Environmental Sustainability Action Plan
The preparation of the Environmental Sustainability Action Plan was funded primarily by the NSW Environmental Trust to assist the Bathurst, Orange and Dubbo Alliance of Councils to achieve the objectives of the Trust’s City and Country Environment Restoration Program. The Central West Catchment Management Authority also contributed financial assistance to ensure that the benefits of the Plan would be shared with smaller councils in the region.

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Foreword

A Memorandum of Understanding (MoU) was signed by the Bathurst Regional, Orange City and Dubbo City Alliance of Councils in May 2006 to further develop cooperative programs, share resources and improve services to foster sustainability.

The signing of this MoU recognised rising community concerns with environmental issues and the potential impacts of climate change.

As a first step in the compilation of the Plan, an audit of the existing policies and plans of each council was undertaken. This helped to identify the existing works and activities of the councils across a range of service areas, as well as gaps where more work is required.

The initial audit also identified six priority focus areas for initial environmental action: water, biodiversity, waste, energy, salinity, and pollution. A Management Action Plan for each focus area sets out key challenges and opportunities as well as guiding principles and actions. Climate change and community education are seen as integral issues to be addressed within the action plans.

The management actions in the Plan will be reviewed every year and reported through the individual councils. A comprehensive review of the Plan will be undertaken every four years. The Plan will provide an excellent framework for community involvement in sustainability, and recognises that Bathurst, Orange and Dubbo Alliance of councils is serious about ensuring a sustainable future for local and broader communities.

This Environmental Sustainability Action Plan (the Plan) sets out a direction for Bathurst, Orange and Dubbo councils as three major regional councils in the Central West of New South Wales (NSW). By working together, greater changes can be implemented with limited resources, and better sustainability outcomes will be achieved.

This Plan, along with others across the State, has been funded by the NSW Environment Trust under the Urban Sustainability Program, a sub-program of the City and Country Environment Restoration Program. By supporting local government in a move towards sustainability planning and practices, a state-wide improvement in environmental management and community involvement will occur.
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In the Bathurst Regional, Orange City and Dubbo City Councils we recognise that we all have an impact, individually and collectively, on the environment, economy and people of our communities. By working together to improve the quality of life of all members of our community in ways that are sustainable, and by respecting cultures, customs and social values in our actions, we can enhance our future prospects.

This is our Sustainability Charter.

We will take care of:
» our environment
» ourselves
» each other.

We show our commitment through the:
» choices we make
» actions we take
» respect we show others.

We all aim to:
» reduce the environmental impact of the councils’ activities and become more efficient in our use of resources
» value people as our most important asset
» support our colleagues in becoming sustainable
» provide work environments that are safe, secure, adaptive and diverse
» share knowledge, engage and build mutual understanding.

We see the development of a sustainability culture as a journey.

Signed on behalf of the Alliance of Councils in the month of September 2008, as our commitment to environmental sustainability in our communities.

Paul Toole
Mayor
Bathurst Regional Council

John Davis
Mayor
Orange City Council

Greg Matthews
Mayor
Dubbo City Council
Introduction

As the level of governance closest to the people, local government plays a vital role in educating, mobilising and responding to the public in promoting sustainability. The participation and cooperation of local authorities in the region will ensure sustainability objectives are realised.

Local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and sub-national environmental legislation and policies.

Bathurst, Orange and Dubbo councils (the Alliance) are committed to persistent progress towards sustainability, and to being leaders in delivering economic, environmental and social wellbeing, locally and globally. To this end, the three councils developed a Memorandum of Understanding to promote skills and knowledge sharing and improved outcomes for their communities through a strategic alliance. This Environmental Sustainability Action Plan (the Plan) is a priority for the Alliance.

In 2005, the NSW Environmental Trust responded to increasing community concerns about the environment and developed a program to support local governments in sustainability planning and implementation. The Urban Sustainability grants, under the City and Country Restoration Program, provide opportunities for councils to build on the works already done in this area, both in seed funding for planning and also in major grants for implementation of works. The objectives of this program are outlined on page 8 of this Plan.

In late 2006, the Alliance was successful in gaining a $50,000 grant under the seed-funding program to develop the Plan.

The Plan contains Management Action Plans (MAPS) for each of the six priority areas of water, biodiversity, waste, energy, salinity, and pollution. While reviews of the Plan will be undertaken on a four-yearly cycle, it is intended that the MAPS will be reviewed on an annual basis.
The Bathurst, Orange and Dubbo local government areas are located in the Central West of NSW and have similar populations (around 40,000 each). They have large city centres that not only support the local government area community, but also outlying villages and small towns.

The three councils are within the same catchment, defined by the Central West Catchment Management Authority (CWCMA, see Figure 1). This allows them to work with the CWCMA for catchment-wide outcomes, addressing the Central West Catchment Action Plan while improving the local environment.

While similar in many ways, each council has a different community, vision and set of values which make it unique.

By working together, and leading the charge for sustainable local government, the communities within the Alliance can look forward to positive environmental, economic and social outcomes.
Figure 1: Regional map

Map information derived from the Central West Catchment Management Authority (2006) and maps supplied via the Department of Lands and Ecolens (2008). Map designed by Ecocreative®.
Bathurst Regional Council

Bathurst is the oldest inland settlement of NSW, and has a long history of agriculture, gold exploration and commerce. Prior to this the Wiradjuri people were the inhabitants of the land and used the rivers and waterways for travelling and living. Bathurst is within the Central Tablelands and spans the western footslopes of the Blue Mountains through to the floodplains of the Macquarie River. While there are large areas of natural vegetation, particularly in the eastern portions of the council area, with such a long history of pastoral land use most of the area has been cleared for farming. The area has a cold climate in winter with heavy frosts common, and occasional snow falls.

The Bathurst community is varied in age and economic characteristics and has a diversity that comes with its small towns and villages, farming areas, businesses, Mount Panorama and educational institutions. Employment is centred in the business, finance, retail, manufacturing, education and health sectors.

Vision

To enhance the lifestyle and environment through effective leadership, community involvement and commitment to service.

Mission

The equitable development and maintenance of services provided for the general health and well-being of the citizens of the Bathurst Region and the adjustment of these services to meet changing needs.

Area: 3821 km²
LGA population: 35,845
Indigenous: 3.4%
Urban population: 28,992

Source: ABS 2006 Census
Orange City Council

Orange is surrounded by agricultural land on which orchards and wineries make use of the region’s cold winters and the rich volcanic soils of Mount Canobolas. This mountain played a significant role in the lives of the traditional owners, the Wiradjuri people.

A small number of villages outside the city are also part of this council and reflect the rural and mining history. The Newcrest Cadia Valley Operations gold mine is located adjacent to the council area and plays a significant part in water demand, transport, economic development and employment for the region. The first gold found in NSW was located at Ophir, just outside the Orange local government area.

Small areas of remnant native vegetation still remain, both in the Mt Canobolas State Conservation Area and many small parks and reserves, usually under the stewardship of the council. The landform is dominated by Mount Canobolas, and although there are many creeks and several large dams, the city does not have any rivers, making it reliant on surface water runoff for water supply.

Orange is a service provider to outlying areas. Employment statistics indicate that Orange has a relatively high proportion of people working in service industries such as business, finance, education and retail. Manufacturing is also a notable sector, while agriculture and mining make up a small percentage of local employment.

**Vision**
*a vibrant community that embraces and fosters natural, cultural and economic diversity*

**Mission**
*Promoting quality of life through quality of service*
Located on the plains of Central West NSW, Dubbo’s landform slopes gently to the Macquarie River and has been an agricultural area since European settlement. With most of the woodlands cleared for agriculture, the remaining vegetation generally exists on steeper rocky outcrops and slopes and conservation reserves in the northern area. The climate reflects the plains location, with moderate to hot summers and cold winters.

The Dubbo area also has a long history of Aboriginal land use, with its high percentage of Indigenous residents reflecting the strong link that many of the Wiradjuri and other neighbouring Aboriginal groups still have with the land.

Dubbo City Council

Dubbo is home to the Western Plains Zoo which draws many visitors to the city each year. Employment reflects the nature of Dubbo as a service centre for a large part of Central Western NSW, focusing on retail, health, manufacturing, transport, tourism, education, business and agriculture.

Vision

The vibrant City on the Plains meeting service and lifestyle needs

Mission

To manage Dubbo’s growth in an ecologically sustainable manner to meet the service and lifestyle needs of residents and visitors
What sustainability means

The concept of sustainability recognises that we need to link development with protection of the environment in order to protect and manage ecosystems and natural resources essential for fulfilling basic human needs, and to improve living standards for all.

There are many definitions of, and terms for, ‘sustainability’. Orange City Council defines ecologically sustainable development as ‘using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained and the total quality of life, now and in the future, can be increased’.

While each council has a different definition of sustainability, they all evoke the ‘triple bottom line’ of environment, economics and society, and consider them equally important in decision-making processes. The intent is to ensure that our activities do not harm the environment either now or in the future, and do not draw on more resources than we have available.

Key sustainability principles

A number of principles form the foundation of sustainability planning and policy. These are outlined below:

Integration

» Environmental, social and economic considerations are effectively integrated in decision-making.

Community involvement

» The support and involvement of the whole community is recognised as essential to achieving sustainability.

Precautionary behaviour

» Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty is not considered a valid reason for postponing measures to prevent environmental degradation.

Equity within and between generations

» Consideration is given not only to fairness and equal access to opportunities in our lifetimes, but for future generations as well.

Continual improvement

» The need for continual improvement is considered essential.

Ecological integrity

» Biological diversity is protected and essential ecological processes and life-support systems maintained and improved.

The Alliance councils recognise that much of their core business will be affected by issues of sustainability and that this should be reflected in council budgets. Council budgeting for the development of any infrastructure items, for instance, should ensure that resources are available for any monitoring or remediation that might apply in the future. The councils also recognise that sustainability measures will involve costs to their ratepayers and businesses. The principle for costing is that, where possible, costs are borne by the communities who use the services provided.

