GREENING MARION

PARK HOLME   OAKLANDS PARK   MARION

Practitioner's report on Greening Marion pilot

February 2021

Executive summary

Green urban spaces are good for people, wildlife and our planet. Yet they face significant challenges from development, global loss of biodiversity and climate change.

These are wicked problems. They have many interconnected causes, and no one person or organisation can solve them. There is no 'silver bullet' solution, and often attempts to 'fix' them can have unforeseen consequences.

On the flip side, improving our urban green spaces is a 'wicked opportunity', and may be 'brought into being' using a collaborative, adaptive and complex systems approach.

Greening Marion was a pilot project to trial such an approach, by delivering a Systemic Innovation Lab for the first time in South Australia, across three suburbs in the City of Marion.

Purpose

Greening Marion focused on building the capacity of the local 'greening system' (the various projects, programs, services, and activities that contributed towards greening across the pilot area), so people could work better together to achieve greener and more sustainable suburbs.

To do this, the project had a key objective to **strengthen the local greening system** by:

- improving stakeholder understanding of the greening system
- increasing stakeholder capacity, connections and collaborations to progress greening efforts
- building cohesive action across the greening system.

As a pilot project, it also had the key objective to **make a contribution to the urban greening and complexity science fields** by:

- improving project partner capacity to work in complexity and progress greening
- developing a model that can be used for wicked problems elsewhere
- shaping a vision for urban greening
- developing a community of practice for applying complex system approaches.

What happened

The project ran over 18 months (January 2019 – June 2020) and involved:

- interviewing 41 people, from 15 different organisations or formalised groups, including community groups, community enterprises, NGOs, schools, council and state government
- mapping 56 greening initiatives delivered (mostly in partnership) by 21 organisations in the pilot area (suburbs of Marion, Oaklands Park and Park Holme)
- analysing how each initiative contributed to the way the overall greening system functioned
- identifying system strengths and opportunities
- developing a range of engagement methods (information sheets, illustrated video, webpages, and presentations)
- holding a number of online workshops to share system mapping results, create a collective vision for greener, more sustainable suburbs, and support stakeholders to identify how they might contribute to strengthening the overall system.

System mapping results

Of the 56 greening initiatives mapped, most had local government (77%) or state government (63%) involvement, 21% had involvement from a formal community group, 18% included either a social enterprise or NGO, and 13% from an educational organisation.

The vast majority (89%) supported (impacted or influenced) greening in the public realm, and about 57% supported greening in the private realm (46% supported greening in *both* the private and public realms). This finding is significant because the private realm plays a very important role in urban greening, and is generally where urban areas experience loss of green space and canopy coverage from urban infill.

There was a relatively even spread in the number of initiatives that were addressing different types of urban greening barriers – except for those addressing 'funding and investment':

- Knowledge and skills (41%)
- Culture and community (36%)
- Climate and environment (34%)
- Policy and planning (29%)
- Funding and investment (5%).

The key **strength of the greening system** was the number of initiatives (89%) that were 'shaking things up', and looking to improve the current way of working. For example by creating passion for action and bringing out different points of views on greening. This is key step a system needs to take so it can improve the way it works together.

Opportunities to further strengthen the system relate to increasing the number of initiatives that:

1. *Amplify action*
   Connect people within the system, and amplify current greening efforts.

2. *Encourage self-organisation*
   Support people to make sense of the system, issues and different perspectives.

3. *Connect community and government*
   Improve two way communication between government and the community.

Results on project objectives

1. Strengthen the local greening system

Workshop polls and phone calls to participants showed people did improve their understanding of the greening system and opportunities to strengthen. For example, of the 20 people called at the end of the project:

- 100% could explain what the greening system was
- 61% identified increasing and enhancing connections, networks, and collaboration were most needed to strengthen the system.

The workshops supported diverse participants to meet, share ideas and develop new, organic connections. For example, connections were made between project stakeholders (e.g. council projects and community groups, a resident and community group, school initiatives and Green Adelaide) as well as beyond the current stakeholder group and greening system – including internationally.

Early actions (as of September 2020) stakeholders had taken or planned on doing – as a direct result of Greening Marion – ranged from tree planting days, connecting with international schools, nominating a local champion for an award, developing an information resource for developers, and sharing residents' greening stories.

A longer timeframe would be required to measure changes across the greening system.

2. Contribution to the urban greening and complexity science fields

The pilot project delivered on three of the four objectives that related to development of the project partners' capability and the urban greening and complexity sectors. These were:

- Improved project partner capacity to work in complexity and progress greening, including a stronger connection between the lead organisations.
- Development of an adapted model that can be used for wicked problems elsewhere (see 'Reflections and future considerations' below).
- Shaped a collective vision for cooler, greener, more sustainable suburbs. A rich narrative that covered Kaurna knowledge and learning, water, biodiversity, connectivity, equitable access to open spaces, and personal responsibility. Developing this vision helped to bring together different perspectives and unify thinking.

A formal community of practice beyond this pilot project has not yet been developed (due to time and resources), however project partner Wicked Lab will instigate this in the near future.

Recommendations

1. **Leverage benefits and learnings**

   1.1. **Deliver regular council-wide greening forums** for people involved in greening initiatives from across the council area. This forum would bring together different sections of council, the greening sector and the community. It would build system capacity and support communication, shared learning, collaboration and innovation in urban greening.

   1.2. **Expand and elevate the 'Greening Marion' identity,** to represent and promote the collective efforts of all urban greening activities across the City of Marion.

   1.3. **Inspire efforts to continuously build system capability** by sharing relevant system mapping results in an accessible and engaging way across the City of Marion to raise awareness of system opportunities and share stories of people involved in greening initiatives.

   1.4. **Provide financial incentives and strategic links** by ensuring grants and strategic planning processes consider current and evolving system needs.

   1.5. **Continue to build understanding of system strength and changes over time** by ensuring strategic planners and engagement specialists continue to build knowledge and skills in the applications of complexity science (including through development of sector capacity, as outlined below).

2. **Adapting the approach to address wicked problems**

   2.1. **Create a diverse, multidisciplinary and cross sector reference group and working group.** Deliver whole team training workshops at the start and use an online team collaboration space.

   2.2. **Undertake a system 'readiness assessment' before starting,** that looks at leadership, connections, mindset and willingness to learn, past and existing efforts, knowledge of past efforts and resources and skills.

   2.3. **Start together with a bang, and journey together.** Use initial workshops to agree on the wicked problem, create a shared vision, build community and stakeholder capacity and appetite to strengthen the system, and increase connectivity.

   2.4. **Map the system rapidly together, through two different lens** – causal factors (barriers) and system functionality. Use a simplified, online survey tool that stakeholders can complete together to replace the interview process in FEMLAS.

   2.5. **Support initiatives to deliver outcomes and provide system functionality at the same time.** A well-functioning system is dependent on having relevant and quality initiatives that are addressing causal factors and providing system services. Integrate both lenses to ensure both aspects are being considered.

   2.6. **Collectively commit** to a vision and which areas the system will initially concentrate on.

   2.7. **Increase capacity steadily once the system starts to mature,** by supporting stakeholders to deepen their system capacity if/how they wish.

   2.8. **Deliver a range of engagement activities,** with different levels of information, for different stakeholders who have varying degrees of communication needs and interests.

   2.9. **Balance findings represented in the Transition Card with knowledge of the system,** by undertaking a 'deep dive' process to look at the data within the Transition Card.

3. **Developing sector capacity**

   3.1. **Role model working in a space with unknown outcomes,** with courage and strong leadership.

   3.2. **Act as an enabler** and supporter of future system-level projects, allowing stakeholders to take more ownership and reducing perceived risk of a project not performing.

   3.3. **Catalyse a community of practice,** by bringing together Australian and international contacts who are delivering (or planning) projects using a complex adaptive systems approach.

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Appendices

1   Background

Our greening challenge

Green, urban spaces – including yards, streets and neighbourhoods – are good for us. They're cooler, healthier and more inviting. People are drawn to them to relax, exercise and socialise. We can grow food, explore, and experience a deep connection with something much greater than ourselves. Our suburban wildlife also depends on green spaces for food and somewhere to live.

However, our urban green spaces are facing significant challenges from development, global loss of biodiversity and climate change. Across Adelaide we are seeing reduced green spaces and canopy coverage, as well as increased impermeable surfaces and temperatures.

Our communities value green spaces, and many people are working to protect and improve them. Are we working together as well as we can, to get the most from our collective efforts?

Trial a new approach, to work together

Greening Marion trialled a new approach to explore ways to strengthen the collective efforts of people, activities and organisations who were already working to address urban greening.

The approach focused on building capacity to better understand and strengthen a local 'greening system' in the City of Marion. This 'greening system' was comprised of 'greening activities' that were *directly* contributing towards making Marion, Oaklands Park and Park Holme greener. Greening activities could have included:

- community engagement and empowerment
- education and information
- grants and investments
- projects, programs and services
- on ground projects
  (e.g. revegetation, streetscaping, stormwater)
- plans, policies, legislation and regulations.

The pilot project was informed by extensive research undertaken by Dr Sharon Zivkovic (UniSA), and delivered a Systemic Innovation Lab using the six stage FEMLAS process. This process was developed by Wicked Lab Pty Ltd, a South Australian based organisation which Dr Zivkovic co-founded with Emily Humphreys. The FEMLAS process stands for: Form, Explore, Map, Learn, Address and Share.

Project partners

The project team comprised of a 'Core Team' and 'Support Team', from the following organisations:

- Adelaide and Mount Lofty Ranges Natural Resources Management Board (followed by Green Adelaide on 1 July 2020)
- City of Marion
- Wicked Lab
- Water Sensitive SA.

2   Purpose

Objectives and broader directions were collaboratively developed through workshops and surveys with the project team.

2.1   Objectives

Greening Marion had three types of objectives relating to systemic impacts and improvement, and the development of project partners and the wider sector.

2.1.1   Systemic impacts and improvement

Improved stakeholder understanding of the greening system

Stakeholders within the Greening Marion system have a better understanding of:

- other stakeholders (who, roles and responsibilities) and initiatives within the system
- gaps and opportunities to build system adaptive capacity
- potential new collaborative partnerships.

Greater stakeholder capacity, connections and collaborations to progress greening

Increased / strengthened stakeholder:

- desire to progress greening
- capacity to progress greening
- sense of being a part of a wider system / collective group
- connections and collaborations with other stakeholders and initiatives.

Cohesive action across the greening system

Stakeholders:

- value participating in the lab
- are engaged with people and organisations fulfilling their roles
- address gaps identified through the lab.

2.1.2   Project partners' development

Improved project partner capacity to work in complexity and progress greening

Project partners:

- form a lasting connection
- become confident in leading the FEMLAS process
- gain experience with experimentation
- develop an improved understanding of the 'Greening Marion' solution ecosystem, including, stakeholders (who, roles and responsibilities), initiatives, and gaps and opportunities to build system adaptive capacity
- develop increased capacity to progress greening
- develop clear and tangible transition pathways to increase greening.

2.1.3   Sector development

Development of a model that can be used for wicked problems elsewhere

Refinement of a consultation and decision making model that:

- is simple, replicable, cost effective and scalable
- has resources to support others to apply model (e.g. tool kit)
- includes a way to measure, monitor and share results and observations
- demonstrates transitions as an effective and user friendly measurement.

Shaping a vision for urban greening

Contribute to shaping a vision for a 'Green Adelaide' (infill = green).

Development of a community of practice.

A community of practice that informs an adaptive model for guiding future work in tackling complex and wicked problems.

2.2 Directions

Directions formed part of the Greening Marion story, and point towards a broader goal. While measurement and monitoring of these broader goals were beyond the scope of the pilot project, they illustrated the direction project partners wanted to work towards and related to the overall greening vision.

2.2.1 Greening outcomes from initiatives

Improved outcomes from initiatives.

Adapted and new initiatives:

- deliver improved environmental, social, economic and cultural outcomes related to greening
- effectively measure, monitor and share results and observations.

2.2.2 Wider context

Improved understanding of ecological, social, economical and cultural influences on greening

Better understanding of:

- unique features of the system and geographical area
- influences towards a more desired state
- barriers, benefits and incentives to action
- how the private realm impacts the public realm (and vice versa)
- impact of increased tree canopy coverage.

Improved environmental indicators

An increase in greening within the focus area, evidenced by:

- environmental indicators (e.g. canopy coverage, heat mapping)
- movement towards a more desired state.

Greener social norms

Social norms begin to form around actions towards a Greener Marion.

A note on why these are directions, and not objectives

- A longer timeframe, and different approach, would be required to focus on greening outcomes from initiatives.

- While system wide ecological improvements (within the wider context) can be supported by a cohesive system, they cannot ever be guaranteed. Part of the nature of wicked problems is that they cannot be controlled. However, project partners invested in Greening Marion to support ecological improvements to emerge – through developing the system capacity. While ecological indicators cannot be fully attributed towards Greening Marion's success or otherwise, they may still be useful to illustrate the wider context and bigger picture that Greening Marion sits within.

3   Boundary

A geographic boundary was set for the pilot, for two main reasons. These were to:

- set the scope of the trial
- focus energy into one area, as suggested by the methodology being trialled through the pilot.

The project team initially considered limiting the pilot boundary to just one suburb, but decided to expand it to three suburbs so the area would include a greater number and diversity of greening initiatives.

Three adjoining suburbs were selected:

- Marion
- Oaklands Park
- Park Holme.

These suburbs were selected as they had:

- several community hubs including schools
- a green hub – Oaklands Wetland
- a range of demographic profiles
- clear development trends, including subdivision of residential allotments and urban renewal
- environmental data available – including stormwater, development, tree planting and land surface temperature.
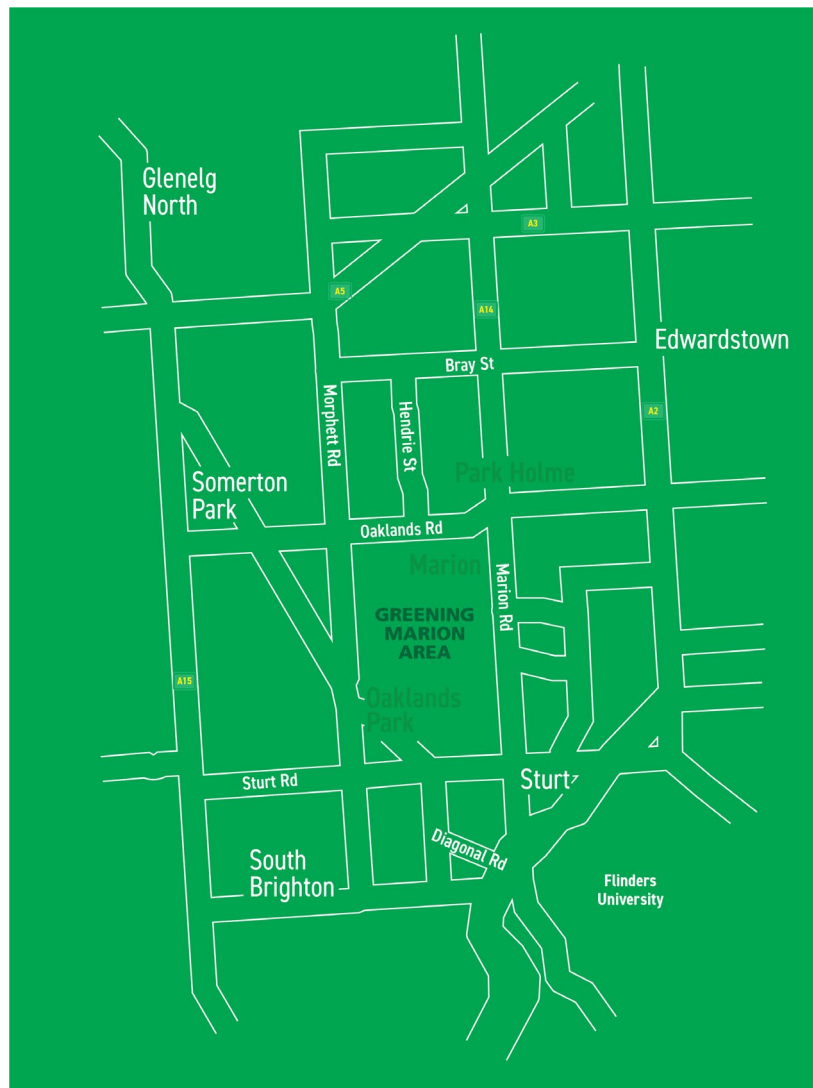
4   Methodology

Greening Marion trialled the delivery of a Systemic Innovation Lab, following the FEMLAS process that was developed by Wicked Lab. In addition to this, the project also included creating a collective vision with stakeholders, and was supported by a range of communication and engagement activities.

4.1   Systemic Innovation Lab

A Systemic Innovation Lab is a collective process that supports a complex system to evolve to a new and better way of working. Developed by Wicked Lab, these labs:

- take a collaborative, place-based, transition approach
- support coordinated actions by diverse stakeholders
- involve stakeholders as co-creators of system change
- support a networked governance approach
- recognise government as an enabler of change.[1]

4.1.1   FEMLAS process

The Systemic Innovation Lab was delivered using the six-stage FEMLAS process, developed by Wicked Lab. This process starts with Form and Explore, before moving into a cycle spanning Map, Learn, Address and Share.

1. Form   2. Explore

3. Map   4. Learn

6. Share   5. Address
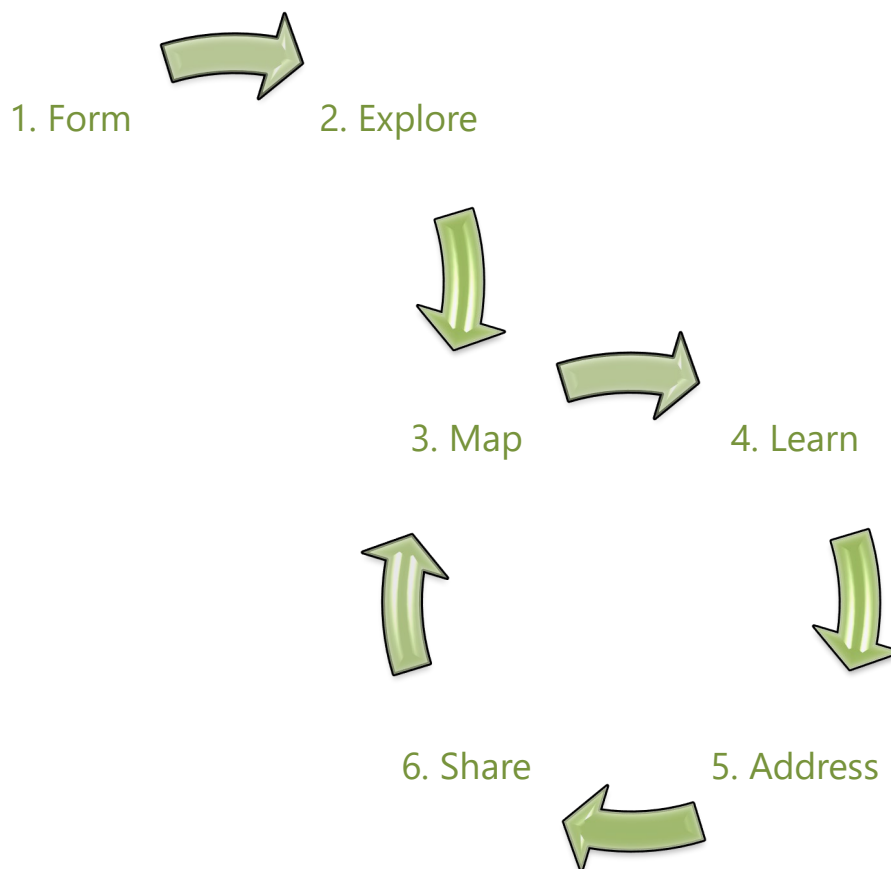
Figure 1: FEMLAS process

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[1] Sharon Zivkovic, (2018) "Systemic innovation labs: a lab for wicked problems", Social Enterprise Journal, Vol. 14 Issue: 3, pp.348-366

FEMLAS stages and key steps

Form

- Selected the wicked problem to address (urban greening) and the geographic boundary of Marion, Oaklands Park and Park Holme
- Broke the system into different sections to help focus efforts:
- Undertook initial mapping of stakeholders and initiatives that contributed towards a greener Marion within the boundary
- Developed an information sheet to explain the project to stakeholders, and to invited them to be involved through taking part in an interview or focus group
- Training

Explore

- Sent out an information sheet to stakeholders who were contributing towards a greener Marion, inviting them to be a part of the project
- Developed a survey, and undertook interviews and focus groups with stakeholders, to map how their initiatives contributed towards a greener Marion
- Training

Map

- Entered information gathered during the 'Explore' stage into Wicked Lab's Online Tool for Systemic Change
- Used the online tool to create a 'Transition Card' that showed visually how each initiative contributed to the system's adaptive capacity
- Training

Learn

- Identified gaps and opportunities to make the system more adaptive
- Drafted an information sheet to explain the results of the mapping process
- Training

Address

- Sent out the information sheet to stakeholders
- Held two stakeholder workshops to facilitate co-creation of initiatives that addressed the system's gaps and opportunities
- Training

Share (next stage)

- Use the online tool to update the Transition Card with changes to initiatives (including new and amended initiatives), and promote
- Draft the 'FEMLAS Cycle Completion Report' (to describe activities and learnings) and send to project stakeholders
- Update the Transition Card as new initiatives are established, and existing initiatives change
- Repeat FEMLAS process periodically to re-engage participants

4.1.2 Diagnostic Model for Tackling Wicked Problems

The Systemic Innovation Lab and the FEMLAS process both apply a framework called the Diagnostic Model for Tackling Wicked Problems[2], developed by Dr Sharon Zivkovic. This framework is based on complexity science and was developed to assist governments and communities to improve the adaptability and functionality of complex adaptive systems that are tackling a wicked problem.

The premise behind the framework is that for a complex adaptive system to function well, and to move from one way of working to a new, improved way – one where a wicked problem is being better addressed – it needs to have certain qualities in place. These qualities are outlined within the framework, represented by nine 'focus areas' containing 36 'initiative characteristics'.

The model highlights the need for governments to play an enabling role in supporting communities to become more adaptive, and to balance exploring solutions with community, with using community know-how.

See Appendix 1 for the model.

4.2 Subsystem sets

During the mapping process, each initiative was categorised across two different sets (or types) of subsystems. Subsystems are groups of initiatives that focus on a specific part of the overall problem being addressed. They were mapped to understand which initiatives belonged to each subsystem, and how they were working.

The two subsystem sets applied in Greening Marion were based on:

- Tenure of the land the initiative supported (public or private realms)
- The urban greening barrier that the initiative was addressing. These barriers were adapted from Vision 202020's barriers to urban greening[3].

Table 1 (below) provides a summary of the different subsystem sets and their corresponding subsystems.

Subsystem set	Subsystem	Includes
Tenure of land	Public realm	Initiatives that supported, impacted or influenced greening on public land (e.g. reserves, community gardens and streets.)
	Private realm	Initiatives that supported, impacted or influenced greening on private land (e.g. people's yards, schools and businesses).
Barriers to urban greening (adapted from Vision 202020 Plan)	Climate and environment	Initiatives that address: • growing conditions, including soil, pests and diseases • extreme weather, such as urban heat and extreme weather events • water for greening, including irrigation and green infrastructure • risks, such as roots, fire, tripping, slipping and falling branches.
	Funding and investment	Initiatives that: • provide a mechanism for decision making on development • promote the business case for green space • support private investment in greening • fund maintenance of green spaces.
	Knowledge and skills	Initiatives that develop knowledge and skills in: • design of urban greening – e.g. canopy coverage, species selection, design and green space maintenance • benchmarking and measuring urban greening

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[2] Zivkovic, S (2014), 'Determining and increasing the social impact of an active citizenship education program', PhD thesis, School of Education, University of South Australia

[3] Vision 202020 Plan, 202020vision.com.au/media/41955/202020visionplan.pdf

		• context-specific technical, design and cultural knowledge (including sourced through early consultation with designers, community and traditional owners) • open space planning and place-making principles, which take an integral and systemic approach to designing new and improving existing green space (among practitioners including local government) • greening homes, work places, and across the community.
	Policy and planning	Initiatives that: • support collaboration, better dialogue and working relationships between developers, councils, community, state and federal government • offer solutions to the many, various and sometimes contradictory policy requirements from all levels of government (at the local, state and federal level) that can hinder developers from incorporating green space into their projects • prioritise greening and green infrastructure over grey infrastructure • improve the image and perception of urban greening, particularly among council audiences.
	Culture and community	Initiatives that: • shift community attitudes towards trees and plants to be more positive • shifts cultural attitudes toward prevalent housing trends (larger homes being built on smaller blocks) • promotes and delivers more green space being set aside during developments and redevelopments • enables community to be responsible for maintaining public or common green space • encourage community to use green spaces • broadens the reach of people who use green space • broadens the benefits delivered to the community.

