



**SELICKS WOODLANDS AND WETLANDS ACTION NETWORK
SUBMISSION TO
PLANNING SYSTEM IMPLEMENTATION REVIEW**

SWWAN was founded two years ago to oppose greenfield housing developments in the Sellicks Beach area and to advocate that the land instead be conserved for environmental restoration as an essential response to the extinction crisis.

In support of this we present an evidence-based plan for the wider region of the Willunga Basin that addresses the existential threats of biodiversity loss and climate change, protects our agricultural industry, addresses the housing crisis, respects the cultural significance of the land and preserves the idyllic character of the current township of Sellicks Beach and the wider Willunga Basin.

SWWAN contends that the plan upon which these proposed developments are based is now dangerously outdated. Since the last update of the 30-Year Plan Greater Adelaide Plan (30-Year Plan), our world has changed significantly and the knowledge of the threats posed to us by biodiversity loss and climate change have expanded greatly. The environment is collapsing because of biodiversity loss and the effects of climate change are being brought home by the recent devastating floods and bushfires¹. Additionally, the need for housing is no longer, if it ever was, on the peri-urban fringe of Adelaide but in sustainable urban infill² closer to the city centre with a priority on social housing³. We cannot continue to use outdated plans that will put future communities at risk.

As a significant measure against biodiversity loss in the Mount Lofty Ranges region, SWWAN proposes that the South Australian Government partner with community and stakeholders over the next decade to create the Willunga Basin Coast Conservation Park as part of a larger program over the next two decades to Rewild the Fleurieu and reverse the extinction crisis. We strongly urge the state government to undertake this project for the benefit of all South Australians.

Sincerely,

The SWWAN Committee.

¹ [The Climate Council. The Great Deluge.](#)

² [URBIS- PCA: Planning to Prosper p71](#)

³ [AHURI report](#)

The Issue

BIODIVERSITY LOSS

The evidence for species loss and the threat posed by ecosystem collapse is overwhelming. The predicted collapse of the environment in 50-80 years time will devastate our agricultural industries, threaten our food security, and consequently imperil society.

The 2022 Federal State of the Environment report released earlier this year echoed the findings from the 2020 Independent Review into the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) chaired by Dr Graeme Samuel AC. The report opened with:

Australia's natural environment and iconic places are in an overall state of decline and are under increasing threat. They are not sufficiently resilient to withstand current, emerging or future threats, including climate change.

Dr Samuel went on to state that the current environmental trajectory is unsustainable⁴.

These trends are both global and local. In October this year, the WWF Living Planet Report showed there has been a 70% reduction in overall animal abundance worldwide in the last 50 years⁵. Here in South Australia, a University of Adelaide study of woodland bird surveys over the last 20 years showed abundance had on average declined nearly 50%, and 60% of bird species were in decline⁶.

Just this week we have seen renewed warnings of the dire problems we face and calls for prioritisation of restoring the environment from world leaders at the COP15 Biodiversity Conference in Montreal, and The Federal Environment Minister Tanya Plibersek announced the 'Nature Positive Plan'⁷. On the same day as this announcement an independent group of scientists associated with Australia's major universities and conservation groups announced the creation of the Biodiversity Council, an independent body to advise the government in a similar way to how the successful advocacy of the Climate Council⁸ has influenced the climate change debate.

In announcing the formation of the council, Executive Director Ilsa Colson said "Biodiversity loss and climate change are the two existential challenges of our time, yet biodiversity loss receives much less attention than the climate crisis. The Council will seek to change this."

One of the reasons for this lack of attention is that the cause of biodiversity loss is often wrongly attributed to climate change. This is not the case.

⁴ [Independent Review of the EPBC Act](#)

⁵ [WWF Living Planet Report 2022](#)

⁶ [Mt Lofty Ranges Birds in decline](#)

⁷ <https://apo.org.au/node/321098>

⁸ [Biodiversity Council Australia announcement Dec 7 2022](#)

Biodiversity loss and the extinction crisis are driven by a lack of resources because of centuries of clearing habitat for our cities and farms. This loss of habitat represents a shortage of food, shelter, hiding places, escape routes, places for mating and raising babies which over time results in population declines and eventually extinctions. Climate change will make this worse but solving climate change won't fix these problems.

