# 2012-2016

## State of the Environment Report





#### State of the Environment Report 2012-2016

#### Introduction

The Lithgow Local Government Area (LGA) contains a unique and diverse environment that is a significant lifestyle, community and economic asset for the area. This State of the Environment Report (SOE) 2012-2016 aims to identify any new environmental impacts, improvements or trends in environmental indicators as defined within the environmental objectives established in the Lithgow City Council's Community Strategic Plan.

The SOE Report is an important management tool which aims to provide the community and Council with information on the condition of the environment in the local area to assist in decision-making. Recent changes to NSW legislation mean that Councils are no longer required to produce SOE Reports each year, but only once every four years, in the year of the Council election (in 2016).

SOE Indicators
Land
Water & Waterways
Biodiversity
Towards Sustainability
Heritage
People & Communities

This Principle Activity Areas for environmental protection and management are covered primarily within the Protecting our Environment and Developing our Built Environment sections within the Community Strategic Plan. The Community Strategic Plan 2012-2026 focuses on enhancing, managing and maintaining the Lithgow region's exceptional natural environment by:

- **o** Supporting biodiversity.
- **o** Planning for future impacts of climate change and population expansion.
- o Pursuing innovative and ecologically sustainable policies and approaches to development and community living.

#### 2012-2016 Highlights

The Lithgow Land Use Strategy 2010-2030

Identifies strategic directions and actions as a response to consideration of issues that affect Environmental Protection and Natural Resource Management

Sewage Infrastructure upgrades for sustainable growth

The Lithgow LGA will soon have 3 modern, state of the art sewerage treatment facilities capable of catering to the future growth of the area & protecting the environment.

**Lithgow Local Environmental Plan 2014** 

In 2014, a new era in planning began for the Lithgow. The plan contains sensitive area overlays to assist with ensuring environmentally sustainable development.

#### **Kerbside Recycling**

The delivery of over 18,000 new garbage and recycling bins in 2013 has provided the community with an excellent opportunity to recycle and reduce waste going to landfill.

Eskbank House and Museum won the "Blue Star Sustainability Awards Cultural Heritage Award for NSW" for 2015. In recognition of their achievements in museum, art and event management.

Our Place...Our Future Community Strategic Plan 2013-2025 The plan sets out the community's vision for the strategic direction of the Lithgow local government area.



#### Lithgow LGA Profile

The Lithgow Local Government Area (LGA) is located on the western slopes of the Blue Mountains, 140 kilometres from Sydney. The Lithgow Local



Government area totals 4567 square kilometres covering the Capertee and Wolgan Valleys in the north, Little Hartley in the east, Tarana in the south and Meadow Flat in the west. The estimated residential population is 20,790 as at 30 June 2011.

The major urban centre of Lithgow nestles in a valley of that name, overlooked by the sandstone escarpments of the Blue Mountains at an altitude of 950 meters. In addition to the major urban centre of Lithgow, the Lithgow local government area has 12 villages/hamlets with mining or farming backgrounds.

Lithgow has historically been perceived to be an inland mining and industrial centre. Due to the distinction and beauty of the surrounding environment and its recognition as a heritage centre Lithgow is emerging as an important tourism destination, an attractive residential area and is increasingly attracting 'tree changers'.

The Lithgow local government area lies almost wholly within the Wiradjuri Aboriginal nation, with the Gundungurra nation situated to the south and the Darug nation to the east.

#### **Our Environment**

The Lithgow local government area is predominantly a rural area, with rural residential and residential areas in several townships and some industrial land use. Rural land is mainly for farming, grazing and mining (particularly coal mining).

Nearly two thirds of the local government area is national park or state forest. Natural assets such as the Capertee Valley (the widest enclosed canyon in the world), Pearsons Lookout, Hassans Walls Reserve and the Glow Worm highlight the importance of balancing the variety of land uses to ensure the impacts of current activities do not compromise the enjoyment and amenity of the area for future generations.

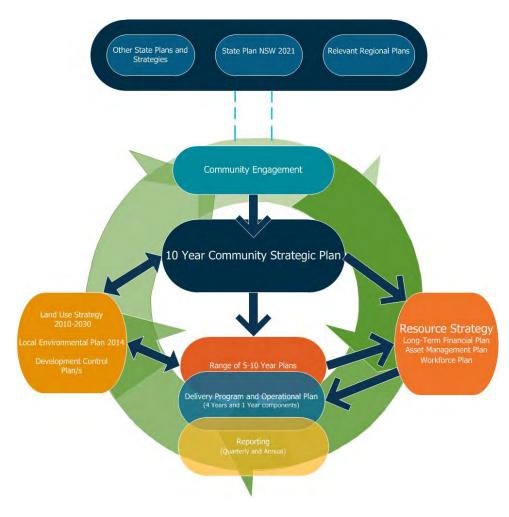
Environmental protection and natural resource issues within the Lithgow local government area include:

- Management of land within the Sydney Drinking Water Catchment Area Cumulative impacts of on-site effluent disposal
- Management of bushfire threat to settlement and areas of high Biodiversity
- Impact of flooding on settlement areas
- Loss or reduction of environmentally sensitive land, water and biodiversity resources
- Encroachment of development on the scenic qualities of the landscape
- Management of contaminated lands



#### A New Framework for State of the Environment Reporting

In 2009, the Local Government Act 1993 was amended to require the use of an Integrated Planning and Reporting (IP&R) framework for councils. This framework, the **Our Place...Our Future Community Strategic Plan 2013-2026**, guides and links all of Councils strategic, operational, and accountability planning and reporting.



The introduction of the IP& R framework makes the requirements for SoE reporting a part of the corporate planning and reporting process. The SoE report has changed from an annual report to a four-yearly State of Environment Report to be compiled as part of the Integrated Planning and Reporting Framework (IP&R). It must report on the environmental objectives established in the Lithgow City Council's Community Strategic Plan.

The Integrated Planning and Reporting Framework recognises that communities do not exist in isolation – they are part of a larger natural, social, economic and political environment that influences and to a large extent shapes their future direction. The Framework acknowledges that Council and the community work hand in hand to shape the direction of their area through the development of plans and strategies based on visions and ideals for a sustainable future.

The Community Strategic Plan 2001-2026 sets out the community's overall vision for the strategic direction of the Lithgow local government area in the key areas of the community, the economy, the built environment, the natural environment, and responsible governance and civic leadership. The specific objectives outlined within the Community Strategic Plan 2011-26 are as follows:

#### Caring for our Community

- o To plan and provide quality community and recreational facilities and services for a healthy, vibrant and harmonious community.
- Working together to support, celebrate and expand the social and cultural diversity of our community, whilst promoting healthy, active lifestyles in a safe environment.

#### Strengthening our Economy

- o Providing for sustainable and planned growth that supports a range of lifestyle choices and employment opportunities.
- Exploring and discovering the richness in our society through the pursuit of educational, creative and cultural opportunities to diversify our economy, skills base and employment opportunities.

#### Developing our Built Environment

- Planning for suitable infrastructure development to promote sustainable and planned growth, while enhancing the existing identity of the towns, villages and rural areas of the LGA.
- Ensuring sustainable and planned growth through the provision of eff effective public and private transport options and suitable entertainment and recreational facilities to enhance the lifestyle choices of the community.

#### Enhancing our Natural Environment

o To conserve and preserve the natural environment whilst balancing the impact of development to ensure a sustainable and healthy community.

#### Responsible Governance and Civic Leadership

• A Council that focuses on strong civic leadership, organisational development and effective governance with an engaged community actively participating in decision making processes affecting their future.

The Integrated Planning and Reporting Framework provides a holistic approach to strategic based on a perpetual planning and reporting cycle which encourages an inclusive and transparent approach to the development of a sustainable local government area and responsible civic leadership.

#### **Plan Structure**

The State of the Environment Report 2012-16 is prepared in accordance with the guidelines of the NSW Local Government Act 2009. The Principle Activity Areas for environmental protection and management are covered primarily within the Protecting our Environment and Developing our Built Environment sections within the Community Strategic Plan.

The SoE report addresses, reviews and quantifies (where possible) the following environmental sectors:

SOE Indicators
1. Land
2. Water and Waterways
3. Biodiversity
4. Towards Sustainability
5. Heritage
6. People and Communities

The condition of each sector is discussed in terms of the Pressure-State-Response model which is defined and reads within the Report as:

**Pressure** - identifies and describes the pressure that human activities put on their immediate environment and natural surroundings.

**State** - identifies and describes the current state of the environment.

**Response** - identifies and describes the actions of Council, government agencies, industry and the community to the state and pressures of the environment.

#### Alignment to integrated Planning Framework

In accordance with the amendment to Planning and Reporting in section 428A of the NSW Local government act Act, the report will also evaluate progress in achieving the environmental objectives identified within the Community Strategic Plan during the last four years.

The actions taken over the last four years are examined as they align with strategic areas within the Community Strategic Plan. The strategic areas primarily relevant to informing the SOE are covered primarily within the Protecting our Environment and Developing our Built Environment sections of the Community Strategic Plan.

1. A detailed analysis of actions (as they relate to strategic areas) for each of years as reported annually within operational/delivery plans and reports including management plans relating to the environment, special council projects relating to the environment, produced within the integrated planning framework are reviewed to asses and report on issues and actions taken for the protection and management of the environment over the last four years.

2. This information is then used to inform the development of the next Community Strategic Plan and the incoming councils' Delivery Programs. The SoE is due on the last meeting of council prior to an ordinary election (every 4 years).

#### **Community Consultation**

Extensive community engagement was undertaken in developing the Our Place...Our Future, Strategic Plan with a key part of the process being the development of a community vision and vision statements to carry the Lithgow local government area into the future.

Since the implementation of the Strategic Plan 2007, Council has continued to engage the community in the development of a suite of strategic planning documents which continue to inform the development of Our Place...Our Future:

- Economic Development Strategy 2010 2014
- Business and Retail Strategy Final Report
- Manufacturing/Industry Survey Summary
- Wallerawang Industrial Park Feasibility Study
- Crime Prevention Plan 2010
- Cultural Plan 2008-2013
- Lithgow Cultural Precinct Study 2010
- Social Plan 2006-2011 (Revised December 2008)
- Hyde Park Management Plan

- Lithgow Golf Course Plan of Management
- Urban Sustainability Program Business Plan
- Festival and Events Strategy 2009 2012
- Waste and Recycling Strategy
- Ageing Strategy
- Open Space and Recreational Needs Study
- Lithgow Heritage Development Control Plan Study
- Lithgow Land Use Strategy 2010-2030
- Tourism Strategy Destination Management Plan

To encourage community participation in the development of the community strategic plan the following activities were undertaken:

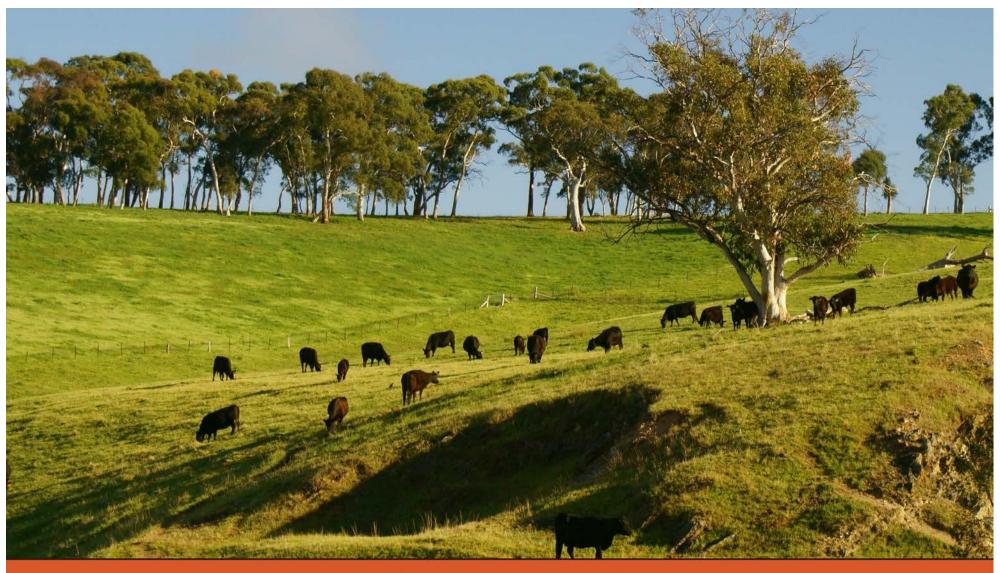
- Development of an Integrated Planning and Reporting Website www.lithgow.nsw.gov.au/integratedPlanning.
- Distribution of media releases to local and regional media.
- Inclusion of information in 'Council Connections' Community Newsletter.
- Hard and electronic copies of the documents mailed out to stakeholders.
- Invitation to local school groups to participate by writing a 'Postcard to the Mayor'.
- E-mail to Council Connections distribution list, Land Use Strategy Distribution list and internal staff.
- Inclusion of message inviting the community to complete the community satisfaction survey on the bottom of Council's automatic response e-mail.

Following adoption of the Integrated Planning and Reporting Framework for exhibition Council conducted a series of information sessions and open house sessions at various locations throughout the local government area. During this period, engagement on the solutions, actions and accountabilities that have been identified and captured to form the Integrated Planning and Reporting Framework were invited via face-to-face and online mechanisms:

- Community Briefing Sessions providing an overview of the IPR Framework and Operational
- Plan 2012-2013 were held at the following community halls:
  - o Capertee
  - o Hartley

Manned Open House Sessions to provide members of the community with an opportunity to review the suite of documents with a Council Officer and provide feedback were held at:

- Lithgow Library
- Portland Library
- Wallerawang Library
- Lithgow Valley Shopping Centre.
- Council's Integrated Planning and Reporting Website was updated to include information on the full suite of documents within the framework.
- Media releases and items were placed in the Council Column advertising dates for Briefing Sessions, Open House Sessions and inviting feedback on the IPR Framework.
- Feedback was provided to all stakeholders identified in the Community Engagement
- Strategy and respondents to the Community Satisfaction Survey on the results of Phase 1 of the Community Engagement Process and inviting participation in Phase 2.
- Promotion of the Integrated Planning and Reporting Framework and exhibition period was included in Council Connections Council's newsletter delivered to the community during week beginning
- On air interview with WIN TV Regional News to promote the Community Strategic Plan was undertaken



# Land

## 1. Land

There are many challenges to the sustainable management including erosion and degradation, salinity, and urban encroachment to agricultural land. Land is a finite resource and the use and management of our lands must include determining its capability and suitability of purpose, recognising its ecosystem services value and not unduly compromising its capacity to sustain future generations.

The last four years have seen significant achievements in developing a more sustainable approach to land management within the LGA. In particular the new Lithgow Environmental Plan 2014 defines and determines land use within the LGA with the purpose of balancing the often competing demands and helping to ensure sustainable growth and land use management.

#### 2012-2016 Highlights - Land

#### Lithgow Local Environmental Plan 2014

In 2014, a new era in planning began for the Lithgow LGA with the approval of the Lithgow LEP 2014. The plan introduces legally referable mapping available online for the community to access for the first time.

#### Lithgow Land Use Strategy 2010-2030

The Strategy quantifies and defines the strategic planning responses to key sustainable land management issues and provides key strategic directions for the next 20 years.

#### Lithgow Rural and Rural Residential Strategy Review

Although the LEP is an important milestone, Council recognises the need to undertake further planning for rural areas and in particular planning for sustainable future rural lifestyle development opportunities throughout the LGA.

#### Masterplan and Development Control Plan for the Marrangaroo Urban Release Area

The primary driver for this project is to plan for the future development of the area in a sustainable, orderly and cost effective manner based on best practice urban design principles

#### The Rural Lands Project Steering Committee

The Committee was established and Council adopted its Terms of Reference on 9 February 2015.



## **Pressure to Land**

The Department of Environment defines sustainable land management as 'the use of land resources including soils, water, animals and plants for the production of goods to meet changing human needs while simultaneously ensuing the long term productive potential of these resources and the maintenance of their environmental functions".

Land is a primary and finite resource that is integral to environmental, economic and social sustainability. There are many challenges to the sustainable management and use of land including erosion and degradation, salinity, and urban encroachment to agricultural land.



#### Soil erosion and degradation

Soil erosion by water and wind is a natural process. Some land uses and management practices have the potential to greatly accelerate soil erosion by reducing surface cover, increasing runoff and reducing the resistance of soil to water and wind erosion.

Many soils are old, weathered and infertile, making them particularly susceptible to erosion. The potential for soil erosion increases wherever soil is disturbed or exposed by the removal of protective vegetation cover and during high intensity rainfall and winds. The clearing of native vegetation, excessive cultivation, bare soil and fallowing practices, overgrazing by introduced animals and pests, and poor matching of land-use activities with land capability have been directly associated with increased rates of soil erosion and land degradation in NSW. Extreme events, such as drought, bushfires and floods, also increase the potential for erosion. Degradation of riparian vegetation and changes in catchment hydrology accelerate the erosion of creeks and river banks. In urban areas, land clearing, soil disturbance and earthworks associated with development and redevelopment continue to expose soil to potential erosion. The sustainable use of soil and land within the region is of increasing significance with the vagaries of climate change where the frequency, intensity and duration of extreme weather events are increasing.

The Environmentally Sensitive Areas mapping prepared for the Lithgow LGA has identified approximately 5,300 ha of land affected by severe to extreme sheet and rill erosion. These areas are predominantly located around the escarpment areas. There are also substantial areas affected by very severe stream bank and gully erosion particularly prevalent in the south of the LGA.

#### **Soil Salinity**

Dryland salinity is the build-up of salts in the soil surface and groundwater in nonirrigated areas. The removal of native vegetation through land clearing and the adoption of unsuitable land uses and practices cause water-tables to rise. This allows salts to move close to the soil surface where they are concentrated by evaporation or discharged into surface waters. Salinisation occurs when enough of these salts accumulate to cause degradation of land and water resources and vegetation.

Areas affected or at risk of dryland salinity are those where salt outbreaks have occurred or where water tables have risen to within two metres of the surface.

The Environmentally Sensitive Areas mapping prepared for the Lithgow LGA has identified approximately 81ha that are salt affected. The largest pockets of these areas are concentrated to the northwest of Capertee and to the east and south east of Tarana.



## State of Land

#### Land Use Conflict

The horizontal growth of settled areas combined with the dispersed rural living development has created land use conflict within the LGA.

Urban sprawl and rural lifestyle blocks, or tree changers, has led to the encroachment into more marginal lands as well as into agricultural lands. This urban and rural lifestyle development is often in direct conflict achieving environmental management outcomes and the economic recovery of primary resources.

Pressure for development to spread out or to carve up existing acreage results in loss of habitat, fragmentation of existing habitats, and associated losses in biodiversity. It also leads to increased problems with the introduction and spread of introduced species such as weeds and pest animal's. It also often results in non-utilisation of formerly productive land and frequently leaves areas of productive land 'unmanaged' resulting in adverse environmental outcomes as well as social and economic costs.

#### **Unplanned dispersed settlement**

Past and current planning provisions have retained a range of provisions to enable the subdivision of rural land and the erection of a dwelling with limited to no consideration of natural and primary production resource management and protection.

What was initially intended to be an alternative to urban living has grown significantly in that the population now living in the urban areas has fallen from 95% in 2001 to 80% in 2006. Due to



the unplanned and dispersed nature of this form of settlement growth, it has not led to the sustainability of rural villages but has increased land fragmentation which in turn exacerbates the environmental impacts and degradation.

Encroachment of development into more marginal lands without regard to the carrying capacity of the land places onus on the development assessment process to control impacts on a site-by-site basis and this has limited potential to address cumulative impact.

Unplanned dispersed settlements have an increased potential for land use conflict leading to primary production lands being limited in their capacity to operate without restriction. It also Increases infrastructure and service costs particularly in relation to provision and maintenance of rural roads and garbage services, but also in social and governance services. This is due in part from the redirection or loss of critical mass in urban areas which are needed to ensure continued maintenance and improvement of services and higher order infrastructure.

#### Increased environmental footprint of development and impact upon environmentally sensitive lands and rural landscape

- Reduced ability to achieve natural resource management objectives due to increased stakeholders with smaller parcels of land and different expectations.
- Increased potential for negative impact upon natural resources such as water, soils, vegetation and biodiversity.
- Increased threat of bushfire hazard.
- Loss of rural landscape and rural character.

## Land use conflict impact on primary production resources (agricultural land, forestry, resource lands, mining, extractive industries), impact on environmental conservation

Proliferation of rural lifestyle development in primary production areas impacts upon the ability for these lands to maximise their potential in terms of the natural and primary resource. Specific examples of this conflict occurs in locations such as Blackmans Flat (impact on mining and power generating developments), Clarence (impact upon underground mining), Baal Bone Colliery (impact upon underground mining and surface works), Megalong and Kanimbla Valleys (impact on agricultural management).

- Reduction in security of investment for both those seeking rural lifestyle and primary producers.
- Rural lifestyle development introduces matters of land stewardship in relation to weed control, bush fire hazard reduction, introduction of domestic animals, maintenance of water quality and quantity and soil management.
- Conflict occurs at the interface of DECCW and forestry lands and impedes the production and management regimes of these lands.

#### Fragmentation and conversion of primary production lands

- Conversion of lands from primary production inflates land values beyond primary production value, making it difficult for entry of rural producers and resource industries to buy in.
- Land once converted in many cases will never revert back to primary production use.
- Land parcel isolation. Rural land interspersed with rural lifestyle development is often cut off from other major land holdings making consolidation of land difficult for farm management.

#### **Contaminated Land**

- o Management of contaminated land is governed under Contaminated Lands Management Act.
- o No Council lands have been rehabilitated during the term.

#### **Building Approvals**

106

## Resident Building Approvals Lithgow LGA Houses Other

83

96

2012-13

0

92

2015-16 2014-15 2013-14

The total building approval levels are greatest in the 2015-2016 financial year. Lithgow City's building approvals are used as a leading indicator of the general level of residential development, economic activity, employment and investment.

The number of building approvals can fluctuate substantially from year to year simply as a result of the short-term nature of many construction projects, the state of the economy including interest rates, availability of mortgage funds, government spending, and business investment and the cyclical nature of the industry.

## **Response to Land**

#### Long Term Planning

The following Plans and Strategies have been developed and implemented which define the strategic planning responses to key sustainable land management issues within the Lithgow LGA:

- o The Integrated Planning and Reporting Framework which includes the key theme "Strengthening our Environment".
- o Lithgow Land Use Strategy 2010-2030.
- o Lithgow Local Environmental Plan 2014.
- o Strategic Water and Sewerage Business Plans.

The following plans are currently being developed:

- o Lithgow City Rural and Rural Residential Strategy Review
- o Masterplan and Development Control Plan for the Marrangaroo Urban Release Area
- o Comprehensive Development Control Plan
- o Cullen Bullen Village Improvements Plan
- o Farmers Creek Precinct Master Plan.

#### Lithgow Land Use Strategy 2010-2030

In 2010, Council completed the Draft Land Use Strategy and Issues Paper. The Lithgow City Council Land Use Strategy 2010-2030 quantifies and defines the strategic planning responses to key sustainable land management issues. The strategy provides key strategic directions for the next 20 years around:

- o Population makeup and trends
- o Infrastructure
- o Environmental protection including water, soil, vegetation, forests and national parks
- o Heritage
- o Rural land use
- o Residential land use
- o Industrial, commercial, tourism lands
- o Open space and recreation



#### **Lithgow Local Environmental Plan 2014**

In 2014, a new era in planning began for the Lithgow LGA with the approval of the Lithgow LEP 2014. The plan took effect on 19 December 2014. The plan now aligns with the State Government's Standard LEP template and introduces legally referable mapping available online for the community to access for the first time.

The LEP is an important milestone in the development of a comprehensive strategic land use planning framework that will allow council to deliver the goals and targets of the Community Strategic Plan 2026. The Plan repealed and replaces all previous planning provisions and is consistent with a template that applies across the State of zones, clauses and definitions. It also delivers locally specific outcomes that support the key directions of the adopted and endorsed Land Use Strategy 2010-2030.

Council believes that the improved planning document will provide more surety for investment. The LEP provides a suite of land use planning tools to facilitate the orderly and economic development of land and provide protection and conservation of natural environment and areas of environmental heritage.

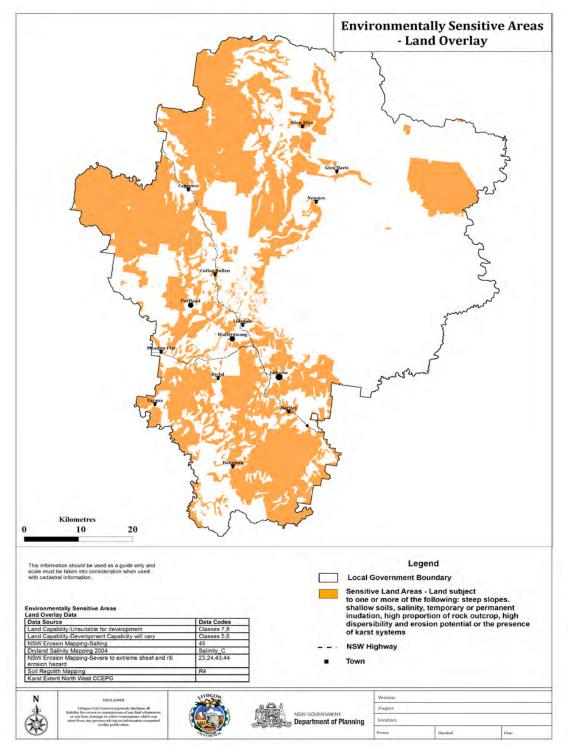
The Lithgow Local Environmental Plan is the culmination of a number of years of strategic planning work and consultation with the Lithgow community and relevant government agencies. The development of the Local Environmental Plan involved a high level of community consultation fully integrated with Council's website and online services. For the first time, the community was able to access on line mapping, tutorials, video and electronic documentation and enquiry forms to assist them to fully understand the provisions and implications of the new Plan.

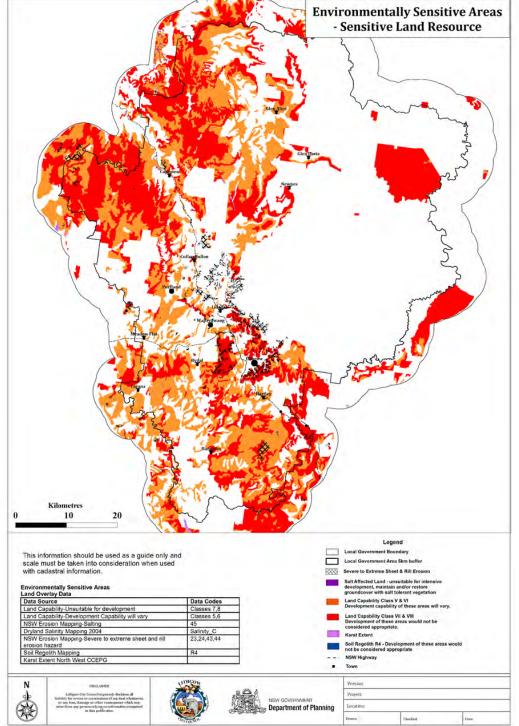
Within the 2014 Lithgow Local Environmental Plan (LEP), environmentally sensitive areas have been mapped and an overlay applied to a land use map to inform planning decisions and to aid in ensuring sustainable land use with the LGA. Chapter 7 "Environmental Protection and Natural Resource Management' demonstrates the legislative requirements for natural resource management by council and describes how the management responses fit within the regional, state and federal context.

Sensitive land areas are defined as land areas subject to one or more of the following:

- Steep slopes
- Shallow soils
- Salinity
- Temporary or permanent inundation
- High proportion of rock outcrop
- High dispensability and erosion potential
- Presence of a karst system

A significant aspect of this project is that Council developed the LEP in-house through a strategic planning team consisting of planners, GIS and IT personnel. The new LEP will be supported by a **Comprehensive Development Control Plan** currently under preparation. This Plan will provide more detail relating to the LEP provisions to further assist development decisions into the future.





#### Lithgow City Rural and Rural Residential Strategy Review

Although the LEP is an important milestone, Council recognises the need to undertake further planning for rural areas and in particular planning for sustainable future rural lifestyle development opportunities throughout the LGA.

Key objectives of the Review are to:

- o Independently and critically review the rural and rural residential land use policy framework of the Lithgow Land Use Strategy 2010-2030 and Lithgow Local Environmental Plan 2014.
- o Gain a clear understanding of the values and land use planning issues of the rural areas of the LGA.
- Develop a vision and strategy for the management of rural land which ensures sustainable resource use, environmental enhancement, rural landscape protection, protection of sustainable agricultural opportunities and recommendations for the provision of a range of rural residential living opportunities.
- o Provide for improved management of rural land fragmentation/ subdivision and dwelling construction.
- o Review all existing planning controls and ensure future controls support the adopted vision and growth management and sustainability principles for rural land.

A comprehensive community consultation process has commenced with 420 people participating in Community Visioning Sessions in February held in Capertee, Portland, Hartley and Lithgow. This plan will be finalised in the second half of 2016.



#### Masterplan and Development Control Plan for the Marrangaroo Urban Release Area

Council is preparing to commence the next stage in planning for the growth and development of the Lithgow LGA with the development of the Masterplan and Development Control Plan for the Marrangaroo Urban Release Area. The primary driver for this project is to plan for the future development of the area in a sustainable, orderly and cost effective manner based on best practice urban design principles

A full Local Environmental Study and Structure Plan was prepared by Geolyse Pty Ltd in 2006. The aim of these studies was to consider the "highest and best" use of the study area. The project area comprises 339.22 ha of land within the Marrangaroo Urban Release Area (URA) and 54.85ha of IN1 zoned land (employment lands as mapped in Lithgow Local Environmental Plan 2014). Within the URA there is 41.22 ha of land zoned for B6 Business Corridor and 298 ha of land zoned R1 General Residential.

The Structure Plan provides the following:

- o Preferred land uses and their location;
- o Areas to be conserved and protected from future development;
- o Key infrastructure needs and preliminary costings;
- o A staging plan.

#### **The Rural Lands Project Steering Committee**

The Rural Lands Steering Committee was established and Council adopted its Terms of Reference on 9 February 2015. Two meetings of the Rural Lands Project Steering Committee have been held and expressions of interest from suitably qualified consultancies were requested to undertake the project in accordance with the adopted Professional Services Brief.



# Water & Waterways

## 2. Water and Waterways

Rivers and creeks are vital living ecosystems that support thousands of species of fish, birds, frogs, aquatic plants insects and countless other plants and animals, while yielding water for drinking, agriculture, industry and recreation. Careful management of water (including ground water) and waterways is essential to ensure that this valuable resource will be available in sufficient quantity and quality for the future needs of people, plants, animals and the ecosystems dependent on them.

Council have taken steps towards the protection of our water and waterways including some large infrastructure upgrades, studies into onsite wastewater treatment and protection through planning with the new Local Environmental Plan 2014. This section looks at the pressures, and current condition and responses by Council to ensure the careful management of water and waterways within the Lithgow LGA.

## **Pressure to Water**

#### 2012-2016 Highlights – Water and Waterways

#### Lithgow Flood Study

This study will form the first step in a floodplain risk management process for Lithgow and will assist in outlining the impacts of flooding on future and existing urban development and further potential flood mitigation measures.

Sewage Infrastructure upgrades for sustainable growth Major Infrastructure works programs (upgrade and renewal) have been undertaken at Lithgow and Wallerawang Sewerage Treatment Plant's.

Improvements to onsite wastewater management at Cullen Bullen -Recommendations were implemented for improved site management to ensure compliance.

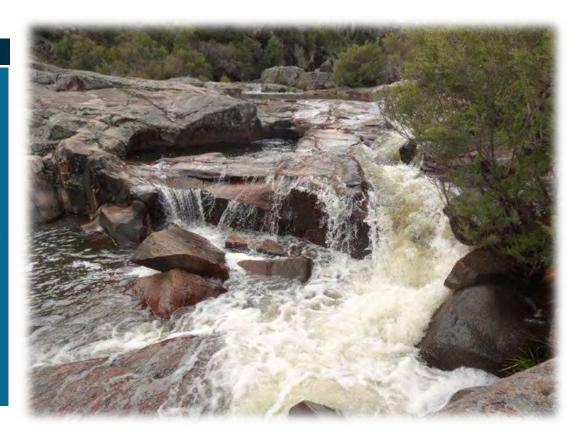
#### **Commenced Upgrade of Portland STP**

This upgrade (commenced in early 2016) will mean that the Lithgow LGA will have three modern, state of the art sewerage treatment facilities capable of catering to the future growth of the area and protecting the environment.

#### **Drought proofing the Lithgow LGA**

This has been achieved through the construction of the Clarence Water Transfer Scheme.

SaveWater Alliance Council participates in educational program and activities



Key issues affecting water quality, supply and use within the LGA are defined in the Lithgow Landuse Strategy 2010-2020 as follows:

Management of land within the Sydney Drinking Water Catchment

• A significant percentage (18.44%) of the LGA is within the Sydney Drinking Water Catchment Area and therefore development in this area is subject to increased criteria for development.

Cumulative impact of on-site effluent disposal

- On-site effluent disposal has the ability to impact upon both surface water and ground water quality. Not all areas of the LGA are suitable for on-site effluent disposal.
- Continued uncontrolled dispersed rural settlement places pressure on the land to effectively dispose of effluent and may lead to adverse environmental impact.
- An audit and inspection of existing on-site systems has revealed a high percentage of systems are failing the required performance and operating standards.
- Current minimum lot sizes for the disposal of effluent in the current unserviced village areas is not effective and will need to be increased in line with current best practice.

Impact of flooding upon settlement areas; particularly along the Farmers Creek area:

- Current flood mitigation works will not alter the risk from rare flood events.
- Council does not have a Floodplain Risk Management Plan to identify the different levels of planning for the area.

Loss or reduction of environmentally sensitive land, water and biodiversity resources:

- A large percentage of the LGA has been identified as Environmentally Sensitive Areas. The LGA borders world heritage areas and is home to many endangered or threatened species of plants and animals who are often contained and dependent upon the riparian zone. The largest threat to these areas is the continued increase of dispersed rural settlement.
- Fragmentation of rural land for residential purposes increases the impact of land use conflict and limits the ability to achieve natural resource management and ecosystem services outcomes.

Management of contaminated lands

- Lithgow LGA has a strong industrial heritage that had the potential to contaminate lands.
- Council does not currently have a contaminated lands policy or effective development control provisions to guide identification and assessment of potential contaminated lands. Council does rely solely on State Environmental Planning Policy 55 for management of contaminated lands.

Secure and reliable bulk water supply



- The provision of a bulk water supply is fundamentally critical to sustain any urban community. It also influences key investment decisions for prospective business and industry.
- The LGA water supply is available through two sources, Famers Creek and Fish River Water Supply Scheme. Lithgow City Council is the authority for only the Farmers Creek supply. This creates issues surrounding water sharing, water allocations and pricing, agreements and responsibility for water quality and delivery of service. It also creates a disparity between service levels between Lithgow and the town centres of Portland and Wallerawang, villages and rural users.
- The bulk water supply for the Lithgow LGA has been challenged at times through the effects of drought, a situation that may become more prevalent due to the vagaries of climate change.
- In periods of sustained drought it would become necessary for Lithgow City Council to back supply water to the towns and villages through the Farmers Creek supply. This supply will not meet the peak daily demand of the existing serviced population base without extensive augmentation to the Clarence Water Transfer system.