Table 1: Subsystems sets

4.3   Summary of actions

The tables below provide a summary of actions, resourcing and timeframes for delivering Greening Marion. Actions include steps delivered based on the FEMLAS process, as well as additional activities that sat outside the scope of FEMLAS but which were part of the broader Greening Marion project.

Actions have been divided in the following project stages:

- Pre-project
- Form
- Explore
- Map
- Learn
- Address
- Share

Pre-project

Step	Who	Timing
Desktop research and scoping meetings with NRM and CoM.	NRM lead	August 2018
NRM developed a backgrounder and proposal document to pitch the concept to CoM.	NRM lead	October 2018
Memorandum of Understanding agreement between NRM, CoM and Wicked Lab.	NRM lead, CoM lead, Wicked Lab	Signed February 2019

Form

Step	Who	Timing
Formed a Core Team and Support Team (both were considered the overall 'project team'). The Core Team was initially comprised of people from NRM, CoM, Water Sensitive SA and DPTI, and provided strategic input. The Support Team included staff from NRM and CoM, and was responsible for the delivery of the project. Involved: one-on-one meetings with individuals.	NRM lead CoM lead Core and Support team members	Dec 2018 – Feb 2019
Online training in complex systems including Systemic Innovation Lab training and Complex Systems Leadership training.	Core and Support teams	Feb – July 2019
Project team scoped and agreed on: - wicked problem to address (urban greening) - geographic boundary (Marion, Oaklands Park and Park Holme) - subsystems - partner aspirations - project objectives - timeframes - monitoring and evaluation requirements - resourcing. Involved: - kick-starter workshop (x1) (facilitated by Wicked Lab) with the project teams - mentoring meetings (x2) (facilitated by Wicked Lab) with the project teams - project team meetings (x4) - CoM internal discussion to select pilot zone - researching and selecting Vision 202020's barriers to urban greening to adopt as subsystems: - climate and environment - funding and investment - knowledge and skills - policy and planning - culture and community.	Core and Support teams	April-June 2019
Survey to project team to scope aspirations, timeframe, perceived challenges and assumptions, and benchmark capacity in working with complex systems.	Core and Support teams	May 2019

Undertook initial mapping of stakeholders and initiatives that contributed towards making the pilot area greener, cooler and more sustainable. Involved: • Stakeholder analysis • Brainstorming of initiatives • Recording stakeholder and initiative details in a spreadsheet. Phone calls to potential stakeholders to determine if their activities fit within the project scope, and to identify other contacts.	Core and Support teams	May 2019
Developed project plan, and action plan in gantt chart.	NRM lead CoM lead	June - July 2019
Project team 'crash course' in FEMLAS, which saw team members research a FEMLAS stage, and share learnings with the team.	Core and Support teams	July 2019
Developed an information sheet and webpage to explain the project to stakeholders (people who were involved in an activity that contributed towards greening in the pilot area). Included: • testing the concept, language and design with colleagues, and adapting multiple times • contracting graphic design.	Core and Support teams Graphic designer	August – November 2019

Explore

Step	Who	Timing
Invited stakeholders to be involved in the project. Involved: • emailing the information sheet to targeted stakeholders, with a request to register • following up key stakeholders with a phone call to prompt them to take part, and book in an interview time.	Support Team Project contractor	Nov to 2019 – March 2020
Developed an interview guide based on Dr Sharon Zivkovic's *Diagnostic Model for Tackling Wicked Problems* and Wicked Lab's 'cross walk'. The cross walk was a tool that helped to practically apply Zivkovic's diagnostic model by translating and providing examples of concepts in the model. Involved: • drafting and testing the survey multiple times, with approx. eight colleagues, to make it as user friendly as possible • contracting a social researcher to assist in the design of the survey • developing separate guides for both the interviewer and the interviewee.	Core and Support Team Social researcher	Nov 2019-March 2019
Undertook interviews and focus groups to talk to 41 people, from 15 organisations, to map how 56 activities fit within the greening system. Involved: • visiting stakeholders at their workplaces or nominated location (for community members)	Support Team Project contractor (interview scribe)	Dec 2019 – March 2020

- Support Team members interviewed stakeholders
- a scribe was contracted to record written notes
- most interviews were recorded (voice only, with permission)
- follow up phone calls and emails with stakeholders to check on gaps in the information.

Map

Step	Who	Timing
Data was quality checked and uploaded into Wicked Lab's online Tool for Systemic Change. Involved: • interviewer and the scribe checked the data from each interview • all interviewers and scribe compared responses across questions and respondents for consistency in the way the question was managed and interpreted • cleaned the data to suit the required format for uploading into the tool • uploaded the data into the tool.	Core Team	March - May 2020
Used the online tool to create an initial 'Transition Card' that showed: • how each initiative contributed to the adaptability of the greening system • differences in number of initiatives and functionality of different subsystems.	NRM Lead CoM Lead	March - May 2020
During the initial analysis stage, the project team realised that there appeared to be a significant difference between the number of activities that impacted or influenced private land, compared to public land. The data was reviewed again with this new lens, and activities were categorised into two additional subsystems: • initiatives that impacted or influenced: – private areas – public areas.	Core Team	March - May 2020
The data was re-uploaded to the online tool, and a series of new Transition Cards were generated that illustrated the number of initiatives within, and the functionality of, the: • local greening system in Marion, Oaklands Park and Park Holme • various subsystems (i.e. initiatives that impacted or influenced): – public areas – private areas – climate and environment – funding and investment – knowledge and skills – policy and planning.	NRM Lead CoM Lead	May 2020

Learn

Step	Who	Timing
Analysed the Transition Cards to look for opportunities to strengthen the local greening system	NRM Lead CoM Lead	May 2020
Developed a summary of findings titled 'Discovery (so far)' (see Appendix 4) to communicate high level results from the mapping process. Included: • project background • list of organisations included in the mapping • snapshot of how the system was performing • indication of how many initiatives relate to greening public areas, compared to private areas • three window of opportunity to strengthen the system.	NRM Lead CoM Lead Project contractor	May 2020
Developed activity summaries for each initiative, which showed how an individual activity contributed towards the functioning of the system. Summaries included a paraphrased response on how the activity may or may not have had specific characteristics, which were identified through the interviews and focus groups. Involved: • creating an activity summary template • exporting comments from the online tool, and merging with the template.	NRM Lead CoM Lead Project contractor	Between workshops 1 and 2 June 2020
Developed a 5 minute, illustrated video *'Why complexity science matters: rethinking urban greening using complexity'* to help explain the background behind taking a complexity approach. Visit www.youtube.com/watch?v=jf6sRNsGpAU	Core Team Consultants	May – June 2020

Note regarding the 'Transition Card':

In the FEMLAS process, it is suggested to share an image of the Transition Card with participants to help build capacity of people within the system, to understand its nature and functionality. Greening Marion did not share the Transition Card, opting instead to present results as a series of percentages, by focus area. This was because early feedback from some stakeholders showed the Transition Card could overwhelm some people. It's worth noting that not all stakeholders were overwhelmed with the Transition Card.

Address

Step	Who	Timing
Set up a Greening Marion enews template, and emailed an invitation for people to attend two workshops. Invitations were sent to people who: • were involved in the mapping process (through interviews or focus groups) • may have been interested in the project because it relates to their work, or had expressed an interest in the project previously.	Core Team	May – June 2020
Promoted the workshops through CoM's Green Thymes enews	CoM Lead	June 2020

Phone calls were made to a range of key stakeholders to encourage them to register and attend the workshops.	Project contractor	

Distributed the 'Discovery (so far)' document:
 	
- email to people who:
  - were involved in the mapping process (through interviews or focus groups)
  - had registered to attend either of the future workshops
  - NRM website.
	Core Team	June 2020

Sent a confirmation email to people registered for workshop #1. The email included: - results summary: Discovery (so far) - video: Why complexity science matters - a note to have pen and paper handy - Zoom login details.	Core Team	June 2020

Held workshop #1, titled 'Discovery' on 12 June 2020 to:
 	
- explore findings from the mapping stage
- create a collective vision of greener, more sustainable suburbs.
 	
This workshop was held online, via Zoom, due to COVID-19 restrictions.
 	
Involved:
 	
- Facilitated by Dr Josie McLean, The Partnership
- Welcome to Country, Kaurna Elder, Aunty Lynette Crocker
- Introduction, Brenton Grear, Director Green Adelaide
- Presentations:
  - CoM lead, Rebecca Neumann
  - NRM lead, Tania Macdonald
  - Guided visualisation process to develop a collective vision (see section '4.4 Collective, values-based visioning' for details)
	Core Team
	
	Project contractor
		June 2020

An email was sent to people who had:
 	
- attended workshop #1, and/or
- registered for workshop #2.
 	
The email included:
 	
- workshop #1 outcome: collective vision
- workshop #1 survey
- results summary: Discovery (so far)
- video: Why complexity science matters
- instructions for attending workshop #2:
  - note to have pen and paper handy
  - print out (optional) 'Your action plan' template
  - Zoom login details.
	Core Team	June 2020

Distributed individual activity summaries for each initiative to people who were interviewed or attended a focus group, to close the feedback loop.	Core Team Project contractor	June 2020
Sent a confirmation email to people registered for workshop #2. The email included: - workshop #1 outcome: collective vision - workshop #1 survey - video: Why complexity science matters	NRM Lead CoM Lead	June 2020

• instructions for Zoom.		
Held workshop #2 on 19 June 2020, titled 'Strengthening' to: • explain the areas of opportunities for strengthening the system • invite people to think of how they could tweak or adapt their current greening activity to help strengthen the overall system. This workshop was held online, via Zoom, due to COVID-19 restrictions. Involved: • Facilitated by Dr Josie McLean, The Partnership • Acknowledgement of Country • reconnected people with their vision, and checking in to see if it resonated with people • presentation and poll to reconnect people to the project • brief explanations the three windows of opportunity to strengthen the system • break out room discussion with three or four people in each room, to discuss how they may tweak or adapt their activities • optional 15 minute window after the workshop for participants to network and reflect on the workshop.	Core Team Contractors	June 2020
Follow up phone calls to people who attended either workshop to: • seek feedback on the workshops and communication resources • explore whether participants were interested in being involved in any potential future Greening Marion activities, such as a network.	Core Team Project Contractor	June – July 2020

Share

Step	Who	Timing
Developed a high level two-page project summary for City of Marion.	CoM Lead	Aug 2020
Hosted a post project online 'Connect Up' meeting to: • provide participants another chance to meet others from the system • learn about changes people have made, or planned on making, to their initiatives.	Support Team	September 2020
Drafted an end of project report (this report), to make available to all participants and wider stakeholders.	Core Team	Aug – Dec 2020

Note regarding the 'Share' stage:

The FEMLAS process states:

- The Transition Card should be updated after the workshops, as well as later on, when new activities are established or existing ones changed.
- Repeat the FEMLAS process periodically to re-engage participants.

Greening Marion will not undertake these steps, as the pilot stage (across the three suburbs) has completed and the project is transitioning into a council-wide adapted version of the project. See 'Section 7.2 Adapting the approach' for more details.

4.4   Collective, values-based visioning

Dr Josie McLean from The Partnership was contracted to facilitate both workshops, and as part of that, to support participants to develop a collective, values based vision for greener, cooler and more sustainable suburbs.

Developing this vision was the primary purpose of the first workshop. Dr McLean guided participants through a 15 minute guided visualisation exercise, where they were asked to imagine walking around the three suburbs being focused on during the pilot project, or any other suburb that they were familiar with. They were asked to imagine different aspects, such as the streets, parks, community and water ways of suburbs that were green, cool and sustainable. They were then asked to imagine taking a balloon ride over these suburbs and reflecting on what they saw.

After the guided visualisation, participants were invited to share their own visions in small break-out rooms, before each group collectively identified the top five aspects or values that united their visions.

Dr McLean collected the notes from the break-out room conversations and compiled a rich, values based vision to tell the story of how Greening Marion participants wanted to experience greener, cooler and more sustainable suburbs.

This narrative was sent to each participant from the first workshop, and all who registered for the second workshop (between both workshops). Dr Josie reconnected with the vision at the beginning of the second workshop, and asked participants to nominate how strongly they resonated with the vision, using a Zoom poll.

The vision is included in section '6.3.2 Shaping a vision for urban greening'.

4.5   Communication and engagement

A summary of communication and engagement activities is provided below.

Type	Activity	Purpose	Audience	Stage / When
Webpages	Webpage on: • Green Adelaide (formerly NRM) website • CoM website See Appendix 3	Promote the project	Initiative owners (people who were involved in an initiative that contributed towards greening in Marion, Oaklands Park and/or Park Holme) Interested others (e.g. people who may want to get involved, or were interested in following the project)	All stages
Email	Invitation to take part	Introduce and promote project Encourage people to register to take part	Initiative owners Interested stakeholders Businesses registered in either Marion, Park Holme or Oaklands Park that were selected based on their business type including schools, 'environmental' businesses and community organisations	2. Explore
Facebook	Posts to invite people to take part	Introduce and promote project Encourage people to register to take part	General community	2. Explore

Type	Activity	Purpose	Audience	Stage / When
Brochure	Greening Marion information brochure (4 pager) See Appendix 2	Introduce and promote project Encourage people to register to take part	Initiative owners Interested stakeholders	1. Form 2. Explore
	Discovery (so far) brochure See Appendix 4	Summarise findings from the interviews and focus groups	Initiative owners Interested stakeholders	4. Learn 5. Address
Interview guides	2 x interview guides with interviewer questions See Appendix 5	Ask consistent interview questions	Initiative owners	2. Explore
Activity summaries	56 individual activity summaries Example in Appendix 6	Show how individual greening initiatives contributed to the system's functioning	Initiative owners	4. Learn 5. Address
Video	Why complexity science matters: rethinking urban greening using complexity 5 minute, illustrated video (viewed over 1100 times, across two You Tube channels: NRM AMLR Board and Green Adelaide) Visit www.youtube.com/watch?v=T67nodxUAXg See Appendix 1	Explain the background behind taking a complexity approach.	Initiative owners Interested stakeholders General community	4. Learn 5. Address
Presentations	Environmental Sustainability Network and Adaptation Practitioners' Network joint meeting Presenters: • Tania Macdonald (NRM) • Rebecca Neumann (CoM) Marion Cultural Centre	Introduce Greening Marion and its model	Local government environmental officers and climate change practitioners	1. Form 2. Explore 27 November 2019
	Adelaide Social Enterprise meet up Presenters: • Tania Macdonald (NRM) • Rebecca Neumann (CoM) UniSA's City West campus	Introduce Greening Marion and its model	Adelaide social enterprise network	2. Explore 29 January 2020
	CoM's Infrastructure and Strategy Committee meeting (via Zoom)	Introduce Greening Marion and its model.	CoM's Infrastructure and Strategy Committee	2. Map 7 April 2020

Type	Activity	Purpose	Audience	Stage / When
	Presenters: • Tania Macdonald (NRM) • Rebecca Neumann (CoM) • Emily Humphreys (Wicked Lab)			
Interviews and focus groups	Interviews and/or focus groups with 41 people	Identify how each initiative contributed towards system functioning	Initiative owners	2. Explore
Workshop invitations via eNews template	Electronic email	Meeting invitation and project update	Everyone on Greening Marion distribution list and all initiative owners.	5. Address
Workshops	Workshop #1, Discovery Via Zoom, 29 people	Share results from interviews and focus groups Create a collective vision for greener, cooler, more sustainable suburbs	Initiative owners Interested stakeholders General community	5. Address 10am – 12pm, 12 June 2020
	Workshop #2, Strengthening Via Zoom, 26 people	Support participants to identify how they could adapt their activities to strengthen the overall system	Initiative owners Interested stakeholders General community	5. Address 10am – 12pm, 19 June 2020
Phone calls	Scoping phone calls	Introduce and promote project Encourage people to register to take part	Initiative owners	2. Explore
	Workshop invitation phone calls	Encourage people to attend the workshops	Initiative owners Interested stakeholders	4. Learn
	Follow up phone calls	Seek feedback on the workshops	People who attended a workshop	5. Address
Surveys	Pre-workshop #1 survey	Identify participant's preferences for taking part online	Initiative owners	5. Address
	Post workshop #1 survey	Seek feedback from workshop #1	People who attended the first workshop	5. Address
OECD (Observatory of Public	Submission to 'Call for Innovations at the Edge of Government'	To consider Greening Marion as an innovation to share	International government bodies (potential)	1. Form 2. Explore

Type	Activity	Purpose	Audience	Stage / When
Sector Innovation)		with international government bodies.		December 2019

Table 2: Communication and engagement activities

4.6 Evaluation methodology

The process and project were continually reviewed during Greening Marion's delivery, to deliver a project that was as relevant as possible for its stakeholders. Review and evaluation activities are summarised below.

- Project team perspectives:

  - Initial survey (at the beginning of the project)
  - Interim project review workshop
  - Final survey (at the end of the project)
  - Workshop review workshop (mentoring meeting)
  - End of project review workshop (mentoring meeting)

- Project participants perspectives:

  - Surveys (pre and post workshop #1)
  - Zoom polls, during workshop #2
  - Follow up phone calls (post workshops)

- System impacts:

  - Transition Card
  - Stakeholder network map

4.7 Project team and responsibilities

Project Coordinator

The role of the Project Coordinator was to:

- developed the project plan
- coordinate teams to meet project milestones and deliverables
- coordinate project finances
- coordinate evaluation.

Core and Support Teams

The Core Team and Support Team were initially established to provide two different types of project support:

- Core Team – was to provide a strategic lens, undertake project planning, and deliver high level project work
- Support Team – was to provide operational support for the delivery of the project.

The Core Team was comprised of managers, team leaders and some technical operational staff from NRM and CoM, as well as a representative from DPTI (during the initial project stages), and Water Sensitive SA. The Support Team was comprised of operational and technical staff from NRM and CoM. Some members were initially part of both teams, to provide both the strategic lens and operational support. Planning and mentoring meetings generally took place with both teams at the same time. Operational meetings occurred only with members from the Support Team.

During the project's lifespan, changes in staffing and responsibilities saw some members leave their respective teams (and be replaced with someone else), or have significantly reduced capacity to take part. This caused some disruption to the initial intent of having two types of teams, and their roles. Adding to this, as new people replaced former Core Team members, they generally did not have the same capacity to contribute to the project as the initial team member, and were not able to undergo the training that other team members had already done or were doing.

This created a slight shift in the roles of both the Core and Support teams, which happened organically and in response to the changing contexts. The Core Team was still able to provide a strategic lens, and undertake project planning, as well as contribute to a high level review of the project, while all project work (high level and operational) was undertaken by the Support Team.

Core Team responsibilities:

- Completed the 'Systemic Innovation Lab' online training (some members)
- Contributed to planning and mentoring meetings
- Provided project guidance, including input into the project plan and timeframes
- Identified stakeholders and initiatives (projects, programs and services) that contributed towards 'a greener Marion' within the project's geographical focus area
- Reviewed results from the mapping stage, and informed areas to focus future efforts
- Attended stakeholder workshops to co-create new or adapted initiatives
- Provided input into reviewing the project and creating an adapted model.

Support Team responsibilities:

- Provided input into all Core Team responsibilities
- Developed all communication and engagement resources
- Conducted interviews and focus groups, recorded notes and checked data for consistency
- Uploaded data into Wicked Lab's online Tool for Systemic Change, and created Transition Card
- Supported planning and delivery of the workshops
- Prepared the project's completion report and share results within relevant networks.

Other stakeholders/initiative owners
Additional people were invited into the project at specific times to provide insights, advice and links to relevant local networks. These ranged from people with community connections, knowledge about local initiatives, innovation and on-ground works. Other stakeholders provided input when testing communication resources and interview questions.

5 Results: System mapping

5.1 System stakeholders

This section provides a summary of the different types of stakeholders, and their relationships, that were identified as part of the local greening system in the suburbs of Marion, Oaklands Park and Park Holme.

5.1.1 Organisations by sector

The mapping identified organisations from at least six sectors comprised the Greening Marion system. Almost a quarter (24%) of the initiatives belonged to the education sector, and 19% were either a social enterprise, NGO or state government body. There were three community groups (14% of organisations) and one local government.

It should be noted that these stakeholders were identified because they were delivering formalised urban greening efforts that the Core Team identified as having a significant influence over the local greening system in the study area. This was either due to their geographic proximity or delivery of services within the study area. While every effort was made to promote the project widely, it is possible some stakeholders may not have been identified.

Sector	# organisations	Organisation
Education	5	Ascot Park Kindergarten Ascot Park Primary School Flinders University Oaklands Estate Kindergarten Westminster School
Social enterprise	4	Alan Shepard Nadja's Garden Wagtail Urban Farm Wicked Lab
NGO	4	Australian Association of Environmental Education KESAB Environmental Solutions St Elizabeth of Hungary Anglican Church Trees for Life
Formal community group	3	Friends of Kenton Avenue Reserve Friends of Sturt River Landcare Oaklands Park Community Garden Society
State government	3	AMLR NRM Board Department of Planning, Transport and Infrastructure Department for Environment and Water
Local government	1	City of Marion

Table 3: Number of organisations by sector
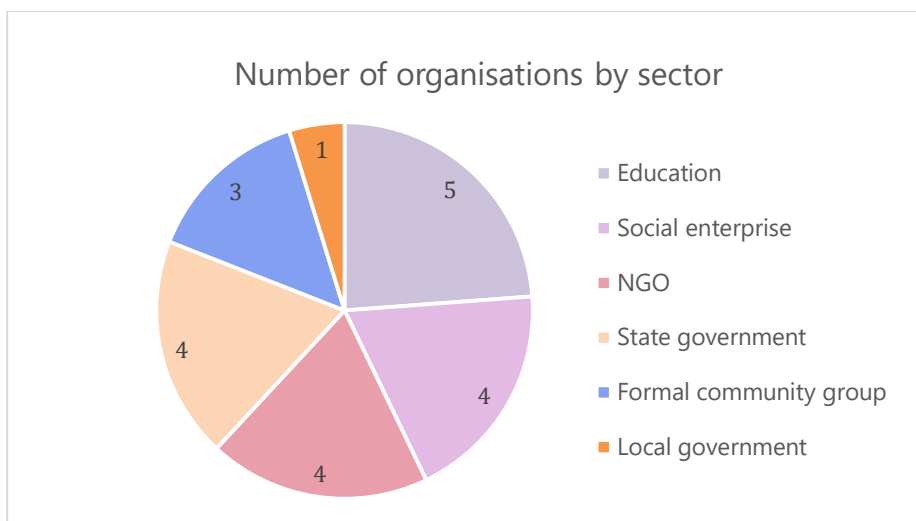
Chart 1: Number of organisations by sector

5.1.2 Initiatives by sector

The mapping identified 56 greening initiatives delivered (often in partnership) by 21 organisations. Local government was involved in the most initiatives (77%), followed by state government (63%). Formal community groups, NGOs and social enterprises were each involved in about a fifth of initiatives, while the education sector was involved in 13% of initiatives.

The number of local government initiatives are even higher than what the numbers represent, due to the way council initiatives were counted. Large groups of council owned greening initiatives were 'package up' and counted as one initiative, to make the mapping process manageable within the available resources and timeframe. Despite this 'packaging up', council was still responsible for the majority of greening initiatives within the system.

Sector	# initiatives	% of all initiatives
Local government	43	77%
State government	35	63%
Formal community group	12	21%
NGO	10	18%
Social enterprise	10	18%
Education	7	13%

Table 4: Number of initiatives by sector
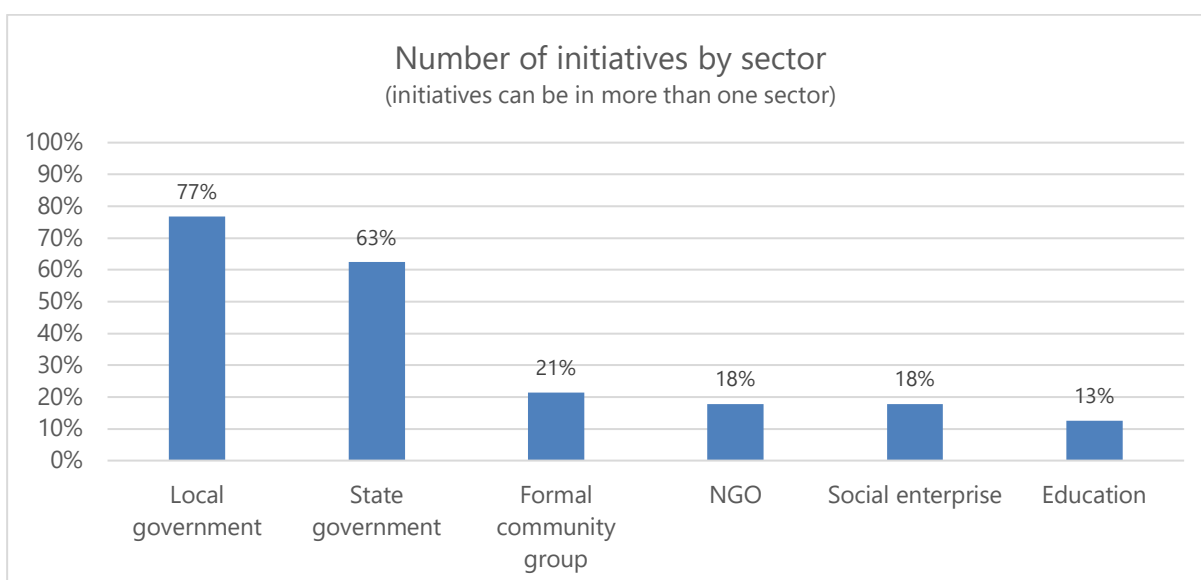
Chart 2: Percentage of initiatives by sector

5.1.3 Initiatives by organisations

As mentioned above, the mapping process identified the City of Marion was involved in the majority (n=43; 77%) of greening initiatives within the system. This is an under representation of the true number, because of the way council initiatives were packaged up, due to resources and time.

