

Inspiring and Integrating Change

Local Government toolkit



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This program has been assisted by the New South Wales
Government through its Environmental Trust

Disclaimer: The Councils do not endorse any of the contractors/consultants mentioned within this Local Government Toolkit. All contractors/consultants were chosen following a competitive quote or tender process.

Designed by Spice Creative

Introduction

Sustainability is about building strong, vibrant economies and communities in ways that do not damage the earth for future generations. Sustainability is about understanding the short and long-term consequences of our actions and the interconnectedness of social, economic and environmental issues. It is about finding new and better solutions to living.



This Local Government Toolkit has been designed to share the knowledge and experience gained from the Bathurst, Orange, Dubbo (BOD) Alliance **Inspiring and Integrating Change** Project and to encourage fellow councils to establish similar sustainability projects.

The Toolkit provides an overview of three specific “on-ground” sustainability projects;

- **Dubbo City Council’s Victoria Park Precinct Renewable Energy Project,**
- **Orange City Council’s urban constructed wetland for stormwater harvesting and**
- **Bathurst Regional Council’s Biodiversity Management Plan & Urban Drainage Reserve Vegetation Link**

Information is also provided about the BOD Alliance Councils’ joint Greenhouse Gas Inventory and the development of an innovative regional Distributed Energy Plan.

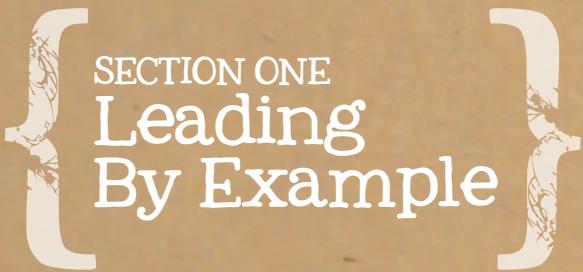
The section “**Gaining Support for your Project**” considers ways in which to create cultural change within councils and to secure management “buy-in” to support the concept of sustainability. It suggests methods to overcome common barriers such as lack of managerial support and resources.

In “**Lessons Learned**”, council staff and management involved with the Inspiring and Integrating Change Project offer personal insight and advice to councils undertaking their own sustainability projects.

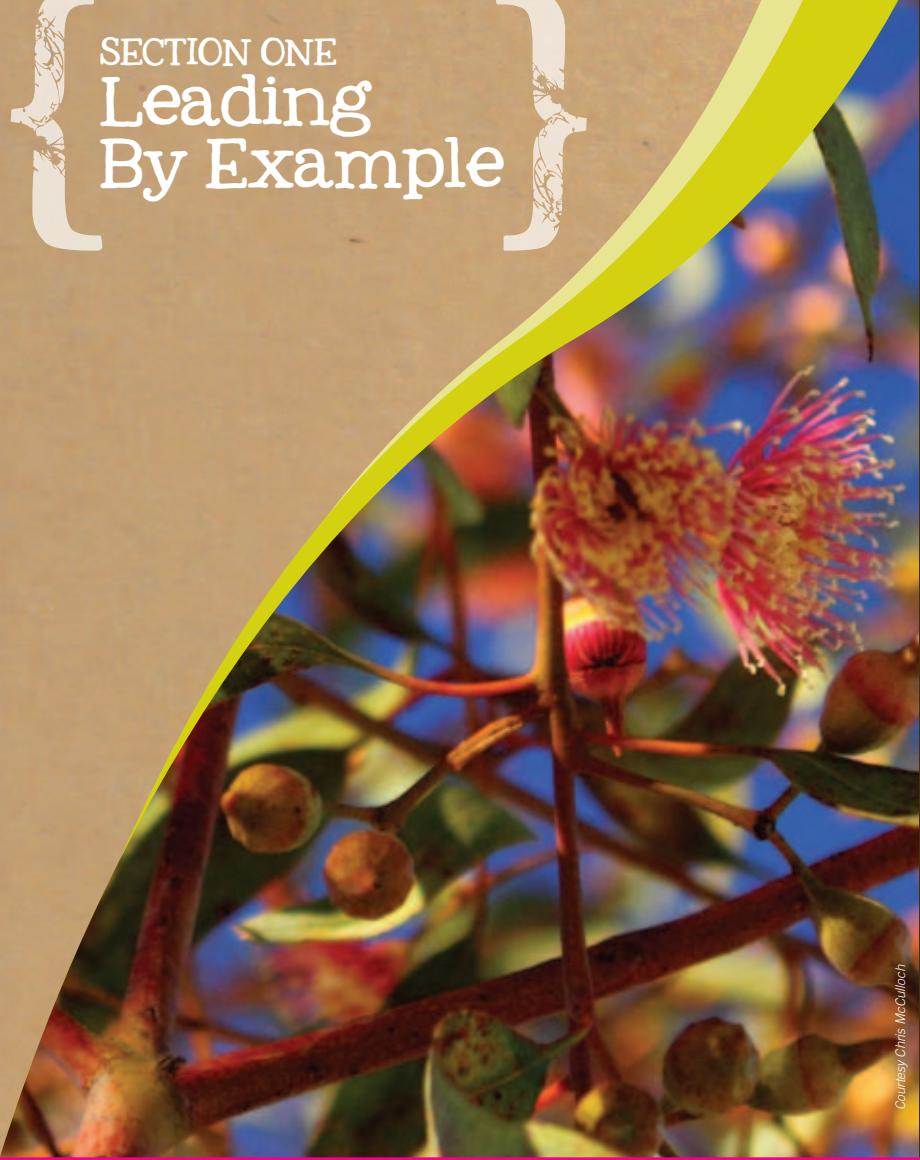
A useful “**Tips on Grant Writing**” section is also included, with practical advice from local government staff experienced in the art of grant writing. This section includes links to relevant sustainability grants and government funding bodies.

Finally, a “**Budget Tips – the Costs for Change**” has also been provided, including examples of actions and estimated costs involved in selected Inspiring and Integrating Change projects, to help councils to pick and choose measures to suit their unique circumstances.





SECTION ONE
**Leading
By Example**



Leading by Example

The Inspiring and Integrating Change Project

Inspiring and Integrating Change is an ambitious central NSW sustainability project focused on:

- community engagement
- cultural change and
- capacity building



Regional councils working and adapting together for a sustainable future.

Importantly, the Project recognises the need to move beyond simply raising awareness, to creating tangible improvements and long term outcomes in regional sustainable development. The three year project was made possible by a \$2 million grant from the NSW Environmental Trust's Urban Sustainability Program.

The Project is a joint-initiative of the Bathurst, Orange and Dubbo Alliance of Councils. At its core is the fundamental understanding that the environment knows no government boundaries. In order to achieve true sustainable development, regional councils and partnering organisations must work together.

Through a variety of practical, on-ground projects, Inspiring and Integrating Change aims to motivate and inform other regional councils, organisations and individuals to create projects and implement policies which support sustainable development into the future. An important element of the Project has been to engage and to educate the wider community about sustainability and to enable local businesses,

organisations, community groups and residents to learn from the experience.

As geographical neighbours within the Central West Catchment Area, Bathurst, Orange and Dubbo Councils already share an Environmental Sustainability Action Plan (ESAP), which includes commitments to reducing the environmental impacts from council activities and becoming more efficient in the use of resources.

In addition, each council also has its own environmental objectives detailed in respective Community Strategic Plans.



Courtesy Central West CMA

Specific Project focus areas were selected from issues already identified within the ESAP by the three councils:

- biodiversity decline
- water resource availability
- energy use

An established Steering Committee was able to provide strategic guidance to the Project consisting of representatives from each council and stakeholders such as the Central West Catchment Management Authorities (CMA), Centroc and Netwaste. A Project Manager and Project Officer were appointed and contractors and consultants were engaged for specific elements of the project as required.

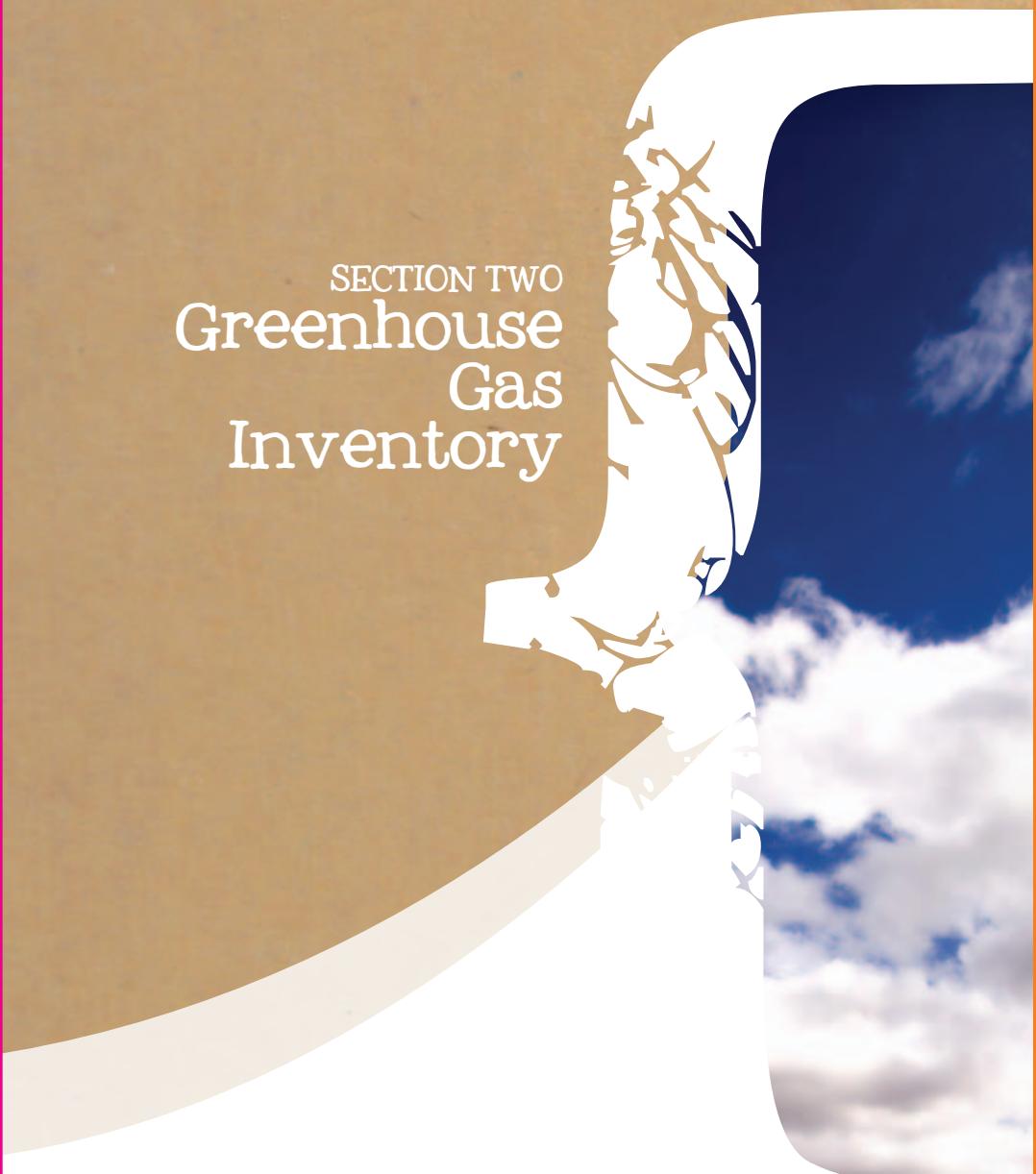
Five key Inspiring and Integrating Change projects were selected for their ability to provide tangible results, community engagement and learning opportunities for future projects;

1. Greenhouse Gas (GHG) Inventory
2. Dubbo City Council's Victoria Park Precinct Renewable Energy Project
3. Orange City Council's urban constructed wetland
4. Bathurst Regional Council's Biodiversity Management Plan & Urban Drainage Reserve Vegetation Link
5. Distributed Energy Plan

“ Local Government is often said to be at the forefront of adaptation actions. Impacts are felt first on the local level and that is where adaptation actions are delivered. Although Local Governments are often constrained by resources and regulations, many Australian councils are at the forefront of climate change adaptation initiatives. ”

National Climate Change Adaptation Research Facility

SECTION TWO
Greenhouse
Gas
Inventory



Knowledge is Power

Bathurst, Orange and Dubbo Greenhouse Gas Inventory

Central to the Inspiring and Integrating Change Project was the delivery of a joint Greenhouse Gas (GHG) Inventory, prepared by Hyder Consulting. The GHG covered the three council areas and included data collection and analysis of GHG emissions from landfills, gas flaring, sewage treatment plants, council electricity and gas use, fleet fuel use and refrigerants.