Here in Australia, over the last two and a half centuries, we have cleared the majority of arable land for our cities and farms leaving less than 10% of the natural vegetation, often much less. This vast clearance represents a greater than 90% reduction in available resources for local wildlife and the animal populations are now declining to meet the new lower resource levels. Additional to the drop in numbers, a smaller amount of resources is not able to support as many species, meaning extinctions. Australia is already a world leader, and it is projected that over the next 50-80 years, along with the significant ongoing declines in overall numbers, we will see 30-40% of species go extinct and a very real possibility of total ecosystem collapse.

To maintain the current number of species, that is, fulfil State and Government pledges for no further extinctions⁹, and maintain functioning ecosystems to provide us with food, we need habitat coverage of at least 30% in the landscape¹⁰. Below that we will continue to see declines and extinctions and be impacted by the effects. Protecting the 10% left is not enough.

Even if we protect every single tree today and solve climate change tomorrow, over the next 50-80 years we will continue to see significant declines in numbers, leading to nearly half of all species going extinct, because of this lack of resources.

What does this mean for us? No pollinators = large declines in agricultural production and diversity. They say society is three meals away from anarchy. Not addressing the extinction crisis puts at significant risk our agricultural systems and food security and society itself.

By regenerating enough habitat over the next 20-30 years to meet the 30% target for functioning ecosystems we will prevent the majority of extinctions and hopefully save our food production from collapse.

There is a big problem with land availability though. An examination of land usage by SWWAN (Figure 1) shows the scarcity of open land available for revegetation. We defined suitable land as grazing and cropping where regeneration could be undertaken in the immediate future. As can be seen from the map, finding enough land to achieve the 30% coverage needed will be difficult.

⁹ [No Species Loss SA Gov; Minister for Environment Media release Oct 4 2022](#)

¹⁰ [UN 30x30; https://phys.org/news/2022-11-koalas-parrots-frogs-orchids-cities.html](#)

This is why SWWAN are arguing we cannot be giving up any more vacant land to housing when every patch of open land and more needs to be restored to secure our community's future.