The AMLR NRM Board was involved in 25 initiatives (45% of total initiatives). A summary of organisations and the number of greening initiatives they were involved with is provided in Table 5.

Organisations	# initiatives	% of all initiatives
City of Marion	43	77%
AMLR NRM Board	25	45%
Friends of Sturt River Landcare	7	13%
Water Sensitive SA	6	11%
Trees for Life	4	7%
Nadja's Garden	4	7%
KESAB Environmental Solutions	3	5%
Oaklands Park Community Garden Society	3	5%
Wagtail Urban Farm	3	5%
Department of Planning, Transport and Infrastructure	3	5%
Alan Shepard	2	4%
St Elizabeth of Hungary Anglican Church	2	4%
Friends of Kenton Avenue Reserve	2	4%
Oaklands Estate Kindergarten	2	4%
Westminster School	2	4%
Australian Association of Environmental Education	1	2%
Flinders University	1	2%
Department for Environment and Water	1	2%
Wicked Lab	1	2%
Ascot Park Kindergarten	1	2%
Ascot Park Primary School	1	2%

Table 5: Number of initiatives by organisation

A full list of organisations and the initiatives that they were involved with is provided in Appendix 8.

5.1.4 Initiatives involving partnerships

In this report, a partner is considered another organisation that is involved with and/or supports an initiative.

Of the 56 initiatives, at least 66% (n=37) worked with at least one other organisations in relation to greening in the pilot suburbs of Marion, Oaklands Park and/or Park Holme. This number only includes partners of initiatives whose involvement directly relates to the pilot area, not partners who provide input from a broader perspective.

For example, Water Sensitive SA has a large number of partners, including councils from across metropolitan Adelaide. Only partners whose efforts directly contributed to greening in the pilot area were included within the scope of the Greening Marion system (i.e. City of Marion and AMLR NRM Board).

Chart 3 illustrates the percentage of initiatives that involved multiple organisations. Note, the number of partnerships may be slightly under represented, as this information was collected through analysing interview responses to questions that explored collaboration, but did not directly ask for the number of partnerships.
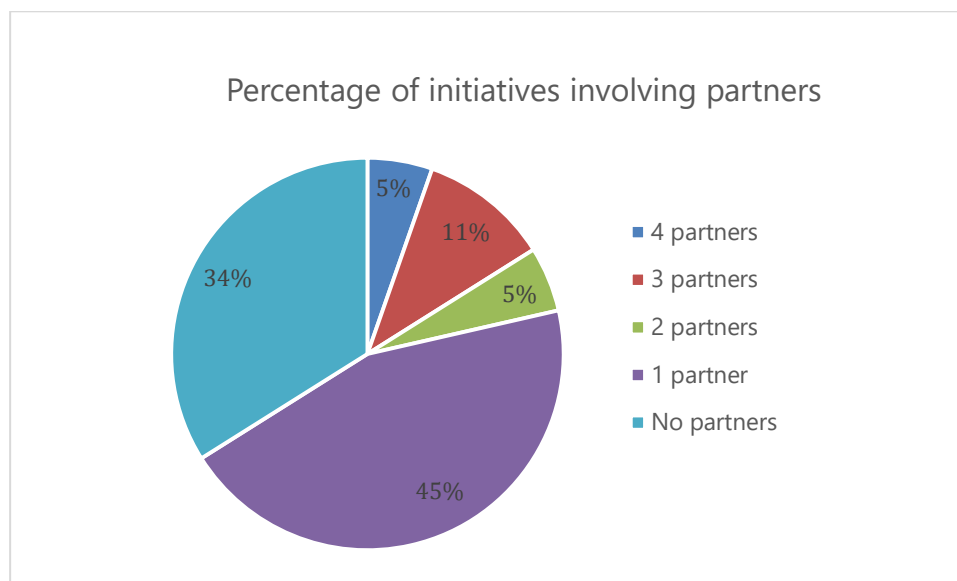
Chart 3: Percentage of greening initiatives that involved partners

5.1.5   Network map, by organisation

An organisational network map (see Figure 2) was produced using Wicked Lab's Tool for Systemic Change. The map shows the connections between organisations that were established through partnering on greening initiatives.

The City of Marion is at the centre of the map, and connected to almost all other organisations through greening initiatives. It is connected to all social enterprises, formal community groups, NGOs and state government bodies in the system.

The AMLR NRM Board is another major node, closely connected to the City of Marion, and also linked to most of the educational organisations, some social enterprises, NGOs and community groups.

The two state government departments (Department of Planning, Transport and Infrastructure and the Department for Environment and Water), and Flinders University, are not as tightly connected to the system as other, more locally focused organisations. Westminster School does not appear to be connected through its greening initiatives to other parts of the system.
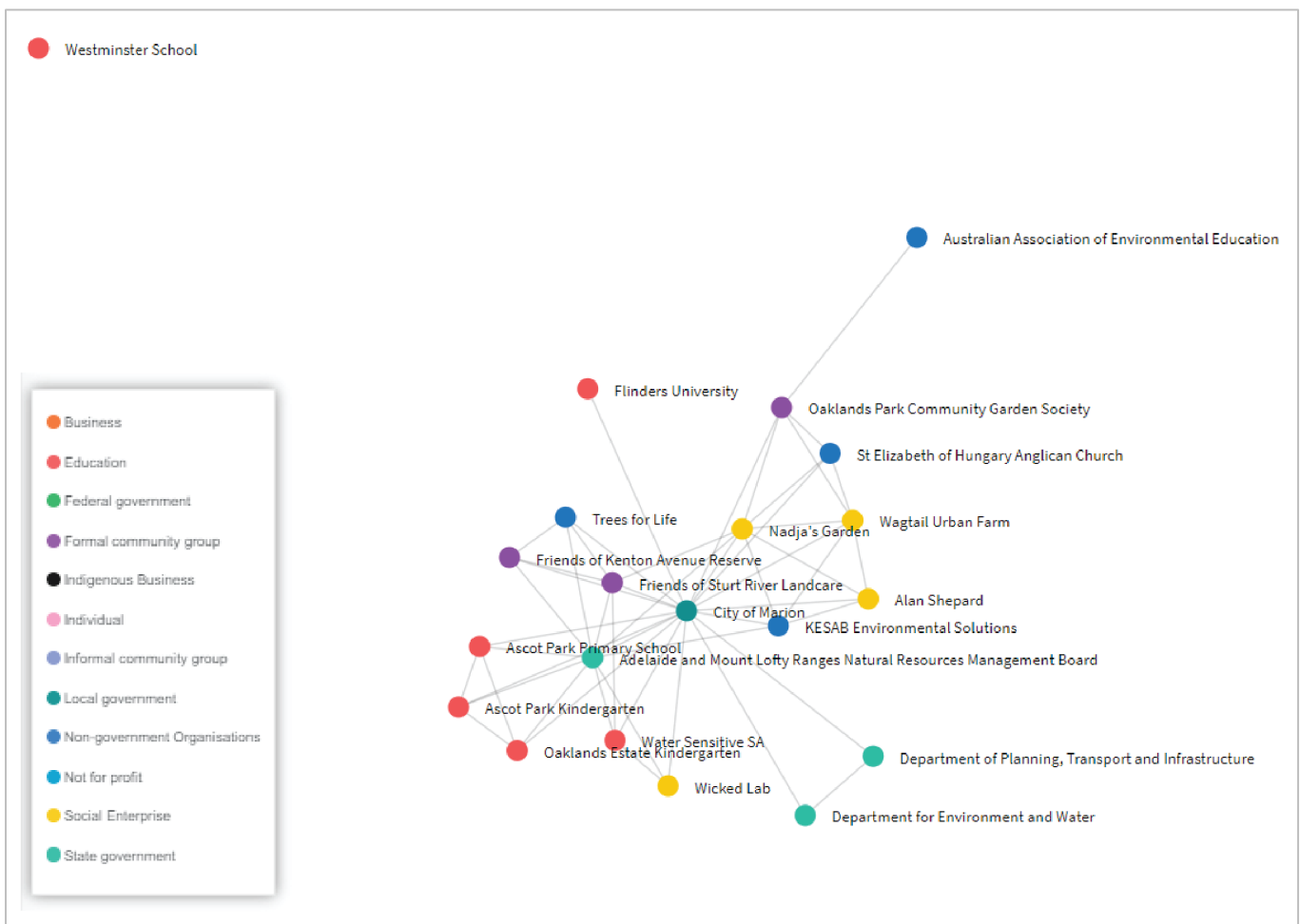
Figure 2: Network map, by organisation. (How to read this map: Organisations are represented by the coloured circles. Each colour represents a different sector, refer to legend in the image's bottom left. The lines between organisations represent at least one initiative that both organisations are involved with.)

5.1.6   Initiative network map

Wicked Lab created an initiative network map to illustrate the connectivity between initiatives. When it was applied to Greening Marion's data, it produced a map that was so dense with connections that it was difficult to see the connectivity between initiatives (see Figure 3).

This was because the City of Marion the AMLR NRM Board were connected to almost every initiative. The initiative map has been included in this report to demonstrate this tight connection. However, as this insight of density can be demonstrated in the organisational network map, Wicked Lab has decided the initiative map does not provide additional value and has not released the feature to users.
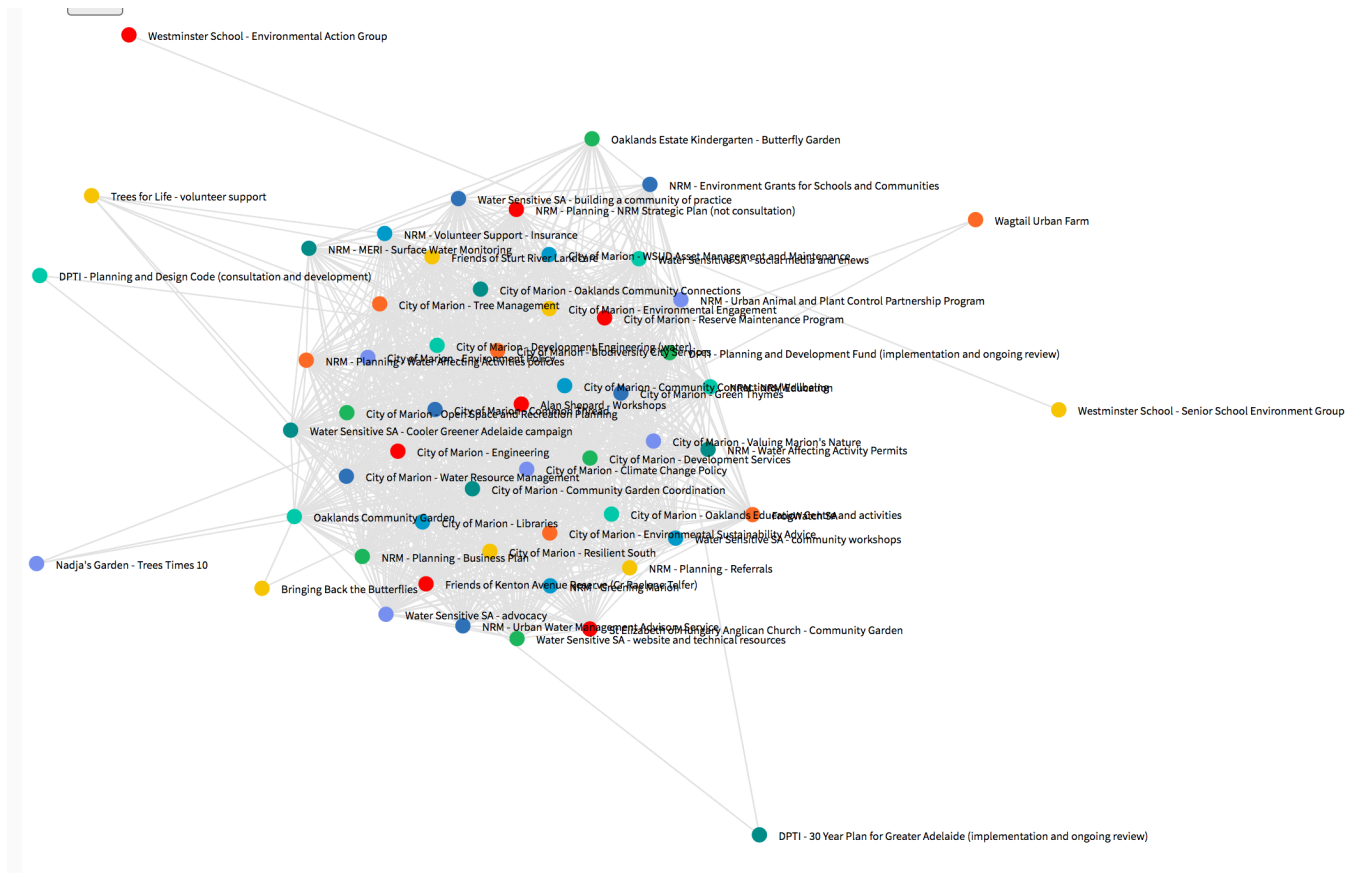
Figure 3: Network map, by initiative. This map is so dense with connections that it is difficult to see the connectivity.

5.2   Subsystems

During the mapping process, initiatives were categorised across two sets (or types) of subsystems. Results are provided below according to the subsystem set.

5.2.1   Subsystem set: land tenure (public vs private realm)

Results show that the vast majority (89%) of initiatives supported (impacted or influenced) greening in the public realm, and about 57% supported greening in the private realm. These percentages include initiatives that supported greening in *both* the private and public realms (46%).

These results are summarised in Table 6 and illustrated in Chart 1.

Realms	# initiatives (n=56)	% of all initiatives
Public realm	50	89%
Private realm	32	57%

Table 6: Number of initiatives supporting public and/or private realms. Note: initiatives could be counted twice (in both realms) if it supported greening in each realm.
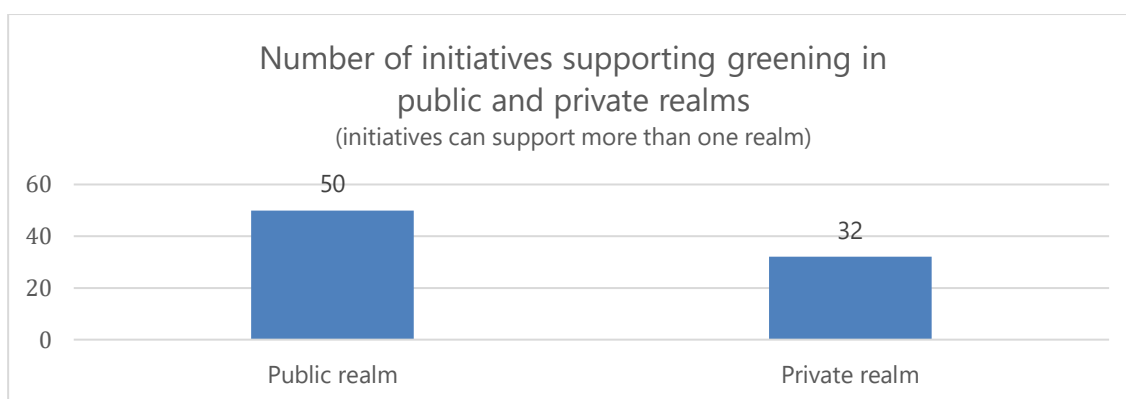
Chart 4: Number of initiatives supporting public and/or private realms

The data was also analysed to determine the number of initiatives that focused *only* on greening in public or private realms. As outlined in Table 7, just under half (43%) of initiatives focused only on the public realm, and 11% focused on greening only in the private realm.

Realms	# initiatives (n=56)	% of all initiatives
Public realm *only*	24	43%
Private realm *only*	6	11%
Both (private and public) realms	26	46%

Table 7: Number of initiatives supporting public or private realms only, or both

Chart 5 illustrates the breakdown of initiatives that supported greening in either the public or private realms only, as well as those that support both realms (n=26 initiatives).
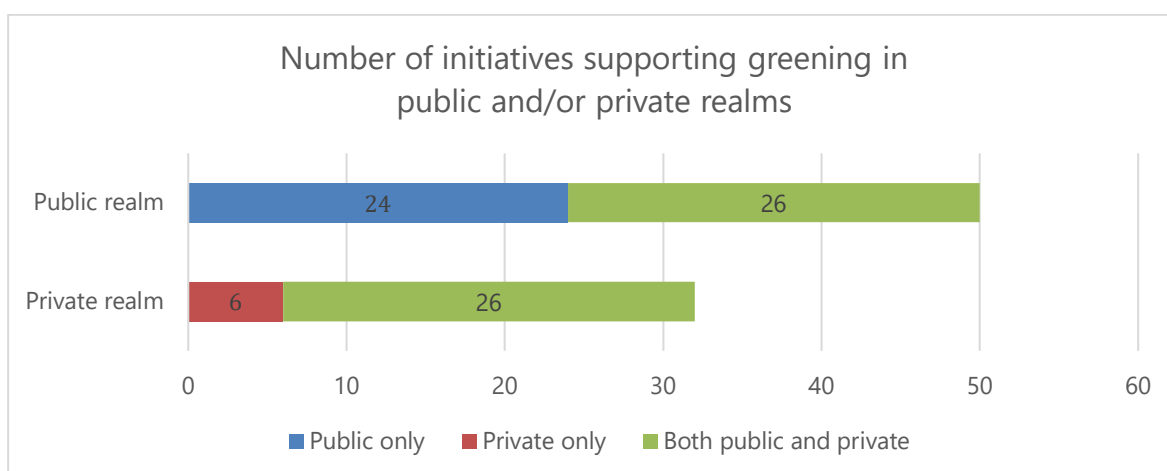
Chart 5: Number of initiatives supporting greening in public, private or both realms. The number supporting greening in the public realm is likely to be much higher than what is reported here, due to the way council initiatives were counted (large groups were packaged up and counted as 'one initiative', due to resources and time.)

5.2.2 Subsystem set: barriers to urban greening

Results show there is a relatively even spread in the number of initiatives across most subsystems relating to urban greening barriers. The two subsystems that were most represented were socially focused:

- Knowledge and skills (n=23; 41% of initiatives)
- Culture and community (n=20; 36% of initiatives).

'Climate and environment' had 19 initiatives (34% of all initiatives), however it's worth noting that nine of those were council initiatives which had been 'packaged up' – meaning the actual number was much higher. The 'Policy and planning' subsystem had 16 initiatives (29% of all initiatives), with four of these being 'packaged up' council initiatives also.

The subsystem 'Funding and investment' was the least represented, with three greening initiatives belonging.

Table 8 provides a summary of the number of initiatives across the subsystems that relate to urban greening barriers. These numbers have been visually represented in Chart 6.

Subsystem (greening barrier)	# initiatives (n=56)	% of all initiatives
Knowledge and skills	23	41%
Culture and community	20	36%
Climate and environment	19	34%
Policy and planning	16	29%
Funding and investment	3	5%

Table 8: Number of initiatives belonging to subsystems relating to greening barriers (greening initiatives may belong to more than one subsystem)
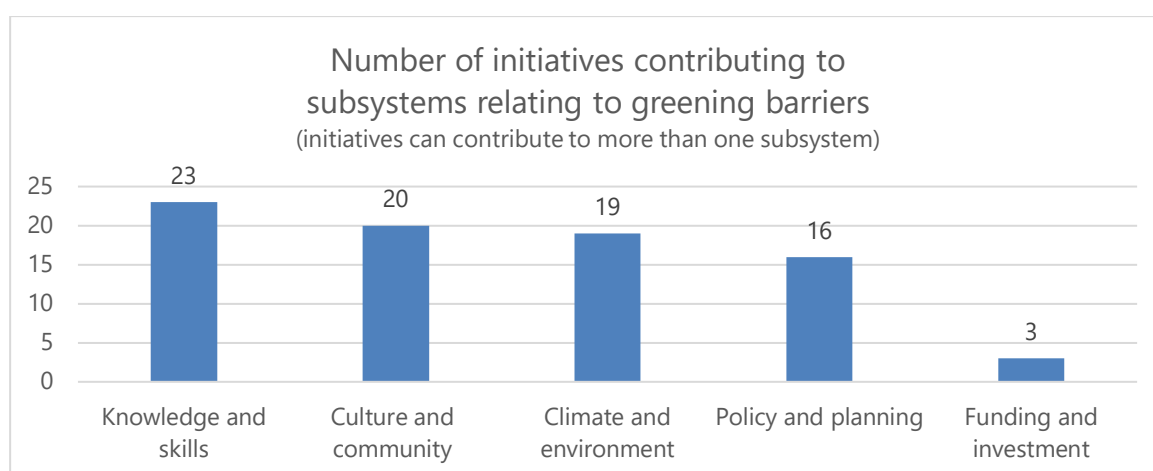
Chart 6: Number of initiatives contributing to subsystems relating to greening barriers

5.2.3 Realms vs barrier subsystems

When applying both subsystem lenses to the data, results show there were consistently more initiatives addressing greening in the public realm, across all barrier related subsystems.

In general, there were between 20% and 33% more greening initiatives in the public realm, per barrier subsystem – except for the 'Climate and environment' subsystem. This subsystem had three times the amount of greening initiatives supporting the public realm than the private realm. This was a reflection of the number of council initiatives in this space, as well as community led projects that targeted public spaces.

Table 9 and Chart 7 provide a breakdown of the number of initiatives in each realm (public and private) by barrier subsystem.

Subsystem (barriers)	Public realm		Private realm	
	# of initiatives	% of all initiatives	# of initiatives	% of all initiatives
Knowledge and skills	20	36%	16	29%
Culture and community	17	30%	13	23%
Climate and environment	15	27%	5	9%
Policy and planning	16	29%	12	21%
Funding and investment	3	5%	2	4%

Table 9: Number of initiatives addressing barriers to urban greening in public or private realms
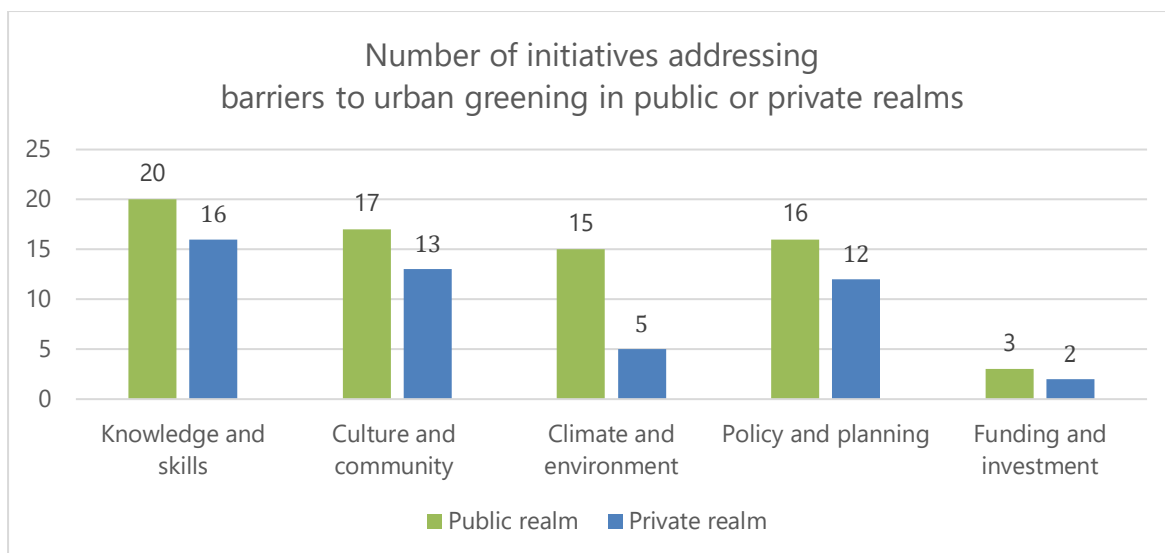
Chart 7: Number of initiatives addressing barriers to urban greening in public or private realms

5.3 System functioning and adaptability

Each greening initiative was analysed and mapped against 36 characteristics that spanned nine focus areas, based on Zivkovic's Diagnostic Model for Tackling Wicked Problems[2] and using Wicked Lab's Tool for Systemic Change[4].

