

2012-2015

Swan Hill Rural City Council

# Resilience Action Strategy



Prepared by:

Kellogg Brown & Root Pty Ltd

ABN 91 007 660 317

August 2012

# CONTENTS

Section		Page
<b>1</b>	<b>PURPOSE OF THE RESILIENCE ACTION STRATEGY</b>	
1.1	What is ‘Resilience’ and a Resilient Community?	1-1
1.2	What is a Resilience action Strategy?	1-2
1.3	The strategic planning process	1-2
1.4	The Resilience Action Strategy development process	1-5
1.5	Current projects underway in Swan Hill to build Resilience	1-6
1.6	Future opportunities for Swan Hill Rural City Council to build Resilience	1-7
<b>2</b>	<b>ACTION STRATEGIES</b>	
2.1	Matching Council sectors, themes to Priority Actions	2-1
2.2	Issue Prioritisation	2-2
2.3	Sustainable Communities	2-3
2.4	Economic Growth	2-5
2.5	Environmental Management	2-8
2.6	Governance and Leadership	2-9
<b>3</b>	<b>REFERENCES</b>	

This strategy was developed with funding under the Australian Government’s *Water for the Future* initiative through the *Strengthening Basin Communities* program.

Photo credits: Stephen Langman, The Guardian and Darren Hill.

# 1 Purpose of the Resilience Action Strategy

## 1.1 WHAT IS 'RESILIENCE' AND A RESILIENT COMMUNITY?

There are numerous definitions of resilience. However, all definitions have some common themes and characteristics. Resilience implies an ability to 'bounce back' after a period of failure, the ability to adapt to change under conditions of stress, and an ability to seize on opportunities and be 'on the front foot' under any conditions.

According to the National Strategy for Disaster Relief (COAG, 2009) a resilient community has several characteristics:

- Functions well under stress
- Successful adaptation
- Self-reliance
- Social capacity.

Resilient communities display these traits and are therefore able to at the least, cope with extremes (such as severe drought and floods) and at the most, prosper under climate variability by pursuing opportunities that arise as the availability of water changes.

The development of the Resilience Action Strategy shows that there are significant opportunities for the Swan Hill municipality to adapt to future changes in water availability—both too much and too little. Such opportunities will enable the community to work towards those characteristics mentioned above, under numerous water supply scenarios.

The Swan Hill Rural City municipality is one of northern Victoria's largest regional centres. It's location along the Murray River makes it a sought after tourist destination and lends support to high valued irrigated agriculture and dry land agricultural activities. Nevertheless, like many other parts of Australia, the region has experienced one of the longest droughts on the historical record to 2010 and also some of the largest floods on the historical record for the wider Victorian region during 2011. The issue of building a resilient community in relation to coping with changes in water availability is a priority to ensure the community continues to prosper and grow into the future. This document presents the opportunities for the Swan Hill region to build resilience and investment in the region in the future.

## **1.2 WHAT IS A RESILIENCE ACTION STRATEGY?**

Swan Hill Rural City Council (Council) is charged with providing a leadership role by delivering programs and services that provide the community with opportunities to adapt to what is expected to be continued climate variability into the future, based on the evidence from available science.

As a progressive rural council, Council has capitalised on the work developed under the International Council for Local Environmental Initiatives Oceania (ICLEI). The ICLEI has produced the Local Government Climate Change Adaptation toolkit. The toolkit is focused on developing local governments' capacity to apply a risk management framework and adaptive management framework to plan for the impacts of climate variability.

The Resilience Action Strategy makes use of this approach in addition to developing and using its own local tools. Council already has a suite of plans and strategies to increase sustainability throughout the local area. Already well underway is the Sustainable Living Strategy (SLS). This strategy outlines many initiatives that are currently underway to adapt to change in economic and socio-economic factors. The Resilience Action Strategy dovetails into the SLS in that it identifies specific actions for building resilience in relation to changes in water availability.

For Council to take a leadership role in preparing the Municipality for climate variability in the future, the Resilience Action Strategy must do the following:

- provide a tool for implementing the Vision for the community as articulated in the Sustainable Living Strategy (SLS) and,
- empower Council by providing a process that can be used again and again in an adaptive manner for identifying specific actions to build resilience.

This Resilience Action Strategy is designed to 'kick-start' the adaptive management process by identifying an initial set of actions based on a planning process that involved all levels of staff within Council. Actions identified through this planning process were agreed to through consultation with staff who participated in several workshops and interviews carried out with Senior Council staff, Councillors and the Mayor. These actions can be carried out in the future in conjunction with other Council staff.

These actions will help to not only mitigate the risk in dealing with future floods and droughts, but assist in identifying opportunities for investment in strengthening the local community.

These options allow the region to make the best use of water in times of plenty as well as providing efficiency measures to make best use of water in times of scarcity.

## **1.3 THE STRATEGIC PLANNING PROCESS**

The Resilience Action Strategy builds upon Council's strategic planning process. It complements the existing planning process by identifying and incorporating actions and opportunities from the regional as well as local planning context.

The Resilience Action Strategy identifies strategies to ensure the community successfully adapts to changes in water availability. Therefore it builds on the Vision already articulated in the SLS.

### **1.3.1 Supporting Councils Existing Plans and Strategies**

The SLS sits under the Council Plan and sets out the directives and initiatives required over a four year period (2010–14) to achieve the Councils goals and aspirations.

The Resilience Action Strategy complements the SLS building on the progress already made with this existing strategy and its five key priority areas being:

- Sustainable Communities and Buildings
- Sustainable Energy and Fuel Use
- Develop Partnerships with Key Stakeholders
- Water Quality, Conservation and Security
- Waste Management.

Critical to the success of the Resilience Action Strategy is its ability to support the SLS and its objectives. The strategy sits under the fourth key objective of the SLS, being Water Quality, Conservation and Security. However, it also draws momentum from existing Council Strategies by building on already established actions at Council and the regional planning level.

### **1.3.2 Reporting Structure to provide momentum for the Council Plan within the wider regional planning context**

For ease of reporting and ensuring any opportunities are consistent with existing plans and strategies, the Resilience Action Strategy must dovetail with existing Council plans.

The structure of the Resilience Action Strategy is set out such that sections of the strategy are consistent with the sections identified in the Council Plan, making it easier for relevant Council Departments to take ownership and progress the strategies. A comprehensive list of Plans and Strategies that this strategy has built upon in developing actions has been given in the reference list. Some Actions in the Section 2.2 refer to these Plans and Strategies.