Hundred of Willunga Land Revegetation Potential

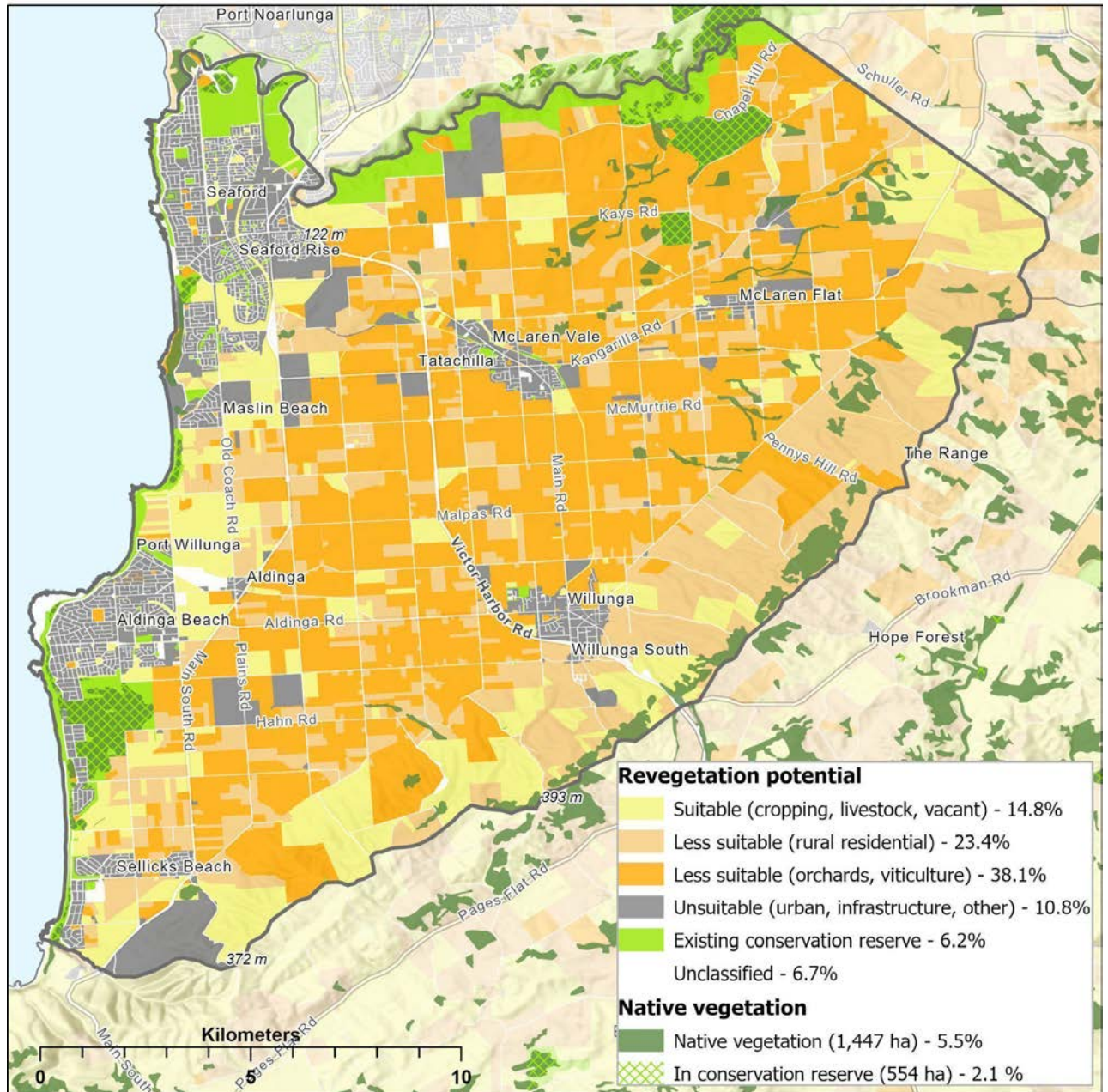


Figure 1: Map of the Willunga Basin Hundred showing the shortage of land suitable for revegetation (14.8%), based on government land usage data, and current native vegetation coverage (5.5%). (I. Ahmer)

SWWAN'S SOLUTION FOR A RESILIENT FUTURE

REWILD THE FLEURIEU &

THE WILLUNGA BASIN COAST CONSERVATION PARK

SWWAN propose that in response to the existential threat posed by biodiversity loss to our agricultural industries and jobs, our food security and future, that the Willunga Basin coastline be protected from further urban development and that the Willunga Basin Coast Conservation Park, following the Tjilbruke Dreaming Trail, be created from Maslin's Beach to Sellicks Hill as part of a wider Rewild the Fleurieu project to protect the Willunga Basin food bowl and build a resilient Fleurieu.

The Willunga Basin Coast Conservation Park would be a continuous conservation zone protecting the last open space on the metropolitan coastline. The park will extend South from Maslins Beach between South Road and the coast, wrap around the existing townships of Port Willunga, Aldinga, and Sellicks Beach, buffer the Aldinga Scrub and Washpool Conservation Park, and climb up to a restored eucalyptus grassy woodland that would have once overlooked Sellicks Beach.

Our vision is that this new conservation park could one day connect the Onkaparinga National Park and the Fleurieu Coast through to Cape Jervis as part of a larger Rewild the Fleurieu project. The establishment of the Willunga Basin Coast Conservation Park would create a unique conservation park that would cover at least three significantly different vegetation communities and their transitional zones. The park will protect and restore the biodiversity of the wider Willunga Basin, keep the enclosed urban areas cooler, build resilience into our local agriculture industry, create diverse tourism opportunities and jobs in the area, and maintain the current residents' quality of life.

By restoring the Willunga Basin coast's native vegetation, we will be contributing to preserving biodiversity in the area and the ecosystems we rely on. In doing so, we will not only help restore our environment and save species from extinction, but we will boost our economy, make our community more resilient, healthier, and more prepared for the problems associated with climate change.