The mapping showed which characteristics and focus areas were well represented across the greening system, indicating system strengths in its functionality and adaptability. It also highlighted opportunities where the system could be further strengthened, to improve functionality and adaptability.

Results are summarised below, and presented in Table 10 and Chart 5 using language from the Diagnostic Model for Tackling Wicked Problems, as well as adapted language that was used during the pilot project to assist communication of results to stakeholders.

5.3.1 System strength: Focus Area #1 'Create a disequilibrium state'
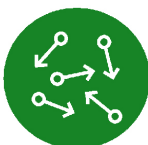
Results indicate the greening system is strongest in **Focus Area #1 *'Create a disequilibrium state'*** (*Shake things up*), with an average of 81% of initiatives having characteristics across this category.

Focus Area #1 includes characteristics that help a system to disrupt the current way of working. For example through communicating the need to address greening differently (using a systems perspective), creating passion for action, controversy and bringing out different points of views.

It also includes characteristics related to the way initiatives were set up. These include whether there were considerations made about how the initiative would be developed, if it had broad and flexible goals, and whether or not it had geographical and/or issue based boundaries.

Focus Area #1 is a key step a system needs to go through to become adaptive and transition to a new way of working, with increased system functioning and performance.[5]

5.3.2 System opportunity: Focus Area #2, Amplify action

An average of 56% of greening initiatives had characteristics that fit within **Focus Area #2 *'Amplify action'*** (*Join up and ripple out*).

This focus area is based on the notion that small changes to the system, made through actions or events, can spread quickly through the community and system – if connections and communications across the system are increased. If greening initiatives had characteristics included in this focus area, they would help the system overcome the lock-in to the previous ways of working, and push it to a new way.[6]

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[4] See www.wickedlab.com.au/toolforsystemicchange.html
[5] Wicked Lab (2018), 'Focus Area 1: Create a Disequilibrium State'. Lecture from Complex Systems Leadership Program.
[6] Wicked Lab (2018), 'Focus Area 2: Amplify Action'. Lecture from Complex Systems Leadership Program.

Characteristics within this focus area relate to connecting people within the system, and helping to amplify current greening efforts. For example through bringing people together for open discussions (in a safe space), supporting people to address greening together, creating links between greening activities, and catering for a range of people with different views on greening.

Characteristics also include supporting people involved with greening activities to see themselves as part of a system that has different subsystems (which they could organise themselves by), as well as supporting safe to fail experiments.

Focus Area #2 was highlighted to Greening Marion participants as one of the opportunities that could be focused on to help strengthen the functionality and adaptability of the overall system.

5.3.3 System opportunity: Focus Area #3, Encourage self-organisation

An average of 56% of greening initiatives had characteristics that fit within **Focus Area #3 'Encourage self-organisation'** *(Create identity and combine resources)*.

Focus Area #3 is concerned with supporting a system that has pushed through an old way of working (and is moving towards a new way), to keep moving and not slip back to the old way. It focuses on supporting the system to self-organise – to recombine with new patterns of interaction and working arrangement.[7]

This focus area includes initiative characteristics that support people within the system to make sense of the system, issues and different perspectives. This can be through establishing and using shared language and symbols, such as logos, taglines, branding, or vision statements, and by encouraging people to be greening role models.

Characteristics also include supporting the exchange of information across subsystems, and assisting people to combine their resources and/or skills in new ways.

This focus area was also highlighted to Greening Marion participants as an opportunity for further strengthening.

5.3.4 System opportunity: Focus Areas #6 to #9, Connecting community and government

The last four focus areas **(Focus Areas #6, #7, #8 and #9)** were the least represented in the mapping, with an average of between 40% and 55% of greening initiatives having characteristics from these categories.

These focus areas all relate to **two way communication between government and the community**, to help them both understand each other. Characteristics include supporting government (including administration staff and elected representatives) to:

- understand, consider and use community knowledge, ideas and innovations
- to be transparent, and provide information in ways that are helpful to communities
- support community projects/knowledge/innovations that are addressing government plans
- make community knowledge and ideas available for others to use, including elected representatives (local, state, federal).

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[7] Wicked Lab (2018), 'Focus Area 3: Encourage Self-organisation'. Lecture from Complex Systems Leadership Program.

Focus area (diagnostic model)	Theme (pilot language)	Initiative characteristic (diagnostic model)	Activity (pilot language)	# initiatives	% initiatives	Average % of initiatives across focus area
1. Create a disequilibrium state	Shake things up	Highlight the need to organise communities differently	Talk about addressing greening in a holistic, big picture way.	42	75%	81%
		Cultivate a passion for action	Create passion, or inspire people in the community to take action.	41	73%	
		Manage initial starting conditions	At the start, considerations were made around how it would be developed (e.g. who would be involved, the approach (collaborative, top-down, enabling) and the values and philosophy).	50	89%	
		Specify goals in advance	Broad goals relating to urban greening in Oaklands Park, Marion and/or Park Holme.	54	96%	
		Establish appropriate boundaries	Clear geographical or issue-based boundaries.	53	95%	
		Embrace uncertainty	Flexible plans or out-comes that are able to adapt over time.	53	95%	
		Surface conflict	Help to bring out different (and conflicting) points of view.	34	61%	
		Create controversy	Create some kind of controversy or challenge the status quo (e.g. highlighting issues that start to make people feel a little uncomfortable).	35	63%	
2. Amplify action	Join up and ripple out	Enable safe fail experimentation	Encourage 'safe to fail' experiments (where people can trial things and it's ok if they don't all work out).	34	61%	56%
		Enable rich interactions in relational spaces	Bring people together (in a safe space) for open discussions about urban greening.	32	57%	
		Support collective action	Support different people and groups to address urban greening together.	40	71%	
		Partition the system	Highlight or explain how the greening system within Marion, Oaklands Park and Park Holme is made up of different parts.	2	4%	
		Establish network linkages	Create connections with other projects, groups or individuals who are addressing greening in the area.	47	84%	
		Frame issues to match diverse perspectives	Cater for people who have different points of view on urban greening.	34	61%	
3. Encourage self-organisation	Create identity and combine resources	Create correlation through language and symbols	Use logos, taglines or branding, resources/ideas created collectively (e.g. visions)	31	55%	55%
		Encourage individuals to accept positions as role models for the change effort	Encourage people to be greening role models/champions.	35	63%	

Focus area (diagnostic model)	Theme (pilot language)	Initiative characteristic (diagnostic model)	Activity (pilot language)	# initiatives	% initiatives	Average % of initiatives across focus area
		Enable periodic information exchanges between partitioned subsystems	Support programs, projects or organisations that are focusing on different parts of greening, to share information.	24	43%	
		Enable resources and capabilities to recombine	Support people to combine their resources and/or skills in new ways.	34	61%	
4. Stabilise feedback	Embed, watch and respond	Integrate local constraints	Fit within local constraints / context / needs (e.g. regulations, community needs and expectations).	55	98%	66%
		Provide a multiple perspective context and system structure	Provide a structure or ongoing support for diverse stakeholders to work together.	23	41%	
		Enable problem representations to anchor in the community	Use marketing or communication materials for the broader community (e.g. website, brochure, bumper stickers, key rings etc).	42	75%	
		Enable emergent outcomes to be monitored	Monitor unforeseen / unplanned outcomes.	28	50%	
5. Enable information flows	Build collective knowledge	Assist system members to keep informed and knowledgeable of forces influencing their community system	Keep people in-formed about the "big picture" – (i.e. the political, economic, social, technological, national and international forces) that affect local greening efforts.	37	66%	64%
		Assist in the connection, dissemination and processing of information	Use technology (e.g., social media, websites, eNews, team platforms, apps) to understand and/or share information with others addressing greening.	49	88%	
		Enable connectivity between people who have different perspectives on community issues	Connect people who have different perspectives.	32	57%	
		Retain and reuse knowledge and ideas generated through interactions	Support collective learning through recording discussions and ideas and making them available to others.	25	45%	
6. Public administration – adaptive community interface	Align government and community	Assist public administrators to frame policies in a manner which enables community adaptation of policies	Support public servants to explain policies so they can be understood and used by communities.	23	41%	55%
		Remove information differences to enable the ideas and views of citizens to align to the challenges being addressed by governments	Help governments to be transparent, and provide information in ways that are helpful to communities.	37	66%	
		Encourage and assist street level workers to take into account the ideas and views of citizens	Assists government and non-government workers to consider community views and ideas.	32	57%	

Focus area (diagnostic model)	Theme (pilot language)	Initiative characteristic (diagnostic model)	Activity (pilot language)	# initiatives	% initiatives	Average % of initiatives across focus area
7. Elected government – adaptive community interface	Shape policies with community voice	Assist elected members to frame policies in a manner which enables community adaptation of policies	Support elected representatives (local, state, federal) to explain policies so they can be understood and used by communities.	22	39%	40%
		Assist elected members to take into account the ideas and views of citizens	Assists elected representatives (local, state, federal) to consider community views and ideas.	23	41%	
8. Community innovation – public administration interface	Tap into community know-how	Encourage and assist street level workers to exploit the knowledge, ideas and innovations of citizens	Help staff (government and non-government) to use community knowledge, ideas and innovations.	25	45%	41%
		Bridge community-led activities and projects to the strategic plans of governments	Link community-led activities to government strategic planning (e.g. identify and support community projects/knowledge/innovations that are addressing government plans).	25	45%	
		Gather, retain and reuse community knowledge and ideas in other contexts	Gather community knowledge and ideas and make it available for others to use in different ways (e.g. having a project/initiative register on a government website).	19	34%	
9. Community innovation – elected government interface	Promote community initiatives	Encourage and assist elected members to exploit the knowledge, ideas and innovations of citizens	Support elected representatives (local, state, federal) to use community knowledge, ideas and innovations.	18	32%	40%
		Collect, analyse, synthesise, reconfigure, manage and represent community information that is relevant to the electorate or area of portfolio responsibility of elected members	Provide elected representatives (local, state, federal) with community information that is relevant to their electorate area or portfolio.	27	48%	

Table 10: Percentage of greening initiatives with characteristics that support system functioning
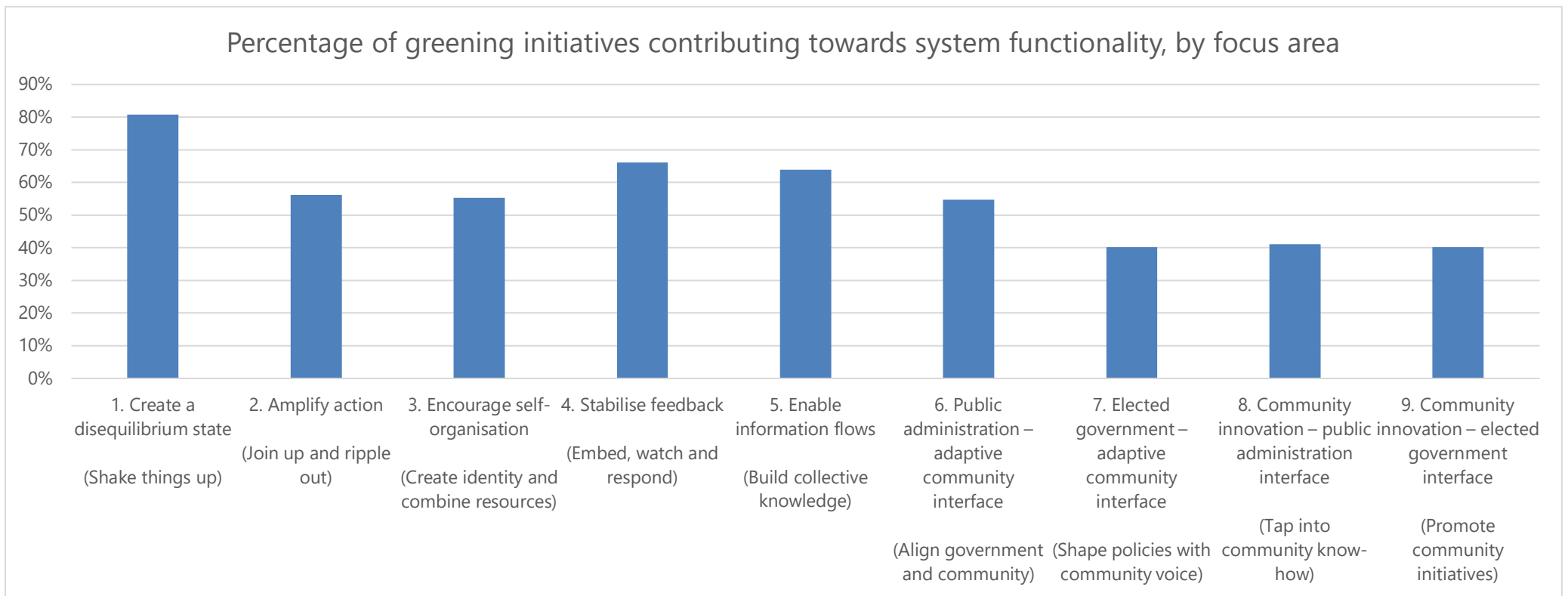
Chart 8: Percentage of greening initiatives contributing towards system functionality, by focus area

Each colour group represents a focus area. Each column represents an initiative characteristic.
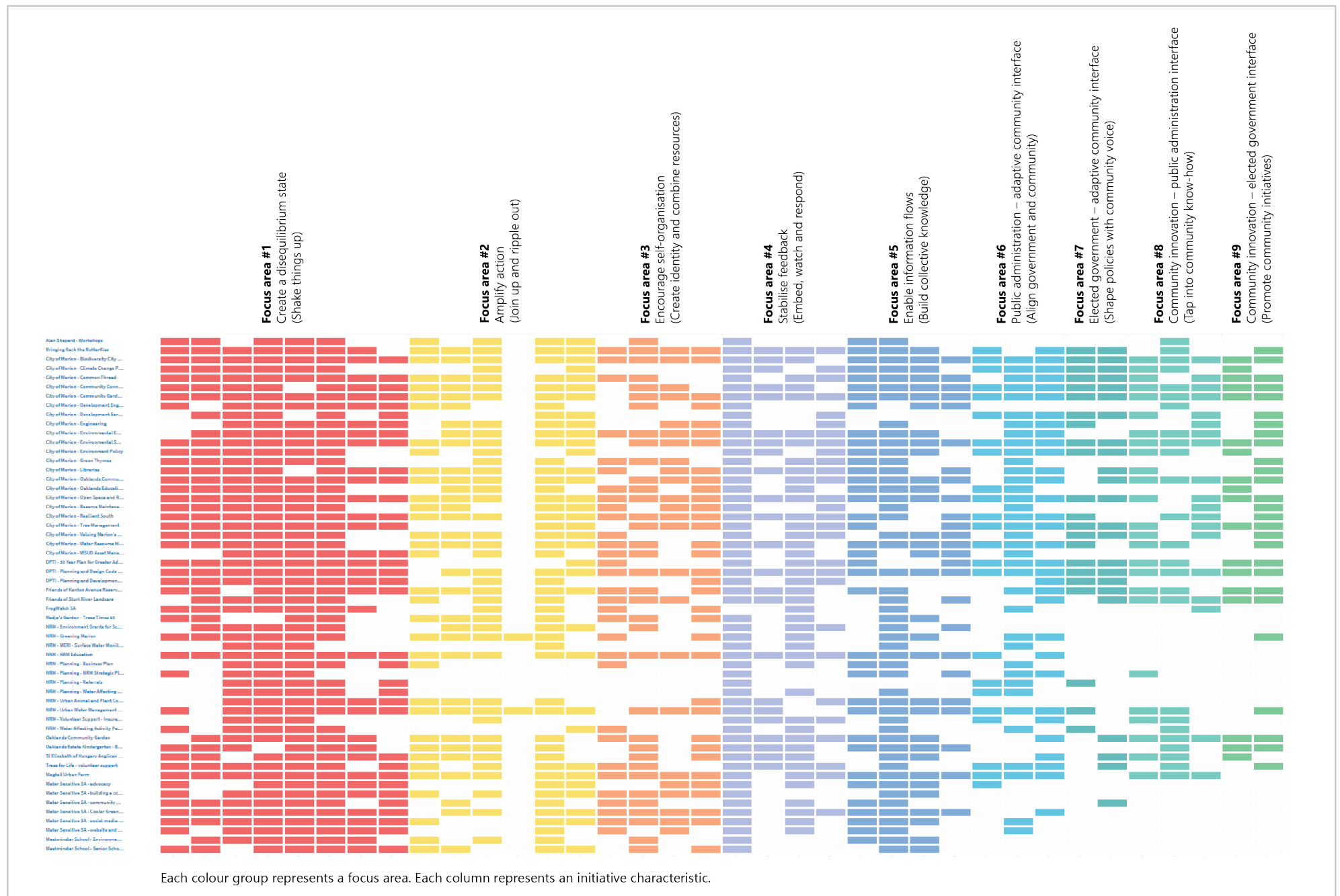
Figure 4: Transition Card, which represents the functionality of the Greening Marion system. It lists greening initiatives on the left hand side, and each colour represents a focus area. The columns within each colour represent an initiative characteristic. Coloured rectangles indicate where a greening initiative has a particular characteristic.

6   Results: Project objectives

6.1   Systemic impacts and improvement

6.1.1   Improved stakeholder understanding of the solution ecosystem

Increased understanding of other stakeholders within the greening system

Participant feedback from the Zoom polls (during workshop #2) and follow up phone calls indicated the majority of participants further developed their understanding of the local greening system.

At the end of workshop #2, participants were asked how strongly they agreed with the statement 'I now have a better idea of who else is in the greening system.' Of the 15 people who responded, 93% agreed with the statement (60% 'agreed', and 33% 'strongly agreed').
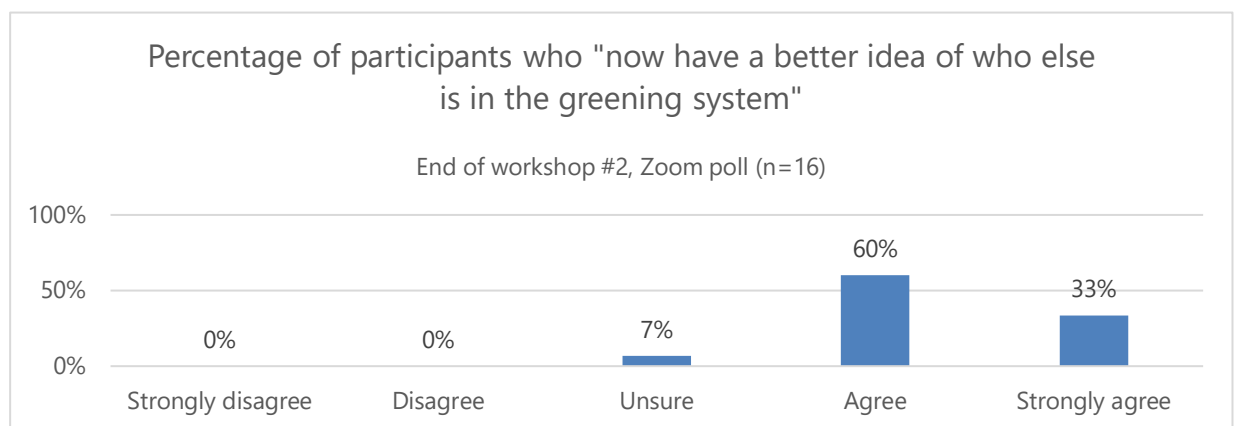
Chart 9: Participant awareness of other system members

During follow up phone calls after workshop #2, participants were asked if they understood the concept of a greening system, and how they were part of it. All of the 20 participants contacted had an idea of what the greening system was. Some people said they were already aware of the concept from previous experience, and for many of these the project provided a reminder or confirmation of the importance of working in this way.
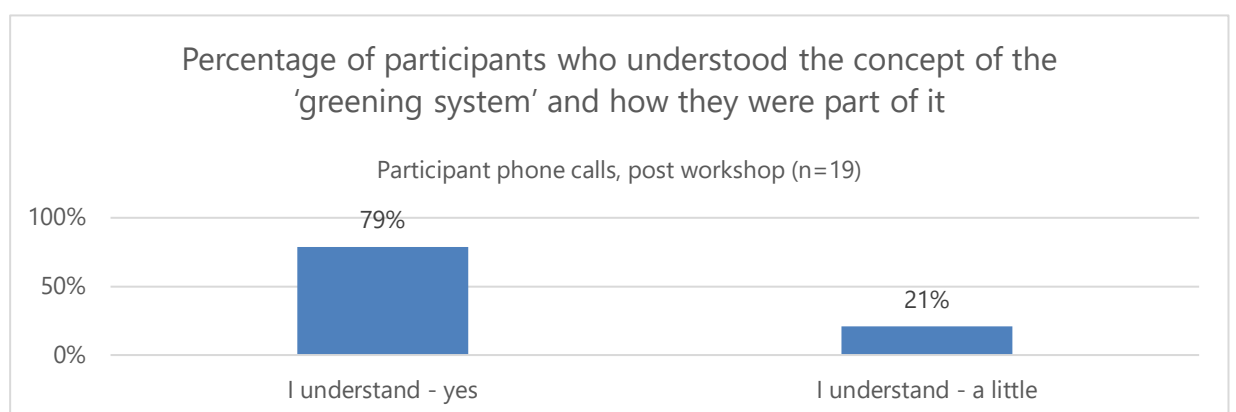
Chart 10: Participant understanding of a 'greening system'

Increased understanding of gaps and opportunities to build system adaptive capacity

At the end of workshop #2, participants had a broad idea of how they could help to strengthen their greening system, with 94% of 15 poll respondents agreeing with the statement 'I have some ideas of how I can help make our greening system stronger.'
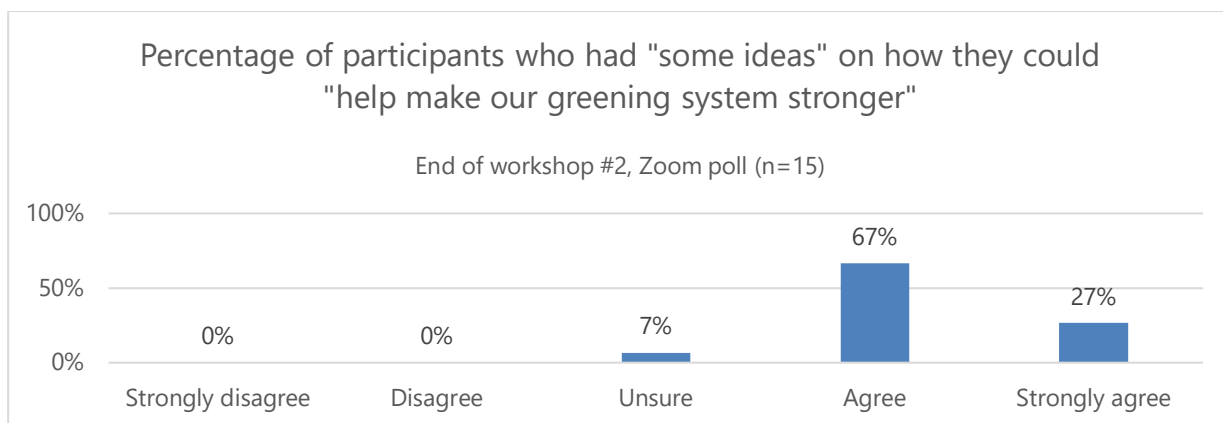
Chart 11: Participant awareness of how to strengthen the system

When prompted during the follow up phone calls to reflect on what areas could be improved to help the overall functioning of the greening system, the majority of people (61%) identified actions related to increasing and enhancing connections, networks, and collaboration.