Capacity of infrastructure head works to service new development

• All major Sewage Treatment Plants (STP) require augmentation to cater for future growth.

## State of Water



#### **Drinking Water Quality**

Lithgow City Council routinely samples the town drinking water supplies to ensure compliance with the Australian Drinking Water Guidelines. In addition to regular sampling and analysis completed at Lithgow Water Treatment Plant chemical samples are taken monthly and bacterial samples weekly and sent for external analysis. A total of 42 indicators are used to assess water quality.

The Fish River supply provided by State Water, which supplies Wallerawang and Portland and up to Glen Davis, is also sampled monthly for chemicals and weekly for bacteria.

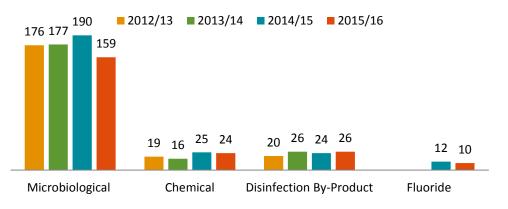
Samples are sent to a certified NSW Health Laboratory for independent analysis and results are provided to Council and Sydney Western Area Health Service.

#### Results

## Blue Green Algae Sampling in Partnership with Delta Electricity



### Routine Samples of the Reticulated Drinking Water Supply



The increase shown in 2014/15 represents a prolonged period of hot weather combined with very little rainfall, which is conducive to increased changes of Blue Green Algae outbreaks. Therefore increased testing was undertaken during this period. The drinking water monitoring program enables regional rural water utilities to monitor their water in line with the Australian Drinking Water Guidelines 2004. Representative samples are taken by local water utilities and provided to NSW Health for analysis and recording to ensure water provided to consumers complies with the Guidelines.

#### **Environmental Monitoring**

In 2011, the New South Wales Government passed legislation (The Protection of the Environment Legislation Amendment Act 2011, or PEOLA Act), which requires Lithgow City Council to monitor its discharges to the environment (land, water or air) as part of its Environment Protection License conditions and publish that monitoring data within 14 days of receipt. Results are published on Council's website for the following locations:

- o Oakey Park Water Treatment Plant
- o Lithgow Sewage Treatment Plant
- o Portland Sewage Treatment Plant
- o Wallerawang Sewage Treatment Plant
- o Lithgow Solid Waste Facility
- o Portland Garbage Depot.

Comprehensive monitoring and maintenance program aims to ensure the highest quality water. However, external factors can sometimes alter water quality causing:

**Algal bloom** - Blue-green algae (or cynobacteria) is responsible for many of the algal blooms in Lithgow's recreational waterways during the past few years. Blue-green algae feeds on nutrients washed into waterways, or from nutrients released from sediments. Algal blooms are likely to form when:

- the water is relatively still
- nutrients levels are high
- temperatures remain warm
- after a period of high rainfall that results in nutrients being washed from the catchment into the dam

Although algal blooms are very rare in Farmers Creek Dam water supply, our water treatment plant using a combination of flocculation, filtration and chlorination is highly effective in treating water affected by a bloom, making it safe and palatable to drink.

#### Water Supply and Purchase

The major water storages in the area include Farmers Creek Dam #2, Oberon Dam, Lake Lyell and Lake Wallerawang. Only Farmers Creek Dam #2 and Oberon Dam supply drinking water.

#### Farmers Creek Dam #2

Water from Farmers Creek Dam is filtered at the Oakey Park Water Treatment Plant and supplied to Lithgow. The original lower dam (Dam #1) which was built in 1896 is no longer used. The upper dam which was built in 1907 has a capacity of 450 ML and has a top water level of 1000m AHD. Farmers Creek Dam has a small catchment area of 12 km<sup>2</sup>. The secure yield of Farmers Creek Dam has been estimated at 400 ML/a under current environmental flow release requirements.

#### Clarence Water Transfer Scheme

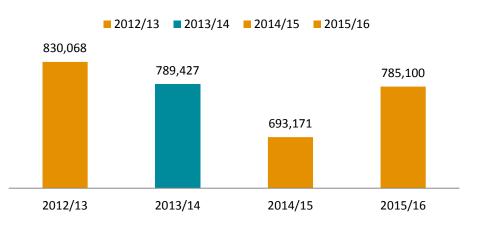
The Farmers Creek Dam system is also provided with a supplementary supply from the Clarence Water Transfer Scheme. When there is insufficient natural water flow into the dam, up to 14 ML/day of water can be transferred from the Clarence Water Transfer Scheme.

#### Fish River Water Scheme

Fish River Water Scheme sources of water are the Oberon Dam (capacity 45,400ML) and the Duckmaloi Weir (20ML). Water gravitates to the scheme with pressure booster stations at Narrowneck and Mt Piper. Present water supply management for the use of water from the Fish River covers supply of drinking water to Lithgow's rural villages on a continuous basis but supply is also able to be connected to Lithgow town water under a supply arrangement. Provision for using this water is conditional and based on the availability of water from other sources such as Farmers Creek and Clarence Water Transfer Scheme. The FRWS currently operates for the villages beyond the water main junction at West Wallerawang.

#### Water Purchased from Fish River Water Supply (kL)

The areas of Wallerawang, Portland, Cullen Bullen, Blackmans Flat, Pipers Flat, Lidsdale, Rydal and Glen Davis are supplied with water purchased from the Fish River Water Supply. In recent years, the amount of water purchased has decreased as Council is able to supplement the supply to the villages when needed thus reducing demand on the Fish River system.



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## **Response to Water**

The following plans and strategies have been developed and implemented to ensure the water security of the Lithgow LGA:

- o Drought Management Plan
- o Water Loss Management Plan
- o Strategic Water and Sewer Business Plans
- o Integrated Water Cycle Management Plan
- o Evaluation Study
- o Drinking Water Quality Management Plan.

The following plans and strategies are currently being developed:

o Integrated Water Cycle Management Plan

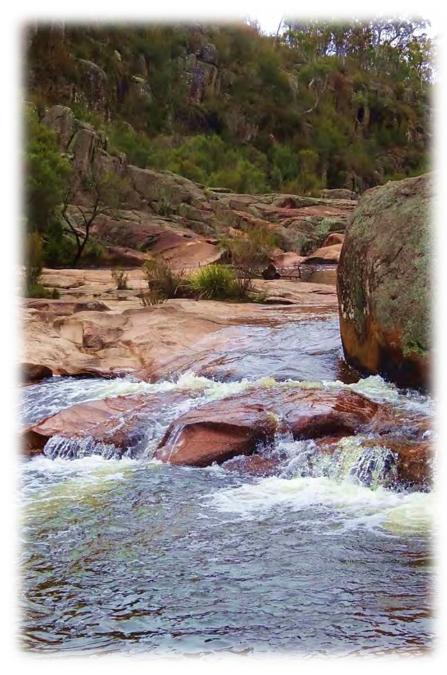
# The Lithgow Landuse Strategy 2010-2020 and Lithgow Local Environmental Plan 2014

The Lithgow Landuse Strategy 2010-2020 has identified strategic principles and actions as a response to consideration of the issues that affect water quality, supply and use within the LGA. The strategy informed the formation of the new Local Environmental Plan 2014. The LEP is an important milestone in the development of a comprehensive strategic land use planning framework that allows council to deliver the goals and targets of the Community Strategic Plan 2026.

The Lithgow Local Environmental Plan 2014 has provided for the protection of biodiversity, natural land formations and watercourses through the implementation of environmentally sensitive overlays. The plan now aligns with the State Government's Standard LEP template and introduces legally referable mapping available online for the community to access. The LEP includes provisions for the issues identified within the strategy including:

#### Management of land within the Sydney Drinking Water Catchment –

Impacts upon the strategic planning process include consideration of Strategic Land and Water Capability Assessments to determine land use zones, permissibility and density. Such consideration may limit or restrict development from areas where such uses are currently permissible.



#### Cumulative impacts of on-site effluent disposal -

Some areas, particularly the Cullen Bullen area, pose a threat to waterways from the on-site effluent disposal. Current minimum lot sizes for the disposal of effluent in unserviced village areas should be increased in line with current best practice. Monitoring of septic and AWWS systems have been undertaken. The Cullen Bullen on-site wastewater study has commenced to provide greater understanding of specific requirements to minimise environmental threats from pollutant loadings into waterways here.

#### Impact of flooding upon settlement areas -

Limiting the development to appropriate land use within flood prone areas identified within the newly developed Floodplain Risk Management Plan minimises the impact of flooding upon settlement areas.

#### Loss or reduction of environmentally sensitive land, water and biodiversity resources-

Environmentally Sensitive Areas have been identified and mapped to be applied as a planning overlay within the LEP. A rural lands development plan is being developed to assist in minimising the impacts of dispersed rural settlement and fragmentation of rural land for residential purposes.

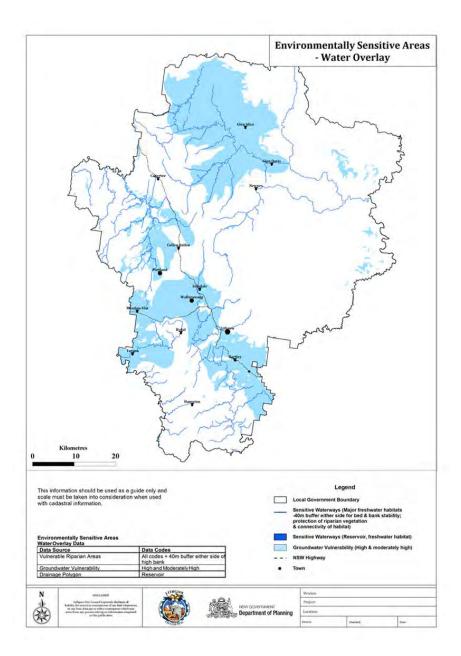
#### Management of contaminated lands-

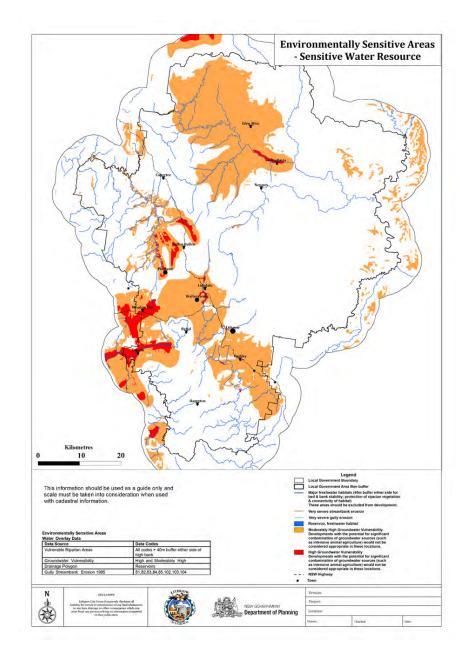
Council relies solely on State Environmental Planning Policy 55 for management of contaminated lands. The onus is on land developers to address this matter on a site by site basis as Council does not currently have a contaminated lands policy or effective development control provisions to guide identification and assessment of potential contaminated lands.

#### Secure and reliable bulk water supply-

The provision of a bulk water supply is assured through extensive augmentation to the Clarence Water Transfer system. *Capacity of infrastructure head works to service new development*-Major Sewage Treatment Plants (STP) augmentation is required to meet current and future demands.

The Lithgow Local Environmental Plan 2014 provides for the protection of water and watercourses through the implementation of environmentally sensitive areas - water overlays:





### Water Infrastructure upgrades for sustainable growth

Major Infrastructure works programs (upgrade and renewal) have been undertaken to ensure sustainable growth and reduce impacts on our waterways. The upgrades to sewage infrastructure mean that the Lithgow LGA will have three modern, state of the art sewerage treatment facilities capable of catering to the future growth of the area and protecting the environment.

- o Lithgow STP was completed in 2011/12 \$22,000,000
- o Wallerawang STP upgrade completed in 2012/13 \$10,000,000
- o Portland sewage plant upgrade commenced \$15,000,000

The **upgrade of the Wallerawang Sewage Treatment Plant** was completed during 2012/13. The plant was constructed to service 3,300 "equivalent persons" allowing for population growth in the Wallerawang and Lidsdale catchment area. Council was successful in obtaining \$10m funding under the Resources for Regions Program for this \$15m project. This upgrade commenced in early 2016 and will take approximately 18 months to complete with construction commencing in August 2016.

The Wallerawang STP, is a smaller version of the Lithgow STP (completed in 2011/12) and features state of the art technology including Intermittent Decanted Extended Aeration (IDEA) which is a sludge treatment system designed to remove nitrogen and phosphorus. Lithgow and Wallerawang STP's use ultra violet disinfection to destroy cryptosporidium and giardia prior to discharge into Farmers and Pipers Flat Creeks.

Designed to meet the needs of the Wallerawang community for the next 20 years, the plant has a daily maximum design capacity of 2.5 million litres of raw sewage. 800,000 litres is currently received on average from Wallerawang sewerage each day.

Recycled water is used throughout the plant saving drinking water. The electrical control system has been designed to reduce power costs and greenhouse gas emissions through the use of variable speed drives.

Planning and design has been completed for the **new Portland Sewage Treatment Plant** which Council was successful in obtaining funding under the Resources for Regions Program. The upgrade of this facility will mean that the effluent discharged will be of a much higher quality than is achievable with the current plant. This will mean a better outcome for the downstream environment.

The upgrade will also cater for the future growth of Portland including the future development of the current Cement Works Site. The new plant should not reach design capacity until 2045 at the current growth rate for the Portland area. It will cater for normal flows of 650KL/day and increase to 2,925KL/day in wet weather events greatly increasing the capacity of the current plant. Like Lithgow and Wallerawang STP's, the design includes UV disinfection which provides a much higher level of treatment meaning a better outcome for the environment.

This upgrade commenced in early 2016 and will take approximately 18 months to complete with construction commencing in August 2016. The new plant will be constructed on the existing site with minimal impact to the local community. This upgrade will mean that the Lithgow LGA will have three modern, state of the art sewerage treatment facilities capable of catering to the future growth of the area and protecting the environment.

#### **Cullen Bullen On-Site Waste Water Study**

Cullen Bullen was an area identified within the Lithgow Landuse Strategy 2010-2020 as posing a risk to our water and waterways from on-site wastewater treatment. In 2011 Council engaged a specialist company, Sustainable Solutions International (SSI) to report on issues in relation to on site waste water disposal at Cullen Bullen and provide recommendations for future waste water disposal. The report sought to assess the factors affecting the performance of existing on site waste water systems within the village of Cullen Bullen and provide Council with recommendations. It included indicative costings for a future waste water strategy that will ensure the long term protection of public health and the environment.

The investigation was initiated due to concerns that sewerage from septic systems may be running onto neighbouring properties; that sewerage on flat sites may be ponding; overflow from septic tank absorption trenches may be discharging into stormwater drainage systems; and concern that discharge of grey water into stormwater drainage systems may be occurring.

Council's Onsite Waste Water Management Inspection Program was concentrated on Cullen Bullen until all systems were inspected. The inspection results have been reassuring, particularly from a public health perspective.

The report raised concerns of soil type; climate and lot size and led to a conclusion that the situation at Cullen Bullen may not be sustainable in the long term. The report looks at interim solutions that mitigate impacts of failing systems in the short term and solutions that completely eliminate all environmental and health risks. A Risk Assessment/Response Matrix report was drafted together with interim options.

In October 2014, Council made application under the NSW Governments Resources for Regions Program for \$4.48m (total estimated cost of project 2014, \$6.482m includes Council contribution of \$2m) for the construction of the Cullen Bullen Sewerage Treatment Plant. Council was advised at the time that the project would not be progressing until Council completed a number of targets one of which being an Integrated Water Cycle Management (IWCM) project.

Council has commenced the IWCM project which is not scheduled for completion for some time yet. As this project was not successful in 2014, Council has factored this expenditure into future year's budgets to enable completion of the IWCM and other targets. However, Council was advised in June 2016, that as this matter had not been resolved, it had been resubmitted for short listing under the Restart NSW Resources for Regions Program with additional information required to be submitted by August 2016.



#### **Doctors Gap Water and Sewer Extension Project**

Since 2007, Council has been in consultation with the Doctors Gap Landholders Association regarding a proposal to provide reticulated sewerage and water to their homes. As the land is one shared 'tenancy in common' in order to extend water and sewer to the 22 residences located on this land Council would be required by the Association to undertake a subdivision to allow the dwellings to be on individual allotments. Subdivision of this land can only proceed with unanimous agreement of all members of the Doctors Gap Landholders Association.

As this has been unable to be obtained, Council resolved at its meeting held on 2 March 2015 (Min No. 15-40) to NOT proceed with a project to service the Doctors Gap area with water and sewer and to advise the Doctors Gap Landholders Association accordingly.

#### South Bowenfels and Littleton Sewage Infrastructure Upgrade

Lithgow City Council has completed an upgrade of the South Bowenfels sewage network, which is an area of major growth in the Lithgow LGA. The works involved the upgrade of two existing pump stations, being South Bowenfels and South Littleton, as well as the placement of several kilometres of new sewer main through the Lithgow urban area.

The works were undertaken through a number of sensitive residential areas where careful rehabilitation was required. The scheme included an increase in pumping and storage capacity to ensure that the system is able to cope with the demands of recent development, whilst also catering for expected future growth in the area. The upgrade also ensured that system overflow events during wet weather are minimised, which will improve stormwater quality and protect downstream catchments.

#### **Sewer Mains Relining**

Sewer mains relining is an important project for Lithgow City Council. The aging sewerage infrastructure suffers from significant ground water ingress. The ingress of storm and ground water reduces the capacity of the system, increases the volume of waste water required to be treated, can also dilute nutrients in the sewage, potentially reducing the effectiveness of treatment. Storm and ground water ingress also increases the likelihood of spilling from the sewerage network during wet weather events which increases pumping costs and potential environmental impacts.

Relining of specific sections of sewer mains is an annual project for Lithgow City Council. 6.6km of water mains have been relined since 2012. This very important program will reduce costs associated with sewage removal and treatment, reduce Council's energy consumption and reduce pollution of waterways.

## **Drought Proofing the LGA**

The following activities were undertaken in order to ensure water security and capacity of the region for sustainable growth and development within the LGA:

#### **Clarence Water Transfer Scheme Upgrade**

The Clarence Transfer Scheme upgrade is a significant milestone in "drought proofing" Lithgow's potable water supply network and ensuring significant capacity for future generations. The Transfer System pumps water from the Clarence Colliery Dam, which receives high quality ground water from the mine works to the Farmers Creek Dam.

Farmers Creek Dam is a relatively small dam, with a capacity of only 450 million litres of water and is the raw water supply to Lithgow's Oakey Park Water Treatment Plant. Although the dam can quickly recover after a rainfall event, lack of rain can quickly deplete the amount of water available, as seen during the summer of 2013/14.

The Clarence Transfer Upgrade increased the capacity of the transfer system from 5.5 million litres per day to 14 million litres per day. This doubled the amount of water available to be transferred to Farmers Creek Dam.

#### Water Loss Management Program

In order to provide safe drinking water and protect the environment by reducing potable water loss by 25% as well as improving energy efficiencies; a water loss management program was undertaken by council.

Lithgow City Council is looking to lower energy consumed during water pumping by reducing water loss in the water reticulation network. Previous reports have indicated a loss of up to 36% of the total system input. In order to reduce water loss sustainably it is important to know where and when excess water is being consumed within the network.

This requires measurement of flows into smaller sectors of the network, often called district metered areas. This allows the identification of poorly performing areas and much better knowledge of bursts and leaks as they occur. Instead of annual reporting, this type of system can allow timely notification of burst and leak levels, reducing run times and therefore annual volume of water lost.

The Water Loss Program involves dividing the Lithgow network into a number of District Metered Areas (DMA's). Each zone has a flow and pressure monitoring installed to not only track Minimum Night Flow which is the best indicator of leakage levels, but also system pressure and other anomalous flow patterns. A system which analyses this data in the background and indicates any anomalies through a web based platform has been installed. This type of automated system will reduce human analysis time and improve indication of anomalous data.

Installation works were completed by 30 June 2015. During 2015/16, Council recorded a water loss of 707.9ML. This amount is non-revenue water and includes council buildings, parks and sporting fields, firefighting and mains flushing.

#### Water Infrastructure Renewal

In addition to improved pumping systems an update of physical network infrastructure, some of which dates back to 1912, was critical to delivering improved quality and environmental outcomes for water. Lithgow City Council has invested significant portions of the capital budget in water main replacement and renewal, adopting a total asset management approach for the scheme's management to ensure that assets are managed as effectively as possible i.e. optimisation of the whole of the asset lifecycle rather than focusing on asset creation alone.

Since 1 July 2012, the following works have been undertaken - Mains renewal at:

- o Eddy, Silcock and Tobruk Streets, Rifle Parade and Tank Street Lane, Lithgow
- o Hillcrest Estate, Lithgow
- o Jamieson and Purcell Streets, Portland
- o Blackberry Lane, Wallerawang.
- o Completed Structural and Geotechnical Analysis Reports as part of the Farmers Creek Dam No. 2 Safety Works program.

- o Maintained and upgraded Oakey Park Water Treatment Plant, Pumping Stations and Reservoirs.
- o Upgrade Cook Street Water Pump Station.

#### **SaveWater Alliance**

Council has participated in the SaveWater Alliance programs in order to assist in reducing water demands across the LGA. The program, as the name would suggest, provides an educational component for actions that can be undertaken by residents to use less water by changing some basic approaches to water use within the home including using appliances that are more water efficient, water capture and reuse, down to stopping the waste from dripping taps. Council promotes these waster saving measures through their website, Facebook page and via extension material available through the front office.

#### **Rainwater Tank and Domestic Appliances Rebate Scheme**

This is one of the many ways Council is working with the community to create sensible solutions for people and the environment to ensure that clean, fresh drinking water doesn't become a luxury item. Council has implemented a rebate scheme for:

- The installation of Rainwater Tanks connected to domestic appliances and for garden watering; And
- The purchase of energy and water efficient domestic appliances.

In addition, Council has developed 'A Guide to Rainwater Tanks' to assist residents in selecting and installing a rainwater tank which includes information on Council's planning and building requirements. Furthermore, Council's rebate scheme which previously covered tanks 5,000 litres or more has recently been extended to cover 2,000 litre tanks.

# **Making Flood Prone Areas Safer**

### **Lithgow Flood Study**

The purpose of the Lithgow Flood Study is to provide further information relating to existing flooding problems in the Lithgow local government area and to ensure that new development does not create additional flooding problems.

The main objective of the study is to provide the residents of Lithgow with an update on the hydrology of the Farmers Creek Catchment and to develop a twodimensional hydraulic model to define both overland flow and main stream flooding a 5 and 200 year Average Recurrence Interval.

This information has been compared to previous study findings to provide a detailed assessment of flooding trends in the Lithgow region. This study will form the first step in a floodplain risk management process for Lithgow and will assist in outlining the impacts of flooding on future and existing urban development as well as further potential flood mitigation measures.

# **Farmers Creek Flood Mitigation**

The goal of the works is to reduce the frequency and depth of flood water inundation on the adjoining residential area protecting over 100 homes. Recent heavy storms indicate the work has been highly successful in dealing with flash floods.

Stage 2 of the Farmers Creek Lithgow Flood Mitigation Scheme involved the widening of the existing channel from the termination of Stage 1 at Watsford Oval to the Albert Street Bridge on both the northern and southern sides for a total length of 376 metres. The work included relocation of public utilities, major earthworks, installation of precast concrete retaining wall blocks, widening of the channel floor of the Creek and erection of safety fencing.



# Biodiversity

# 3. Biodiversity

Biodiversity refers to the variety of life forms including the different plants, animals and microorganisms, the genes they contain and the ecosystems they form. Lithgow LGA contains high levels of intrinsic biodiversity; being bounded by world heritage areas, national parks and reserves which provide many direct and indirect benefits or values.

Direct benefits of the biodiversity of the area contributes significantly to the economy providing a basis for tourism, agricultural production such as foods, fibre, fertilisers and other chemicals, genetic material and even some medical materials. Indirect values of biodiversity includes the support and maintenance of essential ecosystem services such as the water cycle and provision of clean air along with providing a biologically diverse and healthy region for current and future generations.

# 2012-2016 Highlights – Biodiversity

#### **Green Army**

The Lithgow Green Army Project is a hands-on, practical environmental action program that supports local environment and heritage conservation projects.

Supporting and developing environmental protection and restoration projects - A variety of projects have been undertaken on Crown and public lands to increase and conserve habitats areas, control weeds and reduce erosion.

#### Save our Species (SOS)

Council is a participant in a new conservation program that aims to maximise the number of threatened species that can be secured in the wild in NSW for 100 years.

#### **Lithgow Local Environmental Plan 2014**

The new LEP provides for the protection of biodiversity, natural land formations and watercourses through the implementation of environmentally sensitive overlays.

#### **Farmers Creek Precinct Master Plan**

Development of an innovative environmentally sustainable plan which integrates flood mitigation, healthy communities and riparian restoration.



# **Pressure to Biodiversity**

Drought, the presence of pest animals, the loss of habitat and invasion of weeds has the potential to impact on the biodiversity of an area. A national analysis of the documentation and recovery plans for threatened species and communities listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) found that the most frequently cited threats to biodiversity are:

- Habitat fragmentation- the size and connectivity of habit is removed or degraded by urban sprawl, land clearing for fibre or food production and other uses; and
- The spread of invasive species out competition by non-native species disrupt, degrade or destroy habitat, food or genetic viability of native species.

# Key issues and planning responses affecting biodiversity within the LGA defined in the Lithgow Landuse Strategy 2010-2020:

*Loss or reduction of environmentally sensitive land, water and biodiversity resources* 

- A large percentage of the LGA has been identified as Environmentally Sensitive Areas. The largest threat to these areas is the continued increase of dispersed rural settlement.
- Fragmentation of rural land for residential purposes increases the impact of land use conflict and limits the ability to achieve natural resource management outcomes.

Management of bushfire threat to settlement and areas of high biodiversity

- A large percentage of the LGA is bushfire prone land. Total avoidance of these areas for settlement is neither achievable nor practical.
- The largest risk to increased bushfire threat is continued dispersed rural living. Fragmentation of rural lands within bush fire prone areas and intensification of development limits the ability of effective bushfire management.
- A clustered planning approach and appropriate planning for high risk developments is required to minimise bush fire threat to the LGA.



Impact on environmental conservation

- Rural lifestyle development introduces matters of land stewardship in relation to weed control, bush fire hazard reduction, introduction of domestic animals, and maintenance of water quality and quantity and soil management.
- Conflict occurs at the interface of DECCW and forestry lands and impedes the production and management regimes of these lands.

# **State of Biodiversity**

Biodiversity is a term used to describe the variety of living things, including plants, animals and micro-organisms, the genetic material contained within these organisms, and the ecosystems in which they live.

Biodiversity is adversely affected by the spread of urban development as it disturbs natural areas and leads to increased pollution of air, land and water from human activities. Biodiversity can also be adversely affected by natural disasters such as storms, fire, floods, and drought.

Over this reporting period the Lithgow LGA experienced an extreme fire event, flooding, as well as excessive snow and wind damage causing considerable destruction. This highlights the dangers to biodiversity from the impacts of a changing climate which is resulting in a greater number of extreme events which will inevitably cause stress to many ecosystems and dependant flora and fauna.



#### **Bioregions**

The NSW Office of Environment and Heritage describes of Bioregions as "relatively large land areas characterised by broad, landscape-scale natural features and environmental processes that influence the functions of entire ecosystems. They capture the large-scale geophysical patterns across Australia. These patterns in the landscape are linked to fauna and flora assemblages and processes at the ecosystem scale, thus providing a useful means for simplifying and reporting on more complex patterns of biodiversity".

The trend of governments throughout Australia is to adopt a bioregional approach to conserving biodiversity. This is in recognition of the fact that biodiversity does not recognise administrative boundaries and planning for biodiversity at this scale provides the greatest opportunity to conserve biodiversity in sufficient numbers and distribution to maximise its chance of I the mapping of the bioregions of Australia was undertaken by the Federal Government in cooperation with State and territory conservation agencies to provide a consistent and robust framework for biodiversity assessment and planning.

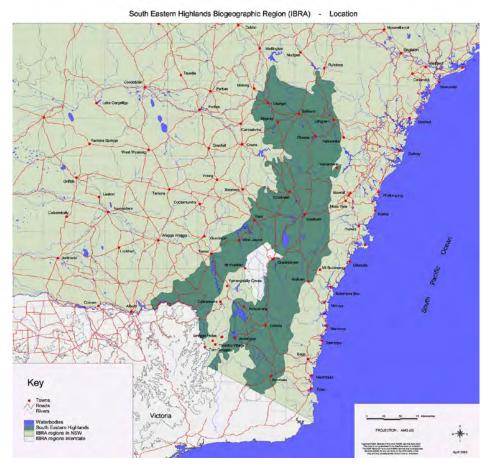
The Interim Biogeographic Regionalisation of Australia or IBRA is a system that divides Australia into bioregions on the basis of their dominant landscape-scale attributes primarily for the purposes of identifying deficiencies in the Australian network of protected areas and to set priorities for further enhancing the reserve system.

Australia is divided into 85 Australian bioregions, with 17 represented in NSW. The Lithgow LGA falls primarily within two IBRA Regions:

- 1. South Eastern Highlands; and
- 2. Sydney Basin.

The extent of vegetated and cleared land is illustrated within the bioregions covering the Lithgow LGA are shown in the following maps.







South Eastern Highlands Biogeographic Region (IBRA) - Vegetation



Sydney Basin Biogeographic Region (IBRA) - Vegetation

#### Plant communities

NSW NPWService 2003<sup>1</sup> describes the vegetation in the bioregions represented within the Lithgow LGA as follows:

1. South Eastern Highlands Bioregion

Diverse vegetation communities occur across the bioregion, including those consisting of yellow box (*Eucalyptus melliodora*), red box (*Eucalyptus polyanthemos*) and Blakely's red gum (*Eucalyptus blakely*), with areas of white box (*Eucalyptus albens*) occupying lower areas. Red stringybark (*Eucalyptus macrorhyncha*), broad-leaved peppermint (Eucalyptus dives) and white gum (*Eucalyptus rossil*) associations dominate hills in the west of the bioregion.

Brown barrel (*Eucalyptus fastigata*) communities are more common in the east. River oak (*Casuarina cunninghamiana*) is seen along main streams. Grey gum (*Eucalyptus punctata*) and Blaxland's stringybark (*Eucalyptus blaxlandii*) are found on lower areas, and brown barrel, mountain gum (*Eucalyptus dalrympleana*), narrow-leaved peppermint (*Eucalyptus radiata*) and ribbon gum (*Eucalyptus viminalis*) occur on higher areas. Patches of snow gum (*Eucalyptus pauciflora*) occur in the highest places in cold air pockets.

Granite-derived soils support apple box (*Eucalyptus bridgesiana*), yellow box, some white box and red stringybark associations, with ribbon gums on the lower slopes and brown barrel occurring in the eastern parts of the bioregion. Rocky outcrops support patches of black cypress pine (*Callitris endlicheri*), whereas cold plateaus support open woodlands of snow gum and black sallee (*Eucalyptus stellulata*). River oak is widespread along streams.

Soils derived from Tertiary basalts support vegetation communities dominated by yellow box and Blakely's red gum, with red stringybark, white gum and broad-leaved peppermint across most of the Canobolas plateau. Ribbon gum and candle-bark gum (Eucalyptus rubida) associations dominate the lower slopes, while snow gum and mountain gum occupy cold patches and the high altitudes of Canobolas. Clumps of snow gum can also be found among rocky outcrops.

### 2. Sydney Basin bioregion

The Sydney Basin Bioregion is one of the most species diverse in Australia. This is a result of the variety of rock types, topography and climates in the bioregion.

Species composition and the structural form of the vegetation communities occupying extensive sandstone plateaus vary with altitude and rainfall. Common trees include red bloodwood, yellow bloodwood (*Corymbia eximia*), rough-barked apple (*Angophora floribunda*), smooth-barked apple, hardleaved scribbly gum (*Eucalyptus sclerophylla*), grey gum (*Eucalyptus punctata*), black ash (*Eucalyptus sieberi*), Sydney peppermint, blue-leaved stringybark (*Eucalyptus agglomerata*), turpentine, brown stringybark (*Eucalyptus capitellata*) and northern grey ironbark (*Eucalyptus siderophloia*).

Drier, lowland environments, support forests and woodlands dominated by forest red gum (*Eucalyptus tereticornis*), grey gum, spotted gum (*Eucalyptus maculata*), scribbly gum (*Eucalyptus haemastoma*), grey box (*Eucalyptus moluccana*), white box, yellow box (*Eucalyptus melliodora*), fuzzy box (*Eucalyptus conica*), narrow-leaved ironbark (*Eucalyptus crebra*), broad-leaved ironbark (*Eucalyptus fibrosa*), rough-barked apple, yellow bloodwood and extensive stands of swamp oak.

Swamp vegetation ranges from monocultures of common reed to complex prickly-leaved tea-tree (*Melaleuca stypheloides*) and paperbark (*Melaleuca quinquenervia*) associations, with swamp mahogany (*Eucalyptus robusta*), swamp oak, sedges, tall spike rush (*Elaeocharis sphacelata*) and juncus (*Juncus sp.*) Hanging swamps can be found on sandstone and dunes, with the dominant species being gahnia (*Gahnia aspera*) and banksia (*Banksia robur*).

<sup>&</sup>lt;sup>1</sup>NSW National Parks and Wildlife Service 2003, *The Bioregions of New South Wales: their biodiversity, conservation and history*, NSW National Parks and Wildlife Service, Sydney.

#### **Threatened Species**

Australia is home to more than one million species of plants and animals, many of which are unique. About 82 per cent of our mammals and 93 per cent of our frogs are found nowhere else in the world. Over the last 200 years, the Australian environment has been modified dramatically. Australia has lost 75 per cent of its rainforests and has the world's worst record of mammal extinctions.

Threatened species are an important component of biodiversity. Today most species become threatened because of habitat destruction and the invasion of nonnative species. With effective management, however, almost all threatened species can be conserved for future generations - we need to be aware of how our activities could increase their risk of extinction and to support efforts to secure the species in the wild.

The Lithgow LGA has many rare flora and fauna species. The total number threatened, vulnerable or endangered listed species are:

- 49 plant species; and
- 60 animal species.

#### **Bioregional-scale conservation**

The South Eastern Highlands Bioregion is managed in conservation tenures that together occupy about 726,530.55 ha or 14.86% of the bioregion. National parks and nature reserves and wilderness areas make up the majority of this area. The remainder is within "other lands: (managed under the provisions of the NPW Act 1974 including karst conservation reserves), state recreation areas or flora reserves, and voluntary conservation agreements with private landholders managed under this special tenure. A significant proportion of the bioregion receives supplementary management under the provisions of SEPP 58 (Protecting Sydney's Water Supply). This area is 1,015,258.25 ha or 20.77% of the bioregion.