Benefits

The prevention of further extinctions by restoring the environment will have widespread benefits in the future beyond this primary goal. These include;

Agriculture and Food Security

Farmers from the largest vineyard to the smallest backyard garden in the Willunga Basin will benefit from the restoration of a coastal vegetation buffer and the ecosystem services it will provide. By protecting biodiversity, we will ensure our agricultural community is resilient and better prepared for the future. The most obvious benefit to farmers is the protection of pollination services.

Nearly three quarters of all major crops, representing a third of the world's food supply, are dependent on pollinators. For some crops, such as watermelon, almonds, apricots and cherries, pollinators are essential, others, like strawberries, tomatoes, oranges and many oil crops, will be adversely affected in quality and quantity¹¹. Native wildlife also provide important pest control services. A study by R Paisley (2017) from Charles Sturt University showed that the presence of native vegetation close to agriculture has a net positive effect with a 10-20% premium in productivity over sites without nearby vegetation¹².

A loss of ecosystem services will be calamitous for the agricultural sector particularly and society in general. To ensure the resilience of our food supply, our agricultural economy and the jobs that go with it, we must treat the environment as the essential infrastructure it is and act now to repair it before it's too late.

Economic

While the economic gains from urban construction will quickly pass, the jobs and indirect stimulus for the local economy created by undertaking a generational restoration project of this size will last decades. Every worker becomes a customer when they knock off.

Aside from the direct economic stimulus of the restoration work, the creation of a conservation park along the Willunga Basin coast will provide long term benefits to many other industries particularly, tourism and retail. As described earlier, the benefits to local agriculture will be substantial through ensuring the resilience of the industry to continue operating, employing people, and providing a great product. Tourism will be a huge winner from restoring the environment and the overall economic stimulus will in turn create more jobs in the service, retail and other industries.

¹¹ [H Ritchie 2021. How much of the world's food production is dependent on pollinators?](#)

¹² [Peisley, R. \(2017\). The benefits and costs of bird activity in agroecosystems. \[Doctoral Thesis, Charles Sturt University\]. Charles Sturt University.](#)

Community Health

The existing communities of the Willunga Basin will benefit from the cooling effect of the trees, reduced pollution, and most importantly, reduced risk of heat related health problems associated with urban heat in the future, which is recognised as a significant health issue. The value of nature to the economy is currently estimated in the \$100s of millions in avoided healthcare costs¹³. This will be even more important in the coming decades, and it is imperative we act now to make our communities climate ready communities to avoid the associated social and financial costs¹⁴.

Cultural

The area is on the lands of the Kurna nation and the Tjilbruke Dreaming Trail passes through the entire area from North to South. This Dreaming story is a very significant story in Kurna culture and there are a number of significant cultural sites in the area. The creation of the Willunga Basin Coast Conservation Park is an opportunity to continue towards reconciliation through restoring Country.

Tourism

The creation of a new conservation park on Adelaide's southern metropolitan coast linking to the parks of the Fleurieu will be a great boost to tourism state-wide and a valuable diversification of the local market heavily dependent on the wine industry. Hiking, birdwatching, and other outdoor activities will create jobs and economic activity both directly and indirectly. As an example of the economic opportunities available, more people went bird watching in Australia than visited the Great Barrier Reef in 2019¹⁵ and in the United States birdwatching is worth \$41billion annually¹⁶.

Education and Research

Restoring the 90 hectares of land between Aldinga Payinthe College and Aldinga Beach Road, currently under cropping and previously earmarked for housing and infrastructure, would be a unique long term environmental educational opportunity for the new high school. Students from R-12 could be involved in all aspects of restoration, preparing many for careers in environmental science and all gaining a greater appreciation for our natural environment.

The need for greater research into understanding ecological restoration is constantly cited in academic papers on the subject. The large scale of this proposal in general and its proximity to metropolitan Adelaide will provide researchers from our universities and around the world with a unique study site to further restoration science and help save the world.