Others identified 'more natural landscaping', less involvement from government, and applying learning through strategic planning processes. Three people were unsure of how to improve the greening system.
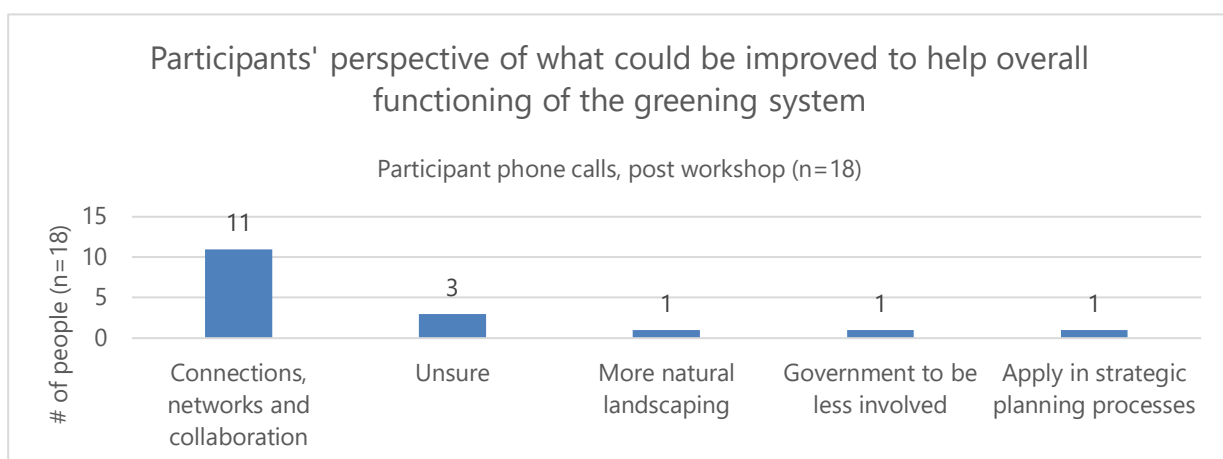
Chart 12: Participants' perspective of what could be improved to help overall functioning of the greening system

6.1.2 Greater stakeholder capacity, connections and collaborations

Increased understanding of importance of complexity approach

When asked during post workshop phone calls whether Greening Marion helped them to develop their understanding of the importance of taking a complexity approach, most participants (79%) said 'yes'. Many acknowledged they had previous awareness of this type of approach, and that Greening Marion had expanded their awareness of its application, or brought them to another level of understanding. One person was unsure if the project had increased their understanding, and three said the project did not (two of whom said they were already familiar with complexity).

Chart 13: Percentage of participants who developed a greater understanding of the importance of taking a complexity approach

Increased capacity to progress greening

Participants were asked during the follow up phone calls whether there was anything in particular that they learnt or discovered as a result of the Greening Marion project. The most prominent theme that emerged was 'what others were doing'. This theme included developing a greater awareness of who else was in the greening system. Many people expressed amazement and gratitude relating to the number and diversity of greening initiatives within the area, as well as the passion of individuals involved in those initiatives. One person praised the City of Marion for being involved with the project.

People also learnt about, or were reminded of, the importance of other people's perspectives and what they were. This included when people had different or shared perspectives.

Others reported on learning about where best they could focus their future greening efforts, and some developed their understanding of taking a complexity approach. Three people reported increasing their awareness of different ways to deliver on-ground urban greening.

A summary of learning outcomes is provided in Table 11.

Learning theme	Detail	# respondents (n=18)
What others were doing	Awareness of the diversity, quantity and passion of greening initiatives and/or other people involved in greening in the area.	8 people
Perspectives (different and shared)	Recognising different perceptions and points of views, and/or shared values and perspectives.	4 people
Where to focus future efforts	Recognising the gaps and focus areas – knowing where to focus future efforts.	4 people
Greening Marion's approach	Better understanding of the complexity approach the project was based upon.	3 people
Urban greening	Awareness of different ways to deliver on-ground greening for our urban environment.	3 people

Table 11: Workshop participant learning outcomes.

Intentions to connect with other stakeholders

At the end of workshop #2, participants were asked via a Zoom poll, to rate their level of agreement with the statement: "I intend to strengthen a current connection, or make a new connection, with someone else from the greening system." Of the 15 people who responded, 93% agreed with the statement (including 20% who 'strongly agreed').

Percentage of participants who intended to strengthen or create a connection

End of workshop #2, Zoom poll (n=15)

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
	0%	0%	7%	73%	20%
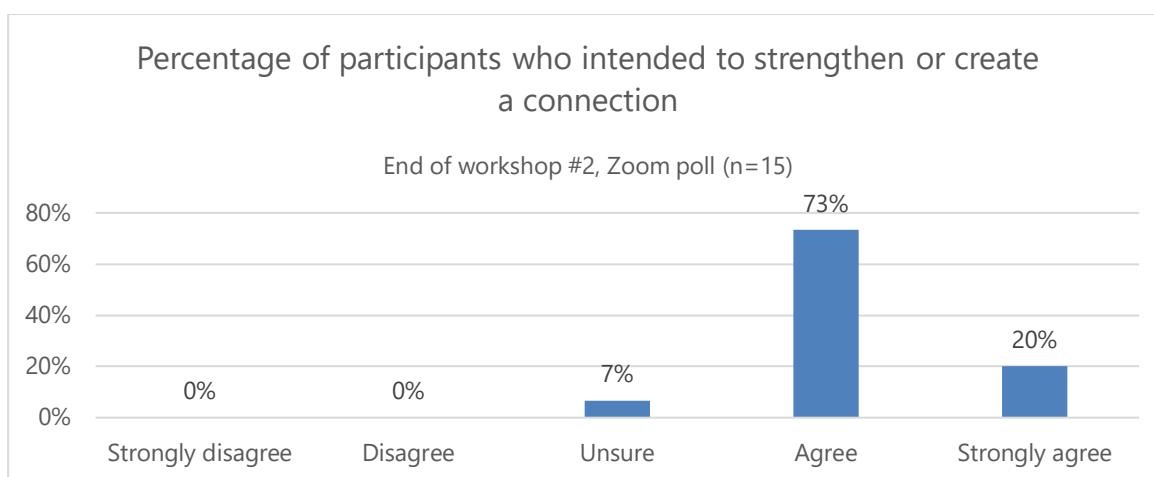
Chart 14: Percentage of workshop #2 participants who intended to strengthen a current connection, or make a new connection, with someone else from the greening system

During the participant evaluation phone calls, a number of questions were asked to determine their interest – at that time – in making connections with others around urban greening. About one month after workshop #2, 65% of participants were still interested in "following up" a connection or collaboration opportunity.

Percentage of participants interested in following up connections or collaborations

Participant phone calls, post workshop (n=20)

	Yes - interested	Not yet, but there's potential	No - knew people already	No
	65%	15%	5%	15%
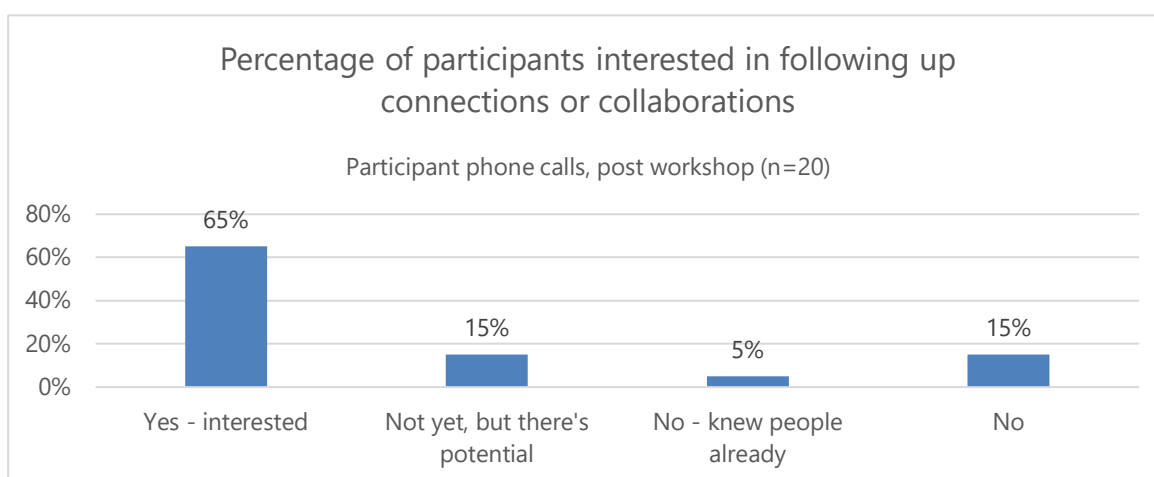
Chart 15: Percentage of participants who were interested in following up connections or collaborations, post workshops

Who participants wanted to connect with

During the evaluation phone calls, about half of the participants (10 people) expressed an interest in connecting with people from community groups, and the community in general. Six people wanted to connect with staff and/or elected members from the City of Marion, and three people wanted to connect with the planning and development sector.

Two people expressed an interest in connecting with other councils. Kaurna, social services, Green Adelaide and Water Sensitive SA were each identified by one person for connecting with.

Table 12 provides a summary of the stakeholder groups and stakeholders who workshop participants expressed an interest in connecting with.

Notes:

- The last column "# people interested in connecting with stakeholder" may not add up to the second column "# people interested in connecting with stakeholder groups", because participants identified multiple stakeholders.

- This table reflects unprompted responses, indicating what was top of mind.

Stakeholder group	# people interested in connecting with stakeholder groups	Stakeholder	# people interested in connecting with stakeholder
Community	10 people	Community groups (generally)	2 people
		Friends of Sturt River Landcare	4 people
		Oaklands Estate Residents' Association	2 people
		Living Smarties	1 person
		Bringing Back the Butterflies	1 person
		Saint Elizabeth of Hungary community garden	1 person
		Community gardens (generally)	1 person
		Community members (e.g. through a focus group)	1 person
City of Marion	6 people	Elected members – in pilot area	2 people
		Elected members – in council's southern areas (to broaden scope)	1 person
		Staff who are managing verges	1 person
		Engineering staff	1 person
		Reserve Maintenance Program staff	1 person
		Biodiversity staff	1 person
		Staff working on the Sturt River drain project	1 person
Planning and development	3 people	Planning and development sector (generally)	3 people
		Oaklands Housing Renewal Program	1 person
Other councils	2 people	Councils across metropolitan Adelaide	2 people
Anyone	2 people	As many stakeholders as possible	1 person
		People who have stories to share / promote	1 person
Kaurna	1 person	Kaurna Elder Aunty Lynette Crocker	1 person
Social services	1 person	Australian Red Cross	1 person
		Social services organisations (generally)	
Green Adelaide	1 person	Director of Green Adelaide	1 person
Water Sensitive SA	1 person	Program Manager	1 person

Table 12: Stakeholders who participants wanted to connect with (unprompted).

Many participants were interested in sharing their contact details with others who came to the workshops, as well as attending future meetings or events to continue connecting with people.

In response to this interest, a one hour Connect Up online meeting was held on 3 September, which saw 11 people attend, including a couple of people who did not attend the workshops. During this event, people reiterated the desire to continue connecting in some form, despite the pilot stage being complete.

New connections as a result of the project

In the months following the June 2020 workshops, anecdotal evidence showed connections between initiatives were being made. This included:

- between project stakeholders (e.g. council projects and community groups, a resident and community groups, school initiatives and Green Adelaide)
- beyond the current stakeholder group and greening system – including internationally.

These results provide an early indication that the greening system was starting to increase in size and diversity, through these connections.

6.1.3 Cohesive action across the solution ecosystem

Stakeholders' value participating in the lab

Overall, all stakeholders who were asked what they thought of the workshop (n=20) provided positive feedback and seemed to enjoy taking part. As reported in Section 6.1.2, everyone understood the importance of the approach to a larger degree, and were generally supportive. Some people were overwhelmingly supportive, some supportive "more or less", and many people somewhere in between.

Generally, people were pleased with the project, and enjoyed and appreciated the process, there were some mixed responses that related to the delivery of some parts of the project. These mostly related to the interview stage, communication resources and some aspects of the workshops' delivery. Feedback has been collated and used to inform an adapted model (see Appendix 10).

Are engaged and addressing the gaps

While is still too early to see widespread changes, early indicators show that many stakeholders are engaged and making plans to address some system gaps.

During the 3 September 'Connect Up' meeting, stakeholders shared some actions they have already undertaken, and others shared actions they were planning – as a direct result of Greening Marion.

Some examples, and the opportunities they were addressing, are summarised in the table below.

New initiative	Opportunities being addressed
City of Marion is developing a new initiative to share stories of greening from resident's front and back yards using social media, as well as deliver four workshops.	- Focus Area #2: Amplify action - Focus Area #3: Encourage self-organisation - Subsystem: Private realm
Westminster School has participated in a tree planting day at a winery impacted by bushfire, and won a grant to plant 125 local native plants around their school oval. They have also connected with other schools across the world using Zoom.	- Focus Area #2: Amplify action - Focus Area #3: Encourage self-organisation - Subsystems: Public and private realms
Water Sensitive SA is planning on creating an information resource for developers to build capacity in water sensitive urban design.	- Focus Area #2: Amplify action - Subsystem: Private realm
A local resident joined the Friends of Upper Sturt River and helped with two planting days. She has also	- Focus Area #2: Amplify action

nominated a community member for an award, raised awareness of the project with another community organisation and asked for input, submitted an application to council to plant a small patch of land with (copying the Friends of Sturt River model). She is also planning to refurbish a section of their garden to introduce local native species.	• Focus Area #3: Encourage self-organisation • Subsystems: Public and private realms

Table 13: New initiatives addressing system opportunities

6.2 Project partners' development

6.2.1 Improved project partner capacity to work in complexity and progress greening

Project partners regularly reflected on their learnings throughout the pilot team meetings and in a final project review. Reflections showed:

- The partnership between the City of Marion and Green Adelaide was strengthened throughout the project, with future system building initiatives being planned.

- Team members' confidence in *leading* a complexity project using FEMLAS was mixed, but the confidence to work in complexity increased for everyone.

- Partners all noted a series of changes needed in the FEMLAS process (see 'Section 7.2 Adapting the approach' and Appendix 10).

- All partners were open to learning and adapting their work as they went.

- Over half of the project partners were undecided as to whether they had gained experience in experimentation and almost half did not understand where the gaps and opportunities existed in the greening system. This is likely due to the fact that half of the project team came in at a later stage of the project, and did not undergo training or provide operational support.

- All project partners could see how to progress greening but not all could see clear and tangible ways to do this.

Project partners reported they:	Agreed	Undecided	Disagreed
Developed an improved understanding of the greening system (stakeholders and initiatives)	100%		
Developed increased capacity to progress greening	100%		
Developed clear and tangible transition pathways to increase greening	45%	33%	22%
Gained experience in experimentation	44%	56%	0%
Developed an improved understanding of the gaps and opportunities in the greening system	44.5%	44.5%	11%

Table 14 : Project partners survey results.

6.3 Sector development

6.3.1 Development of a model that can be used for wicked problems elsewhere

The project team has taken the learnings from delivering the Greening Marion pilot project and produced an adapted model to address wicked problems. See 'Section 7.2 Adapting the approach' and Appendix 10.

6.3.2 Shaping a vision for urban greening

A collective vision for cooler, greener, more sustainable suburbs was developed during the workshops. This vision is a rich narrative that covers:

- Kaurna knowledge and learning
- Water
- Biodiversity
- Connectivity
- Equitable access to open, people spaces
- Responsibility.

Kaurna knowledge and learning

The Kaurna history, knowledge and understanding of managing this land is respected, learned and integrated. People within our suburbs are able to connect with nature and learn about nature. Our suburbs are alive and living.

Water

Water flows and connects our suburban spaces in ways that give joy to people and sustains the biodiversity of the suburbs. Water is managed with respect for the many ways it adds value to our landscapes – being a source of life itself – it brings our landscapes alive to all our senses. Providing reflective human spaces in addition to creative areas for play, exploration and discovery.

Biodiversity

As we pass through our suburbs we are struck by the layers of biodiversity – on buildings, verges and in generous open spaces. There are layers of plants of multiple types, with a predominance of native species and some practical exotics that feed people. The abundance of plant life attracts and sustains a suburban eco-system of native animals, insects and birds.

Connectivity

Our community finds connection in our open spaces. These are places where we work and play. Even the process of revegetating and redesigning our cooler, greener suburbs brings us together. That connectivity is reflected in the trails that exist at the larger scale between different types of spaces that provide corridors on which to travel for animals and people alike. Similarly, neighbourhood gardens are connected to each other too – joining people and places. Friendships and community are facilitated by this connectivity.

Equitable access to open, people spaces

Everyone is able to enjoy equitable access to our open, public people spaces in nature. These are places where people enhance their wellbeing holistically. They can exercise, congregate, reflect, play and engage. They are safe places for people to enjoy away from traffic. These spaces enliven our human senses.

Responsibility

Everyone takes responsibility for bringing our vision into being. We engage with each other as private citizens and all tiers of government and work collaboratively.
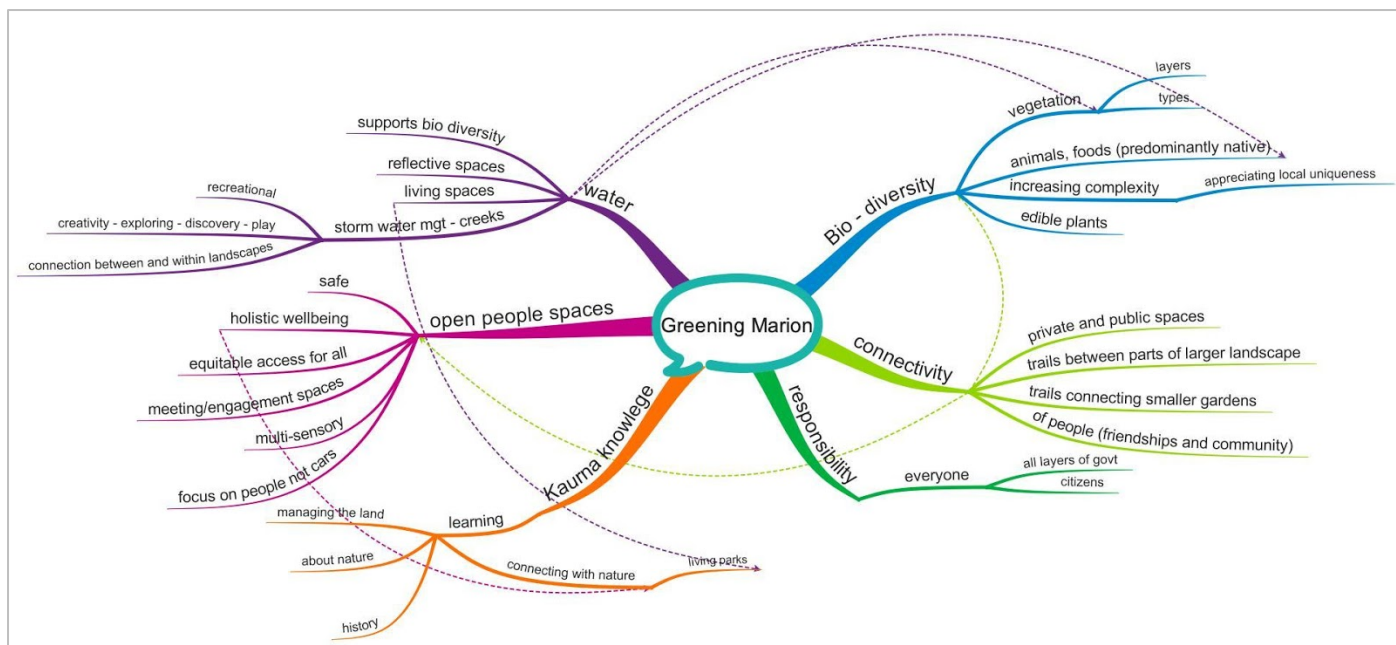
Figure 5: Mind map of the collective vision for cooler, greener, more sustainable suburbs. See Appendix 9 for full size.

Participants relating to the vision

When participants were asked if they could 'see' or 'hear' their own vision in the collective vision (during workshop #2), 93% said 'yes'.
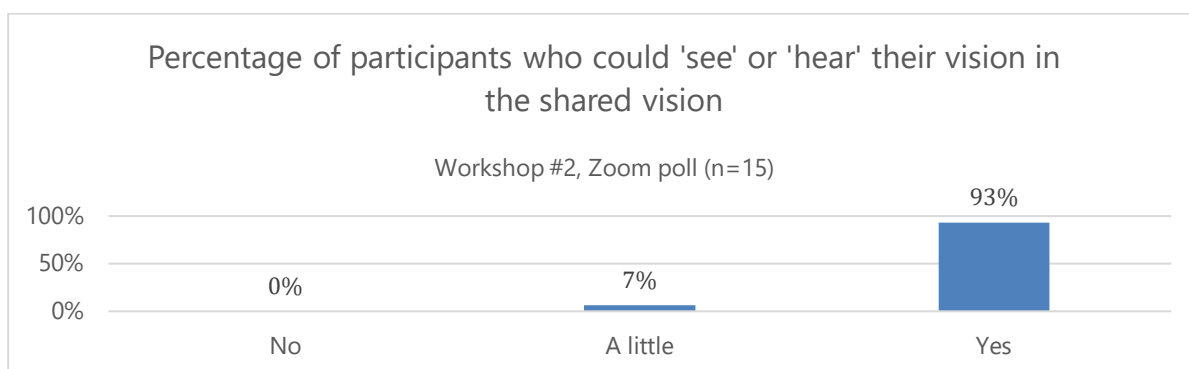
Chart 16: Percentage of participants who could 'see' or 'hear' their vision in the shared vision

6.3.3   Development of a community of practice.

A community of practice has not yet been formed, however there is international interest in starting one. See 'Section 7.3.2 Community of practice in delivering a complexity approach' for details.

7 Reflections and recommendations

7.1 Leverage pilot benefits and learnings across City of Marion

The Greening Marion pilot connected people involved in greening activities. It inspired action and awareness of the need to strengthen collective efforts. It built some recognition and goodwill towards the Greening Marion 'brand' (or identity). These benefits can be leveraged and amplified across the whole council area.

The pilot has also provided a 'road map' to a better functioning system, which can be applied across the whole council area. This is because 84% of the initiatives mapped in the pilot were delivered across the whole City of Marion (not just in the three pilot suburbs).

Recommendations:

- **Deliver annual council-wide greening forums**
  Hold an annual forum for people involved in greening initiatives from anywhere across the City of Marion council area. This forum would bring together different sections of council, the greening sector and the community. It would build system capacity and support communication, shared learning, collaboration and innovation in urban greening.

  It would have a special focus on building capability within the system across the three areas identified through the pilot as system opportunities (see Section 5.3 System functioning and adaptability'):

  - Focus Area #2, 'Amplify action'
  - Focus Area #3, 'Encourage self-organisation'
  - Focus Areas #5 to #9, 'Connecting community and government'

  This forum may also focus on mapping causal factors (or barriers to urban greening), identifying current initiatives and gaps in effort. (See 'Section 7.2.4 Initiatives' for details.)

- **Expand and elevate the 'Greening Marion' identity**
  Expand the "Greening Marion" identity beyond the pilot area, to represent the collective efforts of all urban greening activities across the City of Marion.

  Elevate this identify through consistent communication through a range of local channels, (e.g. social media using #GreeningMarion, Green Thymes enews, City Limits, and stakeholder's websites and enews).

- **Inspire efforts to continuously build system capability**
  Share relevant system mapping results in an accessible and engaging way across the City of Marion to raise awareness of system opportunities (i.e. Focus Areas). Share stories of people involved in greening initiatives and explain how different aspects of their initiatives are contributing towards strengthening the overall system.

- **Provide strategic and financial incentives**
  Adapt council grants (and other financial incentives) that are related to urban greening so they encourage new initiatives to address system opportunities. Ensure system needs are considered during future council's strategic planning processes.

- **Continue to build understanding of system strength and changes over time**
  Ensure strategic planners and engagement specialists continue to build knowledge and skills in the applications of complexity science. This includes through participating in the development of sector capacity (see 'Section 7.3 Developing sector capacity').

7.2 Adapting the approach to address wicked problems

The Greening Marion pilot tested the delivery of a Systemic Innovation Lab using the FEMLAS process (both developed by Wicked Lab). It was the first time this process has been applied with two levels of government as the lead organisation, anywhere in the world. (This process has only been applied one other time, in Western Australia, where a university was the lead organisation.)

Throughout the process, the project team undertook numerous review and evaluation activities to test, monitor and adapt its approach to make the project relevant and accessible to stakeholders. Many aspects of

the project were well received, and as with any pilot, there were also things that could be done differently should a project such as this be delivered again.

Below are some key reflections and learnings that have been gathered along the way. An adapted model for addressing wicked problems has also been developed by partner organisations. This model has been referred to in the following section and is available in Appendix 10

7.2.1 Project management and team resourcing

Project team (Core and Support Teams)

The project team underwent a number of changes during the planning and delivery stages, with team members coming and going due to staff changes (about half the team moved to new roles, and others' capacity to contribute was very limited). This impacted on the level of understanding different members had on the methodology, and people's capacity to contribute to the project.

All but one member of the project team were from either of two lead organisations (NRM Board and City of Marion), meaning there was very limited organisational diversity in the project team. The core team also didn't have diverse representation from the community or across the system, which is recommended as part of the FEMLAS process.