#### **1.4 THE RESILIENCE ACTION STRATEGY DEVELOPMENT PROCESS**

The development of the strategy is based on the vision of ‘whole of Council ownership’, and it seeks to identify possible resources and Council responsibility in relation to the opportunities identified as ‘Action Strategies’. The relationship between the four sectors of the Council Plan and the resilience planning process is shown in the organisation of the actions. The actions in the Resilience Action Strategy dovetail with the four key directions identified in the Swan Hill Council Plan being:

- Sustainable Communities
- Economic Growth
- Environmental Management
- Governance and Leadership.

Section 1.4 illustrates how the concept of resilience is tied to actions through the Council plan sectors, primarily by linking actions through the sectors to 8 themes of resilience (see Section 2 for the 8 themes selected).

Figure 1.1 shows at the highest level the process undertaken to arrive at strategic actions in building the Resilience Action Strategy.

In addition, the process followed to arrive at the actions is a repeatable process that can be undertaken by Council staff regularly in order to fine tune and adapt to changing circumstances in the community.

In this regard the strategy itself is a ‘living document’, meaning that Council can use this process as a tool to identify new actions in the future.

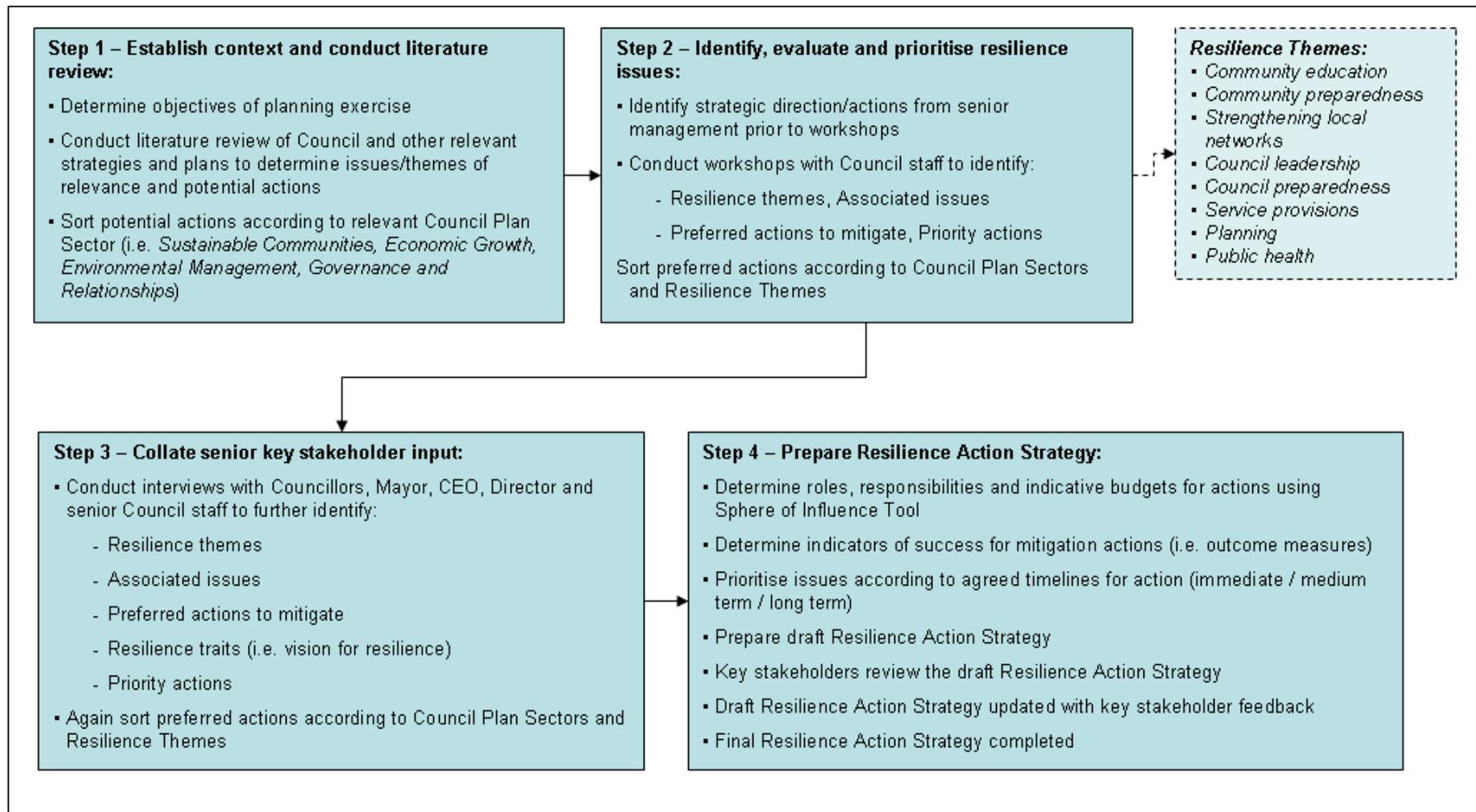


Figure 1.1: Process undertaken to develop the Resilience Action Strategy

The detailed process undertaken to arrive at action identification is given in Appendix A. This appendix shows the planning pathways approach that was undertaken to ‘sift’ and ‘classify ideas’ according to the major departments in the Council Plan.

Full ownership of the strategy by all of Council is assured given the four step process that was carried out to identify priority strategies and actions in the following way;

**Step 1: Literature review of existing strategies**

A literature review of Councils Plans and regional strategies of importance to building resilience in relation to changes in water availability was carried out. This ensures that the Strategy builds on what Council is already doing as well as dovetails into the direction of the Council and the broader regional planning context. Actions were sorted according to sectors within the Council Plan being:

- Sustainable Communities
- Economic Growth
- Environmental Management
- Governance and Leadership.

**Step 2: Workshops to identify and prioritise issues and identify Resilience Themes**

Workshops were carried out to identify and prioritise issues according to staff identified resilience themes. These themes are what are considered vital to ensuring that all aspects of resilience across the community are considered, Appendix A shows the actions identified for consideration in development of the Strategy. Other information included aims to develop actions where the outputs expand on existing strategies and recent stakeholder engagement outputs and to avoid duplication of effort. Appendix A also shows the additional sources of information that were used.

In order to align actions with a vision as to what is resilience and establish how the actions are moving to create resilience, resilience themes were created. Actions are matched to these themes. This serves to answer the question of how resilient community is and how are we tracking across these areas. Resilience is measured by the strength of local networks, adequate planning, Council leadership and community preparedness.. The full suite of resilience themes and each action it relates to is provided in section 2 and also the last column of the Action Strategies.

The use of themes allows actions to be coherently viewed across multiple plans, strategies and issues to give a coherent picture of how Council is tracking toward a resilient future.