#### **Biodiversity Legislation**

The legislative framework for native vegetation management, private land conservation, threatened species and other protected native animals and plants in New South Wales is currently under review. Relevant legislation currently includes:

#### National Parks and Wildlife Act 1974

Under the National Parks and Wildlife Act, the Chief Executive of the Office of Environment and Heritage is responsible for the care, control and management of all national parks, historic sites, nature reserves and Aboriginal areas. State conservation areas, karst conservation reserves and regional parks are also administered under the Act. The Chief Executive is also the authority under this Act for the protection of native flora and fauna as well as Aboriginal objects and places throughout NSW.

#### Native Vegetation Act 2003

This Native Vegetation Act regulates the clearing of native vegetation on all land in NSW, except for excluded land listed in Schedule 1 of the Act. The Act outlines what landowners can and cannot do in clearing native vegetation.

#### Nature Conservation Trust Act 2001

This Nature Conservation Trust Act establishes the Nature Conservation Trust, a non-government body corporate, the primary function of which is to facilitate the conservation of natural heritage on private land through the negotiation and administration of Trust agreements.

#### Threatened Species Conservation Act 1995

The Threatened Species Conservation Act provides for the conservation of threatened species, populations and ecological communities of animals and plants (the Act does not apply to fish and marine vegetation). The Act sets out a number of specific objects relating to the conservation of biological diversity and the promotion of ecologically sustainable development.

## Invasive species - Pests and weeds

Invasive species are one of the greatest threats to biodiversity in Australia; second only to clearing of native vegetation.

Invasive species have been identified as a threat to 70 per cent of the species, populations or ecological communities listed under the Threatened Species Conservation Act 1995 In NSW. Introduced pests and weeds impose significant financial losses to agriculture and other industries estimated at over \$1 billion annually and damage areas of cultural significance.

#### **Invasive Animals**

Pests and feral animals displace native species through predation and competition, and devastate native vegetation by grazing and trampling. Feral or straying grazing animals impair the regeneration of native vegetation, change species composition, accelerate soil erosion, and create environments favourable for colonisation by introduced plants (weeds) and aid in their spread.

Invasive animals in Australia are mainly domestic animals that have gone wild, many originally introduced either for sport, pets, livestock and pack animals. These include predatory vertebrates such as foxes, cats, dogs, grazing and browsing animals such as sheep, cows, goats and feral pigs, insects such as the introduced honeybee, exotic fish and fungus such as Phytophthora cinnemomi.

#### **Invasive Plants-Weeds**

Over 1,350 invasive plant species (weeds) have naturalised in NSW with more than 100 of them having significant impacts on the environment. Weeds are often classed into broad groups depending on their characteristics, impact and the situation in which they grow.

Weeds out compete native species which often result in changes to the composition and physical structure of vegetation. The spread of weeds diminishes the availability of food and habitat which most native animals depend. The impacts of weeds on agricultural lands include the loss of productive land as well as the financial costs associated with weed control.

#### Noxious weeds

Noxious weeds listed within the Lithgow area include:

- African Lovegrass (Eragrostis curvula)
- Bathurst/Noogoora/Hunter/South American/Californian/Cockle Burr (Xanthium Spinosum)
- Blackberry (Rubus fruticosus aggregate species)
- Broad Leaf Privet (Ligustrum lucidum)
- Chilean Needle Grass (Nassella neesiana)
- English Broom (Cytisus scoparius)
- Gorse (Ulex europaeus)
- Nodding Thistle (Carduus nutans)
- Noogoora Burr (Xanthium species)
- Pampas Grass (Cortaderia species)
- Prickly Pear (Cylindropuntia species)
- Prickly Pear (Opuntia species except O. ficus-indica)
- Rhus Tree (Toxicodendron succedaneum)
- Scotch Broom (Cytisus scoparius)
- Scotch Thistle (Onopordum species)
- Serrated Tussock (Nassella trichotoma)
- St John's Wort (Hypericum perforatum)
- Star Thistle (Centaurea calcitrapa)
- Sweet Briar (Rosa rubiginosa)

#### Weed of National Significance (WONS)

The Weeds of National Significance are nationally agreed priority plant species for control and management. Species are selected based on their high rankings for invasiveness, potential to spread, and impact on socioeconomic and environmental assets. Thirty-two weeds of national significance have been identified by the Australian Government under the National Weeds Strategy. WONS that have been the focus of management, particularly willow (Salix sp.) eradication and education programs within the Lithgow region.

#### Environmental and other weeds

Environmental weeds are weeds which may be harmful to human health or the environment do not necessarily impact agricultural areas or have not been declared to be noxious weeds in the area of the Council. Environmental weeds (weeds that impact native vegetation but) that have become a problem within the Lithgow region include Japanese Honeysuckle (*Lonicera japonica*) and Monterey Pine (*Pinus radiata*).

# **Management of Invasive Species**

Managing the impacts of invasive species is an issue of great importance for managers of all land tenures.

#### NSW Invasive Species Plan 2008-15

The NSW Invasive Species Plan provides the framework for the coordinated management of pest animals and weeds across various land tenures and will guide invasive species management in NSW to 2015. NSW Department of Primary Industries is the lead agency for in the implementation of this plan along with The Office of Environment and Heritage (OEH) and Local Land Services. A review of this plan is underway and the Draft NSW Invasive Species Plan 2015-2022 and will be released following public consultation.

#### **Invasive Animal control**

The NSW Invasive Species Plan 2008-15 provided guidance on the management of declared pest animals including the wild dog, fox, feral camel, feral pig and wild rabbit as well as the NSW Carp Control Plan.

Under the Local Land Services Act 2013 all land managers in NSW, whether on public or private land, have an obligation to control declared pest species on their land. Local Land Services help landholders by providing advice and assistance to all land managers in eradicating declared pest species by developing cooperative management programs and plans. We also work with private and government stakeholders to develop vertebrate pest management plans.

#### **Invasive Plant Control**

The Upper Macquarie County Council (UMCC) is the Weed Control Authority responsible for the management of noxious weeds under the Noxious Weeds Act 1993 within the Lithgow area. UMCC has no power in respect to environmental weeds. The Lithgow Council manages environmental weeds where possible by supporting community weed control activities and project such as those undertaken by Landcare groups.

The overarching policy for weed management in Australia is the Australian Weeds Strategy, which outlines goals and actions required to keep Australia's economic, environmental and social assets secure from the impacts of weeds. The implementation of the strategy is overseen by the Australian Weeds Committee (populated by representatives from all states and territories)

The Weeds of National Significance (WONS) programme identifies a national strategy for the control of each of the 32 of Australia's worst weeds within an agricultural, forestry and environmental context

Weed management is also addressed in a number of international agreements, or national strategies and programmes such as:

- Convention on Biological Diversity
- Ramsar Convention on Wetlands
- The World Heritage Convention
- Australia's Biodiversity Conservation Strategy

# **Response to Biodiversity**

# The Lithgow Local Environmental Plan 2014

The protection and conservation of biodiversity is considered and offered a degree of protection within the in the planning and approvals process by The Lithgow Local Environmental Plan 2014. The LEP has provided for the protection of biodiversity and natural land formations and watercourses through the implementation of environmentally sensitive areas overlays.

# **Responsible Environmental Management**

### Supporting and developing environmental protection and restoration projects

Protecting and enhancing biodiversity through consultation with the community and the development of partnerships with Lithgow Oberon Landcare Association (LOLA), the Central Tablelands Local Land Service (CTLLS) and the Office of Environment and Heritage has achieved real environmental outcomes in a range of Council reserves and waterways Programs.

A variety of projects have been undertaken on Crown and public lands to increase and conserve habitats areas, control weeds and reduce erosion. The projects have provided environmental benefits in a large number of reserves in the Local Government Area including:

- Farmers Creek (Saywell and Montague St sections)
- Hartley Reserve
- Hassan's Walls Reserve
- Hyde Park Reserve
- Lake Pillans Wetland Reserve
- Londonderry Reserve.



The projects have involved community participation in a number of planting days to enhance riparian habitat with native species following the removal of weeds. The planting days included raising awareness of the types and diversity of species within the area and the threats faced.

The recent appointment of a Landcare coordinator through funding from Landcare NSW should see more support for biodiversity focused on-ground projects which develop capacity within the community for long term environmental stewardship.

# **Threatened Species Management**

# Save Our Swamps

The Save Our Swamps (SOS) Project was completed early on in the reporting period. SOS was a joint project between Blue Mountains City Council, Gosford City Council, Lithgow City Council and Wingecarribee Shire Council to protect and restore the federally listed Temperate Highland Peat Swamps on Sandstone endangered ecological community, which occurs predominately across the four associated local government areas (LGAs).

Swampcare was Lithgow City Council's Save Our Swamps flagship community engagement program for all Newnes Plateau Shrub Swamp community related programs. It included Swampcare's educational and on ground activities, the Swampwatch program and the Blue Mountains Water Skink and Giant Dragonfly Monitoring Program.

The work achieved through the SOS program is to be built upon by the newly funded 'Swamped by Threats' project. The project is collaboration between all levels of government and the community which aims to protect upland swamps and the associated threatened species with a focus on the Giant Dragonfly and the Blue Mountains Water Skink.

# **Threatened Species Day**

Council have supported the Lithgow Oberon Landcare association to mark threatened species day at Hyde Park in the Hartley Valley. Threatened Species Day is a national day held each year in September to commemorate the death of the last remaining Tasmanian tiger (also known as the thylacine) at Hobart Zoo in 1936. National Threatened Species Day is celebrated across the country to raise awareness of the plight of many species but also to highlight the work that people are doing to save them.



The aim of marking threatened species day at Hyde Park is to learn more about the reserve, its importance to preserving biodiversity in the area and the specific efforts by many agencies and individuals.

Hyde Park is a haven for biodiversity and home to threatened species of flora and fauna including a population of Asterolasia buxifolia which was presumed extinct in the wild until being re-discovered within the boundaries of the reserve. Asterolasia is now the focus of a recovery program (Save our Species- SoS) which includes increasing the numbers of the species both at Hyde Park and the Royal Botanic Gardens.



# Save our Species

Saving our Species is a new conservation program that aims to maximise the number of threatened species that can be secured in the wild in NSW for 100 years. Saving our Species aims to be a collaborative effort of all tiers of government, business and the community which aligns everyone's efforts under a single banner, so investment in threatened species conservation can be accounted for.

Priorities for action under *Saving our Species* are species in the site-managed, iconic, data-deficient and landscape-managed species management streams. Direct action will be considered for nationally listed partnership species but is not expected for keep watch species unless threats substantially increase.

# **Green Army**

The Green Army have been working to increase the biodiversity, restore threatened species habitat and improve the condition of native vegetation. At Farmers Creek they have planted native species as well as mulching new and existing planted areas. They have also undertaken weed removal at a range of sites such as Farmers Creek, Hassan's Walls, Hillcrest, Londonderry & Hartley Reserves to name a few.

The Green Army provides an opportunity for young Australians aged 17-24 years to gain training and experience in environment and conservation fields. The first Green Army Team, which commenced in August 2015 for a term of 6 months, was a huge success. A second Green Army Team commenced in February 2016 for a 6 month term.

The Lithgow Green Army Project is funded by the Federal Government and sponsored by Lithgow City Council. It is a hands-on, practical environmental action program that supports local environment and heritage conservation projects. Central Tablelands Local Land Services, Lithgow Oberon Landcare Association and Lithgow and District Community Nursery provide training and specialist advice throughout the project improving project outcomes. The project aims to:

o Build on current partnerships with government and community organisations while directly engaging the community.

o Raise awareness of environmental and heritage values, while also encouraging greater community participation into the future.

o Increase the skills base of local youth and provide opportunities to directly network with potential employers.



A variety of works are undertaken during the term of the projects including; erosion & weed control, revegetation and mulching of degraded areas. Participants work with local Landcare and Community Nursery volunteers to develop skills in seed collection and propagation of native plant species.

The Green Army team have participated in a number of community projects such as Threatened Species Day, Purple Copper Butterfly Workshops and are working closely with the Lithgow & District Community Nursery in propagation and seed collection.

This project builds on current partnerships with government and community organisations while directly engaging the community. Central Tablelands Local Land Service, Lithgow Oberon Landcare Association and Lithgow & District Community Nursery have provided training and specialist advice throughout the

project improving project outcomes. It is hoped this project will raise awareness of environmental, heritage values and encourage greater community participation into the future.

Furthermore, projects such as this increase the skills base of local youth and provide opportunities to directly network with potential employers. At the completion of the first 6 month term, 8 of the 10 participants either gained employment or are undertaking further study.

# Hyde Park Reserve Environmental Works

Hyde Park Reserve is an 18ha bushland reserve on the banks of the River Lett which has significant natural and cultural heritage values. Hyde Park is home to threatened species of flora and fauna and is a haven for biodiversity within this heavily cleared and modified section of the Cox's River Catchment.

A population of Asterolasia buxifolia, presumed extinct in the wild, has been re-discovered within the boundaries of Hyde Park Reserve. This is the only known location of this threatened species with a population size estimated to be in the order of only a few hundred plants.

Asterolasia occurs in the riparian zone, within 2-3m of river level of the Lett River. The threats to Asterolasia and the general biodiversity values include weed invasion and competition, and alterations to water flow or fire regime.

> "The 'Hyde Park Reserve' riparian zone on both banks of the River Lett, probably represent the best substantial linear area of this vegetation type left at valley-floor altitude on the middle part of the Cox's River system... an area of high aesthetic and biodiversity value in which vegetation structure and floristics closely approach pre-settlement conditions."

Senior Botanist Bob Makinson from the Royal Botanic Gardens of NSW



Council have assisted the Lithgow Oberon Landcare Association to undertake works outlined within the Hyde Park Reserve Management Plan which have included restricting 4wd access to minimise disturbance and destruction within the reserve, erosion mitigation, interpretative signage and supplementary regeneration planting.

Hyde Park is currently being considered for listing as an Aboriginal Place.

# Hassans Walls Environmental Works

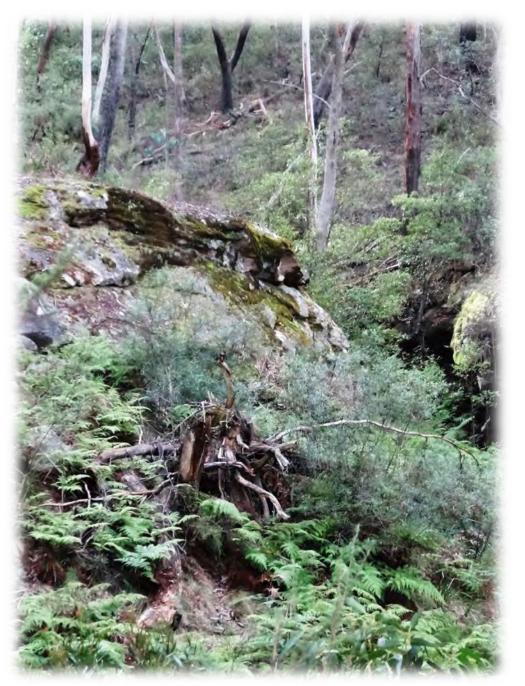
Management of natural resources within Hassans Walls reserve through the control of environmental and noxious weeds was undertaken through the implementation of a successful grant from the Public Reserve Management Fund Program.

This project enhanced biodiversity, reduced erosion, improved habitat value and controlled noxious weeds within the reserve. All of these works improve recreational opportunities, visual amenity of the area and increase public perception and awareness of the environmental asset.

The project has treated a number of the high value areas within the reserve while also identifying other locations of weeds within the reserve, which require additional works to contain and will be targeted in the future. This project compliments and builds on previous works currently being undertaken within the reserve by increasing community participation for lasting environmental outcomes.

# **Hillcrest Reserve Environmental Works**

Hillcrest Reserve has potential to be a high quality bushland reserve although weeds are currently threatening these natural values. The Reserve contains important remnant native vegetation consistent with the Lithgow Abercrombie Grassy Woodland presenting some unique challenges. Past land use has isolated the reserve from the boarder landscape, while future challenges include threats from environmental weeds and the impacts of urban development.



Council will continue to manage threats to the reserve through projects such as this, which has achieved significant reductions in noxious weeds such as Blackberry and Hawthorn as well as other environmental weeds. Council also aims to undertake work to increase the linkages and enrich condition and diversity of native vegetation within the reserve.

Protection and enhancement of biodiversity through weed control and supplementary planting will assist in enhancing biodiversity, reduce erosion and improve habitat value. It is hoped improved visual amenity of the area, together with increased public perception and awareness of this environmental asset will provide long-term environmental outcomes through community support and ownership.

# Willow Removal Vale of Clwydd

This project will control woody weed infestations along at least 3km of Vale of Clwydd Creek. Vale of Clwydd Creek is a suburban creek running through the suburb of Vale of Clwydd, part of the urban area of Lithgow. The creek flows into Lake Pillans Wetlands and Farmers Creek.

Farmers Creek is a significant stream, running through the urban area of Lithgow, and into the Coxs River, which flows into Lake Burragorang.

This project will help to prevent the spread of Willows, a Weed of National Significance, and other noxious weeds into the surrounding Greater Blue Mountains World Heritage Area, and further into the catchment. It will also help to combat the increased erosion and flow modification that can be associated with Willow encroachment along waterways. Fallen Willow debris, and the dense mat of their roots can sometimes trap silt, build up the level of the stream bed and divert water flow into the banks, thereby Working Together to Protect the Environment

# Major Fire and Storm Damage Throughout the LGA

On 16 October 2013, a devastating fire (known as the State Mine Fire) started near the Army Camp in Reserve Road, Marrangaroo and quickly spread to impact on many areas of Lithgow including burning near Oakey Park, Morts Estate, Clarence, Dargan, Doctors Gap and Hartley before spreading to other communities in the Blue Mountains burning out more than 55,000 hectares (140,000 acres).

In the Lithgow LGA, the fire destroyed the Lithgow Pistol Club, Clubhouse and major parts of the Zig Zag Railway. The fire front surrounded the water treatment plant. Council personnel had prepared the plant for the fire and were on hand at this stage to protect this critical infrastructure.

Approximately 240 Fire fighters from Sydney metropolitan area, rural areas, the ACT, Victoria and Tasmania were seconded here to fight the fire and were accommodated with makeshift sleeping conditions at the Civic Ballroom and the Lithgow Basketball Stadium. Once the initial fire passed RFS crews assisted in putting out hot spots.

Council staff provided support to the fire fighters by providing bulk water with Council water carts, using heavy machinery, traffic control and road closures, mechanical repairs, electrical repairs, cleaning of various venues and secretarial, administration support and general organisation of resources to the Fire Control Centre.

In contrast, 12 months later, on the evening of 14 October 2014, Lithgow and surrounds experienced an unexpected heavy snow storm. The snow that fell was extremely dense and blocked roads throughout the LGA causing major traffic disruptions and road closures. Lithgow was declared a natural disaster area as a result of this storm.

The heavy snow caused widespread damage to trees, felling many and splitting others making them extremely dangerous. Many significant trees were destroyed during this storm. The total costs to biodiversity in the area are unknown but the storm would have had a devastating effect on many plants and animals.

### Weed Management

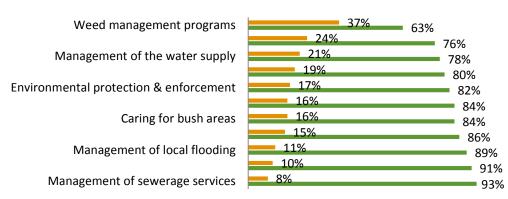
In the Lithgow LGA, management of roadside weeds and noxious weed control on private property is predominately undertaken by Upper Macquarie County Council. Council's weed management program includes:

- o Weed and willow control in Farmers Creek.
- o Revegetation and weed removal as part of the Reserve Management Program and Green Army program.

In the recent Community Satisfaction Survey (April 2016), 407 residents from across the local government area were surveyed and asked to rate their level of satisfaction with Environmental Services conducted by Council. The table below shows that residents are least satisfied with Councils' Weed Management Programs. This is an area for further investigation to gain a greater understanding of community expectation in this area.

# **Environmental Services**

Not Satisfied Satisfied





# Management and Biodiversity Plan for Maiyingu Marragu

During 2013, Council worked with members of Mingaan Aboriginal Corporation to finalise the Management and Biodiversity Plan for Maiyingu Marragu. The objectives of the Plan were to assess the biodiversity values of the study site, identify management issues within the site and make recommendations to address these issues. In 2015, as part of the implementation of the Plan, Council assisted Mingaan with the installation of interpretive signage at Maiyngu Marragu.

# **Destination Management Plan - A Tourism Strategy for Lithgow**

Following a lengthy period of consultation with operators and the community, the Destination Management Plan – A Tourism Strategy for Lithgow was finalised and adopted by Council in May 2013. The strategy provides an extensive audit of the tourism infrastructure and facilities within the LGA, combined with an analysis of trends in the tourism sector and how they may be impacted. Based on this information the Destination Management Plan lays out a strategic plan of works and improvements to maximise the potential of tourism in the Lithgow LGA.

The Plan focuses on showcasing the natural assets and beauty of the area, particularly the unique biodiversity values intrinsic within the LGA. These natural assets are recognised as a draw card and point of difference to differentiate the area and provide a financial mechanism to value and protect the biodiversity

within the area. Actions within the Tourism Strategy which complement the preservation of biodiversity include:

- o Further development of the regional and scenic drive product.
- o Continuing to encourage mountain-biking in the State Forest.
- o Continuing to recognise the importance of the event sector as a key driver for the local economy.
- o Consulted with Capertee Valley Alliance on the development of the International Bird Trail in the Capertee Valley.

Capertee Valley is recognised as one of the premier bird watching destinations in the world.

# Filming and Photographic shoots in the Lithgow LGA

The unique beauty of the environment and incredible biodiversity of the area is being recognised as an asset beyond the traditional environmental sustainability. The Council regularly receives applications from Companies wishing to film or undertake photographic shoots in the area. Over recent years the following films were made in the LGA:



- "Cooee" was filmed in Glen Davis.
- "A Day in the life of the Ruin" was filmed at Blast Furnace Park.
- "Coming Home Again" was filmed at the Court House Hotel, Lithgow.
- "Christmas Appeal" was filmed in Main Street, Lithgow.
- "Wolverine" was filmed in the State Forests.
- Flat Daddy was filmed at various locations in Lithgow.
- Photo shoot for Vogue Magazine was filmed at Ben Bullen Railway Station and the old Service Station at Cullen Bullen.
- 6 Projects were undertaken by the Sydney International Film School.
- 3 documentaries.

# **Events**

The Lithgow Region annually hosts a number of events; many that capitalise on the natural asset of the environment. The Glow Worm Tunnel Trail Running Weekend held at Newnes in the Wolgan Valley annually in June attracts over 600 competitors including some of the top ultra-marathon runners from across Australia and New Zealand. The Glow Worm Tunnel Trail Running Weekend has become a weekend of running, fitness and exploring in a spectacular setting. Other Events over the weekend included fun activities for the whole family and fitness levels.

# Farmers Creek Precinct Master Plan

During 2015/16 Council engaged Gondwana Consulting to develop a Master Plan for the Farmers Creek Precinct to guide the delivery of future environmental and recreational development works in the Farmers Creek catchment. Farmers Creek runs through the heart of Lithgow. A key feature of the plan is improving biodiversity with the restoration and revegetation of the degraded urban riparian corridor and formation of walking cycle paths integrated with flood mitigation.

The full extent of the Project is roughly 18 km of Farmers Creek and associated tributaries through to Lake Lyell. The majority of project objectives are focused on the 10 km section of Farmers Creek and tributaries within the urban area from the Farmers Creek Dam to the Great Western Highway, with the remaining 8 km of creek within a largely agricultural landscape with limited public access. In addition to environmental enhancements, will be the development of the precinct for recreational purposes including improved public access and increased recreational use through the construction of walking/cycle paths (particularly along the tributaries) and revegetation of the riparian corridor.



# Lake Wallace Foreshore

The Lake Wallace Foreshores is a popular recreation area and picnic area for residents and visitors to the LGA. Recreational facilities are further enhanced by the provision of free barbeques, toilet and shower amenities, shelter areas, open space, baseball diamond, sailing and swimming.

# Capitalising on the Views

Since 2012, Council has undertaken significant works to develop the three lookouts in the Lithgow LGA to make them safe and accessible for visitors and locals. Hassans Walls and Bracey Lookout in the Hassans Walls Recreation Reserve overlook the Hartley and Lithgow Valleys respectively while Pearsons Lookout in the north of the LGA overlooks the Capertee Valley.

Constructed in the early 1950's, by volunteers to provide panoramic views of the Lithgow Valley, **Bracey Lookout** is named after the Bracey family who made a major and lasting contribution to the town over many years, is an iconic lookout that holds a central place in the proud history of Lithgow.

Hassans Walls and Bracey Lookout are an important part of the modern development of Lithgow. Interpretive signage at the lookout points out that when Governor Macquarie travelled along the newly constructed Western Road in 1815 he noted this spectacular line of cliffs that reminded him of the hill forts of northern India. He named them Hassans Walls in recognition of this resemblance. The Sir Joseph Cook Boardwalk at **Hassans Walls Lookout** commences at the start of the path near the picnic shelter and extends 80m to a 25m square viewing platform near Padley's Trig Station. The boardwalk has been dedicated in honour of Sir Joseph Cook, Lithgow's Prime Minister and interpretive signage has installed at the entrance to the boardwalk detailing the significance of this great man to Lithgow and our nation.



The boardwalk provides improved access at Hassans Walls Lookout making it easier to take in the views of the magnificent Hartley Valley. The galvanized steel and fibre reinforced plastic boardwalk was designed to accommodate disabled access, increase safety for visitors to the reserve, and to protect threatened flora and fauna species in the area.

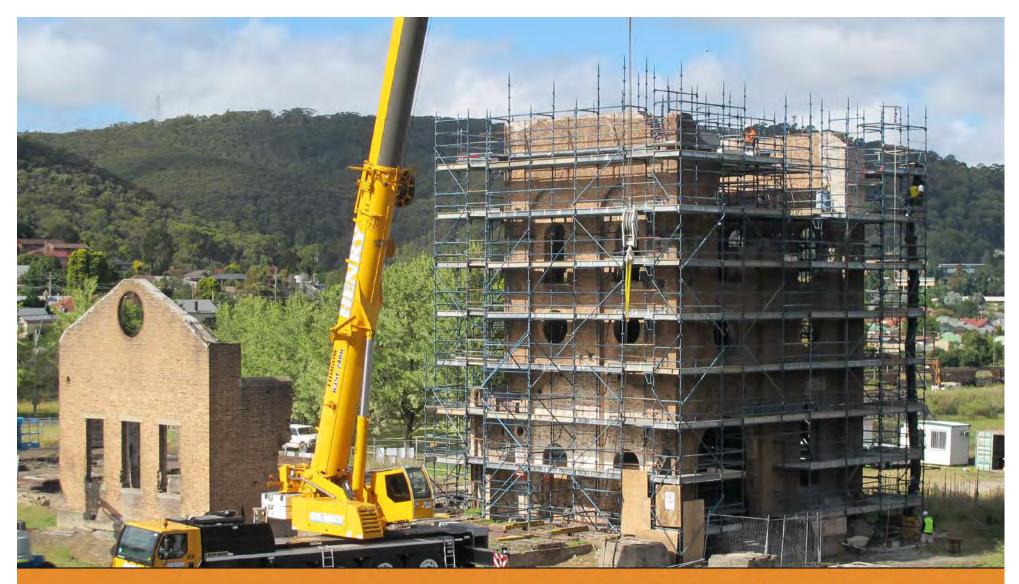
During 2013/14, Council completed the upgrade of **Pearsons Lookout** at Capertee, an iconic lookout overlooking the world famous Capertee Valley, which is the widest valley in the world. Pearsons Lookout is used by travellers between Lithgow and Mudgee Road and is a "must stop and see" point on the journey.

It was in need of works to improve access from the adjoining highway and remedy neglect to the Lookout Council undertook consultation with the Capertee community on the design of the upgrade works which involved re-grading and sealing the access, safety works, new fencing, an accessible viewing platform and interpretive signage. This project has been a very successful partnership between Council, the Capertee Community and Roads and Maritime Services. In the Community Satisfaction Survey conducted in April 2016 of 407 residents in the Lithgow LGA, Hassans Walls Lookout received an overall satisfaction rating of 'high' while Pearsons Lookout and Bracey Lookout received a rating of 'moderately high'.

# Lithgow Environmental Advisory Committee

The principal responsibilities of the Committee are to advise Council on environmental issues with a focus on natural resource management and urban environmental sustainability as follows:

- Provide local knowledge and expertise about the natural environment within the Local Government Area
- Provide informed and constructive advice in regard to urban environmental sustainability including; cycle and walkways, green areas, threatened species within urban areas, urban bushland regeneration, connectivity to natural areas, community nurseries and gardens
- Identify emerging issues of concern to the health of the natural environment within the Local Government Area
- Provide specific and targeted feedback on a range of Council policies, strategies and management plans that relate to natural resource management and urban environmental sustainability



# **Towards Sustainability**

# 4. Towards Sustainability

Sustainability can be broadly defined as the ability to satisfy the current needs of our environment, economy and community without compromising the ability to satisfy those needs into the future. The Community Strategic Plan identifies the objectives and strategies that Council uses to guide and balance the needs of the environment, economy and the community toward a sustainable future.

This section looks at how Council has addressed key challenges to sustainability within the LGA including the management of waste, environmental health, clean air initiatives and response to climate change.

# 2012-2016 Highlights – Towards Sustainability

#### **Kerbside Recycling**

The delivery of over 18,000 new garbage and recycling bins during November 2013 has provided the community with an excellent opportunity to recycle and reduce waste from going to landfill.

#### Lithgow Litter Prevention Program

Aimed at achieving the EPA target of, a 40% reduction in littered items across assessed sites within the LGA.

#### Rainwater Tank and Domestic Appliances Rebate Scheme

One of the many ways Council is working with the community to create sensible solutions for people and the environment to ensure that clean, fresh drinking water doesn't become a luxury item. Council has implemented a rebate scheme for:

• The installation of Rainwater Tanks connected to domestic appliances and for garden watering; And

The purchase of energy and water efficient domestic appliances



# **Pressure to Sustainability**

## **Air Quality**

Poor air quality can affect all living things and impacts can be seen on ecosystems, and on buildings and facilities - as well as detracting from our enjoyment of the area. In general, the air quality in the Lithgow LGA is considered to be very good, apart from the problems with air quality winter months relating to smoke emissions arising from the use of solid fuel heaters. This issue has improved dramatically over the last few years with the wood heater rebate scheme.

Other potential impacts to air quality may include gas generated from landfills (Landfill gas is an identified greenhouse gas as it comprises of approximately 55% methane and 45% carbon dioxide); the temporary and relatively minor adverse effects of smoke from managed burns by Rural Fire Service and private landholders; and seasonal effects of bushfire which can range from mild to extreme

## **Climate Change**

Climate change refers to the build-up in the atmosphere of gases such as water vapour, carbon dioxide, methane, nitrous oxides and ozone which trap the suns heat consequently causing changes in weather patterns on a global scale. Whilst the average temperature of the Earth may increase, it is the changes in the Earth's climate systems that will be most dramatic. Extreme weather events such as droughts, floods, cyclones and frosts may effect areas previously unaffected or affect us with increased frequency and intensity.

The widely accepted impacts of climate change that now should be considered within the planning and operational framework of council include:

- Changes in the frequency, duration and intensity of wind, rain, hail, flood, storm events;
- Increased risk of damage from bushfires;
- Coping capacity of existing flood defences and strategies;
- More intense rainfall resulting in inflow and infiltration into wastewater networks;
- Changes in rates of road deterioration;
- Loss of private property and community assets;
- Higher temperatures increasing the risk of food and waterborne diseases and heat related deaths;
- Increased risk to vulnerable members of the community including the elderly, disabled and socially disadvantaged; and
- Increase in insurance costs

In relation to the potential effects of climate change on Environmental Health:

- Increased deaths from extreme events, flood, fire, storm and heat;
- Increased incidence of mosquito borne diseases including Malaria, Dengue fever and Ross River virus;
- Increased incidence of food and waterborne disease;
- Increased exposure to solar ultraviolet radiation;
- Increased incidence of respiratory diseases;
- Increased incidence of outdoor air pollution from bush fire;
- Increased incidence of algal blooms;
- Greater number of threatened species.

#### **Waste Minimisation and Management**

Managing waste is one of the greatest environmental issues facing people today. Australia is the second largest producer of waste (per head) in the world. Sustainable resource management is the key to achieving the most appropriate environmental and economic outcomes for the residents of the Lithgow LGA. Littering and illegal dumping are also ongoing issues within the LGA.

After collection, non-recyclable waste is taken to a landfill where it is buried. As it decomposes the waste produces a water pollutant called leachate and a gas pollutant known as methane. Leachate contains harmful chemical compounds and toxins and can seep into the surrounding groundwater if a landfill is not properly sealed or maintained. Methane is a greenhouse gas 25 times more potent than carbon dioxide and contributes to Australia's greenhouse gas emissions and is usually produced in landfills as organics (such as food and garden waste) decompose.

Council currently operates 6 landfills and 4 transfer stations. It also offers a variety of programs including recycling, e-waste collection facilities and regular pickups of bulky and green waste to help the community manage waste issues.

The council's Waste Management Strategy guides Council's actions in response to waste. The Strategy broadly applies the principles of the waste hierarchy which is defined by the EPA as "a set of priorities for the efficient use of resources".

The waste hierarchy is based on the avoidance or minimising producing waste in the first instance, followed by recovering resources where possible through recycling etc., and lastly where no other option is available, to dispose of the waste in a way that has the least impact on the environment and the communities that live there. The waste hierarchy underpins the objectives of the Waste Avoidance and Resource Recovery Act 2001.

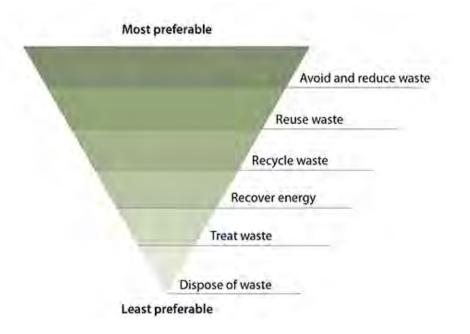
#### The Waste Hierarchy:

- 1. **Avoidance** including action to reduce the amount of waste generated by households, industry and all levels of government;
- 2. **Resource recovery** including re-use, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources; And
- 3. **Disposal** including management of all disposal options in the most environmentally responsible manner.

Education about waste and waste avoidance and recovery for all levels within the community is essential in changing attitudes and promoting understanding of how we can all make a big difference.

# **State and Response of Sustainability**

# **Environmental Protection and Leadership**



The objectives and strategies outlined within the Community Strategic Plan assist in ensuring that Council balances the current and future needs of the environment, economy and the community. Council is making progress in developing the principles of Environmentally Sustainable Development (ESD) to lead the community to the future where its residents, its economy and its environment are all thriving.

## **Lithgow Litter Prevention Program**

Successful grant funding allowed the implementation of a litter prevention program under the NSW Council Litter Prevention Grants Program. This was delivered throughout the Local Government Area using the NSW Environmental Protection Authority (EPA) "Hey Tosser" slogan on advertisements and signage.

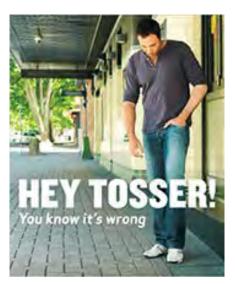
The Litter Prevention Program funding aimed to achieve the EPA target of, a 40% reduction in littered items across assessed sites within the LGA. The accumulation of cigarette butts and littering at roadside stops and the associated bushfire risk of cigarette butts were of particular concern. The delivery of the program involved education to raise community awareness, new infrastructure and increased enforcement at selected locations or "hot spots".