An inventory is the first step for any council wishing to reduce greenhouse gas emissions. It can help local governments to:

- Set a baseline and track progress in reducing emissions
- Identify the greatest sources of GHG emissions within their jurisdiction
- Estimate potential financial liability under the carbon pricing mechanism
- Understand emission trends
- Quantify the benefits of activities that reduce emissions
- Establish a basis for developing local action plans
- Set goals and targets for future reductions



The Bathurst, Orange and Dubbo Councils' joint Greenhouse Gas Inventory found that landfills made the greatest contribution to overall estimated GHG emissions in the region. Emissions associated with electricity use were the second biggest contributor to GHG emissions. Together, landfill methane and electricity emissions accounted for 90 per cent of Bathurst's total estimated GHG emissions, 96 per cent of Orange's total emissions and 89 per cent of Dubbo's emissions.

Regional Summary of Total Scope 1 and Scope 2 GHG Emissions 2009/10

Regional summary of total scope 1 and scope 2 GHG emissions in 2009/10

	Bathurst (t CO ₂ -e)	Orange (t CO ₂ -e)	Dubbo (t CO ₂ -e)
Landfill gas generated	28,960	29,620	38,565
Landfill gas flared	(16,797)	N/A	N/A
Emissions from gas flaring	214	N/A	N/A
STP (direct emissions)	-	943	4,670
Electricity use	12,628	11,676	17,135
Natural gas use	229	349	317
On site fuel use	77	11	97
Fleet fuel use	2,499	519	1,913
Refrigerants ³	15	No data	15
TOTAL	27,825	43,118	62,662

What is "Emissions Scoping"?

Emissions scoping categorises direct and indirect emissions for GHG accounting and reporting purposes.

Scope 1 emissions are direct GHG emissions from sources owned or controlled by Council such as landfills and combustion of fuels.

Scope 2 emissions are indirect GHG emissions from the generation of purchased electricity consumed by council.

Scope 3 emissions are an optional reporting category for all other indirect GHG emissions such as those that come from leased assets or outsourced activities.

Some key findings of the GHG Inventory:

- Landfill facilities in Orange and Dubbo were estimated to exceed the 25,000 t CO₂-e reporting threshold. Facilities which produce emissions of 25,000 tonnes of CO₂-e or more per year could be liable under the carbon pricing mechanism or carbon tax.
- Opportunities exist for each council to reduce total emissions by diverting methane producing organic material from landfills.
- The process of compiling the GHG Inventory also uncovered shortcomings in council data collection. Options to improve data collection and allow a more accurate assessment of GHG impacts were addressed.
- There is currently no ongoing measurement of landfill gas flaring at Bathurst, which is required for a more accurate assessment of its effectiveness.

“Councils could reduce or eliminate their carbon tax liability by capturing dangerous gasses produced by decomposing waste in order to bring them below the 25,000 tonne threshold.”

Department of Climate Change and Energy Efficiency

Enter data in the CHANGE boxes in the tables below

1. Wastewater treatment

Water treatment emissions by plant	
Total type of emissions	
Emissions (t CO ₂ /year)	

2. Electricity

Water-treatment electricity use (MWh/year)	
Total emissions (t CO ₂ /year)	

3. Natural gas

Water-treatment natural gas use (MmJ/year)	
Total emissions (t CO ₂ /year)	

4. On-site fuel use

Fuel type	Enter quantity consumed	Scope 1 emissions (t CO ₂ /year)
Diesel (litres)		
LPG (litres)		
PET (litres)		
Unleaded petrol (litres)		

5. Fleet vehicles

Fuel type	Enter volume (L/year)	Scope 1 emissions (t CO ₂ /year)
Diesel used in fleet vehicles		
Electricity used in fleet vehicles		
LPG used in fleet vehicles		

6. Refrigerants

Total volume of refrigerant used (kg/year)	
Emissions (t CO ₂ /year)	

Assume 1 kg of refrigerant has the equivalent GHG impact of 1 t CO₂. This is based on the Global Warming Potential of 100 years for each refrigerant. The values are calculated by the tool.

A snapshot of the Simple Emissions Estimator.

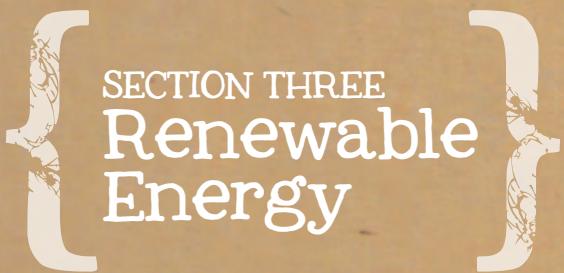
A GHG Inventory Toolkit for Smaller Councils and Simple Emissions Estimator (SEE) were developed by Hyder as part of the Inspiring and Integrating Change Project to introduce the concept of benchmarking GHG performance and to provide an easy way for smaller councils to estimate their total emissions. A workshop with attendance from several neighbouring councils, was run as part of the Inspiring and Integrating Change Project to demonstrate use of the tool.

To access the GHG Inventory Small Councils Toolkit contact one of the Bathurst, Orange, Dubbo (BOD) Alliance Councils or download the Toolkit from the Centroc (Central NSW Councils) website.

“

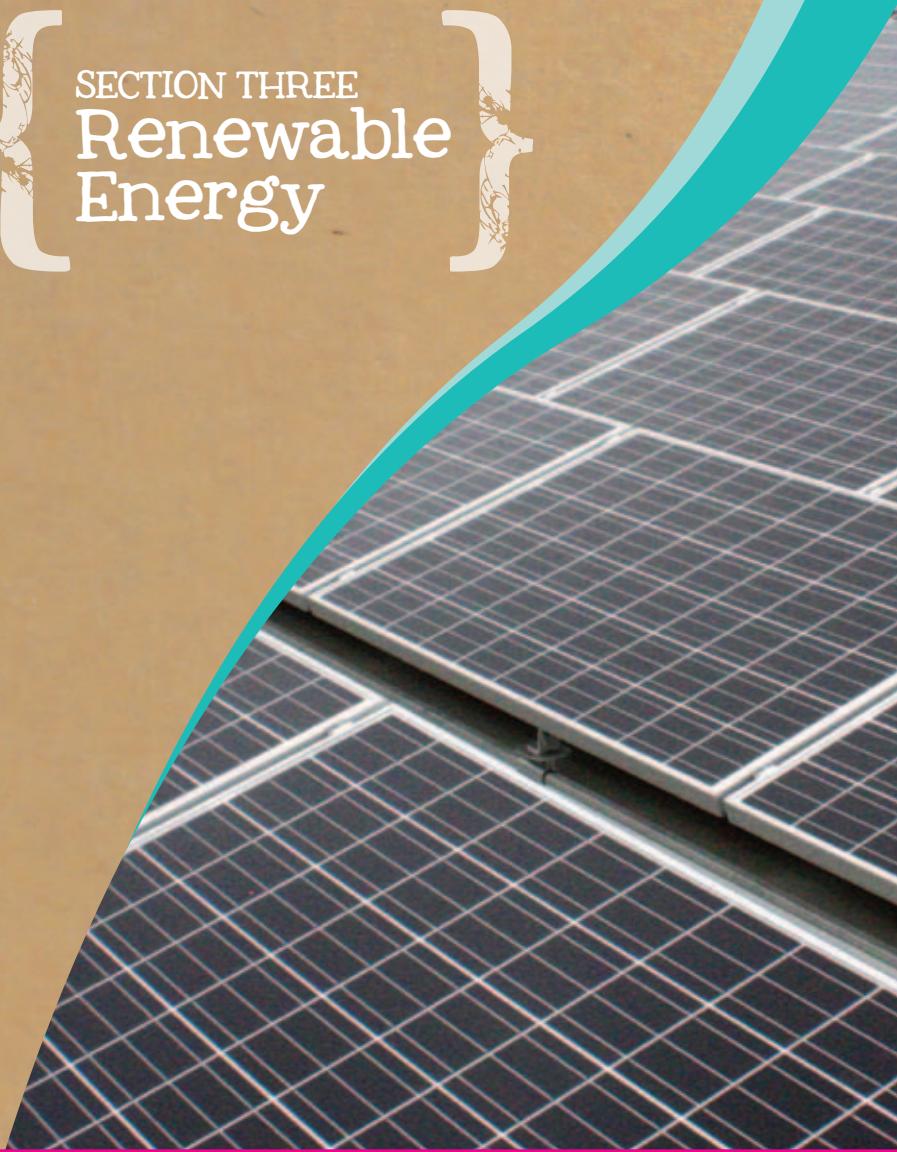
It is highly unlikely that small councils (especially those servicing less than 5,000 people) would trigger current reporting thresholds. Regardless of any legislative requirement, however, councils are increasingly recognising the importance of monitoring and managing their emissions, of communicating their GHG performance to their stakeholders, and of meeting community expectations in relation to climate change. ”

GHG Inventory Small Councils Toolkit, Hyder Consulting



{ SECTION THREE }

Renewable Energy



A Solar Future

Dubbo's Victoria Park Precinct Renewable Energy Project

Dubbo City Council recognised the risks that climate change would bring to the region, the rising costs of electricity, and the need to demonstrate leadership in the community. The Victoria Park Precinct Renewable Energy Project harnesses the power of the sun to increase clean energy use, decrease carbon emissions and reduce operating costs. The Project incorporated four major council facilities regularly used by the wider community, providing opportunities for tangible results and community education.

1. A 70kW photovoltaic solar system on the roof of the **Western Plains Cultural Centre**, which, at the time of installation, was one of the largest of its kind in the state, saving 88 tonnes of CO₂ in the first year.
2. Lighting retrofits, insulation, a skylight and a 4.2kW solar system at the **Dubbo Family Day Care Centre**, saving 14 tonnes of CO₂ in the first year.
3. A solar pool heating system to supplement the existing natural gas heating system at the **Dubbo Aquatic and Leisure Centre**, saving 6 tonnes of CO₂ in the first year.
4. A 4kW solar system at the **Dubbo Regional Theatre and Convention Centre**.

Solar-powered
and saving
\$24,440pa

Energy smart
and saving
\$5,800pa

Solar-heating
and saving
\$2,300pa

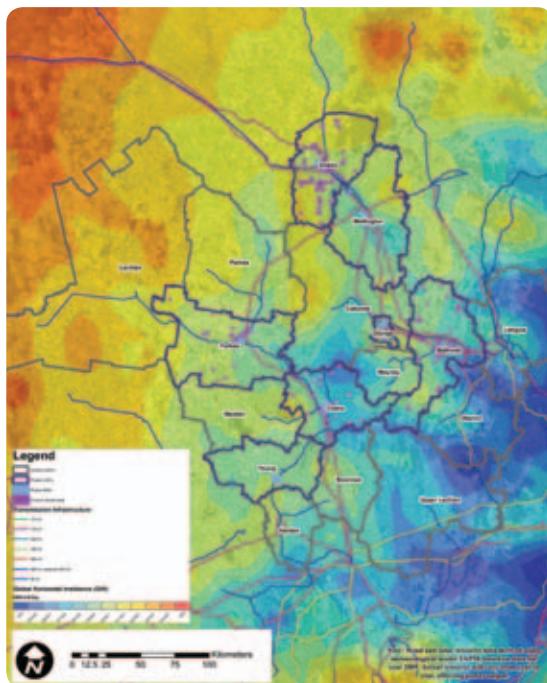
The Victoria Park Precinct Project complements Council's existing Environmental Management Plan, "Dubbo ALIVE", which has overseen the installation of solar panels on twelve other council facilities, solar taxiway lighting at the regional airport and energy audits.

How it was done:

Step 1 – Research and selection process

ARUP Pty Ltd, in partnership with Central Design and Engineering (CDE) Energy, were engaged to provide an energy audit of council facilities within the Victoria Park Precinct in order to better inform and guide the Project.