The benefits of sustainability planning

There are potentially many benefits in planning for sustainability and implementing the plans. These include:

» managing change more effectively (particularly relevant to the changing climate)

» more effective policy development
enhanced capacity to meet community needs
» greater community cohesion
» stronger regional links
» cost savings and improved efficiency
» a healthy and vibrant community
» staying relevant through continual improvement
» conserving, restoring and enhancing the physical environment.

The planning process also allows the councils to audit their current practices and policies to determine where any gaps exist, and identify the progress already made. It acts as an education tool for staff and elected representatives to increase their capacity to both understand and implement sustainable action across all areas of their council's operations.

Objectives of the Plan
The Plan is based on three strategic objectives, as set out below. These are consistent with the principles set out in the Alliance councils’ corporate and management plans.

1. Raise the level of understanding of, and commitment to, sustainability in the Central West region. Demonstrated commitment to embedding sustainability into Bathurst, Orange and Dubbo councils will result from incorporation of proposed actions into the management planning process. Regional capacity building and change will result from the mentoring of smaller councils.

2. Effect positive behavioural change in the community with regards to environmental sustainability. Making sustainability part of the mainstream requires changing behaviour in councils and the community. Potential drivers for implementing mechanism for change within councils are presented in Appendix 3.

3. Improve the quality of the physical environment. This will be done by addressing priorities including water, biodiversity, waste, energy, salinity and pollution, within the context of climate change mitigation and adaptation.

How the Plan fits into council operations
The first section of this Plan provides the guiding principles and goals to allow the councils to act across all service areas. It incorporates the existing plans, policies and activities already contributing to sustainability, and helps to identify the deficits where more resources and attention are required. It is intended to be a living document, with content and actions subject to change during review by all three councils.

The second section of the Plan contains priority management action plans (MAPs), identified through an audit conducted at each council. These consider each of the six priority areas for sustainability—water, biodiversity, waste, energy, salinity and pollution. They outline key principles and objectives for their management across the Alliance. Each council has the flexibility to focus on the areas of priority identified by the local community, or those where the most significant shortfalls are present. This approach allows the unique character and focus of each council to be acknowledged. Councils can also use the framework to develop their own MAPs as new issues emerge. Linking this Plan to the corporate planning process of each council links it also to each council’s budget cycle and this ensures that it is a fundamental priority.
Policy framework
Councils are required to operate under the Local Government Act 1993. This Act outlines the objectives of council management and the role of the local community. It notes that a council’s charter is: *to properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development.*

A range of other Acts, at both federal and state levels, also impact on a council’s operations in the environment. Examples of these include the NSW Noxious Weeds Act, Protection of the Environment Operations Act and the Environmental Planning and Assessment Act. The Plan demonstrates the commitment from the Alliance in going beyond the responsibilities of these Acts to become stewards of the environment. In this, the councils will have the opportunity to share knowledge and experience with the smaller regional councils, improving sustainable outcomes across the region.

Risk management
Climate change is a significant risk facing local government. An important action identified in this Plan includes the establishment of climate change risk management plans for each council. Progress on this action will be made with particular consideration of potential economic impacts, with attention given to implications for insurance.

Potential social impacts, such as emergency responses and the health of individuals, would also be considered. Any such risk management approach would be conducted with close reference to guidelines and tools provided by the State and Federal Governments. Some generic risks that may be incorporated into the risk management plans of the three councils are presented in Table 1.

Progress to date
Bathurst, Orange and Dubbo Councils have all made progress towards sustainability, with the focus and priorities of each depending on the concerns of their local community, and available resources.

An audit of the relevant council programs, policies and budgets has been undertaken to allow a simple benchmark of current progress, and to identify where further work may be required.

The audit indicated that while there is progress towards implementation of sustainability across all three councils, there is often a lack of resources (both financial and human) to properly implement projects and reach the desirable levels of sustainability. Sustainability is often considered an activity for the ‘environment team’, not a core business objective of all service areas. The adoption of the Plan will help to drive change across all areas of council.

Monitoring our progress
As the ‘wheels’ of the Plan, the management action plans (MAPs) will be reviewed annually. These will be timed to ensure that they link into the annual corporate and financial planning reviews.

A comprehensive review of the Plan will be undertaken every four years, following State of the Environment (SoE) reporting. The Plan is iterative, allowing changes in detail as knowledge increases, community expectations evolve and the effects of climate change become more apparent.
Partnerships

A key factor in the success of sustainability action is wide-reaching communication with partners and stakeholders. Key stakeholders and project partners such as NSW Environmental Trust, NetWaste, Central Regional Organisation of Councils (CENTROC) and the Central West Catchment Management Authority (CWCMA) played a significant role in the development of this Plan. Into the future, both CENTROC and CWCMA will play a key role in facilitating the delivery of sustainability learnings of the Alliance to smaller councils in the region.

The most significant partnership is that of the Bathurst, Orange and Dubbo councils themselves. The existing skills and knowledge of each council will play a vital part in moving all three councils towards a sustainable future.

The Bathurst, Orange and Dubbo Sustainability Steering Committee was established to ensure participation in the Plan’s development and implementation across the three councils’ service areas. There is representation across technical services, building and planning, waste and water, purchasing and environmental management, and the members of the committee share skills, knowledge and fresh ideas. CENTROC, NetWaste and the CWCMA are also members of the Steering Committee.

State and catchment plans

This Environmental Sustainability Action Plan has been developed with consideration of the priorities and targets detailed in the NSW State Plan and the CWCMA Catchment Action Plan. The Plan has common goals with the ‘Environment for Living’ section of the State Plan, which references security of water and energy supply and practical environmental solutions relating to greenhouse gas emissions, biodiversity, land and rivers. It also has common goals with the CWCMA Catchment Action Plan and shares themes including salinity, water, vegetation, biodiversity and the community.

The Environmental Sustainability Action Plan will assist the achievement of the Central West Catchment Action Plan targets, and will refer to these targets where relevant (such as in Salinity and Water MAPs). It is noted that some aspects of environmental management are not controlled or influenced by local government, being the legal responsibility of state government. This includes bore and artesian water planning and regulation, and biodiversity management on other public lands such as Crown lands.
Funding
The Urban Sustainability grants from the NSW Environmental Trust address a range of environmental issues on the local scale. The objectives of the grant program include improving:

» urban water management with particular focus on stormwater and urban runoff to achieve sustainable water quality and conservation outcomes

» resource conservation through effective waste management, avoidance, re-use, recycling and support for sustainable products and services

» the quality of the local urban environment, through integrated approaches that address a combination of air quality, noise, odour, chemical use, biodiversity, litter and dumping

» the sustainability performance of local councils, small businesses and community organisations and householders in urban areas

» protecting urban bushland and creeks, urban wildlife and habitats of rare and endangered flora and fauna.

The Alliance councils recognise that implementing some parts of the management action plans will require resourcing additional to the existing budget commitments within the Corporate and Management Plans.

These resources will be both human and monetary. The councils will continue to monitor funding opportunities to assist in the implementation of the Plan. The Steering Committee has determined that the need for additional staff is a high priority and should be pursued through funding avenues. Specialised positions, shared between the three councils, would bring specialised skills considered imperative in satisfying the objectives of the Plan.
The Bathurst, Orange and Dubbo councils have practices and strategies in place to deal with routine climate variability. However, the councils recognise that there is strong and increasing scientific consensus that the global climate is changing. It is understood that management decisions cannot simply rely on the assumption that the prevailing climate will be more or less the same as it was over the past 50 or 100 years. This logic is supported by state and federal government policies. The NSW Department of Environment and Climate Change notes:

The Earth’s plants and animals depend on the climate to which they are exposed—they benefit when conditions are favourable, and they suffer when conditions become extreme. Humans are no exception. The crops and water resources that we use to sustain our communities are linked to the climate, and the economic as well as human losses that we experience from hail, floods, droughts and bushfires are a reminder of our ever present vulnerability to the climate system. It is increasingly clear that our climate is changing. Whereas in the past humans have learnt to cope with climate variability and change that was natural in origin, we are now living in a climate of our own making. The rate at which our climate is being transformed is unprecedented throughout much of human history.

What Bathurst, Orange and Dubbo can do about climate change

The acknowledgement that climate change poses a threat to our local environment is a significant step in protecting the Bathurst, Orange and Dubbo communities from potential impacts.

There are two means by which this Plan aims to address identified threats:

» responding to potential impacts by following a simple risk management process. The impacts will be reviewed as our knowledge of climate change evolves

» ensuring that our actions work to minimise global warming. While this will be primarily achieved through the MAP for Energy, many of the actions undertaken under the other MAPs will also have a positive effect on climate change.

Predicted impacts of climate change

The predicted impacts of climate change in the Central West Catchment have been assessed for the NSW State Government by the Commonwealth Scientific and Industrial Research Organisation (CSIRO). Climate change information concerning the Central West of NSW is provided as a reference in this Plan. Data that is more specific to each of the cities will be incorporated into planning and decision-making as it becomes available.