New infrastructure such as waste bins, recycling bins, butt bins and accompanying signage was installed at all 'hot spot' locations, making it easier for people to do the right thing and feel positive about the sites.

The following Council sites "hot spots" were identified for new infrastructure:

- o Clarence Pirie Park, Capertee
- o Scenic Hill, Lithgow
- o Hassan's Walls, Lithgow
- o Endeavour Park, Lithgow

The education program was delivered in partnership with NetWaste to all participating primary schools with 665 students attending. Many of these students also submitted works into the poster competition, which asked students to design a poster which encouraged people not to litter. All submissions were displayed at Lithgow Library with the winning poster from Meadow Flat Public School awarded a prize. The broader community was also involved with over 75 local businesses pledging their support to prevent littering in the LGA. They displayed posters in shop windows and new signage on car park exit points increasing the profile of the project.



# **Clean Up Australia Day**

The project also promoted participation in Clean Up Australia Day on 1<sup>st</sup> March 2015 aiming to build valuable relationships in the community that will continue to grow into the future. Council promoted and participated in Clean-Up Australia Day via local media in cooperation with Lithgow Tidy Towns and arranged designated pick-up sites for the clean-up.



As a result of this partnership Lithgow LGA achieved a 41% increase in participation in Clean Up Australia Day in comparison to the previous year. At the conclusion of the project, an average 80% reduction in littered items was achieved at hot spot locations. The most common littered item across all sites was cigarette butts. At commencement of the project they made up 18% of the litter and had increased to 44% at the completion of the project. The increase in cigarette butts as a proportion of total littered items across all sites highlights the prolific nature, longevity & difficulty in removing the butts from our natural environment.

# **Responsible Waste Management**

Council operates 7 landfills and 3 transfer stations. Lithgow Solid Waste Facility is the primary landfill for the Local Government Area.

Since 1 June 2012, Council has:

- o Installed remote surveillance cameras at rural landfills.
- o Installed recycling bins at the Waste Transfer Stations; Meadow Flat, Tarana, Angus Place and Hampton.
- o Developed a planned closure program for the remaining rural landfills and installation of transfer stations which includes recycling facilities.
- The delivered of over 18,000 new garbage and recycling bins to residents in the LGA

## **Lithgow Waste Facility**

In response to issues identified in The Waste Management Strategy, Council has installed an electronic weighbridge system that will operate at the Lithgow Waste Facility. The weighbridge provides an accurate system to calculate the amount of waste being disposed of into the current landfill. During 2014/15 additional facilities were added to the weighbridge including extension of the sewer and construction of toilet facilities, installation of a computer and printer, construction of perimeter fencing and installation of security.

Since the installation of the weighbridge at the Lithgow Solid Waste Facility a more accurate representation of annual tonnage into the facility has been achieved. Historical records indicate an average of 45, 0000 tonnes are received annually, this is within the annual tonnage allowed within the EPA Licence. The 2014/15 volume was a result of the receipt of clean fill from the roadwork's, which will be used for future operation works.

The following rehabilitation works have been undertaken to Stage 1 Area at the facility:

- o Leachate control
- o Upgrade and maintenance of the road.

o Development of a Landform Design and Filling Plan.

# **Kerbside Recycling**

The delivery of over 18,000 new garbage and recycling bins during November 2013 has provided the community with an excellent opportunity to recycle and reduce waste from going to landfill.

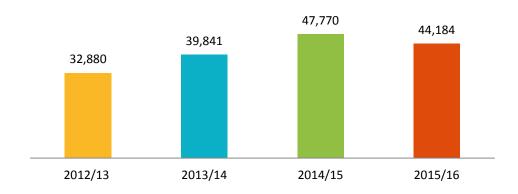
The Recycling and Waste Collection evolved from the need to reduce valuable resources going to landfill. This was achieved by improving resource recovery from the waste stream and in particular the replacement of crate collection with 240Lt bins for recycling.

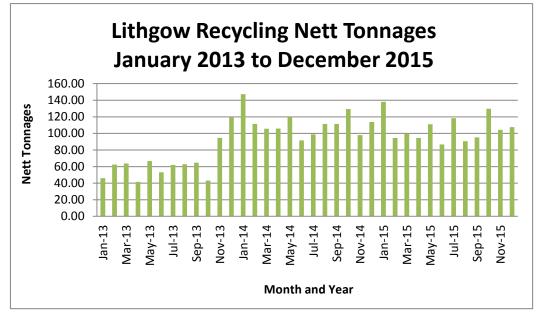
Lithgow residents have embraced the new recycling service and in the first quarter there were 472,640 kilograms of recyclable materials diverted away from landfill, thereby increasing the life span of the landfill and increasing the reuse of materials.

In 2015/16 Council saw a reduction in kerbside garbage to landfill of 7.9% and an increase in kerbside recycling of 11% from 2014/15.

# **Lithgow Waste Facility**

**2012/13 2013/14 2014/15 2015/16** 





The recent Community Satisfaction Survey (April 2016) showed that 51% of respondents were 'very satisfied' with the household waste collection (garbage and recycling service) as opposed to 20% and 28% of respondents who were 'very satisfied' with Council's management of landfill and waste transfer stations respectively.

The survey showed that respondents in the Lithgow Planning Precinct were significantly more satisfied with 'Household Waste Collection', Management of Landfill' and 'Management of Waste Transfer Stations', while those in rural areas, particularly the Rural North Planning Precinct were significantly less satisfied with these 3 services/facilities. Respondents from the Portland Planning Precinct were significantly less satisfied with 'Management of landfill'. It should be noted from these responses that rural residents are significantly more impacted by the planned closure of rural landfills and replacement with Waste Transfer Stations and that many residents in the rural areas do not receive the Household Garbage and Recycling Service.

# **Environmental Health**

## **Environmental Health Inspections Program**

Council undertakes routine Environmental Health Inspections to ensure compliance with relevant legislation. This involves inspections over a number of industries which could present a risk to public health such as skin penetration premises, swimming pools, caravan parks and cooling tower's within the LGA.

Council undertakes a variety of routine Environmental Health Inspections to protect the environment and ensure the health of the community:

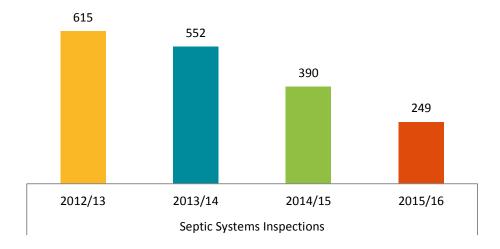
- o On-Site Sewage Management
- o Monitoring of Aerated Waste Water Systems
- o Trade Waste
- o Food Premises Inspections
- o Skin Penetration Premises Inspections
- o Pools/Spa Inspections
- o Cooling Tower Inspections
- o Caravan Park Inspections



### **Septic System Inspections**

Annual inspections and approval of on-site sewerage systems occurs for all unsewered properties in the Local Government Area to ensure compliance with environmental and public health performance standards and the Local government Act s68 Park c, Items 5 & 6. Council also monitors 120 service records for Aerated Waste Water Systems per annum.

# **Septic System Inspections**



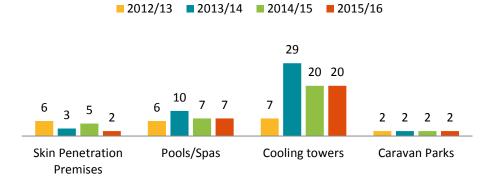
Note: The significant reduction in inspections in the 2015/16 financial years is due to staff changes

### **Environmental Health Inspections**

Inspections of swimming pools and spas open to the public are conducted to assess compliance with the public requirements. This ensures the operations and surrounds are satisfactory and concurrent with the Public Health Act 2010 and Public Health Regulation 2012. Cooling towers are inspected in accordance with the Public Health (Microbial Control) Regulation 2010 to maintain an up to date register of all cooling towers within our Local Government Area.

- Food Premises Inspections
- Skin Penetration Premises Inspections
- Pools/Spa Inspections
- Cooling Tower Inspections
- Caravan Park Inspections

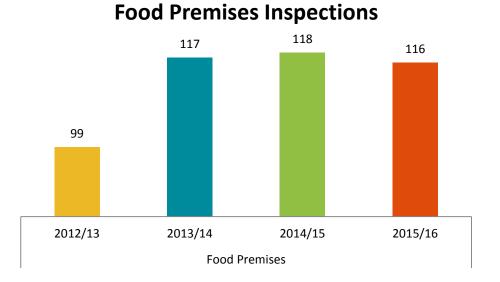
# Environmental Health Inspections Program



staff changes.

### **Food Premises Inspections**

Food inspections are conducted on food premises within the Lithgow Local Government Area in accordance with the Food Regulation Partnership with the NSW Food Authority to ensure public safety and compliance with the Food Act 2003. All KPI's have been met



#### **Trade Waste Inspections**

The Liquid Trade Waste Program ensures all trade waste discharges are in accordance with Council's Lithgow Trade Waste Policy, NSW Best Practice Management of Water Supply and Sewerage Guidelines and the Liquid Trade Waste regulation Guidelines.





#### **Management of Contaminated Lands**

Lithgow LGA has a strong industrial heritage that had the potential to contaminate lands. Documentation of the history of these sites is not readily available and therefore cannot be effectively dealt with at the strategic planning level. This places additional burden on land developers to address this matter on a site by site basis.

Council does not currently have a contaminated lands policy or effective development control provisions to guide identification and assessment of potential contaminated lands. Council does rely solely on State Environmental Planning Policy 55 for management of contaminated lands

#### **Clean Air and Climate Change**

#### **Minimising the effects of Climate Change**

Council has introduced a number of initiatives to minimise the effects of climate change including reducing energy consumption by Council buildings.

The new Aquatic Centre, for example, has a number of innovative design features:

- Installed to reduce energy consumption and costs.
- Installing a boosted solar gas hot water system in the Ashley Grandstand.
- Installing LED Panel lights in the Council Administration Centre.
- Commencing a Water Loss Management Program which aims to reduce to reduce loss of potable water by 25%.
- Implementing an annual footpath construction program.



#### **Clean Air Initiatives**

Council is continuing with the Solid Fuel Heating Appliance Replacement

Scheme which supports Councils commitment to improve air quality by providing opportunities for the community to replace coal fired fuel heaters with alternative clean heating sources through cash rebates to assist with the associated changeover costs. This scheme has traditionally focussed on coal fired appliances.

#### **Coal Fired Heater Replacement Rebates**

The rebate program was started by Council in response to community concerns about the threat coal smoke poses to community health and the environment and has been in operation for a number of years.

Householders are encouraged to convert their coal fired heating system with more sustainable and healthier forms of heating such as gas or electricity. This has resulted in residents noticing a marked improvement in air quality over recent years as more people replaced their coal fired heater with cleaner and more sustainable heating methods.

Council recently reviewed the rebate scheme and assessed the number of coal fired heaters in the area and resolved as a further incentive to make Lithgow a coal smoke free area to increase the standard rebate from \$500 to \$1,000 and from \$700 to \$1,400 for pensioners.

In 2013/14 Council was successful in receiving \$30,000 in funding from the Environmental Protection Authority to participate in the 2014 Wood Smoke Reduction Program. This program provided cash incentives for the replacement of ineffective wood heaters with cleaner forms of heating. This temporary program was a perfect partner for Council's Alternate Fuel Rebate Program for the removal and replacement of coal fired appliances which have been in operation for some years.

#### **Promoting Energy Efficiency and sustainability**

Working towards establishing Council as a 'green business' enterprise is part of Councils ongoing commitment through its Sustainability Working Party towards a cleaner more energy efficient community.

Through its Sustainability Working Party, Council secured funding to replace an old and inefficient gas storage hot water service in the Ashley Grandstand change rooms used by football and other sporting teams throughout the year. The existing system failed to deliver sufficient hot water. The new gas boosted solar system is an efficient and cost effective solution as it can deliver the required peak flow on weekends when sporting activities occur.

Council promotes and participates in educational activities of the SaveWater Alliance. The aim is to promote water conservation techniques and a more sustainable use of this precious resource by sharing information about basic steps people to take to reduce the amount of water they use.

Council provides education and information fact sheets to residents about the effects of coal and wood smoke on health and the environment, and promotes the benefits of reducing smoke in the environment. The Wood Smoke Reduction Program supported Council's commitment to improve air quality by providing opportunities for the community to replace solid fuel heaters with alternative clean heating sources.

#### Rebates 11 7 3 3 2012/13 2013/14 2014/15 2015/16

**Coal Fired Heater Replacement** 

#### **Rainwater Tank and Domestic Appliances Rebate Scheme**

One of Lithgow area's most important water catchment areas is just above our heads! During heavy rain storms, hundreds of litres of water can drain off an average roof. Installing a rainwater tank can capture and store this precious resource to reduce demand on town water supply, and reduce water costs for residents.

The Rainwater Tank Rebate scheme is one of the many ways Council is working with the community to create sensible solutions for people and the environment to ensure that clean, fresh drinking water doesn't become a luxury item. Council has

implemented a rebate scheme for:

- o The installation of Rainwater Tanks connected to domestic appliances and for garden watering; And
- o The purchase of energy and water efficient domestic appliances.

In addition to this, Council has developed 'A Guide to Rainwater Tanks' to assist residents in selecting and installing a rainwater tank which includes information on Council's planning and building requirements. Furthermore, Council's rebate scheme which previously covered tanks 5,000 litres or more has recently been extended to cover 2,000 litre tanks. Council is offering rebates as follows:

#### **Rainwater Tanks:**

2000-4999 litre tanks – \$150 Over 5000 litre tanks – \$300

#### **Household Appliances**

For water efficient Household appliances (that adhere to the terms and Conditions) such as Dishwasher or Washing machine that have a four star WELS rating or AAAAA rating a rebate of \$150/appliance/Household.

#### Lighting Upgrade to Administration Building and Council Chambers

The Administration Building was constructed in 1974 and the installed lighting consisted of standard dual 40 watt and 20 watt fluorescent tubes with diffusers. These tubes were discontinued in about 2000 and Council replaced them with dual 36 watt tubes and diffusers.

The Sustainability Working Party considered lighting as one of a number of initiatives at Council to reduce energy costs and greenhouse gas emissions. After substantial investigation that included a trial, it was determined that the installation of LED panel lights would achieve the stated outcomes.



The end result has seen the following benefits to Council:

- o An improved level of lighting in the targeted areas.
- o A reduction in electricity consumption by half in the targeted areas.
- o A fifty per cent reduction in the production of greenhouse gases in the targeted areas.

Overall, the project has been an outstanding success and the financial savings will allow the future expansion of this project to other areas of Councils Administration Buildings.

#### Lake Pillans Walkway and Cycle Path

In early 2016 Council completed the final section of pathway around Lake Pillans Wetlands enabling locals and visitors to move more easily around the Wetlands through to Blast Furnace Park. In 2015, Council completed the first 220 metre long section of pathway with the final 430 metre long section, made possible with a significant financial contribution by Westfund and Council.

The development is a great example of social and environmental sustainability as it promotes healthy, active communities and creates a link for people to their natural environment while promoting the conservation of an important bird and wildlife area.

#### **Farmers Creek Master Plan**

The farmers Creek masterplan development is an example of Council improving their focus on social and environmental sustainability. It combines flood mitigation and adaptation strategies while also providing extensive social and environmental benefits. The plan promotes the opportunity for healthy communities through development of cycle ways linking key areas of the community with walking and cycle paths which in turn assist in reduced reliance on fossil fuel burning form of

transportation. It also provides an important link for the community to their natural environment which in turn will help clean up and revegetate a degraded urban riparian zone (creek and riverbanks).

Managing the weeds and replanting with native species will assist in creating a wildlife corridor and improve biodiversity outcomes. Planting and weed management activities are planned to be undertaken by the Green Army and local Landcare groups, further enhancing social and environmental capital and stewardship within the area.





# Heritage

## 5. Heritage

Lithgow Council has the responsibilities for the identification, preservation, improvement and promotion of the Local Government Area's indigenous and nonindigenous built and natural heritage. It has a strategic role in ensuring policies and plans are put in place to achieve an appropriate balance between conservation and development and also to put in place mechanisms to assist in educating the community on heritage issues.

Providing a range of programs celebrating the cultural diversity and rich heritage of our local government area is part of Council's Caring for our Community strategies in the Community Strategic Plan 2026. Council has an active heritage management program aimed at ensuring the ongoing conservation, promotion and interpretation of Lithgow's heritage. The 2012-16 years have seen some significant achievements, and the undertaking of some major heritage projects for Council.

#### 2012-2016 Highlights - Heritage

#### The Lithgow Local Environmental Plan 2014 and Heritage Development Control Plan

Identification and Preservation of Indigenous Natural Heritage Sites - Council worked with members of Mingaan Aboriginal Corporation to finalise the Management and Biodiversity Plan for Maiyingu Marragu.

#### Blast Furnace Park

Substantial progress on upgrade works to repair, preserve and make safe for visitation of this iconic heritage site.

#### The History avenue project The creation of a series of public sculptures installed along Inch Street designed to reflect the story of steel production in Lithgow.

**Bowenfels Gun Emplacements** Improvements to the conservation, management, access and interpretation of the Bowenfels Gun Emplacements.

#### Blue Star Sustainability Awards

Cultural Heritage Award for NSW" – won by Eskbank House and Museum 2015 In recognition of their achievements in museum, art and event management.

#### Way Forward Thru Stories

Series of workshops and and exhibition on Aboriginal history and culture were developed by Mingaan Wiradjuri Aboriginal Corporation in conjunction with Council, Lithgow TAFE and Lithgow Community Projects.



## **Pressure to Heritage**

Heritage consists of those places, objects and stories that we as a community have inherited from the past and want to hand on to future generations.

Our heritage both Aboriginal and non-Aboriginal gives us a sense of living history and provides a link to the work and way of life of earlier generations. It enriches our lives and helps us to understand who we are today.

The Lithgow area has a long and rich history and heritage which is an important part of the story and unique character of the area and its people. Council is a key stakeholder in ensuring all this is not lost.

The heritage of the Lithgow area is an important aspect of future growth and development and is a distinguishing element for many small towns and areas that gives them an edge or point of differentiation.

The pressure to heritage includes balancing the current and future needs of the community while preserving and interoperating the past. Council seeks to apply a pragmatic approach which seeks to retain core heritage values and places and provide a sound framework for new buildings and alterations and additions to take place that meet reasonable contemporary expectations. The long-term protection of that heritage will allow Lithgow to take full advantage of its fine history and its excellent built heritage.

#### Local Heritage Listings

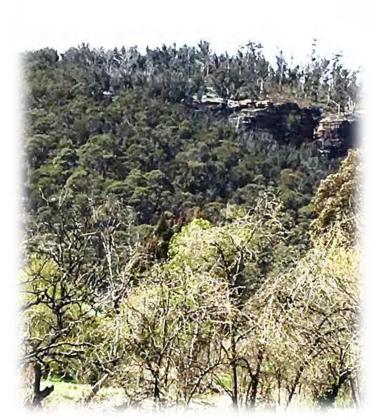
Despite the recommendations of a Heritage Study completed in 2000 many items or places of heritage significance within the Lithgow LGA remain unprotected by any statutory framework. This raises the issue of how best to protect such items/places both in the short and longer terms.

Identifying and listing items of heritage significance are only the first steps in protecting and managing those places and objects that we as a community want to keep. The force of law is necessary to provide a framework for managing the approval of major changes so that heritage significance is retained and not diminished.

#### Planning Controls for Individual Heritage Items

Of importance in considering the broader heritage of Lithgow is how individual heritage items are considered, particularly when they are in isolation. Standard provisions that must be considered in relation to heritage items are being developed as a component of the Heritage Development Control Plan. Standard provisions are being applied across NSW to provide consistency of approach. The basis of these controls is to:

- Understand why the place is significant; and to
- Provide to undertake works that retain the identified significance In making applications for work to Council, owners will be required to submit a heritage impact statement that sets out how the heritage values of the place have been retained in the proposal.



#### Heritage Conservation Areas

The relevant heritage studies did not research or make any specific recommendations for conservation areas. However the 2000 Lithgow Heritage Study did indirectly reference conservation areas in its management recommendations to prepare locality-based Development Control Plans for significant rural localities and significant urban areas. For significant urban areas the Study noted that the heritage objectives and guidelines should aim to retain historic, aesthetic, research and social values implicit in the localities and their interaction with the surrounding urban and rural landscapes, in particular:

- Streetscapes: their scale, character and continuity;
- Subdivision patterns;
- Contributory elements: their integrity and significance;
- Interpretative aspects; the ability of a locality to demonstrate for example the architectural, technological, landscape or planning principles underlying the statement of significance.

The study 'tools' such as thematic history, historical maps and inventory records provide the framework for further research and survey of potential conservation areas. The standard LEP makes specific provisions for conservation areas as distinct from heritage items.

#### **Cultural Landscapes**

Cultural Landscapes refers to the identification, assessment, management and interpretation of cultural values across broad landscapes. This concept is underpinned by the acknowledgement that history has taken place across the landscape and the form of the present landscape is the product of long-term and complex relationships between people and the environment.

The 2000 Lithgow Heritage Study made reference to Cultural landscapes through a recommendation to create a new environmental protection zone for rural cultural landscapes such as:

- Hartley Valley Landscape Conservation Area (listed by the National Trust of Australia (NSW)) and,
- Wolgan Valley Landscape Conservation Area (listed by the National Trust of Australia (NSW) and the Australian Heritage Commission).
- Little Hartley
- Hartley Vale
- Palmer Oakey
- Sodwalls
- Bowenfels

The Study noted that further work would need to be undertaken to establish boundaries and "more fully document the heritage attributes of these areas".

#### **Indigenous Cultural Heritage**

Aboriginal Heritage is protected by several forms of legislation at both state and federal levels. At the local level the dual protection of areas of high biodiversity and national parks indirectly protects the majority of Aboriginal sites/places.

It is the community appreciation and understanding of Aboriginal heritage that requires facilitation through the land use process. Options to address this issue include:

- Preparation of an Aboriginal Consultation Strategy
- Preparation of an Aboriginal Heritage Study

Council has adopted an Aboriginal Consultation Policy. Council will continue in the first instance to identify potential areas of aboriginal heritage through reference to the Aboriginal Heritage Information Management System (AHIMS) and secondly through consultation with relevant bodies as determined by Council's policy.

This Strategy identifies the Aboriginal Heritage Study as a data gap that unfortunately will not be filled prior to development of the 2012 LEP. No aboriginal heritage study has been undertaken within the Lithgow LGA. This is an identified data gap. This raises the issue of how best to protect the LGA's Aboriginal heritage in the interim period.

#### **Development Assessment Framework**

A new Development Control Plan (DCP) is being developed to provide more detailed provisions to inform decision making. Options to support the development assessment process:

- Development Control Plans
- Council Policy
- Conservation Management Plans
- Adaptive Reuse Incentives

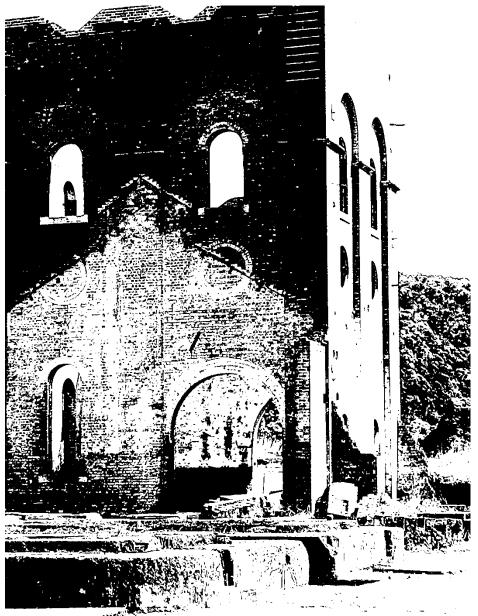
#### **Community Understanding of Heritage Protection**

Lack of educative resources and understanding within a community (both private and public) signifying the importance of heritage items as historical records and tangible expressions of our identity and experience is a major barrier to heritage protection.

Council in partnership with the Heritage Office of the Department of Planning does provide a free Heritage Advisory Service and administers a Local Heritage Fund to assist with assessment of development applications and other works likely to impact on heritage items of places of significance.

Options to address these include:

- Establishment of Local Heritage Committee
- Dedicated Web Page
- Workshops/Handouts
- Promotion of Cultural Tourism



## State of Heritage

Lithgow and its region has a rich diversity of history which includes the period in Australia from the early 19th Century explorers and pioneers crossing of the Blue Mountains to the early 20th Century industrial, oil and mining phase in the history of Lithgow. The cultural heritage in the region is regarded by many as outstanding and provides a comprehensive heritage resource illustrating the unique history and development of the area.

While the picturesque qualities of the area's dramatic natural, pastoral and agricultural landscapes are well recognised there are also landmark industrial sites that are important in the development of NSW. Its Aboriginal history is also a component of the cultural heritage of the region today and there are a number of key sites managed by National Parks & Wildlife Service in the region. The natural heritage of the Lithgow area is increasingly a major resource and attraction for visitors. The World Heritage status of the Greater Blue Mountains and its wilderness areas will provide valuable opportunities for the Council and its communities to bring together and showcase the broader cultural heritage values of the region.

#### Legislative and Policy Framework

#### **Federal**

The protection of Australia's heritage items is managed under the Environment Protection and Biodiversity and Conservation Act (EPBC Act).

- The EPBC Act enhances the management and protection of Australia's heritage places, including World Heritage properties. It provides for the listing of natural, historic or Indigenous places that are of outstanding national heritage value to the Australian nation as well as heritage places on Commonwealth lands and waters or under Australian Government control.
- A declared World Heritage property is an area that has been included in the World Heritage List or declared by the Minister to be a World Heritage property.
- The National Heritage List includes natural, historic and Indigenous places of outstanding heritage value.
- The Commonwealth Heritage List comprises natural, Indigenous and historic heritage places on Commonwealth lands and waters or under Australian Government control.
- Once a heritage place is listed under the EPBC Act, special requirements come into force to ensure that the values of the place will be protected and conserved for future generations. The EPBC Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

The Greater Blue Mountains is listed on both the World Heritage List and National Heritage List. No items in the LGA have been listed on the Commonwealth Heritage List.

A total of 46 items have been listed on the Register of National Estate and four heritage sites of indigenous significance have been listed in the EPBC protected matters report.

#### State and Local Government

Local government responsibility for heritage management is enshrined within two acts - the Heritage Act 1977 and the Environmental Planning and Assessment Act (EP&A) 1979. Together, they establish the legislative framework for heritage management in New South Wales and ensure that heritage forms an integral part of the planning system. Following the adoption of amendments to the Heritage Act in 1999, heritage management in NSW became a two-tiered system where:

- Items of local heritage significance are listed and managed by local councils; and
- Items of State heritage significance are listed on the State Heritage Register by the Minister for Planning and managed by the Heritage Council.

The principal tools that guide local government management decisions are the Heritage Study and the Local Environmental Plan.

A heritage study identifies and assesses heritage items in accordance with the key historical themes for an area. It also makes recommendations on policies the local council should adopt to protect and conserve the identified heritage items.

The LEP translates the recommendations of the Heritage Study into a legal document that provides a broad framework for future management of the area's heritage. The LEP is prepared in accordance with the Standard Instrument – Principal LEP and includes compulsory provisions as set out in Clause 5.10 of that document.

Council may also support the LEP by local approvals policies under the Local Government Act 1993 or Development Control Plans under the Environmental Planning and Assessment Act 1979 to provide more detailed guidance to developers and owners in specific localities such as heritage conservation areas.

The current Lithgow City Local Environmental Plan identifies 96 heritage items within Schedule 1 comprising individual buildings and groups of buildings. These items do not adequately reflect the breadth of history and heritage of the Lithgow Local Government Area.

The 2000 Heritage Study recommends local listing of approximately 500-600 heritage items, including those already listed. Council is currently reviewing all potential items to be listed to ensure adequate information is available to assess heritage significance and identify the location of items.

Lithgow's Local Environmental Plan contains 382 items of environmental heritage as well as 13 heritage conservation areas.

The 2000 City of Lithgow Heritage Study and the Rylstone and Evans Heritage Studies are authoritative studies that provided Council with a comprehensive assessment of the history and heritage of the region and the basic framework for continuing research and survey. The Heritage Study recommends local listing of approximately 500-600 heritage items, including those already listed. Despite the recommendations of a Heritage Study many items or places of heritage significance within the Lithgow LGA remained unprotected by any statutory framework.

In 2010, a Heritage Development Control Plan Study was commissioned to review the list of heritage items proposed for inclusion within the new Local Environmental Plan and to formulate Development Control (DCP) provisions to guide the management of Council's heritage inventory. The findings of this Study were utilised through the strategic planning directions and actions of the Lithgow Land Use Strategy 2010-2030.

The approach to heritage is a balanced and pragmatic one that seeks to retain core heritage values and places and provide a sound framework for new buildings and alterations and additions to take place that meet reasonable contemporary expectations. The reuse and redevelopment of heritage buildings is an important element that often allows for their conservation.

The heritage of the Lithgow area is an important aspect of future growth and development and is a distinguishing element for many small towns and areas that gives them an edge or point of differentiation. The long-term protection of that heritage will allow Lithgow to take full advantage of its fine history and its excellent built heritage

## **Response to Heritage**

#### **Planning for a Brighter Future**

To identify, preserve, improve and promote the Local Government Area's indigenous and non-indigenous built and natural heritage is central to the Developing our Built Environment objectives defined within the Community Strategic Plan.

Council continues to plan for suitable infrastructure development to promote sustainable and planned growth while enhancing the existing identity of the towns, villages and rural areas of the LGA. Since 1 July 2012, the following plans and strategies have been developed and implemented to which provide a framework to ensure the protection of heritage:

- Our Place...Our Future Community Strategic Plan 2013-2026 which includes the key theme "Developing our Built Environment".
- Lithgow Land Use Strategy 2010-2030.
- Lithgow Local Environmental Plan 2014.
- Village Improvements Plans for Capertee, Rydal, Hartley and Tarana.
- Lithgow CBD Revitalisation Action Plan.
- Generic Community Lands Plan of Management.

The following plans are currently being developed to contribute to conserving heritage:

- Comprehensive Heritage Development Control Plan.
- Cullen Bullen Village Improvements Plan.



#### Awards

#### Blue Star Sustainability Awards – Cultural Heritage Award



In recognition of their achievements in museum, art and event management Eskbank House and Museum won the "Blue Star Sustainability Awards – Cultural Heritage Award for NSW" for 2015. Eskbank House was announced as the state winner of the Cultural Heritage Section of the Blue Star Sustainability Cultural Heritage Awards for fostering community cultural heritage in the Lithgow area.

Eskbank House conducted and coordinated a multidisciplinary program of cultural public events for the community. The

program was developed to make the most of the historic Eskbank House and its beautiful grounds and aimed to attract a wide range of people to the museum. The program included art exhibitions, workshops, performances and themed events. Stand out events for the year included The Zombie Fashion Parade, Roaring 20s Garden Party and Eskbank Steampunk.

The award recognises the hard work of the Eskbank House team which includes staff and volunteers, Council's outdoor garden staff who keep the Eskbank House grounds looking so beautiful and the community for the support they give to Eskbank House.

Providing a range of programs celebrating the cultural diversity and rich heritage of our local government area is part of Council's Caring for our Community strategies in the Community Strategic Plan 2026.

#### **Conservation Management**

The last four years has seen progress in programs preserving, highlighting and showcasing the rich heritage within the Lithgow area. Council has developed an annual capital works program based on the Conservation Management Plan which provides a strategic direction for maintaining the buildings and grounds with a focus on ensuring the historical integrity of the original property.

Since 2012 the following capital works have been completed at Eskbank House:

- Upgrade the porch attached to the Garden House.
- Plan developed for the upgrade of the car park and mobility access to the house.
- Construction of a post and rail fence bordering Inch and Bennett Streets.
- Plans developed to upgrade the rear of the house and Kitchen Garden.
- Replacement of the rear wall and portico of the Courtyard Gallery.
- Installation of an accessible entrance and toilet.
- Roof repairs.
- Security lighting upgraded.
- Trees bordering the property were removed opening up the museum to its previous park like environment.

#### Planning Controls - Lithgow's Local Environmental Plan 2014

On 31 October 2011 Council adopted the findings and recommendations of the 2010 Heritage DCP study to inform the development of the new Principal LEP.



The study has set out recommended controls for each proposed conservation areas to provide certainty for owners about why the conservation area has been created and what Council are looking for in applications for future work. The Lithgow Local Environmental Plan 2014 was finalised and commenced operation on 19 December 2014. Lithgow's Local Environmental Plan contains 382 items of environmental heritage as well as 13 heritage conservation areas as well as standard provisions. A further 115 individual local heritage items have been included on a deferred list to be further investigated for local listing as resources permit.

The study provided a set of general DCP controls for the older housing areas in Lithgow, recognising that they vary dramatically from new development on new sub-divisions. Again these controls provide flexibility in working towards good solutions for owners but also require that the essential character of the area is retained in both new development and alterations and additions. Overall this enhances the amenity and visual value of Lithgow.

The controls are based on the visual value of each area, particularly as viewed from the street. Where commercial buildings are included in conservation areas there are also controls about retaining original shopfronts and encouragement for owners to retain good original commercial interiors as these can add value to the business. Often the controls provide greater flexibility than is found in general controls reflecting the

character of a particular area, for example, in many early housing areas, side setbacks are minimal and the controls provide for retention of these reduced setbacks to assist achieving reasonable development opportunities.

The new LEP contains standard provisions that must be considered in relation to heritage items. These are being applied across NSW to provide consistency of approach. The basis of these controls is to:

- Understand why a place is significant; and to
- Provide to undertake works that retain the identified significance

The approach to heritage is a balanced and pragmatic one that seeks to retain core heritage values and places and provide a sound framework for new buildings and alterations and additions to take place that meet reasonable contemporary expectations. The reuse and redevelopment of heritage buildings is an important element that often allows for their conservation.

The heritage of the Lithgow area is an important aspect of future growth and development and is a distinguishing element for many small towns and areas that gives them an edge or point of differentiation. The long-term protection of that heritage will allow Lithgow to take full advantage of its fine history and its excellent built heritage

#### Heritage Advisory Committee

Council set up a local heritage committee focusing on the appropriate management of Lithgow's heritage. In order to ensure a broad range of interests are represented, Council has sought membership of the committee from groups such as the NSW National Trust, the Family History Society, community members and the local Indigenous community.

A key role of the Heritage Advisory Committee is to provide input into policies and plans that will give guidance to owners of heritage properties if they wish to carry out any work on their properties; or to advise on controls that will allow for the redevelopment of heritage buildings without impacting on their significance.

A further role of the committee is to assist council and other stakeholders in community education and promotional programs to provide the community, developers and landowners with a better understanding of the importance of respecting our heritage.



#### **Blast Furnace Park**

The Lithgow Blast Furnace Park was Australia's first major iron works. It is a significant landmark reminder of the industrial past of Lithgow, as well as a highly visible and publically accessible remnant of the early iron and steel industry in Australia.