**Step 3: Interviews with Senior Staff of Council**

Senior staff including the Mayor, CEO and Councillors, contributed extensively to the development of the strategy by identifying opportunities that represent ‘best return for investment’ and continue to push Council and the community along the path of building the traits of resilience identified as part of this strategy. These include strengthening the community such that it:

1. Functions well under stress
2. Successfully adapts to changes in climate
3. Is self-reliant
4. Has social capacity in that local network are cohesive and strong in adapting to change.

Commitment from all levels of Council (from the Mayor to operational staff) will help to ensure continued momentum in implementation of the strategy over the coming years.

#### **Step 4: Matching Resilience Themes and Actions to the Council Plan**

At every stage of strategy development, Council staff were able to review and contribute their ideas and actions. Responsibility and indicative budgets were also identified using the sphere of influence tool (see Appendix A). In order to support the existing delivery of the Council Plan by Senior Council staff, the Resilience Strategy interfaces with the Council Plan by aligning actions to each of the four sectors identified within the Council Plan. These sectors align with Departments of Council, meaning actions have a clearly identified department within Council that is responsible for delivery of that action.

The actions contained within this Strategy are expected to vary as changes in water availability occur over the coming years. The Resilience Action Strategy is a powerful reference document when answering the question ‘How resilient are we as a community?’ by allowing actions to be identified across a wide range of sectors that are part of Councils business.

#### **1.5 CURRENT PROJECTS UNDERWAY IN SWAN HILL TO BUILD RESILIENCE**

The Resilience Action Strategy recognises innovative projects that are already being undertaken within Swan Hill Rural City Council to build resilience in relation to attracting investment in the face of potential changes in water supply in the future. This strategy seeks to build on these current opportunities.

Current key projects that seek to foster resilience in the local community include:

- The Swan Hill Aerodrome Redevelopment to encourage greater access to Swan Hill
- Actions from the Central Murray Regional Transport Study, including identification of supply chains and potential locations of regional transport hubs
- The Swan Hill Bridge Development in continuing to resolve cross-border issues
- Swan Hill Riverfront Master Plan to increase economic return for the local tourism industry
- Water use reduction targets as set by Swan Hill Rural City Council
- Exploring opportunities to develop a renewable energy industry as identified in the Northern Region Loddon Mallee Strategic Plan
- Redevelopment of Chisholm Reserve Motorsport Complex to include drag racing and generate greater regional economic outcomes through increased event visitation

- Development of Lake Boga Economic Development, Tourism and Marketing Strategy to improve economic outcomes in both tourism and private investment
- Actively pursuing private investment into renewable energy industries through promotion of the regions competitive advantages
- Feasibility study for the extension of natural gas into the region to build the capacity of the region, particularly the manufacturing industry
- Updating the Public Health and Wellbeing Plan and Domestic Wastewater Management Plans
- Development of Active Transport Strategy in partnership with local health care providers
- Introduction of discretionary incentive payments to Family Day Care Scheme by Council
- Development of Council Municipal Community Plans

Many of these projects are being developed through existing Council plans such as the Economic Development Strategy and the SLS.

Council continues to foster the development and growth of water dependent industries in the local area by supporting the following state and federal government initiatives:

- Goulburn Murray Water Connections Project (previously NVIRP)
- Sunraysia Modernisation Project
- Wimmera Mallee Pipeline

In addition, the Council has adopted, through the Loddon Mallee Regional Strategic Plan, a number of initiatives to attract investment in high value added agricultural activities, building on the already significant local horticulture industry. In particular, Council is active in fostering the following industries in developing a more resilient community and agricultural base:

- Irrigated horticulture
- Aquaculture

These key industries are already the focus of strategic actions currently being implemented by Council.

## **1.6 FUTURE OPPORTUNITIES FOR SWAN HILL RURAL CITY COUNCIL TO BUILD RESILIENCE**

There are a number of current opportunities to build resilience in the local community that can be considered in their infancy. These opportunities are already underway and growing in the local area. However, future resourcing and the need to actively foster these opportunities is required to ensure the full potential of each opportunity is reached.

These opportunities are ‘big ticket’ items that, if nurtured and developed, have the greatest potential to meet the four criteria of what it is to be resilient, namely to function well under stress, ensure successful adaptation, increase self-reliance and build social capacity. These actions also require significant resources and time to develop given their relatively early stage of development.

Council is already active in fostering these opportunities but also needs to act and obtain resources to ensure these ‘early market’ opportunities are fully realised. Specific actions for these opportunities have been identified in this strategy, having been identified by participants at all levels of Council to promote long-term resilience. They are:

- Value added options for the existing irrigated horticulture industry
- Aquaculture
- Solar energy
- Geothermal energy
- Carbon sequestration and biomass production
- Reuse of waste production (including production of energy from agricultural waster such as almond hulls and potato skins). These are significant opportunities that could build upon existing local industry (such as re-use in the local distillery)
- Local food production networks, including greater use of ‘made local, consumed local’ goods
- Reuse of dewatered land
- Use of the Swan Hill area as a regional hub for transport
- Growth of Swan Hill as a cultural hub and tourist destination given its location adjacent to the Murray River
- Significant investment in rural renewal by Kilter
- Development of Rural Land Use Plan
- Addressing health and wellbeing issues to improve physical and mental health of community
- Expansion of Swan Hill TAFE campus training to offer a Bachelor of Early Childcare Education from 2013

# 2 Action strategies

## 2.1 MATCHING COUNCIL SECTORS AND THEMES TO PRIORITY ACTIONS

This part of the strategy identifies priority actions given the current state of water availability, focussing on the actions that were identified throughout the study by all levels of Council staff. Each action is assigned according to the sector of the Council plan it relates to. As a result the strategies are classified as follows:

1. Sustainable Communities
2. Economic Growth
3. Environmental Management
4. Governance and Relationships

These four sectors that relate to the Council Plan also relate to the sectors identified in the workshops in the following way:

1. Sustainable Communities - Community
2. Economic Growth - Industry
3. Environmental Management - Infrastructure and Planning
4. Governance and Relationships - Council

Each action is designed to meet a resilience theme. When taken together, these themes create what is considered to be a resilient community (see Appendix A for the planning process undertaken to reach these themes). The eight themes and their relationship to the Council Plan are:

1. *Community Education*: local community members understand the risks
2. *Community Preparedness*: community members anticipate the risks of less water and have taken actions to protect their assets and livelihood
3. *Strengthening Local Networks*: people work in conjunction with local emergency service providers, for instance
4. *Council Leadership*: people work with local leaders to take steps using knowledge and resources to enable cohesive social networks under climate change (resilience in this sense indicates rebound from failure and adaptation through developing strong networks)
5. *Council Preparedness*: identifying costs and benefits for service and infrastructure provision in the future under climate change

6. *Service Provisions*: Council staff and stakeholders take into consideration resilience when developing core products
7. *Planning*: a range of risks mitigation measures are built into any future planning arrangements
8. *Public Health*: a range of options for ensuring health of the public is continuously improved.