ARUP then coordinated workshops with Council managers and directors to review all renewable energy and energy efficiency possibilities for the facilities and conducted a feasibility report.



Drafts based on TAPM modelling using 2009 data and a 10km resolution model grid. Refer to page 34 for larger map.

The broad approach that was adopted for the feasibility study followed five major steps:

1. Technology shortlist.

This involved the collation of different technologies potentially applicable to the Victoria Park Precinct.



2. Evaluation of energy demand.

This step involved the consideration of the characteristics of existing and future energy consumption.

3. Evaluation of resources.

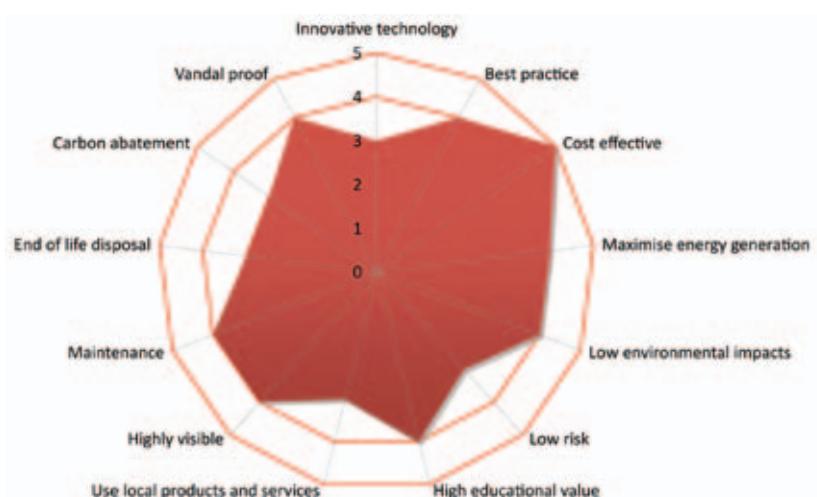
Solar, wind, biomass, geothermal and hydro availability were investigated.

4. Initiatives and prioritisation.

A workshop was held to rank the importance of different issues against Council priorities for the project. See Figure below.

5. Implementation.

Ways to fund the initiatives were identified.



A visual representation of the weightings given to the various priorities identified by Council for the project.

As the figure shows, the most important characteristic of any renewable energy initiative for Council was cost effectiveness followed by energy generation maximization, low environmental impact, high educational value, low risk, high visibility, low maintenance and vandal proof.

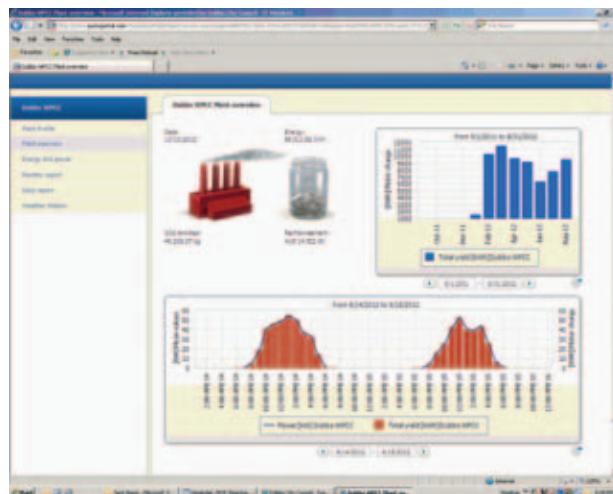
The Western Plains Cultural Centre was chosen as a preferred site for a large photovoltaic system because it was one of the highest users of energy in the study, had substantial roof space (1,746 m²) and was capable of achieving significant, meaningful energy savings.

The Dubbo Aquatic and Leisure Centre solar pool heating project, which would achieve comparatively lower energy savings, was chosen primarily as an ideal avenue for educating families and students about the benefits of renewable energy.

Step 2 – Implementation

Solgen Energy, through a competitive tender process, was awarded the contract to install the 70kW solar system on the Western Plains Cultural Centre. Following considerable planning, the actual installation of the system at the Centre was completed in eight days.

An energy dashboard was installed with the Centre's photovoltaic system to monitor the performance of the system and to demonstrate its benefits to the wider community. The live energy data is available on Dubbo City Council's website www.dubbo.nsw.gov.au



A snapshot of the live energy data programme at the Centre.



Solar panels on the roof of the Family Day Care Centre.

A number of companies were engaged to implement the various energy saving initiatives at the Family Day Care Centre.

Orana Energy Systems, through a competitive process, was awarded the contract to install 'Heliocol' black poly tubes on the pump shed roof of the Dubbo Aquatic and Leisure Centre to provide solar pool heating.



Educational signage at the front of the Dubbo Aquatic and Leisure Centre.

Engaging with the Dubbo Community

Dubbo City Council conducted varied and regular community engagement activities to reach a broad demographic of the population. A **Community Engagement Plan** was produced at the beginning of the project and updated regularly.

Key activities conducted as part of this Plan included the annual **Dubbo Sustainable City Expo**. The Expo, established in 2006, introduces the local community to environmental and ethical suppliers, projects and groups and encourages sustainable practices. The Expo was based in the Victoria Park Precinct during the Inspiring and Integrating Change Project period to promote the Renewable Energy Project.

Local businesses and community groups using Victoria Park facilities were kept informed through **fact sheets and direct mail**. Over 300 families using the Family Day Care Centre were sent letters and brochures titled “Dubbo Family Day Care Centre is Energy Smart”, detailing the changes and benefits to the Centre and suggested ways families could create similar energy saving changes in their own homes.

Dubbo City Council engaged with the community through **social media sites** such as Facebook and Twitter. Dubbo's Sustainable City Facebook page created especially for the Project had a record 2,292 hits the week before the 2012 Expo. A 400 per cent increase from the average weekly hit rate.



A local newspaper was signed up as an official “project partner” for the Sustainable City Expo and regular Council **media releases** kept the wider community informed.

Interpretive signs explaining the large solar system were installed at the entrances to the Western Plains Cultural Centre. Three signs were also installed at the Dubbo Family Day Care Centre and two at the Dubbo Aquatic and Leisure Centre.

DUBBO FAMILY DAYCARE CENTRE IS ENERGY SMART!

SKYLIGHT/LIGHTING UPDATES
Lighting was 30% of energy use.
The centre achieved a 50% reduction by replacing with LED (Light Emitting Diode) and CFL (Compact Fluorescent Lighting) lighting and installing a skylight. Do the same in your home and cut your carbon pollution and power costs.

SOLAR POWER
Installation of a 4.2kW PV Solar system has assisted to reduce energy costs.
Installing the right sized solar system could reduce your power bill to zero!

SOLAR HOT WATER
Replacing the electric hot water system heating to solar will reduce water heating costs by 85%. Electric hot water heating is the biggest energy user in NSW homes, responsible for up to 1/3 of household power use?
Convert to Solar and save!

INSULATION

SOLAR PANELS

SKYLIGHT/LIGHTING UPDATES

INSULATION

ENERGY EFFICIENCY

- Switching appliances off at the power point
- Turning lights off when exiting a room
- Installing timers on equipment
- Turning off screensavers, computers and photocopiers
- Reducing heating or increasing cooling temperatures by a few degrees.

NSW Environmental Trust DUBBO Family Daycare

There are many easy, low cost ways to improve energy efficiency in your home. For more information visit www.savepower.nsw.gov.au

An **official public launch** of the Victoria Park Precinct Renewable Energy Project was held in April 2012, linking in with the Nature Conservation Council of NSW's 100% Ready Forum.



Step 3 – Results and evaluation

By the end of the project period, **Dubbo was the solar power capital of Australia** with more than one-quarter of Dubbo homes installing small scale solar systems on their rooftops. Community small scale solar systems in Dubbo increased 276 per cent between January 2011 and July 2012.

Almost 100 tonnes of CO₂ were saved across four council facilities in the Victoria Park Precinct over the first year and over-all energy use for Council reduced by 14 per cent.

Dubbo will continue to monitor energy use annually through services such as E21 and Planet Footprint, which allow Council to track changes in energy usage and identify areas of potential savings.

“ The project has given Council a foundation for renewable energy use in the Dubbo region, not just for Council facilities. We have a greater understanding of the types of technologies that are suitable for the Dubbo area and which are most cost effective. Dubbo will continue to receive economic and social benefits for a long time. ”

Debbie Archer, Manager Environmental Control, Dubbo City Council

For further information on Dubbo City Council’s project please speak to their Environment Team on (02) 6801 4000.

SECTION FOUR
**Water
Conservation**

Water for Life

Orange City Council's Somerset Park Wetland and Urban Stormwater Harvesting Scheme

Orange City Council's Somerset Park Wetland forms part of the city's Urban Stormwater Harvesting Scheme, designed to help secure the city's water needs into the future. Four wetlands are included in the scheme, with the Somerset Park Wetland specifically funded through the Inspiring and Integrating Change project.

The scheme successfully combines **urban development and environmental considerations**, using an innovative stormwater harvesting system to create vibrant wetland habitats and to store and filter stormwater for drinking water or use in gardens and toilets of newly developed residential areas. Impervious surfaces, such as sealed roads, provide significant opportunities to harvest precious stormwater run-off. Aside from improving aquatic habitat, riparian vegetation and water quality, the key community-orientated objectives of the project were to inspire an understanding of, and commitment to, water conservation through innovative on-ground works and community engagement.



How it was done:

Step 1 – Research and selection process

Due to extremely dry conditions, Orange City Council's water storage levels reached their lowest levels in August 2008. In response, Council's Technical Services Division investigated a range of options aimed at reducing water consumption within the city and opportunities for augmenting supplies in the future. Harvesting stormwater was identified as a significant opportunity for securing water supplies.

The successful completion of Orange City Council's \$5 million Blackman's Swamp Creek Stormwater Harvesting Scheme in 2009 – the first large scale indirect to potable stormwater harvesting project in NSW – inspired Orange City Council to create the Ploughman's Creek Scheme, incorporating Somerset Park Wetlands. The NSW Office of Water was a key partner, providing financial assistance for the development of the wetlands.

A 'triple bottom line' assessment (financial, social and environmental) by Orange City Council into potential sites, identified Somerset Park for the Inspiring and Integrating Change Project due to its environmental benefits, its close proximity to housing and its potential to improve amenity for residents.

Aerial view of Somerset Park Wetland during construction.





Step 2 – Implementation

Modelling of stormwater harvesting benefits, conducted by design contractor Geolyse, indicated that the stormwater flows were significant enough to allow for harvesting. This was followed by a Review of Environmental Factors (REF), which took into account issues such as increased habitat for mosquitoes, Aboriginal and European heritage and possible effects on downstream waterways.

The ‘Wetland zones’ table, over the page, describes the design elements used for Somerset Park wetland and a diagram on page 21 shows how the zones were applied.

Contractors were then engaged to construct the wetlands and associated infrastructure. Works involved erosion protection, extensive earthworks, pipe works, concrete works and the installation of gross pollutant traps.

27,560 native tube stock (four per square metre) were planted at the Somerset Park site by Australian

Wetlands contractors and an additional 900 by volunteers over seven planting days. Plants used within the wetlands include grasses such as Lomandra and Pennisetum, Carex in mudflat zones and Ottelia and sedges such as Eleocharis in deep water zones.

The REF for the full Ploughman’s Stormwater Harvesting Project is available on Orange City Council’s website at <http://www.orange.nsw.gov.au/site/index.cfm?display=158554>

Wetland Zones

Zone	Components	Function
Inlet zone	Litter traps Energy dissipation	Conveys flow to wetland Slow inflow Traps larger pollutants Stores surcharge stormwater
Open water zone	Sedimentation pond High flow bypass Submerged water plants	Captures settleable solids Protects wetland from high flows Bed protection and water quality
Macrophyte zone	Reed beds Mud flats Open water Flow diversion	Water quality Habitat Aesthetics
Outlet zone	Open water Water level control structures Spillways	Manipulate water level Protect wetland during periods of high flow
Littoral zone	Edge water plants Shallows and beaches	Bank protection Habitat Water quality Public safety Surrounds all four above zones

Design of Somerset Park Wetland



Engaging with the Orange Community

Community engagement evenings, to discuss the Somerset Park and other wetlands, were held by Council at a number of stages throughout the planning and implementation of the wetland.

