



DUNGOG SHIRE COUNCIL END OF TERM STATE OF THE ENVIRONMENT REPORT 2012/2017



DUNGOG SHIRE COUNCIL – END OF TERM STATE OF THE ENVIRONMENT REPORT 2012/2017

INTRODUCTION

STATE OF THE ENVIRONMENT REPORTING

The NSW Local Government Act 1993 (Section 428A) requires all NSW Councils to produce a State of the Environment Report as part of the annual report of a Council in the year in which an ordinary election of Councillors is to be held.

Whilst an end of term report for the period 2012-16 was presented to and endorsed by Council at its meeting in August 2016 this report has been prepared having regard to Dungog Shire Council elections being deferred for a period of 12 months (to September 2017) due to the NSW Local Government Reform process and is to be read in conjunction with a supplementary end of term report which recognises the additional year of the council term.

The end of term State of the Environment Report must clarify the state of the environment in the Local Government area in relation to such issues as may be relevant to the objectives for the environment established by the Community Strategic Plan and forms part of Councils Integrated Planning and Reporting obligations. The Integrated Planning and Reporting process is described in section 406 of the Local Government Act and in guidelines published by the NSW Office of Local Government.

The most recent State of the Environment Report for Dungog Shire was produced for the period 2011-12 at the end of the previous Council term and at the commencement of the Integrated Planning and Reporting process which removed the necessity for stand alone State of the Environment Reports to be prepared on an annual basis. Progress on the environmental objectives of the Community Strategic Plan are reported to Council in the annual report each year.

This end of term State of the Environment Report summarises information about the condition of the environment, pressures the environment is subject to and measures taken, as prescribed in Councils Community Strategic Plan, to alleviate those pressures. It outlines what is being done to address adverse impacts and whether those actions are successful in delivering results.

This report is structured into key environmental sectors relevant to environmental reporting.

These are:

- LAND
- AIR
- WATER
- BIODIVERSITY
- NOISE
- WASTE
- HERITAGE
- CLIMATE CHANGE

For each sector the report provides:

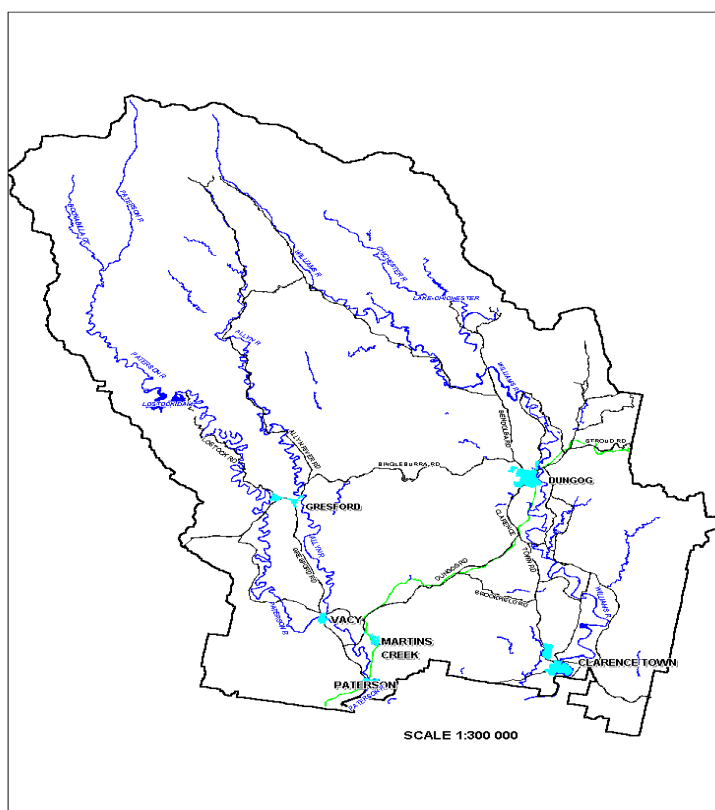
1. A local setting for each of the identified environmental sectors.
2. A list of pressures that can impact on these sectors.
3. Available indicators that provide a measure of potential pressures or the changing condition of that sector.
4. A list of ongoing programs and a list of new initiatives by Council to improve conditions in that sector of the environment.
5. Alignment with the Strategy's of Council's Community Strategic Plan

Note: Other authorities and community based groups carry out significant environmental work in the Shire. This report considers the relationship between Councils Community Strategic Plan and environmental management and as such focuses generally on Council based initiatives.

