



the
Nature
of **SA**

Discussion Paper

February 2017



What is the Nature of SA?

The Nature of SA is a sector-wide partnership to support positive change in our approach to nature conservation in response to a changing climate. The partnership will inform the development of a strategic approach to nature conservation in SA.

The Nature of SA strategy group has been working with the nature conservation sector over the past 12 months to challenge our conservation approaches in a time of rapid change. This work has involved: exploring models to test and learn from experience and make our love of nature more visible; identifying suitable governance, policy, and legislative settings; and improving the capacity and resilience of the environment sector.

The project is sponsored by Sandy Pitcher, CEO DEWNR, Craig Wilkins, CEO Conservation SA, and Sharon Starick and Professor Chris Daniels on behalf of the NRM Presiding Members. Our strategy group is chaired by Vicki-Jo Russell AM (Trees for Life) and Vicki Linton (DEWNR).

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The value of nature to South Australians

We all value nature in our daily lives, for the inspiration, beauty and peace it gives us, for the opportunities for wealth and prosperity it generates and for the opportunities for fun, wonder and relaxation it offers.

Nature sustains us through the air, water and food it provides and is central to our mental and physical health and well-being. The unique nature of South Australia forms a deep and intrinsic part of our identity. We value nature in its many forms, as part of our heritage, as part of our culture, as part of us.

Ensuring that nature persists and remains integral to our lives, our prosperity and well-being is increasingly challenging as we become more isolated from nature and the benefits it provides in our modern way of life. Changes to our society, economy and climate mean that nature is changing rapidly. These changes require shifts in thinking or action, however, it is important we recognise that some changes are now unstoppable.

We need to prepare ourselves, our thinking and our institutions to respond to these challenges in ways that are both pragmatic and based on the best available knowledge.

Purpose of this paper

The purpose of this document is to explore a way forward for nature conservation in South Australia. It is part of a larger process called the Nature of SA that is exploring how nature is changing and how we should best respond to meet this challenge. The Nature of SA process will be an inclusive one, to inform how future governments, community organisations and individuals work together to protect and conserve nature in a rapidly changing world.

This document represents an important waypoint. It synthesises what the partnership has learned so far in our efforts to develop future approaches to nature conservation. It documents the results of our consultation around these issues to date. Importantly, it outlines a set of transitions or shifts that are emerging as critical turning points for the way we think about and guide conservation in the future.





Building a shared understanding

We need to discuss and debate these shifts as they will form the core of our future thinking and approaches. Together they will constitute a new paradigm; a 'climate ready' approach for nature conservation in SA.

Uncertainties remain, about how nature is changing as the climate changes, and how global and local communities will respond to the challenge of climate change. It is difficult to think about and plan for the future amidst so much uncertainty. No one individual or organisation has the answers; we have to collectively determine how to respond and manage nature in a novel climate.

But one thing is certain: waiting to see what happens is not a responsible course of action. We need to start to act now to ensure we have a positive influence on the future direction of nature conservation in South Australia. It is unlikely there will ever be consensus on exactly what action should be taken and we predict a spectrum of responses. Some parties will want to see a radical response, others a more cautious approach that builds on what we have done to date, others still may want to see more research or changes to the way government operates. There is no simple, single answer to the challenges we face. In reality, our responses will likely involve all of these approaches, sometimes in combination. What is critical is that we are all open to exploring every opportunity open to us, understanding it takes time to research, develop, implement and refine practices, to change policy or to shift community attitudes.

No Species Loss in review

Reviews of *No Species Loss – a Nature Conservation Strategy for South Australia 2007–2017* indicate that the sector's awareness of the strategy was high; it was referenced frequently in planning processes, and seen as comprehensive and relevant. Over its tenure, however, it had limited ability to influence or drive action for biodiversity conservation in the State.

Sector feedback highlighted the lack of an implementation plan with allocation of responsible parties, resources and reporting accountabilities as a serious shortcoming, with the strategy remaining largely aspirational as a result. It proposed that future strategies engage with likely users of the document, partners and stakeholders in development and delivery to maximise effectiveness.