Despite this, the project team did have a very diverse skill set, and were able to bring in additional capacity and skills at appropriate times (for example to design the interview questions, create communication content, graphic design, and to facilitate the workshops.) A contractor with an academic background in complexity was recruited to scribe all interviews, and also provided both strategic and logistical support.

The project team noted it would have been beneficial for a team member to have technical data management skills, to provide guidance and support for data capture, cleansing and uploading to Wicked Lab's online tool.

Gantt chart and action plan

Both a Gantt chart and action plan were created (in Excel) and used to plan and track actions at key delivery stages. These were a little cumbersome, and difficult to keep updated as timelines changed. It may be better to use project management software such as Microsoft Project in future to easily update timeframes.

Communications/engagement strategy

While communication tasks were integrated in the Gantt chart and action plan, the project team did not develop a communications/engagement strategy (e.g. with communication/engagement objectives and key messages), before jumping into developing the communication tools. This may have created additional work when developing the tools as team members negotiated the level of information and language to use.

COVID-19

COVID-19 restrictions impacted the pilot from March 2020 until the pilot's completion in June 2020, in a number of different ways:

- **Workshops were delivered online instead of face-to-face.** For many stakeholders, this made it easier to attend, and allowed for a more controlled workshop. However it also removed the ability for incidental networking and required significantly more work to plan and deliver.

- **Online team collaboration**
  MS Teams were rolled out in both the NRM Board and the City of Marion, which allowed the project team to use the online team collaboration space and meet using online video conferencing. This reduced travel time for meetings, and allowed a more flexible approach to project planning and delivery.

Timeframes and resourcing

The project was planned and delivered within the agreed timeframes (1.5 years), however it did take longer and required more resourcing than originally anticipated. This was due to a combination of factors:

- experimental nature of a pilot project
- managing expectations of government bodies
- uncertainty around communication and engagement key messages, and levels of information
- managing stakeholder expectations and building stakeholder capacity
- changes in the project team
- COVID-19 restrictions.

Recommendations:

- **Create a diverse, multidisciplinary and cross sector reference group**
  Invite people who are well connected to the system, and ensure a broad representation of organisations and/or groups.

- **Create a diversely skilled working group**
  Invite people skilled in project management, data management, communications, stakeholder engagement, capacity building and facilitation.

7.2.2 Project team's capacity in delivering a complexity approach

Greening Marion was based on complexity science, which while is not new, has only recently begun to become more widely known. Some project team members completed online training to develop their capacity to understand and apply complexity science, and to use Dr Sharon Zivkovic's Diagnostic Model for Tackling Wicked Problems[8] and Wicked Lab's FEMLAS process.

This training equipped members with an academic understanding of complexity and its key concepts. Five mentoring sessions were also provided to the team during the project's duration, and about 40 hours of in-kind micro mentoring from Wicked Lab (phone and video calls as needed) to the project coordinator.

The project team found the online training beneficial as a foundational base, however the key benefit was in the mentoring sessions, micro mentoring, and team deliberation.

Recommendations:

- **Training workshops, as a whole team**
  Support the whole team to be on the same page, with either online or face-to-face training workshop(s) at the start of the project. This can be supported with online resources for those who are really interested in the finer details, and ongoing mentoring throughout the project.

- **Use an online team collaboration space to share and keep track of learnings**
  Leverage the micro mentoring process by doing this online, through a team collaboration space. This can also be used to store files (and work on them at the same time), video call, online chat and more.

7.2.3 System 'readiness' to transition

During project delivery, the project team identified that different systems will be at different levels of 'readiness' to work on transitioning to a better way of working.

The Greening Marion system is in the very early stages of 'readiness' to transitioning. Supporting the system to increase its greening initiatives (particularly those impacting the private realm), and increasing initiatives' connectivity, would support the system to be more ready to focus on transitioning.

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[8] Zivkovic, S (2014), 'Determining and increasing the social impact of an active citizenship education program', PhD thesis, School of Education, University of South Australia

When a system is well connected, and working together, it would be ready to transition, and require a lighter touch transition approach.

Recommendations:

- **Undertake a 'readiness assessment' before starting a project**
  Assess how ready the system might be to work together to address the wicked problem, by undertaking a readiness assessment. Wicked Lab has developed an assessment that has been adapted from the Victorian Government's 'A framework for place-based approaches'[9].

  A readiness assessment includes:

  - Leadership – are there leaders within government and community with connections, knowledge and influence that are willing to collaborate?

  - Connections – are there existing connections and relationships and/or networks?

  - Mindset and willingness to learn – is there a willingness to work outside of traditional processes and across organisational boundaries; adapt to changing contexts; and continually innovate in pursuit of shared outcomes?

  - Past and existing effort – are there past or current initiatives that demonstrate how organisations have worked together on a problem or opportunity to create impact?

  - Knowledge of past efforts – are there people who know what has happened before, and can identify what does and does not work, to build on lessons learnt?

  - Resources and skills:

    – Are there staff, time, funding, facilities, skills, etc. in the community and within government that can be made available?

    – Does the government and community understand why a place-based complexity approach is the best way to tackle the issue or opportunity?

    – Is there shared commitment by both government and community to learn together and invest over a number of years to create place-based systems change?

This has been incorporated into the adapted model in Appendix 10.

7.2.4 Initiatives

Definition of an 'initiative'

The scope and scale of initiatives that needed mapping was variable. For example, an organisation could be a single initiative or it could be broken up into over 10 different initiatives. This scale has the potential to influence what the final systems state (represented by the Transition Card) looks like.

This makes it very important for the project team to go through a 'sense making' process during the 'Learn' stage, which includes a 'deep dive' of the information that sits behind the Transition Card. The Transition Care is a heuristic tool and needs to be balanced with the new, in-depth knowledge that the project team would have acquired during the Explore stage.

Tension from playing multiple roles

A tension that existed throughout the pilot related to the fact that greening initiatives served three key functions (see Figure 6). These were to:

1. Deliver outcomes that address a specific part of the overall urban greening problem (e.g. a casual factor of urban infill, such as knowledge and skills).

2. Support system functionality – address system needs and support the system to function well. These are summarised as initiative characteristics in Dr Zivkovic's 'Diagnostic model for tackling

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[9] Victorian Government (2020), *A framework for place-based approaches,* visit www.vic.gov.au/framework-place-based-approaches-7

wicked problems' as initiative characteristics[10]. These characteristics are often designed into initiatives without the knowledge of how they can benefit the overall system.

3. Contribute to improving the wider environmental context – collectively, the initiatives influence the overall state of the urban environment (which is also influenced by numerous other, diverse and interconnected factors).

Greening Marion focused on the system functionality (or initiative characteristics) role. It did not explore initiative outcomes, and looked very briefly at causal factors (or barriers) in order to categorise different initiatives into subsystems. This was because the pilot's purpose was to trial a complex systems approach (that focused on the system functionality).

Feedback from participants showed many people wanted to work more directly on the underlying causal factors that challenged urban greening. Future efforts could be enhanced by focusing on initiative outcomes and system functionality at the same time.

Focus of Greening Marion pilot

System services
to support the system to function, so it can collectively better address a wicked problem

(for complex problems)

Greening initiatives

Outcomes
to address a part of the wicked problem (e.g. a causal factor or barrier)

(for complicated problems)

Part of the 'greening story' which Greening Marion sat within, but did not include in scope

Wider context
(e.g. ecological indicators, socio demographics)

Figure 6: Greening Marion's relationship with the wider 'greening story'

Recommendations:

- **Balance findings represented in the Transition Card with knowledge of the system**
  Treat the Transition Card as a heuristic tool, and undertake a 'deep dive' process to look at the data behind the Transition Card, before making any decisions on where to focus future efforts.

- **Establish a clearer link between underlying causal factors and initiatives**
  Undertake a mapping process with stakeholders to collectively identify causal factors, existing initiatives that address those factors, and gaps in effort. Wicked Lab has developed a Challenge Lab methodology (see Appendix 11) to do this.

- **Support initiatives to deliver outcomes and provide system functionality at the same time**
  A well-functioning system is dependent on having relevant and quality initiatives that are addressing causal factors and providing system services. Integrate both lens through future projects to ensure both aspects are being considered.

  Wicked Lab's Challenge Lab has been integrated into the adapted model to address wicked problems (see Appendix 10), to ensure both lens are applied.

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[10] Zivkovic, S (2014), 'Determining and increasing the social impact of an active citizenship education program', PhD thesis, School of Education, University of South Australia

7.2.5 Stakeholder communication, engagement and capacity building

Greening Marion sought to increase stakeholder capacity so they could improve the functioning of their greening system. To do this, stakeholders needed to have a certain amount of information and awareness of their:

- greening system
- role with the system
- opportunities to improve the functioning of the system (what *they* could do to strengthen the system).

There was often a tension relating to the level of information to provide to stakeholders, as different stakeholders had varying appetites for learning about these things.

To balance this, the project delivered different types of communication, engagement and capacity building activities depending on the stakeholder and the activity at the time. Considerable effort was spent translating complexity concepts, and developing and testing engagement tools. A graphic designer was contracted to create friendly and engaging communication items, which stakeholders have enjoyed.

Despite all of this, some stakeholders felt that the technical language was abstract at times and potentially disengaging. This was towards the beginning of the project when the team had just started to engage with stakeholders through undertaking interviews.

Stakeholder interviews

Conducting and recording the interviews was a large undertaking that took a lot of resourcing (about 1 to 1.5 hours per interview). Two people attended each interview, including the interviewer and a scribe. The interviewer role was shared amongst the project team, while the scribe role was mostly undertaken by the same person. Having a consistent person attend most interviews helped to ensure data quality.

During the interviews, people were asked a series of questions to gauge whether or not their initiative had specific characteristics. While the interviewers tried to stress that there were no 'right' or 'wrong' answers, they felt that some interviewees were uncomfortable answering 'no' to questions if their initiatives did not have specific characteristics.

Illustrated video

Towards the end of the project, the team developed an illustrated video to explain complexity, as the team could see some key stakeholders were challenged by the concept. Overall the video has received excellent feedback, breaking complexity into a simple explanation in an engaging way. This video would have better supported stakeholder capacity building if it had been developed at the beginning of the project (instead of towards the end). Nevertheless, it can be used to support future complexity based projects in the future.

Written information

Stakeholders also appreciated other engagement tools and activities, such as the high level, graphically designed summary of the mapping results '***Discovery (so far)***', and **workshop presentations**, which broke down key concepts in a very simplified way.

Overall, stakeholders did not engage well with their individual **greening activity summaries**. These summaries reported on how stakeholders' individual greening activities contributed to the overall functioning and adaptability of the greening system – by showing which initiative characteristics the team understood the greening activity to have.

The purpose of these summaries was to close the loop on the interview process, as well as to equip stakeholders with information to help them make decisions around tweaking their activities to address gaps in the overall system. These summaries were provided to stakeholders at a busy time of the project – in between the two workshops – and often got 'lost' or was too much information for people. Some people have appreciated the level of detail provided in the summary, but for most it was not engaged with.

The project team decided against sharing the **Transition Card** before or during the workshops to stakeholders, as it was felt it would add an additional, complex layer of detail which many stakeholders probably didn't need at that point. Stakeholders were already being presented with quite of lot of information to take in, and the results of the mapping process were presented at a higher level in the '*Discovery (so far)*' summary document. The Transition Card is being shared with interested stakeholders through this report, so it is available for those who wish to see it.

Phone calls

Stakeholders were individually called at different times throughout the pilot, to:

* encourage them to attend the workshops
* seek feedback on the workshops and project.

Stakeholders valued being called and given the opportunity to provide personalised feedback. Phone calls also provided a chance for stakeholders to ask questions and deepen their understanding of what the project aimed to achieve.

Workshops

Many stakeholders were surprised to learn the workshops were happening at the end of the pilot, and had presumed they marked the project's launch. (A stakeholder workshop at the beginning of the pilot had been considered, however the project team felt it needed training in complexity science before it was equipped to take the idea to its stakeholders.)

An initial aim of the workshops were to support stakeholders to identify how they might tweak their activities to address system gaps. While some stakeholders were able to do this, it was apparent that the system was not 'ready' to do this (see 'Section 7.2.3 System 'readiness' to transition'), and would require more ongoing support.

The project team has since developed an adapted model where stakeholder workshops would be held at the beginning of the project. It replaces the interview process with a simplified, collective rapid mapping process, and increases the level of stakeholder contribution into the overall direction of the process.

Recommendations:

* **Start together with a bang, and journey together**
  Generate momentum and bring stakeholders together, right at the start. Use initial workshops to agree on the wicked problem, create a shared vision, build community and stakeholder capacity and appetite to strengthen system, and increase connectivity.

* **Map the system rapidly, together**
  Use future workshops to support stakeholders to collectively and rapidly map the system themselves, using a simplified, online survey tool that stakeholders complete together. This will allow stakeholders to self-discover system strengths and opportunities. Supports will need to be in place to ensure survey questions are answered correctly.

* **Collectively commit to a vision and focus areas**
  Support stakeholders to identify and commit to the vision they will work together on, and the focus areas they will initially concentrate on.

* **Increase capacity steadily**
  Once the project starts to mature, support stakeholders to deepen their system capacity if/how they wish.

* **Deliver a range of engagement activities, with different levels of information**
  Cater for people who want more and less detail, with different types of resources and activities. For example: flyers, videos, webpage/websites, workshops, phone calls etc.

7.3 Developing sector capacity

7.3.1 Government as lead organisations on a pilot project

This pilot project was delivered with state and local government bodies being the lead organisations. Complexity literature acknowledges that government needs to play a key enabling role in creating conditions for a system to function well. However, it is also important to acknowledge the perception of risk to government should something (such as this pilot project) not 'work'.

The purpose of undertaking a pilot project is to test a process in a bounded area. If the project has beneficial results, it can be adapted and applied elsewhere. If not, we have still learned something and are wiser than before. Either way, it is a learning and development process, which can cause tension in any government organisation for many reasons (e.g. community and political pressure to perform).

This tension created an extra layer of complexity around the project and required additional resourcing (to what was initially expected) to manage. This tension may relax in time, as this type of approach is further refined, and if it becomes established in other areas.

Recommendations:

- **Role model working in a space with unknown outcomes**
  With courage and leadership, governments can explore and demonstrate ways to work with uncertainty.

- **Act as enabler**
  Government could act as a significant enabler/supporter of similar projects, instead of the lead organisation, to relax expectations of a pilot having to 'succeed'. This would also allow stakeholders to take ownership of the project.

7.3.2 Community of practice in delivering a complexity approach

There is now a small number of projects within Australia and internationally that have applied complexity science principles (there is a strong academic base for complexity science but limited examples of where it has been applied in real life.)

Greening Marion did initially aim to create a community of practice, but was unable due to the time other aspects of the project took.

Recommendations:

- **Catalyse a community of practice**
  Wicked Lab could create the time and space (online) to bring together Australian and international contacts who are delivering (or planning) projects using a complex adaptive approach. During the first meeting, the network can decide how often to meet, and a future agenda.

8   Definitions

Complex adaptive system

A system (a set of connected or interdependent things, such as people, organisations, projects, ideas and resources) that is complex (diverse and/or large) and adaptive (can change, and learn from experience).

Greening initiatives (in Greening Marion pilot)

Structured and planned activities, projects, services, plans (etc) that contribute towards urban greening in the pilot area. Could include:

- community engagement and empowerment
- education and information
- grants and investments
- projects, programs and services
- on ground projects
  (e.g. revegetation, streetscaping, stormwater)
- plans, policies, legislation and regulations.

Greening system (in Greening Marion pilot)

The group of greening initiatives within the Greening Marion pilot area.

Solution ecosystem

The group of initiatives (and the organisations partnering on those initiatives) that contribute towards addressing the wicked problem. In Greening Marion, the 'Greening system' is the solution ecosystem.

Wicked problem

A type of complex problem. Wicked problems have multiple causes, many interdependencies, perspectives on causes and goals, and no clear solution. Attempts to address wicked problems often lead to unforeseen consequences. They are context specific, involve people and social policy, and change.

Greening Marion's pilot zone

The suburbs of Marion, Oaklands Park and Park Holme.

Appendix 1
Diagnostic Model for Tackling Wicked
Problems

Diagnostic Model for Tackling Wicked Problems
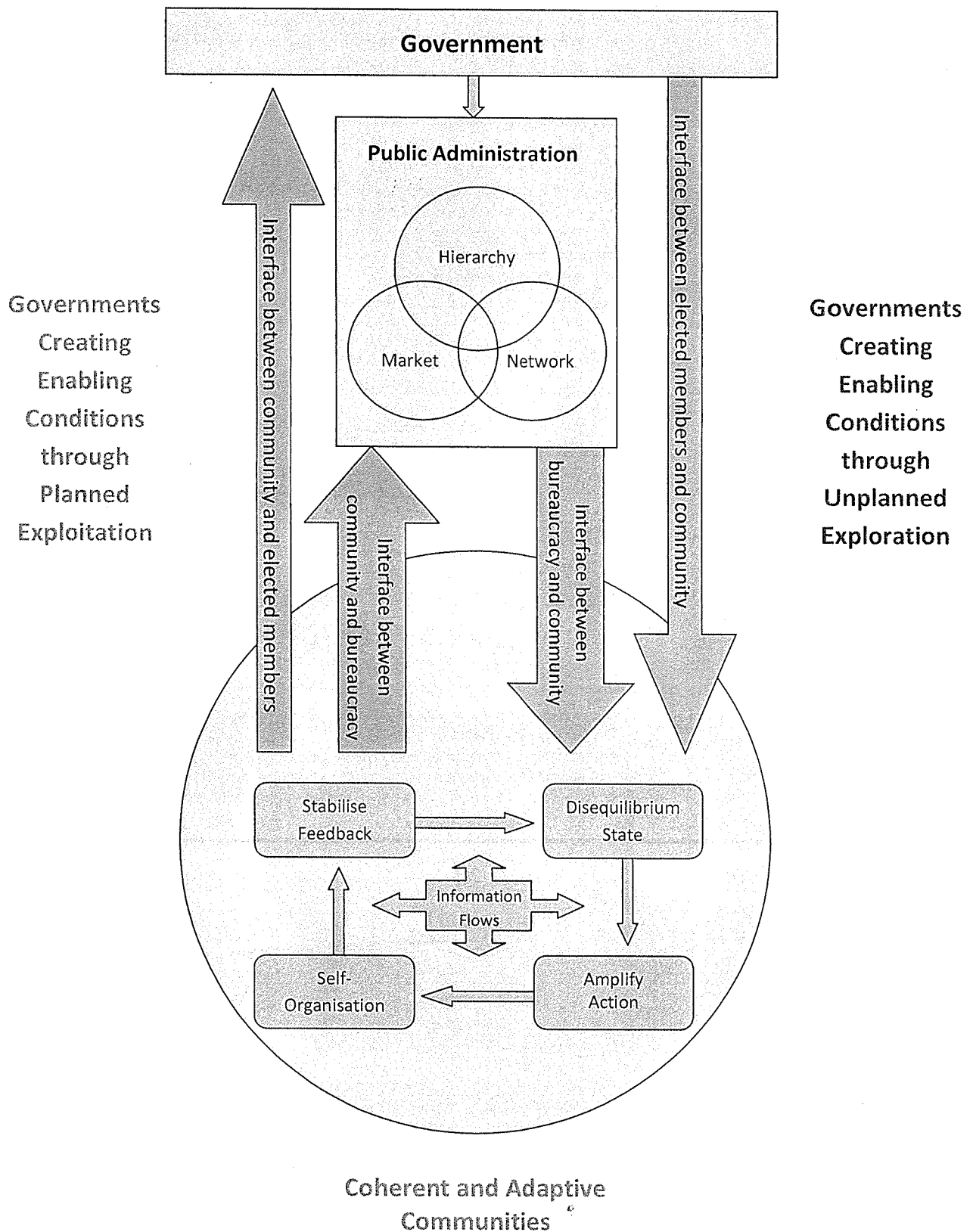
Government

Public Administration

Hierarchy

Market · Network

Governments Creating Enabling Conditions through Planned Exploitation

Governments Creating Enabling Conditions through Unplanned Exploration

Interface between community and elected members

Interface between community and bureaucracy

Interface between bureaucracy and community

Interface between elected members and community

Stabilise Feedback

Disequilibrium State

Information Flows

Self-Organisation

Amplify Action

Coherent and Adaptive Communities

Zivkovic, S (2014), 'Determining and increasing the social impact of an active citizenship education program', PhD thesis, School of Education, University of South Australia, Adelaide.

Building the Adaptive Capacity of Communities	
Focus Area	**Initiative Characteristics**
Create a disequilibrium state	• highlight the need to organise communities differently • cultivate a passion for action • manage initial starting conditions • specify goals in advance • establish appropriate boundaries • embrace uncertainty • surface conflict • create controversy
Amplify action	• enable safe fail experimentation • enable rich interactions in relational spaces • support collective action • partition the system • establish network linkages • frame issues to match diverse perspectives
Encourage self-organisation	• create correlation through language and symbols • encourage individuals to accept positions as role models for the change effort • enable periodic information exchanges between partitioned subsystems • enable resources and capabilities to recombine
Stabilise feedback	• integrate local constraints • provide a multiple perspective context and system structure • enable problem representations to anchor in the community • enable emergent outcomes to be monitored
Enable information flows	• assist system members to keep informed and knowledgeable of forces influencing their community system • assist in the connection, dissemination and processing of information • enable connectivity between people who have different perspectives on community issues • retain and reuse knowledge and ideas generated through interactions

Unplanned Exploration of Solutions with Communities	
Focus Area	**Initiative Characteristics**
Public administration – adaptive community interface	• assist public administrators to frame policies in a manner which enables community adaptation of policies • remove information differences to enable the ideas and views of citizens to align to the challenges being addressed by governments • encourage and assist street level workers to take into account the ideas and views of citizens
Elected government – adaptive community interface	• assist elected members to frame policies in a manner which enables community adaptation of policies • assist elected members to take into account the ideas and views of citizens

Planned Exploitation of Community Knowledge, Ideas and Innovations	
Focus Area	**Initiative Characteristics**
Adaptive community – public administration interface	• encourage and assist street level workers to exploit the knowledge, ideas and innovations of citizens • bridge community-led activities and projects to the strategic plans of governments • gather, retain and reuse community knowledge and ideas in other contexts
Adaptive community – elected government interface	• encourage and assist elected members to exploit the knowledge, ideas and innovations of citizens • collect, analyse, synthesise, reconfigure, manage and represent community information that is relevant to the electorate or area of portfolio responsibility of elected members

(Goldstein, Hazy & Lichtenstein, 2010; Jessop, 1998; Lichtenstein & Plowman, 2009; Lipsky, 1980; Nye, 2004; Snowden 2008; Snowden & Boone, 2007; Surie and Hazy, 2006; Uhl-Bien, Marion & McKelvey, 2008)

Zivkovic, S (2014), 'Determining and increasing the social impact of an active citizenship education program', PhD thesis, School of Education, University of South Australia, Adelaide.

Appendix 2
Greening Marion information brochure

GREENING MARION

A trial project to help us work together for greener, more sustainable suburbs.

PARK HOLME   OAKLANDS PARK   MARION

Join us on a journey of discovery as we explore what's happening to help green Park Holme, Oaklands Park and Marion.

We'll look at:

- who is doing what
- where they are doing it
- how everyone fits in the big picture
- how to work more cohesively
- opportunities for the future.

Together, we will picture what greener, more sustainable suburbs would look like, and get moving to make it happen.

That's good news for our environment, suburban wildlife, and for us.

Where did nature go?

Communities, businesses and policy makers around the world recognise that a sustainable and climate resilient future must include more trees and green spaces. But the concrete keeps coming, the trees keep disappearing and our cities are getting hotter, drier and greyer.

HELP it's hot!

We need more green spaces

Green, nature friendly yards, streets, and neighbourhoods are good for us. They're cooler, healthier and more inviting. People are drawn to them to relax, exercise and socialise.

We can grow food, explore, and experience a deep connection with something much greater than ourselves.

Our suburban wildlife also depends on green spaces for food and somewhere to live.

Different kinds of greening will suit different places and purposes.

- A well-placed green wall at the local shops can attract customers and reduce the use (and cost) of air conditioning.

- Local native plants will feed and shelter city wildlife.

- Irrigating a school's oval before a heatwave will provide natural outdoor 'air conditioning'.

- A community garden can feed and bring people together to learn from each other.

- Cool, shaded streets can make the difference between people walking or using their cars.

Greening can also help to save money, improve health, develop skills, and attract people to public spaces.

COMMUNITY GARDEN

Creating a new network for greening

Are you involved in a greening activity that happens in, or relates to, the suburbs of Park Holme, Marion and/or Oaklands Park, and is delivered as part of:

- an organisation or group (does not need to be incorporated), or
- being an environmentally active individual, where you lead, support or influence others in your community (including informally)?