Council finalised detailed planning and engineering assessments for major upgrade works at Blast Furnace Park to create a safer and improved visitation experience and to highlight the importance of the site in the history of Lithgow and the nation generally. Council was also successful in receiving \$300,000 funding from NSW Trade and Investment and \$150,000 funding from the NSW Heritage Office to undertake the works.

Council made substantial progress on upgrade works at the Lithgow Blast Furnace which included:

- o Repair and remediation of the major structures on the site to make them safe for close visitation and to improve their structural integrity.
- o Finalised detailed planning, approvals and site assessment for the Blast Furnace Masterplan works which will include construction of raised walkways, viewing platforms, fenced pathways and interpretive signage to allow safe visitor access to and appreciation of this iconic heritage site.

Masterplan works will be undertaken in 2016/17 subject to funding and are intended to manage safety risks for the public by low impact works which will control access to high risk areas while also enabling visitors to enjoy the ability to visit, view and interpret most parts of the site.

#### **Bowenfels Gun Emplacements**

The Bowenfels Gun Emplacements have state significance as the only known inland heavy anti-aircraft gun stations of their type in NSW. The emplacements were introduced as an important part of the network of defence sites established at Lithgow during the latter half of World War II to protect the Small Arms Factory and State Mine.

During the second half of 2013, Council contracted Lithgow State Mine Railway Ltd in partnership with Verto Employment agency to



undertake remediation works to the South Bowenfels guns including removal of rust, resealing, repainting to the original colours and replacing missing parts.

The restoration involved removal of rust, repainting and minor repairs. Graffiti was removed from the gun emplacements and weed removal and drainage works undertaken. Interpretative signage was installed in early 2016, telling the story of the gun emplacement and public access has been restored to the site.

#### Lithgow History Avenue Project

Council completed the Lithgow History Avenue project; A sculptural walk linking the CBD to Eskbank House & Museum and Blast Furnace Park within the Cultural Precinct.

The project incorporates the creation of a series of public sculptures installed along Inch Street designed to reflect the story of steel production in Lithgow. The sculptures locations are aimed at developing a walking route to link a number of sites which tell the story of the areas industrial heritage. Guideposts direct the progression of the history avenue sculpture walk from the period of first European settlement through to the establishment of a large industrial centre.

The 'sculptural time line' depicting the history of Lithgow lines the walk along Inch Street. Each sculpture is linked to information and images on a dedicated website which can be accessed via QR Codes from smartphones and devices as you view the pieces.

#### **Eskbank House Museum**

In accordance with the Eskbank House Museum Conservation Management Plan, the extensive collection of objects (from Eskbank estate and Lithgow as a whole) has been conserved, catalogued, exhibited and interpreted. Landscaping to return the property to its original park like condition was undertaken as were renovations to the rear of the house returning it to its pre-museum condition. Improvements and additions included:

- A post and rail fence was erected around the perimeter of the property.
- External lighting was installed to enhance the outdoor areas for night events and to improve safety and security. Prior to installation an archaeological assessment was carried out on the digging for the lighting/ electrical. The archaeologist engaged will be completing an Archaeology Management Plan to supplement the Conservation Management Plan.
- A Development Application was approved for restoration to the rear of the main house and roofing and guttering.
- Text and images for interpretive signage for the inside and outside of the house were completed.

#### Eskbank House Movable Heritage Saved

In 2015 these popular heritage items were discovered to contain asbestos. Council immediately isolated them from the public and engaged a specialist company to safely remove the asbestos. The cabin of Possum is once again available for visitors to explore and the other moveable heritage can be viewed from behind fencing.

The collection of moveable heritage items was moved to Eskbank House around 1969. The most impressive and significant of the engines is Possum the steam locomotive. Originally named "Cyclopes" and built in 1912, Possum was brought to Lithgow from England in 1919 by Hoskins Bros to work in the Lithgow iron and steel works. In 1928 it moved to Port Kembla where it worked until retired in 1967 after which it was donated to the Lithgow District History Society and moved to Eskbank House in 1969.

Other items in the display include a Pioneer roller, Buffalo Pitts Engine, Marshall portable steam engine and two skips from the State Mine. The Barford and Perkins Pioneer Roller was purchased second hand by Lithgow Woollen Mills owner Harry Rosen in the late 1950s to demolish the Tweed Mill terrace housing which was built in the 1850s and was in a poor state. The roller is one of a few surviving pieces of plant associated with the former Lithgow Woollen Mills.

The Buffalo Pitts Traction engine was used to haul coal from Neubeck's Commonwealth Colliery in Lidsdale – Blackmans Flat until 1924. It was then used at Neubeck's sawmills until 1969 when it was moved to Eskbank House along with the other engines.

#### **Museums Group**

The community and Council have worked collaboratively within the Museums Group to develop and promote the full potential of local museums. In addition, a combined Museums brochure has been produced in conjunction with Lithgow tourism.



#### **Commemoration of the Blue Mountains Crossing Bicentenary Committee**

The Lithgow City Council was instrumental in planning and providing assistance to community groups for the celebration for the Bicentenary of the Crossing of the Blue Mountains by the first Europeans in 1813.

The Crossings event was a two year program (2013-2015) coordinated by Blue Mountains, Lithgow, Oberon and Bathurst Council's in conjunction with community groups and non-government organisations.

The Blue Mountains Crossing Bicentenary celebration events held in the Lithgow LGA were conducted by various community groups with a Section 355 Committee formed by Lithgow City Council to assist and providing financial and in-kind support.

The events brought increased visitation to the region, injecting additional income into locals businesses as well developing the social capital of the community by the recognition of the significance of the crossing of the Blue Mountains and the development of agriculture and industry in the region. Celebrations ranged from theatrical performances, historical exhibitions to guided interpretive walks along the original Cox's Road.

- A Moment in Time Exhibition A heritage exhibition in association with Hartley District Progress Association
- Walk the Journey, Guided walks along the Cox's Road route in the Hartley Valley examined the rich and ancient geology of the landscape into which the explorers Blaxland, Lawson and Wentworth and their party intruded, where ancient sedimentary rocks lie juxtaposed with igneous granite- in association with Hartley District Progress Association
- Music, Markets and Plane Spotting in association with Hartley District Progress Association and Lithgow RSL
- Mt York Civic Event in association with Blue Mountains City Council
- Lithgow Crossings Bicentenary Commemorative Coins (distributed free to all Primary School Students in the LGA)
- Crossing's the Play by Blaxland's descendants.

#### **Aboriginal Heritage**

The Lithgow local government area lies almost wholly within the Wiradjuri Aboriginal nation, with the Gundungurra nation situated to the south and the Darug nation to the east. Programs, activities, collaboration and events celebrating and supporting the rich indigenous culture and heritage included:

#### **NAIDOC celebrations**

The annual NAIDOC events throughout Lithgow celebrate the culture, history and achievements of the Indigenous community. This includes events at the showgrounds and Civic Ballroom which aim to



provide local indigenous people and communities a chance to proudly share their culture and greatly benefit the wider community by joining together to experience and celebrate Indigenous Australia- oldest living culture on earth.

#### Way Forward Thru Stories

Workshops and exhibition- A series of workshops on Aboriginal history and culture were developed by Mingaan Wiradjuri Aboriginal Corporation in conjunction with Council, Lithgow TAFE and Lithgow Community Projects. In order to share the learnings of the workshops with the wider community, works created through the workshop process were exhibited in the Courtyard Gallery at Eskbank.

#### **Bicentenary of the Crossing of the Blue Mountains**

Lithgow City Council and the Hartley Valley progress Association worked with the Mingaan Wiradjuri Aboriginal Corporation in the section 355 Blue Mountains Cross Bicentenary Committee. Outcomes of the collaboration included the perspective and consideration of the local groups were incorporated into the planning process; Wiradjuri history being included in the 'Moment in Time" exhibition, the Mingaan Wiradjuri Aboriginal Corporation logo was placed on one side of the Lithgow Crossings commemorative Coin and Local Aboriginal Elder Aunty Flo Grant speaking at the opening.

#### Maiyingu Marragu Plan of Management

Maiyingu Marragu is an area of Crown Land managed by Lithgow City Council (formerly known as Black Fellows Hands) which includes culturally significant rock shelters and stencil art. The site provides an important spiritual and physical link to ancestors and the continuation of culture. Council has worked with the Mingaan Wiradjuri Aboriginal Corporation members and the Hawkesbury Nepean Catchment Management Authority (now defunct) to finalise the plan of management. The area has now been declared an Aboriginal Place under the Act. and is used as a 'bush classroom' where young people can hear their stories from elders and learn to collect and use bush foods and medicine.



## **People & Communities**

## 6. People and Communities- Caring for our Communities

The inclusion of the social environment as part of the SOE report illustrates Council's commitment to a holistic approach wellbeing within the LGA. It recognises the complex link between all aspects of our living environment. Council undertakes ongoing social planning, community engagement and community development activities to develop actions to address identified needs. It seeks to work with the community to promote, support, celebrate and expand key objective of social and cultural diversity along with healthy, active lifestyles in a safe environment.

Actions taken from 2012-2016 within the Caring for our Community component of the Lithgow Community Strategic Plan will be reviewed to determine the State of People and Communities in this section of the SOE Report.

### 2012-2016 Highlights - People and Communities

**Our Place...Our Future Community Strategic Plan 2013-2025** sets out the community's vision for the strategic direction of the Lithgow local government area.

#### A R Bluett Memorial Award 2016

The prestigious award is lauded as 'the greatest accolade a council can achieve' and recognises a standard of excellence and innovation in Local Government.

#### Lake Pillans Walkway and Cycle Path

Council completed the final section of 650m pathway around Lake Pillans Wetlands enabling locals and visitors to move more easily around the Wetlands through to Blast Furnace Park.

#### Constructed a modern Aquatic Centre

Complete with indoor pool, children's splash park, giant jumping pillow, refurbished 50m pool and concourse.

#### Developed and implemented a number of Plans and strategies

To help Council realise the objectives of Caring for Community including

- A Youth Strategy and Action Plan.
- Lithgow Land Use Strategy 2010-2030.
- Lithgow Local Environmental Plan 2014.
- Village Improvements Plans for Capertee, Rydal, Hartley and Tarana.
- Lithgow CBD Revitalisation Action Plan.
- Strategic Water and Sewage Business Plans.
- Portland Sewage Treatment Plant Feasibility Study.
- Disability Action Plan.
- Strategic Asset Management Plans.
- Generic Community Lands Plan of Management.
- Lithgow Golf Club Plan of Management.



## **Pressure to People and Communities**

A number of social issues have continued to shape the social and economic environment during 2012-16 reporting period. Key community issues described within the Community Strategic Plan 2026 include:

- Static to declining population;
- Loss of young people;
- The impact of an ageing population on current service and facility provision;
- The provision of community health, public transport and utility services,
- The need for diversity of housing and to address social disadvantage in a number of locations;
- Perceptions of safety the need to facilitate a safe community.
- The need for increased job, training and educational opportunities.
- Ensuring Council services and facilities are socially inclusive and strengthen communities
- The need for improved cultural and recreational facilities -Preserving and celebrating the rich history- indigenous and non-indigenous cultural heritage; and
- The need to plan for sustainable growth in urban and rural areas.

Many of the concerns for people and communities are not solely the jurisdiction of Council. Council works with various departments in the NSW State Government as well as the Australian Government to address social issues.

## **State of our People and Communities**

The majority of the community resides within the urban centres of Lithgow, Wallerawang and Portland and 21.83% of the population resides in rural localities and villages within Lithgow region.

In 2012, the population of the Lithgow LGA to 2031 was projected as being in a state of 'stagnation to decline'. Estimated Resident Population (ERP) figures dated June 2015 indicate that between 2012 and 2015 the population of the Lithgow LGA grew by 0.9% reaching 21,416 persons.

The Lithgow LGA's multicultural community is diverse with the top 10 nationalities from the United Kingdom, New Zealand, Germany, Philippines, Netherlands, China, Italy, Ireland, USA and Poland. This equates to 8.7% (1,717 persons) of our population having been born overseas with 3.8% (757 persons) being from non-English speaking countries.

The three most popular industry sectors within the Lithgow LGA are Retail, Mining and Health Care and Assistance with these sectors employing 31.3% of the residential population. It is foreseeable that with the recent establishment of a Medical School Campus at Lithgow Hospital by Notre Dame University and the population ageing, the Health Care and Social Assistance Sector will continue to be a growth area in Lithgow.

In comparison to NSW, people in the LGA are more likely to be employed in technical and trades positions, community and personal services or as machinery operators, drivers or Labourers. However, between 1996 and 2006 there has been an occupational decline for machinery operators and drivers, technicians and trades workers. Whilst in comparison the areas of community and personal services workers, clerical and administrative workers and professionals have experienced an occupational increase during this period. The increase in clerical and administrative workers can be attributed to the establishment of Call Centres in Lithgow.

#### **Projected Resident Population**

Although NSW Department of Planning projections continue to predict a 0.06% decline in population between 2011 (20,850 persons) and 2031 (20,600 persons) for the Lithgow LGA, ERP figures provided by the ABS predict a steady increase in population of 21,416 (2015) to 22,315 (2031). This alternate view of the population projection is slightly lower than the Lithgow Land Use Strategy 2010-2030 recommendation of a population target of between 0.5% and 1%. ERP data shows a projected annual population increase of 0.34% - which is 0.16% less than the lowest projection of 0.5%.

#### 21,700 **Estimated Resident Population** 0.9% 21,600 21,500 +180 0.6% 21,400 21,300 +127 0.5% 0.7% 21.200 +10621,100 +153 21,000 20,900 20,800 21.003 21.109 21.236 21.416 20,700 2012 2013 2014 2015 Increase/decrease Percentage Increase/decrease Number

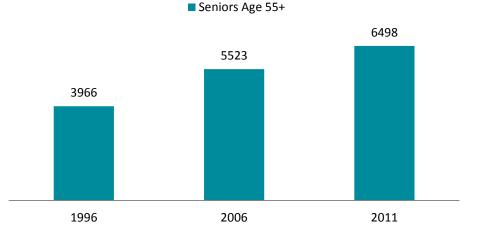
#### **Increased Ageing Population**

The Community Strategic Plan 2026 (CSP 2026) and Lithgow Ageing Strategy 2010 identified Lithgow as an 'ageing population'. From the Estimated Resident Population Graph we can see a continuing trend towards growth in this sector of the community.

Trend analysis is based on the 2011 census data (the census conducted in 2016 results were not available at the time of this report) continues to predict a projected increase of 12.6% in the 65+ age bracket between 2011 and 2031. It is further predicted that the *...greatest decline is expected to be from families or the following age groups: 0-14yrs, 15-24yrs and 45-54yrs - families with mainly older children*" (LEDS2015:p20).

The need for more health services, aged care facilities and diversity of housing was identified in the CSP2026. In response, the Health Care and Social Assistance Sector continues to grow and is the second highest employer in the LGA. Employing 795 people in 2006 the sector grew by 120 positions to 885 in 2011.

#### Seniors Age 55+



#### Loss of young people

The Community Strategic Plan 2026 identified "the loss of young people" as an issue for the LGA. Projected Population Age Distribution shows a decline in all age groups from 0-65 years between 2011 - 2031. With the "...greatest decline expected to be from families or the following age groups: 0-14yrs, 15-24yrs and 45-54yrs -families with mainly older children" (LEDS2015:p20).

In order to encourage young people and families to stay in the Lithgow LGA the community identified the need to target the following areas: tertiary education, increased job opportunities, trades/skills based training facilities and improved cultural and recreational facilities.

Although the LGA has a higher percentage of students completing year 10 than the rest of the central west, students going on to complete year 12 is lower. Furthermore the decline in the number of young adults in the area suggests that young people are leaving school and seeking employment or education elsewhere due to a lack of tertiary education facilities and limited job opportunities within the area. The Technical and Further Educational Institute (TAFE) in Lithgow does have a higher percentage of enrolments than in the Central West and NSW as a whole at 9% compared to 8% and 7.7%. This can be attributed to the

## **Response to People and Communities**

Key objectives defined with the Caring for our Community component of The Community Strategic Plan 2026 to respond to the social issues and challenges for the Lithgow LGA:

- To plan and provide quality community and recreational facilities and services for a healthy, vibrant and harmonious community.
- Working together to support, celebrate and expand the social and cultural diversity of our community, whilst promoting healthy, active lifestyles in a safe environment.

#### **Planning for a Brighter Future**

Council continues to plan for suitable infrastructure development to promote sustainable and planned growth while enhancing the existing identity of the towns, villages and rural areas of the LGA. Since 1 July 2012, the following plans and strategies have been developed and implemented:

- o The Integrated Planning and Reporting Framework which includes the key theme "Developing our Built Environment".
- o Lithgow Land Use Strategy 2010-2030.
- o Lithgow Local Environmental Plan 2014.
- o Village Improvements Plans for Capertee, Rydal, Hartley and Tarana.
- o Lithgow CBD Revitalisation Action Plan.
- o Strategic Water and Sewage Business Plans.
- o Portland Sewage Treatment Plant Feasibility Study.
- o Disability Action Plan.
- o Strategic Asset Management Plans.
- o Generic Community Lands Plan of Management.
- o Lithgow Golf Club Plan of Management.
- o Adventure Playground Concept Design.

The following plans are currently being developed:

- o Lithgow City Rural and Rural Residential Strategy Review.
- o Masterplan and Development Control Plan for the Marrangaroo Urban Release Area.
- o Comprehensive Development Control Plan.
- o Cullen Bullen Village Improvements Plan.
- o Farmers Creek Precinct Master Plan.
- o Integrated Water Cycle Development Plan.
- o Hassans Walls Management Plan.



#### Awards

#### **A R Bluett Memorial Award 2016**

Lithgow City Council was selected as the 2015 winner of the rural category of the A. R. Bluett Memorial Award, established in 1945 to recognise the greatest relative progress of the high achieving & progressive councils in NSW.

The prestigious A R Bluett Memorial Award is lauded as 'the greatest accolade a council can achieve' and recognises a standard of excellence and innovation in Local Government.

The award recognises council's sound sustainable financial management and funding of infrastructure, public amenity upgrades, extensive flood mitigation works, the completion of stages two and three of the Aquatic Centre, major sewer augmentation, a Family Friendly Community Strategy, and a wide range of youth, planning and heritage programs, along with ongoing tourism and business development initiatives.

#### Land Use Strategy/Local Environmental Plan

The 2014 Lithgow Local Environmental Plan (LEP) provides a landuse planning framework that allows for a diversity of housing in a more compact form in and around the town centres and near the Lithgow Hospital precinct. This provides an opportunity for the ageing population to downsize and age in place for longer. We have seen this form of housing occur in sites such as the former RSL site with recent villa/townhouse development and the construction of the South Bowenfels Tree View Estate.

The LEP supports the operation of two key State Planning Policies (Infrastructure and Housing for Seniors) that provide a more flexible planning system for key infrastructure such as medical facilities and all forms of seniors and disability housing ranging from self care to full supported living.

Council has also recently approved the extension of the aged care facility in Lithgow which is now waiting for a bed licence to move forward into construction phase. As the ageing population increases, demand for aged care, residential facilities, nursing homes and extensive health and community services places pressure on current service levels.

The Great Western Highway through Lithgow Pedestrian Access Management Plan (PAMP) 2014 identified the need for Council to provide citizens residing in general residential housing in Bowenfels, South Bowenfels, Littleton and South Littleton and retirement villages with:

- o Safe crossing opportunities
- o Occasional seating
- o Bus shelters
- o Access to the closest shops, the Lithgow Hospital and health care centres and the local park.

In response, Council has implemented an annual program to upgrade and construct combined walkway/cycleways on the Great Western Highway and adjoining suburbs.

#### Loss of young people

The Community Strategic Plan 2026 identified "the loss of young people" as an issue for the LGA. Projected Population Age Distribution shows a decline in all age groups from 0-65 years between 2011 - 2031. With the "...greatest decline expected to be from families or the following age groups: 0-14yrs, 15-24yrs and 45-54yrs - families with mainly older children" (LEDS2015:p20).

In order to encourage young people and families to stay in the Lithgow LGA the community identified the need to target the following areas: tertiary education, increased job opportunities, trades/skills based training facilities and improved cultural and recreational facilities.

#### Achievements

- 1. March 2013, the University of Notre Dame opened the Lithgow Rural Clinical School in the grounds of the Lithgow District Hospital. Integrated with the Hospital, the facility includes 120 seat lecture theatre, consulting rooms, tutorial rooms and student accommodation.
- 2. February 2014, Western Sydney University Lithgow College Campus opened in the fully refurbished Hoskins Building. The University offers Foundation Studies and Diploma courses.
- 3. Implemented a Student Mentoring Project as part of the Halloween Event with students attaining two units of competency in the Live Performance and Entertainment Package:
  - o BSBCRT301A Develop and extend critical and creative thinking skills.
  - o CUASTA301 Assist with production operations for live performances.
- 4. Developed a Youth Strategy and Action Plan.
- 5. Implemented training programs for small businesses to increase capacity and retain local businesses in the following areas:
  - o Business Planning and development
  - o Marketing
  - o Social Media
  - o Visual Merchandising
  - o Financial Management
  - o Certificate III in Micro Business Operations
- 6. Implemented a range of cultural programs for young people and families including Halloween, LithGlo, Youth Week Events, public programs at Eskbank House & Museum and the Libraries for children and youth.
- 7. Implemented a Youth Scholarship Program with the PCYC. The program provides disadvantaged young people with access to sport or recreational activities outside of school that they may not be able to participate in due to a variety of barriers such as high costs of membership fees, access issues and cost of equipment.
- 8. Constructed a modern Aquatic Centre complete with indoor pool, children's splash park, giant jumping pillow, refurbished 50m pool and concourse.

#### **Recreational Facilities for a Healthy, Vibrant Community**

Promoting healthy, active lifestyles in a safe environment through the provision of Innovative play spaces, walkways and cycle paths, interactive outdoor learning environments and creative landscapes is part of Council's plan to enhance the lifestyle choices of the Lithgow Community.

Lithgow City Council is responsible for the care, maintenance and development of :

- o 44 Parks and Reserves.
- o 3 Picnic/bar be que areas.
- o Garden maintenance and weekly mowing of 213 hectares of public open space (that's 213 soccer fields).

In April 2016, Council engaged Micromex Consulting to undertake a random telephone sampling of 407 residents across the Lithgow LGA. Overall, Queen Elizabeth Park, Hassans Walls Lookout and Lake Wallace Recreation Area received a 'High' satisfaction rating. The following 5 Parks and Reserves were rated as being 'significantly higher' in importance by female respondents:

- o Queen Elizabeth Park
- o Blast Furnace Park/Lake Pillans Wetland
- o Endeavour Park
- o Other Parks/Playgrounds
- o Hassans Walls Lookout.

#### Walkway/Cycleway Upgrades

Council annually allocates funding to the construction and upgrade of walkways and cycle ways. Since 1 July 2012, the following works have been undertaken:

- o Extension Farmers Creek Walkway from Geordie Street to GWH linking the VIC to McDonalds.
- o Construction of footpath along Kirkley Street from the GWH to Bowen Vista Estate.
- o Restoration works and extension of footpath from GWH to Hill Crest Estate.
- o Footpath construction along GWH from Kirkley Street to Magpie Hollow Road.
- o Tree removal and footpath upgrade on GWH at the Lithgow Cemetery.
- o Construction new over rail bridge at Wallerawang which included safe pedestrian access.
- o Extension of the footpath from Pied Piper Pre-School to the existing footpath in James Parade, Wallerawang.

#### Lake Pillans Walkway and Cycle Path

In early 2016 Council completed the final section of pathway around Lake Pillans Wetlands enabling locals and visitors to move more easily around the Wetlands through to Blast Furnace Park.

In 2015, Council completed the first 220 metre long section of pathway with the final 430 metre long section, made possible with a significant financial contribution by Westfund and Council. The 1.5m wide pathway, designed with accessibility in mind, allows people to move around the entire lake more easily and safely. This project complements the major upgrade works being undertaken by Council to improve the visitor experience at Blast Furnace.

This is great news for the many people who visit Lake Pillans and Blast Furnace and will do a lot to encourage people to walk and exercise more.

#### **Support for Multicultural Organisations**

#### **Harmony Day**

Harmony Day celebrates Lithgow's cultural diversity. It's about inclusiveness, respect and a sense of belonging for everyone. This year's event provided an opportunity for cultures to come together and featured a Welcome to Country followed by a didgeridoo performance, singing of Eastern European songs, Chinese fan dancing, cross-cultural workshops, Storytime session, a talk by a local refugee and crafts for children.

Amnesty International and Lithgow Asylum Seekers and Refugees Group provided information to assist people with any questions. To finish, guests enjoyed multicultural cuisine in the library courtyard where they were able to network and forge new friendships.

#### **Multicultural Funday**

The Community Development Officer attends the Multicultural Funday sessions coordinated by the Lithgow Information and Neighbourhood Centre's Community Hub Manager on a monthly basis. This group is made up of local services and community members and supports people from culturally and linguistically diverse backgrounds by providing social and recreational outlets, information sessions, advocacy support and networking opportunities.

#### **Working with our Indigenous Community**

Programs, activities, collaboration and events celebrating and supporting the rich indigenous culture and heritage included:

#### **Way Forward Thru Stories**

Workshops and exhibition- A series of workshops on Aboriginal history and culture were developed by Mingaan Wiradjuri Aboriginal Corporation in conjunction with Council, Lithgow TAFE and Lithgow Community Projects. In order to share the learnings of the workshops with the wider community, works created through the workshop process were exhibited in the Courtyard Gallery at Eskbank.



#### **Bicentenary of the Crossing of the Blue Mountains**

Lithgow City Council and the Hartley Valley progress Association worked with the Mingaan Wiradjuri Aboriginal Corporation in the section 355 Blue Mountains Cross Bicentenary Committee. Outcomes of the collaboration included the perspective and consideration of the local groups were incorporated into the planning process; Wiradjuri history being included in the 'Moment in Time" exhibition, the Mingaan Wiradjuri Aboriginal Corporation logo was placed on one side of the Lithgow Crossings commemorative Coin and Local Aboriginal Elder Aunty Flo Grant speaking at the opening.

#### **NAIDOC celebrations**

The annual NAIDOC events throughout Lithgow celebrate the culture, history and achievements of the Indigenous community. This includes events at the showgrounds and Civic Ballroom which aim to provide local indigenous people and communities a chance to proudly share their culture and greatly benefit the wider community by joining together to experience and celebrate Indigenous Australia- oldest living culture on earth.

#### **Maiyingu Marragu Plan of Management**

Maiyingu Marragu is an area of Crown Land managed by Lithgow City Council (formerly known as Black Fellows Hands) which includes culturally significant rock shelters and stencil art. The site provides an important spiritual and physical link to ancestors and the continuation of culture. Council has worked with the Mingaan Wiradjuri Aboriginal Corporation members and the Hawkesbury Nepean Catchment Management Authority (now defunct) to finalise the plan of management. The area has now been declared an Aboriginal Place under the Act. and is used as a 'bush classroom' where young people can hear their stories from elders and learn to collect and use bush foods and medicine.

## Appendix 1

Integrated Planning Framework Summary of State of the Environment actions 2012-2016 to meet objectives of the Strategic Community Plan 2026



## **Developing our Built Environment**

Planning for suitable infrastructure development to promote sustainable and planned growth, while enhancing the existing identity of the towns, village s and rural areas of the LGA.

#### 3.1.01 Planning Our Built Environment

To plan and manage growth in a sustainable manner with emphasis on creating a diversified economy underpinned by sound local environmental planning.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plants and strategies.	Draft LEP Planning Proposal placed on public exhibition. Implement the Open Space and Recreation Needs Study.	A new Comprehensive Local Environmental Plan prepared and consulted upon. Implemented the Open Space and Recreation Needs Study – All capital works for the Parks and Gardens Program were completed.	The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was implemented. Implemented the Open Space and Recreation Needs Study – All capital works for the Parks and Gardens Program were completed.	The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was implemented. Implemented the Open Space and Recreation Needs Study – All capital works for the Parks and Gardens Program were completed.
Identify and develop new plans and strategies in lines with the community's needs.	Site Specific Community/Crown Lands Plans of Management are prepared in accordance with all relevant legislation, result of community and stakeholder engagement and sustainability principles. The following activities were undertaken: • Draft Generic POM for community lands adopted by Council for public exhibition. • Draft Plan publicly exhibited for a period of 28 days with a 42 day period for receipt of submissions. • Public Hearing conducted. A Generic Community Lands Plan of Management is prepared for all public land.	Continue to prepare Site Specific Community/Crown Lands Plans of Management in accordance with all relevant legislation, result of community and stakeholder engagement and sustainability principles for: • "Community"classified lands • "Operational"classified lands • "Operational"classified lands • Crown Lands and other recreational facilities (e.g. Lake Wallace). Preparation of Hassans Walls Management Plan stalled due to extended Principal Local Environmental Plan.	<ul> <li>Prepare a Rural Lands Study.</li> <li>Plan prepared and consulted upon.</li> <li>30 June 2015 Rural Lands Project Steering Committee recognised that the timeframe was not achievable and resolved on 1 May 2015 that a new timeline for the project could not be finalised until a consultant was appointed to undertake the project.</li> </ul>	<ul> <li>Hassan's Walls Plan of Management</li> <li>Plan prepared, consulted upon (including an on line survey) and adopted by Council. Council appointed Gondwana Consulting to undertake the project in April 2016.</li> <li>Development of an issues paper has commenced. The project is scheduled for completion in March 2017.</li> <li>Prepare a Rural Lands Study.</li> <li>Five Project Steering Committee meetings have been held with the project reaching the phase of draft strategy development. scheduled to be completed in December 2016</li> </ul>

## **Enhancing our Natural Environment**

To conserve and preserve the natural environment whilst balancing the impact of development to ensure a sustainable and healthy community.

#### 4.1.1 Planning Our natural Environment

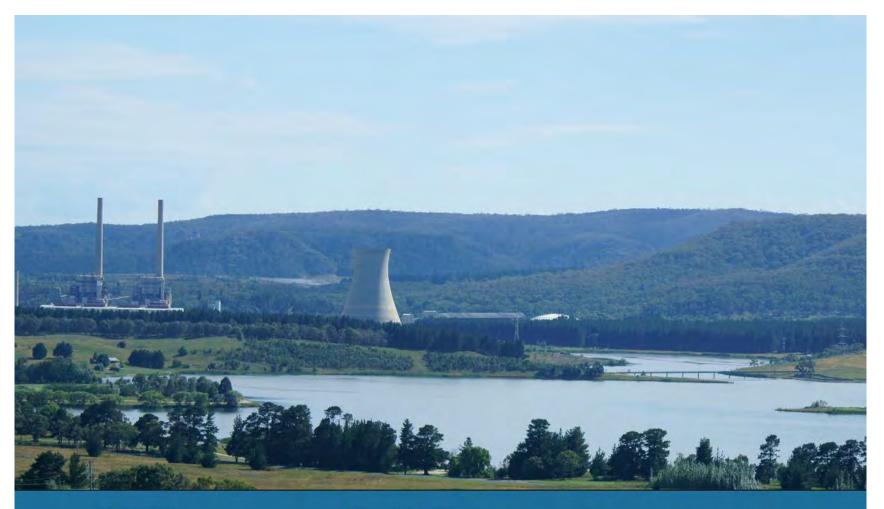
To identify, preserve and improve our natural heritage and biodiversity whilst ensuring the water security and sewerage capacity of the region for sustainable growth and development.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plants and strategies.	Port Macquarie Road Environmental Management Plan is complete. Draft LEP Planning Proposal placed on public exhibition.	<ul> <li>A new Comprehensive Local</li> <li>Environmental Plan prepared and consulted upon.</li> <li>Implement the Port Macquarie Road</li> <li>Environmental Management Plan.</li> <li>Implementation of the plan is undertaken in coordination with ongoing maintenance of Port Macquarie Road as required.</li> <li>Works were successfully completed in accordance with environmental constraints and guidelines for 2013-2014.</li> <li>Implement the Land Use Strategy</li> <li>Relevant actions from the Lithgow Land Use Strategy will be implement through the new Lithgow Local Environmental Plan 2014 once it is made.</li> </ul>	<ul> <li>Implement the Land Use Strategy</li> <li>The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was made and became effective on the 19 December 2014. This Plan implements the majority of actions of the Lithgow Land Use Strategy (LUS).</li> <li>Other actions from the LUS will be implemented in future planning projects either underway or planned for future years.</li> </ul>	<ul> <li>Implement the Land Use Strategy</li> <li>The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was made and became effective on the 19 December 2014. This Plan implements the majority of actions of the Lithgow Land Use Strategy (LUS).</li> <li>The Waste and Recycling Strategy review</li> <li>The review has commenced which and is due for completion in September 2016.</li> </ul>

#### 4.1.5 Environmental Protection and Leadership

To provide environmental leadership through responsible natural resource management, legislative compliance and working cooperatively with the community, relevant environmental authorities and alliances.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Comply with the environmental protection licences for sewage and water treatment plants at Lithgow, Wallerawang and Portland.	Some EPA Water and Wastewater Licence conditions were not met. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	There were no major environmental issues in sewerage treatment during 2013-2014. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	All monitoring data is place on Council's website <u>www.council.lithgow.com</u> and non-compliances are reported to the Environmental Protection Authority.	Some EPA Water and Wastewater Licence conditions were not met and non-compliances reported to the Environmental Protection Authority. Details of non-compliances are made available on Councils website www.council.lithgow.com
To fulfil Council's appropriate regulatory authority responsibilities under the Protection of the Environment Operations Act.	No incidences of non-compliance were identified by external authorities in relation to waste management facilities. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	Pollution incidents were responded to within the 24 hour timeframe.	Compliance with EPA Environmental Protection Licence at the Lithgow Solid Waste Facility was achieved throughout the reporting period. No incidences of non-compliance were identified by external authorities in relation to waste management facilities. Details of non-compliances are made	Compliance with EPA Environmental Protection Licence at the Lithgow Solid Waste Facility was achieved throughout the reporting period. No incidences of non-compliance were identified by external authorities in relation to waste management facilities. Details of non-compliances are made
			available on Councils website <u>www.council.lithgow.com</u>	available on Councils website <u>www.council.lithgow.com</u>



# Water & Waterways

### **Developing our Built Environment**

Planning for suitable infrastructure development to promote sustainable and planned growth, while enhancing the existing identity of the towns, village s and rural areas of the LGA.