Building on a solid foundation

The Nature of SA recognises that our discussions build on the legacy of those who have worked tirelessly to conserve, manage and celebrate South Australia's natural heritage. We are standing on the shoulders of those individuals, Aboriginal communities, organisations and governments, past and present, and South Australians are in their debt for the wealth of nature we enjoy today.

Protecting and sustainably managing nature through traditional conservation practices such as native vegetation protection, revegetation, protected area management and landscape connectivity will be as crucial in the future as they ever have been. Looking to the future, it is also critical that the voices of young South Australian's are heard and help guide the Nature of SA and the decisions that impact their future landscapes and livelihoods.

The conservation sector response

Much of the sector embraced the opportunity to talk openly during our consultations acknowledging the rate and extent of change requires a rethink about how we best respond to the challenges ahead. It is likely a mix of new and traditional approaches will be required, ensuring we don't stop doing what we know works. Many people can relate to reflections of conservation loss and some shared their own heartfelt experiences and grief.

There remains a strong commitment to threatened species conservation despite many in the sector believing it is unlikely we can prevent no species loss in future.

The sector recognises the value of managing biodiversity assets in novel ecosystems and believes future efforts should be guided less by what is non-native and more about a species' impact in the landscape.

The sector expressed strong support to: invest in the sector itself to meet the challenges ahead; develop systems that support continuous adaptive learning, innovation and knowledge sharing; explore opportunities to work across government on shared goals; and engage the community around their values to mobilise their support.





The case for change

Over the past 50 years we have experienced unprecedented changes in global environmental, social and economic systems such that the period has been referred to as 'The Great Acceleration'. Many scientists and commentators believe that we have entered a new geological era – the Anthropocene – in which the world has shifted beyond historic experience and limits.

Recent evidence strongly supports local, national and global climate projections: that the planet is warming at an unprecedented rate as a result of human activity. The past three years have been three of the four warmest years on record. 2016 was the warmest year on record. Changes to weather, storm and fire patterns are evident, locally and globally.

The 2013 State of the Environment Report (South Australia) noted that while there was

“good news—such as sustained growth in generation of renewable energy, more efficient use of water and electricity, and continued increases in recycling, there was also cause for concern—such as further decline of already poor biodiversity, increased use of natural resources... increased development and industrial activity in sensitive areas such as the coastal zone, increased use of private motor vehicles, reduced water flows for the natural environment from the River Murray, and changes in the acidity, salinity and temperature of the marine environment”.

These changes will have uncertain consequences for South Australia's biodiversity. While we have limited control over these globally-driven changes, we do have a choice about how we wish to respond. These changes encourage us to rethink how we want to engage with nature, how we manage our natural environment, and, centrally, what we are managing nature for. It encourages us to recast the role of pre-European perspectives of nature as a guide for conservation.

These perspectives are not redundant, but rather, provide an historic context that will continue to support our future thinking. However, they are also likely to become less relevant in the face of current and emerging climate-based changes. This is challenging to many of us but opens up opportunities to think with greater clarity and purpose, and provide us with hope that we can realistically create a positive future for South Australia's biodiversity and a positive future for society.





A vision for the future of nature conservation in South Australia

Principles for the future of nature conservation

While many of the conservation activities we have historically undertaken will continue to be important, the scale and rate of global changes now occurring compel us to start looking at nature conservation through a number of different lenses, or what we refer to as ‘shifts’.

Value nature in all its forms, including novel and urban

Early efforts around nature conservation focused on the protection of ‘pristine’ wilderness, and this led to a perception among some that conservation only happens in protected parks and wilderness areas. It is important to recognise that for thousands of years, the Aboriginal economy in Australia changed nature to provide the resources that people needed, albeit in a genuinely sustainable manner. Wilderness, where it conjures visions of landscapes free of people, has not existed in Australia for a timeframe that is beyond comprehension.