AN OVERVIEW OF THE SHIRE OF DUNGOG

The Shire of Dungog is part of the Hunter Region and the Lower Hunter Sub-Region. The boundaries are Mid-Coast Council (east/north), Singleton Shire (west), Upper Hunter Shire (northwest), and Port Stephens Shire and the City of Maitland to the (south). The Administration centre is located at Dungog, which is 50km by road from Maitland, 80km from Newcastle and 230km from Sydney.

Dungog Shire has an area of 2249 square km and extends from alluvial flats and undulating country in the south to mountainous and rugged terrain in the north, where LGA is bordered by the Great Dividing Range via the Barrington Tops Ranges and Escarpment.



MAP OF THE DUNGOG LOCAL GOVERNMENT AREA

Topography of the Shire is controlled by three river valleys - to the east the Williams River and to the west the Allyn and Paterson Rivers. The Williams and Paterson are major tributaries of the Hunter River. In its upper reaches the Williams River splits into the upper Williams, the Chichester, and the Wangat Rivers, whilst the Paterson River meets the Allyn River at the village of Vacy.

The land rises from rolling to hilly country at an altitude of about 30 metres in the south, to the rugged Barrington Tops at an altitude of about 1500metres in the north.

The Dungog Local Government Area has a population of approximately 9195 people (ABS 2015), with concentrations in the four major settlements of Dungog, Clarence Town, Gresford (including East Gresford) and Paterson.

1. LAND

The Paterson/Allyn Valleys and the Clarence Town/Dungog hills having been extensively cleared are used for dairy farming along the lower reaches and for beef production in steeper areas. Occasionally beef and horse studs may occur. Forestry operations are concentrated in the north but are not as widespread throughout the Shire as they once were. Increasingly rural residential and hobby farms are occupying traditional grazing areas. Tourism is also increasing.

Dungog LGA is predominantly an agricultural area however; State Forests and National Parks make up a total of 17.8% of the Shire. 8% of the Shire is described as having woody vegetation cover. (See table 1/1). The woody vegetation cover in Dungog Shire is the same as the average vegetation woody vegetation cover across the Hunter and Central Coast region.

The main identified pressures on land come through urban and rural development, agriculture and land clearing. The key land degradation issues in Dungog Shire are:

- Land Clearing and Vegetation removal
- Soil Erosion
- Contaminated land
- Acid Sulphate soils
- On-site sewage management systems
- Noxious Weeds
- Flooding

Table 1/1: Percentage of Woody Vegetation cover for each Local Government Area in the Hunter/Central Coast

LGA	Area (ha)	Woody Vegetation (ha)	Woody Vegetation (%)
Central Coast	184511	19514	11%
Cessnock	196468	21955	11%
Dungog	224901	18043	8%
Lake Macquarie	75716	6775	9%
Maitland	39249	769	2%
Mid Coast	1005243	101784	10%
Muswellbrook	340635	27176	8%
Newcastle	21508	712	3%
Port Stephens	97309	6053	6%
Singleton	489335	44238	9%
Upper Hunter	809925	37354	5%
Total Area (ha)	3484802		
Total Woody Vegetation (ha)	284374		
Total Woody Vegetation (%)	8%		

Woody Vegetation Coverage in the Hunter, Central Coast Region. Figures derived from the OEH NSW Woody Vegetation Extent 2011.

INDICATORS

- 190 development applications and 66 applications for new on-site sewage management systems were received in 2016/17 (see figures 1/1,1/2,1/3,1/4)
- 2550 approvals to operate were issued for existing and new On-site sewage Management Systems in 2016/17. This is a reduction from 2012 due to the connection of properties to sewer at Clarence Town.

- There are 95 potentially contaminated sites currently on Council's Contaminated Land Database.

COUNCILS RESPONSE

Continuing Programs

- Implementation of policies and regulations when considering all development in the Shire, including Dungog Local Environment Plan 2014, Shire Wide Development Control Plan, various State Environmental Planning Policies, The Native Vegetation Act 2003, Water Management Act 2000, Threatened Species Act, Contaminated Land Management Act, Biodiversity Act , Protection Of the Environment Operations Act etc.
- Support for various Landcare and other community based groups working on weed, erosion control and revegetation projects within the Shire
- Ongoing inspection program for all onsite sewage management systems in the Shire.
- Biodiversity DCP chapter in place
- Roadside Environment Management Plan.
- Participation in Clean up Australia day with 23.1 tonnes collected by community based groups over period.
- Participation in National Tree Day with 1400 trees distributed and planted by the community during the period.