The Central West is getting hotter. While Bathurst currently experiences around four days each year above 35°C, CSIRO research indicates this is expected to increase to up to 11 days by 2030. While projected changes in average yearly rainfall are currently not clear, it is expected that storm intensity and frequency is likely to increase. This equates to less reliable rainfall throughout the year. Extreme rainfall (a one-in-40-year rainfall event) is expected to increase by up to 20 per cent in the Central West Catchment by the year 2030.
<table>
<thead>
<tr>
<th>Area of concern</th>
<th>Aspect of climate change</th>
<th>Temperature and evaporation</th>
<th>Rainfall and storms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment and public infrastructure</td>
<td>Increased risk of fires leading to severe damage to vegetation and wildlife and quality of water supplies</td>
<td>Increased erosion leading to pest and weed invasion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased evaporation reducing water supplies and water quality through, for example, blooms of blue-green algae from increased nutrient concentrations</td>
<td>Increased chance of contaminants and pollutants being carried by stormwater</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drier soil leading to less vegetation and an increase in turbid runoff following rainfall events</td>
<td>Erosion of watercourses leading to poor water quality for aquatic species and drinking water supplies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Changes in distribution of plant and animal species resulting in less biodiversity</td>
<td>Increased flooding of roads leading to washouts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Putrescible waste rotting more rapidly and requiring more servicing</td>
<td>Increased damage to utilities including water supply, sewers and communications</td>
<td></td>
</tr>
</tbody>
</table>

| Society | | Increased erosion leading to poor aesthetics and recreational amenity | 
| | Increased overflow of stormwater channels leading to flooding of private property | 
| | Increased safety risks from flash flooding and flying debris | 
| | Storm damage leading to problems and delays in the supply of goods | 

| Economy | | Increased maintenance costs from damage to public buildings from wind, hail etc. | 
| | Damage to vineyards, crops and other aspects of the landscape leading to less tourism and significant impacts on agriculture | 

| Council governance | | Need for buildings designed and built to appropriate standards to reduce liability | 
| | Provision of increased resources for emergency response | 
| | A need to reassess risks to council | 

Table 1: Some predicted impacts of climate change
Community and education

Education is fundamental to sustainability. A program of community engagement and education will improve the ability of the councils to address environmental issues and allow them to strive for sustainability in their communities. It will also enhance the community’s ability to participate in planning and action for sustainability. This program of ‘capacity building’ must be activated across each of the priority areas and so be integral to the Plan.

All three councils are members of NetWaste, and so have access to an excellent education resource in the NetWaste Environmental Learning Facility, located in Orange. This facility showcases sustainable building design addressing all the MAP areas, and offers a wide range of community, school and adult learning opportunities.

Principles of Education for Sustainability
The NSW Environmental Education Plan outlines several key principles that underpin education for sustainability (EfS) programs to ensure their success. The Environmental Sustainability Action Plan incorporates the following principles:
- Effective and integrated EfS programs are integral to building an informed, active and environmentally responsible community
- EfS is integrated with other environmental management tools. To achieve sustainability, EfS must be integrated with public policy, regulation, economic incentives, and monitoring and reporting
- EfS promotes social change through the initiatives of individuals and organisations. Quality education promotes changes in personal behaviour and organisational practices to deliver changes in broad social, economic and physical systems. The focus of education will move from specific local and visible symptoms of environmental problems (such as water pollution or waste disposal) to the underlying causes of these problems (such as personal and social values, and organisational structures)
- EfS is a lifelong learning process that provides environmental learning opportunities for all sectors of the community. Education for sustainability needs to engage people of all ages and backgrounds.

Community engagement methods
There are varying levels of community engagement, and the appropriate one must be used to ensure successful implementation of this Plan. The NSW Government’s A Guide for Engaging Communities in Environmental Planning and Decision Making outlines the levels of engagement (see Appendix 2).

Fostering behavioural change
The Bathurst, Orange and Dubbo councils have all undertaken community engagement at various levels to determine their community’s thoughts and ideas regarding the environment. It is acknowledged that to meet the Plan’s objective of fostering change, councils will need a tailored engagement process that goes beyond the level of providing information or promotion. More complex tasks such as the development of a stakeholder needs analysis, product development and marketing and communication strategies will be conducted. These will provide the common platform from which each council can develop and conduct common or individual engagement programs with community sectors including residents, schools, industry, small business and the councils themselves.
Environmental Sustainability Action Plan
Effective, consistent action in relation to sustainability and climate change is essential. This part of the Plan focuses on the actions that will enable the Alliance to take charge of sustainability in the Central West catchment.

Priority areas for action by the Alliance have been identified as water, biodiversity, waste, energy, salinity and pollution. Each of these has a Management Action Plan (MAP) that shows where each council is at and what needs to be done. These areas of priority closely reflect those highlighted in the NSW Environmental Education Plan as being the priority themes for environmental education. They also reflect priorities identified through community engagement exercises and review of council management areas.

The Management Action Plans are an integral part of the Plan. They represent a set of guiding principles and objectives for the three councils to address key focus areas, identified in an audit of the existing council policies and actions. They set the framework for all three councils to ensure a strategic and consistent approach across the Alliance.

Each council may choose to use the framework to implement actions further to those stated in this Plan to provide greater focus and specific activities under the direction set by the MAPs. This ensures that they can direct resources and set priorities that match with more specific needs of their local community and council. MAPs will be updated annually as emerging issues are identified.

Tailored community engagement programs will be developed by each of the councils in line with common and individual priorities. It may be that all three councils work on the one community engagement exercise, or alternatively, conduct their own and then share their methods and learnings with the other two councils at a later date. The Plan will result in a suite of engagement strategies for community sectors that include residents, schools, industry, small business and the councils themselves.

The diagram below indicates how each area for action has been colour-coded, with the star symbolising how combined effort can deliver better, measurable (star-rated) results. Stars are used to indicate progress in the management action tables.
In this period of extended drought, water management is a key concern for the three councils. However, drought is not the only aspect of water management requiring council input.

Stormwater and sewage may have a significant impact on local waterways and rivers, and also require a high level of investment by councils and other water authorities. Significant opportunities are also available for treated effluent re-use and stormwater harvesting.

**Water management principles**

» Promote integrated water management to business, industry and households in council areas, using each council’s experiences and policies as an example of the benefits possible.

» Integrate programs that foster behavioural change into all water management actions across the community, focusing on reducing water demand.

» Consider water as a key indicator of land use management across both rural and urban landscapes.

» Seek long-term outcomes for water management in a changing climate.

**Our significant replanting along the Macquarie River and other waterways has improved water quality and allowed restocking of native fish.**

_Dubbo City Council_

**Water in a changing climate**

Computer modelling suggests that climate change may lead to reductions in rainfall, increased evaporation rates and more intense storms. All of these factors present significant risks to residents within the region.

Reduced rainfall and higher rates of evaporation will mean more strain upon our water resources, including dams.
More intense storms have the potential to cause more damage to community infrastructure, both through high winds and through increases in the intensity, duration and frequency of flooding.

Community water use

Working together, communities and councils within the Alliance can achieve real progress on the challenges and opportunities of water management.

<table>
<thead>
<tr>
<th>Key challenges</th>
<th>Key opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapting to the effects of climate change on water supply for both environmental flows and consumption</td>
<td>Engage with the community to promote improved efficiency, and the importance of returning water to the environment</td>
</tr>
<tr>
<td>Protecting catchments in the region that provide the community’s drinking water</td>
<td>Build and act on the growing awareness of the importance of caring for water catchments as part of living more sustainably</td>
</tr>
<tr>
<td>Ensuring that community facilities such as parks, natural areas and sports grounds retain amenity and function in a dry environment</td>
<td>Reduce the amount of water councils use for irrigation and promote water re-use opportunities to the community</td>
</tr>
<tr>
<td>Ensuring that development does not place undue strain on water supplies</td>
<td>Develop Integrated Water Cycle Management plans that ensure all aspects of the water cycle are considered and managed holistically</td>
</tr>
</tbody>
</table>

Residents of the three council areas can take positive steps to reduce their consumption of water and their reliance on water infrastructure.

The Alliance councils will act to protect the wider catchment and ensure that current practices and new developments do not place undue strain on water resources.

Water at home

What can you do at home to help better manage our water resources? Here are some tips.

» A 3-star-rated showerhead uses no more than nine litres of water per minute—about half the rate of older style ones. The savings over a year can be enormous.

» A slowly dripping tap can waste 20,000 litres of water per year. Check for drips and take action straight away.

» Leave lawn at least three centimetres long; don’t water in the middle of the day or if it is windy, and don’t allow water to run off the soil.
## Water Management Actions

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Bathurst</th>
<th>Orange</th>
<th>Dubbo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop and implement the six ‘best practice’ management criteria for water supply and sewerage as recommended by the NSW Department of Water and Energy</td>
<td></td>
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<tr>
<td>1a</td>
<td>Strategic Business Plans (and Financial Plan)</td>
<td>June 2009</td>
<td>Annual</td>
<td>Annual</td>
</tr>
<tr>
<td>1b</td>
<td>Pricing and Developer Charges (Including Liquid Trade Waste Policy and Approvals)</td>
<td>Dec 2009</td>
<td>Annual</td>
<td>Annual</td>
</tr>
<tr>
<td>1c</td>
<td>Water Conservation (Demand Management)</td>
<td>Dec 2008</td>
<td>June 2008</td>
<td>June 2009</td>
</tr>
<tr>
<td>1d</td>
<td>Drought Management Plan</td>
<td>Annual</td>
<td>June 2008</td>
<td>June 2009</td>
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<tr>
<td>1e</td>
<td>Performance Reporting</td>
<td>Annual</td>
<td>Annual</td>
<td>Annual</td>
</tr>
<tr>
<td>1f</td>
<td>Integrated Water Cycle Management Plan (IWCM)</td>
<td>June 2009</td>
<td>March 2009</td>
<td>June 2009</td>
</tr>
<tr>
<td>2</td>
<td>Develop and implement a Stormwater Management Plan</td>
<td></td>
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<tr>
<td>2a</td>
<td>Aims to provide a range of management actions that improve the water quality of stormwater runoff from urban areas</td>
<td>Annual</td>
<td>Feb 2011</td>
<td>Annual</td>
</tr>
<tr>
<td>3</td>
<td>Develop and implement a Floodplain Risk Management Strategy and Plan</td>
<td></td>
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<tr>
<td>3a</td>
<td>Aims to provide management actions that minimise risks associated with flood events</td>
<td>Annual</td>
<td>Dec 2008</td>
<td>Annual</td>
</tr>
<tr>
<td>4</td>
<td>Develop and implement a set of high priority policies common to Bathurst, Orange and Dubbo</td>
<td></td>
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</tr>
<tr>
<td>4a</td>
<td>To include but not limited to Water Sensitive Urban Design (WSUD) in partnership with the CWCM, water restriction criteria</td>
<td>June 2009</td>
<td>June 2009</td>
<td>June 2009</td>
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<tr>
<td>5</td>
<td>Develop and implement community engagement programs that incorporate the principles of the Water Action Plan</td>
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<tr>
<td>5a</td>
<td>Develop engagement programs for community sectors including schools, councils, industry, business, residents</td>
<td>June 2011</td>
<td>June 2011</td>
<td>June 2011</td>
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<tr>
<td>6</td>
<td>Initiate regular meetings between Bathurst, Orange and Dubbo Council staff for those involved in water management</td>
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<tr>
<td>6a</td>
<td>Meetings to be held on a quarterly basis initially and shall focus on the delivery and review of actions in the Water Action Plan, identification of lobbying and funding opportunities, State and Federal Government policy changes etc.</td>
<td>Dec 2008</td>
<td>Dec 2008</td>
<td>Dec 2008</td>
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</table>