When Europeans imposed their values and economy on Australia the changes to nature were profound – there are no ecosystems in South Australia that have not been changed as a result. Many ecosystems in our parks do not represent their pre-European state. This is obvious to any trained ecologist. Walk through any of the parks

in the Adelaide Hills and you will observe many small trees, with multiple stems – these trees have regrown from earlier cutting and clearing. Very occasionally an enormous stag, often burnt and hollow, remains standing amongst the regrowth. These trees provide a glimpse of what the forests were truly like before European settlers arrived.

Non-indigenous species are now widespread throughout a range of ecosystems. One way to view this is through sad eyes, to mourn what was lost. However, these regrowing woodlands and forests, with all their non-indigenous species, are the nature we now have. They are not pristine. Many could be considered ‘novel’ because they have changed so much. And yet, they still nurture the wildlife we want to protect, provide us with nature encounters, places to be at peace and scenic vistas to enjoy – they are still vital and enchanting.

Further, many people are beginning to accept that nature is not confined to remote wilderness areas or parks. A large number of South Australians only interact with the nature that occurs in their capital city – the parks and gardens, the city parklands, Torrens linear park, their backyards and the beaches. This is not the nature that conservation efforts have typically focused on to now, yet it is still nature, and it is still important.

The importance of tenure-blind, landscape-scale conservation activity has become increasingly important, both from a social and ecological perspective. If we can embrace more than the ‘pristine’, we learn to appreciate that all landscapes contain nature that is valuable and contributes to our conservation and community objectives.



Some things we need to keep doing

The impact that a globally changing environment has on South Australia's biodiversity does not mean we simply stop implementing our current and traditional nature conservation practices. Quite the opposite: many of our existing tools will become even more important as we work towards improving the resilience of our biodiversity so it is better able to cope with these changes.

Protecting what we still have – the 'best' bits – will continue to be critical, not only to maintain as much of the remaining native biodiversity as possible, but also to maximise the resilience of nature to cope with change. Protected areas and regulation will become increasingly important in the future, as will identifying and managing the important threats. These levers will remain important to us as the 'how', even if the 'why' may change through time.

We will always place more value on some things in nature – some species, some places. We will continue to direct considerable energy and resources at trying to conserve these priorities.

Evolving approaches and priorities in an uncertain future

Humans are naturally curious about things that are scarce and many species are highly valued by the community. Many rare species are threatened with extinction – the direct antithesis of conservation. The loss of each species represents an irreversible erosion of the planet's natural, cultural and genetic heritage and for many people it is unconscionable. Preventing extinction, through nature conservation legislation, policy and on-ground action has been an imperative of conservation strategies and this intent was directly reflected in No Species Loss, the strategy that precedes the Nature of SA.

In line with a growing body of evidence, many of us now reluctantly acknowledge that achieving no species loss is impossible. The best science we have indicates that the changing climate poses a major threat to many species. Some scientists have predicted that threatened species lists will grow fivefold in the coming decades. Others consider this to be a conservative estimate. Regardless of the exact numbers, the reality of climate change is that many species will not be able to evolve or adapt quickly enough to survive *in situ*.

All of this presents a huge dilemma for conservationists and the community in the coming decades and in response many of us believe we will need to challenge the current rule book. Assisted migration, re-wilding, increased translocations, mixing provenance, bolstering genetic diversity in small populations, managing novel systems and recognising some weeds as habitat represent just some of the new ideas on the table, if not already being implemented.

Additionally, there is much scope to ensure our planning is more precise and that we are effectively influencing ecological processes to achieve the specific outcomes we want. Managing threats at appropriate scales (for example, the landscape, ecosystem and species levels) can have a positive impact on many components of biodiversity.

All of this is much more complex than prioritising one species over another, or prioritising landscapes over species, etc. The underlying theme is that we will need to try some new things, take risks and learn as we do. Some of us are doing this now, and many more are keen to do so. Others will continue with existing approaches.

There is no doubt that rare and threatened species will continue to be an important focus for nature conservation and engaging the community in nature. We know that species recovery can be an effective conservation tool for achieving much broader ecosystem and landscape level outcomes. The outcomes we seek, and how we achieve them, will need to respond to different contexts, so there will be many approaches to nature conservation in the future.