Achievements during 2012/2017

- Partnership with Port Stephens Council and Hunter Water in the Septic Tank Inspection and Rectification Project. Since commencement in 2014 the program has seen 1113 inspections carried out on septic systems within the drinking catchments by the Specialist SIRP officer.
- Review of Onsite Sewage Management Policy and adoption of Development Assessment Framework and Technical manual to consistently guide the design and installation of OSSMS.
- Approx 500 Roadside markers installed at 131 environmentally significant roadside sites in Shire
- Completion of Redundant Underground Petroleum Storage System(UPSS) Pilot program with \$200K grant provided by NSW EPA to remove 4 UPSS in Dowling street Dungog.
- Environmental health and Waste Management support provided after April 2015 superstorm event including the provision of free bulky waste and green waste collections.
- Partnership with Department of Primary Industries/Crown lands/EPA in the Clean up of Myall Creek and Abbots Flat after the April 2015 superstorm, a project costing \$500K.

COMMUNITY STRATEGIC PLAN ALIGNMENT

Natural Environment

Strategy 2: Raise public awareness of the responsibilities of landholders regarding management of land

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
2.1	Land & Natural resource kits	Availability of kits to the community	Y	Y	Y	Y	Y
2.2	Support CMA (now LLS) programs through Council	No. of projects facilitated in the LGA	1	1	2	2	2
2.3	Regional weed action plan	Property inspections per annum	100	272	278	253	233
2.4	Improve information and links on Councils webpage	Outside use of Council webpage for land management & natural resource information	Unable to monitor No. of hits to webpage.				
2.5	Public field days and information sessions	No. of information sessions provided with Council involvement			3	5	1
		No. of attendees			180	255	50
2.6	Coal Seam gas Alert watch & education	Information and education of Councillors.	✓	✓	✓	✓	✓

Strategy 3: Involve the community in maintaining and enhancing environmental health

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
3.1	On site sewage management strategy	No. of systems failing as a %age		10%	20%	10-20%	15%
		No. of systems inspected	43	72	211	779	605
3.2	Noxious Weeds		Refer to 2.3 for inspection No.'s				
3.6	Pilchers Reserve committee	Reformation of committee	Committee not reformed due to uncertainty over future land management structure				

Strategy 4: Ensure that council's policies and processes adequately protect and enhance our natural environment and biodiversity

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
4.1	Onsite sewage management	No. of systems failing as a %age	Range has varied with SIRP program significantly more properties being reviewed- Refer to 3.1				
4.3	Roadside environmental management strategy	Biodiversity retained within the corridor	Roadside Environmental Strategy in place and considered during operational activities				
4.6	Noxious Weeds	Indicator previously reported at 2.3					
4.7	Development Control	No. of environmental complaints		7	47	31	30
4.11	HCCREMS Roadside marker program	Roadside markers in place				✓	✓
4.12	Erosion & sediment control policy	New policy in place	Not reviewed due to priorities				
4.13	Development control - review environmental conditions	Environmental conditions updated			Ongoing at this stage		

Strategy 6: Manage and reduce the impact of weeds and pest animals on the natural environment.

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
6.1	Public Education	No. of field days attended	Refer 2.5				
6.2	Noxious Weeds property inspection	No. of properties inspected	Previously reported @ 2.3				
6.3	Noxious weeds management	Km's of roadways treated.		685	398	370	636
6.4	Roadside marker program	Implementation of program				✓	✓
6.5	Regional weed action plan	Compliance with target actions in strategy	✓	✓	✓	✓	✓
6.6	Pest animal management	Effective links and information provided to LLS programs	✓	✓	✓	✓	✓

Strategy 7: Ensure that appropriate regulatory and enforcement agencies are proactive in addressing environmental issues

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
7.1	Involvement in HCCREMS	No. of programs with other Gov't agencies	2	1	2	4	4
7.2	Referral of local issues and enquiries to appropriate regulatory agency	No. of referrals & No. of complaints			1	2	3
7.3	Underground petroleum storage systems	Level of understanding and compliance	In 2013 audits were carried out by EPA on 12 premises in conjunction with Council. EPA is still the authority until 2019.				
7.4	Reporting mechanisms to regulatory & enforcement agencies of possible environmental breaches	Mechanisms established, notifications made.	0	0	2	3	0
7.6	UPSS - facilitate UPSS pilot program	No. of redundant tanks removed from road reserve	N/A	✓	4	N/A	2 as part of new roadworks

