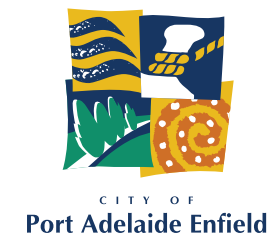


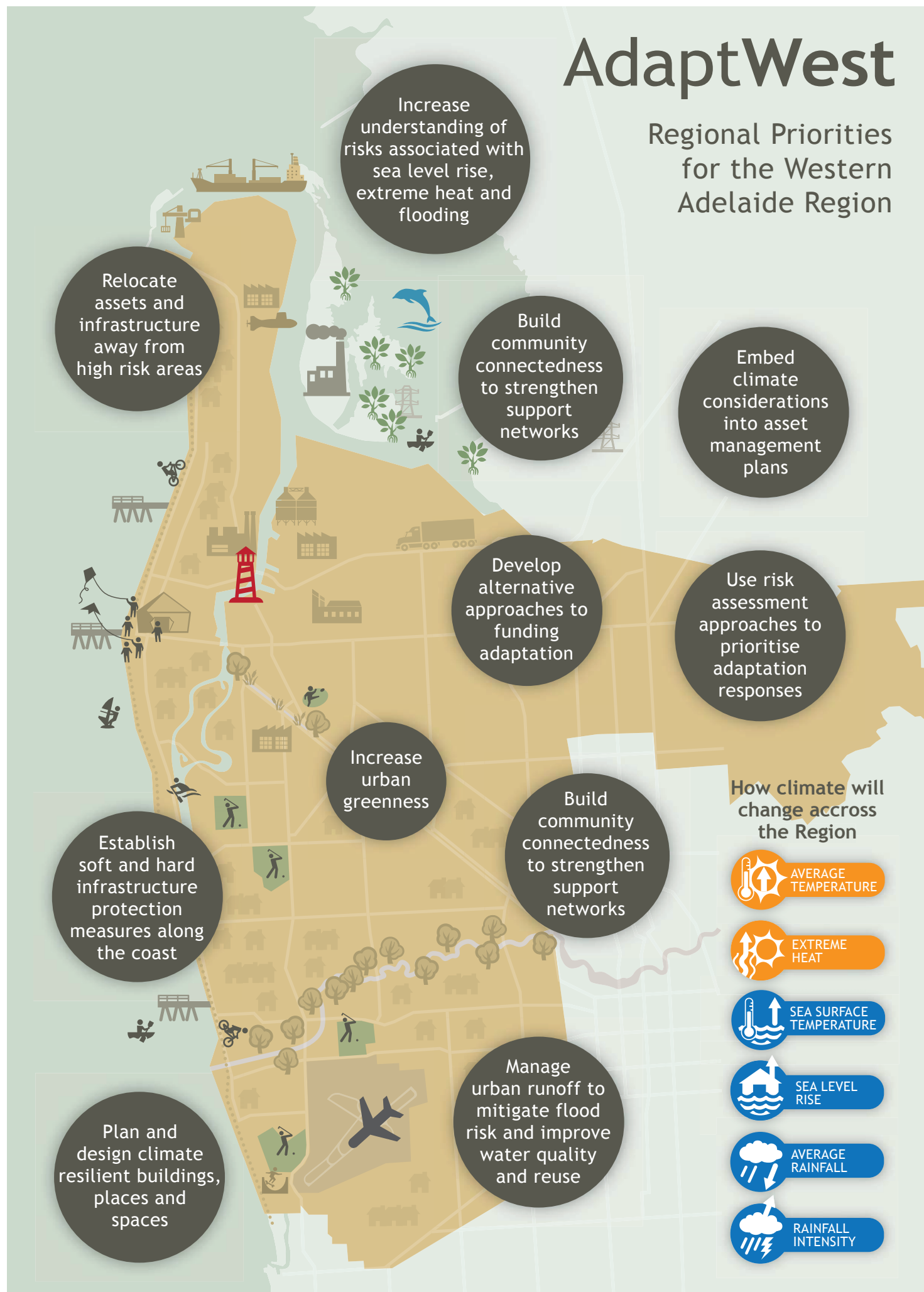


ADAPTWEST IN ACTION 2019 - 2022



AdaptWest

Regional Priorities for the Western Adelaide Region



The Western Adelaide Region in South Australia lies between the city and its beautiful, busy beaches and ports along the coastline of Gulf St Vincent. Climate change poses unique challenges to the infrastructure, economy and lifestyle of this special and important region.

ADELAIDE'S WEST HAS A PLAN

The AdaptWest Climate Change Adaptation Plan, developed collaboratively by the Cities of Charles Sturt, Port Adelaide-Enfield and West Torrens comprising the Western Adelaide Planning Region, identifies the real and specific implications of climate change; and provides realistic strategies for residents, businesses, organisations and agencies of our western community to get ready, to respond and build resilience to the present and future challenges of climate change.