Interest Group Partnerships were formed with relevant groups such as Council's Environmental Sustainability Community Committee, Conservation Volunteers Australia and the Central West Catchment Management Authority. Local schools also expressed interest in wetland activities such as plantings and macro-invertebrate survey.

Community Planting Days, promoted through letter box drops, media and Council notifications, were organised for local residents and interested community members. Seventy-four volunteers assisted with planting, mulching and watering.

Already established national events such as Planet Ark's Tree Day and World Wetland Day were used as "**piggy-back events**" to engage the community in the project. Other local social marketing campaigns such as the "Water for Life" advertising campaign and the Showerhead Replacement Scheme were also "piggy-backed", laying the foundations of broader community collaboration and an understanding of water conservation.



Council distributed timely **media releases** to local media outlets to promote newsworthy milestones such as community planting days.

Interpretive signage was installed at the Somerset Park site, using Eco-Creative, an Environmental Design agency, to tell the story of the development and benefits of the wetland.

In early 2012, Council appointed a **Wetlands Team Leader** and a **Wetlands Crew Member** to assist in maintenance and development of the wetlands, and to improve communications between the project, Council and the community.



Explore the area

As you explore the Somerset Wetland, notice shallow mudflats around the water bodies that provide habitat for submerged and emergent aquatic plants. These areas host a myriad of insects and frogs, which are good indicators of wetland health. You might even find freshwater yabbies feeding on decaying vegetation or animal matter on the bed of the wetland.

You will also see some structures used to improve water quality, such as a litter trap at the southern end that keeps large pieces of rubbish from entering the wetland.



Step 3 – Results and evaluation

Regular water quality sampling and monitoring is conducted at a number of locations ensuring the quality of water is suitable for harvesting purposes. Early indications have shown lower concentrations of nutrients at the outlet sampling point in comparison to the inlet point.



Riparian plant growth has been strong and fauna such as the Black Fronted Dotterel (see left image) and the Purple Swamp Hen have been reported in the wetlands.

Feedback from surrounding residents has been positive, indicating the community has embraced the area for recreation and appreciate the environmental benefits of the project.

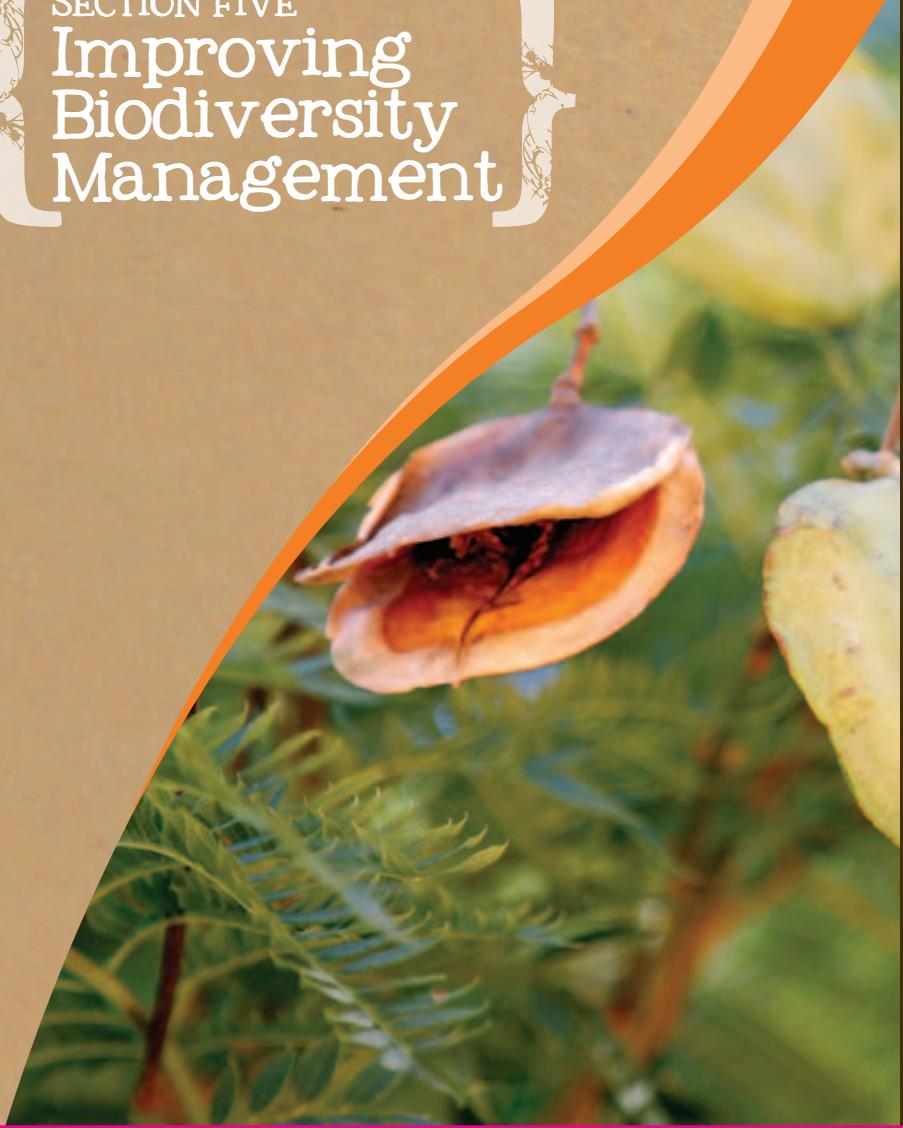
Ongoing community engagement and education has produced significant long term behaviour change. Orange residents use on average 165L/per person/day, compared to the Australian average of 290L.

Anecdotal evidence of increased property value around Somerset Park due to improved amenity is an unexpected benefit.

“The greatest strengths within the scheme are the enhancement of our environment through the improvement of water quality, creating natural areas for both people and native flora/fauna species, increasing our understanding of wetland ecosystems and their functions whilst providing connectivity within the landscape. Community planting days, meetings, workshops and the development of interest groups provided local residents an opportunity to be involved. **”**

Orange city Council's Wetlands Team Leader, Maryanne Smith

For further information on Orange City Council's project please speak to their Technical Team on (02) 6393 8000.



SECTION FIVE

Improving Biodiversity Management

Creating Native Habitats

Bathurst Regional Council's Biodiversity Management Plan and Urban Drainage Reserve Vegetation Link

Urbanisation is placing increasing ecological stress on our biodiversity and natural landscapes. Two key projects formed Bathurst Regional Council's part of the Inspiring and Integrating Change Project; a Biodiversity Management Plan (BMP) to guide Council in future planning, monitoring and management of biodiversity, and the Urban Drainage Reserve Vegetation Link designed to revegetate five urban drainage reserves in the Bathurst area that had lost much of their habitat and ecological values.

How it was done:

Step 1 – Research and selection process

The Alliance's ESAP recommended the development of a Biodiversity Management Plan for each of the local government areas. To develop their Biodiversity Management Plan, Bathurst Regional Council engaged in a thorough consultation process. This included an 'Issues Forum' with wide community representation, including local Wiradjuri elders, farmers, community groups, educational institutions and government departments, to establish the main



concerns, opportunities and threats to biodiversity in the region. Blayney Road Common was identified as a major on-ground project recommended for action in the Biodiversity Management Plan. The Common consist of native Box Gum Woodland which is a classified Endangered Ecological Community (EEC). A Plan of Management, developed with a high level of stakeholder involvement including meetings with members of the neighbouring Boundary Road Reserve Landcare group, was developed for the Common. The Plan recommends the removal of exotic woody weeds and noxious grasses from the site, riparian plantings, constructing frog and macro-invertebrate habitats and feral animal control.

Photographer David McKellar



Revegetation of urban drainage reserves was identified as a priority in the Bathurst Vegetation Management Plan in 2003. The Urban Drainage Reserve

Vegetation Link was divided into two stages: a Revegetation Plan for 11 key drainage reserves, prepared by environmental consultants Applied Ecology; and a revegetation program with contractors Australian Wetlands. The Inspiring and Integrating Change Project provided funds to revegetate five of the 11 key urban drainage areas; Marsden Lane (900 metres feeding into Raglan Creek), Rosemount Avenue (1450 metres feeding into Raglan Creek), Laffing Waters (900 metres feeding into Raglan Creek), Darwin Drive (1200 metres feeding into the Macquarie River) and Ussher Crescent (600 metres feeding into Sawpit Creek). The objectives were to:

- decrease erosion in urban waterways and drainage reserves
- increase aquatic and riparian habitat
- increase community awareness of the benefits of improved urban water management; and
- provide habitat linkages for urban wildlife.

The remaining six urban drainage areas will be completed at a later stage as funds are sourced.

Step 2 – Implementation

Biodiversity Management Plan:

A Steering Group was formed to guide the development of the plan, with representation from Bathurst Regional Council (Strategic Planning and Environment sections), Central West CMA, Office of Environment and Heritage (Environment and Conservation Programs) and two community representatives from Greening Bathurst and the Boundary Road Reserve Landcare Group. The Steering Committee provided an important forum for discussing what should be included in the plan and defining Council's role in biodiversity management. The community representatives provided crucial local knowledge, vision and priorities, while the agency representatives were able to provide a regional context and insight into what was being done at other levels of government.

The next stage involved assessing land parcels under Council management, for biodiversity condition and conservation value using a rapid assessment methodology specifically developed for the plan. The use of rapid assessment methods utilising pro forma or datasheets is common practice when evaluating condition or conservation value of remnant vegetation. One of the greatest challenges whilst undertaking the work was the large number of land parcels (760) requiring assessment. Local knowledge of the Bathurst region allowed for a reliable desktop assessment of aerial photos to reduce the number of individual sites to be visited. It was important that visits identified or verified key aspects, such as whether or not the site was a Box-Gum Woodland EEC or a non-threatened Eucalypt Woodland.



On-ground works began at Blayney Road Common in November 2011, with the spraying of noxious grasses. In May 2012, control of invasive woody weeds commenced in the Box Gum Woodland area. A total area of nine hectares has been cleared of woody weeds. Nest boxes were installed in November 2012.

Urban Drainage Reserve Vegetation Link:

After design of the 11 sites were complete, Council engaged Australian Wetlands to plant more than 24,000 native seedlings across the five chosen drainage reserves. Native species of trees and understory plants were planted along the reserves to reduce sediment run-off and erosion and to link isolated pockets of native bushland. Species selected for planting included native eucalypts, acacias, grevilleas, tea trees, bottle brushes, hop bushes, lilies, rushes and grasses. Planting took place over a few months and Australian Wetlands was responsible for the maintenance of the sites for the first year after which Council took over maintenance with assistance from community volunteers.



Early plantings at an Urban Drainage Reserve Vegetation Link site.



Courtesy Central West CMA

“The Biodiversity Management Plan is crucial for the region as it will provide a baseline for biodiversity condition, improve the integration and implementation of land use planning instruments and identify priority actions to protect and enhance areas of value”

Deborah Taylor, Acting Manager Environment,
Bathurst Regional Council

Engaging with the Bathurst Community

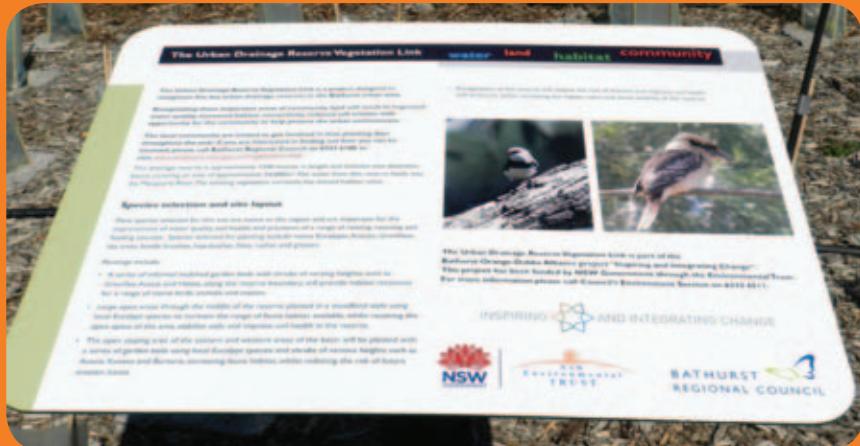
Two community forums were held during the development of the Biodiversity Management Plan, in August 2010 and November 2011. The draft Biodiversity Management Plan was displayed on **public exhibition** for 28 days.