¹³ [SA outdoor economy Marsdon-Jacon 2020 Avoided Healthcare costs p2](#)

¹⁴ [WHO Climate Change and Health Fact Sheet](#)

¹⁵ [Courier Mail bird-watching-is-taking-flight](#)

¹⁶ [Daily Beast Withrow \(2019\); Schwoerer T, Dawson NG \(2022\) Small sight—Big might: Economic impact of bird tourism shows opportunities for rural communities and biodiversity conservation. PLoS ONE 17\(7\): e0268594. <https://doi.org/10.1371/journal.pone.0268594>](#)

Other issues

There are a number of other issues to be considered in this discussion aside from the threat of biodiversity loss. We must consider the declaration of the Climate Emergency and if this proposal will help or hinder mitigation efforts. What are the best solutions to the housing crisis? We also consider landholders rights and propose options to cover a variety of scenarios as well as the question of anticipated returns on investment for developers and land bankers. There is also the cost.

CLIMATE CHANGE

On the 1st of June this year the new South Australian Government declared a Climate Emergency¹⁷ in response to the global need for action. In the 'State of the Climate 2022'¹⁸ report, the Bureau of Meteorology (BOM) stated that Australia's climate has warmed by an average of 1.47 ± 0.24 °C since national records began in 1910. The International Panel on Climate Change (IPCC)¹⁹ warned us that even if all countries meet current emission reduction pledges, the world is still on track to exceed 2°C of warming.

While much of the discussion on how to deal with the climate crisis centres on the environment and economics, the biggest threat to individuals and communities are the health risks associated with a warming planet. Climate change poses risks to health through increased risk of heat related health issues, increased risk to pollution-related illnesses and mental health issues²⁰. There is the risk to the lives of people through catastrophic weather events such as the Black Summer bushfires and the recent floods, the increased risk of disease and the loss of food and water security²¹.

Restoring the natural environment is one of the best ways to act on climate change. Plants draw down carbon from the atmosphere and the restoration of natural environments will keep our communities cooler and reduce the health problems associated with climate change. In recognition of this, all levels of government have acknowledged the need to plan for a changing climate, and have policies and initiatives in place to help prepare our communities. We have a responsibility to prioritise these initiatives in an update to the *30-Year Greater Adelaide Plan*.

HOUSING CRISIS

We contend that the 30-Year plan for Greater Adelaide relies on outdated urban expansion plans that do not reflect the rapidly changing needs of our modern world nor the needs of the future. We need

¹⁷ [South Australian Climate Emergency Declaration](#)

¹⁸ [State of the Climate 2022 BOM](#)

¹⁹ [IPCC Report on Climate Change](#)

²⁰ [WHO Climate Change and Health Fact Sheet](#)

²¹ [Ibid](#)

to stop using the plans that got us into this mess. The latest urban development policy research shows that the most beneficial new housing for South Australia will come from medium density infill²², in established suburbs with infrastructure capacity²³, with a priority on social housing linked to services and infrastructure²⁴. This is where we should be prioritising our housing plans.

Greenfield housing is also more expensive to society. A literature review and a case study of sites in Playford Council and Bowden by Cathryn Hamilton and Jon Kellett (2017)²⁵ found the costs associated with infrastructure provision to infill development sites is one third the cost of greenfield sites. Another study, Design Perth²⁶, made similar findings and additionally provided estimates of the extra transport costs due to longer commute times, extra car ownership and use, and parking costs that fall on individual householders and the broader economic costs to the environment, health and productivity of greenfield housing. These all showed a significant greater ongoing cost for individuals and society associated with greenfield housing when compared to infill.

Despite these findings there is resistance on the part of the development industry to follow current urban growth policy. Hamilton and Kellett suggest there is some evidence that the developer's construction costs can be higher in infill situations, and hence lower profits, which explains this.

LAND OWNERSHIP AND STAKEHOLDER ENGAGEMENT

The land proposed for restoration is owned by government, private owners, businesses and investment companies. SWWAN is proposing several options for collaboration between all stakeholders to facilitate the creation of the park.

We propose that all government owned land be transferred to the Department of Environment and restoration work begun immediately. Other options for government owned land are for ownership to be transferred to the Kurna Nation or to the City of Onkaparinga.

