Our key strengths are:

1. Learning and upskilling to support and facilitate improved on-ground action;
2. Forming partnerships for better outcomes;
3. Adopting what works well and building on ‘lessons learnt’;
4. Advocating regionally for our agreed principles; and
5. Working strategically across the region and between programs and organisations, to address challenges and opportunities.

Our history

Resilient East started in 2013 under the state government’s ‘Prospering in a Changing Climate’ initiative, and is now one of 11 [Regional Climate Partnerships](#) in South Australia (SA). A Regional Climate Change Adaptation Plan (the Adaptation Plan) was developed and endorsed in mid-2016. The Plan was supported by a Climate Change Sector Agreement that formalised our partnership between councils and the state government in 2017, under the *Climate Change and Greenhouse Emissions Reduction Act 2007*. This Agreement was renewed in July 2020 and operates until January 2025.

Resilient East Coordinator

The Resilient East Coordinator is currently hosted by the City of Unley. Through July to September 2020 the role was part-time, expanding to full-time in November 2020-June 2021. In 2020/21 this role was funded by the eight partner councils and Green Adelaide. The City of Burnside manages the associated finances for Resilient East.

Steering Group

The Resilient East Steering Group includes members from each partner council and the Department for Environment and Water (DEW) to oversee the implementation of the Adaptation Plan. Green Adelaide are observational members, providing strategic advice and input. The Steering Group Chair reports progress twice yearly to council Chief Executive Officers and annually to the Minister for Environment and Water.

Working Groups

Resilient East Working Groups undertake themed priorities and projects from our Action Plan, and consist of members who provide relevant expertise to their group. The groups currently include representatives from Water Sensitive SA (WSSA), TREENET, Wellbeing SA, DEW and Green Adelaide. The role of the Working Groups include maintaining up to date information, sharing learnings and challenges, creating projects, refining key messages, and reporting on research, actions and projects to the Steering Group.



The three groups are:

- Canopy and Heat Working Group;
- WSUD Working Group; and
- Communications Working Group.

Resilient East Action Plan 2020–2024

The Steering Group endorsed the [Resilient East Action Plan 2020-2024](#) in August 2020. The Plan outlines the priority themes for the next four years that will progress implementation of the [Adaptation Plan](#), under the nine key action area priorities listed in *Figure 1*. Actions are undertaken at a regional scale with regional benefits (i.e. multiple councils).

Key priority action areas include:

- 1) Green Cover;
- 2) Water Sensitive Urban Design (WSUD);
- 3) Resilient Communities;
- 4) Planning Reforms and Advocacy;
- 5) Climate Risk; and
- 6) Monitoring and Evaluation.

Actions have been grouped into five work programs:

- Supporting on-ground action;
- Strengthening partnerships and advocacy;
- Communications and capacity building;
- Measuring success; and
- Governance.

Resilient East acknowledges that there is a significant amount of work undertaken by individual councils and the state government that align to our action areas. The sum outputs of this work are also important in making the region resilient to climate change. Measuring the inputs, outputs and impact of this work has been identified as a priority action in the Measuring Success work program.

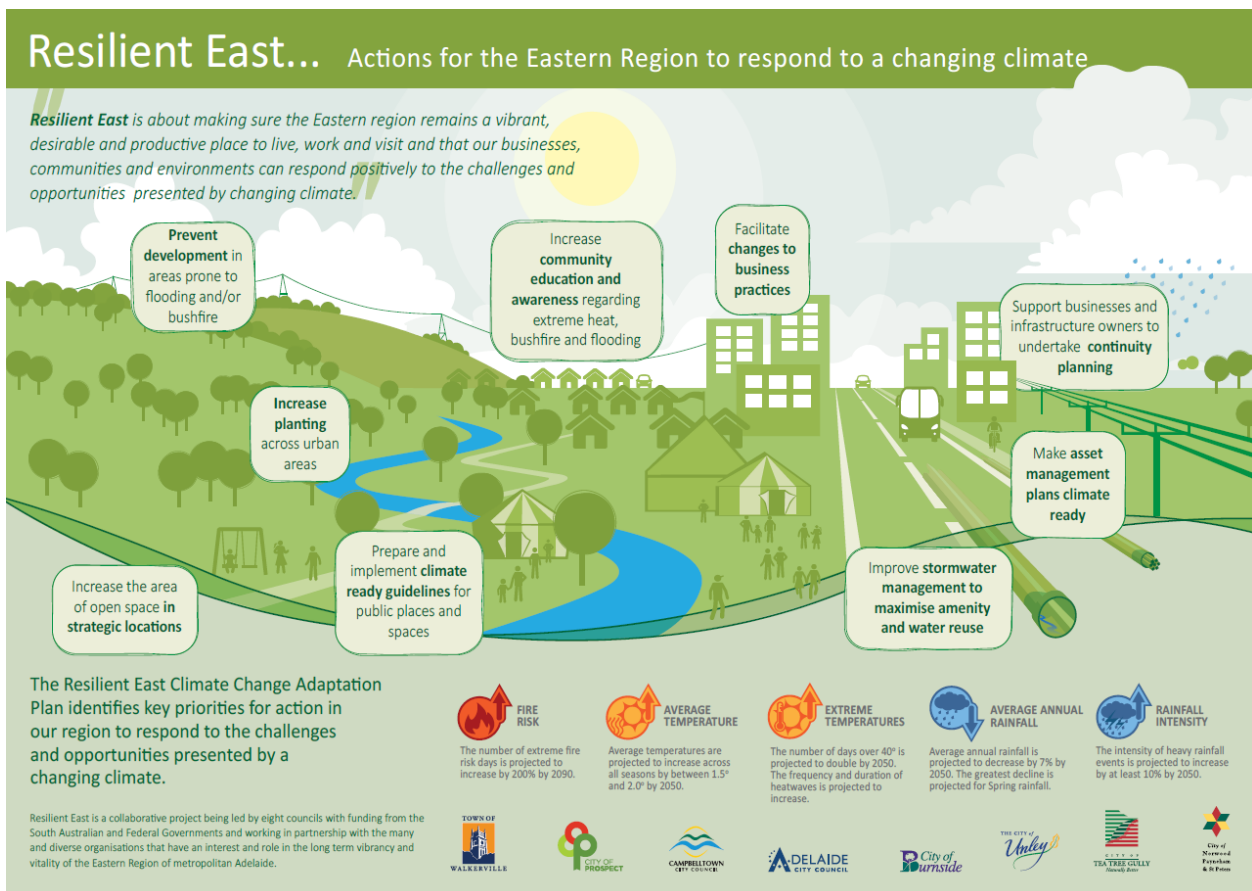
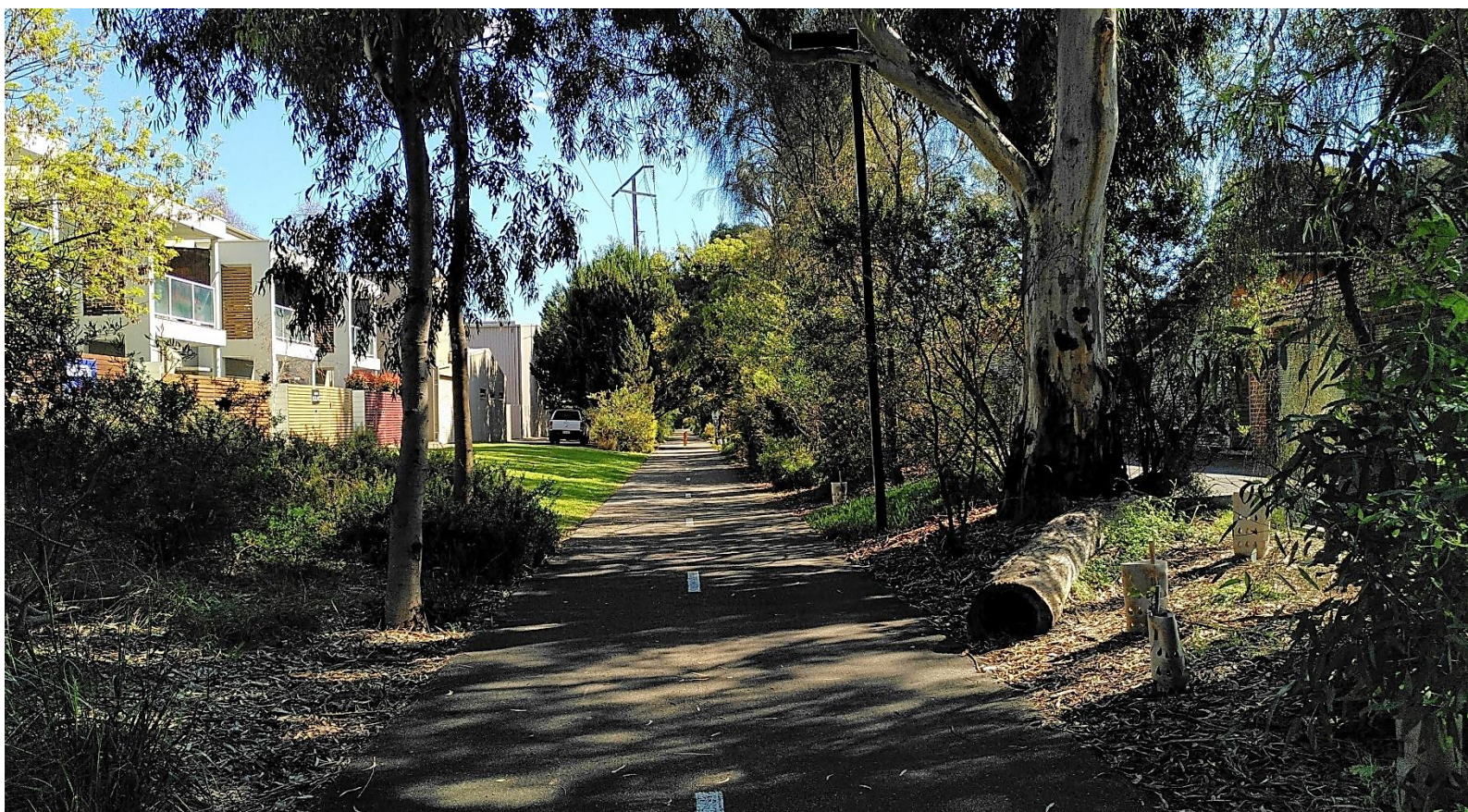
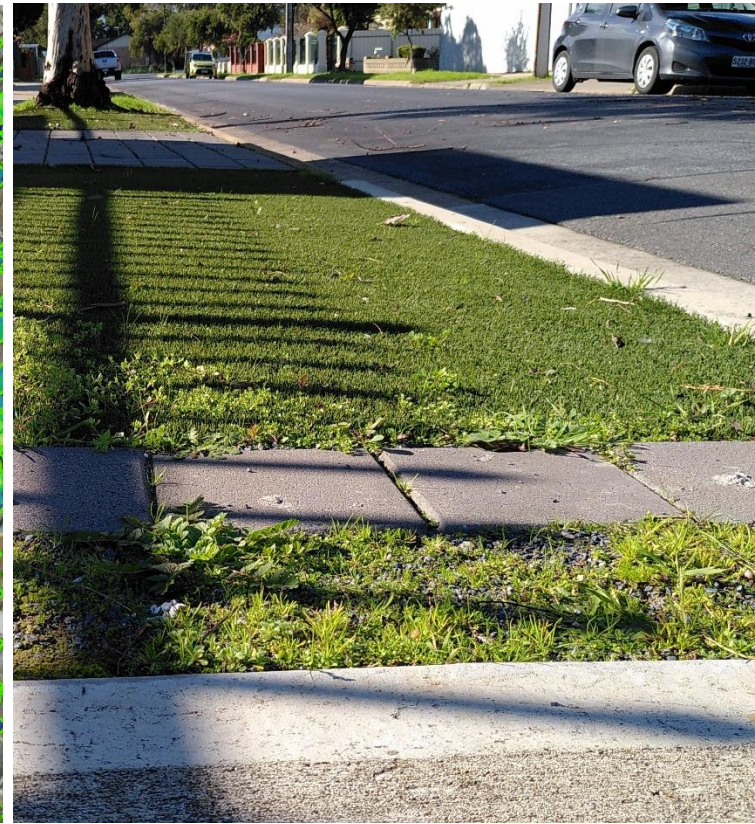
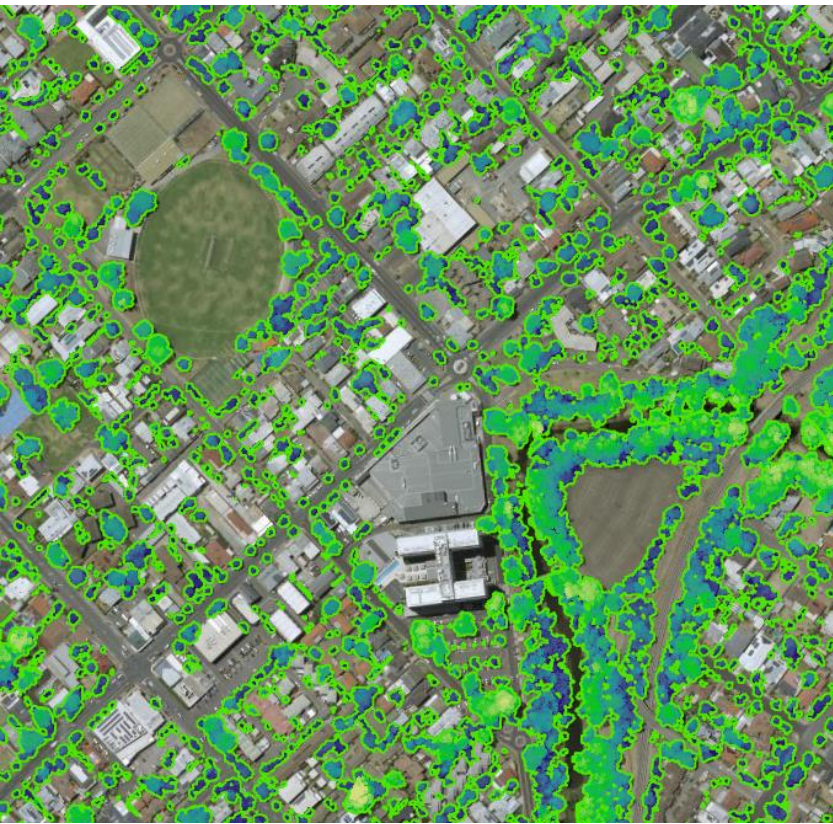
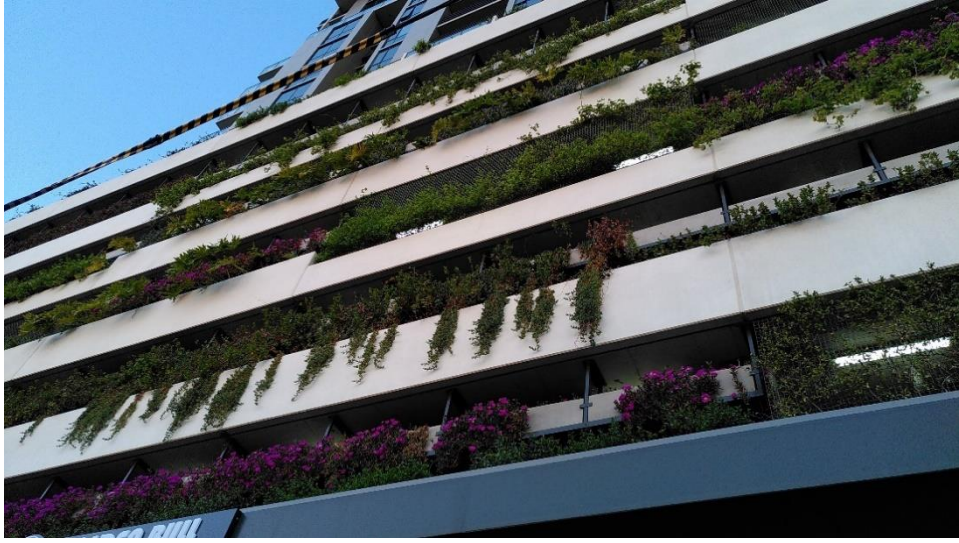