The resilience theme each action relates to is provided in the last column in Tables 2.1 to 2.4. The use of ‘themes’ allows actions to be coherently viewed across multiple plans, strategies and issues to give a picture as to how Council is tracking toward a resilient future.

## **2.2 ISSUE PRIORITISATION**

In order to build long term resilience into the community, those actions that stabilise the community from current losses or continued loss are deemed to be of highest priority. This is based on the approach that new long term goals cannot be reached if fundamental problems are not addressed in the short term.

In implementing actions that deliver services in the immediate future, the community can begin to build strength, gain momentum and then be in a position to deliver on longer term actions that require the largest amount of resources.

Therefore, actions identified in this strategy have been classified on a three tier basis. Although a suggested time frame is given, actions to be implemented immediately are those that have the greatest urgency in ensuring support to the community and its immediate needs. Actions of an ‘immediate’ nature support existing industries and the community. Actions of a ‘medium’ and ‘long term’ nature support emerging and new options.

The criteria are given as:

- Immediate: < one year
- Medium term: to be undertaken once the high priority issues have been implemented
- Long term: less urgent but fundamentally important to progress the long term resilience of the Swan Hill community (possibly requiring a larger level of resource commitment and forward planning).

Tables 2.1 to 2.4 identify the actions for each sector, consistent with the Council Plan. Each action also identifies a cost and responsibility for action. These costs are indicative only. A detailed assessment would need to be undertaken by Council prior to commencement to fully cost the action. Strategies that will dovetail with the Resilience Action to address these challenges are given in the Appendix A. Where specific actions build upon what Council is already doing, references to these strategies are also made under the column for ‘Responsibility’.

## 2.3 SUSTAINABLE COMMUNITIES

### Summary of Major issues

- Murray Darling Plan impacts: uncertainty around water availability given the impact of Sustainable Diversion Limits (SDL). The priority issue is the sale of water and potential loss of productive land and land valuation, stranded assets and as a result decreasing rate base for Council.
- Impact of carbon trade and related policies in the future.
- Small rural land parcels no longer used for agriculture and now classed as ‘de-watered’ land.

**Table 2.1 Sustainable communities and renewable energy**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost*	Responsibility	Time frame	Resilience theme
2.1.1	Explore avenues to support investment in land banking and reuse of land such as that already undertaken by Kilter	Council to continue to work with Kilter to leverage economic opportunities associated with their investment in the transformation of large portions of arid land for prime agricultural production	Work with Kilter to support their continued investment and to identify opportunities for flow-on/secondary investment	Developed internally	EDU/Planning	Immediate	Planning
2.1.2	Increase communities preparedness towards natural disasters	Hold all hazards community awareness sessions	Information sessions delivered in Robinvale, Manangatang, Nyah, Ultima, Swan Hill & Lake Boga	\$25,000 DPCD "Floods Community Recovery Fund"	Flood Recovery Officer	Immediate	Community Education
2.1.3	Improve train, and other public transport services to the region	Continue to advocate for greater services via the implementation of <i>Central Murray Regional Transport Study</i> (2011) recommendations	Increased train services to Swan Hill	Internal	Central Murray Regional Transport group	Immediate-medium	Strengthening Local Networks
2.1.4	Undertake a feasibility study as the potential for alternative agriculture options	Council to engage consultant to undertake feasibility study of options for Swan Hill	Recommendations for value adding to existing agricultural activities	\$50–100,000**	EDU	Medium	Strengthening local networks
2.1.5	Development of a rural land use plan to identify and protect prime land for future use	Council to identify and protect prime agricultural land through the strategy	Production of a land use strategy for Swan Hill	Internal \$75,000 Need to seek additional funds	Planning Dep. building on priority action 2.1 in the Loddon Mallee Strategic Plan	Immediate	Planning

**Table 2.1 Continued**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost	Responsibility	Time frame	Resilience theme
2.1.6	Foster the renewable energy market and actively promote use in the local area	Identify most feasible options in the short, medium and long term dependent on resourcing requirements	Development of a renewable energy centre for excellence in Swan Hill in conjunction with industry and research (such as Powercor)	Internal	EDU Environment Unit	Long term	Strengthening local networks
		Finalise the Swan Hill Solar Energy Prospectus and identify potential commercial investment customers	Development of a commercial solar energy site in the Municipality	Internal	EDU	Immediate	
2.1.7	Foster re-use and energy production from existing agricultural industries	Develop a business case building on existing trial, Council to lobby state and federal government to obtain funding	Investigation into the possibility of a reuse facility in Swan Hill such as an ethanol production facility	Internal	EDU Environment Unit	Long term	Strengthening local networks
2.1.8	Research the carbon sequestration and biomass production market potential for the Swan Hill region and develop and market Swan Hill as a carbon neutral region	Council to develop strategic document for promoting carbon neutral actions in the municipality. Reignite prior discussions with geothermal energy companies	Prospectus of potential options for Swan Hill, including reuse of water, gas, geothermal and reuse of agricultural waste	Internal	EDU/Planning/Environment	Long term	Strengthening local networks
2.1.9	Explore the potential for Swan Hill to be promoted as a low carbon or carbon neutral area	Using Objective 2 from the SLS to identify potential opportunities, undertake a carbon accounting audit to establish a 'baseline' with a view to developing a Carbon Neutral regional	Phase 1: Develop a framework to develop an audit and then a carbon accounting tool for application to Municipality  Phase 2: Sustainability Audit in relation to current carbon footprint	Internally in conjunction with external partners (potential funding required for development of the carbon accounting tool)	Environment team building on Objective 2 of the SLS	Long term	Planning

## 2.4 ECONOMIC GROWTH

### Summary of Issues

- Assessing Murray–Darling Basin Plan Impacts: uncertainty around water availability given the impact of Sustainable Diversion Limits (SDL).
- Dryland agricultural opportunities given changes in water availability.
- Supporting new agricultural industries, emerging and new agricultural industries.
- Employment of young people in the local area and prevention of ‘hollowing out’ of community through lack of employment options.