**STATUS**  
- ☑ Not commenced  
- ☑☑ Partially complete  
- ☑☑☑ Completed  

*Dates are targets for review or completion*
The Central West has undergone extensive clearing for agriculture and much of the remaining native vegetation existing today is contained within reserves, travelling stock routes, state forests or on rocky and steep ridges that were unsuitable for cultivation. The remnants of native vegetation are at risk of further fragmentation or loss of diversity due to fire, drought, disease, clearing and land development and grazing. Native fauna face similar pressures. Several species are already regionally extinct, including the Bilby, Burrowing Bettong and the Eastern Hare Wallaby. Further pressure will be placed on biodiversity by changes in climate, drought and more extreme weather conditions changing the ecological niches that species inhabit.

**Biodiversity management principles**

» Integrate programs that foster behavioural change into all vegetation and biodiversity management actions across the community.

» We operate the Earth Sanctuary, where native fauna will be reintroduced to an area fenced from feral predators, and have targeted areas of public open space to create corridors under the Greenways program.

**Orange City Council**

» Consider vegetation as a key indicator of catchment health and land use management.

» Protect and improve remnant native vegetation, wetlands and hollow-bearing trees; retain native shrubs and woody debris on the ground; and retain and improve wildlife corridors as key foci for council service areas and development control.

» Undertake control of feral predators, implement fire management strategies, weed and pollution control as part of vegetation and biodiversity management planning.
**Biodiversity in a changing climate**

In times of changing climate, many of our local species of flora and fauna will be under stress. Temperature, for instance, is a crucial aspect for breeding cycles of a range of native animals.

The reductions in rainfall expected with climate change will also place stress upon many of our native animals and plants. They will also be affected by any increase in the number and intensity of bushfires as a result of rising temperatures and reduced rainfall.

**Biodiversity and the community**

Working together, communities and councils within the Alliance can achieve real progress on the challenges and opportunities of biodiversity management.

Residents of the three council areas can do their bit for backyard biodiversity. See below for some practical tips.

Alliance councils will encourage forms of urbanisation that have less impact on biodiversity and will work together to encourage an appreciation of the biodiversity and the natural values of the region.

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**Key challenges**

| Encouraging appropriate settlement patterns and urban forms which accommodate some population growth while minimising impacts on biodiversity |
| Addressing the rural/urban pressures on remnant vegetation within the current Local Environmental Plan zonings |
| Encouraging and strengthening the community’s value of biodiversity in a predominantly cleared landscape; particularly endangered ecological communities such as Grassy Box Woodlands |

**Key opportunities**

| Use the existing ‘city and village’ pattern of settlement to consolidate intensive urban centres while protecting and enhancing remaining areas of remnant native vegetation |
| Use Local Environmental Plan reviews to identify remnant areas, possible corridors and key habitats for protection |
| Promote education and appreciation of biodiversity throughout the region in conjunction with Central West CMA programs |

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**Backyard biodiversity**

What can you do at home to help manage biodiversity in the region? Here are some tips.

» Plant local native plant species in your backyard to provide feeding opportunities and habitat for native birds and animals.

» Keep cats indoors at night to stop them preying on native animals.

» Install a bird nesting box on a tree in your backyard.

» Provide a source of water in a shady area on hot summer days for birds and butterflies.
<table>
<thead>
<tr>
<th>Biodiversity Management Actions</th>
<th>Bathurst</th>
<th>Orange</th>
<th>Dubbo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Develop and implement a Vegetation Management Plan</td>
<td><strong>1a</strong> Aims to develop long-term strategies for vegetation conservation and management in both rural and urban sectors. Integrate with other Council planning instruments</td>
<td>Dec 2010</td>
<td>Dec 2012</td>
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<td></td>
<td><strong>1b</strong> Work with partners such as DECC and the CWCMA to ensure all significant vegetation communities and species are identified and mapped across all three Alliance councils</td>
<td>June 2009</td>
<td>Ongoing</td>
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<tr>
<td></td>
<td><strong>1c</strong> Work through the Alliance councils to create regional vegetation corridors</td>
<td>Dec 2013</td>
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<tr>
<td></td>
<td><strong>1d</strong> Ensure weeds (environmental and noxious) are addressed in vegetation management</td>
<td>Ongoing</td>
<td>June 2009</td>
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</tr>
<tr>
<td><strong>2</strong> Develop and implement a Biodiversity Management Plan</td>
<td><strong>2a</strong> Aims to develop long-term strategies for biodiversity conservation and management in both rural and urban sectors. Integrate with other Council planning instruments</td>
<td>Dec 2010</td>
<td>Dec 2010</td>
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<tr>
<td></td>
<td><strong>2b</strong> Work with partners such as DECC and the CWCMA to ensure all significant populations and species are identified and mapped across all three Alliance councils</td>
<td>June 2014</td>
<td>June 2014</td>
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<tr>
<td></td>
<td><strong>2c</strong> Address feral animal impacts on biodiversity including education strategies and establish data for Council-managed land (population densities, species etc.)</td>
<td>June 2012</td>
<td>Ongoing</td>
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<tr>
<td><strong>3</strong> Establish partnerships with organisations seeking to improve native vegetation status through tree planting programs</td>
<td><strong>3a</strong> These partnerships and programs may have other desirable outcomes in relation to climate change mitigation and/or may be used as carbon offsets</td>
<td>Ongoing</td>
<td>Ongoing</td>
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<tr>
<td><strong>4</strong> Develop education and engagement projects that promote the principles of the Biodiversity Action Plan</td>
<td><strong>4a</strong> Develop community engagement programs that target sectors including schools and residents</td>
<td>June 2010</td>
<td>June 2010</td>
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<tr>
<td><strong>5</strong> Initiate regular meetings between Bathurst, Orange and Dubbo Council staff for those involved in biodiversity management</td>
<td><strong>5a</strong> Meetings to be held on a quarterly basis initially and shall focus on the delivery and review of actions in the Biodiversity Action Plan, identification of funding and lobbying opportunities, State and Federal Government policy changes etc.</td>
<td>Ongoing</td>
<td>Ongoing</td>
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</tbody>
</table>

**STATUS** ⬤ Not commenced  ⬤⬤ Partially complete  ⬤⬤⬤ Completed  | Dates are targets for review or completion
Waste management covers a wide range of issues and activities, many of which are core functions of the councils. Significant work has been done through the NetWaste alliance and its sub-regional waste management plans. The waste management hierarchy indicates at what point in the lifecycle of materials we should target resources and actions for the best outcome.

Significant progress has been made with recycling and disposal in the region, through combined recycling contracts, community education and improved technical knowledge. Solid waste and resource management may not have been a priority for these programs and has the potential to increase resource recovery significantly.

Waste management principles

» Integrate programs that foster behavioural change into all solid waste and resource management actions across the community.

The rate of re-use and recycling at our waste facility has increased and we have adopted a waste management strategy.

Dubbo City Council

» Focus on increasing benefits to communities and optimising productive use of resources, with a strong focus on locally-owned, independent industries.

» Promote re-use as a local industry to minimise transport costs and improve the social and economic returns to the local community.

» Promote accounting for environmental costs and benefits, ensuring that consumers select products based on environmental performance, price and quality. The emphasis will be on recycled material use and sustainable harvesting of natural resources, with use of non-toxic materials to ensure maximum re-use is possible.

Waste A philosophy of ‘avoid, re-use, recycle’ will inform our approach to waste management. In this framework, disposal and landfilling will always be a last resort.
Identify and develop a range of incentives for both community and business to encourage maximised diversion as well as a re-use industry.

Minimal reprocessing should be used to ensure that no further energy is embodied in the product, reducing its ecological footprint.

**Waste in a changing climate**

Increasing temperatures will hasten the decomposition of organic waste, with the potential for problems with odours. Landfill is itself a source of greenhouse gases and will be minimised, as this is an area of council activity where rapid and significant reductions in emissions can be achieved.

**Waste and the community**

Working together, communities and councils within the Alliance can achieve real progress on the challenges and opportunities of waste management. Residents of the three council areas can reduce their personal carbon footprint by ensuring they recycle and that their recycled materials are clean. Re-use programs that encourage businesses and the community to become involved will be developed.

**Waste management at home**

Australian Bureau of Statistics figures show that, for 2002–03, Australians generated 450 kilograms of municipal waste per person. A smaller proportion of this municipal waste was recycled compared with waste from other sources, because of the greater prevalence of food and garden waste in municipal waste.

What can you do at home to help manage waste? Here are some tips.

» Recycle as much of your household waste as you can to reduce the amount of landfill and to keep your personal carbon footprint small.

» Please make sure that items for recycling are not contaminated with food or garden waste.

» Compost (or worm farms) food scaps and garden waste for use in your own garden.