Figure 1. Resilient East priority action areas identified in the Regional Climate Change Adaptation Plan (2016).



3. OUR PROGRESS AND ACHIEVEMENTS

3.1 GREENING AND COOLING

The Canopy and Heat Working Group led the implementation of actions and ongoing work associated with urban heat and canopy mapping. These strategies align with the [30-Year Plan for Greater Adelaide](#) (updated 2017) to increase canopy and green cover by 20% by 2045, compared to 2013 baseline data levels.

Improving data

Benchmarking Tree Canopy Cover through LIDAR

In a first for South Australia, data captured in 2018 and 2019 was analysed to identify every tree taller than three metres on public and private land across a large portion of metropolitan Adelaide. This showed that tree canopy covers 23.37% of land, forming a new benchmark of canopy cover data. The study mapped tree canopy boundaries, height, and coverage by land use and ownership. The data is available to the public on the Urban Heat and Tree Mapping Viewer to allow for the easy comparison of heat, canopy cover, greening programs and social vulnerability for better private and public decision making. Resilient East was strongly involved in developing [FAQs and other supporting information for the website](#).

In 2020/21, Resilient East analysed the raw data further to understand the relevant proportions of canopy cover to land ownership for our region to create consistent messaging of the results, see *Figure 2*.

The study is summarised in [LIDAR derived tree canopy coverage metrics across Adelaide, South Australia](#). Results of this study suggest that the greatest opportunity for governments to meet the 30-Year Plan expectations of increasing urban green cover across metropolitan Adelaide is to assist greening on private land.

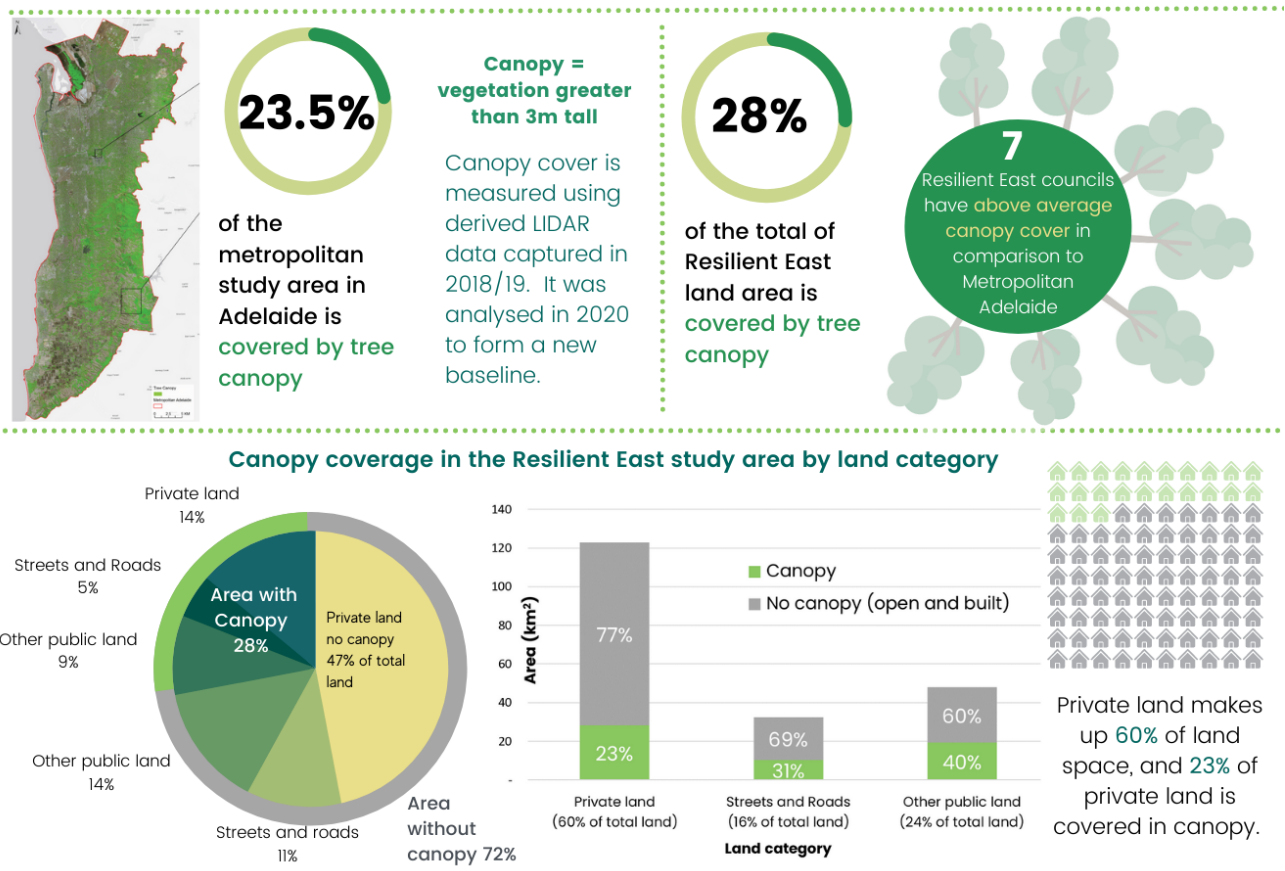


Figure 2. Canopy cover >3m in Resilient East by land category. The pie chart displays percent canopy cover from the region, whereas the bar graph breaks down percent canopy cover for each land category. *note % are rounded figures. (Derived from raw data from S.J Holt, Aerometrex Ltd, 2020 [LIDAR derived tree canopy coverage metrics across Adelaide, South Australia](#)).