Council kept local volunteer and community groups and other stakeholders personally informed from the early stages of the Urban Drainage Reserve Vegetation Link project via **direct mail**, inviting comment and feedback at all stages. All respondents were invited to join an email list to be kept updated on future activities.

Regular Council **media releases** were distributed to local media outlets throughout the duration of the project, keeping the community up to date on the project.

A **brochure** was produced prior to planting to inform the community, local volunteer groups and schools about the project and ways in which to get involved. The brochure was distributed to groups and schools and letter-box dropped to residents within 500m of each reserve.

On-site signage was installed at all five urban drainage reserves highlighting native flora and fauna and helping to build an appreciation of the region's natural landscape.





Four **community tree planting days** were held, including an Aboriginal Cultural Planting Day organised with the help of a local Wiradjuri elder.



Bathurst Regional Council produced a **booklet** titled "**Backyards for Wildlife**" as a guide for the local community on the best ways to create habitats for a range of wildlife species

in their own backyards. Council asked for input from the community through surveys, to understand the current flora and fauna in the urban landscape and to gather ideas regarding what the community wanted in the booklet. The booklet is now available to the community for \$3.00, or can be downloaded for free from Council's website; www.bathurst.nsw.gov.au/images/stories/environment/Backyards_For_Wildlife_Web_V01.pdf

In 2012, Council held a free "**Biodiversity in Your Backyard**" seminar featuring the ABC's Gardening

Australia presenter Angus Stewart, to engage a wide cross section of the community in biodiversity conversation.

The seminar, attended by 140 residents, was also an opportunity to talk to the community about Council's biodiversity projects. Topics included native seed collection and propagation, the importance of growing native gardens, how to reduce chemical use in home gardens, composting kitchen waste and using worm farm tubes directly into vegetable patches. Thirty people attended a workshop with Angus Stewart the following day at Browning Street Reserve (a part of Blayney Road Common), to see hands-on demonstrations of 'long stem' planting techniques for better plant establishment.



Step 3 – Results and evaluation

Photopoint monitoring sites have been established at nine points within Blayney Road Common. Images are taken at six monthly intervals and used to document the changes in ground cover and native vegetation over time.

A set of 14 indicators have been included in the BMP to facilitate ongoing monitoring of biodiversity conditions in the Bathurst region (see References and Other Helpful Resources at the end of this booklet).

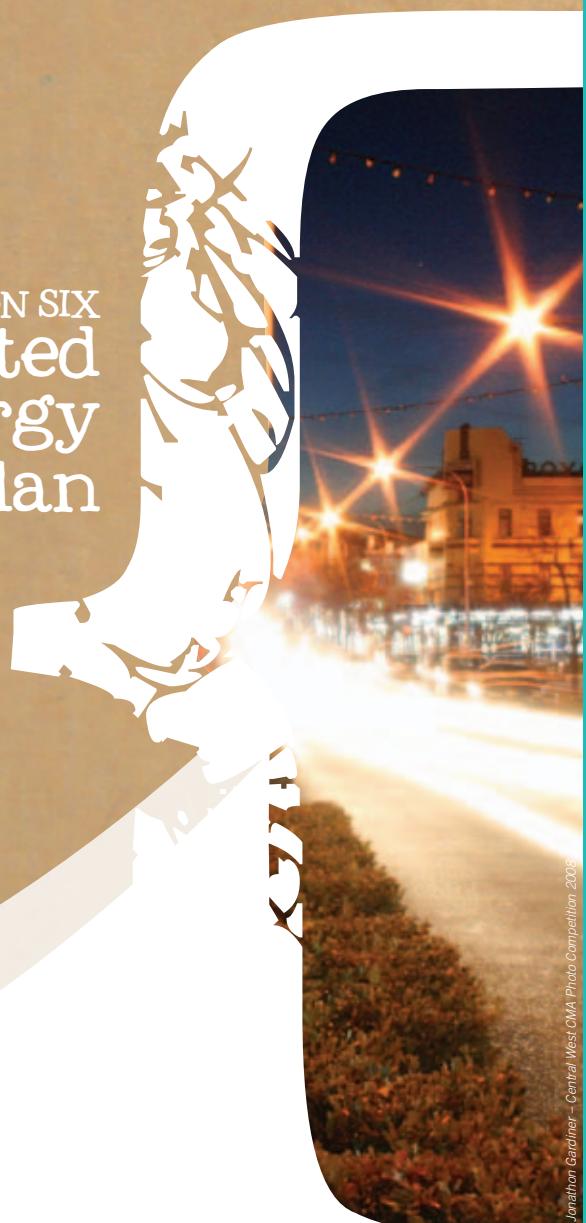
Three-hundred and fifty copies of “Backyards for Wildlife” were sold within the first three months.

Pre and post event surveys were taken at the Biodiversity in Your Backyard seminar. Post evaluations strongly indicated that the attendees' understanding of biodiversity increased significantly following the seminar with 92 per cent responding that they were willing to take new action to improve biodiversity in their backyard as a result of their attendance. Knowledge of Council's biodiversity projects also jumped significantly from 44 per cent pre seminar to 80 per cent post seminar.

For further information on Bathurst Regional Council's project please speak to their Environment Team on (02) 6333 6111.

Woody weed removal at Blayney Road Common.

SECTION SIX
**Distributed
Energy
Plan**



6

A Decade for Change

Distributed Energy Plan

"Distributed Energy" is a term used to describe the concept of generating electricity from a variety of smaller, local energy sources rather than large centralised facilities.



The final objective of the Inspiring and Integrating Change Project was to deliver a comprehensive Distributed Energy Plan (DEP) to be rolled out over the coming decade, paving the way for participating councils to substitute existing coal-fired energy sources. The Plan also considered energy efficiency options for facilities and aimed to deliver substantial financial, social and environmental benefits.

The DEP, involved seven councils from across Central NSW, including the Bathurst-Orange-Dubbo (BOD) Alliance, Cowra, Forbes, Wellington and Young. Individual plans were produced for each council and an overarching plan produced for the region. Each council identified 10 facilities to be considered within their individual plan.

Six steps to a Distributed Energy Plan

Step 1

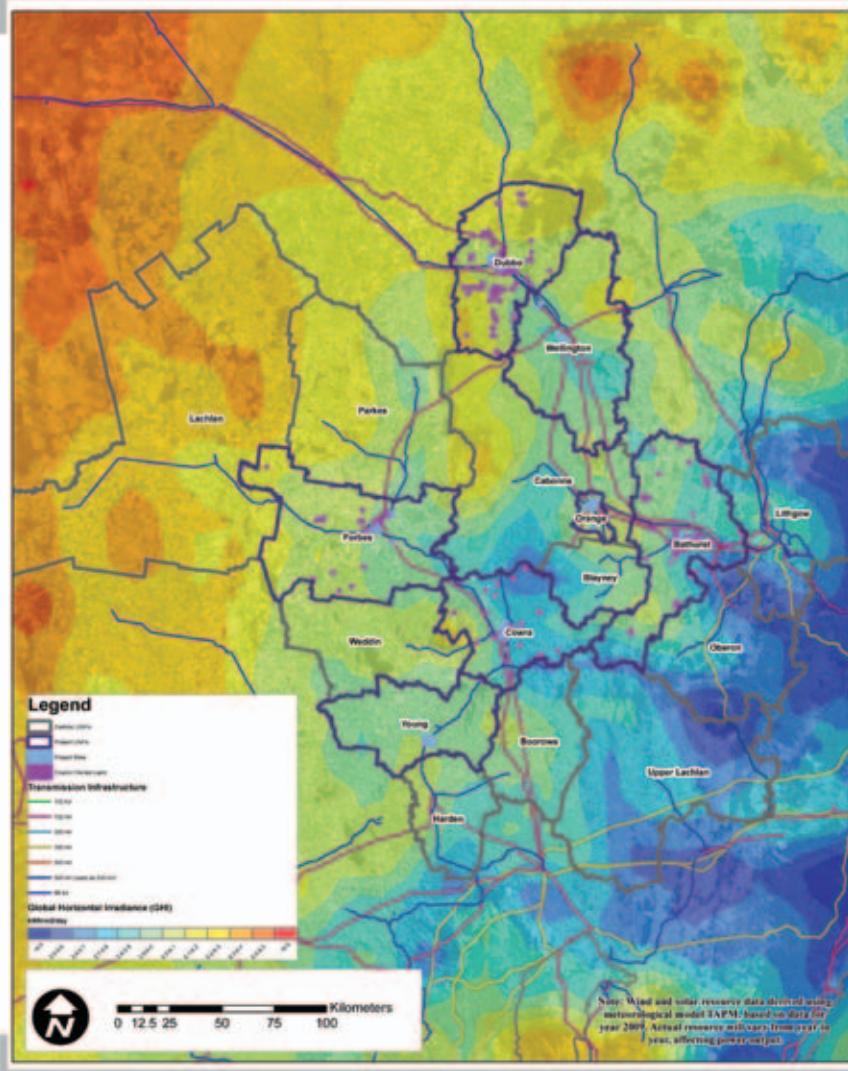
Site inspections, collection and review of existing data.

Step 2

Workshops with councils to identify existing initiatives. Evaluation criteria was also developed to help understand drivers and priorities for decision making in councils. The evaluation criteria entailed assigning weighting scores for financial, social, governance and environmental priorities.

Step 3

Renewable energy resource availability was mapped for the region (see page 34 and 35) and current emerging technologies (such as tri-generation) identified.



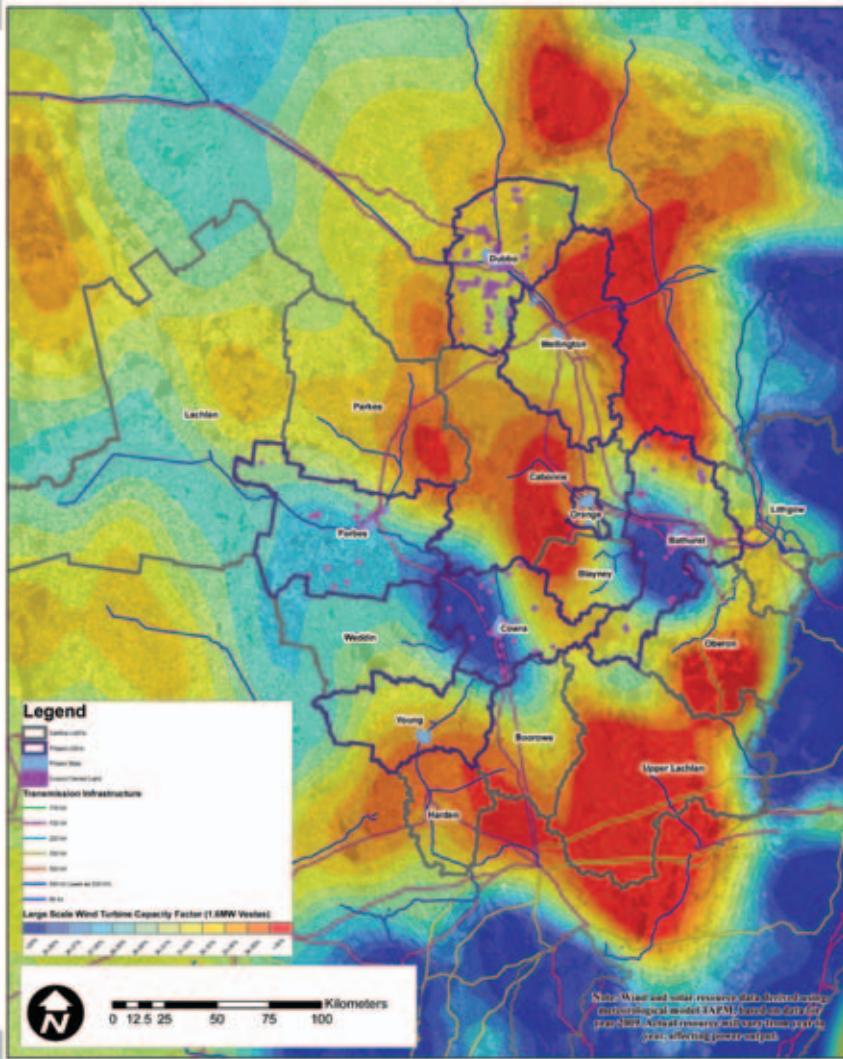
Central NSW Councils Distributed Energy Plan

Solar: Indicative Global Horizontal Irradiance

DRAFT

ARUP

Residential rooftop solar PV is generally considered viable with a GHI over 5.0 kWh/m²/day. Large-scale commercial facilities will typically look for sites above 6.0 kWh/m²/day.