#### 3.1.01 Planning Our Built Environment

To plan and manage growth in a sustainable manner with emphasis on creating a diversified economy underpinned by sound local environmental planning.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plants and strategies.	<ul> <li>Implement the following plans and strategies:</li> <li>Development Servicing Plans.</li> </ul>	<ul> <li>Implement the Water Demand Management Plan.</li> <li>The Water Loss Program commenced and contractors were consulted regarding monitoring of water usage from zones.</li> <li>Implement the Portland Sewerage</li> <li>Treatment Plant Feasibility Study.</li> <li>Council received \$10m funding from the resources for Regions Program for the upgrade of the Portland Sewerage Treatment Plant.</li> <li>The Department of Public Works were appointed to proceed with the concept design.</li> </ul>	The Concept Design for the Portland Sewerage Treatment Plans was developed.	<ul> <li>Portland Sewerage Treatment Plant Improvement Plan <ul> <li>Detailed design undertaken and reviews completed. Tenders invited and reviewed with the tender to be awarded July 2016. Site works to start August 2016</li> </ul> </li> <li>Water and Sewer Asset Management Strategy, Plans and Policies reviewed. Amendments continuing into 2016 / 2017 with additional Centroc projects</li> </ul>
Identify and develop new plans and strategies in lines with the community's needs.	Portland Sewerage Treatment Plant Feasibility Study commenced. Completed the Water Demand Management Plan. The Draft Cullen Bullen Sewerage Study was received but was found to be deficient. Preparation of a Floodplain Risk Management Plan in accordance with the 2005 Floodplain Development	<ul> <li>Development commenced on the Integrated Water Cycle Management Plan.</li> <li>Draft Strategic Water and Sewerage Business Plans were completed by the Department of Public Works.</li> <li>Flood Study investigation and Hydraulic Modelling continued.</li> <li>Editing and final amendments</li> </ul>	<ul> <li>The Draft Integrated Water Cycle Management Plan was completed and submitted to the NSW Office of Water for review.</li> <li>The Draft Strategic Water and Sewerage Business Plan was completed and submitted to the NSW Office of Water for review.</li> <li>The Draft Floodplain Risk Management Plan was updated</li> </ul>	<ul> <li>The Draft Integrated Water Cycle Management Plan under review with NSW Office of Water.</li> <li>The Draft Strategic Water and Sewerage Business Plan under review by the NSW Office of Water.</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
	<ul> <li>Manual was deferred until the completion of the Flood Study Review.</li> <li>Grant funding was secured and preparation commenced on the Flood Study Review.</li> </ul>	were made by the consultant on the Cullen Bullen Sewerage Study. • The Cullen Bullen community was brief on the study findings.	to include recent Flood Mitigation Works.	

### 3.1.08 On-site Sewage Management

To ensure that on-site sewage management systems comply with environmental and health requirements.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Undertake inspections of Septic Systems and Aerated Wastewater Systems.	<ul> <li>Prepared and undertook an inspection regime of systems: <ul> <li>Monitor service records for aerated wastewater systems.</li> <li>Appropriate action taken where systems are failing.</li> </ul> </li> <li>581 Septic System Inspections and 28 Aerated Wastewater systems service record inspections were undertaken.</li> </ul>	An inspection regime followed by appropriate action was undertaken by Council where systems were found to be failing to comply. 555 Septic System inspections and 225 Aerated Wastewater System Service Record inspections were undertaken.	An inspection regime followed by appropriate action was undertaken by Council where systems were found to be failing to comply. 266Septic System inspections and 71 Aerated Wastewater System Service Record inspections were undertaken.	An inspection regime followed by appropriate action was undertaken by Council where systems were found to be failing to comply. 181 Septic System inspections and 20 Aerated Wastewater System Service Record inspections were undertaken.

3.2.12 Sewage Infrastructure To provide sewage infrastructure to allow for the sustainable growth and development of the area.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Provide a secure and reliable sewage reticulation system to residents of Lithgow, Lidsdale, Marrangaroo, Portland and Wallerawang.	<ul> <li>The following maintenance works were undertaken:         <ul> <li>Routine inspection and maintenance is ongoing.</li> <li>CCTV inspections for 5% of the reticulation network was undertaken.</li> <li>Jet spray/cleaning of 5% of the reticulation network was undertaken.</li> </ul> </li> <li>Upgrade the Sewage Reticulation Network in the South Bowenfels/South Littleton area:</li> <li>Detailed design and pipeline route identified.</li> <li>Called for expressions of interest for Contractors interested in tendering for the construction works.</li> <li>Finalisation of design and specifications for the pump station and rising/gravity mains.</li> <li>Landholder issues resolved.</li> <li>Environmental assessment undertaken.</li> <li>Electrical board was replaced at the Hospital Pump Station.</li> <li>Commenced installing fall protection at pump stations.</li> <li>Commenced installation of telemetry at 3 pumps stations.</li> </ul>	<ul> <li>Despite the threat of major bush fires to the Oakey Park Water Treatment Plant and damage to the Clarence Transfer System in October 2013, Council continued to maintain a reliable sewage reticulation system to residents.</li> <li>A significant length of sewer main religning works was completed.</li> <li>The upgrade of the Sewerage Reticulation Network in South Bowenfels/South Littleton Area was 85% complete.</li> <li>Significant improvements were made to pump stations including:         <ul> <li>Testing of all gantries</li> <li>Pump upgrades and repairs,</li> <li>Rectification of failed pipe work in wet wells</li> <li>Installation of additional pumps in pump stations.</li> </ul> </li> <li>Sewer vent replacement was successfully completed within the system.</li> <li>A significant amount of sludge was reduced from Lithgow SEW Fired Treatment (STP) Plant trucks sludge to Lithgow STP for dewatering). Although much sludge was</li> </ul>	<ul> <li>Council worked with CENTROC to finalise a contract for the renewal of sewer mains within the reticulation system.</li> <li>Upgrade of Lithgow Pump Station No. 1 was completed.</li> <li>Replacement of sewer vents was completed.</li> <li>Desludging of the Sludge Digesters at Portland STP was completed.</li> <li>The Concept Design for Portland STP upgrade was completed.</li> </ul>	<ul> <li>Construct the new Portland Sewerage Treatment Plant</li> <li>Detailed design undertaken and reviews completed. Tenders invited and reviewed with the tender to be awarded July 2016. Site works to start August 2016</li> <li>1 smoke test conducted in Portland.</li> <li>Smoke testing conducted in Portland with 99 houses inspected, 7 defective and 32 untested. This will be an ongoing project over several years.</li> <li>Desludging at Wallerawang Sewerage Treatment Plant.</li> <li>Desludging of 1 lagoon completed 4th quarter however due to bad weather the completion of desludging of lagoon 2 deferred until availability of contractors and also weather improves.</li> <li>Desludging at Lithgow Sewerage Treatment Plant.</li> <li>Desludging at Lithgow STP completed early 2016.</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
	<ul> <li>sewer mains in Oakey Park.</li> <li>Replaced 3 sewer vents in the sewerage reticulation system.</li> <li>Desludged Portland Sewerage Treatment Plant.</li> <li>Commenced negotiation with landowners of Doctors Gap to resolve issues with landownership for the extension of sewer to this area.</li> <li>Purchased a new jet spray unit.</li> </ul>	<ul> <li>removed from Lithgow there was still a significant amount of sludge at Lithgow, Portland and Wallerawang STPs. Further works to reduce this was planned for 2014/15.</li> <li>Grant funding was received for the upgrade of the Portland STP. A proposal from Public works for the concept design of the Plant was received. Negotiations commenced for the procurement of land for the site.</li> <li>The extension of the sewer main to Doctors Gap Project was halted due to lack of agreement between households on the block. For this project to go ahead all households must agree to subdivide. This project is still under review by Council.</li> </ul>		

### 3.2.15 Water Infrastructure

To provide water infrastructure to allow for the sustainable growth and development of the area.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Provide a secure and reliable water reticulation system to residents of the Lithgow Local Government Area.	<ul> <li>72.7ML of water pumping was necessary.</li> <li>Water mains renewal was undertaken in Eddy Street, Jamieson Street, Portland and Blackberry Lane, Wallerawang.</li> <li>Works to upgrade the reservoirs was undertaken throughout the year.</li> <li>The following safety works were undertaken to Farmers Creek No. 2 Dam:         <ul> <li>Sought to engage suitably qualified engineers to undertake stability analysis of the dam.</li> <li>Surveillance inspections and reports were completed.</li> </ul> </li> <li>Funders were reserved for an extension of the water main to Doctor's Gap.</li> <li>Design and construction of a water main extension at South Bowenfels to the new subdivisions commenced.</li> <li>Upgrade of the Vickers Street Pump Station commenced.</li> <li>Land acquisition for existing pump stations commenced.</li> </ul>	<ul> <li>The Clarence Transfer Project was a major challenge. With fires caused major damage and the stringent requirements of a mine site, it was an achievement for the staff and contractors working on the project to have completed if by the May 30 deadline.</li> <li>Work commenced on the Expression of Interest to undertake the installation of SCADA System at Oakey Park Water Treatment Plant.</li> <li>State Water was engaged for the surveillance monitoring of No. 1 and No. 2 dams through the CENTROC contract.</li> <li>A Water Loss Management Plan was completed and implementation commenced. Monitoring for managing water loss priorities commenced with the aim of achieving the goal of reduction of unaccounted for water to less than 25% over several years.</li> <li>Lagoon 1 at the Oakey Park Water Treatment Plant was desludged. The backwash return project was abandoned due to the increased risk of pathogen return with the return of the backwash water.</li> </ul>	<ul> <li>The Clarence Water Transfer System was maintained and there was no need to supplement the supply into the Oakey Park Water Treatment Plant.</li> <li>Water mains renewals were undertaken in Silcock Street, Purcell Street, Hillcrest Estate and Tobruk Street.</li> <li>Council went to tender for water main renews in Henning Crescent, Wallerawang and Fullagar Avenue, Lithgow in early 2015, however only one tender was received and as a result these works were postponed.</li> <li>The Geotechnical Assessment of Farmers Creek Dam 2 was delayed in 2014/15 due to contractual issue and postponed until 2015/16. An annual safety inspection was completed by State Water followed by an investigation report.</li> <li>Flow meters were installed throughout the network to measure water loss.</li> <li>The upgrade of No. 1 Pump Station was completed.</li> </ul>	<ul> <li>Upgrade the Oakey Park Water Treatment Plant.</li> <li>Replace filters- Filter 5 tested and running Filter 4 and 6 currently being rehabilitated.</li> <li>Upgrade of SCADA system</li> <li>Installation of online monitoring</li> <li>Undertake water mains renewal/relining in accordance with program.</li> <li>Water mains renewed in Rifle Parade, Ordinance Avenue and Inch St Gay St lane</li> <li>Middle River Trunk main upgrade options being reviewed after initial talks on relining stalled</li> <li>Undertake safety works to Farmers</li> <li>Creek No. 2 Dam.</li> <li>Delivery of Trunnion has been received with divers expected to be back on site in October to finalise the works.</li> <li>Upgrade telemetry between Water Treatment Plants, reservoirs and Pump Stations.</li> <li>Telemetry Audit completed with options for upgrade to a digital system received. Due to the price indications this</li> </ul>

Reference		project will need to go to tender with this to occur by Late 2016. Undertake a Water Loss Management Program and implementation of its actions to achieve a reduction in Unaccounted for Water to less than 25% • Ongoing data collection being undertaken. After active leak detection was
		tender with this to occur by Late 2016. Undertake a Water Loss Management Program and implementation of its actions to achieve a reduction in Unaccounted for Water to less than 25% • Ongoing data collection being undertaken. After active leak detection was
		<ul> <li>undertaken it was found that the Lithgow LGA water network was only seeing minor leaks with each leak being rectified in a timely manner when discovered.</li> <li>A greater proportion of non- revenue water or "water Loss" is through council assets and facilities not being metered. This will require meter installations for these facilities to account for non-revenue water which should significantly reduce</li> </ul>
		council's reportable water loss.
		Upgrade the water reservoirs.
		Resmix Vital and new Chlorination system has been installed at Wallerawang Reservoir for improved chlorine residuals throughout the local

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
				levels have remained quite steady resulting in the ends of the network where previously water quality has been lower, now it is complying regularly and has more acceptable levels.
Undertake community education programs	Council participated in the programs and activities undertaken by the SaveWater Alliance.	<ul> <li>Council participated in the programs and activities undertaken by the SaveWater Alliance.</li> <li>A link to the SaveWater Alliance is provided on Council's website www.council.lithgow.com</li> </ul>	<ul> <li>Council participated in the programs and activities undertaken by the SaveWater Alliance.</li> <li>A link to the SaveWater Alliance is provided on Council's website www.council.lithgow.com</li> </ul>	<ul> <li>Council participated in the programs and activities undertaken by the SaveWater Alliance.</li> <li>A link to the SaveWater Alliance is provided on Council's website www.council.lithgow.com</li> </ul>

### 3.2.15 Stormwater Infrastructure

To providestorm water infrastructure to allow for the sustainable growth and development of the area.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
To upgrade the Farmers Creek Stormwater Drainage System.	<ul> <li>Preparation of a Floodplain Risk Management Plan in accordance with the 2005 Floodplain Development Manual was deferred until the completion of the Flood Study Review.</li> <li>Grant funding was secured and preparation commenced on the Flood Study Review.</li> </ul>	• Flood Study investigation and Hydraulic Modelling continued.	<ul> <li>The Draft Floodplain Risk Management Plan was updated to include recent Flood Mitigation Works.</li> <li>Stage 2 of the Flood Mitigation works was completed with 370m of significant channel widening to a narrow section of Farmers Creek between the previously complete works at Watsford Oval and the Albert Street Bridge was completed.</li> </ul>	<ul> <li>Drainage improvements undertaken in accordance with priority program:</li> <li>Stormwater drainage improvements of a property in Kiln Street, Portland.</li> <li>Installation of a large number of subsoil drainage pipes as part of the Wattlemount Road Gravel Resheeting project.</li> <li>Installation of double width stormwater drainage lines to decrease the probability of flooding along Hartley Valley rd.</li> </ul>

# **Enhancing our Natural Environment**

To conserve and preserve the natural environment whilst balancing the impact of development to ensure a sustainable and healthy community.

### 4.1.1 Planning Our natural Environment

To identify, preserve and improve our natural heritage and biodiversity whilst ensuring the water security and sewerage capacity of the region for sustainable growth and development.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plans and strategies.	Implement the following plans and strategies: • Development Servicing Plans.	<ul> <li>Implementation of the Drought Management Plan continued.</li> <li>Implementation of the Water Loss Management Plan commenced with the installation of monitoring devices in Lidsdale and Wallerawang. Monitoring of this date will occur over the 2014 winter. Investigation and development of a rectification strategy commenced.</li> <li>Initial investigations into the implementation of the Strategic Water and Sewer Business Plans commenced.</li> <li>Grant funding was received for the upgrade of the Portland STP. A proposal from Public Works for the concept design of the plant has been received and negotiations commenced for the procurement of the land for the site.</li> </ul>	<ul> <li>Council liaised with the NSW Office of Water regarding the details of the Integrated Water Cycle Management Plan.</li> <li>The Water Demand Management Plan is only implemented during drought conditions.</li> <li>Council installed Flow Loss Water Meters in the reservoirs to measure losses as part of the implementation of the Demand and Water Conservation Plan.</li> <li>The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was made and became effective on 19 December 2014. This Plan implements the majority of actions of the Lithgow Land Use Strategy (LUS). Other actions from the LUS will be implemented in future planning projects either underway or planned for future years.</li> </ul>	<ul> <li>Council liaised with the NSW Office of Water regarding the details of the Integrated Water Cycle Management Plan.</li> <li>The Water Demand Management Plan is only implemented during drought conditions.</li> <li>Council installed Flow Loss Water Meters in the reservoirs to measure losses as part of the implementation of the Demand and Water Conservation Plan.</li> <li>The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was implemented and utilised to guide future projects and strategies.</li> <li>The Waste and Recycling Strategy review has commenced - due for completion in September 2016.</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Identify and develop new plans and strategies in lines with the community's needs.	<ul> <li>Portland Sewerage Treatment Plant Feasibility Study commenced.</li> <li>Completed the Water Demand Management Plan.</li> <li>The Draft Cullen Bullen Sewerage Study was received but was found to be deficient.</li> <li>Preparation of a Floodplain Risk Management Plan in accordance with the 2005 Floodplain Development Manual was deferred until the completion of the Flood Study Review.</li> <li>Grant funding was secured and preparation commenced on the Flood Study Review.</li> <li>The Strategic Water and Sewer Business Plan commenced.</li> <li>The Drought Management Plan was completed.</li> <li>The Demand and Water Conservation Management Plan was completed.</li> </ul>	<ul> <li>Development commenced on the Integrated Water Cycle Management Plan.</li> <li>Draft Strategic Water and Sewerage Business Plans were completed by the Department of Public Works.</li> <li>Flood Study investigation and Hydraulic Modelling continued.</li> <li>Editing and final amendments were made by the consultant on the Cullen Bullen Sewerage Study. The Cullen Bullen community was briefed on the study findings.</li> </ul>	<ul> <li>The Draft Integrated Water Cycle Management Plan was completed and submitted to the NSW Office of Water for review.</li> <li>The Draft Strategic Water and Sewerage Business Plan was completed and submitted to the NSW Office of Water for review.</li> <li>The Draft Floodplain Risk Management Plan was updated to include recent Flood Mitigation Works.</li> </ul>	<ul> <li>The Draft Integrated water Cycle Management Plan is 50% complete with work being undertaken by the Department of Public Works.</li> <li>The Draft Strategic Water and Sewage business Plan awaits review from the NSW Office of Water.</li> <li>The Draft Floodplain Risk Management Plan has not commenced and is awaiting finalisation of flood study</li> </ul>

### 4.1.5 Environmental Protection and Leadership

To provide environmental leadership through responsible natural resource management, legislative compliance and working cooperatively with the community, relevant environmental authorities and alliances.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Comply with the environment protection licences for: • Lithgow Sewerage Treatment Plant • Lithgow Water Treatment Plant. • Portland Sewerage Treatment Plant. • Wallerawang Sewerage Treatment Plant	All non-compliances are reported to the Environmental Protection Authority. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	There were no major environmental issues in sewerage treatment during 2013-2014. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	Annual returns submitted to the Environmental Protection Authority including all non-compliances. All monitoring data is placed on Council's website <u>www.council.lithgow.com</u>	Annual returns submitted to the Environmental Protection Authority including all non-compliances. All monitoring data is placed on Council's website <u>www.council.lithgow.com</u>
Comply with the environment protection licences for Lithgow Solid Waste Facility and Portland Garbage Depot	No incidences of non-compliance have been identified by external authorities in relation to waste management facilities. Refer to Council website for details of non-compliances.	No incidences of non-compliance have been identified by external authorities in relation to waste management facilities. Details of non- compliances are made available to the public on Council's website.	Compliance with EPA Environmental Protection Licence at the Lithgow Solid Waste Facility was achieved throughout this reporting period. No incidences of non-compliance have been identified by external authorities in relation to waste management facilities. Details of non- compliances are made available to the public on Council's website.	No incidences of non-compliance have been identified by external authorities in relation to waste management facilities. Details of non- compliances are made available to the public on Council's website.
To fulfil Council's appropriate regulatory authority responsibilities under the Protection of the Environment Operations Act.	<ul> <li>All pollution incidents have been responded to within 24hours.</li> <li>Commissioning of the Wallerawang STPs required by the Environment Protection Licence</li> </ul>	<ul> <li>All pollution incidents have been responded to within 24hours.</li> <li>There have been no major environmental issues in the water and sewerage area during 2013-2014</li> </ul>	<ul> <li>Respond to pollution incidents within 24 hours where Council is the appropriate Regulatory Authority:         <ul> <li>13 incidents reported and responded to within the 24 hour timeframe.</li> </ul> </li> <li>To ensure compliance with Council's Environmental Management System for sewage Management, Water Treatment and Distribution:         <ul> <li>All incidents reported as required</li> </ul> </li> </ul>	<ul> <li>Respond to pollution incidents within</li> <li>24 hours where Council is the</li> <li>appropriate Regulatory Authority: <ul> <li>9 incidents reported and</li> <li>responded to within the 24 hour</li> <li>timeframe.</li> </ul> </li> <li>To ensure compliance with Council's</li> <li>Environmental Management System</li> <li>for sewage Management, Water</li> <li>Treatment and Distribution: <ul> <li>All incidents reported as required</li> </ul> </li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
			in accordance with Licence conditions.	<ul> <li>in accordance with Licence conditions.</li> <li>Pollution Incident Response Management Plans Tested as per EPA requirements for each Plant.</li> </ul>
Work together to share information.	Council participated in the activities of the Water Directorate.	Council is a member of the water directorate and has participated in relevant activities during the 2013- 2014 year.	Council participated in the activities of the Water Directorate.	<ul> <li>Participate in the activities of the Water Directorate:</li> <li>Council is actively involved in the Centroc Water Utilities Alliance (CWUA) and is also a Member of other industry associations including Water Services Association of Australia (WSAA) and Water Industry Operators Association (WIOA).</li> <li>Representatives from council attended the NSW annual WIOA conference held in Newcastle in April.</li> <li>Lithgow was also heavily involved in the creation of the Central NSW Councils Water Loss Management Toolkit Planning Guide and Central NSW Councils Water Loss Management Toolkit Operators Guide which was co- produced with the Water Directorate.</li> </ul>
Improve the community's knowledge of environmental issues.	A summer water sustainability television campaign was conducted.	Council participated in the activities of the Water Directorate and the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website <u>www.council.lithgow.com</u> .	Council participated in the activities of the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website <u>www.council.lithgow.com</u> .	Council participated in the activities of the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website <u>www.council.lithgow.com</u> .

### 4.1.6 Water

To protect our waterways and provide safe drinking water.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Protect the catchment around Farmers Creek Dam. Conduct routine monitoring of Council's reticulated drinking water supplies.	Council continued to supply drinking water to residents within the Farmers Creek Reticulated Supply system in accordance with the Australian Drinking Water Guidelines. Undertook water sampling: 176 microbiological samples. 19 chemical samples 20 disinfection by-product samples	Council continued to supply drinking water to residents within the Farmers Creek Reticulated Supply system in accordance with the Australian Drinking Water Guidelines. Undertook water sampling: 177 microbiological samples. 16 chemical samples 26 disinfection by-product samples	<ul> <li>There were no exceedances of the Australian Drinking Water Guidelines during the reporting period. However, there were some aesthetic variations for iron due to dam water turnover.</li> <li>Undertook water sampling: <ul> <li>190 microbiological samples.</li> <li>16 chemical samples</li> <li>26 disinfection by-product samples</li> </ul> </li> </ul>	Council has continued to supply drinking water to residents within the Farmers Creek Reticulated Supply System in accordance with the Australian Drinking Water Guidelines. Undertook water sampling: • 180microbiological samples. • 24 chemical samples • 26 disinfection by-product samples
Undertake routine monitoring of Farmers Creek, Lake Lyell, Pipers Flat Creek and Lake Wallace for Blue Green Algae.	0 pesticide samples     18 samples taken.	1 pesticide samples     22 samples taken.	12 Fluoride samples     34 samples taken.	20 Fluoride samples 7 samples taken.
Purchase water from State Water to supply Cullen Bullen, Glen Davis, Lidsdale, Portland, Wallerawang and Marrangaroo.	Water purchased from Fish River Water Supply 830,680 kilolitres.	Water purchased from Fish River Water Supply 789,427 kilolitres.	Water purchased from Fish River Water Supply 693,427 kilolitres.	Water purchased from Fish River Water Supply 785,100 kilolitres.



# Biodiversity

### **Developing our Built Environment**

Planning for suitable infrastructure development to promote sustainable and planned growth, while enhancing the existing identity of the towns, village s and rural areas of the LGA.

#### 3.1.01 Planning Our Built Environment

To plan and manage growth in a sustainable manner with emphasis on creating a diversified economy underpinned by sound local environmental planning.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plants and strategies.	Implemented the Open Space and Recreation needs Study – all capital works for the Parks and Gardens program were completed.	Implemented the Open Space and Recreation needs Study – all capital works for the Parks and Gardens program were completed.	Implemented the Open Space and Recreation needs Study – all capital works for the Parks and Gardens program were completed.	Implemented the Open Space and Recreation needs Study – all capital works for the Parks and Gardens program were completed.
Identify and develop new plans and strategies in lines with the community's needs.	<ul> <li>Site Specific Community/Crown Lands Plans of Management are prepared in accordance with all relevant legislation, result of community and stakeholder engagement and sustainability principles.</li> <li>The following activities were undertaken: <ul> <li>Draft Generic POM for community lands adopted by Council for public exhibition.</li> <li>Draft Plan publicly exhibited for a period of 28 days with a 42 day period for receipt of submissions.</li> <li>Public Hearing conducted.</li> </ul> </li> <li>A Generic Community Lands Plan of Management is prepared for all public land.</li> </ul>	Continue to prepare Site Specific Community/Crown Lands Plans of Management in accordance with all relevant legislation, result of community and stakeholder engagement and sustainability principles for:	<ul> <li>Prepare a Rural Lands Study.</li> <li>Plan prepared and consulted upon.</li> <li>30 June 2015 Rural Lands Project Steering Committee recognised that the timeframe was not achievable and resolved on 1 May 2015 that a new timeline for the project could not be finalised until a consultant was appointed to undertake the project.</li> <li>Completion of the Hassans Walls Management Plan was deferred until 2016.</li> <li>Continue to prepare Site specific Community/Crown Lands Plans of Management - prepared in accordance with all relevant legislation, result of community and stakeholder engagement and sustainability principles for</li> </ul>	<ul> <li>Hassan's Walls Plan of Management</li> <li>Plan prepared, consulted upon (including an on line survey) and adopted by Council. Council appointed Gondwana Consulting to undertake the project in April 2016.</li> <li>Prepare a Floodplain Risk Management Plan to accord with the 2005 Floodplain Development Manual</li> <li>The Plan is being updated to include recent flood mitigation works.</li> <li>Prepare a Rural Lands Study</li> <li>Five Project Steering Committee meetings have been held in relation to the project over the year with the project reaching the phase of draft strategy development. This phase has extended out the project timeline and the project is now scheduled</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
			<ul> <li>"Community" classified lands.</li> <li>"Operational" classified lands.</li> <li>Crown Lands and other recreational facilities (e.g. LakeWallace).</li> </ul>	to be completed in December 2016.

### 3.2.10 Recreational Facilities

To develop recreational facilities that meet the needs of the community now and into the future.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Develop Hassans Walls Reserve and Pearsons Lookout.	<ul> <li>Council undertook the following in preparation for the development of Hassans Walls Reserve:</li> <li>Allocated funding for the preparation of a Management Plan.</li> <li>Completed design and review of environmental factors for the installation of the boardwalk.</li> <li>Manufacturing of the boardwalk components commenced.</li> </ul>	<ul> <li>Council completed and launched the new Sir Joseph Cook Boardwalk which included the installation of interpretive signage.</li> <li>Council, in partnership with the local community and RMS upgraded Pearson's Lookout, Capertee. These works included grading and sealing the road surface from the highway to the lookout, new directional signage, new fencing, an accessible viewing platform and interpretive signage.</li> </ul>	<ul> <li>The upgrade of Pearsons Lookout was completed in the 1st Quarter with an official opening held at the beginning of the 2nd Quarter. A panoramic interpretive sign of the view was installed during the 3rd quarter</li> </ul>	<ul> <li>Commenced the Hassans Walls Management Plan. The plan will identify opportunities that balance the preservation of its environmental, recreational and other values in line with the current and future needs of the community.</li> </ul>

# **Enhancing our Natural Environment**

To conserve and preserve the natural environment whilst balancing the impact of development to ensure a sustainable and healthy community.

### 4.1.1 Planning Our natural Environment

To identify, preserve and improve our natural heritage and biodiversity whilst ensuring the water security and sewerage capacity of the region for sustainable growth and development.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plants and strategies.	<ul> <li>Port Macquarie Road Environmental Management Plan is complete.</li> <li>Draft LEP Planning Proposal placed on public exhibition.</li> </ul>	<ul> <li>A new Comprehensive Local Environmental Plan prepared and consulted upon.</li> <li>Implement the Port Macquarie Road Environmental Management Plan - undertaken in coordination with ongoing maintenance of Port Macquarie Road as required. Works were successfully completed in accordance with environmental constraints and guidelines for 2013-2014.</li> <li>Implement the Land Use Strategy</li> <li>Relevant actions from the Lithgow Land Use Strategy will be implement through the new Lithgow Local Environmental Plan 2014 once it is made.</li> </ul>	<ul> <li>Implement the Land Use Strategy</li> <li>The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was made and became effective on the 19 December 2014. This Plan implements the majority of actions of the Lithgow Land Use Strategy (LUS).</li> <li>Other actions from the LUS will be implemented in future planning projects either underway or planned for future years.</li> <li>Implementation of the Port Macquarie Road Environmental Management Plan is ongoing with maintenance of the road undertaken as required.</li> </ul>	<ul> <li>Implement the Land Use Strategy</li> <li>Other actions from the LUS will be implemented in future planning projects either underway or planned for future years.</li> <li>Implementation of the Port Macquarie Road Environmental Management Plan is ongoing with maintenance of the road undertaken as required.</li> </ul>

### 4.1.3 Biodiversity

To protect and enhance biodiversity through consultation and development of partnerships.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Protect Endangered Ecological Communities and National Endangered Ecological Communities.	Three meetings of the Save Our Swamps Program were attended. Lithgow City Council in conjunction with the Lithgow Oberon Landcare Association undertook works on Public Reserves for the protection of biodiversity in the area.	Meetings of the Save Our Swamps Program were attended and this program was completed during 2013- 2014. Lithgow City Council in conjunction with the Lithgow Oberon Landcare Association undertook works on Public Reserves for the protection of biodiversity in the area.	Lithgow City Council in conjunction with the Lithgow Oberon Landcare Association and the Green Army undertook works on Public Reserves for the protection of biodiversity in the area.	<ul> <li>Lithgow City Council in conjunction with the Lithgow Oberon Landcare Association and the Green Army undertook works on Public Reserves for the protection of biodiversity in the area.</li> <li>Council contributed to planning and development of the Swamped by Threats project involving a consortium of partners aiming to help protect upland swamps and threatened species within them across the Newnes Plateau and in the Blue Mountains.</li> </ul>
Control environmental and/or noxious weeds on public land through Council and/or service provided by Upper Macquarie County Council.	<ul> <li>Contributions were paid as required and in accordance with budget to the Upper Macquarie County Council (UPMCC)</li> <li>Monthly reports from the UPMCC were received.</li> <li>Two councillors represented Council on the Board of the UPMCC and attended regular meetings and issued work requests.</li> <li>Willows were removed from the Farmers Creek water course as part of the annual program.</li> <li>Work commenced on a signage plant for Hassans Walls Reserve.</li> </ul>	<ul> <li>Contributions were paid as required and in accordance with budget to the Upper Macquarie County Council (UPMCC)</li> <li>Monthly reports from the UPMCC were received.</li> <li>2 councillors represented Council on the Board of the UPMCC and attended regular meetings and issued work requests.</li> <li>Willows were removed from the Farmers Creek water course as part of the annual program.</li> <li>A Working Party developed a draft sign for Hassans Walls Reserve which included a prohibition symbol for taking firewood from the reserve.</li> </ul>	<ul> <li>Contributions were paid as required and in accordance with budget to the Upper Macquarie County Council (UPMCC)</li> <li>Monthly reports from the UPMCC were received.</li> <li>2 councillors represented Council on the Board of the UPMCC and attended regular meetings and issued work requests.</li> <li>Willows were removed from the Farmers Creek water course as part of the annual program.</li> <li>Grant funding was expended on a number of Council Reserve to undertake environmental improvement and removal of noxious weeds.</li> </ul>	<ul> <li>Contributions were paid as required to the Upper Macquarie County Council (UPMCC).</li> <li>Monthly reports from the UPMCC were received.</li> <li>2 councillors represented Council on the Board of the UPMCC and attended regular meetings and issued work requests.</li> <li>Willows were removed from the Farmers Creek water course as part of the annual program.</li> <li>Farmers Creek Draft Master Plan has been completed and has been distributed to the Reference Group for review &amp; comment. This project is due for completion in September 2016.</li> </ul>



# **Towards Sustainability**

# **Caring for our Community**

Planning and providing quality community and recreational facilities and services for a healthy, vibrant and harmonious community.

1.2.09 Regulatory/Compliance Programs To ensure community safety and compliance.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Maintain animal control in accordance with legislation and policy.	<ul> <li>Maintained the Lithgow Pound.</li> <li>Undertook community education on the care and responsibility of companion animals through schools program and media releases.</li> </ul>	<ul> <li>Maintained the Lithgow Pound.</li> <li>Undertook community education on the care and responsibility of companion animals:</li> <li>Education material updated and readily available from the Administration Centre and Library, local schools and Lithgow City Pound.</li> </ul>	<ul> <li>Maintained the Lithgow Pound.</li> <li>Undertook community education on the care and responsibility of companion animals:</li> <li>Education material updated and readily available from the Administration Centre and Library, local schools and Lithgow City Pound.</li> </ul>	<ul> <li>Maintained the Lithgow Pound. During 2015/16 the following improvements were undertaken at the Lithgow Animal Shelter: new roofing, upgrade to existing kennels, and the addition of 5 new kennels.</li> <li>Undertook community education on the care and responsibility of companion animals: Education material updated and readily available from the Administration Centre and Library, local schools and Lithgow City Pound.</li> </ul>
Investigate non- compliance with the Protection of Environment Operations Act.	<ul> <li>3 Environmental Protection Authority actions taken.</li> <li>32 Local Government Notices issued.</li> </ul>	<ul> <li>3 Environmental Protection Authority actions taken (1 POEO, 1 Clean-up notice, 1 Prevention Notice) and 5 non-compliances investigated.</li> <li>35 Local Government Notices issued.</li> </ul>	<ul> <li>11 Environmental Protection Authority actions taken</li> <li>53 Local Government Notices issued.</li> </ul>	<ul> <li>9 investigations in relation to non-compliance with the POEO Act.</li> <li>Show Cause &amp; Penalty Infringement Notices have been issued in relation to illegal dumping across the LGA.</li> </ul>

# **Developing our Built Environment**

Planning for suitable infrastructure development to promote sustainable and planned growth, while enhancing the existing identity of the towns, village s and rural areas of the LGA.

### 3.2.04 Cycleways and Walkways

To establish a system of cycleways and pedestrian paths to provide links between major cultural and recreational facilities and town centres.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Undertake footpath construction as per 10 year program.		<ul> <li>Completed preliminary design and construction planning works for Stages 2 &amp; 3 Farmers Creek and awarded the contract to Peters Earthmoving Pty Ltd.</li> <li>Footpath from Great Western Highway to Bowen Vista Estate was completed.</li> </ul>	<ul> <li>Footpath in James O'Donnell Drive, Hill Crest Estate was extended and restoration works were completed to the existing footpath.</li> <li>Construction of the extension to the footpath from Pied Piper Pre- School to James Parade was completed.</li> <li>Construction of the footpath linking Geordie Street to McDonalds was completed.</li> </ul>	Footpath has been fully constructed in Col Drewe Drive from the Great Western Highway to the end of Col Drewe Drive.