Creating more Spaces for Trees

Resilient East undertook research on updating guidelines for planting near infrastructure. The [report](#) looks at the evidence of actual cost, risks and co-benefits. The purpose of the report is to enable the planting and survival of more trees by reducing the competing space above and below ground, creating more space for trees. This research provides insight into the complexities, issues and opportunities posed to protecting and increasing space for trees in the context of utility services and planning regulations (see *Figure 3*). Outcomes of this linked academics, governments, consultants and service authorities to the issues and solutions surrounding the law on trees and underground service infrastructure.

The distribution and presentation of the report has generated interest and further projects from other parties, such as the Australian Institute of Landscape Architects, Environment Institute (University of Adelaide), Green Adelaide, other local governments, TREENET and the government led Adaptation Practitioners Network. The report is the outcome of a University of Adelaide Industry Engaged PhD (Internship Project that was supported by the City of Adelaide and Resilient East.

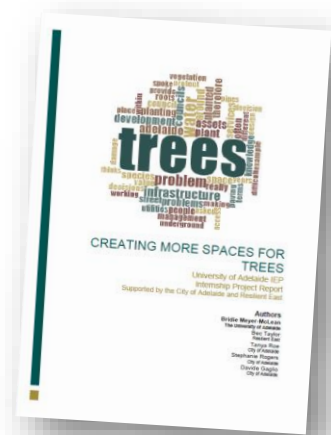
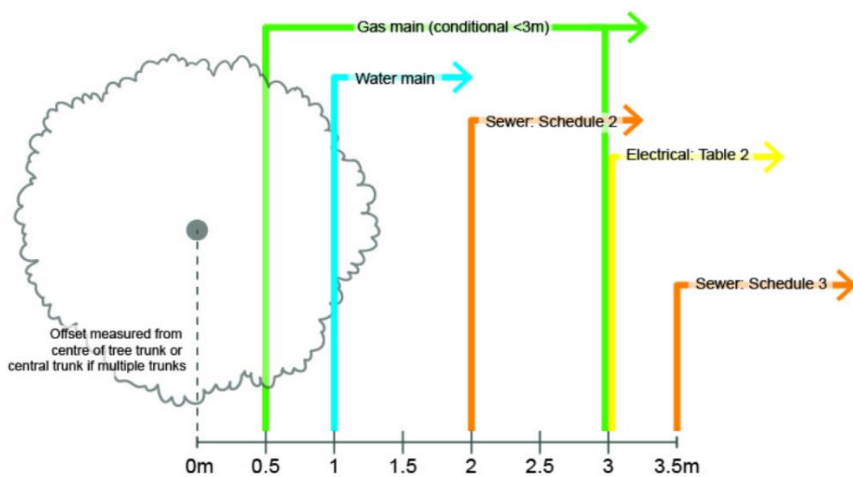


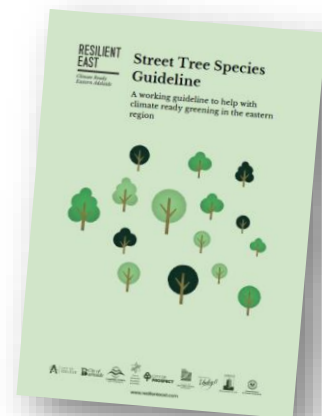
Figure 3. Underground utility current tree planting requirements showing the distance between tree and utility services (REF: S Rogers and B Meyer-McLean, in Meyer-McLean et al 2021, [Creating more Spaces for Trees](#)).

Street Tree Species Guideline

Resilient East developed a [guide](#) to assist councils to select from a range of tree species, suitable to our regions changing climate. The guide lists over 115 species trees existing in the region and considers attributes like: useful life expectancy, watering requirements and resilience to droughts, pests and severe weather events. This is a 'living' document which can be updated as we increase our gain more knowledge.

South Australian Power Networks (SAPN) appropriate species selection under powerlines

In April 2021, SAPN formed an Advisory Committee for the [appropriate species selection under powerlines](#). The committee is supported by a local government arborist reference group for their expertise and local knowledge. Resilient East actively engages to ensure transparency to increase our ability to reach canopy targets, and, to keep as many trees on the list as possible. The Town of Walkerville is participating in a street tree trial planting project with SAPN, which includes planting almost 30 trees of two species not currently on the list.



Local Research increases our knowledge of street tree resilience to extreme heat

A December 2019 heat stress study of Ginkgo biloba found the trees were unable to cool their leaves after multiple hot days. From this, a small study was undertaken (in February 2021 by DeBill Environmental in collaboration with the University of Adelaide and City of Adelaide) to investigate the heat resilience of four commonly planted street tree species (London Plane Tree, Ornamental Pear, Common Hackberry and Desert Ash). The study found all species to have a reduced capability for water to move through the tree during warmer temperatures. Additionally, they experienced increased evapotranspiration when ambient temperatures were above 35°C, increasing loss of water. These studies indicate that some tree species may not be able to cool their leaves during longer and hotter heatwaves.

Partners taking action: On-ground Greening projects

The state government's Greener Neighbourhoods Grants (administered by Green Adelaide) provide funding for metropolitan councils to improve the liveability of Adelaide through increased greenery, reduced urban heat and an improved natural environment. This program is funded through the Green Adelaide Landscape Levy and the Planning & Development Fund.

Living Streets Pilot Project

The City of Unley has less than 3% green open space, so to achieve Council's vision of creating a more liveable City, it is important to think about how Council can change local streets to become more enjoyable places for people. The Living Streets Program enables Council to work with residents to 'co-design' local streets to help foster a greater sense of community and place and return local streets to greener, safer places where we can meet, walk, ride and even play. This approach balances the strategic aspirations and technical requirements of Council and the expectations of the community to enable small scale changes to local streets. Two streets have been through Unley's Living Streets Pilot Program to date.

Norman Terrace - reclaimed 50m² of bitumen, added over 140 new plants and 34 new trees, the street is safer for cyclists and pedestrians, included art installations at key junctions, and, a leaf inspired fence made from recycled corflute posters, in partnership with Goodwood Primary School and a community planting day.

Richards Terrace involved working with 200 units adjacent the bike route and rail corridor, who agreed to planting four more trees on their strata land. Richards Terrace also reclaimed 77 m² of bitumen, added 400 new plants and 24 trees (on public land) and community street art, improving the streets amenity.

Cooling Campbelltown

Campbelltown City Council is addressing priority areas for cooling within the city. Different approaches were used on a few high priority streets, with the goal of increasing vegetation, shade and access to water for ongoing sustainability and climate resilience outcomes. To increase green space in tricky places, 'tree verges' were created in the road. To protect existing mature trees, verge space around trees was increased. In total, Council planted 550 plants and trees, 26 street trees, and over 20 water sensitive design elements (i.e. street tree inlets).



Supporting Community greening

Greening is a practical action that people can take to reduce the impacts of climate change. Our work has shown greening on public land is simply not enough to meet local and state targets. It is therefore vital that we continue our efforts on educating the community, fostering connections to nature, and supporting planting on private land. The action taken today will significantly influence our region's ability to remain liveable.

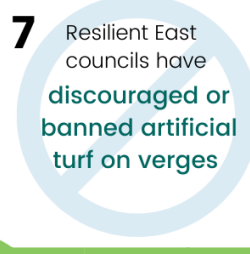
6,670 trees & 62,430 plants

Added to our urban streets, parks and creek corridors



815 trees & 10,000 plants

provided to residents through giveaways and vouchers



7 Resilient East councils have **discouraged or banned artificial turf on verges**

4 Resilient East councils have **developed verge guidelines**



Verge Programs

A greening verge program is a perfect example of council and communities working together towards a shared goal. Resilient East partner councils offer support for community members to green verges, either in a formal or informal capacity.

To compliment the benefits of the verge program, and as a result of the urban heat mapping project, most have banned the installation of artificial turf on the verge, and others discourage it. In addition, City of Burnside states that the development of the verge must not result in a net increase of more than 20% impermeable material (where practicable).

The **City of Unley's Greening Verges Incentive** is a highly successful program that has been running for four years and has increased green cover by 5730m². The Initiative supports residents to green and care for the verge in front of their property. Residents are provided with a planting guide, examples of demonstration verges and a co-contribution arrangement (for successful applicants). This co-contribution arrangement involves council removing existing dolomite and replacing with loam, (66 converted in the 2020/21 round). Residents supply and plant verge-appropriate species and ongoing care for the verge. Other councils (such as NP&SP) have developed similar programs in 2020/21.

Tree Incentives and Vouchers

To encourage planting on private land, some councils offer a 'tree voucher' incentive to residents. Stipulations on the voucher ensure that it does contribute to the purchase of a tree (i.e. it must be able to grow to a minimum of three metres at maturity). In addition, to assist the local economy, the voucher is available for use at a local nursery (within council boundaries).

City of Burnside invited residents to be part of growing the urban forest for a second year. Council gave residents, schools and community groups a voucher for a free advanced native tree to plant on private land, plus tips to help it thrive. Council collected data on the most popular species chosen. One resident said *'We had an empty spot at the bottom of the garden, so we got a voucher and went to Belair Nursery. I chose it because it is pretty and not too big'*.



9 Green Adelaide Grassroots Grants



for community greening and biodiversity projects

18

council programs, events or initiatives support greening on private property



7 council initiatives that build value of public greenspace & trees



50+



Nature Festival events held in our region

Plant and Tree Giveaways

Councils have been hosting plant and tree incentives and giveaways for many years as an economic and easy way of increasing greening on private land, ultimately, increasing overall local greening.