Central NSW Councils Distributed Energy Plan

Wind: Indicative Large Scale Wind Turbine Capacity Factor

DRAFT

ARUP

Large-scale wind is typically viable with a capacity factor above 30%, with most developers currently targeting sites above 35% capacity factor.

Step 4

Using the evaluation criteria from Step 2, renewable energy and energy efficiency options for individual council facilities were assessed.

Step 5

A Communication Roadmap for the implementation of each initiative was developed.

Step 6

A Distributed Energy Plan for each council was developed, recommending renewable energy and energy efficiency options. An overarching regional plan was also developed recommending a regional design panel for assessing new projects and upgrades and a waste to energy plant.



Mark James – Central West CMA Photo Competition 2008

{ SECTION SEVEN }

Gaining Support For Your Project



Creating an Atmosphere of Change and Gaining Support for your Project

Before you can create cultural change in your community through projects and educational programs, you need to create cultural change within your council or organisation.



Local government is the front line of community development, so it is at a local level that great strides can be made in *sustainable* community development. The first step is to ensure senior management 'buy in' regarding the need to change.

Authentic commitment to sustainable management and development needs to be reflected by councillors and staff, policies, management plans, job descriptions and where it can be resourced, dedicated sustainability staff. All levels of management need to consider sustainability as a base principle when making decisions.

"(A council should) 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."

The Council's Charter, Local Government Act 1993, Section 8

Understanding the strengths and weaknesses, or 'drivers and barriers', to creating sustainable cultural change in local government

A recent report published by the Institute of Sustainable Futures identified the following 'Barriers and Drivers to Sustainability in Local Government':

Drivers of change

Internal to your organisation;

- General Manager and senior management support.
- Sympathetic organisational culture – how open staff are to change and how sympathetic towards sustainability issues.
- Dedicated sustainability staff or units within council.
- Effective management systems.
- Mayoral and councillor leadership and support.

External to your organisation;

- An active, engaged community, including Landcare groups and conservation volunteers.
- Media coverage of local and global issues increasing awareness of sustainability.
- External funding allowing a wider reach of sustainability message internally and externally.
- Legislation in Local Government Act 1993 that provides impetus for the dedication of council resources to ecological sustainable development.
- Regional partnerships and external agency support such as the Bathurst, Orange, Dubbo (BOD) Alliance, Central NSW Councils (Centroc) and the Catchment Management Authority.
- Strong levels of trust between alliance councils and organisations.

Barriers to change

Internal to your organisation;

- Lack of organisational support and inspirational leadership.
- Theory versus practice – policies not being carried through to implementation.
- Inadequate systems for managing information – data management and IT systems that support the planning, promotion, monitoring and evaluation of initiatives.
- Competing priorities such as public health and economic development seen as more important by council and local community.
- Staff capacity and turnover – lack of skills and expertise in sustainability issues.
- Research and development challenges – no time to acquire new knowledge and update skills.
- Limitations of current legislation regarding sustainability provisions. Local Government Act of 1993 out-dated.

External to your organisation;

- Funding - budget pressures from global economic issues and external seed funding not enough to allow continuation of initiatives.
- The language of sustainability – politically charged, too general, even threatening.
- Dealing with other government agencies – lack of co-ordination between State and Federal plans and lack of guidance.
- Size and geographic location of small or isolated councils and availability of resources.



“ You must be the change you wish to see in the world. ”

Mahatma Gandhi

How the I&IC Project created Cultural Change within councils

One of the objectives of the Inspiring and Integrating Change Project was to embed sustainability within council culture – to “institute cultural shift across the councils and enhance sustainability within planning, budgeting and activities”.

The first step in creating that cultural shift was for each council to run a ‘sustainability staff survey’ to benchmark staff attitudes, knowledge and behaviour. The survey also called for volunteers to form sustainability teams, resulting in teams being established at each Council. A five minute ‘staff sustainability video’ was produced for all three councils to provide information for new staff on sustainable practices within council.

**The Sustainability Teams proved successful in driving change across council.
A number of examples have been provided below:**

The Sustainability Team at Dubbo City Council. An ‘Energy Olympics’ was organised by the Dubbo Sustainability Team as a staff engagement tool. The Energy Olympic Organising Committee recorded daily energy efficiency measures taken by staff in individual departments. Centroc has an Energy Olympics toolkit on its website www.centroc.com.au.

Dubbo City Council also revised council job descriptions to include the following sustainability clause;

“Staff will give equal priority to improving and enhancing Council’s economic, social and environmental outcomes by integrating sustainability into all decision



Dubbo City Council staff get into the spirit of the Energy Olympics at the opening ceremony.

making processes. This includes continuously increasing efficiencies, reducing resource use, sustainable procurement, maintaining service levels and protecting our natural assets. It is expected that all staff can demonstrate awareness and participation in sustainable work practices.”

The Energy Action Team (EAT) at Orange City Council. The team at Orange established a Revolving Energy Fund, to enable savings made through energy efficiency or renewable energy projects to be re-directed into more energy projects rather than being absorbed into council's general funds. The EAT also added ZIP timers to hot water heaters, calculating it would only take five months for the timers to pay for themselves.

The Resource Efficiency Team (RET) at Bathurst Regional Council. The Bathurst RET was instrumental in identifying the opportunity to insulate one of their Childcare Centres in order to cut energy use. One RET member established a worm farm in the staff kitchen to reduce food waste and others distributed ‘Turn off the lights’ stickers, installed timers on ZIP boilers and led the lighting retrofit at the Depot and Waste Water Treatment Plant.



A comparative ‘staff sustainability survey’ was conducted towards the end of 2012 to evaluate what, if any, change had occurred in staff attitudes towards sustainability and the environment in the workplace. Prizes were offered to encourage staff participation in the surveys, with each General Manager sending the survey link to staff, resulting in over 280 responses across all three councils, an increase from the previous year.

The comparative results showed strong and positive changes had occurred towards sustainability within the councils between 2011 and 2012;

- The number of staff who felt their council rated sustainability as a high priority **increased by 30 per cent**.
- The number of staff who indicated their department carried out sustainable practices **increased by 5 per cent to a total of 85 per cent of respondents**.
- The number of staff who believed they understood the concept of sustainability **increased by 3 per cent to a total of 90 per cent of respondents**.

Where to start? Help is out there!

Central NSW Councils (Centroc) has developed a useful 'Introduction to Sustainability' toolkit designed to assist council officers to engage colleagues and management to think about sustainability issues and how they might be incorporated into both internal council culture and wider regional development.

Step 1

Network and make connections with other regional councils and organisations already working on sustainability. Join 'sustainablenet.org.au', an electronic discussion group moderated by the Local Government and Shires Association (LGSA).

Step 2

Get formal support from your manager for an initial presentation on sustainability to all interested staff.

Step 3

Put together a working group of like-minded colleagues. A sample invitation note is provided in the toolkit.



Step 4

Co-ordinate a Sustainability Presentation and Think Tank for staff and management. A sample power-point presentation is provided in the toolkit.

Step 5

Ask staff to select one or two priority projects to begin with and set work plans to ensure implementation. A sample work plan is provided in the toolkit.

Step 6

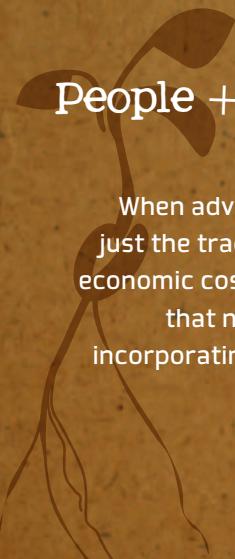
Organise follow up meetings. Keep up the momentum.

Step 7

Celebrate successes, no matter how small. Look for opportunities to promote positive behaviour in council.

To access Centroc's full 'Introduction to Sustainability Kit - Developing a Focus on Sustainability at Your Council', and the full 'Institute of Sustainability's Barriers and Drivers to Sustainability in Local Government' including an Evaluation Tools Matrix of tools used by other NSW councils to measure and evaluate progress towards sustainability, go to:

www.centroc.com.au/largefileuploads/CentrocSustainability101Guide.pdf



**People + Planet + Profit + Governance
= Sustainable Development**

When advocating for sustainability in local government, it is not just the traditional triple bottom line of social costs and benefits, economic costs and benefits and environmental costs and benefits that needs to be considered, but the quadruple bottom line, incorporating a fourth element of governance and civil leadership regarding the way in which decisions are made.



Tips for persuading management



"Have good data, such as energy or water statistics, to back up proposals to management. Savings can then be demonstrated and decision makers more easily influenced.

Recognize the different values people hold around the environment and sustainability. It's most effective to use arguments and language that will convince decision makers, not the arguments or language that would convince you. In other words, don't always present ideas as having an environmental benefit but also show its strong community links, or that it demonstrates council taking leadership.

When engaging with senior management, noting the achievements of other Councils can work to spark their interest, as they may not want to be seen as 'behind the times' among their contemporaries in other councils, or to be outdone."

From "Collaborating for Sustainability", the CEEchange Program,
NSW Environmental Trust, 2012

"Having supportive leadership within your own council means that there really is an opportunity to influence positive change."

Jon Francis, Water Treatment Manager, Orange City Council

SECTION EIGHT
**Lessons
Learned**



Greg Johnson – Central West CMA Photo Competition, 2008

Lessons Learned from the I&IC Project Team

Catriona Jennings, the Sustainability Co-ordinator for Dubbo City Council:

“Communication is the key to ensuring effective project implementation. One of the challenges of the Inspiring and Integrating Change project was working across multiple stakeholders. Face to face meetings are not always possible when dealing with multiple stakeholders, so embrace technology and try video/tele conferencing such as Webex.”



“Don’t rely on your consultant to know what you mean. Spend time developing detailed tender briefs and outline what you really want to achieve (e.g. outputs, target audience, key messages, project timelines, and assumptions). It saves you time in the end! Be sure to seek feedback on the draft brief from steering committee members.”

“Keep your project on the agenda. Ensure procedures are in place to report on project success to the steering committee, Council staff and the funding body.”

Jon Francis, Orange City Council's Water Treatment Manager:

“It is vital that trust is maintained between stakeholders if change is to be realised in the short term – this was certainly a strength of the Bathurst, Orange, Dubbo Alliance.”



Debbie Archer, Dubbo City Council's Manager of Environmental Control:

“Everything takes longer than you expect! With reference to the (Dubbo) solar project, the process of creating tender documents, advertising, reviewing and awarding the tender was, very lengthy.”

“Grant funded projects take more time than Council funded projects as there is much more accountability. The reporting and approval processes that must be undertaken are time consuming but do allow for effective evaluation that otherwise wouldn't occur.”



Courtesy Dubbo Photo News

Joel Little, Environmental Officer, Bathurst Regional Council:

“It's really important to engage early with the community and others within Council regarding the project, and maintain that engagement along the way. This helps to identify issues that may not be known and through communication, solutions can be found. Our greatest challenge in Bathurst was overcoming some of the perceptions in the community about how such a large revegetation project would change their neighbourhood - there were concerns for fires, pests, loss of views and hiding places for vandals etc. Communication with residents, fire and police was crucial.”



Deborah Taylor, Acting Manager Environment, Bathurst Regional Council:

“Make sure you allow for project time in people's job roles. Get senior management to formally commit the required staff time for the full life of the project. With big projects you can't expect staff to be able to achieve all of their existing tasks as well as take on significant project tasks.”



Tips to Inspire Change from the I&IC Project

{ Tip #1 }

Do your homework and understand your audience.

Who are you trying to influence? What is their cultural back-ground, demographic, current knowledge, attitude, behaviour? Research and uncover all the barriers and drivers to change in your situation, and tailor the campaign around your specific circumstances. Use current research, surveys, focus groups and observations. Never make assumptions!