We invite you to register for Greening Marion, join its network, and share what you are doing.

Your activity could be local or part of a larger project. Greening activities might include:

- community engagement and empowerment
- education and information
- grants and investments
- projects, programs and services
- on ground projects (e.g. revegetation, streetscaping, stormwater)
- plans, policies, legislation and regulations.

What to expect

Late 2019

Map activities
Talk to us about your greening activity and the role(s) it plays, so that we can 'map' how it fits within the big picture. *(One hour conversation, plus potential follow up.)*

Identify new opportunities
Consider the 'mapping' and how your efforts fit within the big picture. What new opportunities exist?

Early 2020

Action workshop
Take part in an action workshop to meet others from the network, explore what greener and more sustainable suburbs means to you, and get moving on creating this future together.

Mid 2020

Project summary
An end of project summary will illustrate the network, future opportunities for working together, and project learnings.

Project location

The trial will focus on greening activities that happen in, or relate to, the suburbs of Park Holme, Marion and/or Oaklands Park.

This area was selected for the trial as it has:

- several community hubs including schools
- a green hub – Oaklands Wetland
- a range of demographic profiles
- clear development trends, including subdivision of residential allotments and urban renewal
- environmental data available – including stormwater, development, tree planting and land surface temperature.

Trialling a new approach

Greening Marion will trial a 'Systemic Innovation Lab', a first for South Australia. This type of approach helps to address complex problems (like obesity, climate change and poverty) at a big picture (system) level.

It helps people to:

• better understand who is doing what

• see new opportunities for the future

• collaborate with others.

The lab will be delivered using a process developed by Wicked Lab, a South Australian social enterprise.

For more information on Greening Marion and the Systemic Innovation Lab approach visit **naturalresources.sa.gov.au/ adelaidemtloftyranges**

Delivered in partnership with:

Why get involved?

Take part in Greening Marion to:

• ensure your efforts are counted in a big picture snapshot of current activities

• increase your confidence in choosing where to direct future efforts

• connect with others who want to see greener and more sustainable suburbs

• discover new partnership opportunities.

How to register

If you are involved in a greening activity that happens in, or relates to, Park Holme, Marion and/or Oaklands Park, please register your interest to take part.

Please provide the following information:

• your name, position (if applicable) and contact details

• name of activity/project

• location/area that your activity relates to

• one or two sentences about your activity.

Send these details to either:

• **Tania Macdonald**, **Natural Resources Adelaide and Mount Lofty Ranges**
  Email: Urban.Sustainability@sa.gov.au
  Phone: 8273 9124

• **Rebecca Neumann, City of Marion**
  Email: environment@marion.sa.gov.au
  Phone: 8375 6624

Once registered, we will contact you to make a time to talk about your activity.

Keep informed

If you would like to stay informed about Greening Marion, please email:

• Urban.Sustainability@sa.gov.au.

Appendix 3
Webpage on Green Adelaide website

Greening Marion

A *trial* project to help us work together for greener, more sustainable suburbs

Are you involved in a greening activity in Park Holme, Oaklands Park and/or Marion? We want to hear from you.

Green yards, streets and neighbourhoods are good for us and our suburban wildlife. We love and need our green spaces, but the concrete keeps coming, the trees keep disappearing and our cities are getting hotter, drier and greyer.

Greening Marion will trial a new, collaborative approach to tackle this. We'll look at:

- who is doing what
- where they are doing it
- how everyone fits in the bigger picture
- how to work more cohesively
- opportunities for the future.

Together we'll form a network, picture what greener, more sustainable suburbs would look like, and get moving to make it happen.

Download: '**Discovery (so far)**', a summary of the project to date.

Who can take part?

Anyone who is involved in a greening activity that happens in, or relates to, the suburbs of Park Holme, Marion and/or Oaklands Park can take part, where the activity is delivered as part of:

- an organisation or group (doesn't need to be incorporated)
- being an environmentally active individual, where you lead, support or influence others in your community (including informally).

Greening activities might include:

- community engagement and empowerment
- education and information
- grants and investments
- projects, programs and services
- on-ground projects (e.g. revegetation, streetscaping, stormwater)
- plans, policies, legislation and regulations.

Activities can be local or part of a larger project.

Why get involved?

Take part in Greening Marion to:

- ensure your efforts are counted
- increase your confidence in choosing where to direct future efforts
- connect with others who want to see greener and more sustainable suburbs
- discover new partnership opportunities.

What to expect

From late 2019

Map activities
Talk to us about your greening activity and the role(s) it plays, so that we can 'map' how it fits within the wider network. (One hour conversation, plus potential follow-up)

Identify new opportunities
Consider the 'mapping' and how your efforts fit within the big picture. What new opportunities exist?

Mid-2020

Action workshop
Take part in an action workshop to meet others from the network, explore what greener and more sustainable suburbs means to you, and get moving on creating this future together.

Project summary
An end of project summary will illustrate the network, future opportunities for working together and project learnings.

Location

The trial will focus on greening activities that happen in, or relate to, the suburbs of Park Holme, Marion and/or Oaklands Park.

This area was selected for the trial as it has:

- several community hubs, including schools
- a green hub – Oaklands Wetland
- a range of demographic profiles

- clear development trends, including subdivision of residential allotments and urban renewal
- environmental data available, including stormwater, development, tree planting and land surface temperatures.

Trialling a new approach

Greening Marion will trial a **Systemic Innovation Lab**. This is a collaborative process that helps to address complex problems like climate change, obesity and poverty.

The focus is on activities that are already happening to address a complex problem within a geographical area. It supports the people, groups and organisations doing the work (the system) to work more cohesively and effectively and come up with new ideas. It does this by helping people to:

- better understand who is doing what
- see new opportunities for the future
- collaborate with others.

It also recognises that while governments play a key role in supporting change, it's the people within the system who are instrumental in choosing what changes actually occur – through their decisions about their own initiatives and collaborations.

The Systemic Innovation Lab will be delivered using a process developed by **Wicked Lab**, a South Australian social enterprise.

Why complexity science matters: rethinking urban greening…

Mapping greening activities differently

The lab will involve creating a 'map' of greening activities relating to Park Holme, Marion and/or Oaklands Park.

What makes this 'map' different is that it's more like a large chart which shows the different types of features (or characteristics) each activity has. For example, it will show which activities do things like:

- ignite passion for people to take action on greening
- strengthen networks
- support people to take action together.

How to register

Please provide the following information:

- your name, position (if applicable) and contact details
- name of activity/project
- location/area that your activity relates to
- one or two sentences about your activity.

And send details to either:

Tania Macdonald, Green Adelaide **via email** or phone 8204 9925

Rebecca Neumann, City of Marion **via email** or phone 8375 6624

Once registered, they will be in touch to make a time to talk about your activity.

Keep informed

Don't have an activity, but want to stay informed?
Email **Urban.Sustainability@sa.gov.au** to receive project updates.

Appendix 4
Discovery (so far) – summary of mapping results

GREENING MARION

Discovery (so far)

Good things are happening!

This is a big picture snapshot of how well 56 activities are working together to help make our suburbs greener, cooler and more sustainable.

It's an update on the Greening Marion pilot project. It shows where, as a whole, everyone is doing really well. It also points to windows of opportunities to make collective efforts go further.
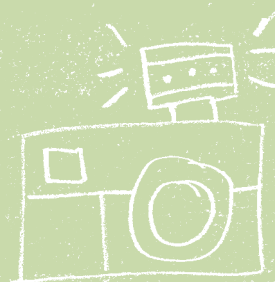
The back story

We all know green spaces are good for us, for wildlife and our planet.

When asked, people delivering greening activities in Marion, Oaklands Park and Park Holme imagined greener, more sustainable environments with thriving biodiversity and strong community connections.

GREENING IS MORE IMPORTANT THAN EVER

Development, global loss of biodiversity and climate change are some of the challenges we face.

📌 Key points

We spoke to 41 people, from 15 organisations between December 2019 and March 2020

There are at least 56 activities that are part of Marion, Oaklands Park and Park Holme's 'greening system'

STRENGTHS

81% of activities are 'shaking things up' around urban greening:

• Generating passion
• Creating conversations
• Putting 'greening' on the agenda.

HOW TO GET EVEN STRONGER

1.

Join up our efforts

Collaborate, network, encourage open discussions, share information and resources.

2.

Raise the profile of greening

Branding, role models.

3.

Connect community and government

Align priorities, shape policies, and tap into community know-how.

A different way

Creating green suburbs can be tricky. Yard sizes are getting smaller, and big trees are being lost to development.

There are lots of reasons why this is happening and no single organisation or project can fix it. There is no golden solution. But we do know some things.

To tackle such a complex problem, we need to look at the big picture, and help people who are already working on urban greening, to work together better.

That's what Greening Marion is about. We are trialling a new, collaborative approach* to tackle urban greening together. It's the first time this particular process has been used in South Australia.

* For details on the process, visit:
wickedlab.com.au/systemic-innovation-lab

Greening Marion isn't about counting trees and birds or looking at temperatures and shading. It's a different approach that looks at **how** work is being done and **how** we're **all working together.**

We're starting small. The trial area includes the suburbs of Marion, Oaklands Park and Park Holme.

We're also keen to learn about the benefits of this approach and how it might work in other areas across Adelaide.

Seeing the system

You are part of the local **'greening system'** if you are involved in an activity that helps to make Marion, Oaklands Park and Park Holme suburbs greener, cooler and more sustainable.

We've been having conversations with people who are a part of this system. People who are doing things 'on the ground', such as community gardens, workshops and tree management, and others who work 'on the administration side', like developing policies, grants and plans.

When put together, these conversations point towards where our collective efforts are strong. They also show where, with a bit of tweaking, overall efforts could be even stronger.

'administration types'

'on the ground types'

$ Granted!

YES!

WORKSHOP welcome

Why see the system?

Imagine a sports team whose members didn't realise they were part of it, or know what their roles were, or who their team mates were.

Helping people to get to know their own system, its strengths and opportunities, and who else is in it, arms people with handy information to make all their collective efforts go further.

Common goal

System snapshot

We interviewed 41 people, from 15 organisations and entities, to look at how 56 activities fit within the greening system.

We asked questions about how work is being planned and delivered. Then we sorted results into different themes, which research tells us can help to analyse systems' strength.

Who did we talk to?

- Adelaide and Mount Lofty Ranges Natural Resources Management Board
- Alan Shepard (composting workshops)
- Australian Association for Environmental Education
- City of Marion
- Department of Planning, Transport and Infrastructure
- Friends of Kenton Avenue Reserve
- Friends of Sturt River Landcare
- Nadja's Garden
- Oaklands Estate Kindergarten
- Oaklands Park Community Garden Society
- St Elizabeth of Hungary Anglican Church
- Trees for Life
- Wagtail Urban Farm
- Water Sensitive SA
- Westminster School

The snapshot (right) *hints* towards how the system is performing.

It shows the **percentage of activities** that are contributing to each theme. (How many of the 56 activities are already doing these things.)

A bit like 'system ingredients'

These themes point towards where a system is rich in a particular 'flavour', or could probably do with a little more 'spice'.

It's not just about the numbers. Sometimes one activity packs a really big punch that lifts the whole system.

These percentages are a guide to where future efforts might best be placed to help the system function better.

Adaptability and Flexibility

Ability to adapt to changes.

Shake Things Up	Join Up and Ripple Out	Create Identity and Combine Resources
81%	56%	55%

Embed, Watch and Respond	Build Collective Knowledge
66%	64%

Connected Community and Government

Mutual understanding and working together.

Align Government and Community	Shape Policies with Community Voice	Tap into Community Know-how	Promote Community Initiatives
55%	40%	41%	40%

Where the work is happening (public vs private areas)

Most (89%) of the activities we looked at related to greening our public areas (like reserves, community gardens and streets).

Privately managed areas (such as people's yards, schools and businesses) were impacted or influenced by 57% of activities.

50 PUBLIC REALM

26 BOTH PUBLIC & PRIVATE REALM

32 PRIVATE REALM
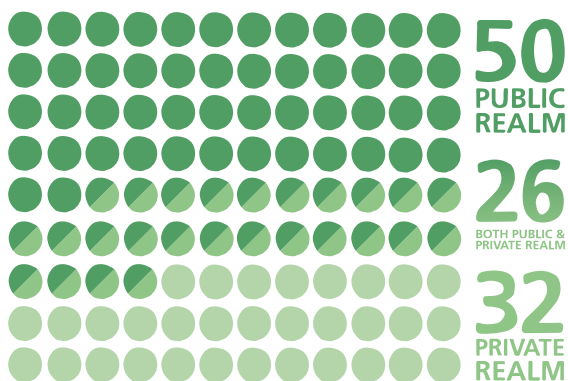
Over time, it would be good to see more activities that **support greening in private areas,** which are so important to urban biodiversity and community wellbeing.

PRIVATE PROPERTY

What does this mean for us all?

Hold the 'shaking up', go heavy on the 'linking up'.

There is a lot happening under the 'Shake It Up' theme already. This means most activities are doing things like creating passion, supporting community conversations about greening, and basically putting 'greening' on the agenda.

To get stronger

Our urban greening system could be more adaptive, efficient and effective if we:

1. **Join up our efforts**
   This means collaboration, networks, open discussions, and sharing information and resources.

2. **Raise the profile of greening**
   Through branding, communication, and greening role models.

3. **Connect community and government**
   By aligning each of their priorities, and helping government to tap into community know-how.

Workshops

These workshops are open to everyone – whether you're already involved in a greening activity in Marion, Oaklands Park or Park Holme, or keen to start something in the area.

1. Discovery

10am – 12pm, Friday 12 June via Zoom

We'll explore findings and create a collective vision of how we all want to experience greener, more sustainable suburbs.

2. Strengthening

10am – 12pm, Friday 19 June via Zoom

We'll tweak and adapt current greening activities, or consider bringing new ones into the mix, to make our whole system stronger.

Register today:
Visit **naturalresources.sa.gov.au/adelaidemtloftyranges** and search for **'Greening Marion workshop'**

Want to know more about this project?

Visit naturalresources.sa.gov.au/adelaidemtloftyranges and search for 'Greening Marion'.

Contact
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Greening Marion is a partnership between:

Government of South Australia
Green Adelaide

CITY OF MARION

WATER SENSITIVE SA

Wicked Lab

Appendix 5
Interview guide

Greening Marion | Interview guide

Section 1: Introduction and explanation

Thank you for offering your time and talking to us today.

- Hand over business cards

- Introduce ourselves and roles (interviewer/scribe etc.)

- Review expectations of time and any time restrictions

- Confirm that we will be recording the conversation – stays within team, delete once we've done our notes

We are undertaking a project called Greening Marion, which is:

- a trial project

- to help all the different people, groups and organisations

  o doing things in Marion, Oaklands Park and Park Holme
  o to work together better (more cohesively) for greener, more sustainable suburbs.

The first part of the project is conducting targeted interviews with people about their activities to **build a "big picture" view of what is currently happening**.

Things to note:

- we value your time, this interview is seeking yes/no answers with a simple sentence explanation of how or why. You do not need to justify your initiatives or give detailed/multiple examples.

- there are no right or wrong answers – or good or bad answers, we are painting a picture of what is, not what could or "should" be

- sometimes it might sound like we are repeating ourselves, but we are actually trying to look at similar things in a different way

Section 2: Initial information

One initiative at a time.

- In a few sentences, can you tell me about your initiative/s?
- When did it start?
- When will it finish? Or is it ongoing?

Enquiry	Characteristic
1. When the initiative started, were there considerations around how it would be developed? Such as who would be involved, the approach (collaborative, directive, top down, enabling), values, or philosophy. (1.3)	1.3 Manage initial starting conditions
2. At the start, did the initiative have goals that were very broad without specifying how people would achieve them? (1.4)	1.4 Specify goals in advance
3. Does the initiative have flexible plans or outcomes that are able to adapt over time? (1.6)	1.6 Embrace uncertainty
4. Does the initiative have clear geographical or issue-based boundaries? (1.5)	1.5 Establish appropriate boundaries
5. Did the initiative try to fit within local constraints/context/needs (e.g. regulations, community needs and expectations)? (4.1)	4.1 Integrate local constraints
6. Does your initiative break up its work into different focus areas, so that it can address different aspects of greening? For example: - climate and/or the environment - funding and/or investment - knowledge and skills - policy and planning - culture and community?	2.4 Partition the system
7. Are unforeseen/unplanned outcomes monitored in any way? (4.4)	4.4 Enable emergent outcomes to be monitored

Section 3: Shaking things up   Time: _____

Enquiry	Characteristic
Do any of your initiatives…/Does your initiative 8. Help to create passion, or inspire people in the community to take action? Which ones, how? (1.2)	1.2 Cultivate a passion for action
9. Create some kind of controversy or challenge the status quo (E.g. highlighting issues that start to make people feel a little uncomfortable)? Which ones, how? (1.8)	1.8 Create controversy
10. Help to bring out different (and conflicting) points of view? Which ones, how? (1.7)	1.7 Surface conflict
11. Cater for different perspectives through a diverse range of community tools or framing of issues? Which ones how? (2.6)	2.6 Frame issues to match diverse perspectives
12. Provide a structure or ongoing support for diverse stakeholders to work together? Which ones, how? (4.2)	4.2 Provide a multiple perspective context and system structure
13. Connect people who have different perspectives? Which ones, how? (5.3)	5.3 Enable connectivity between people who have different perspectives on community issues
14. Talk about addressing greening in a holistic, big picture way, or focus on specific parts of greening? Which ones, how? (1.1)	1.1 Highlight the need to organise communities differently
15. Encourage safe to fail experiments – where people can try a number of different things and it's ok if they don't all work out? Which ones, how? (2.1)	2.1 Enable safe fail experimentation
16. Encourage people to be greening role models/champions? Which ones, how? (3.2)	3.2 Encourage individuals to accept positions as role models for the change effort

Section 4: Shared understanding and networking |Time: ____

Enquiry	Characteristic
Do any of your initiatives…/Does your initiative 17. Use words and/or images to help create shared awareness or understanding? (e.g. logos or images particular to the project, or other symbols, like a hashtag, or slogan?). For which initiatives, what are they? (3.1)	3.1 Create correlation through language and symbols
18. Use marketing or communication materials for the broader community (e.g. website, brochure, bumper stickers, key rings etc.)? For which initiatives, what are they? (4.3)	4.3 Enable problem representations to anchor in the community
19. Create connections with other projects, groups, individuals who are addressing greening (2.5)	2.5 Establish network linkages
20. Provide ways for people to come together (in a safe space) to talk about greening issues – open discussions, talk about differences, and encourage new ideas (2.2)	2.2 Enable rich interactions in relational spaces
21. Share information between people who are working on different aspects of greening. (3.3)	3.3 Enable periodic information exchanges between partitioned subsystems
22. Support people to combine their resources and/or skills in new ways (3.4)	3.4 Enable resources and capabilities to recombine
23. Use technology (e.g. social media, websites, eNews, team platforms, apps) to understand and/or share information with others addressing greening in the area (5.2)	5.2 Assist in the connection, dissemination and processing of information
24. Keep people informed about the "big picture" – (i.e. the political, economic, social, technological, national and international forces) that affect local greening efforts (5.1)	5.1 Assist system members to keep informed and knowledgeable of forces influencing their community system
25. Support **collective learning** through recording discussions and ideas and making them available to others (5.4)	5.4 Retain and reuse knowledge and ideas generated through interactions
26. Support **collective action** (different people and groups acting together) (2.3)	2.3 Support collective action

Section 5: Links between government and communities |Time _____

Enquiry	Characteristic
Do any of your initiatives help…/Does your initiative 27. ***Governments*** to be transparent in providing information in ways that are accessible to different communities? Which ones, how? (6.2)	6.2 Remove information differences to enable the ideas and views of citizens to align to the challenges being addressed by governments
28. ***Politician / elected members*** frame policy in a way that that can be understood and implemented by communities? Which one, how? (7.1)	7.1 Assist elected members to frame policies in a manner which enables community adaptation of policies
29. ***Politician / elected members*** to: • *consider* community views and take their ideas into account? Which initiatives, how? (7.2) • *use* community knowledge, ideas and innovations? Which initiatives, how? (9.1)	7.2 Assist elected members to take into account the ideas and views of citizens 9.1 Encourage and assist elected members to use the knowledge, ideas and innovations of citizens
30. ***Government and non-government workers*** to: • *consider* community views and take their ideas into account? Which initiatives, how? (6.3) • *use* community knowledge, ideas and innovations? Which initiatives, how? (8.1)	6.3 Encourage and assist street level workers to take into account the ideas and views of citizens 8.1 Encourage and assist street level workers to use the knowledge, ideas and innovations of citizens
31. ***Public servants*** frame policy in a way that can be understood and implemented by communities? Which ones, how? (6.1)	6.1 Assist public administrators to frame policies in a manner which enables community adaptation of policies
32. To provide **elected members** with community information that is relevant to their electorate area or portfolio? Which initiatives, how? (9.2) *(Note: this can apply to either government or non-government initiatives.)*	9.2 Collect, analyse, synthesise, reconfigure, manage and represent community information that is relevant to the electorate or area of portfolio responsibility of elected members
35. **Link community-led** activities and projects to governments' strategic plans? (e.g. identify and support community projects/knowledge/innovations that are addressing government plans) (8.2) Or (if the initiative is a community led activity) – does it address government strategic plan objectives? (8.2)	8.2 Bridge community-led activities and projects to the strategic plans of governments
36. Gather, record and reuse community knowledge and ideas in other ways? (E.g. having a project/initiative register on a government website). Which initiatives, how? (8.3) *(Note: this can apply to either government or non-government initiatives.)*	8.3 Gather, retain and reuse community knowledge and ideas in other contexts

Section 6: Vision for a greener Marion

Next we'd like to get you to imagine what our suburbs could be like in the future.

37. In an ideal world, what would you like to see from a greening perspective? How would you like to experience greener suburbs?

38. What kind of role might your initiative(s) have in achieving this future?

39. At this point – are there any tweaks or changes that you might be considering to make to your project?

Section 7: Next steps

Over the next few months we will continue to talk to people about their projects that are contributing towards greening in Park Holme, Marion and Oaklands Park.

Once we've spoken to everyone we will enter all the data into an online tool. Doing this will give us a to big picture view of what's going on, and highlight windows of opportunity.

We aim to send out a summary of findings, and invite people to a workshop over the coming months. These workshops will be a chance to:

- *meet others from the network*
- *explore what greener and more sustainable suburbs means to the network*
- *get moving on creating this future.*

(Approx. half day workshop)

40. Do you think you might be interested in attending the workshop?

41. Is it ok for us to follow you up in the near future if we have any further questions, or need to clarify anyone?

42. Do you know of anyone else that might be relevant to this project that we should talk to?

Thank you for your time!!

Appendix 6
Example of an activity summary

Your activity summary

We asked you a series of questions about your greening activity, to see how it fits into the local greening system. This summary has been crafted based on what we heard.

It forms a part of a much bigger picture, to help us all see how the greening system (in Marion, Oaklands Park and Park Holme suburbs) is doing. This bigger picture has been summarised in *'Greening Marion, Discovery (so far)'* – it may be an idea to read that document first for context.

This activity summary reflects what we heard from you, about the roles your activity plays in that system.

Every activity is unique. There are no 'right' or 'wrong' answers. It simply summarises the understanding at a point in time, and is provided to you to help our conversations and collective learning.

This report is just for you, we're not sharing it with others without your permission.

Recap on Greening Marion

Greening Marion is trialling a new, collaborative approach to strengthen efforts to make Marion, Oaklands Park and Park Holme suburbs greener, cooler and more sustainable.

Between December 2019 and March 2020, we spoke to 41 people, from 15 organisations, about 56 activities.

Together, these activities form the 'greening system' – and you are a part of it.

How to read this summary

The following pages contain nine themes that together, support a system to be healthy and function well. Under each theme, there are a number of characteristics.

If there is a comment in the box alongside the characteristic, we think your activity has that characteristic. If a box is left blank, it looks as though your activity doesn't have that characteristic, based on what we heard.

Please note: The comments have been paraphrased, based on your answers from the interview. You won't see your exact words, but we hope the essence of your answer has been captured.

About this summary

The themes and characteristics have been reworded from a framework developed by Dr Sharon Zivkovic (2013[1]), who is a co-founder of Wicked Lab along with Emily Humphreys. Greening Marion is based on a Systemic Innovation Lab process developed by Wicked Lab that is underpinned by this framework.