City of Tea Tee Gully encourages residents to 'get growing' and to bring the 'bush to your backyard' with their long-standing native plant sale program. For \$15, residents (400 in total) can purchase a voucher that is redeemable for 15 native plants (a saving of \$30).

City of Prospect held their first native plant giveaway. It successfully booked out, providing 250 residents with eight native plants in a pack. Each pack contained a variety of drought tolerant plants that provide food and habitat for local wildlife.



Green Adelaide – Grassroots Grant

Green Adelaide maintains an annual Grassroots Grant program which supports individuals, volunteers, community groups and others to deliver local projects that contribute to the environment. It is an opportunity for Green Adelaide to empower communities to create a cooler, greener, wider and climate resilient city. The program encourages partnerships and benefits across communities. Several grants were received in our region this year, one in particular with specific greening objectives. The Kent Town Residents Association received a Grassroots Grant and support from the **City of Norwood Payneham and St Peters** to green four verges in Grenfell Street, Kent Town.

Significant and regulated trees

The benefits associated with trees begin the moment a young tree is planted. Mature, larger trees however, provide greater benefits compared to multiple younger or smaller trees. Regulated and Significant Trees are particularly important in our region. The *Planning, Development and Infrastructure Act 2016* and supporting regulations state that any 'tree damaging activity' to a Regulated or Significant Tree is considered 'development', and therefore, requires development approval.

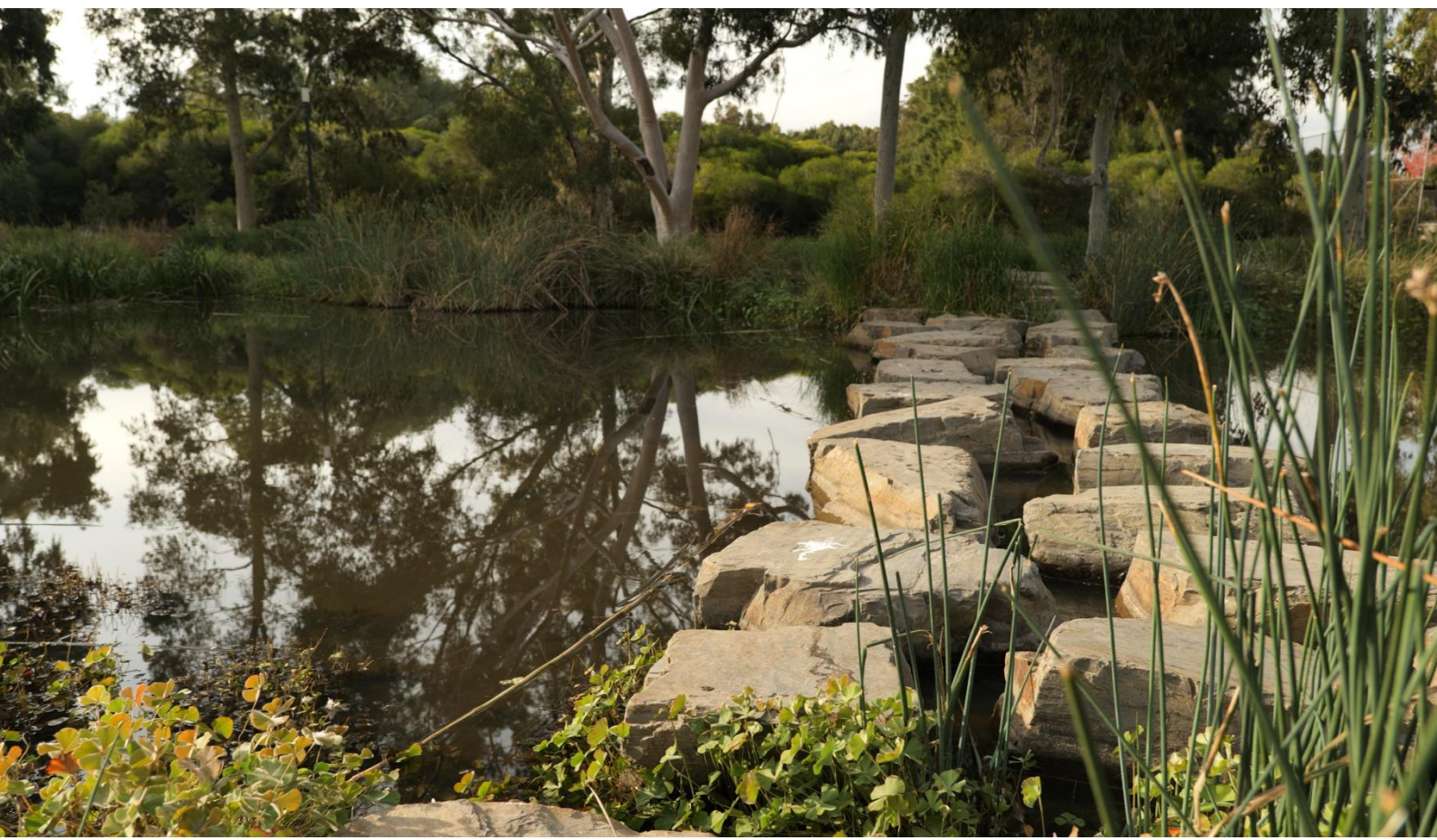
City of Burnside updated their Regulated and Significant Tree Policy in December 2020. This is to provide financial assistance to community members for the maintenance of Regulated and Significant Trees. A reimbursement of up to 75% of the cost to maintain the health and safety of the tree, capped at \$2,000 per tree, is available. Grants are offered while funds remain in the budget allocated for that financial year. Consideration may be given to a higher amount of funding, up to \$3,000, at the discretion of Council, depending on the cost of the works, amenity or ecological value.

Community engagement

It is advantageous for councils to engage with communities to increase awareness and on-ground action of urban greening. Effective engagement not only has an impact on those we communicate with, but has the ability to create 'champions' who spread the word further. Community engagement in our region has addressed communication barriers, increased awareness and involvement and helped to successfully implement greening strategies.

Campbelltown City Council Cool Verge Forum. Council hosted an online 'Cool Verge' community forum in March 2021 for residents who were interested in understanding the requirements for developing their verge.

The City of Unley Museum hosted a fun and interactive exhibition, '**Trees: Who gives a root?**' between March and April 2021. The museum was transformed into a 'forest' with trees, green lighting and sounds of the forest. Participants learnt interesting facts about trees (taken from the Tree Tag project), programs and initiatives, interacted with touchscreens and smartphone applications, plus more.



3.2 WATER SENSITIVE URBAN DESIGN (WSUD)

The WSUD Working Group led the implementation of actions to deliver on our **WSUD Mission Statement and Strategies**: Collaboration, Urban Form, Smart Investment, Community & Developers, Monitoring & Reporting, and Governance.

Last year, the group focused on research, data collection and monetising the benefits of WSUD. This year, the focus shifted to ensuring information reaches the community and decision-makers, and to increase the capacity of our staff to incorporate WSUD into their work.

Collaboration

The WSUD Working Group regularly shares knowledge, develops projects, creates key messages for policy development and support, and engages with [Water Sensitive SA \(WSSA\)](#), SA Water and other stakeholders.

WSSA is SA's own WSUD capacity building program, which drives success in the delivery of a cooler, greener, wilder and more resilient Adelaide. Core funding for WSSA is provided by Green Adelaide, with additional funding provided by local and state governments and industry partners. This includes six Resilient East partner councils.

WSSA supports our goals and we collaborate directly through our working group. Examples of collaboration are:

- analysis of the Planning and Design Code (PDC) water policies;
- training for planners on incorporating PDC water policies;
- engagement with development industry;
- training facilitators of community education sessions on WSUD;
- standard drawings of WSUD to suit different fit-for-purpose scenarios;
- inspection and maintenance guidelines of WSUD assets; and
- tailored sessions with WSSA partners.

Partnering with its stakeholders, customers and the community, [SA Water](#) is working to become a proactive environmental leader, taking action to adapt to climate change and minimise its environmental footprint. One of the ways the state-wide utility is doing this is through partnerships with local government to create [cool, green open spaces](#), and provide [practical advice and easy to use data](#) to minimise the impact of tree roots on underground pipes.

Developing Water Communications and Capacity Building Project

Resilient East received matched funding from Green Adelaide's Water Sustainability Grant to develop a "Water Communications and Capacity Building Program". We built on previous projects that focused on building the 'case' and normalising WSUD in our region ([WSUD for a Resilient East \(2020\)](#); [Monetising the benefits of WSUD and Green infrastructure \(2019\)](#)) to create our Water Smart Campaign. This program was a collaboration of the Resilient East WSUD and Communications Working Groups and individuals within our partner organisations, including Water Sensitive SA, DEW and Green Adelaide. This is ongoing into the 2021/22 financial year.

Water Smart Campaign

To highlight the benefits of streetscape WSUD, we developed a public educational and engaging campaign to promote the range of projects undertaken in our region that support vegetation and adaptation. The campaign also set out to encourage 'water smarts' and planting on private land. Launching later in 2021, the campaign features interactive signage, with simple graphics, videos and social media posts explaining WSUD features and actions people can take at home. Content was designed to be used and shared by Resilient East (and partner) communications channels.



Staff Capacity Building

Verge soaker (B-Pod) tour

In August 2020, staff toured the City of Burnside with David Kenworthy (Coordinator of Capital Projects) who developed the “B-pod”, a type of verge soaker (a kerbside infiltration system that links household downpipes to the verge to water the plants). As a result of this, several councils have since installed or are working to install these systems.

Design & maintenance of WSUD assets

Staff from our region (30 in total) received upskilling on the design, construction and maintenance of WSUD assets, with a focus on raingardens, sediment basins and wetlands. The course included site inspections with local experts to understand design features, the construction processes and maintenance regimes. Attendees reported feeling equipped to take action and review the effectiveness of raingardens (in audits, routine maintenance and reinvigorations). This upskilling and training session was beneficial and will help us to protect our communities, assets and natural environments better.