I&IC example: Bathurst Regional Council spent considerable time engaging with relevant interest groups and stakeholders in the lead up to the development of the Biodiversity Management Plan in order to fully understand the gamut of opinions, knowledge and issues relating to the project. They formed a Steering Committee with community representatives to guide the development process.

{ Tip #2 }

Get people to commit. People like to be seen as consistent, so building specific commitments into your program can have a significant impact on behaviour and participation. Remember, written commitments are more effective than verbal commitments.

I&IC example: Bathurst Regional Council asked people to pre-register for the 'Biodiversity in Your Backyard' seminar, resulting in over 90 per cent attendance on the night. Evaluation forms also asked attendees to write down what actions they would make to contribute to biodiversity.



{ Tip #3 }

Use visible prompts.

Prompts, or reminders, are a useful tool in fostering habitual behaviour. Prompts should be highly visible and self-explanatory, and should always appear where the action is to take place.



I&IC example:

Dubbo City Council placed 'please turn off' stickers on light switches to remind staff to switch off when leaving the room.

{ Tip #4 }

Make it 'normal'. People like to behave as others do in their community, so changing social norms by emphasising positive environmental norms is a great way to change behaviour.

I&IC example: Dubbo City Council used the local media to promote the fact that the city was, at the time, the solar power capital of Australia, creating the sense that 'everyone was doing it'.

{ Tip #5 }

Communicate your message well by making it visual, personal and relevant. How you frame your message can make all the difference. Messages are more effective if they indicate what the individual is "personally" gaining or losing by not acting.

I&IC example:

In Dubbo, live data links to the recently installed large solar system on the Western Plains Cultural Centre show real benefits and actual energy generated by the solar panels. When communicating messages about energy savings, Dubbo City Council always relate the energy generated from the system to the number of households it could power, creating a more powerful, personalised message to the community.



{ Tip #6 }

Use incentives to motivate.

Punishments may suppress unwanted behaviour, but they do not directly encourage positive alternatives. Incentives are a good tool to reward and encourage positive behaviour.



Greg Johnson – Central West CMA Photo Competition 2008

I&IC example: Orange City Council's Showerhead Replacement Scheme encouraged tenants, landlords and owner occupiers to exchange old showerheads for new water efficient showerheads. The offer was free and saved water and money in the long term. In Bathurst, incentives of native seedlings were used to encourage registration and attendance at the Biodiversity in your Backyard seminar.

{ Tip #7 }

Evaluate before and after the project to gauge the impact of the intervention and any behavioural changes that have been achieved. Learn by your mistakes and successes. Use honest evaluation to re-think, re-design and improve upon the original pilot program.

I&IC example: Orange City Council applied lessons from the Blackman's Swamp Creek stormwater harvesting project before embarking on the Somerset Park Wetland. The experience and lessons learned from the wetlands in the Ploughman's Creek stormwater harvesting system (which includes Somerset Park Wetland), resulted in water quality improvements and the use of less electricity through smaller harvesting pumps.

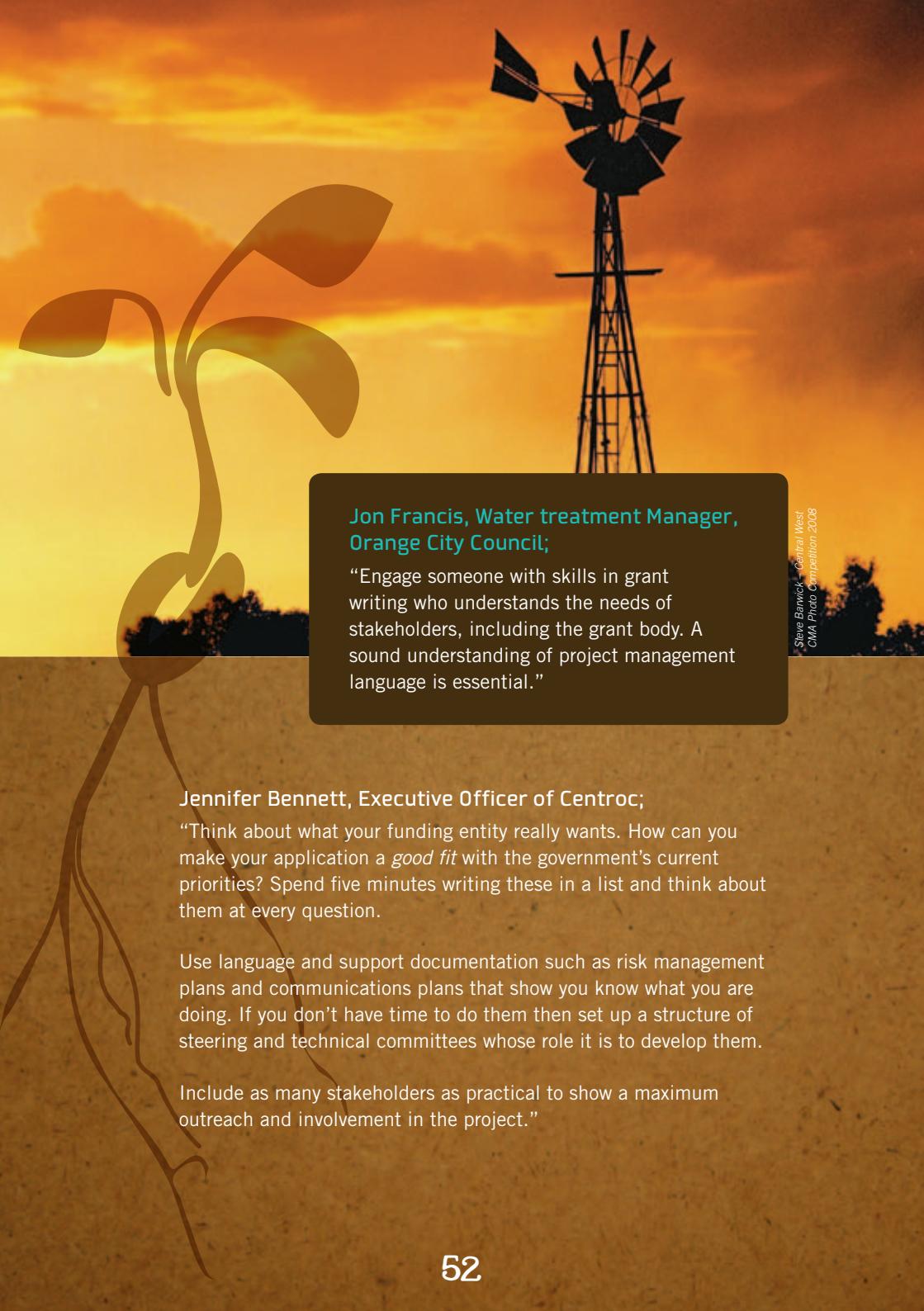
{ SECTION NINE
Tips on
Grant
Writing }



Tips on Grant Writing

If the funding required for your project is not available in your organisational budget, there are many grants available specifically aimed at developing sustainability. Sustainability is a growing concern, and local governments and organisations are being encouraged to think outside the square and create new and exciting ways to promote and nurture sustainability in our communities. Often, grants are used as early stage seed funding to get a project off the ground.

- Be daring! Be innovative!
- Secure senior management support.
- Communicate a sound understanding of project management concepts.
- Stay in the loop with partner councils and organisations – network!
- Make direct contact with the funding body. Ask questions. Make sure it is the right grant for the project. Stay in their field of vision.
- Get the budget right and make sure it is accountable.
- Don't make promises you can't keep or exaggerate the potential outcomes of your project.
- Answer all the questions – stay on message!
- Double check all deadlines – create a calendar of funding deadlines and reminders.
- Demonstrate an ability to deliver outcomes beyond core duties and beyond the life of the project.



**Jon Francis, Water treatment Manager,
Orange City Council;**

“Engage someone with skills in grant writing who understands the needs of stakeholders, including the grant body. A sound understanding of project management language is essential.”

Steve Banick - Central West
CWA Photo Competition 2008

Jennifer Bennett, Executive Officer of Centroc;

“Think about what your funding entity really wants. How can you make your application a *good fit* with the government’s current priorities? Spend five minutes writing these in a list and think about them at every question.

Use language and support documentation such as risk management plans and communications plans that show you know what you are doing. If you don’t have time to do them then set up a structure of steering and technical committees whose role it is to develop them.

Include as many stakeholders as practical to show a maximum outreach and involvement in the project.”

State and Federal Grants

Grants come and go. Some funding programs are in place for consecutive years, others are one-offs. To keep up-to-date on funding opportunities, stay in touch with your regional networks, create a grants diary and regularly visit resource sites such as GrantsLINK.

For environmental and sustainability grants from the **NSW State Government**; www.environment.nsw.gov.au/grantsandfunding

Annual grants are listed below.

- **Environmental Education Grants** of between \$5,000 and \$100,000 are awarded annually to projects that increase environmental awareness.
- The **Eco Schools Program** provides grants to schools to provide opportunities to involve students and the community in developing and implementing environmental management projects.
- The **Lead Environmental Community Groups Program (LECG)** assists eligible lead environmental community organisations in NSW by contributing towards their administrative costs.
- **Protecting Our Places** grants are awarded to projects that protect land that is culturally significant to Aboriginal people and support education projects about the environment and its importance in Aboriginal life.
- **Environmental Research Grants** are available to support research projects that help address environmental problems in NSW.
- **Environmental Restoration and Rehabilitation Grants** are available to community, state and local government organisations to facilitate projects to prevent or reduce pollution, the waste stream or environmental degradation of any kind. These projects also aim to improve the capacity of communities and organisations to protect, restore and enhance the environment.
- The **Aboriginal Lands Clean-Up Program** supports partnership projects between Local Aboriginal Land Councils and local governments that seek to address the social and environmental issues of illegal dumping occurring on Aboriginal owned lands.

- **NSW Environmental Upgrade Agreements (EUAs) finance sustainable building upgrades** to existing commercial, industrial, strata scheme and large multi-unit residential buildings in NSW. Under an EUA, a finance provider lends funds to a building owner for water, energy and other environmental upgrades, and this low-risk loan is repaid through a local council charge on the land.

For environmental and sustainability grants from the **Commonwealth Government**;

www.nrm.gov.au/funding/funding-options Federal Government “Caring for Our Country” Grants

www.grants.myregion.gov.au GrantsLINK - Department of Regional Australia, Local Government, Arts and Sport. For sustainability grants search under “Agriculture” and “Environment and Nature”