<table>
<thead>
<tr>
<th>Key challenges</th>
<th>Key opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing waste to landfill in a growing region and with an increasing waste stream</td>
<td>Implement re-use shops throughout the region to improve economic returns to local communities</td>
</tr>
<tr>
<td>Capturing resource re-use with limited technologies in place at rural landfills</td>
<td>Educate the community and industry regarding the benefits and long-term outcomes of resource management programs</td>
</tr>
<tr>
<td>Gaining support from business and industry to ensure a viable economic outcome and industry development</td>
<td>Develop re-use programs for specific waste streams such as construction and demolition wastes</td>
</tr>
<tr>
<td>Waste Management Actions</td>
<td>Bathurst</td>
</tr>
<tr>
<td>--------------------------</td>
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</tr>
<tr>
<td><strong>1</strong> Endorse and implement the recommended strategies of the sub-regional and regional waste management strategies of NetWaste</td>
<td>Dec 2008</td>
</tr>
<tr>
<td><strong>1a</strong> Define baseline data through waste auditing of sectors within the local council areas</td>
<td></td>
</tr>
<tr>
<td><strong>1b</strong> Develop specific collection and re-use options for targeted waste streams</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>1c</strong> Define and engage with stakeholders within the industry</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>1d</strong> Identify and utilise opportunities for joint tendering in service provision and waste stream audits</td>
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</tr>
<tr>
<td><strong>2</strong> Promote and support re-use industries within the BOD council areas</td>
<td></td>
</tr>
<tr>
<td><strong>2a</strong> This includes the ongoing support of existing industries, e.g. salvaging goods operations such as Wangarang Industries and investigation into new opportunities</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>3</strong> Develop and implement council sustainable purchasing policy</td>
<td>June 2011</td>
</tr>
<tr>
<td><strong>3a</strong> This will include adoption of existing targeted programs</td>
<td></td>
</tr>
<tr>
<td><strong>4</strong> Develop education and engagement projects that promote the principles of the Waste Action Plan</td>
<td></td>
</tr>
<tr>
<td><strong>4a</strong> This is currently achieved through the NetWaste regional waste contract with target audience of schools, residential and business sectors</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>5</strong> Continue to provide management support and representation at meetings held by NetWaste</td>
<td></td>
</tr>
<tr>
<td><strong>5a</strong> Meetings shall provide a basis for linking regional actions with the Bathurst, Orange and Dubbo Environmental Sustainability Action Plan and provide for delivery and review of the Waste Action Plan, identification of funding and lobbying opportunities, State and Federal Government policy changes etc.</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

**STATUS**  
- 🌟 Not commenced  
- 🌟🌟 Partially complete  
- 🌟🌟🌟 Completed  

**Dates are targets for review or completion**
There are significant concerns over the contribution of greenhouse emissions from current sources of energy, as well as rising energy costs. As a major consumer of energy, councils are well placed to reduce costs, reduce greenhouse emissions and also promote the renewable energy industry through sustainable (green) purchasing opportunities.

The Australian Government has supported industry and government moves to improve efficiency, acknowledging that reduction in energy use, through improved efficiency, is a key factor for cost savings and greenhouse emission reduction.

**Energy management principles**

» Integrate programs that foster behavioural change into all energy management actions across the community.

» Maximise appropriate uptake of energy-efficient products in the councils and community, linking into existing programs for energy efficiency and promoting local business development in the industry.

» Promote initiatives and innovation in local communities and businesses to explore new technologies and activities to improve energy efficiency.

» Work with existing providers to ensure that technical support and best-practice alternatives are available to implement across council’s service areas.

"We are using biogas as an alternative energy source in our wastewater treatment plan."

**Orange City Council**

Energy efficiency, and the use of renewable fuels, are of major importance to the Alliance. Traditional sources of energy are non-renewable, and are therefore not sustainable.
**Energy in a changing climate**

Rising temperatures resulting from climate change will increase demand for energy and place more stress on energy infrastructure, especially during summer.

Strategies to cope with water shortages, including desalination and pumping, all use large amounts of precious energy.

**Community energy use**

Working together, communities and councils within the Alliance can achieve real progress on the challenges and opportunities of efficient energy use.

<table>
<thead>
<tr>
<th>Key challenges</th>
<th>Key opportunities</th>
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</thead>
<tbody>
<tr>
<td>Managing the growing demand for energy and rising energy costs</td>
<td>Reduce the council’s energy costs as well as greenhouse emissions through improved energy efficiency in assets, building design and street lighting</td>
</tr>
<tr>
<td>Improving consumer shift to renewable fuels in an environment of reduced Commonwealth Government incentives</td>
<td>Promote local business and industry development through improved markets and community education</td>
</tr>
<tr>
<td>Moving to new technologies with medium- to long-term return periods</td>
<td>Link into existing incentive and education programs and implement these locally</td>
</tr>
</tbody>
</table>

There are many measures that residents of the three council areas can take to reduce their energy use and save money in the process. A few are outlined below.

The Alliance councils will continue to implement strategies to reduce energy use and costs. Significant, immediate savings in energy use can be made in the areas of council fleets and lighting.

**Energy at home**

What can you do to reduce energy consumption at home? Here are a few tips.

» Install energy-efficient fluorescent globes to reduce your energy use and bills.

» Insulate your home, install pelmets and curtains on windows and seal for draughts to make your home easier to keep warm in winter (and cool in summer).

» In summer, let the night-time air into your home at the end of the day to allow it to cool naturally.

» Turn off appliances and electrical equipment at the power point to reduce ‘stand-by’ load.
<table>
<thead>
<tr>
<th>Energy Management Actions</th>
<th>Bathurst</th>
<th>Orange</th>
<th>Dubbo</th>
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</thead>
<tbody>
<tr>
<td><strong>1</strong> Conduct a greenhouse gas inventory for each council and develop strategies to reduce these emissions</td>
<td></td>
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<tr>
<td>1a Includes auditing of energy use within councils’ service areas in establishing baseline data</td>
<td>Dec 2009</td>
<td>June 2010</td>
<td>Ongoing</td>
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<tr>
<td>1b Includes auditing of greenhouse emissions, particularly at councils’ wastewater treatment plants and landfills</td>
<td>June 2012</td>
<td>Dec 2009</td>
<td>June 2010</td>
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<tr>
<td>1c Develop a greenhouse gas reduction strategy</td>
<td>June 2012</td>
<td>June 2012</td>
<td>Ongoing</td>
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<tr>
<td>1d Investigate the potential for selling carbon credits into available markets</td>
<td>June 2012</td>
<td>June 2012</td>
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<tr>
<td><strong>2</strong> Develop and implement an energy efficiency policy across all council service areas</td>
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<tr>
<td>2a Review building and fleet management policies and identify opportunities to improve energy efficiency through adoption of suitable programs</td>
<td>Dec 2010</td>
<td>June 2010</td>
<td>June 2010</td>
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<tr>
<td>2b Collaborate with CENTROC and OROC on alternative energy research and implementation including trials within the region</td>
<td>Ongoing</td>
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<tr>
<td>2c Develop a strategy to promote and support renewable energy industries within the council areas</td>
<td>Dec 2010</td>
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<td>Ongoing</td>
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<tr>
<td><strong>3</strong> Develop and implement community engagement projects that incorporate the principles of the Energy Action Plan</td>
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<tr>
<td>3a Develop engagement programs that target community sectors including schools, councils, industry, business, residential</td>
<td>June 2011</td>
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<td><strong>4</strong> Undertake an assessment of risks associated with climate change impacts for each of the councils</td>
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<tr>
<td>4a Source modelled climate change impact data specific to each of Bathurst, Orange and Dubbo such that accurate risks can be gauged</td>
<td>June 2010</td>
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<tr>
<td>4b Risk assessment involves first assessing the risks and then developing a plan to minimise those risks—whilst this would primarily focus on direct physical risks (e.g. from storm events), it would also encompass risks due to regulatory obligations (e.g. emissions costs) and potential litigation</td>
<td>June 2010</td>
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<tr>
<td><strong>5</strong> Initiate regular meetings between Bathurst, Orange and Dubbo Council staff for those involved in energy management</td>
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<tr>
<td>5a Meetings to be held on a quarterly basis initially and shall focus on the delivery and review of actions in the Energy Action Plan, identification of funding and lobbying opportunities, State and Federal Government policy changes etc.</td>
<td>Dec 2008</td>
<td>Dec 2008</td>
<td>Dec 2008</td>
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</tbody>
</table>

**STATUS**:
- ☀ Not commenced
- ☀️ Partially complete
- ☀️️ Completed

Dates are targets for review or completion.
The serious nature of the salinity issue has seen extensive funding and research in the Central West by both the state and federal governments. It is also reflected by the formation of the Central West Salinity and Water Quality Alliance, a local government action group. Salinity has a range of causal factors and affects rural land uses as well as urban assets.

Salinity levels are affected by the movement of both soils and water in the landscape, and a number of factors influence the extent of salinity outbreaks from year to year. These include vegetation removal, changes to recharge and discharge areas, interruption of groundwater flows and increasing surface water applications on saline soils.

The Local Government Salinity Initiative recommends strategic thinking and a considered approach to land use planning to minimise the economic, environmental and social impacts of development on urban salinity. The costs of salinity can be great, with road maintenance being one of local government’s concerns.

**Salinity management principles**

» Integrate programs that foster behavioural change into all salinity management actions across the community.

» Refer to the Central West Catchment Action Plan salinity catchment and management targets when developing management actions.

» Maintain current understanding of salinity hazard locations with changing landuse and climate variables.

» Salinity management actions to be based on a three-phased approach—prevention, mitigation and management.

We have actively sought and procured funding for urban salinity management and education.

**Dubbo City Council**

Salinity has the potential to affect a wide range of council resources including roads, buildings and playing fields.
Salinity in a changing climate
While the impacts of climate change on salinity are uncertain, it is thought that areas that experience reductions in rainfall will be at most risk.

Salinity management
Working together, communities and councils within the Alliance can achieve real progress on the challenges and opportunities of salinity management.

Residents of the three council areas can ensure that the damp-proof courses on their houses and other buildings are adequate to protect against the effects of salinity.