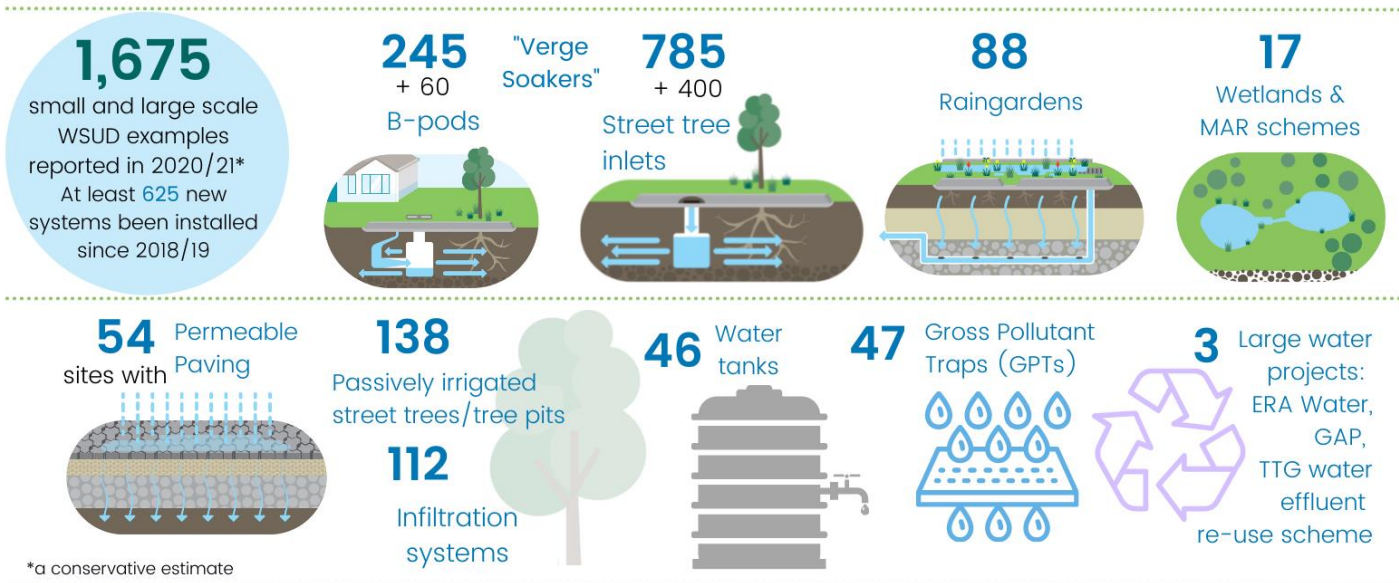
Permeable paving seminar

As permeable paving becomes more desirable, there are more opportunities for ongoing sharing of knowledge, local examples, tools and demonstrations. WSSA hosted a dynamic session on permeable paving, which showcased the ‘norming’ of the various products and broad uses of it, from industrial to high pedestrian areas around the world. The seminar shared research and tools to better estimate the depth of filtrates and to highlight best practice design, installation and maintenance tips. The [resources created by WSSA](#) are invaluable and are available beyond those who attended.



Delivering on-ground WSUD projects

There are over 1,675 working examples of WSUD across our region. There are large-scale initiatives, including multiple Managed Aquifer Recharge (MAR) and wetland systems, and many small-scale installations capturing water from kerbsides and residential roofs, which have almost doubled in capacity over two years. WSUD is becoming mainstream with at least 625 new systems been installed in the last two years, many projects in the pipeline, work receiving funding, installations as part of regular programming and fit-for purpose analysis. We continue to improve our analysis on the extent and performance of WSUD in Resilient East.



Partners planning for on-ground WSUD projects

Green Adelaide's Water Sustainability Grant is a program focused on helping individuals, community groups, businesses, schools and councils to deliver projects that help protect and better manage water resources across Adelaide. In 2020/21, five Resilient East projects were successful in receiving grants.

Tea Tree Gully – Montague Road Reserve – Water Management and Revegetation Project

This project plan incorporates WUSD initiatives to divert, capture, detain and treat stormwater before it enters Dry Creek. It also supports tree and greening establishment for a wildlife corridor with increased biodiversity. A detention basin will reduce peak flows from the surrounding stormwater catchment, address localised flooding and improve water quality entering Dry Creek, bringing broader environmental benefits across the area. The site will connect to Council's recycled water scheme to establish and enhance greening and remove the reliance on mains water.

Norwood Payneham & St Peters – Burchell Reserve upgrade design incorporating water sustainability

The designs were completed for the upgrade of [Burchell Reserve](#), St Peters. It incorporates stormwater detention, treatment, infiltration, re-use and the capturing of roof run for public toilet flushing. Elements incorporated in the design include a detention tank, rainwater tank, bio-retention basin, levee and gross pollution trap (GPT).

The WSUD approach to Burchell Reserve upgrade will enhance infiltration, the health and resilience of reserve vegetation, greening and cooling benefits to park users and reduce the reliance of mains water for irrigation. Increased downstream flood protection builds community resilience as the frequency of high-intensity short-duration rain events increase, and, as urban infill increases impervious areas. The bio-retention basin and rainwater tank for toilet flushing are modelled to reduce discharge flows by 300kL a year to receiving waters. The detention tank will maintain the current peak flow in a storm event, while reducing the impact of flooding.

The bio-retention basin will be a key feature of the reserve with educational signage planned to detail the features incorporated in the reserve. Climate resilience aspects are incorporated, with stormwater modelling factoring in a 7% increase in rainfall intensity due to climate change.



Partners take everyday action installing WSUD

Prospect: Devonport Terrace Streetscape Upgrade

Permeable paving was installed in the carpark on Devonport Terrace as part of the Charles Cane Reserve Upgrade. Instead of replacing an ageing spoon drain with another that would continue to divert water into the stormwater system, permeable paving was installed. This has reduced issues, like water ponding, and has improved greening by directing water to nearby street trees.

Walkerville: Soaking up water in the verges

A new B-Pod System (verge soaker) was installed at Dutton Terrace, Medindie to help resolve a current groundwater issue. Three B-Pods were installed to irrigate approximately 200m² of verge and four street trees. A new 200m permeable footpath was constructed along Warwick Street, Walkerville. This footpath included the construction of a 300mm deep aggregate layer to store stormwater and improve soil moisture. The footpath was the final touch on a streetscape redevelopment which included new garden beds, fencing and a school crossing.



3.3. RESILIENT COMMUNITIES

Community initiatives

Climate Ready Schools

The Climate Ready Schools Program was created in 2018 through a partnership between Green Adelaide and the Resilient South RCP, and is now implemented across Adelaide schools.

In the program, climate change is integrated into the school curriculum to provide learning opportunities for students, professional development for teachers and a clear course of action that schools can take in order to be proactive in locally adapting to climate change.

A school in our region joined the online delivery model in 2020 (created to accommodate COVID-19), and in 2021 the program expanded to partner with us and engaged several schools. We support the program through promotion, presenting and engaging with students and teachers on what Resilient East is doing and participating in the teachers professional development and end of year expos. Resilient East proudly supports this program as it provides the opportunity for student-led climate ready projects in our region.

Climate Ready Champions

Resilient East partnered with the Australian Red Cross to deliver [Climate Ready Champions](#) training sessions for community members in our region. Training was hosted at Campbelltown City Council, and brings our total regional champions to 44. Climate Ready Communities training empowers people to understand the risks they currently face, the way these are changing, and what they can do to build personal resilience, and the resilience of their communities. Champions from our region enjoyed ongoing casual catchups that provide peer-support and collaboration for projects, ideas and ongoing learning. Many remain active and promote the climate ready learnings.

Climate Ready workshops

Speed dating for trees

Chris Day (Every Day Sustainable Living) took participants through different options for trees in small to medium gardens. Chris used a dating approach, where participants were asked to think about their likes and dislikes, such as using trees for privacy, shading, fruiting, low-maintenance, beautifully flowering trees, etc. The workshop was presented by KESAB Environmental Solutions and hosted by the City of Prospect, on behalf of Resilient East.

Water Smart Solutions for your Backyard

This training session was developed by WSSA and used local community facilitators. Participants received a snapshot of a variety of things that could be done in backyards to capture, reuse and manage water. NP&SP hosted the session online in August 2020 with Burnside adapting the content to host a bus tour for residents. The City of Prospect hosted a session in May on behalf of Resilient East.

Healing by learning from the past – Bio-cultural burn in the Adelaide Park Lands

A bio-cultural burn was held in Carriageway Park, Tuthangga (Park 17) in May 2021, the first in over 240 years. A groundbreaking and nationally significant project, where the partnership between the Kaurna community and the City of Adelaide demonstrated a strong commitment to meaningful reconciliation through the reintroduction of traditional fire management practices.

Also known as fire-stick farming, cultural burning is a method that has been used by Aboriginal people to manage land for over tens of thousands of years. The bio-cultural burn was a historic, moving and joyous occasion. It was the first time Kaurna people were able to publicly practice cultural burning techniques, since many of their customs were displaced following European colonisation. Other councils and land managers are interested to host a bio-cultural burn for their community.

Communications

Resilient East plays a key role in supporting partner councils to engage communities and stakeholders to increase capacity in understanding, managing and adapting to the impacts of climate change. We provide a consistent approach regionally to share information, action, resources and achievements.

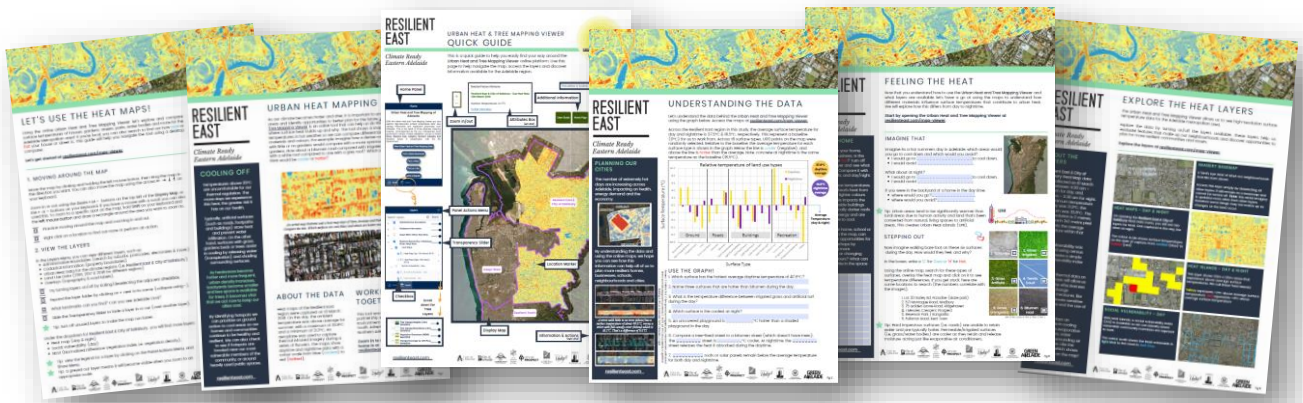
Resilient East seconded a communications professional from a partner council to continue developing our Communications Strategy, and to guide a large communications piece, the Water Smart Campaign. The Campaign also built council capacity to communicate and engage effectively on climate change and Resilient East to their own communities and stakeholders.