**Table 2.2 Economic growth and diversification**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost*	Responsibility	Time frame	Resilience theme
2.2.1	Investigate options to value add and improve emerging new agriculture industries in Swan Hill	Council to forge links with Research and Development firms to understand feasibility of aquaculture	Finish Prospectus for Aquaculture in the region Prospectus for the Boutique Brewery	Internal	EMT and Economic Development Unit and building on Objective 2.4 of the Loddon Mallee Regional Strategic Plan	Immediate	Strengthening local networks
2.2.2	Investigate options to value add to the existing carrot and almond agricultural industries	Consult with the Almond and Carrot growers as an industry group	Develop a strategic partnership and action plan to promote value added options for these two industries	Internal	Economic Development Unit	Medium	Strengthening local networks
2.2.3	Continue to progress and promote buy back of land for re-use (such as dewatered land)	Carry out study to identify potential land in the future based on risk maps	Production of maps that identify potential land available for reuse as an ‘Investment Prospectus’	\$30,000**	EMT	Medium	Council leadership
2.2.4	Set up a livestock exchange program making full use of e-commerce capability	Engage local cattle producers and technology experts to set up a livestock exchange	Functioning e-trade livestock exchange	\$100,000**	Council saleyard staff Stock agents	Immediate	Strengthening local networks

**Table 2.2 Continued**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost*	Responsibility	Time frame	Resilience theme
2.2.5	Investigate value adding of existing horticulture and stone fruit producers to make further use of otherwise waste products (including the use of by product to produce juice and almond hull reuse)	Council to coordinate feasibility study into the use of stone fruit/agricultural waste that is not consumed for potential uses such as juicing or biomass	Local horticulture producers value adding and reducing waste of harvested product	\$60,000**	EDU building on the actions identified in the Loddon Mallee Regional Strategic Plan and Economic Development Strategy	Medium	Strengthening local networks
2.2.6	Produce a business case with action plan for the Pioneer Settlement with funding options for discussion with state government and private investors	Investment to carry out the development of the Pioneer Settlement Project	Increased tourism and patronage to the Swan Hill region	Internal	EMT	Immediate	Council leadership
2.2.7	Define potential new business opportunities for growth and diversification in the future	Council to develop a set of options to be considered by the local business community	Diversification of business and business opportunities	Internal in conjunction with local business network	EDU in collaboration with Swan Hill Inc.	Medium	Council leadership
2.2.8	Support and provide input to the Murray region of Councils investigation into natural gas development	Produce report identifying gas assets and liaise with regional Councils to provide input into ongoing feasibility studies	Development of a local natural gas based industry and provision of alternative energy sources for the community	Internal in conjunction with Murray River Group of Councils	EDU	Immediate to medium	Council leadership
2.2.9	Revitalise and promote the use of local food networks and local food consumption	Encourage the use of local food delivery networks through identifying distribution options and promote local markets	Development of local food distribution networks and markets for local grown produce. Investigate revitalising past industries such as flour mill, butter and tomato factory	Internal	EDU Environment Community Planning	Medium	Public health

**Table 2.2 Continued**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost	Responsibility	Time frame	Resilience theme
2.2.10	Leverage investment opportunities through the Goulburn Murray Irrigation District food bowl	Support work of Goulburn Murray Irrigation District Food bowl to leverage investment, water technology innovation and additional infrastructure associated with the \$2 billion Food bowl Modernisation Project	Tangible investment attraction	Internal	Development & Planning  Infrastructure	Medium	Community Preparedness
2.2.11	Growth and diversification of the existing freight network given growth in minerals industry (such as the Iluka Mineral Sands operation)	Development of a strategic plan that identifies specific regional transport hubs and connections to support continued growth of mining and minerals transportation	Greater use of the freight network and use of Swan Hill region as a regional transport hub	Internal	Engineering services	Long term	Strengthening local networks
2.2.12	Promote investigation into feasibility of expanding local abattoir's sheep and goat production	Liaise with local sheep and goat producers to investigate options for increased production	Expansion of meat products processed in the region	Internal	Economic Development Unit and private industry	Long term	Planning

\*Indicative budget cost

\*\* external funding required

## 2.5 ENVIRONMENTAL MANAGEMENT

### Summary of issues

- Maintain environmental assets along the River Murray.
- Prevent degradation of environmental assets given likelihood of more floods and droughts.
- Improve community access and tourism access to environmental assets.

**Table 2.3 Environmental management**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost	Responsibility	Time frame	Resilience theme
2.3.1	Examine industry and environmental impacts to local water dependent growers given uncertainty around implementation of Sustainable Diversion Limits under the Basin Plan.	Familiarise local growers with potential for water savings projects and what the likely impact will be as a result of less water availability  Identify environmental assets and environmental and recreational watering needs	Development of a watering plan to suit the needs of the natural assets along the Murray	External	Environment Unit	Immediate	Council leadership
2.3.2	Availability of water entitlements and access to water in the future from the Murray and associated irrigation systems	Continue to work with stakeholders within the Murray–Darling Basin. Remain an active member of Murray–Darling Association and Municipal Association of Victoria Water Task Force	Develop a Swan Hill position for submission pending the release and finalisation of the Murray–Darling Basin Plan	Internal in conjunction with Regional Rural Councils along the Murray	Environment Unit  EDU	Immediate	Strengthening local networks
2.3.3	Continue to understand environmental impacts given drought and floods	Map the current environmental assets and carry out a risk assessment in relation to increased droughts and floods	Protection of environmental assets given increases in fire and flood	Internal	Engineering Department  Environment Unit	Immediate	Council leadership

## 2.6 GOVERNANCE AND LEADERSHIP

### Summary of issues

- Murray–Darling Basin Plan Impacts: Assessing Murray–Darling Basin Plan Impacts: uncertainty around water availability given the impact of Sustainable Diversion Limits (SDL). Issue is the sale of water and potential loss of productive land and land valuation, stranded assets and as a result decreasing rate base for Council.
- Supporting local industries to become more efficient ( i.e. loss of stone fruit harvest of up to 30 per cent per annum given acceptable standards for consumption,) through opportunities such as e-business.
- Progression and resolution of cross border issues to facilitate greater service delivery to all parts of the community.
- Provision of child care availability and child care services.
- Maintenance of Council owned building and infrastructure assets, including clarification of management and ownership of assets such as the levee bank.