The project is now in the implementation phase – AdaptWest in Action

Our key regional priorities are:

- Building strong and connected communities
- Preparing our businesses and industry to be aware and resilient
- Protecting our coastal assets and environment
- Enhancing open and green spaces to cool our urban environment
- Managing stormwater to protect and enhance where we live and work
- Increasing the resiliency of transport and essential services

PRIORITY ADAPTATION OPTION	MAJOR THEMES AND AREAS OF FOCUS	COUNCIL ROLE	PROJECTS YEAR 1 (19/20)	PROJECTS YEAR 2 (20/21)	PROJECTS YEAR 3 (21/22)
DEVELOP ALTERNATIVE APPROACHES TO FUNDING ADAPTATION	Seek partnerships and leverage funding opportunities	Facilitator/Initiator Part funder Leader Advocate	Establish links with other adapting regions with focus on governance and collaboration projects	Seek ongoing and further opportunities to partner with others for major investments	
	Promote / expand the use and implementation of the Western Adelaide Urban Heat Mapping project				
	Funding climate change responses		Identify opportunities for coordinated cross regional funding		
INCREASE URBAN GREENNESS	Planning and building controls to enhance, protect and preserve urban canopy on both private and public open space	Leader Information Provider Regulator Advocate Owner/Custodian	Identify options to incorporate urban greening in all major projects - Council and private	Advocacy for increased urban canopy retention at point of development Canopy retention policy to preserve street scape and open space canopy Develop guide for homeowners to retain canopy cover	Review and demonstrate where appropriate via council strategies future canopy targets in relation to heat island mitigation Review council strategies regarding plant species selection considering projected climate change Review development of a policy of canopy easements for new and existing developments to preserve/ enhance street scape and open space canopy Develop and implement verge planting options and ways to mitigate heat island effects
			Review policy options for the retention of tree canopy		
			Acquire and use LiDAR to correlate heat island and regional % canopy cover – LiDAR data gives detailed canopy cover data		
			Develop with DEW the ‘Trees are Cool’ graphic package		
	Provide cool/green refuges		Macquarie University research project – Investigating effect of urban trees on ameliorating the local (back yard) lot level heat islands (2019)		
			SA Water Smart Irrigation Trial research project (2019/2020)		
			Adapt West Urban Greening- Inter-council working group		

PRIORITY ADAPTATION OPTION	MAJOR THEMES AND AREAS OF FOCUS	COUNCIL ROLE	PROJECTS YEAR 1 (19/20)	PROJECTS YEAR 2 (20/21)	PROJECTS YEAR 3 (21/22)
PLAN AND DESIGN CLIMATE RESILIENT BUILDINGS, PLACES AND SPACES	Improve regulations and standards to better accommodate climate change risks	Advocate Leader Regulator Owner/Custodian	NDRP - AdaptWest in Action - Residential Building Retrofit for Climate Adaptation (2019 stage 1 fully funded)	Stage 2 of NDRP project (pending funding)	Stage 2 of NDRP project (pending funding)
	Council as a leader – Western Region policy relating to sustainable public building		Utilise Western Adelaide Heat Mapping to inform heat island mitigation	Develop advocacy plan to address issues with National Construction Code (NCC)	
	Highlight climate adaptation and advocate for improved building standards		Develop planning policy position statement		
	Incorporate climate change considerations into land use planning		CoolSeal trial implementation – evaluation and monitoring (on-going, individual council setting)		
	Education and advice to climate proof heritage buildings			Promote adaptive reuse and provide education and advice to address heritage buildings	
	Design and deliver cooler/flood ready public spaces		Investigate opportunities to further incorporate climate change considerations into the design and development of public space developed by AdaptWest regional councils		
EDUCATION AND AWARENESS RAISING	Engage in programs to educate and inform community and stakeholders – emphasis on vulnerable residents.	Leader Information Provider Regulator Advocate	Communications strategy	Heatwave action planning	
	Educate homeowners and builders - climate resilient home design and retrofit		Develop brochure on climate adaptation and home design - 'Designing and Constructing your Home' booklet		
	Plan and engage strategic communications opportunities		Drive AdaptWest website as key public facing communications tool		
	Energy efficiency and climate change responsive homes – investigate need for energy disclosure at point of sale			Investigate residential energy efficiency at point of sale disclosure	Roll out of disclosure at point of sale (depending on previous stage)

