THE LIMESTONE COAST OPTIONS TO ADAPT TO A CHANGING CLIMATE

The Limestone Coast Regional **Climate Change Adaptation Plan** identifies what we can do across the region to make sure our businesses, communities and environments respond positively to the challenges and opportunities of a changing climate

In developing the Climate Change Adaptation Plan, an Integrated Vulnerability Assessment (IVA) was undertaken to understand how climate change might impact what we value in our region (eg health and well being, our rural lifestyle, primary production, biodiversity, water availability).

The IVA helped identify what is more vulnerable to climate change, and where to focus actions to help us adapt.

For some aspects of the region, one or two key things can be done to reduce our vulnerability to climate change. For others, there are many options, and implementing some or all of these can contribute to building our resilience and enable the region to adapt. Some options should start now. Others can happen later, but preparation and planning may need to commence soon.

OPTIONS FOR OUR REGION TO ADAPT TO CLIMATE CHANGE...

CHALLENGE

scrub

Adverse impacts on health, habitat and regeneration of trees and



OPTIONS NOW

- ► Pest and animal management ▶ Fire and native vegetation
- management
- ▶ Paddock tree replacement
- ► Environmental water allocations
- ► Habitat restoration
- ▶ Value ecosystems

OPTIONS LATER

Planned retreat of coastal ecosystems

OPPORTUNITY

Opportunity for tourism growth in the region



OPTIONS NOW

- Market a milder climate
- ► Regional tourism planning
- Mobile phone coverage across the region

OPTIONS LATER

Improve accessibility to coastal locations

CHALLENGE

Adverse impacts on the health, safety and wellbeing of vulnerable members of the community

OPTIONS NOW

- ► Education and awareness raising
- ► Establish heat clinics
- ► Emergency management planning
- ▶ Information sharing
- ▶ Build community connections
- ▶ Residential energy use program
- ► Improve telecommunications infrastructure

OPTIONS LATER

Mandatory climate-sensitive building design

CHALLENGE

OPTIONS NOW

climate hazards

management

OPTIONS LATER

Reduced quality, use and amenity of **public spaces** and places

Risk management planning

▶ Education and awareness raising of

► Increase the quality of open space

► Design guidelines for open space

► Relocate or abandon facilities

Indoor multi-sport facilities

► Improve soil, stormwater and irrigation









development along the **coast**

Inundation of

CHALLENGE

OPTIONS NOW

▶ Promote development in safe areas

- ► Education and awareness raising
- Monitor beaches and cliffs
- Map high risk areas
- ▶ Establish both soft and small-scale hard infrastructure

Erosion of rocky

cliffs and sand

dunes

OPTIONS LATER

- ► Coastal design guidelines
- ► Development control
- ► Land acquisition in high risk areas
- ► Establish large scale hard infrastructure,
- ► Establish innovative infrastructure
- Relocate or abandon assets



CHANGES IN OUR CLIMATE BY 2070



AVERAGE ANNUAL RAINFALL

Average annual rainfall is projected to decrease by 6.8%, spring rainfall is projected to reduce by 21% and winter rainfall is projected to reduce by less than 1%



RAINFALL INTENSITY/ STORMS The intensity of heavy rainfall events is projected to increase by 5%



EXTREME TEMPERATURES The number of days over 35°C is projected

to increase by about 50% **AVERAGE TEMPERATURE**



Average maximum temperatures are projected to increase by 1.4°C

BUSH FIRE RISK

The number of severe bush fire risk days is projected to increase by 36%



Sea levels are projected to rise

SEA LEVEL RISE

OCEAN ACIDITY Ocean acidity is projected to increase



with a 0.15 to 0.30 decline in pH projected by 2090*

SEA SURFACE TEMPERATURE Sea surface temperature is projected to increase by 1-2°C by 2090*

*Data available for 2090

CHALLENGE

Impacts on growing seasons and quality of **agriculture** products, increased risk of pests and disease

OPTIONS NOW

- ► Information sharing
- Capacity building

OPTIONS LATER

Greater use of drainage for localised groundwater recharge

CHALLENGE

Increased disruption to **road** networks

OPTIONS NOW Improve road design

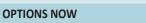
- standards, maintenance and asset maintenance
- Education and awareness

OPTIONS LATER

 Upgrade or relocate roads in high risk areas

CHALLENGE

Risks to **water** security due to reliance on groundwater resources 77



Education and awareness

- ► Improve water use efficiency
- ► Research and monitoring
- Water allocation planning

OPTIONS LATER

Investigate feasibility to recharge aquifer with drainage water New approach to water management

CHALLENGE

Impacts on biodiversity and quality and quantity of water in **wetlands**

▶ Prioritise future investment

▶ New approach to drainage

allocation of water

network management and



OPTIONS NOW

OPTIONS LATER





OPTIONS NOW

Improve surface water quality

and fisheries

CHALLENGE

- through land management
- Monitor species & habitats

Impacts on diversity and distribution of **marine** habitats

- Education and awareness of catch limits
- Periodic closure of fisheries

OPTIONS LATER

Target alternative species

For more information and to view the Plan visit www.naturalresources.sa.gov.au/southeast