### 3.2.05 Environmental Health

To provide an Environmental Health Inspection Program.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Conduct inspections of food premises and provide ongoing education.	101 food premises inspected. Did not meet the target of 170 inspections per year	198 general food premises inspected including 114 High Risk Food Premises Exceeded target of 126 inspections per year.	Met target of 126 inspections per year including a minimum of 1 inspection of each high risk premises per year.	116 Public Health Food inspections completed throughout the reporting period in accordance with the Food Authority and Food Act 2003.
Conduct inspections of skin penetration premises and provide ongoing education.	6 skin penetration premises were inspected.	14 skin penetration premises were inspected.	5 skin penetration premises were inspected (3 businesses closed form previous year).	2 inspections of tattoo shops complete within the reporting period as required by the Public Health Act 2012.
Conduct inspections of commercial swimming pools and spas and provided ongoing education.	6 pools/spas were inspected.	10 pools/spas were inspected.	7 pools/spas were inspected.	7 Inspections completed within the reporting period. Swimming pools and spas open to the public are inspected to assess compliance with the public health requirements. This ensures the operations and surrounds are satisfactory and concurrent with the Public Health Act 2010, and Public Health Regulation 2012.
Conduct inspection of cooling towers and associated systems and respond to complaints.	7 cooling towers were inspected. All complaints investigated and actions resolved or determined within 24 hours of receipt.	5 sites - 29 cooling towers were inspected. All complaints investigated and actions resolved or determined within 24 hours of receipt.	5 sites - 20 cooling towers were inspected. All complaints investigated and actions resolved or determined within 24 hours of receipt.	5 sites - 20 cooling towers inspected All complaints investigated and actions resolved or determined within 24 hours of receipt.
Maintain a register of water cooling and warm water systems.	A register is maintained.	A register is maintained.	A register is maintained.	A register is maintained.
Undertaken inspections of Caravan Parks.	2 Inspections were undertaken.	2 Inspections were undertaken.	2 Inspections were undertaken.	2 Inspections were undertaken.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Undertake activities identified in the Trade Waste Policy.	168 compliances completed. Installed grease arrestors in Council Kitchens to achieve compliance.	<ul> <li>48 Approvals issued.</li> <li>211 compliance inspections.</li> <li>6 warning letters issued for non-compliance.</li> </ul>	<ul> <li>23 Approvals issued.</li> <li>23compliance inspections.</li> <li>6 warning letters issued for non- compliance.</li> <li>Installed grease arrestors in Council Kitchens to achieve compliance.</li> </ul>	<ul> <li>5 approvals issued.</li> <li>Only 10 compliance inspections were conducted due to a change over and retraining of new staff this year.</li> <li>No non-compliance inspections due to a change over and retraining of new staff.</li> </ul>

### 3.2.15 Water

To provide water infrastructure to allow for the sustainable growth and development of the area.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Undertake a community education program.	A summer water sustainability television campaign was conducted.	Council participated in the activities of the Water Directorate and the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website <u>www.council.lithgow.com</u> .	Council participated in the activities of the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website <u>www.council.lithgow.com</u> .	Council participated in the activities of the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website <u>www.council.lithgow.com</u>

### 3.2.15 Waste

To provide a waste and recycling collection service that encourage a reduction in land filling.

Strategic Plan	Outcomes 2012-20	13	Outcomes 2013-20	14	Outcomes 2014-2	015	Outcomes 2015-2016	5
Reference Provide garbage	Tonnes of Land	fill within LGA	Tonnes of Lan	dfill within LGA	Tonnes of La	ndfill within LGA	Tonnes of Landf	ill within LGA
disposal facilities	Capertee	209	Capertee	693	Capertee	788	Capertee	1,705
within the LGA.	Glen Davis	140	Glen Davis	249	Glen Davis	460	Glen Davis	910
	Lithgow	32,880	Lithgow	39,842	Lithgow	42,650	Lithgow	33,309
	Cullen Bullen	499	Cullen Bullen	689	Cullen Bullen	805	Cullen Bullen	1,977
	Wallerawang	1,477	Wallerawang	3,562	Wallerawang	6,271	Wallerawang	9,086
	Portland	1,507	Portland	2,804	Portland	4,217	Portland	6,722
	Total	36,712	Total	47,839	Total	55,191	Total	53,709
Close and rehabilitate the landfills.		vas deferred. rks were na was deferred ne for the works	<ul> <li>review the clo rehabilitation</li> <li>Consultants w prepare a cons designed for T</li> </ul>	plans. ere briefed to	which confirm	e plan was prepared ned that closure of dfill will not occur in re.	of the Rehabilita premature. As su Environmental N (LEMP) will be d consultation wit incorporate the extension and fi material. Follow completion of th	and final it has been implementation ation Plan is uch a new Landfill Management Plan eveloped in the EPA to new Filling Plan, nal capping ing the nis project a mplementation of
Continue to maintain existing landfills.			New trenches were Capertee, Portland		New trenches wer Wallerawang, Cull Davis and Caperte	en Bullen, Glen		
Provide recycling facilities.	Facility requiremen investigated for An Tarana for recycling implemented in 20	gus Place and and will be	Recycling bins were sites: Meadow Flat, and Hampton.	e installed at four Tarana, Angus Plan			The waste and recycl service throughout a the local governmen with the aim to decre of waste deposited ir	II landfills across t area continues ease the volume
Undertake preparations for the	Servicing of loan an continued.	d paying interest	The development a activated and loan		Servicing of loan a continued.	and paying interest	Servicing of loan and continued.	

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Blackmans Flat Waste Management Facility.		made as a matter of course.		
Upgrade the Lithgow Solid Waste Facility.	<ul> <li>Leachate Control was rectified.</li> <li>Rehabilitation of Stage 1 was investigated.</li> </ul>	<ul> <li>Completed Leachate Control works.</li> <li>Progressed road works.</li> <li>Progressed Hazardous Waste Storage (no hazardous waste is stored on site apart from asbestos).</li> </ul>	<ul> <li>Planning and design of rehabilitation of stage 1 area progressed.</li> <li>Additional facilities were provided to the weighbridge:         <ul> <li>Extension of sewer and construction of toilet facilities.</li> <li>Upgrade of computer and printer.</li> <li>Construction of fencing and installation of security.</li> </ul> </li> <li>The EP A provided a new Licence containing improvements identified in the Water Management Plan.</li> <li>Road maintenance and the installation of new speed humps were completed.</li> </ul>	<ul> <li>Rehabilitate the Stage 1 area Following the development of a new Filling Plan and final landform design it has been determined the implementation of the Rehabilitation Plan is premature. As such a new Landfill Environmental Management Plan (LEMP) will be developed in consultation with the EPA to incorporate the new Filling Plan, extension and final capping material. Following the completion of this project a determination implementation of the rehabilitation project will be made.</li> </ul>
Undertake post closure monitoring of landfills.	<ul> <li>The life of Glen Davis and Cullen Bullen Landfills was extended.</li> <li>Monitoring continued at Angus Place.</li> </ul>	<ul> <li>Angus Place commenced running as a Transfer Station and monitoring was no longer required until further rehabilitation of the old landfill area is completed.</li> <li>Cullen Bullen and Glen Davis continued to operate as landfill sites and monitoring is not required until closure and rehabilitation of these sites.</li> </ul>		
Undertaken an environmental audit of the Lithgow Solid Waste Facility and the Portland		Consultants were engaged to conduct the environmental audits at Lithgow and Portland Waste Facilities.	Environmental Audits completed at Lithgow and Portland Waste Facilities.	

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Garbage Depot.				
Install remote	Some cameras have been deployed.	Cameras have been installed and	Cameras have been installed and	Cameras have been installed and
surveillance cameras	Additional cameras are being	monitored at landfill and transfer	monitored at landfill and transfer	monitored at landfill and transfer
at rural landfills.	purchased.	station sites.	station sites.	station sites.

3.2.17 Waste & Recycling To implement the waste management hierarchy of avoidance, reuse, recycle and dispose.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Collect street litter bins in Lithgow, Portland and Wallerawang.	A scheduled street litter bin collection service is provided to Lithgow, Portland and Wallerawang.	A scheduled street litter bin collection service is provided to Lithgow, Portland and Wallerawang.	A scheduled street litter bin collection service is provided to Lithgow, Portland and Wallerawang.	A scheduled street litter bin collection service is provided to Lithgow, Portland and Wallerawang.
Collect litter bins from parks, lookouts and recreation areas. Provide kerbside garbage and recycling collection service to all residents within the collection service area.	The collection service is provided to an acceptable standard and within budget. The contract for the new kerbside garbage and recycling contract was awarded.	The collection service is provided to an acceptable standard and within budget. Kerbside recycling commenced with additional community waste education being implemented through Council's website and media releases.	The collection service is provided to an acceptable standard and within budget. Over 1,400 tonnes of recyclables were diverted from landfill in 2014/15. This makes up over 20% of waste. Community waste education continued to be undertaken.	The collection service is provided to an acceptable standard and within budget. Increase in kerbside waste collected in 2015/16 from the same reporting period in 2014/15 reporting period.
Provide a green waste collection service to residents in Lithgow, Lidsdale, Marrangaroo, Portland, Rydal and Wallerawang.	1 Greenwaste collection service was provided to 40 participants	4 services provided with an increasing number of Greenwaste bookings to 146 participants.	4 services provided with an additional 506 Greenwaste collections resulting from the snow event in October 2014.	4 services provided with an additional 254 Green Waste Collections have been completed for the year.
Provide a clean-up collection service to residents.	1 clean-up collection service was provided to 140 participants.	2 clean-up collection services were provided to 191 participants.	2 clean-up collections services provided with over a 130% increase in the take-up of the bulky waste	2 clean-up collections services

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Reference			collection service achieved – 445 participants.	
Assist in the provision of the chemical collection service.	A chemical collection service was provided.	A chemical collection service was provided during the 1 <sup>st</sup> quarter in conjunction with Toxfree and Netwaste.	A chemical collection service was provided during the 1 <sup>st</sup> quarter in conjunction with Toxfree and Netwaste.	A chemical collection service was provided during the 1st quarter in conjunction with Toxfree and Netwaste with over 6200kg of waste collected.
Attend meetings and participate in Netwaste activities.	4 meetings were attended. e-Waste recycling was undertaken. 4 new cages are available for e-Waste collection at Lithgow Waste Facility.	<ol> <li>meeting was attended.</li> <li>e-Waste is collected at the Lithgow Waste Facility.</li> <li>During the 1<sup>st</sup> quarter Council participated in an Asbestos Awareness program being conducted by Netwaste.</li> </ol>	Council worked closely with Netwaste in the development of waste projects in the Lithgow LGA and submitted a number of successful grant applications in partnership.	Council has been working closely with NetWaste through the development of waste projects in the LGA and have submitted a number of successful grant applications in partnership.
Undertake Waste Watchers environmental Education Program targeting School aged children.	Waste Watchers Environmental Education program was not undertaken.	A Community Waste Education Program was conducted with educational materials provided on recycling and waste avoidance to students.	A Community Waste Education Program was conducted with educational materials provided on recycling and waste avoidance to students during school visits conducted in June. 18 sessions were conducted over 5 days with approximately 450 students attending.	<ul> <li>A Community Waste Education Program was conducted with educational materials provided on recycling and waste avoidance to students.</li> <li>Council has also introduced a free App - Wasteinfo designed to make it easier for residents to reduce rubbish, sort waste properly and recycle more. The App provides:</li> <li>Personalised bin collection calendar with optional bin day reminders</li> <li>Quick guide to the bin system, and an A-Z list of materials and how to dispose of them</li> <li>Information about Council's services and waste facilities, including maps and directions</li> <li>Frequently asked questions, contact details and 'report a problem' form</li> <li>Optional notifications to find out the latest waste information from Council</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
				<ul> <li>Waste education was delivered to 290 students from 4 schools over the reporting period. In addition there was a Public Place Display at Halloween Event with one officer present to talk to the community.</li> <li>Childcare Skills Development Sessions were undertaken with 22 staff from across the LGA providing resources and skills for educational activities for students improving understanding of composting and recycling.</li> </ul>

# **Enhancing our Natural Environment**

To conserve and preserve the natural environment whilst balancing the impact of development to ensure a sustainable and healthy community.

### 4.1.1 Planning Our natural Environment

To identify, preserve and improve our natural heritage and biodiversity whilst ensuring the water security and sewerage capacity of the region for sustainable growth and development.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plans and strategies.	<ul> <li>Implement the following plans and strategies: <ul> <li>Integrated Water cycle</li> <li>Management Plan</li> <li>Drought Management Plan</li> <li>Demand and Water Conservation Plan</li> <li>Strategic Water and Sewer Business Plans</li> <li>Cullen Bullen Sewerage Study</li> <li>Portland Sewerage Treatment Plant Feasibility Study.</li> <li>Port Macquarie Road Environmental Management Plan.</li> <li>Land Use Strategy</li> </ul></li></ul>	<ul> <li>Implementation of the Drought Management Plan continued.</li> <li>Implementation of the Water Loss Management Plan commenced with the installation of monitoring devices in Lidsdale and Wallerawang. Monitoring of this date will occur over the 2014 winter. Investigation and development of a rectification strategy commenced.</li> <li>Initial investigations into the implementation of the Strategic Water and Sewer Business Plans commenced.</li> <li>Grant funding was received for the upgrade of the Portland STP. A proposal from Public Works for the concept design of the plant has been received and negotiations commenced for the procurement of the land for the site.</li> <li>Implementation of the Port Macquarie Road Environmental Management Plan is undertaken</li> </ul>	<ul> <li>Council liaised with the NSW Office of Water regarding the details of the Integrated Water Cycle Management Plan.</li> <li>The Water Demand Management Plan is only implemented during drought conditions.</li> <li>Council installed Flow Loss Water Meters in the reservoirs to measure losses as part of the implementation of the Demand and Water Conservation Plan.</li> <li>The Comprehensive Lithgow Local Environmental Plan, Lithgow LEP 2014 was made and became effective on 19 December 2014. This Plan implements the majority of actions of the Lithgow Land Use Strategy (LUS). Other actions from the LUS will be implemented in future planning projects either underway or planned for future years.</li> </ul>	<ul> <li>The Draft Integrated water Cycle Management Plan is 50% complete with work being undertaken by the Department of Public Works.</li> <li>The Water Demand Management Plan is only implemented during drought conditions.</li> <li>The Draft Strategic Water and Sewage business Plan awaits review from the NSW Office of Water.</li> <li>The Draft Floodplain Risk Management Plan has not commenced and is awaiting finalisation of flood study.</li> <li>The Lithgow Local Environmental Plan was implements the majority of actions of the Lithgow Land Use Strategy (LUS). Other actions from the LUS will be implemented in future planning projects either underway or planned for future</li> </ul>

<ul> <li>new plans and strategies in lines with the community's needs.</li> <li>Plant Feasibility Study commenced.</li> <li>Completed the Water Demand Management Plan.</li> <li>Completed the Water Demand Management Plan.</li> <li>The Draft Cullen Bullen Sewerage Study was received but was found to be deficient.</li> <li>Preparation of a Floodplain Risk Management Plan in accordance with the 2005 Floodplain Development Manual was deferred until the completion of the Flood Study Review.</li> <li>Grant funding was secured and preparation commenced on the Flood Study Review.</li> <li>The Strategic Water and Sewer Business Plan commenced.</li> <li>The Drought Management Plan</li> </ul>	Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
The Demand and Water     Conservation Management Plan	Reference Identify and develop new plans and strategies in lines with the community's needs.	<ul> <li>Plant Feasibility Study commenced.</li> <li>Completed the Water Demand Management Plan.</li> <li>The Draft Cullen Bullen Sewerage Study was received but was found to be deficient.</li> <li>Preparation of a Floodplain Risk Management Plan in accordance with the 2005 Floodplain Development Manual was deferred until the completion of the Flood Study Review.</li> <li>Grant funding was secured and preparation commenced on the Flood Study Review.</li> <li>The Strategic Water and Sewer Business Plan commenced.</li> <li>The Drought Management Plan was completed.</li> <li>The Demand and Water</li> </ul>	<ul> <li>maintenances of Port Macquarie Road as required. Works were successfully completed in accordance with environment constraints and guidelines.</li> <li>Development commenced on the Integrated Water Cycle Management Plan.</li> <li>Draft Strategic Water and Sewerage Business Plans were completed by the Department of Public Works.</li> <li>Flood Study investigation and Hydraulic Modelling continued.</li> <li>Editing and final amendments were made by the consultant on the Cullen Bullen Sewerage Study.</li> <li>The Cullen Bullen community was brief on</li> </ul>	<ul> <li>Management Plan was completed and submitted to the NSW Office of Water for review.</li> <li>The Draft Strategic Water and Sewerage Business Plan was completed and submitted to the NSW Office of Water for review.</li> <li>The Draft Floodplain Risk Management Plan was updated to include recent Flood</li> </ul>	<ul> <li>The Draft Integrated water Cycle Management Plan is 50% complete with work being undertaken by the Department of Public Works.</li> <li>The Water Demand Management Plan is only implemented during drought conditions.</li> <li>The Draft Strategic Water and Sewage business Plan awaits review from the NSW Office of Water.</li> <li>The Draft Floodplain Risk Management Plan has not commenced and is awaiting</li> </ul>

### 4.1.2 Air

### To improve local air quality.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Promote alternative	Provided 4 alternate fuel rebates for	Provided 7 alternate fuel rebates for	Provided 11 alternate fuel rebates for	Provided 3 alternate fuel rebates for
heating sources to	the replacement of coal heaters with	the replacement of coal heaters with	the replacement of coal heaters with	the replacement of coal heaters with
coal and wood	cleaning heating alternatives to	cleaning heating alternatives to	cleaning heating alternatives to	cleaning heating alternatives to
heaters.	Lithgow, Wallerawang, Portland and	Lithgow, Wallerawang, Portland and	Lithgow, Wallerawang, Portland and	Lithgow, Wallerawang, Portland and
	villages.	villages.	villages.	villages.
Provide education	Promotional activities undertaken in	Educational materials are available	Educational materials are available	Educational materials are available
materials to the	response to complaints. Information	from the Council Administration	from the Council Administration	from the Council Administration
community on the	leaflets available at the Council	Centre and on Council's website	Centre and on Council's website	Centre and on Council's website
correct operation of	Administration Centre.	advising of the Alternate Fuel Rebate	advising of the Alternate Fuel Rebate	advising of the Alternate Fuel Rebate
solid fuel burning		Program, EPA Wood Smoke Reduction	Program, EPA Wood Smoke Reduction	Program, EPA Wood Smoke Reduction
appliances.		Program and the correct operation of	Program and the correct operation of	Program and the correct operation of
		solid fuel burning appliances.	solid fuel burning appliances.	solid fuel burning appliances.

### 4.1.4 Climate Change

To significantly reduce carbon emissions within the LGA.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Undertake energy audits of Council buildings and consider recommendations in the Delivery Program.	The Staff Sustainability Team continued to meet and identify energy and water saving initiatives.	<ul> <li>Council's Staff Sustainability Team met a number of times during the year to identify areas of Council operations where savings can be made through sustainability initiatives including:</li> <li>A presentation by Planet Footprint to the Staff Sustainability Committee and senior staff on how to quantify energy and water costs and how savings can be generated through sustainability initiates. Further investigations are underway to determine if council will participate in this initiative.</li> <li>The replacement of an old hot water system in the Ashley Grandstand change rooms, Tony Luchetti Showground, with a solar system.</li> <li>Monthly initiatives were promoted to staff including:         <ul> <li>Lights off</li> <li>Heaters off</li> <li>Office waste paper</li> <li>Recycling</li> <li>Safe disposal of household chemicals.</li> </ul> </li> <li>Council investigated retrofitting Diesel Particulate Filters on large diesel plant to reduce particulate emissions by 60%.</li> </ul>	Three meetings of the Staff Sustainability Team were held.	Two meetings of the Staff Sustainability Team were held.

### 4.1.5 Environmental Protection and Leadership

To provide environmental leadership through responsible natural resource management, legislative compliance and working cooperatively with the community, relevant environmental authorities and alliances.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Comply with the environmental protection licences for sewage and water treatment plants at Lithgow, Wallerawang and Portland.	Some EPA Water and Wastewater Licence conditions were not met. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	There were no major environmental issues in sewerage treatment during 2013-2014. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	All monitoring data is place on Council's website <u>www.council.lithgow.com</u> and non-compliances are reported to the Environmental Protection Authority.	All monitoring data is place on Council's website www.council.lithgow.com and non- compliances are reported to the Environmental Protection Authority.
To fulfil Council's appropriate regulatory authority responsibilities under the Protection of the Environment Operations Act.	No incidences of non-compliance were identified by external authorities in relation to waste management facilities. Details of non-compliances are made available on Councils website <u>www.council.lithgow.com</u>	Pollution incidents were responded to within the 24 hour timeframe.	Compliance with EPA Environmental Protection Licence at the Lithgow Solid Waste Facility was achieved throughout the reporting period. No incidences of non-compliance were identified by external authorities in relation to waste management facilities. Details of non-compliances are made available on Councils website www.council.lithgow.com	Compliance with EPA Environmental Protection Licence at the Lithgow Solid Waste Facility was achieved throughout the reporting period. No incidences of non-compliance were identified by external authorities in relation to waste management facilities. Details of non-compliances are made available on Councils website www.council.lithgow.com
Provide a forum for environmental groups to discuss matters relating to the environment and advise Council.	Meetings of the Environmental Advisory Committee were held quarterly.	Meetings of the Environmental Advisory Committee were held quarterly.	Meetings of the Environmental Advisory Committee were held quarterly.	Meetings of the Environmental Advisory Committee were held quarterly.
Improve the community's knowledge of environmental issues.	A summer water sustainability television campaign was conducted.	Council participated in the activities of the Water Directorate and the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website <u>www.council.lithgow.com</u> .	<ul> <li>The following activities were undertaken as part of the Save Water</li> <li>Education Campaign: <ul> <li>Brochures were distributed in January 2015.</li> <li>A TV campaign was aired during summer 2014/15.</li> </ul> </li> <li>The following activities were</li> </ul>	Council participated in the activities of the Water Directorate and the SaveWater Alliance. A link to the SaveWater alliance was made available on Council's website www.council.lithgow.com. A Community Waste Education Program was conducted with

Strategic Plan	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Reference				
			<ul> <li>undertaken to educate the community on waste and recycling:         <ul> <li>Public Place Displays</li> <li>Bulky Waste and Greenwaste Collection Services Flyer</li> <li>'Pop-up' community education displays.</li> <li>Promotion and information on Council's website</li> <li>Educational materials were provided on recycling and waste avoidance to students.</li> <li>Council introduced a free 'App' to assist the community with recycling and improve their knowledge on recyclables. The Wasteinfo App makes it easier for residents to reduce rubbish, sort waste properly and recycle more. It provides:</li> <li>A personalised bin collection calendar with optional bin day reminders.</li> <li>Quick guide to the bin system, and an A-Z list of materials and how to dispose of them.</li> <li>Information on Council's services and waste facilities, including maps and directions.</li> <li>Frequently asked questions, contact details and 'report a problem 'form.</li> <li>Optional notifications to find out the latest waste information from Council.</li> </ul> </li> </ul>	<ul> <li>educational materials provided on recycling and waste avoidance to students.</li> <li>Council has also introduced a free App – Wasteinfo designed to make it easier for residents to reduce rubbish, sort waste properly and recycle more. The App provides: <ul> <li>Personalised bin collection calendar with optional bin day reminders</li> <li>Quick guide to the bin system, and an A-Z list of materials and how to dispose of them</li> <li>Information about Council's services and waste facilities, including maps and directions</li> <li>Frequently asked questions, contact details and 'report a problem' form</li> <li>Optional notifications to find out the latest waste information from Council</li> </ul> </li> <li>Waste education was delivered to 290 students from 4 schools over the reporting period. In addition there was a Public Place Display at Halloween Event with one officer present to talk to the community.</li> <li>Childcare Skills Development Sessions were undertaken with 22 staff from across the LGA providing resources and skills for educational activities for students improving understanding of composting and recycling.</li> </ul>
Prepare grant	Grant for environmental improvement	Council was successful in obtaining	Council was successful in obtaining	Council was successful in obtaining
applications for	was obtained and completed.	the following funding for	the following funding for	the following funding for

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
funding of environmental improvements.		<ul> <li>environmental improvement works:</li> <li>Environmental Trust for the Wood Smoke Reduction Program - \$30,000.</li> <li>Resources for Regions funding scheme for the Portland Sewerage Treatment Plant Upgrade - \$10m.</li> <li>Grant funding for water loss repair works were secured through the CEEP2 Program managed by CENTROC. Federal government committed to match every dollar the Council spend of water loss repairs up to \$200,000.</li> </ul>	<ul> <li>environmental improvement works:</li> <li>Environmental projects grant - \$30,000 achieved through the Central Tablelands Local Land Service.</li> <li>Green Army application was successful providing a significant boost to environmental projects within the region and local employment.</li> <li>Crown Lands Public Reserve Management Fund for Control of Environmental Weeds provided \$28,000 to provide management of natural resources within Hassans Walls Reserve through control of noxious weeds and environmental weeds. This project also enhanced biodiversity, reduced erosion, improved habitat within the reserve. The works within the reserve in addition improved visual amenity and increased public perception and awareness of the environmental asset.</li> </ul>	<ul> <li>environmental improvement works:</li> <li>Environmental projects grant - \$30,000 achieved through the Central Tablelands Local Land Service.</li> <li>Green Army application was successful providing a significant boost to environmental projects within the region and local employment.</li> <li>Crown Lands Public Reserve Management Fund for Control of Environmental Weeds provided \$28,000 to provide management of natural resources within Hassans Walls Reserve through control of noxious weeds and environmental weeds. This project also enhanced biodiversity, reduced erosion, improved habitat within the reserve. The works within the reserve in addition improved visual amenity and increased public perception and awareness of the environmental asset.</li> <li>In May 2016 Council in conjunction with Lithgow Oberon Landcare Association were successful in securing a \$50,000 grant from Landcare NSW to secure a part-time landcare Coordinator to build capacity of local residents to improve local biodiversity through revegetation projects and activities.</li> </ul>



# Heritage

## **Caring for our Community**

# Planning and providing quality community and recreational facilities and services for a healthy, vibrant and harmonious community.

#### 1.1.1 Planning our Community

To provide social and cultural planning that will lead to the enhancement of the quality of life of the community.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plans and strategies.	<ul> <li>Developed and implemented the Cultural Plan and Cultural Precinct Study</li> <li>Continuation of the Museums Advisor Program.</li> <li>Increased community knowledge of the history and heritage of the area. Events, exhibitions and public programs held.</li> </ul>	<ul> <li>Cultural Plan and Cultural Precinct Study implemented</li> <li>Continuation of the Museums Advisor Program.</li> <li>Increased community knowledge of the history and heritage of the area. Events, exhibitions and public programs held.</li> </ul>	<ul> <li>Cultural Plan and Cultural Precinct Study implemented</li> <li>Implemented the Eskbank House Museum Conservation Management Plan</li> <li>.</li> </ul>	Cultural Plan and Cultural Precinct Study implementedWork continued on construction of an accessible walkway linking Blast Furnace Park and Lake Pillans Wetland.
Identify and develop new plans and strategies in lines with the community's needs	<ul> <li>Disaster Management Plan for Eskbank House &amp; Museum completed.</li> <li>Undertook a survey of residents in Capertee and surrounding areas as part of the development of the Capertee Village Improvements Plan.</li> </ul>	The Safety and Interpretation Masterplan for Blast Furnace Park was completed. Work commenced on construction of an accessible walkway linking Blast Furnace Park and Lake Pillans Wetland.	<ul> <li>The rear of Eskbank House underwent restoration to improve accessibility to the building for visitors and events. Archaeology remains were found including sandstone footings and the remains of a drainage culvert.</li> <li>An Archaeology Management Plan was developed.</li> </ul>	During the year a draft Cultural Precinct Public Art Strategy was developed for adoption in 2016/17.

#### 1.2.1 Aboriginal, Cultural and Linguistically Diverse Communities To support people from Aboriginal and CALD communities.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
To provide support to the activities of the local aboriginal organisations.	Assisted with the review and site considerations of Black Fellows Hands Management Plan. NAIDOC Day held each year with participation of Council and other organisations.	NAIDOC Day held each year with participation of Council and other organisations.	NAIDOC Day held each year with participation of Council and other organisations. The Community Development Officer attended 12 Mingaan Aboriginal Corporation meetings.	The Community Development Officer attended all the Mingaan Aboriginal Corporation meetings for the 2015/16 financial year The 2015 NAIDOC Day event, which was held at Lake Wallace, Wallerawang on 9 October 2015.

#### 1.2.3 Arts and Culture

To provide a range of programs celebrating the cultural diversity and rich heritage of our local government area.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Eskbank House and its connections with other heritage sites promoted.	Promoted Eskbank House Museum and its connection with other heritage sites, Gardens Club, Museum Group membership at the combined museum stall at Ironfest.	<ul> <li>Attended monthly Lithgow Museums Network meetings.</li> <li>Participated in two combined museum events; Boom &amp; Bust – Lithgow in the 1920's and Treasures from Home – International Museums Day 2014.</li> <li>Hosted a combined Museum's exhibition in the Courtyard Gallery of Eskbank House Museum.</li> <li>Participated in two Network promotional stalls at large community events including Ironfest.</li> <li>Eskbank House was part of two combined museums events and stalls and hosed and Arts Out West Winter Networking Event for local artists.</li> </ul>	<ul> <li>Eskbank House &amp; Museum hosted 9 community exhibitions, 1 commercial exhibition, 1 travelling exhibition and 4 museum storeroom exhibitions during the year.</li> <li>Three musical events and a play were held in the Courtyard Gallery including a Classical Musi Concert performed by the Mitchell Conservatorium of Music at Eskbank House &amp; Museum.</li> <li>Two major events were held at Eskbank House - A Zombie Fashion Parade and a Roaring Twenties Garden Party.</li> <li>Eskbank House hosted Waste2Ar workshops for school children.</li> <li>The Halloween Block Party was a major event for the Cultural</li> </ul>	<ul> <li>workshops with other museums in the region.</li> <li>Five Lithgow Museum Network meetings</li> <li>Five Blue Mountains Association of Cultural Heritage Organisation meetings were attended.</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
		<ul> <li>The Museums Advisor Program continued to work with Eskbank House Museum and other local museums to preserve and promote local history collections. Instigated and Oral History Group which meets regularly and includes community organisations and museums which are developing Oral Histories.</li> <li>Provided advice to the Hartley District Progress Association's 1813 Crossing Committee on their upcoming exhibition and events.</li> </ul>	<ul> <li>Precinct including workshops at Eskbank House.</li> <li>Attended monthly Lithgow Museums Network meetings.</li> <li>The Oral History Program continued</li> </ul>	<ul> <li>represented at the Blue Mountains History Conference</li> <li>Volunteers from the museum attended a Disaster Management Workshop organised by the Central West Chapter of Museums Australia.</li> <li>The Oral History Program continued, with the Ioan of our specialist equipment to Eskbank House Museum, to enable the collection of Oral Histories.</li> <li>During the year staff created the Eskbank Explorer Program for primary aged children with 2 schools visiting the museum for history tours. Cullen Bullen Public School held an exhibition in the Courtyard Gallery with the whole school attending the opening.</li> </ul>
Promote the Lithgow History Avenue.		<ul> <li>The Lithgow History Avenue was completed linking Eskbank House to the Cultural Precinct and Blast Furnace Park using sculptures, interpretative text and a website tell the story of industry in Lithgow.</li> <li>Created a website to provide supporting educational materials for visitors and school students.</li> </ul>	Lithgow History Avenue was promoted throughout the year through its own website and Lithgow Visitor Centre.	<ul> <li>History Avenue Website updated and maintained monthly.</li> <li>An additional sculpture recognising Andrew Brown was installed.</li> </ul>
Provide support for cultural organisations in the development and promotion of cultural activities.	<ul> <li>Museum Advisor's Program continued with assistance provided to Eskbank House Museum and other local museums.</li> <li>Commenced development of an oral history program to capture 'collective memories' of the area.</li> </ul>	The Cultural Development Officer attended 8 Lithgow Museums Networking meetings, 8 Blue Mountains Association of Cultural Heritage Organisations meetings., the AGM of the Museums Australia Central Tablelands Chapter, 10 Lithgow Arts Council meetings and the Local	<ul> <li>The Cultural Development Officer attended regular Lithgow Museums Network Meetings and Lithgow Laneway Meetings (Lithgow Tidy Towns).</li> </ul>	• The Museum Advisor made 10 visits to museums across the LGA during assisting with promotion, exhibition design, signage and interpretation, event organisation, collection policies and strategic policies.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
		Government NSW Arts and Culture Summit.		

### **Developing our Built Environment**

Planning for suitable infrastructure development to promote sustainable and planned growth, while enhancing the existing identity of the towns, village s and rural areas of the LGA.

#### 3.1.01 Planning Our Built Environment

To plan and manage growth in a sustainable manner with emphasis on creating a diversified economy underpinned by sound local environmental planning.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plants and strategies.	Implemented the Heritage Development Control Plan Study and Eskbank House & Museum Conservation Management Plan.	<ul> <li>Implementation of the Heritage Development Control Plan was not achieved due to delays in the finalisation of the new Local Environmental Plan. The Lithgow Development control Plan including the Heritage component will now be undertaken</li> <li>Works commenced to implement the Eskbank House Museum Conservation Management Plan.</li> <li>The Lithgow History Avenue (identified in the Cultural Precinct Study) was completed and officially opened.</li> </ul>	<ul> <li>The Cultural Plan and the Cultural Precinct Plan was implemented.</li> <li>The Heritage Development Control Plan Study was used to inform assessment of development applications within the Heritage Conservation areas.</li> <li>Council completed works to implement the Eskbank House Museum Conservation Management Plan.</li> </ul>	<ul> <li>The Cultural Plan and the Cultural Precinct Plan was implemented.</li> <li>The Heritage Development Control Plan Study was used to inform assessment of development applications within the Heritage Conservation areas.</li> <li>Council completed works to implement the Eskbank House Museum Conservation Management Plan.</li> </ul>
Identify and develop new plans and strategies in lines with the	Completed the Water Demand Management Plan	<ul> <li>A preliminary draft report was prepared for the Lithgow CBD Masterplan. Community engagement commenced using</li> </ul>	<ul> <li>Work continued on the preparation of the Comprehensive Development Control Plan that will incorporate</li> </ul>	<ul> <li>Work on finalising and implementing the heritage provisions of the new Comprehensive Development</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
community's needs.		a number of channels including online survey, intercept survey and Revitalising Lithgow Facebook Page.	<ul> <li>the recommendations of the Heritage Development control Plan Study.</li> <li>The draft Lithgow CBD Revitalisation Action Plan was completed and recommended for public exhibition by the Revitalisation Committee.</li> </ul>	<ul> <li>Control Plan has been interrupted over the year due to staff resources being allocated to higher priority projects. The completion of the Development Control Plan is now scheduled for completion in the second quarter of 2016/17.</li> <li>Implement works at Blast Furnace Park and nearby precinct in relation to safety and interpretive signage. Repair and remediation works were completed in 2015/16. Masterplan works will proceed in 2016/17 subject to funding.</li> </ul>

#### 3.1.01 Heritage To plan and manage growth in a sustainable manner with emphasis on creating a diversified economy underpinned by sound local environmental planning.