**Table 2.4 Governance and Leadership**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost	Responsibility	Time frame	Resilience theme
2.4.1	Council to assist industry groups and/or DPI to develop an investment prospectus for the local grain and horticulture industry	Council to assist development of prospectus with local industry groups	Production of a prospectus for future investment in the local Grain and Horticulture Industry	Internal	Economic Development Unit building on the Economic Development Strategy	Immediate	Council leadership
2.4.2	Council to promote better access to fresh food	Support local groups/health providers in increasing access to fresh food and advocate for funding to support	Increased initiatives to increase access to fresh food	Internal	Environment Unit Community Planning Health and Wellbeing Planning	Immediate	Council leadership

**Table 2.4 continued**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost	Responsibility	Time frame	Resilience theme
2.4.3	Assist to raise awareness as to the edible nature of much of the fruit not currently consumed	Council to coordinate local growers to launch a marketing campaign and raise awareness raising as to the edible nature of fruit and water required for production	Successful campaign to promote fruit that is normally considered inedible	Internal	Environment Community Planning EDU in collaboration with Swan Hill Industry groups	Immediate	Public health
2.4.4	Support the community through extreme events such as droughts and floods	Participate in flood study to ascertain the impacts and emergency response strategy to future events and drainage impacts  Participate in state funded activities to improve preparation and response to extreme events	Update of Municipal Emergency Management Plan given most recent flood and drought events  Volunteer Emergency Strategy	\$200,000**	Infrastructure Department  Community Facilitation	Immediate	Council preparedness
2.4.5	Maintain and promote multi use and cost sharing of Council assets	Encourage multi use of Council owned asset building and cost sharing of maintenance	Provide the same services with less assets	Internal	Infrastructure/Assets Community Facilitation	Immediate	Council preparedness
2.4.6	Council to promote the benefits of e-business given rollout of the National Broad Band Network (NBN) in Swan Hill in 2016	Council to facilitate local small business groups to develop a business framework	Increased use of e-business tools to improve profitability of local business and development of a small business framework for overcoming barriers to isolation	Internal	Economic Development Unit	Medium	Strengthening local networks
2.4.7	Council to advocate for a consistent set of standards for service delivery cross borders	Council to undertake consultation to progress actions with other regional councils	Progression of cross border actions identified in the Loddon Mallee Regional Strategic Plan	Internal in consultation with Murray River Group of Councils	Economic Development Unit Murray River Group of Councils	Medium	Council preparedness
2.4.8	Council to promote best practice onsite wastewater management	Review and maintain the Domestic Wastewater Management Plan	Actions outlined in Domestic Wastewater Management Plan	Internal	Public Health Services	Medium	Public health

**Table 2.4continued**

Action No.	Strategic actions	Implementation	Outcome measures	Estimated cost	Responsibility	Time frame	Resilience theme
2.4.9	Promote the liveability of the Swan Hill region building on initiatives such as Transition Towns	Identify options to promote the local area including promotion of art exhibitions.	Development and expansion of the regional arts centre and promotion of local indigenous art	Internal	Community & Cultural Services Department	Long term	Council leadership
		Provide Transition Town resources to the community	Deliver Transition Town Program	\$50,000 (funded via Navigating Our Future)	Environment Unit Community Planning	Immediate	
2.4.10	Promote community health in the long term to increase both physical and mental resilience to climate variability	Development and Endorsement of a climate risk discussion/framework within the Public Health and Wellbeing Plan	Incorporate climate risk discussions within existing community planning exercise focusing on providing accurate information	Internal	Public Health Support Department building on the Municipal Emergency Management plan	Immediate	Public health
2.4.11	Promote greater access to Swan Hill via air transport	Build on Councils Aerodrome engineering study by costing options for development, including a business case given expected patronage	Costed options for upgrade of the airport with business case given expected patronage also identifying potential regional carriers	Internal	Planning Unit building on the Central-Murray Regional Transport Study EDU	Immediate	Strengthening local networks
2.4.12	Promote use of active transport	Review of Bicycle Strategy	Review of Bicycle Strategy	Internal	Community Planning Infrastructure	Medium	Council preparedness
		Development of Municipal Action Transport Strategy	Development of Municipal Action Transport Strategy	In progress	Community facilitation in partnership with health providers	Immediate	
2.4.13	Advocate for identification of ownership and maintenance of water dependent assets, including local levees	Advocate for investigation where any levee mapping of the region has been undertaken and if not, investigate feasibility of Swan Hill carrying out such a project	Formal recognition of asset ownership and management and update of Councils Asset Management Plans	Internal	Engineering Services	Medium	Council preparedness

\*Indicative cost only

\*\* external funding required

# 3 References

List of Councils plans, Strategies and regional plans and strategies use to develop the Resilience Action Strategy.

## **Specific Plans and Strategies that the Resilience Action Strategy draws upon in order to link to existing Council actions already underway**

Swan Hill Rural City Council Municipal Strategic Plan (2009) Swan Hill Rural City Council.

Swan Hill Council Rural City Council (2010–2014) Sustainable Living Strategy.

Swan Hill Rural City Council (2007–2010) Economic Development Strategy.

Swan Hill Rural City Council (2006) Municipal Fire Prevention Plan.

Swan Hill Rural City Council (2009-2012) Public Health and Wellbeing Plan.

Swan Hill Rural City Council (2010–2013) City Council Tourism Strategy.

Swan Hill Rural City Council (2009) Municipal Emergency Management Plan.

Swan Hill Rural City Council (2009) Heatwave Response Sub-Plan.

Swan Hill Rural City Council (20011–2016) Council Municipal Community Plan.

Swan Hill Rural City Council (2010–2012) Youth Strategy Action Plan.

Meinhardt Infrastructure and Environment Pty Ltd (2006), Final Report: Robinvale Riverfront Renewal Master Plan.

Swan Hill Rural City Council: Council Plan 2009–2013 (2010 Update). Swan Hill Rural City Council.

Swan Hill River Precinct Project: Concept Plan and Report (1997).

Swan Hill Rural City Council (2007–2012) Waste Management Strategy.

## **Specific Regional Plans and Strategies that the Resilience Action Strategy draws upon in developing actions**

Central Murray Regional Transport Study (Victoria - New South Wales), 2011.

Northern Loddon Mallee Regional Strategic Plan: Northern Region, 2008.

## **Other Supporting documentation**

Murray Group of Councils (2008) The Impact of Low Irrigation Allocations on Non-farm Business. RMCG Consultants, Bendigo.

Swan Hill Rural City Council Response Paper to the Market Mechanisms for Water in the Murray Darling Basin. Council Submission to the Productivity Commission Draft Research Report, 2010.

Swan Hill Rural City Council response to the Development of Sustainable Diversion limits for the Murray Darling Basin Issues Paper (2009). Swan Hill Rural City Council.

Workshop outcomes 26/10/2010: Strengthening Victoria's Foodbowl: Swan Hill Asset Review Meeting Minutes Summary, PSI Delta, Melbourne.

Centre for Sustainable Regional Communities (2004), Socio-Economic Impact Study: increased environmental flows. LaTrobe University, Bendigo.

Council of Australian Governments (COAG), 2009. National Strategy for Disaster Resilience: Building our nation's resilience to disasters, Canberra.

Council of Australian Governments (COAG), 2007. National Climate Change Adaptation Framework.