Where land is suitable for restoration but owned privately, options could include, but are not limited to:

1. Sale – The land is bought outright by the government for a fair price.

²² [Planning to Prosper | Urbis](#) p71

²³ [Cathryn Hamilton & Jon Kellett \(2017\) Cost comparison of infrastructure on greenfield and infill sites, Urban Policy and Research, 35:3, 248-260, DOI: 10.1080/08111146.2016.1274257](#) p259

²⁴ [ABC News Jul 2022 South Australian Public Housing Shortage](#)

²⁵ [Cathryn Hamilton & Jon Kellett \(2017\) Cost comparison of infrastructure on greenfield and infill sites, Urban Policy and Research, 35:3, 248-260, DOI: 10.1080/08111146.2016.1274257](#) p258

²⁶ [Design Perth 2017 p51](#)

2. Sale with option to stay – Owners sell the land to the government for a lesser amount and are given an ongoing paid role in the restoration of the land. This will allow owners who live on the land to stay on their property and be a part of the project. ^a
3. Partnership – Partner with Government or third-party organization to remain in possession of the land and undertake the restoration works themselves. ^{a b}
4. No immediate restoration – This option is particularly applicable for land currently used for vineyards and orchards where owners may want to continue to operate their businesses while the park is built around them. ^b

^a In options 2 & 3 training and certification in Conservation and Environmental Management could be offered in some form.

^b In options 3 & 4, though the owners retain ownership, the only option for eventual sale is to the government for the conservation park.

LAND VALUE and INVESTMENT

All investments come with risk. Sometimes it is high, sometimes low, but there is always risk involved in speculation. Speculators have invested in the land along the Willunga Coast, and in particular around Sellicks Beach and Aldinga, for decades in the hope of profiting from the area's eventual urban development. Unfortunately, during the last several decades, the world has changed, and so too has society's needs for the future.

The need for restoration and action on biodiversity loss is paramount and must take priority for the sake of future communities. The housing needs projected last century, even last decade, are no longer here (if it ever was) and are now closer to the city. Unfortunately for these investors, the situation has changed and the risk of a greater need for the land preventing development has been realised.

Although the expected profits associated with securing the land for development will not be realised, landowners have many options to secure a fair return. Sale to the government for establishment of the conservation park will be at a fair price. Options to stay can come with returns from Carbon Credits and other income opportunities. The only option no longer on the table is urban development.

COST

We have not costed our proposal for the Willunga Basin Coast Conservation Park or the wider Rewild the Fleurieu proposal because we figure whatever the cost will be to restore the environment, it will be less than the cost of losing everything if we don't act, or don't act on a big enough scale or in enough time.

Our proposal is ambitious, but we are only asking for what is needed.

CONCLUSION

The plans for the continuing expansion of urban development of Adelaide as described in the 2017 update of the *30-Year Greater Adelaide Plan*, are outdated. They should no longer be used because they do not account for the existential threats posed by biodiversity loss and climate change, nor are they the correct response to our housing crisis. The greatest need on the urban fringe is for environmental restoration to prevent further extinctions and protect our food security, and to protect our community's health and economies by acting on climate change. We ask that the government stops approvals under the old plans until they are updated to reflect our current knowledge and future needs.

This proposal provides Governments at local, State and Federal levels an opportunity to create a future-ready, sustainable community and demonstrate their environmental and climate credentials to Australia and the rest of the world by doing so. Our evidence-based proposal offers a major contribution to ensuring no further extinctions in South Australia, protecting our future food security and addresses the health and economic problems that will be associated with climate change. The creation of the Willunga Basin Coast Conservation Park will protect and restore the Tjilbruke Dreaming Trail which is of significant cultural importance to the Kurna Nation and will enhance the quality of life of current and future residents.

For the future of the Willunga Basin and South Australia we ask the Government of South Australia to support SWWAN's proposal to create the Willunga Basin Coast Conservation Park as a matter of urgency and Rewild the Fleurieu to protect the future food security of our state.



Figure 2: View from the Aldinga Beach dune lookout overlooking the Aldinga Scrub Conservation Park (M. Farrell).