Strategic Plan	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Strategic Plan Reference Provide heritage advice to residents on development matters. Continue the Heritage fund program. Establish community education programs to assist in understanding built heritage issues. Assist with appropriate development of heritage items.	The free Heritage Advisory Service continued to be provided to local residents with 17 residents utilising the service. Inspections of buildings by the Heritage Advisor were undertaken. The John Wellings Heritage Award project was handed over to the National Trust to organise. The following work was undertaken to enable items identified within the Heritage Audit Gap Analysis to enable items to be listed in the principal LEP: Items with sufficient information were listed in the principal LEP. Missing data and inventory sheets were prepared.	<ul> <li>The free Heritage Advisory Service continued to be provided to local residents with 36 residents utilising the service.</li> <li>The Local Heritage Fund was discontinued by the Heritage Office.</li> <li>Council deferred the establishment of the Local Heritage Committee until the Local Heritage Schedule in the new Lithgow Local Environmental Plan 2014 was completed.</li> <li>Finalised and implemented the heritage provisions of the new Principal LEP.</li> <li>Continued to fill missing data gaps identified in the Heritage Audit Gap Analysis.</li> <li>Heritage Schedule to be included in the new Principal LEP.</li> </ul>	The free Heritage Advisory Service continued to be provided to local residents with 36 residents utilising the service. Council deferred the establishment of the Local Heritage Committee until the Local Heritage Schedule in the new Lithgow Local Environmental Plan 2014 was completed. Work continued on the preparation of the Comprehensive DCP that will incorporate and implement the recommendations of the Heritage DCP Study. In addition the Heritage DCP Study has been used to inform assessment of	<ul> <li>Heritage advice provided as requested by applicants and residents with 38 residents utilising the service.</li> <li>Adoption of Comprehensive Development Control Plan has been interrupted over the year due to staff resources being allocated to higher priority projects. The completion of the Development Control Plan is now scheduled for completion in the</li> </ul>
	<ul> <li>Conservation areas were identified in the principal LEP.</li> <li>Items identified for individual listing were listed in the principal LEP.</li> <li>Development Control Standards are included in the new Comprehensive Development Control Plan.</li> </ul>	<ul> <li>Restoration of the Bowenfels Gun Emplacements was undertaken.</li> <li>Interpretive signage for the Gun Emplacements site was developed.</li> </ul>	<ul> <li>development applications within the Heritage Conservation Areas.</li> <li>The Lithgow Local Environmental Plan 2014 was finalised and commenced operation on 19 December 2014. This Plan includes the standard LEP Heritage Clause and lists 384 individual local heritage items and 13 Heritage Conservation Areas in Schedule 5 of the Plan. A further 115 individual local heritage items have been included on a deferred list to be</li> </ul>	<ul> <li>second quarter of 2016/17.</li> <li>Implement works at Blast Furnace Park and nearby precinct in relation to safety and interpretive signage. Repair and remediation works were completed in 2015/16. Masterplan works will proceed in 2016/17 subject to funding.</li> <li>Install new heritage and interpretive signage across the Local Government Area. New interpretative signage installed at Bowenfels Gun Emplacement,</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
			<ul> <li>further investigated for local listing as resources permit.</li> <li>The Lithgow Local Heritage Advisory Committee was established and met twice.</li> <li>Council finalised detailed planning and engineering assessments for major upgrade works at Blast Furnace Park to create a safer and improved visitation experience and to highlight the importance of the site in the history of Lithgow and the nation generally. Council was also successful in receiving \$300,000 funding from NSW Trade and Investment and \$150,000 funding from the NSW Heritage Office to undertake the works.</li> <li>A Development Application was submitted to council and the NSW Heritage Office for the works at Blast Furnace Park. The Tender process commenced.</li> <li>Council was unsuccessful in obtaining funding to include the upgrade of the railway bridge and railway corridor between Blast Furnace Park and Eskbank House Museum. Panoramic signage was installed at Pearsons Lookout Capertee identifying points of interest.</li> <li>Inclement weather conditions delayed the completion of the sewerage works and creation of public access to the Gun Emplacements Site.</li> </ul>	<ul> <li>Hassans Walls overlooking Hartley and in Main Street Lithgow.</li> <li>Council has commissioned restoration work to the Glenroy Cairn. Due to a supply problem with the only possible contractor; the work will not be completed until 2016/17.</li> </ul>

### **Enhancing our Natural Environment**

To conserve and preserve the natural environment whilst balancing the impact of development to ensure a sustainable and healthy community.

#### 4.1.1 Planning Our natural Environment

To identify, preserve and improve our natural heritage and biodiversity whilst ensuring the water security and sewerage capacity of the region for sustainable growth and development.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plans and strategies.	Relevant actions from the Lithgow Land Use Strategy will be implemented through the new Lithgow Local Environmental Plan 2014 once it is made.	Relevant actions from the Lithgow Land Use Strategy will be implemented through the new Lithgow Local Environmental Plan 2014 once it is made.	Relevant actions from the Lithgow Land Use Strategy will be implemented through the new Lithgow Local Environmental Plan 2014.	Relevant actions from the Lithgow Land Use Strategy will be implemented through the new Lithgow Local Environmental Plan 2014.
Identify and develop new plans and strategies in lines with the community's needs.		The preparation of an Aboriginal Heritage Study to identify, conserve and protect items of aboriginal heritage was deferred.	The Heritage Development Control Plan Study was used to inform assessment of development applications within the Heritage Conservation areas.	Adoption of Comprehensive Development Control Plan has been interrupted due to staff resources being allocated to higher priority projects. The completion of the Development Control Plan is now scheduled for 2017.



# People & Communities

## **Caring for our Community**

# Planning and providing quality community and recreational facilities and services for a healthy, vibrant and harmonious community.

#### 1.1.1 Planning our Community

To provide social and cultural planning that will lead to the enhancement of the quality of life of the community.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Review and monitor current plans and strategies.	<ul> <li>Updated the community profile and atlas on the website.</li> <li>Crime prevention through environmental design principals for Development Control Plans and design/upgrade of public space safety audits conducted.</li> </ul>	<ul> <li>The Disability Access Plan was adopted by Council for public exhibition and implementation commenced.</li> </ul>	<ul> <li>The Disability Access Plan, the Ageing Strategy and the Crime Prevention Plan were implemented.</li> </ul>	<ul> <li>The Disability Access Plan, the Ageing Strategy and the Crime Prevention Plan were implemented.</li> <li>Reviewing and updating the Disability Action Plan as part of the Integrated Planning and Reporting Framework as required by legislation has been deferred to 2016/17.</li> </ul>
Identify and develop new plans and strategies in lines with the community's needs	<ul> <li>Comprehensive Tobacco Control Policy completed.</li> <li>Disaster Management Plan for Eskbank House &amp; Museum completed.</li> <li>Community survey of Capertee and surrounds undertaken for the development of the Capertee Village Enhancement Plan.</li> <li>Youth Strategy developed.</li> </ul>	<ul> <li>A Draft Disaster Management Plan was created for Eskbank House. Security fencing and external lighting were installed. A Development Application to improve the roofing and guttering was approved as per the plan.</li> <li>Village Improvements Plans developed and adopted by Council. The Capertee Village Enhancement Plan was completed and work commenced on the Rydal Village Enhancement Plan due for completion in the first quarter 2014/15.</li> <li>Develop of a Youth Strategy</li> </ul>	<ul> <li>Village Improvements Plans developed and adopted by the Executive Management Team. Council completed the Capertee Village Improvement Plan and developed the draft Rydal Village Improvement Plan during the year. Work was substantially completed on the Hartley Village Improvement Plan.</li> <li>The Cultural Development Officer worked with Lithgow Tidy Towns to create a permanent Laneways Public Art Strategy.</li> <li>The Draft Youth Strategy and Action Plan was completed to be placed on public exhibition for comment.</li> </ul>	<ul> <li>Village Improvements Plans developed and adopted by the Executive Management Team - Hartley, Tarana/ Sodwalls and Cullen Bullen plans developed ready for EMT endorsement.</li> <li>During the year a draft Cultural Precinct Public Art Strategy was developed for adoption in 2016/17.</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
		<ul> <li>commenced, including a survey across all high schools, in order to provide a framework for Council's direction on engaging, supporting and working with young people, their families, the broader community and the youth sector.</li> <li>Commenced development of a Family Friendly Community Strategy.</li> </ul>	Council completed the Draft Family Friendly Strategy during the year which aims to assist Council in supporting the development of a growing, dynamic, prosperous and inclusive future for Lithgow.	

#### 1.2.1 Aboriginal, Cultural and Linguistically Diverse Communities To support people from Aboriginal and CALD communities.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
To provide support to the activities of the local aboriginal organisations and CALD community.	<ul> <li>Assisted with the review and site considerations of Black Fellows Hands Management Plan.</li> <li>Supported and assisted with NAIDOC Week activities.</li> <li>4 Aboriginal Cultural Workshops         <ul> <li>Way Forward thru Stories.</li> <li>Assistance with grant applications to local Aboriginal Groups.</li> <li>Support for Harmony Day musical events at the Crystal Theatre.</li> <li>Naturalisation Ceremonies conducted throughout the year.</li> </ul> </li> </ul>	<ul> <li>Supported and assisted with NAIDOC Week activities.</li> <li>Support for Harmony Day celebrations at LINC.</li> <li>The Community Development Officer worked with a variety of local multicultural groups to support and promote activities for the CALD community.</li> <li>Work was undertaken on a study, jointly funded by Council and the Migration Heritage Centre on migration trends to Lithgow and the social history of migrants.</li> <li>Creation of a Multicultural Meeting space for the local community.</li> <li>Naturalisation Ceremonies conducted throughout the year.</li> </ul>	<ul> <li>Supported and assisted with NAIDOC Week activities.</li> <li>Support for Harmony Day musical events at the Library.</li> <li>Naturalisation Ceremonies conducted throughout the year.</li> <li>The Community Development Officer attended all the Mingaan Aboriginal Corporation meetings for the year.</li> </ul>	<ul> <li>Supported and assisted with NAIDOC Week activities.</li> <li>The Community Development Officer attended all the Mingaan Aboriginal Corporation meetings for the 2015/16 financial year.</li> <li>Support for Harmony Day musical events at the Library.</li> <li>Naturalisation Ceremonies conducted throughout the year.</li> </ul>

1.2.1 Ageing Population To respond to the needs of an ageing population.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Number of actions successfully implemented from the Ageing Strategy.	<ul> <li>Held Grandparents Day</li> <li>Assisted the Senior Citizens Group to relocate from the Hoskins Building.</li> <li>Installed outdoor gym equipment at Queen Elizabeth Park.</li> <li>Held and Ageing Expo.</li> </ul>	<ul> <li>Held an ageing expo during Seniors Week.</li> <li>Installed outdoor gym equipment at Lake Wallace, Wallerawang.</li> <li>Held Grandparents Day.</li> <li>Held Volunteers Day.</li> </ul>	<ul> <li>Seniors Week was celebrated in Lithgow and included a variety of free activities which provided seniors with networks. Increased their health and wellbeing, learnt new skills and connected with relevant information and services.</li> </ul>	<ul> <li>Coordinated activities to celebrate Seniors Week- The 2016 Seniors Festival was held from 4 - 8 April 2016 and was well attended, with over 100 seniors participating in various activities Most of the activities available were free or low cost, and included:</li> <li>Aboriginal art workshops</li> <li>Mah-jong</li> <li>Gorrie Ban food and entertainment</li> <li>Guided wildflower walks</li> <li>Mindfulness colouring workshops</li> <li>Aqua aerobics classes</li> <li>Tours and afternoon teas at Eskbank House &amp; Museum</li> <li>Yoga classes</li> <li>The Tailspinners Show</li> <li>Acting classes,</li> <li>Technology and information sessions.</li> <li>Conducted the Mayors Appeal to provide residents in Local Nursing Homes with Christmas Gifts.</li> <li>Held Grandparents Day</li> </ul>

#### 1.2.4 Children and Families

To develop the Lithgow LGA as a Family Friendly Community.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Develop and promote activities for children and families in the Lithgow LGA.	Participated in the Child Protection Interagency to develop and promote activities for children and families.	<ul> <li>Participated in the Child Protection Interagency to develop and promote activities for children and families such workshops, training and Family Fun Days.</li> <li>Two, free Wizard of Oz Christmas Shows were conducted at the Civic Ballroom and Crystal Theatre. They were attended by several hundred families.</li> </ul>	<ul> <li>Participated in the Child Protection Interagency to develop and promote activities for children and families such as Family Fun Days.</li> <li>A Children's Expo was held.</li> <li>Two major events were held at Eskbank House – A Zombie Fashion Parade and a Roaring Twenties Garden Party.</li> <li>Eskbank House hosted Waste2Art Workshops for school children.</li> <li>The Halloween Block Party – showcasing local creative artist, installations, workshops at Eskbank House of Scarecrow Making and Zombie Special Effects were held to create installations and build creative skills amongst Lithgow's youth.</li> <li>The inaugural Lithgow Skulls Exhibition and auction was also held in the precinct during this time.</li> <li>LithGlo 2014 was held over three nights at Hoskins Church in December to promote Christmas.</li> </ul>	<ul> <li>Participated in the Child Protection Interagency to develop and promote activities for children and families such as Family Fun Days.</li> <li>During the year a number of programs and events were held in the Cultural Precinct including: Lithgow Halloween Festival, Mother's Day Street of Flowers was held in Main Street.</li> <li>At Eskbank House there were five Council events, a season of children's picnic plays by Blast Furnace Theatre, two classical music concerts and three ghost hunts.</li> </ul>

#### 1.2.5 Community Information

To increase community awareness of local services and facilities.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Facilitate improvements to networking and communication between agencies and with the community.	<ul> <li>Ensured the community noticeboards in Cook Street Plaza and the Library are updated weekly.</li> <li>Provided an online Community and Children's Directory www.community.lithgo w.com</li> <li>Finalised transition to digital only television.</li> </ul>	<ul> <li>Ensured the community noticeboards in Cook Street Plaza and the Library are updated weekly.</li> <li>Provided an online Community and Children's Directory <u>www.community.lithgo</u> <u>w.com</u></li> </ul>	<ul> <li>Ensured the community noticeboards in Cook Street Plaza and the Library are updated weekly.</li> <li>Provided an online Community and Children's Directory <u>www.community.lithgo</u> <u>w.com</u></li> </ul>	<ul> <li>Ensured the community noticeboards in Cook Street Plaza and the Library are updated weekly.</li> <li>Provided an online Community and Children's Directory (updated during 4<sup>th</sup> quarter) www.community.lithgo w.com</li> <li>Magnets have also been printed and distributed at Community Interagency meetings and other events, such as the Portland Family Fun Day and Child Protection Week 2016.</li> </ul>

#### 1.2.6 Community Support

To encourage equitable access to services and facilities..

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016	
Provide support to community organisations through Council's financial assistance program.	Council allocates funding to provide financial assistance to community groups annually through its recurrent and non-recurrent financial assistance program.	Council allocates funding to provide financial assistance to community groups annually through its recurrent and non-recurrent financial assistance program.	Council allocates funding to provide financial assistance to community groups annually through its recurrent and non-recurrent financial assistance program.	nunity financial assistance to community recurrent groups annually through its recurrent	
Lobby Governments for equitable access to public transport, health, education, housing, recreational and other essential	<ul> <li>Census data is used by Council to produce demographic profiles of geographic areas and population groups for use in Council funding submissions, strategies and plans.</li> <li>The community profile and atlas</li> </ul>	<ul> <li>Census data is used by Council to produce demographic profiles of geographic areas and population groups for use in Council funding submissions, strategies and plans.</li> <li>The community profile and atlas</li> </ul>	<ul> <li>Census data is used by Council to produce demographic profiles of geographic areas and population groups for use in Council funding submissions, strategies and plans.</li> <li>The community profile and atlas</li> </ul>	<ul> <li>Census data is used by Council to produce demographic profiles of geographic areas and population groups for use in Council funding submissions, strategies and plans.</li> <li>The community profile and atlas</li> </ul>	

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
community services projects. Promote and support Men's Shed projects and programs.	is available on Council's website for community use. Council promoted and supported Men's Shed Program through the provision of the South Littleton Hall.	<ul> <li>is available on Council's website for community use.</li> <li>\$50,000 was allocated to the Men's Shed for shed renovation of the Old Swimming Pool Entrance and Kiosk.</li> </ul>	is available on Council's website for community use. • Community Development Officer attended meetings and continued support of the Lithgow and Portland Men's Shed Groups as required.	<ul> <li>is available on Council's website for community use.</li> <li>Community Development Officer attended meetings and continued support of the Lithgow and Portland Men's Shed Groups as required.</li> <li>A meeting in was attended during the 4th quarter with the Wallerawang Progress Association regarding development of a Wallerawang Men's Shed.</li> </ul>

1.2.6 Community Support To provide learning opportunities and quality llibrary facilities which meet the needs of the community.

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Operate the Lithgow Library Learning Centre, Portland, Rydal and Wallerawang Libraries.	<ul> <li>Maintained membership of the Australian Learning Community Network.</li> <li>Provided outreach programs for housebound and isolated residents (Home Library Service) with the LGA by appointment of a temporary Home Library Officer.</li> <li>Conducted 13 exhibitions and hosted 16 displays.</li> <li>Continued to develop the Local History collection through digitisation and indexing.</li> <li>Provide quality community programs that offer educational and social opportunities for all members of the community including:</li> <li>Book Club meetings.</li> </ul>	<ul> <li>Maintained membership of the Australian Learning Community Network and joined PASCAL, an international learning community's network.</li> <li>The Home Library Service continued.</li> <li>Conducted 12 exhibitions and hosted 3 displays and 3 travelling exhibitions.</li> <li>Improved storage and access to the Local Studies Collection.</li> <li>Became part of the Open Universities Australia Network to assist OUA's students living locally.</li> <li>Refurbished the Young Adult area with modern furnishings.</li> <li>Provide quality community</li> </ul>	<ul> <li>Maintained membership of the Australian Learning Community Network and PASCAL.</li> <li>The Home Library Service continued</li> <li>Conducted 3 art exhibitions, Local History Displays, 3 History Week Events, 3 Window Displays for Council Events, 4 Local Schools Network Meetings, joint programs with TAFE and local schools.</li> <li>Continued to develop the Local History collection through digitisation and indexing.</li> <li>Provide quality community programs that offer educational and social opportunities for all members of the community</li> </ul>	<ul> <li>Maintained membership of the Australian Learning Community Network and PASCAL.</li> <li>The Home Library Service continued</li> <li>The Library is a valued exhibition space in the community. A range of quality displays and exhibitions were conducted this year including: Art exhibitions</li> <li>Exhibition of John Wellings Award Entries</li> <li>Art from the Bilibid Prison, Philippines</li> <li>LINC promoting International Day of People with Disabilities</li> <li>Halloween Skulls Exhibition</li> <li>Exhibitions by local artists: Louisa</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
	<ul> <li>External university exam supervision.</li> <li>Thursday Knitters</li> <li>School holiday programs</li> <li>Weekly Storytime activities</li> <li>Regular Lithgow Orchestra Concerts.</li> </ul>	<ul> <li>programs that offer educational and social opportunities for all members of the community including: <ul> <li>Adult and Youth Book Club meetings.</li> <li>Friends of the Lithgow Library Learning Centre Meetings</li> <li>External university exam supervision.</li> <li>Thursday Knitters</li> <li>School holiday programs at Lithgow, Wallerawang and Portland.</li> <li>Weekly Storytime activities</li> </ul> </li> <li>Regular Lithgow Orchestra Concerts.</li> <li>Book launches</li> <li>Tea and Talk sessions.</li> </ul>	<ul> <li>including:</li> <li>Thursday Knitters</li> <li>School holiday programs at Lithgow, Wallerawang and Portland.</li> <li>Established a weekly Young Writers and Authors/Writing Groups.</li> <li>Weekly Storytime activities</li> <li>Visits to local Pre-Schools by Children's Library Officer.</li> </ul>	Guerin, Peter Floyd and Tom Sheather Local History Displays A Family History Exhibition History Week Exhibition Displays eBook Launch School Holiday Programmes New resources Remembrance Day Christmas Halloween LEGO works created by children Inns and Coach House by Sharon Cross Tea Cups

#### 1.2.10 Safety To facilitate a safet community .

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Implement the Crime Prevention Plan.	<ul> <li>Maintained street lighting.</li> <li>Removed graffiti from public places and liaised with Police.</li> <li>Participated in the Local Liquor Accord.</li> <li>Conducted regular meetings of the Crime Prevention Committee.</li> <li>Implemented the Crime Prevention Grant for late night transport to address assault and malicious damage.</li> </ul>	<ul> <li>Maintained street lighting.</li> <li>Removed graffiti from public places and liaised with Police.</li> <li>Participated in the Local Liquor Accord.</li> <li>Conducted regular meetings of the Crime Prevention Committee.</li> <li>Participated and supported the Child Protection Interagency and Domestic Violence Liaison Committee.</li> </ul>	<ul> <li>Maintained street lighting.</li> <li>Removed graffiti from public places and liaised with Police.</li> <li>Participated in the Local Liquor Accord.</li> <li>The Crime Prevention Committee met throughout the year to consider local crime statistics and crime prevention initiatives. Local crime statistics showed that rates of general assault fell, rates</li> </ul>	<ul> <li>Maintained street lighting. Removed graffiti from public places and liaised with Police.</li> <li>Crime Prevention Design Principles to be incorporated into the Main Street Revitalisation Program.</li> <li>CCTV network maintained. A New camera was installed in Cook St Plaza.</li> <li>Council continues to facilitate a</li> </ul>

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
	<ul> <li>Participated and supported the Child Protection Interagency and Domestic Violence Liaison Committee.</li> <li>Addressed violence against women in the community through the Lithgow CARES Program.</li> <li>Provided CCTV monitoring in the Lithgow CBD.</li> <li>Participated in emergency services committees including the Bushfire Advisory Committee and Local Emergency Management Committee.</li> <li>Provided annual and discretionary contributions to the NSW rural Fire Service and fulfilled responsibilities under the Memorandum of Understanding.</li> <li>Impounded 11 abandoned articles from public places in accordance with the Impounding Act.</li> </ul>	<ul> <li>Addressed violence against women in the community through the provision of financial assistance for White Ribbon Day.</li> <li>Commenced a rolling program of upgrading and digitising CCTV monitoring in the Lithgow CBD.</li> <li>Participated in emergency services committees including the Bushfire Advisory Committee and Local Emergency Management Committee.</li> <li>Provided annual and discretionary contributions to the NSW rural Fire Service and fulfilled responsibilities under the Memorandum of Understanding.</li> <li>Impounded abandoned articles from public places in accordance with the Impounding Act.</li> <li>Crime Prevention through environment design principals are being incorporated into the Main Street Revitalisation Program.</li> </ul>	<ul> <li>of domestic violence related assault were stable and rates of malicious damage to property were down</li> <li>Participated and supported the Child Protection Interagency and Domestic Violence Liaison Committee.</li> <li>Assistance provided to conduct International Women's Day activities.</li> <li>Continued upgrading and digitising CCTV monitoring in the Lithgow CBD.</li> <li>Participated in emergency services committees including the Bushfire Advisory Committee and Local Emergency Management Committee.</li> <li>Provided annual and discretionary contributions to the NSW rural Fire Service and fulfilled responsibilities under the Memorandum of Understanding.</li> <li>Impounded abandoned articles from public places in accordance with the Impounding Act.</li> <li>Crime Prevention through environment design principals are being incorporated into the Main Street Revitalisation Program.</li> </ul>	<ul> <li>safe community in public places through the removal and impounding of abandoned articles including vehicles in accordance with the Impounding Act. 35 abandoned articles impounded.</li> <li>Four meetings of the crime Prevention Committee were held during the year.</li> <li>The Community Development Officer promoted activities related to raising awareness about domestic violence including providing assistance with White Ribbon Day and other awareness programs through promotion and funding.</li> <li>Council's Community and Cultural Development Officers partnered with Lithgow Community Projects to organise an exhibition of women's art for International Women's Day 2016. Held at Eskbank House Museum, the exhibition ran for three weeks during March 2016 and showcased the diverse talents and innovative skills that women possess.</li> </ul>

#### 1.2.12 Youth

To improve the quality of life of the LGA's youth

Strategic Plan Reference	Outcomes 2012-2013	Outcomes 2013-2014	Outcomes 2014-2015	Outcomes 2015-2016
Implement the social and cultural plans.	<ul> <li>Continued to support Lithgow Youth Council to provide a voice for youth people to Council via 8 meetings held throughout the year.</li> <li>The Youth Council held the annual Youth Week event at the Skate Park.</li> <li>Developed a Sports/Cultural Scholarship for youth from low income/disadvantaged families in conjunction with the PCYC.</li> </ul>	<ul> <li>Continued to support Lithgow Youth Council to provide a voice for youth people to Council via 8 meetings held throughout the year.</li> <li>The Community Development Officer worked with the Youth Council to provide input into the development of recreational facilities that meet their needs such as the Youth Space at the Lithgow Library Learning Centre.</li> <li>The Homework Zone operated 4 afternoons per week during school term.</li> <li>The Youth Council held the annual Youth Week event at the Skate Park.</li> <li>The Youth Council worked with local high schools and Lithgow PCYC to provide a scholarship program for disadvantaged youth. The scholarship was offered to 16 young people.</li> </ul>	<ul> <li>Continued to support Lithgow Youth Council to provide a voice for youth people to Council via 8 meetings held throughout the year.</li> <li>A Skate Park event with BMX and Scooter professionals providing demonstrations and coaching, and free BBQ was held for Youth Week.</li> <li>An online photography competition to celebrate Youth Week 2015 invited young people from the Lithgow LGA to submit photos of "What Youth Week in the local area means to them".</li> <li>2 major events were held at Eskbank House – A Zombie Fashion Parade and A Roaring Twenties Garden Party.</li> <li>The Halloween Block Party – showcasing local creative artists, installations, workshops at Eskbank House of Scarecrow Making and Zombie Special Effects were held to create installations and build creative skills amongst Lithgow Youth.</li> <li>Implemented a Sports/Cultural Scholarship for youth from low income/disadvantaged families in conjunction with the PCYC.</li> </ul>	<ul> <li>Continued to support Lithgow Youth Council to provide a voice for youth people to Council via 10 meetings held throughout the year.</li> <li>A Battle of the Bands event was held at the Union Theatre for Youth Week in April 2016 and Youth Council discussed ideas for further events in the future.</li> <li>The Youth Services Network has ceased meeting due to a lack of attendance from other local service providers.</li> <li>Homework Zone to operate 3 days per week during school term.</li> <li>6 Youth Council PCYC Scholarships have been allocated during the year.</li> </ul>

# Appendix 2

**Threatened Species Listings** 

#### Plants-listed threatened, vulnerable or endangered

Species Scientific Name	Species Common Name	TSC Act status (NSW)	EPBC Act status (Aust.)	SoS Management Stream	Management Site Name (Site-managed species)
Acacia flocktoniae	Flockton Wattle	Vulnerable	Vulnerable	Site-managed	
Asterolasia buxifolia	Asterolasia buxifolia	Endangered	not listed	Site-managed	Hyde Park
Boronia deanei	Deane's Boronia	Vulnerable	Vulnerable	Site-managed	Newnes Plateau
Darwinia peduncularis	Darwinia peduncularis	Vulnerable	not listed	Site-managed	Wollemi
Derwentia blakelyi	Derwentia blakelyi	Vulnerable	not listed	Site-managed	Newnes - Wolgan
Eucalyptus aggregata	Black Gum	Vulnerable	not listed	Site-managed	Coxs River area
Eucalyptus cannonii	Capertee Stringybark	Vulnerable	not listed	Site-managed	Capertee Valley & surrounds
Eucalyptus pulverulenta	Silver-leafed Gum	Vulnerable	Vulnerable	Site-managed	
Genoplesium superbum	Superb Midge Orchid	Endangered	not listed	Site-managed	
Grevillea obtusiflora	Grevillea obtusiflora	Endangered	Endangered	Site-managed	Port Macquarie Rd
Haloragodendron lucasii		Endangered	Endangered	Site-managed	
Leucopogon fletcheri subsp. fletcheri		Endangered	not listed	Site-managed	
Melaleuca biconvexa	Biconvex Paperbark	Vulnerable	Vulnerable	Site-managed	
Olearia cordata	Olearia cordata	Vulnerable	Vulnerable	Site-managed	Greater Yengo
Persoonia acerosa	Needle Geebung	Vulnerable	Vulnerable	Site-managed	
Persoonia hindii	Persoonia hindii	Endangered	not listed	Site-managed	Newnes Plateau
Persoonia hirsuta	Hairy Geebung	Endangered	Endangered	Site-managed	
Persoonia marginata	Clandulla Geebung	Vulnerable	Vulnerable	Site-managed	
Phebalium bifidum	Phebalium bifidum	Endangered	not listed	Site-managed	South Capertee River
Phebalium bifidum	Phebalium bifidum	Endangered	not listed	Site-managed	Sapling Flat
Phebalium bifidum	Phebalium bifidum	Endangered	not listed	Site-managed	Port Macquarie Road
Phebalium bifidum	Phebalium bifidum	Endangered	not listed	Site-managed	Survey Site
Pomaderris brunnea	Brown Pomaderris	Endangered	Vulnerable	Site-managed	
Prostanthera stricta	Mount Vincent Mint-bush	Vulnerable	Vulnerable	Site-managed	Genowlan Mountain
Prostanthera stricta	Mount Vincent Mint-bush	Vulnerable	Vulnerable	Site-managed	Mount Vincent
Pultenaea glabra	Smooth Bush-Pea	Vulnerable	Vulnerable	Site-managed	
Pultenaea sp. Genowlan Point	Pultenaea sp. Genowlan Point	Critically Endangered	Critically Endangered	Site-managed	Genowlan Point
Lastreopsis hispida	Bristly Shield Fern	Endangered	not listed	Partnership	
Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	not listed	Landscape	
Dillwynia tenuifolia		Vulnerable	not listed	Keep-watch	

Grammitis stenophylla	Narrow-leaf Finger Fern	Endangered	not listed	Keep-watch
Grevillea evansiana	Evans Grevillea	Vulnerable	Vulnerable	Keep-watch
Leionema sympetalum Prostanthera cryptandroides subsp.	Rylstone Bell	Vulnerable	Vulnerable	Keep-watch
cryptandroides	Wollemi Mint-bush	Vulnerable	Vulnerable	Keep-watch
Thesium australe	Austral Toadflax	Vulnerable	Vulnerable	Keep-watch
Acacia bynoeana	Bynoe's Wattle	Endangered	Vulnerable	Data-deficient
Caesia parviflora var. minor	Small Pale Grass-lily	Endangered	not listed	Data-deficient
Callistemon linearifolius	Netted Bottle Brush	Vulnerable	not listed	Data-deficient
Pultenaea sp. Olinda		Endangered	not listed	Data-deficient

#### Animals - listed threatened, vulnerable or endangered

			EPBC Act status	SoS Management	Management Site Name
Species Scientific Name	Species Common Name	TSC Act status (NSW)	(Aust.)	Stream	(Site-managed species)
Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Endangered	Site-managed	Capertee Valley
Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	not listed	Site-managed	
Hoplocephalus bungaroides	Broad-headed Snake	Endangered	Vulnerable	Site-managed	
Litoria booroolongensis	Booroolong Frog	Endangered	Endangered	Site-managed	
Litoria raniformis	Southern Bell Frog	Endangered	Vulnerable	Site-managed	
Miniopterus australis	Little Bentwing-bat	Vulnerable	not listed	Site-managed	
Miniopterus schreibersii oceanensis	Eastern Bentwing-bat	Vulnerable	not listed	Site-managed	Hibernacular sites
Paralucia spinifera	Bathurst Copper Butterfly	Endangered	Vulnerable	Site-managed	Remaining sites in the region
Paralucia spinifera	Bathurst Copper Butterfly	Endangered	Vulnerable	Site-managed	Lithgow footslopes
Aepyprymnus rufescens	Rufous Bettong	Vulnerable	not listed	Landscape	
Burhinus grallarius	Bush Stone-curlew	Endangered	not listed	Landscape	
Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	not listed	Landscape	
Carterornis leucotis	White-eared Monarch	Vulnerable	not listed	Landscape	
Cercartetus nanus	Eastern Pygmy-possum	Vulnerable	not listed	Landscape	
Chthonicola sagittata	Speckled Warbler	Vulnerable	not listed	Landscape	
Circus assimilis	Spotted Harrier	Vulnerable	not listed	Landscape	
Daphoenositta chrysoptera	Varied Sittella	Vulnerable	not listed	Landscape	
Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Endangered	Landscape	
Epthianura albifrons	White-fronted Chat	Vulnerable	not listed	Landscape	
Eulamprus leuraensis	Blue Mountains Water skink	Endangered	Endangered	Landscape	
Falco subniger	Black Falcon	Vulnerable	not listed	Landscape	
Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	not listed	Landscape	
Glossopsitta pusilla	Little Lorikeet	Vulnerable	not listed	Landscape	
Grantiella picta	Painted Honeyeater	Vulnerable	not listed	Landscape	
Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Vulnerable	Landscape	
Hieraaetus morphnoides	Little Eagle	Vulnerable	not listed	Landscape	
Ixobrychus flavicollis	Black Bittern	Vulnerable	not listed	Landscape	
Lathamus discolor	Swift Parrot	Endangered	Endangered	Landscape	
Litoria littlejohni	Littlejohn's Tree Frog	Vulnerable	Vulnerable	Landscape	
Lophoictinia isura	Square-tailed Kite	Vulnerable	not listed	Landscape	

			EPBC Act status	SoS Management	Management Site Name
Species Scientific Name	Species Common Name	TSC Act status (NSW)	(Aust.)	Stream	(Site-managed species)
Melanodryas cucullata cucullata	Hooded Robin (south-eastern form) Black-chinned Honeyeater (eastern	Vulnerable	not listed	Landscape	
Melithreptus gularis gularis	subspecies)	Vulnerable	not listed	Landscape	
Mixophyes balbus	Stuttering Frog	Endangered	Vulnerable	Landscape	
Myotis macropus	Southern Myotis	Vulnerable	not listed	Landscape	
Neophema pulchella	Turquoise Parrot	Vulnerable	not listed	Landscape	
Ninox connivens	Barking Owl	Vulnerable	not listed	Landscape	
Ninox strenua	Powerful Owl	Vulnerable	not listed	Landscape	
Oxyura australis	Blue-billed Duck	Vulnerable	not listed	Landscape	
Pachycephala inornata	Gilbert's Whistler	Vulnerable	not listed	Landscape	
Petalura gigantea	Giant Dragonfly	Endangered	not listed	Landscape	
Petaurus australis	Yellow-bellied Glider	Vulnerable	not listed	Landscape	
Petaurus norfolcensis	Squirrel Glider	Vulnerable	not listed	Landscape	
Petroica boodang	Scarlet Robin	Vulnerable	not listed	Landscape	
Petroica phoenicea	Flame Robin	Vulnerable	not listed	Landscape	
Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable	not listed	Landscape	
Pseudophryne australis	Red-crowned Toadlet	Vulnerable	not listed	Landscape	
Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Vulnerable	Landscape	
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	not listed	Landscape	
Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	not listed	Landscape	
Stagonopleura guttata	Diamond Firetail	Vulnerable	not listed	Landscape	
Stictonetta naevosa	Freckled Duck	Vulnerable	not listed	Landscape	
Tyto novaehollandiae	Masked Owl	Vulnerable	not listed	Landscape	
Tyto tenebricosa	Sooty Owl	Vulnerable	not listed	Landscape	
Varanus rosenbergi	Rosenberg's Goanna	Vulnerable	not listed	Landscape	
Vespadelus troughtoni	Eastern Cave Bat	Vulnerable	not listed	Landscape	
Petrogale penicillata	Brush-tailed Rock-wallaby	Endangered	Vulnerable	lconic	
Phascolarctos cinereus	Koala	Vulnerable	Vulnerable	lconic	
Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Vulnerable	Data-deficient	
Dasyurus viverrinus	Eastern Quoll	Endangered	not listed	Data-deficient	
Litoria aurea	Green and Golden Bell Frog	Endangered	Vulnerable	Data-deficient	
Mormopterus norfolkensis	Eastern Freetail-bat	Vulnerable	not listed	Data-deficient	