_____

1. Zivkovic, S. (2013, October). Local government as a facilitator of systemic social innovation. In *Proceedings of the 3rd National Local Government Research Forum*. https://epress.lib.uts.edu.au/conferences/index.php/acelg/PNLGRF/paper/download/475/79

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Activity: NRM - Greening Marion

1. Shake Things Up

Characteristic	We heard you say...
1.1 Talk about addressing greening in a holistic, big picture way.	The project brochure and webpage talk about adressing greening in a big picture way.
1.2 Create passion, or inspire people in the community to take action.	Through inviting people into the process, people have started to explore how they can take action
1.3 At the start, considerations were made around how it would be developed (e.g. who would be involved, the approach (collaborative, top-down, enabling) and the values and philosophy).	Considerations were made around project partners (it needed to be a local and state government partnership), the geographical and issues boundary, and the type of model it would be using (a complexity approach).
1.4 Broad goals relating to urban greening in Oaklands Park, Marion and/or Park Holme.	Broad goals of improving the functioning of the system, to better enable urban greening.
1.5 Clear geographical or issue-based boundaries.	
1.6 Flexible plans or outcomes that are able to adapt over time.	There are no pre-determined outcomes, as all outcomes and impacts will be based on emergent ideas and opportunities.
1.7 Help to bring out different (and conflicting) points of view.	
1.8 Create some kind of controversy or challenge the status quo (e.g. highlighting issues that start to make people feel a little uncomfortable).	

2. Join Up and Ripple Out

Characteristic	We heard you say...
2.1 Encourage 'safe to fail' experiments (where people can trial things and it's ok if they don't all work out).	The pilot itself is a safe to fail project. People will be encouraged during the workshop to try different things.

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2.2 Bring people together (in a safe space) for open discussions about urban greening.	The stakeholder workshop will provide a safe space for people to come together.
2.3 Support different people and groups to address urban greening together.	The stakeholder workshop will encourage people to collaborate.
2.4 Highlight or explain how the greening system within Marion, Oaklands Park and Park Holme is made up of different parts.	Categorises different initiatives into sub-systems using the Wicked Lab online tool.
2.5 Create connections with other projects, groups or individuals who are addressing greening in the area.	Connections between a council and NRM staff, schools, groups, NGOs and others will be made during the stakeholder workshop.
2.6 Cater for people who have different points of view on urban greening.	

3. Create Identity and Combine Resources

Characteristic	We heard you say...
3.1 Use logos, taglines or branding.	Own name and image, look and feel
3.2 Encourage people to be greening role models/champions.	
3.3 Support programs, projects or organisations that are focusing on different parts of greening, to share information.	
3.4 Support people to combine their resources and/or skills in new ways.	

4. Embed, Watch and Respond

Characteristic	We heard you say...
4.1 Fit within local constraints / context / needs (e.g. regulations, community needs and expectations).	The project scopes the local constraints, so it can fit within them, and work with them

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4.2 Provide a structure or ongoing support for diverse stakeholders to work together.	
4.3 Use marketing or communication materials for the broader community (e.g. website, brochure, bumper stickers, key rings etc).	Webpages on NRM and council website, brochure, Facebook post
4.4 Monitor unforeseen / unplanned outcomes.	

5. Build Collective Knowledge

Characteristic	We heard you say...
5.1 Keep people informed about the "big picture" – (i.e. the political, economic, social, technological, national and international forces) that affect local greening efforts.	
5.2 Use technology (e.g., social media, websites, eNews, team platforms, apps) to understand and/or share information with others addressing greening.	Website, social media, email
5.3 Connect people who have different perspectives.	The stakeholder workshop will connect people with different perspectives.
5.4 Support collective learning through recording discussions and ideas and making them available to others.	

6. Align Government and Community

Characteristic	We heard you say...
6.1 Support public servants to explain policies so they can be understood and used by communities.	
6.2 Help governments to be transparent, and provide information in ways that are helpful to communities.	

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6.3 Assists government and non-government workers to consider community views and ideas.	

7. Shape Policies with Community Voice

Characteristic	We heard you say...
7.1 Support elected representatives (local, state, federal) to explain policies so they can be understood and used by communities.	
7.2 Assists elected representatives (local, state, federal) to consider community views and ideas.	

8. Tap into Community Know-how

Characteristic	We heard you say...
8.1 Help staff (government and non-government) to use community knowledge, ideas and innovations.	
8.2 Link community-led activities to government strategic planning (e.g. identify and support community projects/knowledge/innovations that are addressing government plans).	
8.3 Gather community knowledge and ideas and make it available for others to use in different ways (e.g. having a project/initiative register on a government website).	

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9. Promote Community Initiatives

Characteristic	We heard you say...
9.1 Support elected representatives (local, state, federal) to use community knowledge, ideas and innovations.	
9.2 Provide elected representatives (local, state, federal) with community information that is relevant to their electorate area or portfolio.	

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Appendix 7
Illustrated video: Why complexity science matters

Illustrated video: Why complexity science matters

As of 15 November 2020:

- Viewed 132 times on Green Adelaide's You Tube (www.youtube.com/watch?v=T67nodxUAXg)
- Viewed 965 times on NRM AMLR Board's You Tube (www.youtube.com/watch?v=jf6sRNsGpAU)

Appendix 8
Organisations and initiatives included in the mapping

Adelaide and Mount Lofty Ranges Natural Resources Management Board

- Environment Grants for Schools and Communities
- Water Sustainability Grants
- Volunteer Support - Insurance
- NRM Education
- Planning - Water Affecting Activities policies
- Planning - Referrals
- Planning - NRM Strategic Plan (not consultation)
- Planning - Business Plan
- MERI - Surface Water Monitoring
- Urban Animal and Plant Control Partnership Program
- Urban Water Management Advisory Service
- Water Affecting Activity Permits
- Greening Marion

Water Sensitive SA

- Social media and enews
- Cooler Greener Adelaide campaign
- Community workshops
- Building a community of practice
- Website and technical resources
- Advocacy

Department for Infrastructure and Transport

- Planning and Design Code (consultation and development)
- Planning and Development Fund (implementation and ongoing review)
- 30 Year Plan for Greater Adelaide (implementation and ongoing review)

City of Marion

- Tree Management
- Biodiversity City Services
- Open Space and Recreation Planning
- Environmental Sustainability Advice
- Environment Policy
- Climate Change Policy
- Resilient South
- Community Garden Coordination
- Valuing Marion's Nature

- Common Thread
- Green Thymes
- Environmental engagement support services
- Reserve Maintenance Program
- Engineering
- Water Resource Management
- Development Engineering (water)
- Oaklands Education Centre and activities
- WSUD Asset Management and Maintenance
- Community Connections/Wellbeing
- Libraries
- Development Services
- Oaklands Community Connections

FrogWatch SA

- Frogspotter App

Friends of Sturt River Landcare

- Landcare

Friends of Kenton Avenue Reserve (Cr Raelene Telfer)

- Native Garden

Nadja's Garden

- Trees Times 10

St Elizabeth of Hungary Church

- Community Garden

Wagtail Urban Farm

- Urban Farm

Westminster School

- Environmental Action Group
- Senior School Environment Group

Oaklands Estate Kindergarten

- Butterfly Garden

Oaklands Community Garden

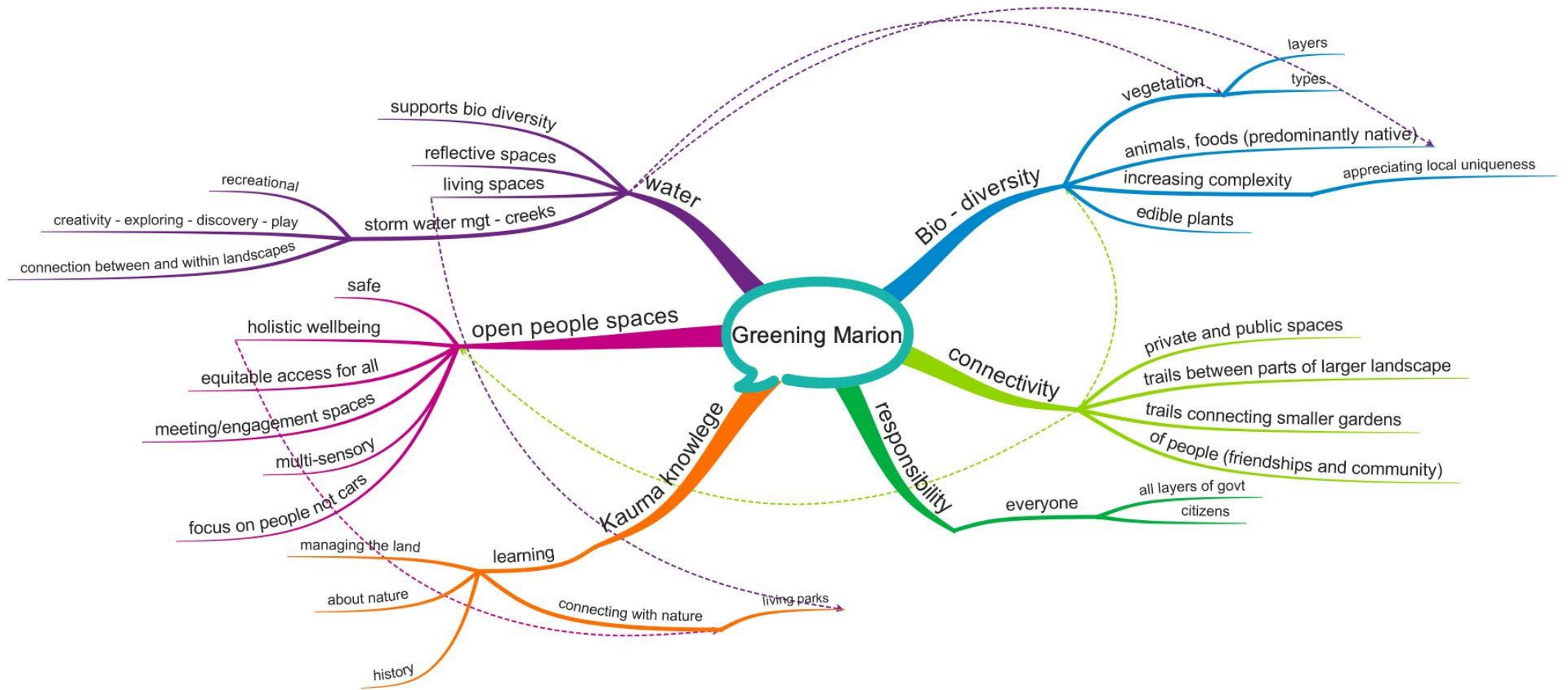- Community Garden

Alan Shepard

- Workshops

Trees for Life

- Trees for life

Bringing Back the Butterflies

- Advocacy and support for Butterfly Gardens

Appendix 9
Mind map for collective vision

Greening Marion

water
- supports bio diversity
- reflective spaces
- living spaces
- storm water mgt - creeks
  - recreational
  - creativity - exploring - discovery - play
  - connection between and within landscapes

Bio - diversity
- vegetation
  - layers
  - types
  - appreciating local uniqueness
- animals, foods (predominantly native)
- increasing complexity
- edible plants

open people spaces
- safe
- holistic wellbeing
- equitable access for all
- meeting/engagement spaces
- multi-sensory
- focus on people not cars

connectivity
- private and public spaces
- trails between parts of larger landscape
- trails connecting smaller gardens
- of people (friendships and community)

responsibility
- everyone
  - all layers of govt
  - citizens

Kaurna knowlege
- learning
  - managing the land
  - about nature
  - connecting with nature
  - history

living parks

Appendix 10
Adapted model to address wicked problems

Adapted model to address wicked problems

- This is a model to address wicked problems, drafted by the Greening Marion project team following the Greening Marion pilot.
- It combines both complexity and systems thinking, to support initiatives in two ways:
  - To deliver outcomes that address causal factors (or barriers) of a wicked problem
  - To provide system services to support a system to function well (communicate, learn, innovate and adapt).
- It has been adapted from Wicked Lab's Systemic Innovation Lab and Challenge Lab methodologies.
- The numbered stages and activities are guides, and in reality will overlap.

Process overview

Stage 1: Scope	Stage 2: Seed	Stage 3: See	Stage 4: Shape	Stage 5: Strengthen
1. Develop lead organisation/s capacity to work at a systems level with a networked governance approach. 2. Undertake readiness assessment to gauge how connected and 'ready' the system is to take this approach. 3. Establish initial governance and operational structures. 4. Agree on project scope, roles, responsibilities and expectations.	1. Communication piece to mobilise community and stakeholders. 2. Workshops to build community and stakeholder capacity and appetite to strengthen system, create shared vision and increase connectivity. 3. Review and adjust project governance.	1. Workshop/s to collectively and rapidly map the system, looking at: - causal factors - current initiatives - how initiatives address the causal factors *and* contribute to system functionality. 2. Collectively discover system strengths and opportunities, and commit to focus areas. 3. Communication piece to summarise results, focus areas and next steps.	1. Capacity building to deepen understanding of initiative's contribution to system health.	1. Evaluate, adapt and repeat process.

Details of each stage

Stage 1: Scope			

1. Develop lead organisation/s understanding of:
 	
• Networked governance
 	
• Wicked problem / opportunity to be addressed
 	
• Geographical area to focused on
 	
• Broader organisational processes which the project needs to fit within
 	
• Complexity and this process (in a broad way)
 	
• Initial stakeholders that we need to communicate with.
	2. Establish initial governance and operational structures
	
	Purpose and structure:
	
	• Informed by the scale of the project (e.g. metro wide - a range of teams that link to a central team)
	
	• Consider different levels:
	  - Steering Group (strategy)
	  - Working Group (delivery)
	
	• May also have reference groups, based on:
	  - Themes / subsystems
	  - Geographical regions
	
	Membership:
	
	• Government is the lead initially, may have intention to step back in the future (this needs to be communicated at the outset)
	
	• Representatives from diverse organisations
	
	• Community representative/s
	
	• Explaining that ratios may change through the project.
		3. Undertake readiness assessment
		
		e.g., through a briefing workshop:
		
		• How ready is the system?
		
		• What kind of culture of working together already exists within the system?
		
		Consider: leadership, connections, mindset and willingness to learn, past and existing efforts, knowledge of past efforts and resources and skills.
		
		If already connected, and work together, the system is ready to move, and needs a light touch transition approach.
		
		If not already connected, it will need support to get connected before focusing on system transitions.
			4. Come to an initial agreement on:
			
			• Wicked problem / opportunity
			
			• Geographical area
			
			• Roles, responsibilities
			
			• Expectations of project.
			
			Note: these may change once other stakeholders become involved in the project from Stage 2.

Stage 2: Seed		

1. Communication piece
 	
• Mobilise community and stakeholders
 	
• Invitation / call to action (punchy and exciting)
 	
Details
 	
• Summary of 'need' (problem + system)
 	
• Description of the process
 	
• What's in it for them
 	
• What we are asking for, as a collective effort (emphasis on the shared efforts)
 	
• Timelines
 	
• Supportive of community initiatives
	2. Workshops
	
	Purpose:
	
	• Community building
	
	• Support stakeholders to see themselves as part of a system
	
	• Build appetite for stakeholders to increase their agency
	
	• Identify community champions
	
	• Identify others who need to be on the reference or working groups
	
	• Develop a collective vision
	
	• Increase connectivity, and shared awareness of who else is in the system
	
	Who:
	
	• People who are involved with initiatives that addresses the problem in the place
	
	• Includes community and diverse initiatives and organisations
		3. Review project and adjust governance
		
		Review purpose, structure and membership of:
		
		• Steering Group
		
		• Working Group
		
		• Reference groups:
		
		   - Theme / subsystem
		   - Geographical
		
		Consider how the community is involved, e.g. integrated into a group, or as their own group?
		
		Agree on the roles of the different groups.

Stage 3: See		

1. Workshop/s
 	
Purpose:
 	
- Rapidly map the system
- Collectively:
  - identify causal factors (or barriers), map which initiatives are addressing each factor, and identify gaps in effort
  - map initiative characteristics to identify system strengths and opportunities in terms of its functionality
  - identify focus areas in greatest need of addressing
  - commit to addressing focus areas (will depend on the system's 'readiness')
- Increase connectivity, and shared awareness of who else is in the system
- Co-create how to fill the gaps – if people are ready.
 	
Details
 	
- Participants to do an online survey as part of the workshop
- Supported by a team of table facilitators to answer questions
- Cheat sheet on questions (to explain initiative characteristics)
- Live results, that can be presented at the workshop
	2. Communication piece
	
	Purpose:
	
	- Summarise results
	- Areas the system wants to focus on
	- Next steps
	
	Details
	
	- Ideas can come from a small working group
	- Consider mind map, or short video.
		3. Support project governance
		
		Purpose:
		
		- Keep existing members up to date
		- Bring new people up to speed

Stage 4: Shape	Stage 5: Strengthen
1. Capacity building	**1. Evaluate, adapt and repeat process**

Stage 4: Shape

1. Capacity building

Tailor to different levels of involvement (some people will want to be involved at surface level, others will want to explore deeply.)

Purpose:

- Deepen initiative owner's understanding of how their initiative contributes to system health

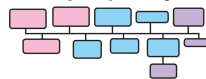- Increase understanding/capacity of how to fill gaps identified in 'See' stage

Stage 5: Strengthen

1. Evaluate, adapt and repeat process

Appendix 11
Wicked Lab's Challenge Lab methodology

CHALLENGE LAB
Program guide

Delivered in partnership between Wicked Lab and Community Capacity Builders.

Overview

Challenge Labs are designed to tackle a specific wicked problem in a geographical community. Wicked problems are a unique type of complex problem; a complex social policy problem. This type of problem is hard to resolve as each wicked problem takes place within a unique context and has many interconnected causal factors. Examples of wicked problems include: long-term unemployment, climate change, food insecurity, ageing populations and homelessness.

A Challenge Lab has 3 key components:
- It targets a wicked problem in a geographical community
- Builds the capacity of social entrepreneurs to develop or strengthen system aware social enterprises that address one or few casual factor of the target wicked problem
- It incorporates a participatory budgeting process

Working in partnership with local or state government, Challenge Lab's target one wicked problem in a community, and build the capacity of its community to address this wicked problem. Community capacity building involves building the networks, organisation, attitudes, leadership and skills that allow communities to manage change and sustain community-led development. Challenge Labs do this through participants undertaking the three unit Program for Social Entrepreneurs and connecting with other stakeholders that have an interest in the wicked problem in their community.

The Lab recruits participants to undertake the Program for Social Entrepreneurship. During the program the participants are challenged to address a complicated problem within the target complex wicked problem by creating or strengthening an initiative that can be institutionalised as a social enterprise.

A participatory budgeting process is also incorporated into each Challenge Lab, that provides participants with the opportunity to:
- develop relationships with a broad range of community stakeholders that have an interest in the Challenge Lab's target wicked problem, and
- receive funds towards the implementation of their initiative
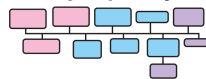
Challenge Lab Process

The Lab has three stages: Form, Learn and Engage. Activities in these stages include:

Form
Month 1-3
- Form a Reference Group for the Challenge Lab that consists of stakeholders from the target community that have an interest in the Challenge Lab's target wicked problem
- Obtain prizes for the Challenge Lab
- Recruit participants for the Challenge Lab

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Learn
Month 3-6
- Participants undertake Community Capacity Builders Program for Social Entrepreneurs and use Wicked Lab's Tool for Systemic Change Ecosystem Map feature to map their solution ecosystem
- Mentors are recruited that have knowledge and/or experience in the Challenge Lab's target wicked problem
- Program participants are matched to mentors
- Participants theory of change, business model canvas and pitch deck are forwarded to their mentors

Engage
Month 6-8
- Participant's initiatives are promoted to all stakeholders in the community that have an interest in the Challenge Lab's target wicked problem (the solution ecosystem)
- Prizes are awarded through a participatory budgeting process with the winners decided by members of the community that have an interest in the wicked problem (the solution ecosystem)

Challenge Lab Costs

Community Capacity Builders in partnership with Wicked Lab will provide, training, resources and mentoring to support the delivery of a Challenge Lab.

This includes:
- 1 Kick Start workshop (and resources) for the Reference Group to understand the Challenge Lab process $3,000
- 4 mentoring sessions to support the 3 stages of the Lab: Form, Learn and Engage, and a post Lab follow up session $2,000
- A 12 month License to the Tool for Systemic Change (which includes one account, one Transition Card, 20 users student license to map the Solution Ecosystem ($350 p/p - $6,900)
- Delivery of the Program for Social Entrepreneurs for 20 participants (see below for details and inclusions) $20,000

Total cost $31 900 + GST

Additional Activities
Additional activities that could support the Lab might include:
- Before the Program: site visits and guest lectures relevant to the target wicked problem (Form)
- After the Program: activities that connect participants and their initiatives to the existing solution ecosystem for the wicked problem that was the focus during the program (Engage)

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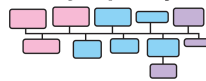
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The Program for Social Entrepreneurs

The term social entrepreneurship has a range of meanings. Contributing to this diversity of meanings is the different approaches for undertaking social entrepreneurship. These different approaches include: the social innovation and social enterprise schools of thought, and participatory governance, communitarian, marketisation and complexity approaches.

Community Capacity Builders Program for Social Entrepreneurs embraces the diversity of social entrepreneurship by recognising the benefits of different social entrepreneurship approaches.

During Community Capacity Builders Program for Social Entrepreneurs, participants:
* research and map the problem ecosystem for the problem that they are addressing
* use Wicked Lab's Tool for Systemic Change's Ecosystem Feature to map the solution ecosystem that is addressing the problem in their place.
* determine where to intervene in their solution ecosystem
* develop a theory of change, business model and pitch deck for the initiative that they develop
* explore the support that is available for social enterprises in their community
* determine the most appropriate social enterprise structure to institutionalise their initiative, and
* develop for their initiative, a performance measurement plan and a scaling strategy.

The Program consists of four units:
* Understanding Social Entrepreneurship
* Mapping Problem & Solution Ecosystems
* Developing Initiatives, and
* Developing Social Enterprises

Unit 1 Understanding Social Entrepreneurship

In this unit participants explore six different approaches to social entrepreneurship. These six approaches are:
* the social innovation,
* social enterprise,
* participatory governance,
* communitarian,
* marketisation
* and complexity approaches.

Each of these approaches has a different history and include different social entrepreneurship concepts, tools and techniques. During future units of the program, participants use this pallet of concepts, tools and techniques from the six approaches to map their problem and solution ecosystems, develop a theory of change and business model, and identify the most appropriate form of social enterprise structure, performance measurement and scaling strategy for their initiative.

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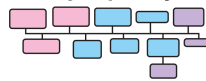
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Unit 2 Mapping Problem & Solution Ecosystems

In this Unit participants research and map the problem and solution ecosystems for the problem that they are addressing. It is highlighted during Unit 2 that in order for participants to create initiatives that can influence systems change, their initiative needs to be a part of a solution ecosystem that is addressing their problem's overarching complex problem. Complex problems are underpinned by an ecosystem of intertwined causal factors. A solution ecosystem for a given wicked problem and geographical community, consists of all the initiatives in the community that are addressing any of the interdependent causal factors that underpin the wicked problem and all of the organisations that are partnering on those initiatives. Wicked Lab's Tool for Systemic Change's Ecosystem Feature is used to map the solution ecosystem.

Unit 3 Developing Initiatives

In this unit participants determine where to intervene in a solution ecosystem, and develop a theory of change, business model and a pitch deck for the initiative that they create. Theories of change contain the underlying assumptions about how and why an initiative will achieve its desired results and provide a roadmap that summarises the steps that need to be taken to achieve the desired results. Business models describe how an initiative will create social and economic value. Pitch decks are presentations that are used to describe an initiative's theory of change and business model to potential partners, funders and investors.

Unit 4 Developing Social Enterprises

In this unit participants identify local support for social enterprises and options for: forming a social enterprise, measuring results and scaling results. During Unit 4 participants explore the support that is available for social enterprises through their local social enterprise ecosystem. They determine the most appropriate social enterprise structure to institutionalise their initiative. Participants develop for their initiative: a performance measurement plan for measuring their results, and a scaling strategy for increasing their results.

Program Delivery

Community Capacity Builders delivers the Program for Social Entrepreneurs through 4 face-to-face days and the provision of online PDF materials. The Face-to-Face Days consist of:
- Face-to-Face Day 1: Delivery of Unit 1 Understanding Social Entrepreneurship and Unit 2 Mapping Problem & Solution Ecosystems.
- Face-to-Face Day 2: Delivery of Unit 3 Developing Initiatives
- Face-to-Face Day 3: Delivery of Unit 3 Developing Initiatives (continued)
- Face-to-Face Day 4: Developing Social Enterprises

This can also be done in an online and interactive format. Pricing here is provided for face-to-face delivery

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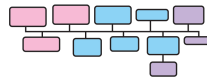
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Program Cost

Total cost of the **Program for Social Entrepreneurs** for up to 20 participants: $20 000 + GST

The host organisation is responsible for recruitment of participants and all participant administration and management.

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