Our approach:

- **Internal communications** – regular reporting, communications for staff, maintain shared project management tool,
- **Communications toolkit** – online internal platform for partners to view and download up to date and consistent campaign materials,
- **Communications campaigns** – external content – small topic related communications, annual strategic campaign, Resilient East promotions,
- **Resilient East online channels** – website, LinkedIn, YouTube, e-news.

Urban Heat Fact sheets

To assist the public to use the [Urban Heat and Tree Mapping Viewer](#), Resilient East developed six fun and interactive [Urban Heat Factsheets](#). The factsheets contain information and activities to help navigate the online tool, understand the data, and take-action on private property.



Celebrating council and communities taking climate action

The City of Burnside adopted a Climate Change Policy in 2020. Shortly after, Council developed a goal to become carbon neutral by 2030, with a detailed plan to get there. These actions framed the launch of a video series called #BurnsideNatural2030. The series features council staff explaining council initiatives to promote council action and inspire change. The episodes feature LED street lighting, tree planting, Council's annual environmental sustainability scorecard, [and more](#). On 11 April 2021, the City of Burnside held their inaugural Environment Day Awards to acknowledge and celebrate action taken by local community members. Award categories included: Local Sustainability, Unsung Heroes, Waste Innovation and the Climate Change Challenge. Award winners received trophies, wooden bowls crafted by a local wood turner. The sustainable trophies were created from local trees, a fallen red gum branch and an olive tree, that required trimming regardless of the awards.

#ResilientEast
Online Communications 2020/21



Followers = **227** Created in April
Posts = **18**

38 Stories / resources added to website
94 Subscribers to our first e-news sent in April
24 Resources created for partners to use and share
3,112 unique website visitors

resilienteast.com

linkedin.com/company/resilienteast

#ClimateReady

#ResilientEast

3.4. PLANNING REFORMS AND ADVOCACY

Resilient East partner councils continued to advocate for the strengthening of climate adaptation measures for state government reform and inquiries, including the Planning & Design Code Phase 3, the draft *Green Adelaide Regional Landscape Plan 2021-26*, and the Natural Resources Committee Parliamentary Inquiry into Urban Greenspaces.

Submission on Phase 3 of the Planning and Design Code

Resilient East proactively engaged on the development of Phase 3 of the Planning & Design Code (PDC) Draft 2. This included discussions and a workshop with the State Planning Commission, where challenges and opportunities were raised regarding tree offset schemes, changes WSUD policies, energy efficient design, Significant and Regulated Tree policies, development of the regional plans and Code review timelines.

Resilient East made a submission which provided feedback on the draft PDC to support our objectives for improving climate resilience and adaptation in SA. All submissions are available on our website (under 'resources').

Outcomes include:

1. **Inclusion of the minimum one tree per dwelling policy** – PDC adopted the Urban Tree Canopy Overlay, together with a Practice Direction mandating the conditions of these requirements. Attorney General Department Planning and Land Use Services and Green Adelaide are working on an urban infill greening guide, to support developers, builders and planners to meet, and go beyond, minimum targets.
2. **Tree offset scheme** – Resilient East discussed with the State Planning Commission the need for limited ability to dispense tree planting requirements and for an appropriate dollar value to be charged in lieu of tree planting. PDC generally reflected our position, however, further feedback outlining improvements will be provided at the next opportunity.
3. **Significant and Regulated Trees** – the initial draft of the PDC was reviewed in response to receiving feedback (from Resilient East and others) that Significant and Regulated Tree policies were poorly reflected in the Code.
4. **Water policy** – PDC retained broad outcomes for quality and quantity of stormwater runoff, however, the quantifiable requirements were removed for Performance Outcomes in the final version of the Code. In practice,



this reduces the effectiveness of the Code policy and results in inconsistencies in planning policy for water management in urban and rural areas.

5. **Hazards** – Resilient East supports and acknowledges the work commenced by the Commission to undertake consistent spatial mapping to address bushfire and flooding risk.
6. **Biodiversity** – our advocacy focussed on prioritisation of mapping = for areas of significant environmental value, and, for this to be included on the Urban Heat and Tree Mapping Viewer.
7. **Energy** – Resilient East advocated for policy changes for energy efficiency relating to non-residential buildings as part of Generation 1 of the PDC. Such as, better sustainable outcomes, including preventing the overshadowing of solar panels and solar hot water; sought to implement policy reform for energy efficient policies relating to non-residential building types as part of Generation 1 of the Code.

Since the release of the Code in March 2021, councils have focused on transitioning to the new requirements and have sought to identify where Code Amendments are required with ongoing engagement with the Local Government Association.

Resilient East submissions do not reflect formal council consideration. However, our input is intended to complement the specific planning feedback from participating Councils and provide a perspective from climate change practitioners.



Natural Resource Committee Parliamentary Inquiry into Urban Green Spaces

In May 2020, the [Natural Resources Committee](#) (NRC), resolved a Parliamentary inquiry into urban green spaces, and in particular the benefits, opportunities and challenges associated with strategic planning, biodiversity, water management, primary production and climate change projections. Resilient East entered a [submission](#) to this inquiry in July 2020. Steering Group representatives were requested to present to the NRC in December 2020. A full transcript of this meeting is available on Hansard, however our key points were:

1. retaining existing greening as a higher priority than finding space for planting new;
2. future proofing to replace with 'climate ready' rather than 'like for like', planning well and raising minimum standards; and
3. leadership of mapping to coordinate information to plan, track and manage collective efforts, and strategically increase the space available for increasing urban greening.

On 27 May 2021, the NRC [tabled their findings and recommendations in a report](#) to Parliament. This included several recommendations from Resilient East.



Planning and Advocacy – Sustainable Development Forum

In June 2021, Campbelltown hosted a Sustainable Development Forum to bring together representatives from State and Local Government and the development and sustainability sectors to explore how to facilitate or incentivise sustainable development to achieve better outcomes. Some of the top obstacles for sustainable development highlighted were:

- lack of rigor and enforcements for minimum standards;
- lack of awareness and knowledge; and
- misconception of customer expectations and marketing.

Existing and new ideas were discovered through this workshop to incentivise better sustainable outcomes moving forward.

Significant and Regulated Tree legislation Survey

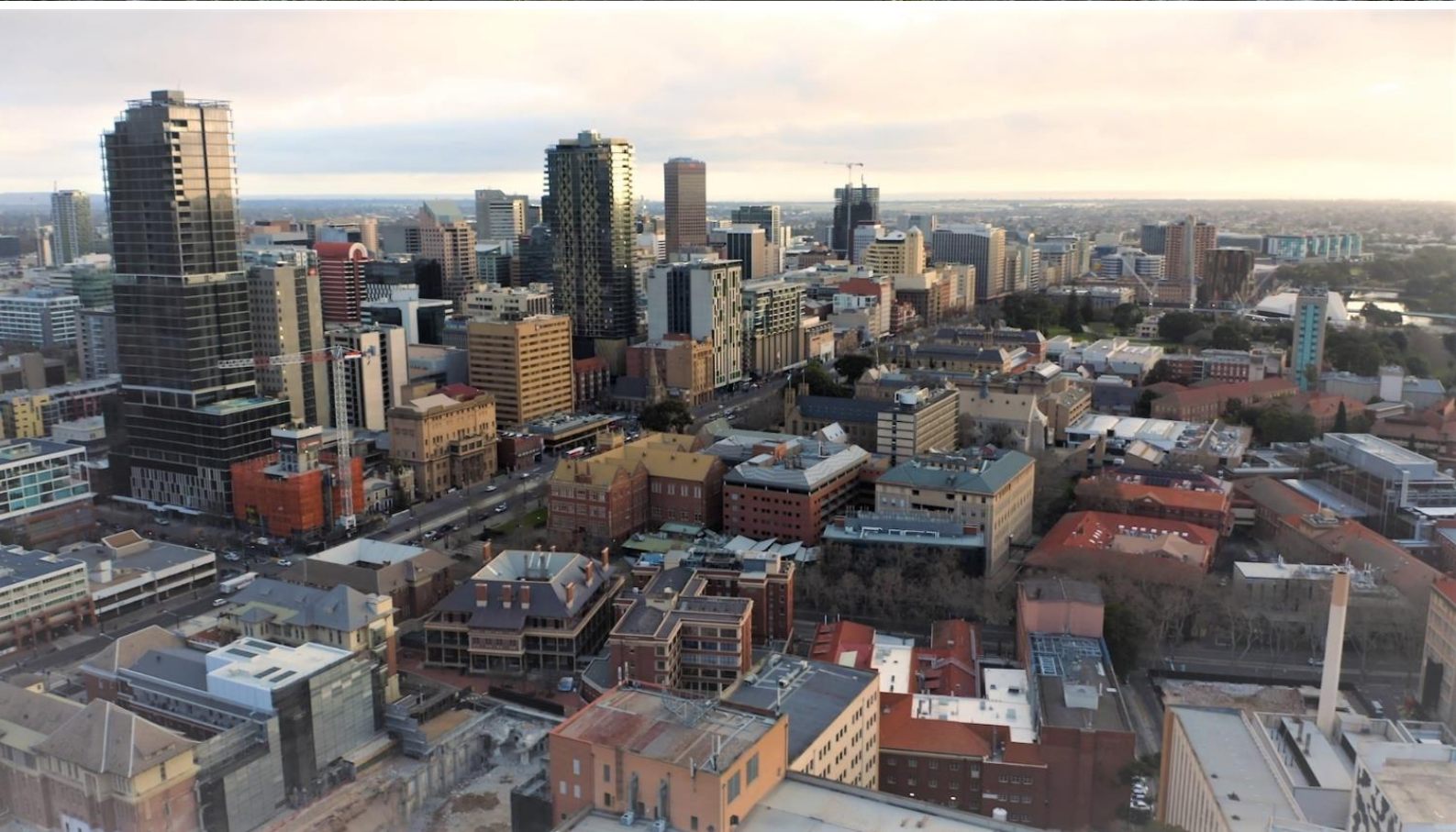
Resilient East conducted a survey of staff working with Significant and Regulated Tree legislation to assess the current tree protection framework. From the eight councils, 37 participated. The results aim to facilitate internal engagement and provide guiding messages and advice for when the legislation is reviewed.