PRIORITY ADAPTATION OPTION	MAJOR THEMES AND AREAS OF FOCUS	COUNCIL ROLE	PROJECTS YEAR 1 (19/20)	PROJECTS YEAR 2 (20/21)	PROJECTS YEAR 3 (21/22)
BUILD COMMUNITY CONNECTEDNESS	Supporting vulnerable community members. Identify ways to embed climate change across council community services / development / recreation / place making	Leader Information Provider Regulator Advocate Direct Service Provider	Adapt West Communication strategy CALD community outreach /communications program – reflect cultural diversity of region in communications plan Undertake climate survey to base line awareness and attitudes to climate change adaptation Investigate alternative and creative means to communicate and engage with different audiences (Communication Plan) Use demographic data to better empower communities	Identify and promote opportunities to use council assets as refuges – what are the local opportunities Run major engagement event in region Develop and plan engagement and awareness raising activities based on survey outcomes Investigate Climate Champions program with Red Cross	
USE RISK ASSESSMENT APPROACHES TO PRIORITISE ADAPTATION RESPONSES	Apply Adapt West data to guide decision-making Consider adaptation risk assessments against planning policy and across AdaptWest council operations	Information Provider	Continue to use of spatial data to inform risk assessments Risk / financial assessment workshop for executive and EM teams		
	Embed climate change adaptation thinking across council policy and operations	Advocate Information Provider Regulator	On-going advocacy – project setting to look at key outcomes from Executive/EM workshop – (risk/finance) Develop on-going key advocacy plan		
	Continue to support the regional Zone Emergency Management process and its focus on heat waves and floods				
MANAGE URBAN RUNOFF TO MITIGATE FLOOD RISK AND IMPROVE WATER QUALITY AND REUSE	Communicate existing flood risk/work with stakeholders to reduce flood risk	Information Provider Regulator Owner/Custodian	Monitor on-going implementation of measures outlined and identified in Western Adelaide Coastal and Inundation Modelling Report including planning, coastal protection and development		
EMBED CLIMATE CONSIDERATIONS INTO ASSET MANAGEMENT PLANS	Incorporate climate change adaptation in asset management plan updates	Owner/Custodian Leader Regulator Information Provider	Incorporate overarching statements about climate adaptation into council's asset management plans		

Priority Adaptation Option	Major Themes and Areas of Focus	Council Role	Projects Year 1 (19/20)	Projects Year 2 (20/21)	Projects Year 3 (21/22)
Coastal Protection Measures	Investigate further soft protection measures including - sand dunes, beaches and living shorelines contribute to enhancing and protecting coastal assets	Information Provider Advocate Leader Direct Service Provider	Develop and promote living shorelines*		
	Investigate hard protection measures such as physical barriers including sea walls and barrages may be required to protect assets and infrastructure.	Information Provider Advocate Leader Direct Service Provider	Develop and promote dune care and restoration work Identify ways to implement measures outlined and identified in Western Adelaide Coastal and Inundation Modelling Report		
Relocate Assets and Infrastructure away from High Risk Areas	Use mapping and data to correlate high risk and climate exposed areas and infrastructure to proactively manage relocation options	Owner/Custodian Leader			Project to evaluate long term trends and the impact on assets and infrastructure threatened by climate change

Project Summary Information	
Item	Work Detail
SA Water – Smart Irrigation Trial	Project aims to quantify the use of environmental water used to irrigate public open space prior to heat wave conditions in order to quantify both soil moisture profiles and air temperature cooling effect (duration and distance from watered location). Concept could result in irrigation being used to create public open space cool refuges during extreme heat conditions and more efficient / cost effective watering strategies for council green assets.
Macquarie University – Investigating the Role of Urban Yards and Trees in Mitigating Western Adelaide’s Urban Heat	Research project aimed at extending the investment region has made in urban heat mapping. Outcome will analyse effect that local (household level) vegetation has on the cooling potential during extreme heat conditions. Aim will be to inform policy development around retaining vegetation at point of development, supporting canopy enhancement and planting guidelines.
Integration and Correlation of SA Government LiDAR* Dataset with Urban Heat Island Mapping <div> * Lidar is a surveying method that measures distance to a target by illuminating the target with pulsed laser light and measuring the reflected pulses with a sensor. Differences in laser return times and wavelengths can then be used to make digital 3-D representations of the target. (en.wikipedia.org/wiki/Lidar) </div>	The State Government has used LiDAR to create a detailed 3D map of metropolitan Adelaide. Post processing of this data can show vegetation type, height, and density. Correlation of this data against the UHI mapping can demonstrate the effect that vegetation has on local heat islanding. This can then be used to inform a decision support methodology as to where additional planting is required in public realm – areas of high heat exposure, and the effect that local vegetation structure has on heat island conditions.
NDRP - AdaptWest in Action - Residential Building Retrofit for Climate Adaptation Stage 1	Stage 1 aims to determine the capacity of the region, involving the AdaptWest member councils and identified private and public sector partners, to deliver targeted building upgrades to vulnerable households in the AdaptWest region. Those upgrades would be designed to reduce exposure of vulnerable residents to extreme heat. The output from Stage 1 will include a detailed budget and implementation plan for the subsequent (and as of yet unfunded) stages of the project. These subsequent stages may include, for example, a pilot implementation phase whereby the model (or models) identified within Stage 1 is delivered at a smaller scale, allowing its effectiveness to be tested in the Western Adelaide region. Alternatively, a full roll-out may be proposed if sufficient evidence is available to support this approach.