We need to manage threats, including pest plants and animals, in a way that better links to our desired outcomes

Introduced species can impact on native biodiversity, and natural and productive systems. However, we need to get much better at drawing the link between the management of pest species and nature conservation outcomes (as well as broader NRM outcomes). Our efforts need to be very targeted. In some instances, introduced species are the dominant habitat for species that would otherwise be threatened with extinction. Blackberries providing habitat for the Southern Brown Bandicoot is a good example of this relationship in the Mt Lofty Ranges. Even foxes play a role as the top predator in many landscapes, and removing them from these landscapes can have implications (positive, but also potentially negative) for other species.

We also need to acknowledge that not all new species are problematic, nor is it possible to eliminate some invasive species from our landscapes – they are here to stay. We can, however, actively manage where species or ecosystems require intervention. Even then, we still need to ask ourselves if we can sustain this intervention indefinitely, because that may be required in some cases.

Our decision-making needs to be collaborative, influential and informed by the values, knowledge and rules of society

Making decisions about nature, as something that fundamentally belongs to all current and future South Australians, is complex. Ultimately, it is our democratic system of governance that makes significant conservation decisions like the declaration of new protected areas, major development approvals or the allocation of public funds to programs.

The current approach has often led to conflict and polarising views between conservation and development where nature conservation issues are often represented as a loss for the economy and jobs. We can do better to ensure environmental values and long-term considerations are factored into sustainability debates.

The future of SA relies on a strong natural resource base and the challenges we face call for collaborative approaches that recognise the full range of values, applies robust science and local knowledge to determine the best outcomes.

There are also a myriad of smaller decisions made every day by people and organisations that could be made differently with a greater emphasis on good governance and processes for decision-making.

Aligning community values, the required knowledge and the governance and rules surrounding decisions helps to create a decision 'context' that can lead to more constructive and effective decision-making.





Learning is a serious business, particularly in the context of such uncertainty

Adaptive management, as a concept, has a long history in natural resource management although it has rarely been implemented successfully, particularly at scales beyond an individual issue or species or project.

Our rapidly changing world means we'll increasingly face social and environmental conditions that have no precedent. Given this growing uncertainty, it will become increasingly important to learn from what works, what doesn't, and how our systems respond to change. This means creating systems to collect, organise and share information in an efficient and effective way so that we can all learn as quickly as possible.

We need to identify the barriers (technical, organisational, cultural, financial) to effective learning in our management of nature. We need to celebrate learning as an achievement, even if projects 'fail'. Redefining what success looks like – that success includes learning something – might be one of the most critical shifts we can make in nature conservation.

Improving the links between planning and evaluation is central to effective learning. Monitoring must be an integral part of the management process, not simply something that is done at the end of a project.

A resilient conservation sector is CRITICAL for long term nature conservation

The conservation sector needs to regard its people as its most important asset. Workforce and capability reviews are common place in other professional sectors to ensure sufficient and suitably qualified employees will be available to meet future needs and identify where training, development, recruitment and investment is required.

Despite the high vocational standards required to join the conservation workforce and the talent and professionalism on which it relies it is rarely regarded or supported in the same way as many of its peer professions. The Nature of SA has identified a plethora of skills required to take carriage of the State's resilience and it will be important that tertiary and other training providers build upon these to prepare the professionals of the future.

Like many other community service sectors the conservation workforce, which includes a strong volunteer contingent, is often exposed to prolonged periods of high stress and at times trauma. Many such groups are now implementing professional and self-care plans to ensure their workplaces remain healthy and productive and it will be important that we follow their lead. Perhaps most importantly, we need to be more aware and deliberate in looking after ourselves and each other.

Collaborating better with other organisations, partnering with our interstate and international counterparts and sharing knowledge will be beneficial to the sector's resilience and provides an opportunity to strengthen relationships with the broader community. A sector that has high capacity, is well connected and shares a common high level vision is likely to be more resilient in the longer term.