The Alliance councils will seek to build the capacity of their communities to deal with the issue of salinity through educational programs.

<table>
<thead>
<tr>
<th>Key challenges</th>
<th>Key opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing urban salinity while allowing urban development</td>
<td>Build community capacity in waterwise gardening and reduce water demand as well as salinity impacts</td>
</tr>
<tr>
<td>Developing a sound understanding of salinity processes across varied landscapes and land uses</td>
<td>Collaborate with the Central West CMA for salinity capacity building within the councils</td>
</tr>
<tr>
<td>Linking urban and rural salinity issues to promote a landscape approach</td>
<td>Prioritise revegetation programs in salinity hazard areas to improve both salinity and biodiversity outcomes</td>
</tr>
</tbody>
</table>

Understanding salinity
» Salinity is expected to create serious problems for infrastructure across much of Australia in the coming decades.
» Salinity in urban areas is caused mainly by rising groundwater bringing salts to the land surface.
» Towns are often located in areas prone to salinity (such as plains, valleys, or at the foot of a ridge).
» Urban development can itself lead to localised salinity.
<table>
<thead>
<tr>
<th>Salinity Management Actions</th>
<th>Bathurst</th>
<th>Orange</th>
<th>Dubbo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Participate in, and implement actions from, Central West Salinity and Water Quality Alliance</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1a The Alliance aims to implement a range of actions, including on-ground works and community engagement, that focus on improving water quality, along with reducing the impacts of salinity in the region</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>2 Develop and review salinity hazard mapping for each council area for use in land use planning processes</td>
<td>Dec 2009</td>
<td>June 2010</td>
<td>June 2010</td>
</tr>
<tr>
<td>2a Aims to minimise potential salinity impacts through clear identification of high risk areas</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>3 Review council operational procedures to reduce salinity impacts</td>
<td>Dec 2011</td>
<td>Dec 2011</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3a Focus on engineering design and procedures such that potential salinity impacts are minimised</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>4 Develop and implement community engagement projects that incorporate the principles of the Salinity Action Plan</td>
<td>June 2013</td>
<td>June 2013</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4a Develop engagement programs that target community sectors including councils and residential</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>5 Continue to provide management support and representation at meetings held by the Central West Salinity and Water Quality Alliance and the CWCMA</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
<tr>
<td>5a Meetings shall provide a basis for linking regional actions with the Bathurst, Orange and Dubbo Environmental Sustainability Action Plan and the Central West Salinity and Water Quality Alliance, identification of funding and lobbying opportunities, State and Federal Government policy changes etc.</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
</tbody>
</table>

**STATUS** ☀️ Not commenced  ☀️ Partially complete  ☀️☀️ Completed  | **Dates are targets for review or completion**
Pollution can occur in the air, water and on land. It may include noise, odour and gross pollutants such as litter, chemicals or licensed discharges. There is strict regulation on pollution and some frameworks exist for monitoring of some emissions through the National Pollution Inventory.

However, significant gaps can occur between the legislation and community expectations. For example, the NSW Government’s community survey, ‘Who cares about the environment?’, lists air pollution as one of the top two environmental issues, with 96 per cent of respondents stating that regulation should go beyond maintaining the environment to improving it.

Pollution has the ability to affect not only ecosystem health, but also amenity and lifestyle, and therefore tends to be at the forefront of the community’s concern about the environment.

We operate a wood-smoke education program to reduce air emissions from wood fires.

Bathurst Regional Council

Pollution management principles

» Integrate programs that foster behavioural change into all pollution mitigation and management actions, across the community.
» Reduce pollution to below ecosystem protection levels in all council operations, setting a benchmark for other users across the region.
» Continue to monitor sources of pollution across the region and target licensed premises with education programs based on examples of council’s initiatives.
» Reduce pollution wherever possible through improved planning, efficiency, technology and education.
Pollution in a changing climate
With climate change, the nutrient loads of our waterways may increase. Combined with higher temperatures and evaporation, this could lead to a greater incidence of algal blooms and aquatic weed outbreaks in our lakes and rivers.

Pollution and the community
Working together, communities and councils within the Alliance can achieve real progress on the challenges and opportunities of pollution control and harm minimisation.

Residents of the three council areas can assist in maintaining a clean and healthy environment. A few tips appear below.

The Alliance councils will raise the awareness of pollution issues through new and existing education programs.

<table>
<thead>
<tr>
<th>Key challenges</th>
<th>Key opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Going beyond legislative requirements for pollution control to protect ecosystem functions and community amenity</td>
<td>Link into existing education programs and promote biodiversity outcomes from pollution control measures</td>
</tr>
<tr>
<td>Managing pollution complaints in growing urban areas with increased business/industry/residential interface</td>
<td>Integrate sustainability principles with development control measures for a holistic approach to planning</td>
</tr>
<tr>
<td>Reducing pollution while promoting economic development in the council areas</td>
<td>Promote sustainable businesses that incorporate pollution mitigation (rather than management) based on council’s own actions</td>
</tr>
</tbody>
</table>

Backyard pollution
What can you do at home to reduce pollution? Here are some tips.

» If you can smell smoke from your wood heater, it means it is burning inefficiently and creating a nuisance for your neighbours.

» If using a wood heater, always burn small logs of aged, dry hardwood, making sure that you first establish a good fire using plenty of dry kindling.

» Dispose of chemicals, paints and other potentially harmful substances according to council regulations.
<table>
<thead>
<tr>
<th>Pollutant Management Actions</th>
<th>Bathurst</th>
<th>Orange</th>
<th>Dubbo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Assist the Central West Catchment Management Authority to produce a regional State of the Environment Report</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2a. Bathurst, Orange and Dubbo working with NetWaste to deliver benefits throughout the region</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3. Undertake compliance audits across Council and Business sectors and target programs in priority areas</td>
<td>June 2010</td>
<td>June 2010</td>
<td>June 2010</td>
</tr>
<tr>
<td>3a. Audits would focus on issues such as stormwater runoff, noise and air emissions etc.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>4. Develop and implement community engagement projects that incorporate the principles of the Pollution MAP</td>
<td>June 2011</td>
<td>June 2011</td>
<td>June 2011</td>
</tr>
<tr>
<td>4a. Develop engagement programs that target community sectors including council, industry and business</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>5. Develop a set of high priority issues for development of regional policies</td>
<td>June 2009</td>
<td>June 2009</td>
<td>June 2009</td>
</tr>
<tr>
<td>5a. This would include, but would not be necessarily limited to contaminated sites, illegal dumping of solid waste and sediment and erosion control</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>6a. Meetings to be held on a quarterly basis initially and shall focus on the delivery and review of actions in the Pollution MAP, identification of funding and lobbying opportunities, State and Federal Government policy changes etc.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
## Appendix 1: Statements of progress

### Climate Change

**Bathurst**  Now: Reducing energy consumption and greenhouse emissions through efficiency | Bathurst has recently established an internal Climate Change Committee, reflecting growing community concern about this issue. Work has focused on energy efficiency such as fleet and street lighting reviews, landfill gas capture, and purchase of green energy for Council assets. Goal: To adopt a climate change management approach throughout Council’s activities | As the impacts of climate change have the possibility of affecting all of Bathurst’s activities and policies, climate change management must be adopted throughout the core functions of the Council. A risk management approach allows Council to identify the areas where the most significant changes may occur, and target works in these areas.

**Orange**  Now: Starting down the path of addressing the changing climate | Many of Orange’s existing plans and policies will support a move to climate change management (such as integrated water cycle management). The environment advisory committee has also begun the process of developing a climate change policy for the Orange community, looking at a range of priority areas for action. Goal: To adopt a climate change management approach throughout Council’s activities | As the impacts of climate change have the possibility of affecting all Council activities and policies, climate change management must be adopted throughout the core functions of Council. A risk management approach allows Orange to identify the areas where the most significant changes may occur, and target works in these areas.

**Dubbo**  Now: Addressing climate change through the Cities for Climate Protection Plus program | Dubbo has addressed many areas of concern through the Cities for Climate Protection program, achieving all five milestones in the program and working towards extension activities. This has allowed Council to set targets for greenhouse gas emission reduction for both the Council’s own activities and also for the community. Goal: To adopt a climate change management approach throughout Council’s activities | As the impacts of climate change have the possibility of affecting all of Dubbo’s activities and policies, climate change management must be adopted throughout the core functions of the Council. A risk management approach allows Council to identify the areas where the most significant changes may occur, and target works in this area. This also allows the Council to build on the existing programs in place.

### Community and education

**Bathurst**  Now: Supporting community groups and a range of education programs | Bathurst has an environmental education working group comprised of Council staff, which meets monthly to discuss opportunities and events. This is supported by the community engagement program which includes practical programs such as the Waterways Warriors, where community members volunteer to work on riparian habitat restoration. Issue-based education campaigns are conducted, such as the ‘Say No To Waste’ program funded by the Environmental Trust; and surveys are undertaken annually to determine community concerns and issues. Goal: Integrated education supporting behaviour and culture changes in Council and the Community | Significant opportunities exist with the development of the Environmental Sustainability Action Plan. These will be able to complement issue-based education such as litter campaigns, green purchasing days and other events held by Council including the volunteer programs and tree planting days.

**Orange**  Now: Supporting a range of environmental education activities and a regional approach | Orange has a schools partnership program which promotes issue-based education and which is supported by the NetWaste Environmental Learning Facility and its programs. Council supports several volunteer programs and operates community engagement and education programs such as stormwater days. In partnership with Bathurst Regional Council, Orange also partly funds a community engagement officer to promote volunteer and natural area restoration activities in the community. Goal: Foster culture and behaviour change across the Council and community through an integrated suite of programs | Existing programs and resources such as the Environmental Learning Facility will be significant to the success of an Education for Sustainability program, targeting all sectors of the community through increased awareness and behaviour change. This approach will ensure that the wide range of activities undertaken by Orange are integrated across Council’s activities.