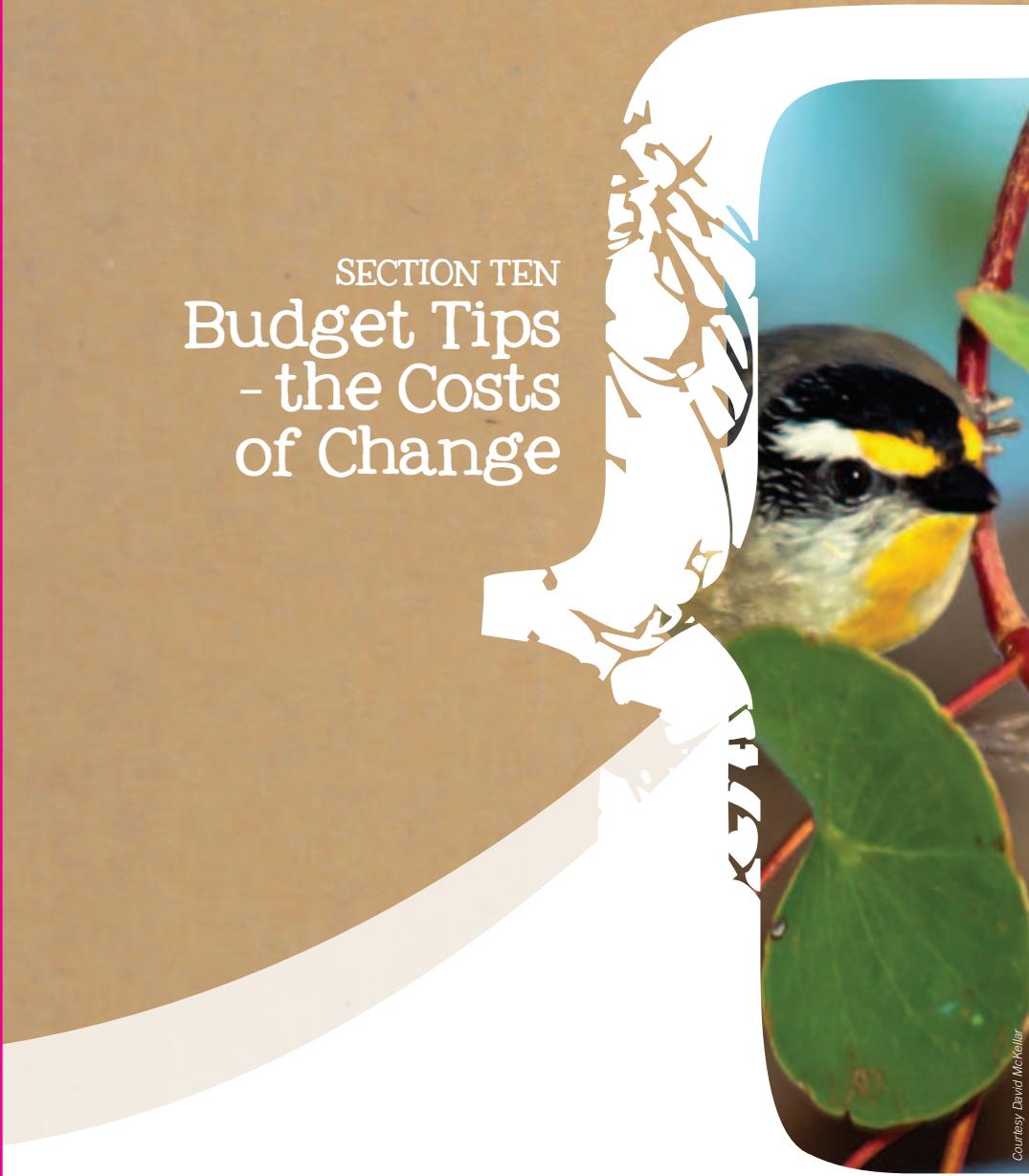
www.environment.gov.au/about/programs/index Department of Sustainability, Environment, Water, Population and Communities.

www.ausindustry.gov.au/programs a specialist program delivery division within the Department of Industry, Innovation, Science, Research and Tertiary Education

The **Community Energy Efficiency Program (CEEP)** is a merit-based grant program established by the Commonwealth Government to provide matched funding to local councils and non-profit community organisations to undertake energy efficiency upgrades and retrofits to council and community-use buildings, facilities and lighting. www.climatechange.gov.au/ceep

SECTION TEN

Budget Tips - the Costs of Change



Courtesy David McKellar

Budget Tips - the Costs of Change

Costs relevant to the Inspiring and Integrating Change Project
lifespan 2009- 2012

Project	Estimated cost (\$)	Budget tips and notes
Greenhouse Gas Inventory		
Greenhouse Gas (GHG) Inventory. Included the creation of a Simple Emissions Estimator for smaller councils.	63,000	Engage professional, experienced consultants for inventories and feasibility studies.
Bathurst Biodiversity Projects		
Bathurst's Biodiversity Management Plan. Included the Issues Forum and Rapid Assessments of 700 Council land parcels.	102,700	Hold public forums to involve and encourage community participation. Form a Steering Committee to help direct and provide feedback throughout the development of the plan.
Blayney Road Common. Included the regeneration of 90,000m ² of land.	25,000	Make sure to weight up the costs and benefits of using bush regeneration contractors against local arborist for woody weed control. A local arborist can be much more affordable.
Urban Drainage Reserve Vegetation Link. 24,000 native seedlings across five drainage reserves.	274,000	Costs per reserve varied according to the size of the reserve and species planted - approx \$54,000 per reserve. Cost ranges between \$2 (just supply and installation) to \$5 (including weed mats, guards including maintenance and mulching) per plant. Involve and inform surrounding residents early in the process and invite feedback where possible. Create opportunities to reduce costs through community involvement such as tree planting days.

Project	Estimated cost (\$)	Budget tips and notes
Dubbo Renewable Energy Projects		
Renewable Energy Feasibility Study.	70,000	Prioritise renewable energy options by asking Council executive staff to rank the importance of social, economic, environmental and governance objectives of the project.
Western Plains Cultural Centre. 70kW photovoltaic solar system.	290,000	The money saved from energy generated by solar panels is redirected into other renewable or energy efficiency projects within the Centre. Note, solar panel prices have reduced significantly since the project.
Family Day Care Centre. 4.2kW solar system, lighting retrofits, insulation and sky light	2,000 ceiling insulation 1,190 skylight 5,250 lighting 7,000 solar panels	Signage, posters and brochures were used at the Family Day Care Centre to show families what they could do at home to save energy and take advantage of the benefits of renewable energy.
Dubbo Aquatic and Leisure Centre. Solar tube heating system installed on two pump sheds to supplement natural gas heating. 180m ² pool with a 400KL volume.	17,000	When selecting a venue to implement a sustainability initiative, be sure it is used frequently by the target audience to maximise the ability to showcase your project.

Project	Estimated cost (\$)	Budget tips and notes
Orange Water Conservation Projects		
Wetland Team Leader and Crew Member.	Salary eg 45,000 - 55,000	Look for people with the right experience and qualifications but who also have effective communication skills to engage the community and professionals in the field.
Wetlands survey and design.	30,000 - 50,000	Engage professionals with demonstrated experience in wetland design and use peer review.
Somerset Park Wetland construction. Included significant earth works and planting out of 27,560 riparian seedlings	800,000	Costs could be reduced by using local contractors. 50 per cent of the cost of the Somerset Park Wetland construction was for the removal of dirt. The close proximity of housing to this project also increased costs. For immediate visual impact, four riparian seedlings were planted per square metre - two or three per square metre would reduce costs. Seedlings, plastic sleeves, stakes and weed mats cost 3.50 per unit.
Signage costs		
Somerset Park Wetland signage. Interpretive signage was designed to tell the story of the wetlands, how water filtration works and highlight the benefits of the project.	9,000	Locate signs in a highly visible area. Keep signs simple and use graphics to illustrate concepts. Use professional designers. Test conceptual designs on someone from your target audience who is not involved in the project.
Family Daycare Centre signage. Three educational signs with an "Energy Smart" theme.	1,500	Create value that lasts beyond the length of the project. Family Day Care signage was designed to promote the Victoria Park Precinct Renewable Energy Project beyond the life of the grant project.

Project	Estimated cost (\$)	Budget tips and notes
Sustainable City Expo Costs		
Radio advertising. Included a radio tent featuring live crosses and music at the event.	1,500	A partnership or sponsorship with a local radio station can provide reduced advertising rates and an opportunity to include music at the event.
Lucky Door Prizes - power boards, LED torches, timers, high star rated energy-saving appliances.	80	Remember to include these as part of your promotion and ask local suppliers to sponsor your event through the donation of lucky door prizes. Lucky door tickets were used as a motivator for registrations at the door, helping determine numbers and gather attendee information.
Expo advertising banner for high traffic areas	400	Use a local supplier or environmental materials where possible.
80 Posters.	200	Use a local supplier or environmental materials where possible.
1,200 DL Flyers.	500	Use local supplier or environmental materials where possible.
Entertainment. Waste To Art activities, jumping castle.	850	Interactive activities and kids activities can attract more people to your event. Engage with parents while they wait.
Print advertising. A special Green Edition suppliment in the local paper including exhibitor advertising and editorial.	2,300	Always use local businesses and partnerships where possible. Encourage participating business to promote the event through their own advertising and promotions and use social media where you can.
Venue hire & equipment. Includes venue fees, cleaning, toilet and waste servicing fees, marking or identification of water and electrical mains prior to event, table and chair hire.	3,000	Choose a council facility to reduce venue hire and equipment costs. Outdoor events should have wet weather alternatives in place.

Project	Estimated cost (\$)	Budget tips and notes
Biodiversity in Your Backyard Seminar costs		
Catering for 250 people.	2,000	Choose a local supplier and, where possible, local produce. Recycling bins should be organised for the event as well as crockery and glasses, or biodegradable products, rather than plastic cups, plates and cutlery.
Publicity. Four print media advertisements and one advertorial.	1,500	Find out from the local papers which days have the highest circulation rates and book these days for your ads. Evaluation of the biodiversity seminar indicated more than a third found out about the event through the newspaper.
Venue hire. The Flannery Centre, Bathurst.	500	If possible, choose a 'green' venue to send out a more powerful message to attendees. The Flannery Centre partnered with Bathurst Regional Council to provide the venue at a discounted rate.
Prizes. Native gardening books and nest boxes	100	Make these relevant to the issue and to facilitate behaviour change. Or use them as incentives for participation.
Posters and 800 flyers	500	Reduce cost of materials by limiting printing and advertising and using online advertising and free social media networking (Facebook, Twitter, Pinterest, blogs) where possible. When purchasing materials use a local supplier and environmental materials such as recycled paper where possible.



Project	Estimated cost (\$)	Budget tips and notes
Miscellaneous costs		
Monitoring and evaluation. Contractor employed to collect data, conduct KPI audit and deliver and analyse community engagement evaluation.	54,000	A strong monitoring process should be established at the beginning of a project to support tracking, highlight opportunities for adaptive management and improvements and provide thorough data for evaluation at the end of the project.
Sustainability Advantage Program. NSW Office of Environment and Heritage	2,000	As a member of this state government program, Dubbo City Council was able to conduct further energy audits at a heavily subsidised cost, resulting in more facilities having the required data for grant applications. See also the NSW Government's Energy Saver Program.



{ SECTION ELEVEN }

References

References and Other Helpful Resources

McKenzie-Mohr D and Smith W, (1999) Fostering Sustainable Behaviour – An Introduction to Community Based Social Marketing, New Society Publishers.

UTS Institute for Sustainable Futures (2009) Barriers and Drivers to Sustainability in Local Government

NSW Department of Environment and Conservation (2000)
Does Your Project Make a Difference
www.environment.nsw.gov.au

NSW Environmental Trust Council on Environmental Education (CEE), Collaborating for Sustainability guide (2012)
www.sustainablecouncilsnetwork.org.au

Institute for Sustainable Futures,
Sydney University of Technology
www.isf.uts.edu.au

A forum to share knowledge and issues regarding sustainability among NSW councils. An initiative of the Local Government and Shires Associations of NSW and the Urban Sustainability Support Alliance
www.sustainablenet.org.au

Sustainable Councils Network
www.sustainabilityeducation.ning.com

Central West CMA have produced a Resource Efficiency Toolkit for small to medium businesses to help them save money and make the move to becoming more sustainable.
<http://cw.cma.nsw.gov.au>

Biodiversity Management Plan proposed indicators for Bathurst

The proposed key performance indicators for biodiversity in Bathurst are listed below (relating to page 32):

- The biodiversity condition rating of Council controlled lands in the urban and rural environments which have moderate, high or very high conservation value is *improved*;
- Area of land of high biodiversity conservation value in the BRC Region protected through LEP zoning, minimum lot size standard or other appropriate planning mechanisms is *increased*;
- Area of land of high biodiversity conservation value protected through the National Parks Estate, Council Reserve System and/or private conservation covenants on title is *increased*;
- Length of roadside vegetation mapped to vegetation community level and assessed for biodiversity conservation is *increased*;
- Biodiversity condition rating of roadside vegetation which has moderate, high or very high conservation value is *maintained or improved*;
- The connectivity of remnant vegetation within road reserves and through Bathurst City (e.g. Mount Panorama precinct and Macquarie River riparian zone and tributaries) is *maintained or improved*;
- Extant populations of listed threatened species in the Bathurst Region (using a targeted subset of threatened species) are *stable or expanding*;
- Woodland bird species abundance and diversity *maintained or improved*;
- Wetland bird species abundance and diversity *maintained or improved*;
- Area of EEC in moderate to high condition, of patch size >10 ha, mapped and protected through zoning, National Parks Estate, Council Reserve system or private conservation is *increased*;
- Urban and non-urban waterways condition is *improved*;
- Community understanding and engagement in biodiversity conservation is *improved*;
- Level of funding directed to biodiversity conservation (external and internal) is *increased*;
- Area of native vegetation removed as a consequence of development approvals and Council's own activities (either through direct reduction or offsets) is *reduced*.