Strengthen our collective narrative around nature

Adelaide is a city surrounded by parklands, nestled between the hills and the sea. South Australia is full of iconic nature from the Flinders Ranges to the Nullarbor Cliffs and Kangaroo Island. Nature also exists in our urban and rural landscapes. More than 70% of South Australians visit a state or national park each year (over 90% if you include beaches), and 94% of South Australians say conserving the environment is of critical importance.

Individually, people care deeply about the environment. Unfortunately, this doesn't quite translate to our collective conversations. Nature doesn't feature in the state priorities and makes up only a small and shrinking part of our state budget. Even though it underpins our health and wellbeing and so much of our economic, social and cultural fabric.

To address this, the work of conservation organisations needs to expand. We need to do the direct on-ground and policy work of conserving and protecting, the work of advocating and educating, as well as the work to publicly and continually strengthen our collective narrative around nature in all its forms. That means helping citizens find more ways to celebrate nature in positive, public ways, and tying these closely to how we think about what's special about South Australia.

This is not just responding to community values. In an age of increasing urbanisation and technology, our culture is slowly forgetting the value of nature. We must take on the role of reminding the community about how meaningful and therapeutic nature, in all its forms, can be. We need to reinforce the notion that nature isn't something that's 'over there' that we visit occasionally or just 'provides us services.' It's part of who we are, and our fates are inextricably intertwined.

Some of this work is happening already through initiatives like Nature Play for children and Healthy Parks: Healthy People, but we need to broaden and strengthen this kind of work for adults and all communities. We need festivals, public art, seminars, books, ambassadors, etc. We need groups of citizens celebrating our parklands and natural spaces. We need installations in our airports and city squares trumpeting the quiet, accessible gem of Morialta and the grand splendour of Arkaroola. We need to continue to build cross-sector partnerships to strengthen this narrative.

The long-term effect of this work is to steward a community that can then itself become better stewards of nature. By working in many and varied ways to tie the love of nature more strongly to our collective identity, we can end up in a place where people and politicians say 'of course we respect and protect nature, that's just what South Australians do'.





Photo John Gitsham

Remember what we love about nature and use this to engage others' values

We all have our own personal story about how we came to be connected to nature. Typically, it involves being taken to natural areas as young kids, and being enchanted and thrilled by our experiences.

As we pursued our passion for nature we gained a knowledge and understanding of the problems it faces. Today, in such a connected world, it is easy to be overwhelmed by the ongoing loss of nature occurring globally, and the 'doom and gloom' stories can make us feel genuinely depressed.

Our natural tendency is to appeal to people with these facts and figures about species in decline, habitat being lost, the impacts of pests and weeds, and the risks posed to their lifestyle in the hope that it will motivate them to take action in some way. Despite our best intentions, this approach may have been counter-productive in many cases; however, the science of the human brain and our psychology clearly points to a more effective approach.

When we use evocative words and images and simply reflect the very things about nature that enchanted us in the first place, then we are much more likely to motivate people to take action. This is the basis for the 'love not loss' campaign. This whole process becomes much more uplifting for us too, as we focus more on hope ourselves.

In contrast, when we hit people with all the problems, and place little or no emphasis on providing hope or tangible ways that people can help, we simply encourage them to switch off. It all seems too hard and people feel like the problems are too big for them to make a difference. This is our natural human response.

Don't be fooled. This does not mean we simply 'spin' positive stories. Of course, we still need to communicate the problems and the threats so people understand; however, we couch this with the messages of love and hope, and action to evoke their intrinsic love of nature and values of fairness, benevolence and responsibility.





Next steps for the Nature of South Australia

The Nature of SA Forum, 20-21 February 2017 will explore, with the sector, the shifts that may need to happen and an understanding of how best to support nature conservation in SA into the future. This is not a decision-making process but an opportunity to discuss and debate potential changes in our approach, explore what will work in principle and discuss how to put those principles into practice. The aim is to develop a series of guiding statements that will form the basis for further discussions beyond the conservation sector, to test alignment and seek new ideas and collaborations ; ultimately guiding the collaborative development of future State policy.

The Forum, hosted by Conservation SA, is inviting the participation of a targeted group of leaders from across the State's conservation sector in environmental non-government organisations, relevant government agencies and boards, and universities.