Green Adelaide

Since the formation of the Green Adelaide Board in July 2020, Resilient East has been heavily involved through various engagement processes and supporting grant applications from partner councils. Five of our councils hosted Green Adelaide Board meetings, featuring greening related presentations from senior council staff.

- Green Adelaide's Draft [Regional Landscape Plan 2021-2026](#): Pathway to a cooler, greener, wilder, and climate-resilient Adelaide that recognises our unique culture – Resilient East was involved in developing this Plan, through both local government and broader consultation opportunities.
- Green Adelaide Practical Greening Strategies Subgroup – Involved in workshop providing input to Regional Landscape Plan, including presenting along the theme of 'creating more spaces for trees' and the contested underground landscape.





3.5. CLIMATE RISK

The cost of the physical, legal and transitional impacts of climate change are large, but not yet fully understood or quantified. Resilient East understand the value in us investigating, quantifying and mitigating the different forms of these risks.

Assessing climate change governance risks within councils

In October 2020, executives from partner councils were invited to a presentation summary by the City of Adelaide on their climate risk process. Following this, Campbelltown City Council and the Cities of Prospect, Unley and Tea Tree Gully (and the City of Salisbury) participated in a Climate Risk Governance Assessment.

Over 350 councils in Australia have been assessed using Climate Planning's [Informed.City™](#) platform and methodology. Outcomes included:

- **268** staff across our four councils participated in climate risk governance surveys;
- **37% said they** could comfortably incorporate or consider climate change adaptation in their work, and **47% reported** having limited knowledge;
- **53%** said that climate change is currently impacting council's operations and procedures; and
- **26%** said it will impact us within the next 15 years.

The top five options staff identified how climate change thinking could be incorporated into their roles were:

- knowing what to do [to incorporate climate change into their work];
- understanding anticipated impacts for my department;
- understanding what other councils are doing;
- knowing who is managing the issue in council; and
- local climate projections.

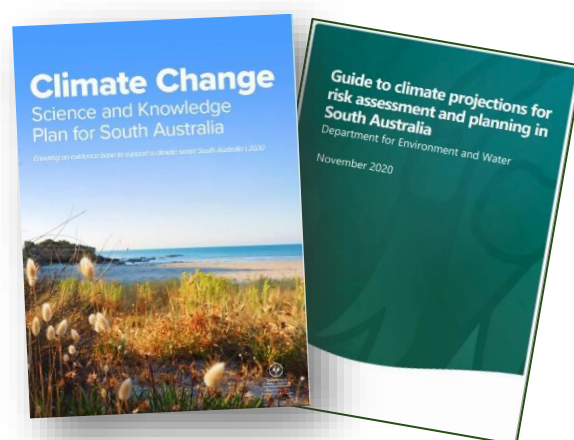
Common recommendations for participating councils (which can be addressed regionally):

- support developing a climate policy;
- capacity building for staff (inductions, training, and how to incorporate into different work functions);
- incorporate associated risks into the Monitoring, Evaluation and Reporting Plan; and
- incorporation of climate risk into Elected Member mandatory training, to provide a base level of understanding of risks and obligations.

Improving knowledge on climate risks in SA

State government released two documents to support the understanding and consideration of climate risks:

- The [Climate Change Science and Knowledge Plan for South Australia](#) identifies critical scientific information needed to inform climate change risk assessment, mitigation, planning and adaptation responses in SA. It provides a comprehensive plan to prioritise, coordinate, translate and deliver climate science and information.
- The [Guide to Climate Projections for Risk Assessment and Planning in South Australia](#) provides a summary of the likely changes to key climate variables (such as temperature, rainfall, evapotranspiration, days of severe fire danger and sea level rise) under different greenhouse gas emissions scenarios. The document draws on the most up-to-date projections for SA and can be used for climate change risk assessment, adaptation planning and community engagement.



Addressing climate risks

Progressing actions from 2019/20 governance assessments to address risks, City of Adelaide

Throughout the year, City of Adelaide (CoA) has progressed the recommendations from its Climate Change Governance, Physical and Transitional Risk Assessments (2019/20), including:

- forming a multi-disciplinary staff working group to oversee the development of a Climate Change Risk Adaptation Action Plan;
- conducting nine workshops and additional meetings to facilitate drafting 95 actions, to be undertaken over five years;
- finalising a draft Action Plan for, presentation to the CoA Risk and Audit Committee, and reporting to Council for endorsement (mid Dec 2021);
- over 70% of the draft actions are predicted to be able to be actioned by existing staff capacity, and 74% estimated to cost less than \$25K (with 45% less than \$10K).

Asset management planning, Unley, Campbelltown and NPSP

Councils manage many assets and maintain them according to their estimated life expectancy. A good asset management plan (AMP) considers climate change and includes responses to direct and indirect impacts. Here are three examples that have been updated with such inclusions:

- [City of Unley \(December 2020\)](#), four AMPs: Buildings, Open Space, Stormwater, Transport.
- [Campbelltown City Council \(November 2020\)](#), seven AMPs: Bridge, Building, Bus Stop, Footpath and Walkway, Open Space, Stormwater and Transport.
- [City of Norwood, Payneham & St Peters \(January 2021\)](#), 4 AMPs: Building, Civil, Stormwater, Recreation and Open Space.



3.6. MONITORING AND EVALUATION

A key priority action in our Adaptation Plan is to develop a regional Monitoring Evaluation and Reporting (MER) Framework. An undergraduate internship through the University of Adelaide’s Arts Internship program undertook preliminary research into existing adaptation plans around the country. Whilst one or two regions interstate had started to develop monitoring process, none were complete or ready to share, therefore Resilient East would be one of the first in Australia.

The focus of our MER is on tracking and evaluating the overall progress of our Action Plan. Development of the framework began in March 2021, where a program logic model was created (Figure 4). A baseline survey was distributed to Councils. Our first year will test the consistency and ease of collecting inputs and improvements over time, some of the data is used throughout this report.

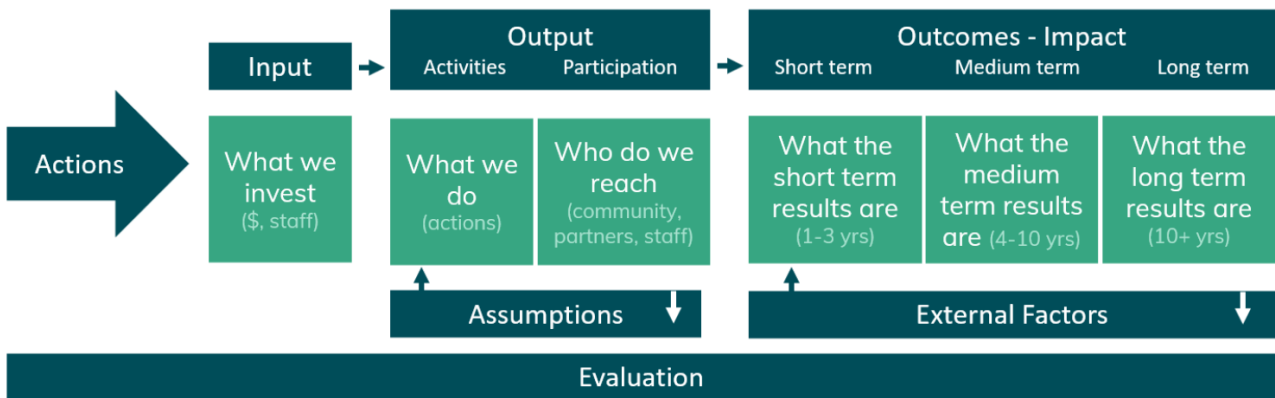
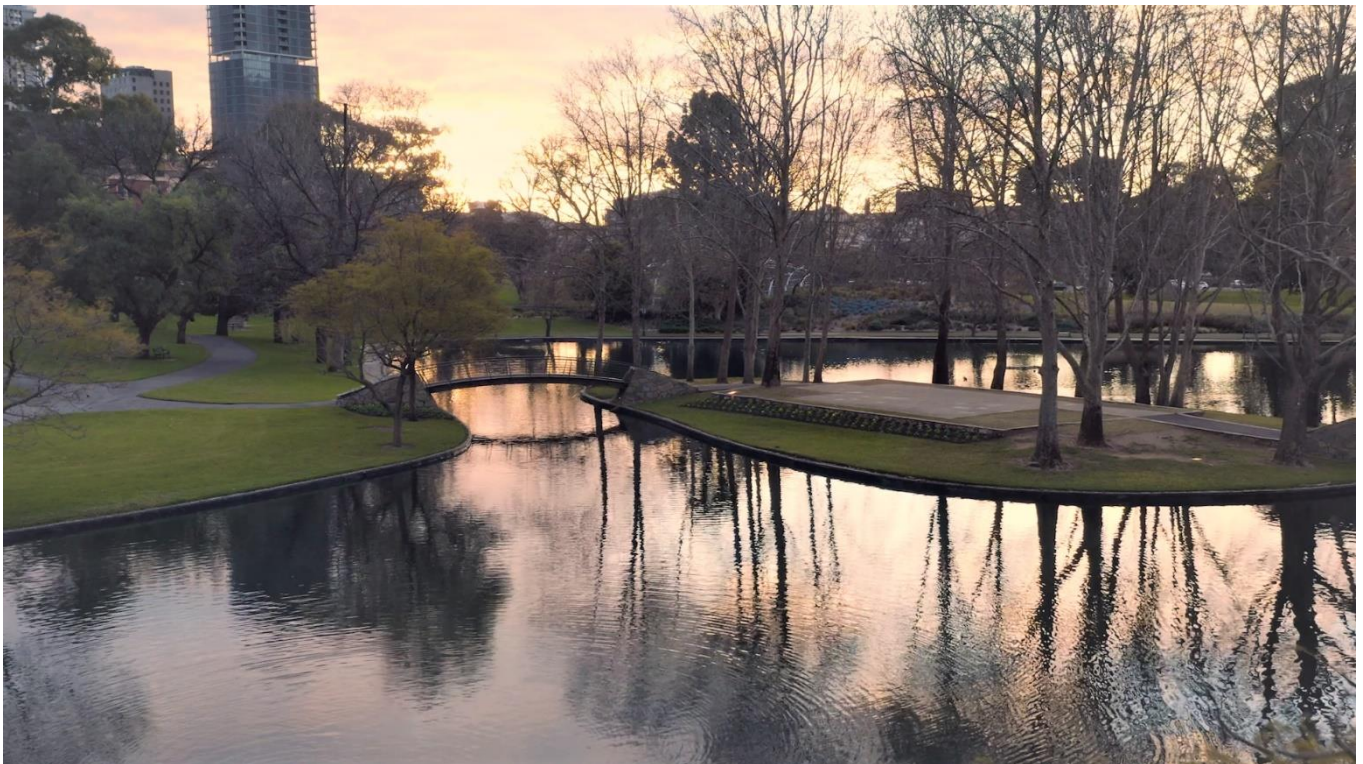


Figure 4: Program logic model created for the Resilient East Monitoring, Evaluation and Reporting Framework (URPS, 2021).