**Dubbo**  Now: Working with strategies to promote education for sustainability | Council has formed an environmental education working party, with relevant Council staff meeting to facilitate education programs across Council. Dubbo also has a Community Facilitation Officer who liaises with community groups to foster action in the community. Dubbo has a salinity education program with grant assistance from the CMA, which targets awareness of salinity issues in the urban areas of the city. In addition, Council has an Education for Sustainability strategy to promote sustainability awareness and knowledge for the next three years. Goal: Develop Sustainable Business, Schools and Community programs and foster change within Council | Working under the Education for Sustainability program, Dubbo will be able to extend its education programs into whole-of-sector approaches. This will also promote behaviour and culture changes both in the community and also in Council own operations. Issue-based education such as the Dubbo ALIVE targeted approach and support of volunteer days such as National Tree Day will also complement this strategy.
### Water

#### Bathurst

**Now: Achieving water quality and riparian restoration goals** | Bathurst has had a significant volunteer program for waterways restoration, including the Waterways Warriors program. The Council supports schools in water quality monitoring and waterbug surveys. The majority of the grant funds that Council has received in the past two years were for riparian restoration programs, which help to improve water quality through sediment and erosion control and filtration effects. **Goal: To focus on IWC and stormwater management, water recycling and reduced water use in Council’s activities** | Council is in the early stages of the integrated water cycle management process, and will incorporate stormwater management, demand management and development controls with the water quality and restoration works that are being undertaken (balancing ‘start of pipe’ management with the ‘end of pipe’ approach).

#### Orange

**Now: Developing Integrated Water Cycle Management policies and actions** | Orange has been successful in gaining significant grant funding for water quality and riparian restoration projects, and has implemented several policies relating to water management (rainwater tank rebates, liquid trade waste and sediment and erosion control). Council is also in the process of developing an Integrated Water Cycle Management Plan to draw each of these policies together, and provide a more holistic approach. **Goal: To balance growing water demand with sustainable development** | As it is reliant on surface water run-off for the community water supply, and having significant pressures from large businesses and industries to use that water, Council must be farsighted in seeking best efficiencies on water use and re-use. Orange must also consider development growth and water supply, and the increasing pressures that this places on supply, stormwater and wastewater systems. Orange has strengths in this area and will provide experience and knowledge to the Bathurst and Dubbo Councils.

#### Dubbo

**Now: Working through Dubbo ALIVE** | Dubbo has set an objective of reducing Council’s own water use and increasing community knowledge and education about water management. Significant replanting along the Macquarie River and other waterways has improved water quality, allowing restocking of native fish. A demand management plan also focuses on water usage and recycling, and this has won an award for water and wastewater treatment. **Goal: To focus on IWC and salinity, water recycling and reduced water use in Council’s activities** | The focus for Dubbo will be an integrated approach to water management, particularly given the growing demand for potable water as the population increases. This will also need to target salinity management in urban areas. Significant reductions in water use are possible through Council’s own operations, as recognised in Dubbo ALIVE, and in the recycling and re-use of water.

### Biodiversity

#### Bathurst

**Now: Working with the Vegetation Management Plan** | Bathurst adopted a Vegetation Management Plan which includes priority projects, objectives for vegetation management and community capacity building. Council supports its implementation with a working party that includes community representation. The Plan addresses both native and exotic vegetation in the previous Bathurst City Council area. Bathurst also supports several Landcare groups and Greening Bathurst financially, whilst sponsoring National Tree Day and similar community events. **Goal: Towards a whole-of-region approach with a stronger biodiversity focus** | Council is recognised as having strengths in this issue and will provide valuable knowledge and experience to Dubbo and Orange and across the whole local government area. The challenge for Council is to consider the broader biodiversity issues of habitat, impacts on threatened species and communities, and the loss of vegetation across the whole LGA, incorporating the wide range of landuses and landforms and economic pressures.

#### Orange

**Now: Targeted revegetation programs and controlling noxious weeds** | Council has received significant grant funding for willow control revegetation programs and has targeted areas to create corridors under the Greenways program. Orange also operates the Earth Sanctuary, where native fauna is being reintroduced to an area fenced from predators. A number of management and rehabilitation Plans of Management are in place, identifying key areas for biodiversity restoration programs such as Gosling Creek Reserve. **Goal: Extending range and area of vegetation and biodiversity habitats** | Orange will need to build on existing rehabilitation works along watercourses and creeks, extending the program to minimising land clearing and connecting rural habitats. More focus on preserving fauna habitats will be needed under a biodiversity program, while continuing the riparian restoration programs already underway and seeking resources such as grants for these works.

#### Dubbo

**Now: Supporting Landcare and other community participation programs** | Council is supporting a number of Landcare and Bushcare groups, and has high community participation and volunteer rates. Dubbo also has a Biodiversity garden to promote knowledge and understanding of biodiversity in the region, and has undertaken a roadside vegetation mapping program to identify key corridors and remnant habitats. Willow control and revegetation works have been undertaken along the Macquarie and Talbragar Rivers. **Goal: Increasing the area and range of native vegetation and creating habitat corridors** | With only small remnants of vegetation in the LGA, the challenge will be for Dubbo to create corridors across the landscape and improve the area of remnant vegetation, both increasing vegetation and biodiversity values. This will build on programs such as native fish restocking and extend across the landscape into broader habitat restoration programs.
Waste

**Bathurst** *Now:* Improving the waste management strategies for the city | With the commencement of a new kerbside recycling program, Bathurst has taken a significant step forward in a complete waste management system. Council has also won grants for awareness programs such as ‘Say No to Waste’, which included school education and a community garage sale, while implementing a methane gas capture project. Biosolids are being re-used on local farms. **Goal:** Developing solid waste re-use strategies and industries | Setting up solid waste capture points will be the first step for Council as the landfills are upgraded to increase resource recovery. Community education will also play a key role in development of both clean waste streams and industries to provide re-use opportunities. Working with the NetWaste management plans will allow the Council to gain resources and skills from the collaboration.

**Orange** *Now:* Implementing new waste technologies and community education programs | Council sponsors the Environmental Learning Facility as a community resource, which promotes solid waste re-use and has working examples on site, such as a tyre wall. Council currently promotes solid waste re-use, with a re-use centre at Ophir Road waste facility, and by exporting biosolids to Cadia Valley Operations for site rehabilitation. **Goal:** Developing solid waste re-use strategies and industries | With strengths in waste management, Council will share experience and skills with Bathurst and Dubbo. Council will be working with NetWaste regional waste management plans to engage business and industry, promoting a local economy in this area. Orange will also need to facilitate long-term contracts for local businesses, increasing stability and economic certainty, to build the local waste re-use industry.

**Dubbo** *Now:* Implementing a solid waste strategy | Dubbo ALIVE has allowed the city to set an objective for waste management which includes improved resource recovery. In addition, a solid waste management strategy has been adopted by the Council. The rate of re-use and recycling at the Council’s waste facility has increased, although much of this is greenwaste and domestic recyclables. Some bricks and concrete are captured for re-use. **Goal:** Developing solid waste re-use strategies and industries | Setting up solid waste capture points will be the first step for Council as the landfills are upgraded to increase resource recovery. Community education will also play a key role in development of both clean waste streams and industries to provide re-use opportunities. Working with the NetWaste management plans will allow the Council to gain resources and skills from the collaboration.

Energy

**Bathurst** *Now:* Reviewing existing energy use and alternative options | Council is purchasing green power for three sites, supporting the development of alternative fuel industries, and has identified the need for a street light audit to replace globes with more energy efficient units. A review of the Council fleet has targeted fuel use and capacity. Consultation with the community indicates that this issue is a key concern. The wood smoke reduction program also includes information and promotion of more efficient heating options for households, e.g. gas heating. **Goal:** Implementing changes across Council’s activities | The challenge for Council will be to take the review and audit information and turn this into actions across Council’s service areas. Utilising the Climate Change Committee will also help to drive changes across Council; these can then be promoted to business and householders to improve the LGA’s energy contribution to greenhouse emissions while also demonstrating cost savings through improved efficiencies. The use of alternative fuels will also help to promote local industry in this area, and implementation of a green purchasing policy will support these initiatives.

**Orange** *Now:* Reviewing Council’s energy use and contributions to climate change | Council conducted an audit of energy use in 2003 and has implemented some changes from this review. The SoE recognises that Council facilities can target energy efficiency, and some works have been undertaken in this area with changes in pricing tariffs and retrofitting facilities such as the sewage treatment and water pumping stations. Biogas is also being used as an alternative energy source for the wastewater treatment plant. **Goal:** Implementing changes across Council’s activities | The establishment of a climate change working group, through the Environment and Natural Resources Management Advisory Committee will further identify areas in which Council can implement efficiency gains and promote alternative fuels. The use of alternative fuels will also help to promote local industry in this area, and implementation of a green purchasing policy will support these initiatives.

**Dubbo** *Now:* Reducing energy usage through Cities for Climate Protection Plus | Council is improving energy efficiency through the Cities for Climate Protection (CCP) Program and Dubbo ALIVE targets, which aim to reduce Council’s overall energy usage. Council has developed a fleet management plan which targets ‘green fleet’ options, the use of ethanol fuels and driver education to improve vehicle efficiency. Dubbo also hosts an annual Energy Smart event to promote staff and community education and promotion of alternative products. **Goal:** To build on CCP and promote community energy efficiency | With strengths in this area through the CCP Plus program, Dubbo will be able to share significant experience and skills with Bathurst and Orange. The challenge for Councils is to continue to build on the success of CCP and to continue to promote efficiency as well as reduced energy demand. The use of alternative fuels will also help to promote local industry in this area, and implementation of a green purchasing policy will support these initiatives. Further community education and initiatives will also be needed to move the community into supporting energy efficiency.
## Salinity

**Bathurst**  **Now:** Working with the Central West Salinity and Water Quality Alliance | While no detailed salinity hazard maps have been prepared for Bathurst, the Council is a member of the Central West Salinity and Water Quality Alliance and has noted that salinity may occur in the LGA in the State of the Environment Reports. Located near the top of the catchment, the Council also has a responsibility to ensure that downstream water quality is not adversely affected by its land use planning. This includes identification and re-vegetation of potential recharge areas. **Goal:** Identifying key salinity hazard areas in the LGA | Council will need to ensure that any future development, both rural and urban, does not have any adverse impacts on salinity recharge or discharge areas. This will require accessing research and information across the LGA on salinity hazards. Working closely with the CWCMA and learning from Dubbo will assist Council to address any salinity issues.