Hennesy, K., Fawcett, R., Kiron, D., Mpelasoka, F., Jones, D., Bathols, J., Whetton, P., Stafford Smith, M., Howdem, M., Mitchel, C., and Plummer, N. (2008), An Assessment of the impact of climate change on the nature and frequency of exceptional climatic events: Drought Exceptional Circumstances. Bureau of Meteorology (BoM) and CSIRO, Canberra.

SMEC, PSI Delta, Hanson Economics, Heuris Consulting (2010), Strengthening Victoria's Foodbowl: Adaptation to reduced water availability in a changing climate: Literature review of water policy and climate change for Swan Hill Rural City Council.

PSI Delta (2011), Planning for Reduced Water Availability and Climate Change in Swan Hill Rural City Council: Strengthening Victoria's Foodbowl. PSI Delta, Melbourne.

*Appendix A*

**PROCESS UNDERTAKEN FOR  
IDENTIFYING ACTIONS**



# The Action Planning Process

## **THE RESILIENCE ACTION STRATEGY: A DECISION MAKING PROCESS FOR COUNCIL**

This section outlines how the Strategy was developed and sets out the steps to repeat the process for further strategy development on a bi-annual basis. In this way, the Strategy provides a decision making tool for Council to identify future actions in developing resilience.

The process that was followed to arrive at the current set of priority actions for Council involved the collation and analysis of Council's existing activities as well as recommendations for new activities obtained from a recent stakeholder consultation process undertaken by Council during 2011 (PSI Delta 2011). The potential actions were assigned to a 'planning pathway' and a 'theme of resilience'.

Consensus building and action selection took place over two workshops. This section outlines the process undertaken to arrive at the set of priority actions. In the future, Council staff can repeat the process by referring to this section.

### **Identifying all possible actions**

The first task that was undertaken was to review Council plans as well any recent reports as a result of output from stakeholder consultation processes. This avoided 'over consultation' of Council's stakeholders and made use of existing Council documents. Given this has been done with the 2011 Strategy, this step may not need to be revisited for some time depending on how often information is updated .

Table 2.1 shows the number of actions and issues that were reviewed under the planning pathways approach to get to prioritised actions and match these to resilience themes. A simple method of classifying issues and assigning them to a respective Sector was required to make it easy for Council staff to find and work on issues of priority according to their work area. Table A.1 shows the nomenclature used. The following definitions were also used. This means table A.1 can be used as the template for subsequent revisions to the Strategy;

- *Resilience Theme*: Highest order end goal or strategic direction of Council.
- *Sector*: 4 Sectors under which all planning and Council actions take place consistent with the Council Plan structure
- *Sub-Sector*: Topic area under which issues sit according to Council departmental responsibilities (i.e planning, health care, environment, agriculture)

- *Asset Class*: Is the topic area pertaining to the issue (i.e., land development, mental health, irrigated farming)
- *Issues*: the item that needs to be addressed or the problem that needs to be solved or may become a item to be addressed in the future in response to less water availability (i.e., energy rating of new houses, depression among the community, availability of water for irrigation). It should be noted that for generation of the current version of the Strategy, the number of actions reviewed and identified as feasible was dependent on staff attendance at the workshops. Not all of these issues were reviewed given the time constraints in Strategy development.

Nevertheless, the number of issues and actions identified is a sound basis for Council to use for a variety of measures in the future without the need to undergo extensive stakeholder consultation.

**Table A.1 Actions and Issues reviewed through development of the Strategy**

Resilience themes	Sectors and sub-sectors	Asset classes	Issues	Council actions	Potential adaptation action pathways
8	4/26	48	86	218	260

#### **Identifying sectors most vulnerable to water availability**

This step can be reviewed or left for future strategy development. It sets up a logical sequence to categorise and sort the several hundred (shown in Table A.1) possible actions that could be evaluated in arriving at a set of priority actions for Council staff to pursue. Based on the structure of the existing Council plan, four sectors were identified as most vulnerable to changes in water availability. They were:

- *Industry*
- *Infrastructure and Planning*
- *Community*
- *Council*.

#### **Matching key issues, Council actions and ‘ideas setting’ for revised and new actions**

The next step was to assign actions to a Sector. In categorising actions into a sequence that can be taken up by relevant Council departments according to their respective responsibilities, Sector sub-classes and Asset Classes were also identified. Each sector had a table assigned to it. Sorting the sectors, sub-sectors and issues in this manner aligned actions with Council’s current departmental areas of responsibility. It has the aim of making actions easier to assign to staff members.

The areas of responsibility were then used to assign key issues and finally existing and potential new actions for consideration. Table A.2 shows the template used for the Industry sector. The same template was applied to the three other sectors of Community, Council and Infrastructure and Planning. The tables can be filled out in small groups or on an individual basis based on the staff member’s area of expertise. In essence, the participant picks which sector and asset class they are responsible for and work on that area they feel competent with and responsible for.

**Table A.2 Format of table for aligning sectors to issues and actions—Sector 1: Industry**

Sector sub-class	Asset class	Issue	Council's current actions	Potential new actions/adaptation pathway	New actions for councils plans/ department responsible for
------------------	-------------	-------	---------------------------	--	--

**Themes of resilience**

A resilience action strategy must answer the question, how resilient is Council and the community to changes in water availability? Generally, when one thinks of being resilient, one must think of the resilience characteristics already identified.

For example, when thinking of the next drought or flood one might think, how prepared is the community or how can Council show leadership? These are examples of resilience themes. They are your highest order goal. This step ties Council actions to themes of resilience in order to answer this question.

This step was initially undertaken to identify themes that represent resilience in the community of Swan Hill. It could be revised in the future or left as is. The initial set of themes was put to workshop participants as a ‘suggested set’ from which workshop participants can change or add. The themes were developed based on the review of Council plans and stakeholder engagement activities undertaken recently. In workshop 1, an additional resilience theme was added; namely ‘Public Health’.

A resilience theme ties actions to outcomes. For instance, when planning for water scarcity your action might be to implement water efficiency programs. The highest order goal in undertaking this action is to show Council Leadership and undertake Community Preparedness. When thinking about a reliance theme, think with the end in mind first. What is the ultimate Municipal wide outcome of a specific set of actions? This defines the resilience theme.

Finally, themes clarify the end goal and the direction of Council’s strategic planning. Current themes for the Strategy, and definitions of the themes are:

- *Community Education:* local community members understand the risks
- *Community Preparedness:* community members anticipate the risks of less water and have taken actions to protect their assets and livelihood
- *Strengthening Local Networks:* people work in conjunction with local emergency service providers for instance
- *Council Leadership:* people work with local leaders to take steps using knowledge and resources to enable cohesive social networks under climate change (resilience in this sense indicates rebound from failure and adaptation through developing strong networks)
- *Council Preparedness:* identifying costs and benefits for service and infrastructure provision in the future under climate change
- *Service Provisions:* Council staff and stakeholders take into consideration resilience when developing core products

- *Planning*: a range of risks mitigation measures are built into any future planning arrangements.
- *Public Health*: a range of options for ensuring health of the public is continuously improved.