4. OUR GOVERNANCE

Coordinator Role

The Resilient East Coordinator is pivotal in enabling and delivering on our Adaptation Plan and Sector Agreement, especially as we operate across eight councils and state government.

Ongoing support

In December 2020, state government released the [South Australian Government Climate Change Action Plan 2021-2025](#), which contains a commitment to support Regional Climate Partnerships [6.4 Support Regional Climate Partnerships to deliver local adaptation and mitigation projects].

During 2020/21, the Green Adelaide Regional Landscape Plan 2021-2026 was in development with the intent to continue to support Resilient East, and that funding options would be investigated for 2021/22 and beyond.

- 5** Steering Group
- 7** WSUD Working Group
- 8** Canopy & Heat Working Group
- 5** Communications Working Group

2020-2021 Steering Group Members

Resilient East Project Coordinator - Bec Taylor

<p>Resilient East Steering Group Chair (2020) Simon Bradley Director - Infrastructure and Environment Di Salvi (2021) Environment & Sustainability Officer</p>	<p>Resilient East Steering Group Chair (2021) Ben Clark Group Manager Planning, Assets and Infrastructure</p>
<p>Maria Zotti Manager Park Lands and Sustainability</p>	<p>Resilient East Deputy Chair (2021) Kat Ryan Coordinator Environmental Projects & Strategy</p>
<p>Philip Roetman Coordinator Environmental Sustainability</p>	<p>Andrian Wiguna General Manager Infrastructure Services</p>
<p>Jon Herd Environmental Sustainability Coordinator</p>	<p>Eleanor Walters Manager Urban Planning & Sustainability</p>
<p>Olessya Vitkovskaya Principal Policy Officer, Climate Change Department of Environment and Water</p>	<p>Louisa Halliday Manager Planning & Performance (non-voting member)</p>

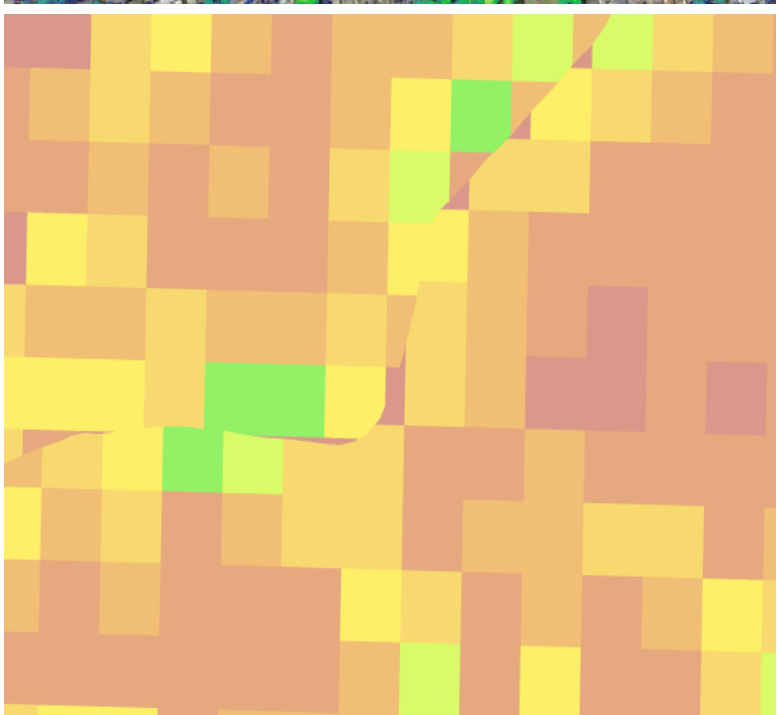
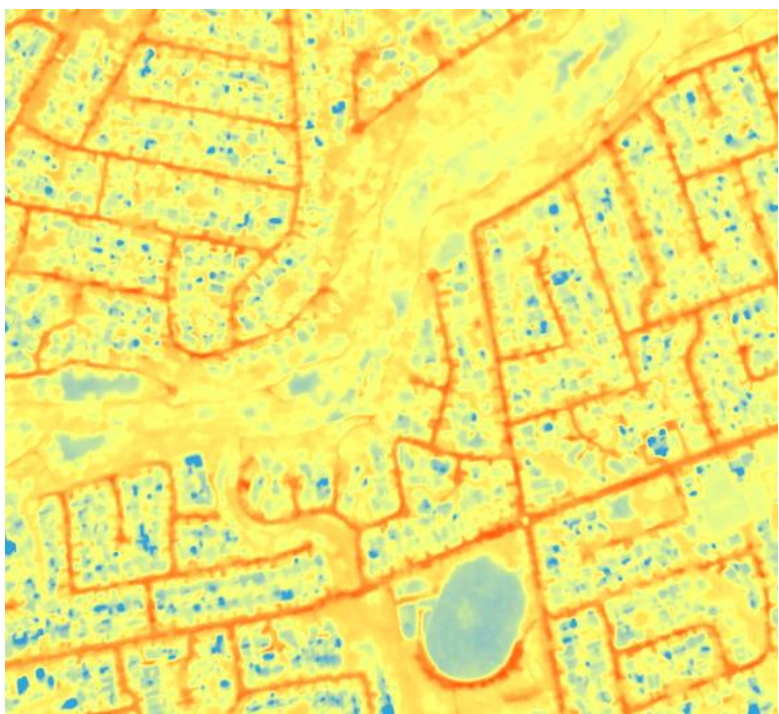
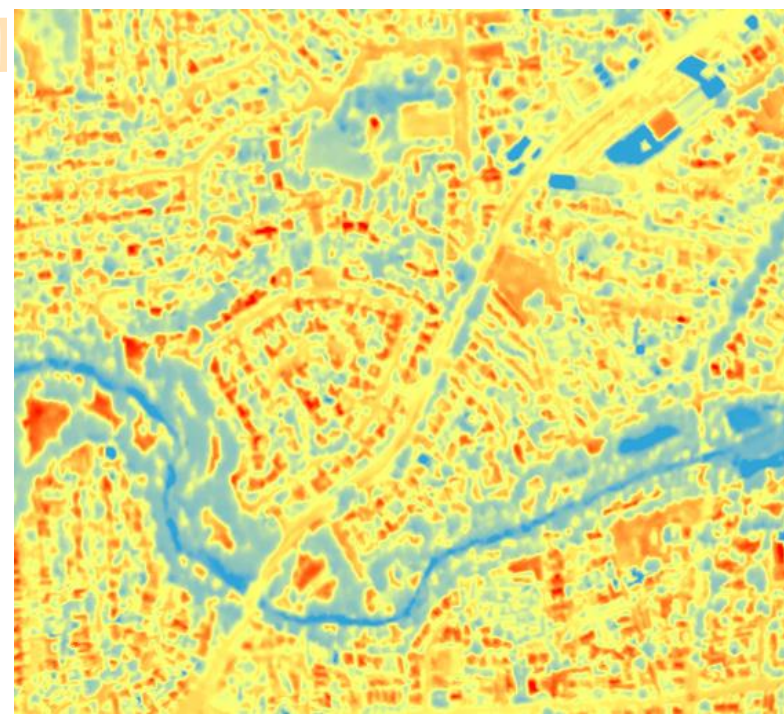
5. ANNUAL FINANCIAL STATEMENT

The Resilient East final budget for 2020/21:

2020/2021 Actual Income	Amount \$ (ex. GST)
Carry over funds from 19/20	\$ 88,077.50
Council partnership contributions (equivalent of \$7k each, ERA councils from ERA budget)	\$ 56,000.00
Green Adelaide Water Sustainability Grant, received in November 2020: Coordinator (\$65k) & WSUD Communications project (\$10k)	\$ 75,000.00
Income from subsidised WSUD Training and Climate Ready Champions Training	\$ 984.00
Total	\$ 212,984.00

2020/21 Budget Expenditure	Amount Budgeted (ex. GST)	YTD expenditure (ex. GST)	Unspent committed (ex. GST)	Unspent uncommitted (ex. GST)
Project Delivery	\$ 147,016.50	\$ 137,635.86	\$ 4,987.30	\$ 4,393.34
<i>Coordinator Role</i>	\$ 80,137.72	\$ 80,236.78		\$ 4,393.34
<i>Communications and project support</i>	\$ 48,831.38	\$ 48,831.38		
<i>Consultants (Action Plan, MER Plan)</i>	\$ 8,567.70	\$ 8,567.70	\$ 4,987.30	
Water Communications and Capacity Building project (\$10k Resilient East, \$10k grant)	\$ 20,000.00	\$ 8,415.00	\$ 11,585	
Resilient East Action Plan Initiatives	\$ 45,045.00	\$ 9,344.95		\$ 35,700.05
Total budget 2020/21	\$212,061.50	\$ 155,395.81	\$ 16,572.30	\$ 40,039.39
Total carryover into 2021/22*	\$ 56,666.69			

*combination of committed carryover relating to final delivery of project grants and continuation of coordinator role.



1. FUTURE WORK

Key priorities for 2021-2022

- 1) Projects and resource development with partners such as Green Adelaide to encourage more **community greening** and **support for existing trees**
- 2) Deliver **Water Smart campaign** to increase awareness and education of water sensitive urban design for both public and private realm
- 3) Complete the regional **Monitoring, Evaluation and Reporting** plan to understand what we have and how we can calculate progress – develop projects – such as evaluation of the way the partners work together, climate change community survey
- 4) Progress actions identified in Climate Change Governance Assessments to decrease **climate risks** for councils
- 5) Work with Green Adelaide on the recapture of **LiDAR and Heat mapping data**, and preparation of analysis and communications work required
- 6) Contribute to ongoing **planning and policy reform** opportunities, including implementation of State Government's Climate Change Action Plan, *Green Adelaide Regional Landscape Plan 2021-2026* and the development of the Urban Greening Strategy
- 7) Continual creation of resources and seeking partnership opportunities to build **community** and **asset resilience**