**Orange**  **Now:** Using salinity levels as an indicator of land management pressures | No detailed salinity hazard maps have been prepared for Orange. Located near the top of the catchment, the Council has a responsibility to ensure that downstream water quality is not adversely affected by its land use planning. This includes identification and re-vegetation of potential recharge areas. **Goal:** Identifying key salinity hazard areas in the LGA | Council will need to ensure that any future development, both rural and urban, does not have any adverse impacts on salinity recharge or discharge areas. This will require accessing research and information across the LGA on salinity hazards. Working closely with the CWCMA and learning from Dubbo will assist Council to address any salinity issues.

**Dubbo**  **Now:** Monitoring salinity levels and implementing education programs | Salinity has been identified as a key topic under the Dubbo ALIVE program, which set an objective for salinity management. Council has been active in seeking funds for urban salinity management and education, working with the CWCMA to install weather stations and develop community information kits. A monitoring network has been installed in the urban area allowing both better management of urban salinity and also measurement of improved practices such as irrigation controls on recreation grounds. Council is also currently reviewing the Salinity Strategy which includes an examination of planning practices and their impacts on salinity levels in the city. **Goal:** To further address both urban and dryland salinity through development controls and education | As identified in the 2006 SoE Report, Council will need to take the results of the monitoring program and improve water delivery to minimise its impact on salinity levels. Continued community education in the urban environment will be necessary to further reduce garden irrigation. With strengths in this issue, Dubbo will need to assist Bathurst and Orange with education and salinity management actions. Dubbo will also need to put into place strategies such as salinity hazard development controls to ensure that the increasing level of housing developments will not negatively impact on salinity issues in the city.

## Pollution

**Bathurst**  **Now:** Maintaining and monitoring pollution licences and controls | Bathurst is responsible for several licensed sites and has undertaken works to reduce air pollution from the sewage treatment works. Council also operates the wood smoke reduction program to reduce air emissions from wood fires. Council’s pollution controls also include upgrading of rural landfills to help minimise litter and leachate issues, and work has commenced on Stage 1 of the remediation project at the former Bathurst Gasworks site to remove pollutants from storage tanks with funding assistance provided by the NSW Environment Trust. **Goal:** Reducing council and business emissions through promotion of green business programs | A range of strategies will help council to reduce pollutants in the LGA, such as an integrated water cycle management program. Development controls will also be required as the growing business emissions through promotion of green business programs | A range of strategies will help council to reduce pollutants in the LGA. Development controls will also be required as the growing urban/rural interface and increased population density may cause more issues and/or complaints to council. This will require accessing research and information across the LGA on salinity hazards. Working closely with the CWCMA and learning from Dubbo will assist Council to address any salinity issues.

**Orange**  **Now:** Working with a range of policies addressing aspects of pollution | Existing policies that help to promote green businesses and pollution education include stormwater and sediment and erosion control. Orange also operates licensed facilities such as the sewage treatment works and landfill and monitors the discharges from these sites into the local waterways. The transfer of treated effluent to Cadia Valley Operations reduces this source of pollution. **Goal:** Reducing council and business emissions through promotion of green business programs | The challenge for council is to integrate the existing plans and policies that address aspects of pollution into a single approach; this will ensure that there are no ‘gaps’ and that the existing activities are achieving targets. As the population of the city increases, pressure will also increase from a rural/urban/industrial interface. Community engagement programs, linked to existing strategies such as Tidy Towns, DECC’s ‘Solution to Pollution’, Clean Up Australia and Keep Australia Beautiful will also allow the council’s improvements to be promoted to business.

**Dubbo**  **Now:** Maintaining and monitoring pollution licences and controls | The majority of pollution complaints are related to odour and backyard burning. Council currently promotes community involvement in the Clean Up Australia and Keep Australia Beautiful days, which target a reduction in gross pollutants in the environment (such as litter). This addresses the results from a recent community survey, which indicated that litter was the single biggest issue for stormwater. Council has installed several gross pollutant traps to improve water quality. **Goal:** Reducing council and business emissions through promotion of green business programs | A range of strategies will help council to reduce pollutants in the LGA. Development controls will also be required as the growing urban/rural interface and increased population density may cause more issues and/or complaints to council. A community education program, as part of a green business practice program, will assist with moving beyond licensing controls to a holistic approach. Continued support of education events such as Clean Up Australia should be a priority.
# Appendix 2: Levels of community engagement

<table>
<thead>
<tr>
<th>Increasing level of community engagement</th>
<th>Definition</th>
<th>Promise to the public</th>
<th>Examples of methods</th>
</tr>
</thead>
</table>
| Empower                                 | To place final decision-making power in the hands of the public | We will implement what you decide | * Management committees  
* Referenda |
| Collaborate                             | To partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution | We will look to you for direct advice and innovation in formulating solutions, and we will incorporate your advice and recommendations into the decisions to the maximum extent possible | * Planning forums  
* Citizen advisory committees  
* Joint projects |
| Involve                                 | To work directly with the public throughout the process to ensure that the public issues and concerns are consistently understood and considered | We will work with you to ensure that your concerns and issues are directly reflected in the alternatives developed; we will provide feedback on how public input influences the decision | * Workshops  
* Planning forums |
| Consult                                 | To obtain feedback on analysis, alternatives and decisions | We will keep you informed, listen to and acknowledge concerns, and provide feedback on how public input influences decisions | * Exhibition of plans  
* Focus groups  
* Surveys  
* Consultative meetings  
* Precinct committees |
| Inform                                  | To provide the public with balanced and objective information to assist them in understanding the problems, alternatives and solutions | We will keep you informed | * Media stories  
* Education campaigns  
* Websites  
* Information meetings |
| Non-participant                         | Influencing public support for a product or proposal | Our product or proposal will perform as promised | * Public relations  
* Marketing  
* Social marketing |

Adapted from Department of Environment and Conservation, 2006.
## Appendix 3: Creating a culture of change

<table>
<thead>
<tr>
<th>Drivers of change</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure and communicate commitment from senior officers and Councillors</td>
<td>Senior officers and Councillors should make it clear that sustainability is a priority for each of the BOD Alliance councils. Their understanding of Sustainability will be strengthened through innovative training programs and seeking examples of other LGAs with proven track records</td>
</tr>
<tr>
<td>Promote learning and exchange of good practice throughout the councils</td>
<td>A series of training programs and facilitated discussions will be delivered, designed to increase understanding of sustainability, to identify barriers to its implementation in the councils, and to work inclusively to clarify specific actions in each service area</td>
</tr>
<tr>
<td>Provide direct support to managers to deepen commitment and action in all service areas</td>
<td>Meetings between each manager and the project team members will be established to further explore the concepts of sustainability and to clarify specific actions for their service area. This helps to ensure that all managers can participate fully in the facilitated discussions</td>
</tr>
<tr>
<td>Enrol and support a network of committed individuals at all levels of the councils</td>
<td>Green Champions nominated in each service area provide a network of committed individuals across the services, whose task would be to motivate staff into changing lifestyle</td>
</tr>
<tr>
<td>Link the Plan into community-driven initiatives</td>
<td>The Plan will act as the driver of sustainability in the visioning processes, community engagement and future planning strategies for each council</td>
</tr>
<tr>
<td>Strengthen the process of review and evaluation</td>
<td>The Plan will be adopted by each council. Results will be monitored on a six-monthly basis and an annual review held with the managers of each service area</td>
</tr>
</tbody>
</table>
Appendix 4: The sustainability framework

The World Commission on Environment and Development used the term ‘sustainable development’ in its 1987 final report, Our Common Future, and defined it as: ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’

Since the 1992 Earth Summit, the importance of sustainability has been reinforced in many international and national forums, including Habitat II and Rio +5. Since the 1990s, Australia has considered sustainability as a key principle for policy and governance.

The National Strategy for Ecologically Sustainable Development (NESD) was adopted in 1992, and has as its goal ‘ecologically sustainable development’. The Newcastle Declaration from the ‘Pathways to Sustainability’ Conference (a 1997 international conference focusing on the challenge of sustainability for local government), clarified and re-stated the commitment of local government to sustainable development. It encourages the involvement of people in determining the nature of sustainable development locally rather than just relying on improved planning processes.

The NESD uses the term ‘ecologically sustainable development’, or ESD, which it defines as: ‘development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.’

This, and the many other definitions of sustainability, recognise that we need to link development and protection of the environment in order to protect and manage ecosystems and natural resources that are essential for fulfilling basic human needs and improving living standards for all.

The Urban Sustainability Program grants, delivered by the NSW Environment Trust, address a range of environmental issues which focus on the local scale for sustainability outcomes.

The NSW State Plan and the CWCMA Catchment Action Plan also include objectives and targets aimed at building capacity and fostering change in the community such that the quality of our environment may be improved.

This Environmental Sustainability Action Plan addresses local imperatives for global sustainability outcomes.
References


CSIRO 2007, *Climate Change in the Central West Catchment*, report prepared for the New South Wales Government.


**Notes**

1. Department of Environment and Conservation 2006
2. CSIRO 2007, p. 5.

**Photo credits**

iii Dubbo City Council
1 Orange City Council
2 Andrea Little
4 Orange City Council
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6 Dubbo City Council
7 Debbie Archer
8 Dubbo City Council
9 Dubbo City Council
10 Andrea Little
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12 Dubbo City Council
14 Orange City Council
16 Jaydon Archer
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18 Nate Brelsford
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