Post forum, the aim is to continue to work with the conservation sector and with wider audiences to further discuss, refine and evolve the statements and ideas; and find common ground with other interest groups to learn from, and enlist, their support. We will also be encouraging partnerships to trial some of the ideas. The aim of this work is to develop an achievable state-wide strategy and to influence positive change in our approach to nature conservation so we will be effective in the decades to come.

To continue the conversation or find out more we invite you to get in touch with the joint Strategy Working Group chairs **Vicki-Jo Russell** at vickijor@treesforlife.org.au and **Vicki Linton**, DEWNR at vicki.linton@sa.gov.au, or get in touch with **Jill Woodlands**, Conservation SA's NRM Facilitator at jill.woodlands@conservationsa.org.au.

We look forward to your participation in the process.





Further reading

On the state of the world, and the case for change:

Australian Bureau of Meteorology.
Annual Climate Reports. Available online

Environmental Protection Authority (South Australia) releases State Of The Environment reports for South Australia every 5 years, with the most recent having been released in 2013. These reports are available online.

Rockström, J., W. Steffen, K. Noone, Å. Persson, F. S. Chapin, III, E. Lambin, T. M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C. A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sörlin, P. K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V. J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, & Foley, J. (2009). Planetary boundaries: exploring the safe operating space for humanity. *Ecology and Society* 14, 32. Available online. Additional information is available on the website of the Stockholm Resilience Centre.

Steffen, W., Broadgate, W., Deutsch, L, Gaffney, O. & Ludwig, C. (2015). The trajectory of the Anthropocene: The Great Acceleration. *The Anthropocene Review* 2, 81-98. See charts and other information online.

Williams, K.J., Prober, S.M., Harwood, T.D., Doerr, V.A.J., Jeanneret, T., Manion, G., & Ferrier, S. (2014). Implications of climate change for biodiversity: a community-level modelling approach, CSIRO Land and Water Flagship, Canberra. Available at: www.AdaptNRM.org. ISBN 978-1-4863-0479-0. See other resources available online.

On valuing nature in all its forms:

Hobbs, Richard J., Higgs, Eric S. & Hall, Carol M. (2013). Novel Ecosystems: Intervening in the New Ecological World Order. Oxford University Press, Oxford.

Hobbs, Richard J., Hallett, Lauren M., Ehrlich, Paul R. & Mooney, Harold A. (2011). Intervention Ecology: Applying Ecological Science in the Twenty-first Century. *Bioscience* 61, 442-450. Available online

On the importance of protected areas:

Taylor M. & Figgis P. (eds) (2007). Protected Areas: Buffering nature against climate change. Proceedings of a WWF and IUCN World Commission on Protected Areas symposium, 18-19 June 2007, Canberra. WWF Australia, Sydney. Available online

On the need to think differently about how we make decisions:

Gorddard, Russell, Colloff, Matthew J., Wise, Russell M, Ware, Dan & Dunlop, Michael (2016). Values, rules and knowledge: Adaptation as change in a decision context. *Environmental Science & Policy* 57, 60-69. Available online, with a summary available here

On the need for a better narrative about nature:

Fluence T., McCallum K., Rutter A. & Cullen L. (2016) Narrative handbook : how to tell compelling stories that move people to action. Australian Conservation Foundation, Carlton.



On the need to improve sector resilience:

Hobbs, Richard J. (2013). Grieving for the Past and Hoping for the Future: Balancing Polarizing Perspectives in Conservation and Restoration. *Restoration Ecology* 21, 145-148. Available (abstract only) [here](#)

Morton, Steve R. (2016). On pessimism in Australian ecology. *Austral Ecology* Early View (online – abstract only)

On the need to take learning seriously:

Allan, Catherine & Stankey, George H. (2009). *Adaptive Environmental Management: A Practitioner's Guide*. CSIRO Publishing, Collingwood.

Lindenmeyer, D., Likens, G.E. (2010). *Effective Ecological Monitoring*. CSIRO Publishing, Collingwood, Victoria.