### **Planning Pathways, Workshop 1**

At this first workshop, resilience themes were reviewed. These themes are considered permanent in that they would not require extensive changes for future updates to the Strategy for the reason being that the resilience themes carry the Strategy through time, setting the strategic direction at the outset.

### **Next Step: What is a Planning Pathway?**

The planning pathway approach allows synergies to be identified across all of Council documents to avoid duplication of effort and understand where the effort is being placed (or lack of) to build a ‘resilient community’.

The sum total of all the Resilience themes and resultant actions defines Council’s matrix of resilience going into the future. Assigning issues to the themes and then deciding on the key accountabilities is the planning pathway.

### **Filling in the blanks (green cell columns)**

Workshop participants were provided with a report ahead of the workshop that identified current initiatives, gaps and suggested actions for each issue that has been identified as a priority at prior workshops or in Council’s plans. Workshop participants rotate between the four sectors (four reports) according to each staff members areas of expertise

For each sector, workshops participants are asked to colour code the possible actions according to what they see as important as defined by the following classification:

- Statutory = pink
- Agreed to be Council (or in past plans/strategies) i.e. ‘must do’ = green
- Rollover (tasks that are continuously rolled over from year to year) = blue
- New actions (also considered as participants ‘wish list’.) = yellow.

### **Assigning Actions a ‘colour code’**

The last step in Workshop 1 was to colour code all actions that be considered. This created a shortlist of actions for subsequent detailed feasibility analysis in Workshop 2. Table A.3 gives an example of the colour coding while Appendix C shows the colour coded list of actions by sector.

### **The use of A3 cards—Changes to Council’s strategic and planning documents**

Whereas colour coding actions can be done on an individual basis, suggested changes to Council’s strategic documents has the potential to impact a number of actions. Given the application of changes to a multitude of issues, the workshop considered any changes to Council strategic documents on a ‘group basis’ for two reasons. The first being that all staff members can agree to the change given the change could have impacts across a multitude of issues and secondly, staff can consider if the change should be applied to the issues they are responsible for.

**Table A.3 Example of a planning pathway**

Sector X (1-4): Planning pathway 

Sector sub-class	Asset class	Issue	Council's current actions	Potential new actions/ adaptation pathway	New actions for councils plans/ department responsible for
		Water	Action 1	Action 3	Suggested new Action for a Strategic document/change to a Council plan
			Action 2	Action 4	

**Post-processing from Workshop 1**

Using the outputs from Workshop 1, the facilitator will then match actions to a particular resilience theme and list the colour coded actions only (see Section 4). The revised action list (consisting of only colour coded actions and resilience themes will be used in Workshop 2 to identify a shortlist of actions for feasibility analysis).

**Adaptive Management Workshop 2**

The second workshop focused on taking the colour coded list and applying a feasibility analysis to come up with a set of priority actions. Council staff were asked to select three actions per sector and per colour coded set.

This approach was used rather than a lengthy ranking and prioritisation process as Council staff are well versed and have intimate knowledge of what are the main issues. In this way, they were considered informed stakeholders and subject matter experts in selecting three actions.

For the colour coded actions selected, a template was applied to prioritise which actions are possible and most practical to complete first, based on Council staff understanding as to the critical nature of the action and the resources required to complete the action.

**Feasibility analysis: fill in the blank—green cells**

The template shown in Table A.4 was set up by sector and by resilience themes. Under each theme, the priority actions (those colour coded actions only) from Workshop 1 were used (the colour coded set of activities) to fill in the green cells.

**Desired Outcome**

The desired outcome is the long term goal for specific tasks. It may come from existing strategic plans and documents or the direction the Council staff member wishes to take.

**Assumptions**

Assumptions are items that are contingent on the activity being implemented such as the requirements to attract funding from government, stakeholder consensus, and additional staffing resources required just to name a few. The assumptions act as the constraints on action implementation.

**Sub-tasks**

Sub-tasks are critical tasks that need to be completed and which if not addressed, prevent the action from being implemented. This part of the analysis is particularly important for rollover tasks (identified as blue colour coded actions) as there may be some barriers that have prevented them from

being implemented yet they are obviously perceived as important, if not agreed actions by Council. Where possible, Council staff can identify why these actions are continually rolled over.

**Indicator of success**

For the priority action, workshop participants were asked to identify what would change if the action was implemented, paying attention to how this could contribute to the resilience theme. They were asked to select one indicator of success

**Table A.4 Example template for Workshop 2: Sector 1-4, Resilience Theme 1, Colour code X (either blue, green, pink, yellow)**

Desired outcome_	Sub-task (i.e. overcoming barriers to action adoption)
Assumptions	Actions
	Indicator of success
	Responsibility
	Water security for farming
	Less water is available in the next 10 years

**Attitudes, lack of designated resources, etc. Includes list from Workshop 1 - Identify Council**

**Department/Director/Person. Sphere of influence**

In identifying the last green column titled ‘Responsibility’, workshop participants undertook a ‘sphere of influence’ analysis to identify stakeholders and people that Council staff should seek to make contact with and build networks in order to implement the identified actions. The output of the sphere of influence analysis was to help staff identify who has responsibility and ownership (which can be different) and to bring the two together to ensure better project delivery in the long term.

The sphere of influence identifies who needs to ‘buy in’ to the action for it to be successful. This may be senior council staff or Government funding sources or local stakeholders for instance. The sphere of influence worksheet is given in Section 4 and is an adopted tool from the ICLEI Local Government Climate Change Adaptation toolkit.

**Leaving Workshop 2 with ‘three things’ that you need to do**

Participants left Workshop 2 having identified ‘three things’ or actions they needed to do to kick-start meeting their obligations and in meeting the initial actions for the Strategy.

The outcome of Workshop 2 therefore is a selected number of priority actions, indicators of success and what part of Council is responsible for carrying out the action. The template can be used to list priority opportunities in the draft Strategy. The outcomes from Workshop 2 become the ‘Action strategies’ identified in Section 2 of the Strategy.

**3.1 INTERVIEWS WITH COUNCILLORS AND CEO, MAYOR OF SWAN HILL RURAL CITY COUNCIL**

**3.2** Interviews with Councillors, the Mayor and CEO of the Council were carried out over a two day period to identify the strategic direction Council is taking and sort the actions according to the strategic direction. This was used to refine and develop the final Strategy for Council.