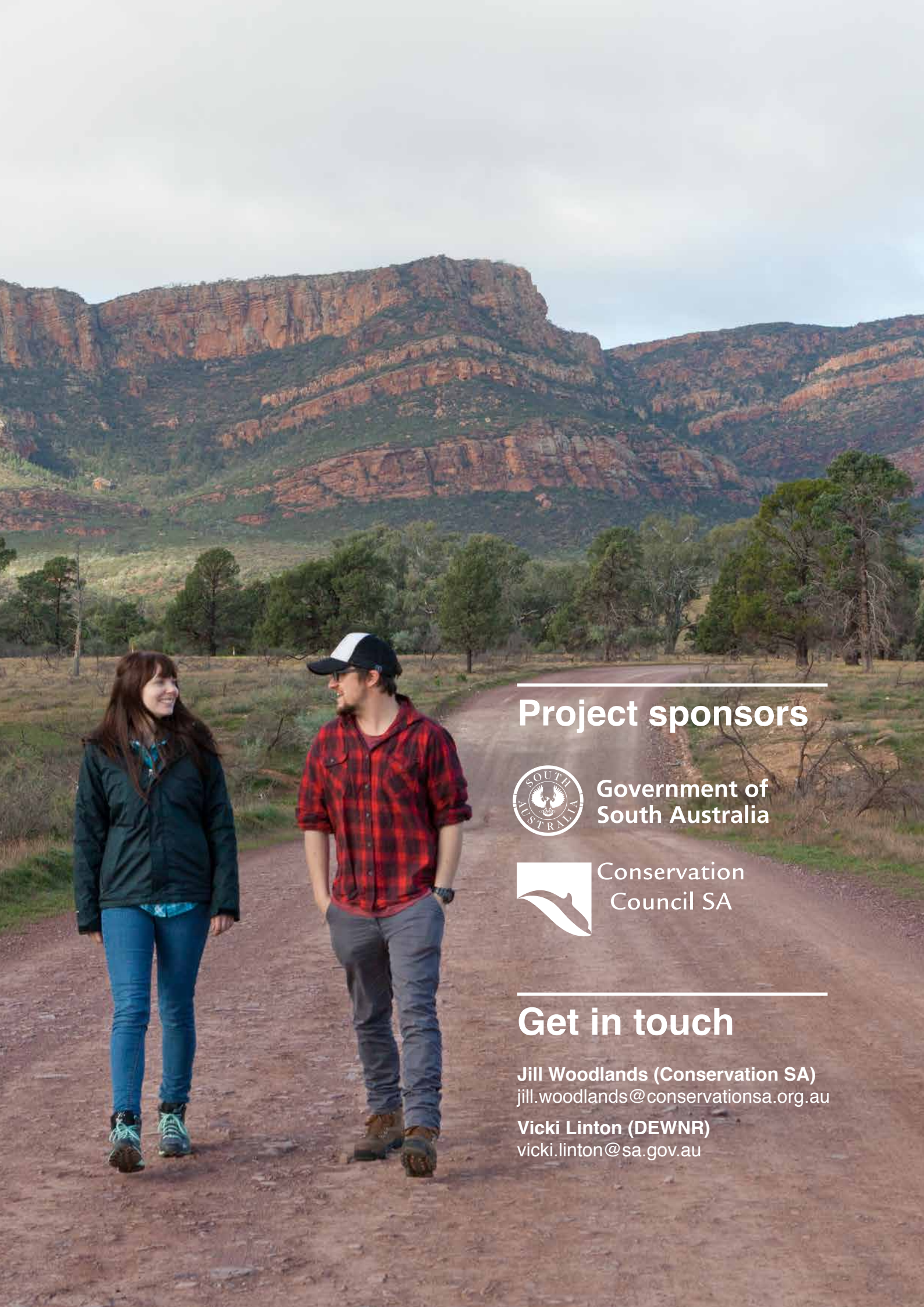
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Get in touch

Jill Woodlands (Conservation SA)
jill.woodlands@conservationsa.org.au

Vicki Linton (DEWNR)
vicki.linton@sa.gov.au