Strategy 8: Maintain a regional approach to the management of our natural environment

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
8.1	Local Land Services	No. of regional programs in the LGA	2	2	2	1	3
8.2	Upper Hunter Regional Land use strategy	No of forums participated in	2	2	0	0	0
8.3	Regional Land Mapping	Centralised GIS data warehouse established within HCCREMS	Matter has been advocated by HCCREMS following release of OEH data, HCCREMS validation found OEH data to be 30% reliable only. Program is ongoing				

9. OTHER COUNCIL PROGRAMS AND ACTIVITIES SUPPORTING OUR NATURAL ENVIRONMENT

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
9.2	National Tree Day	No. of trees planted p.a	300	300	300	250	250
9.3	Clean up Australia Day	No. of groups	2, 600 Kg	4	4, 2t	7, 3t	5t

Land Development Indicators

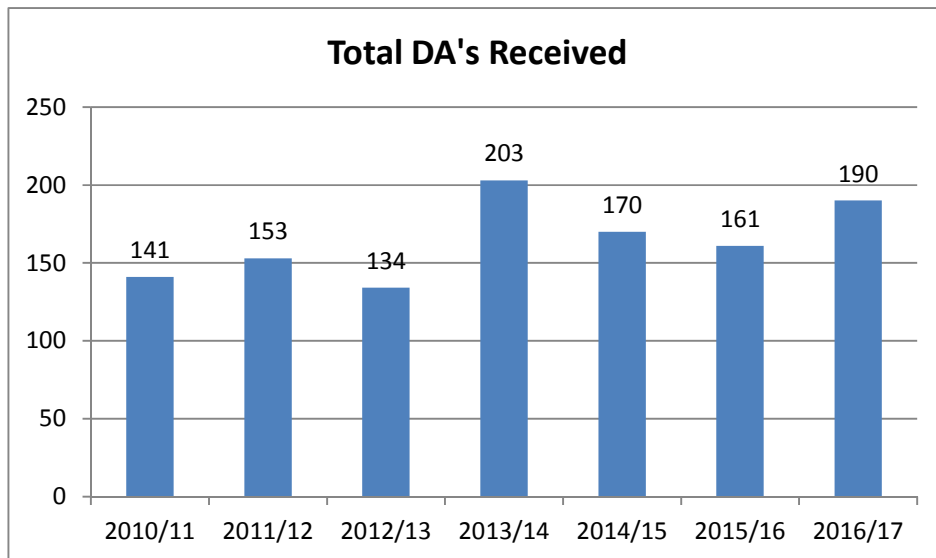


Figure 1/1: Development Applications Received

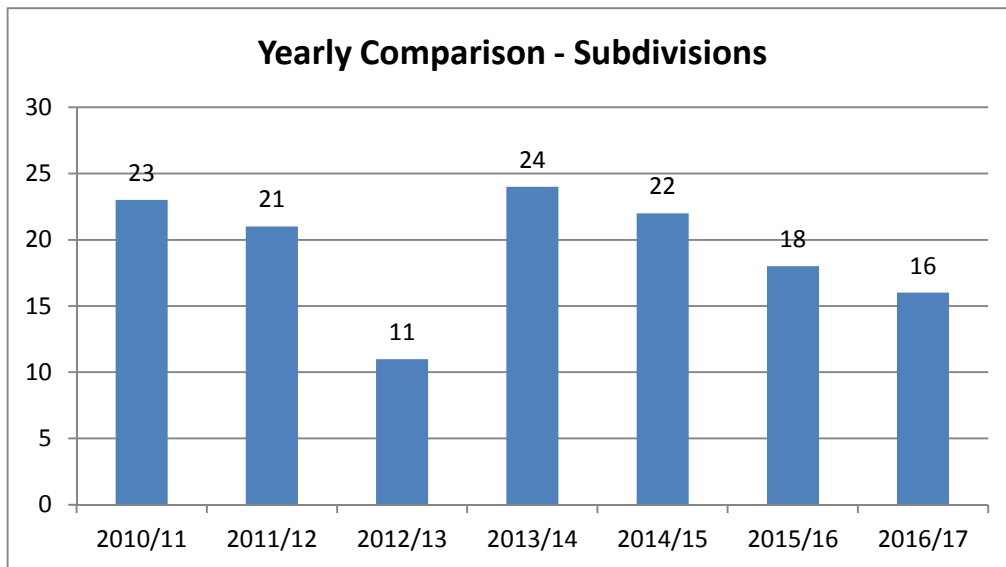


Figure 1/2: DAs for New Subdivisions

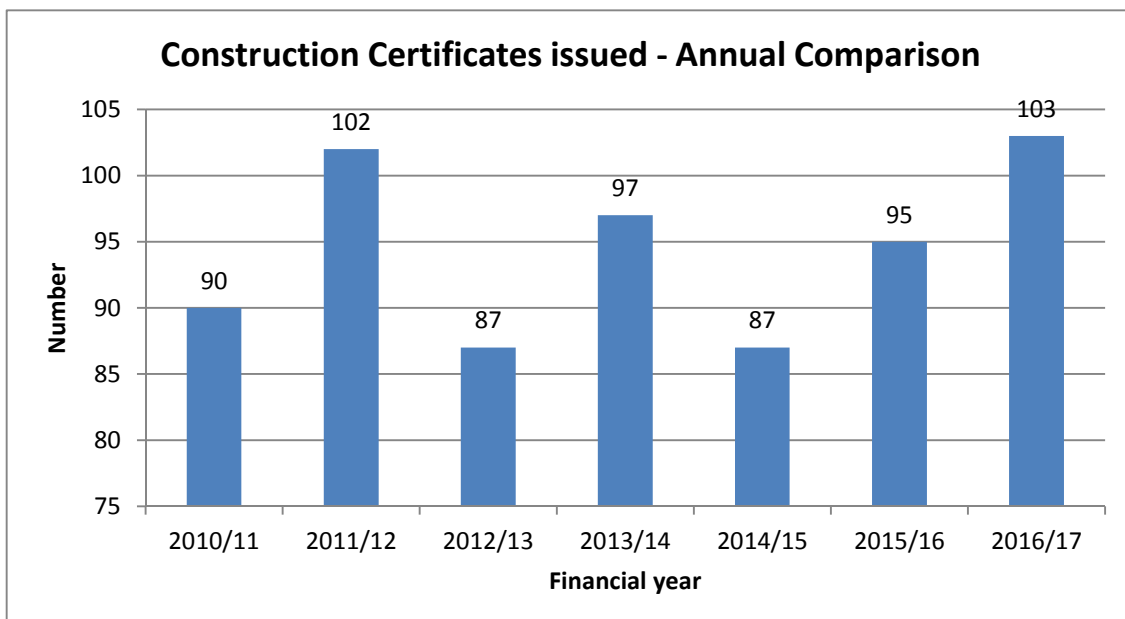


Figure 1/3: Construction Certificates issued

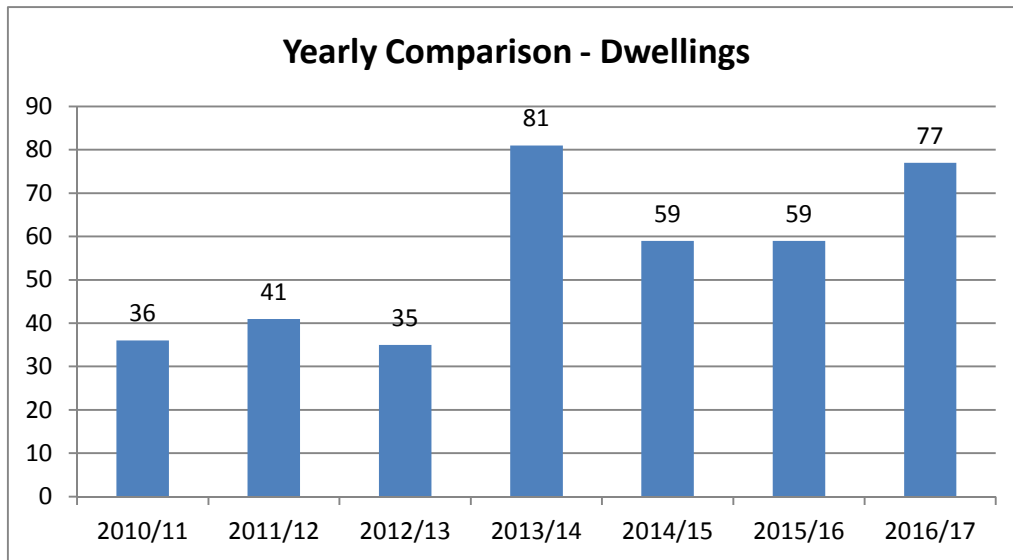


Figure 1/4: DAs for New Dwellings

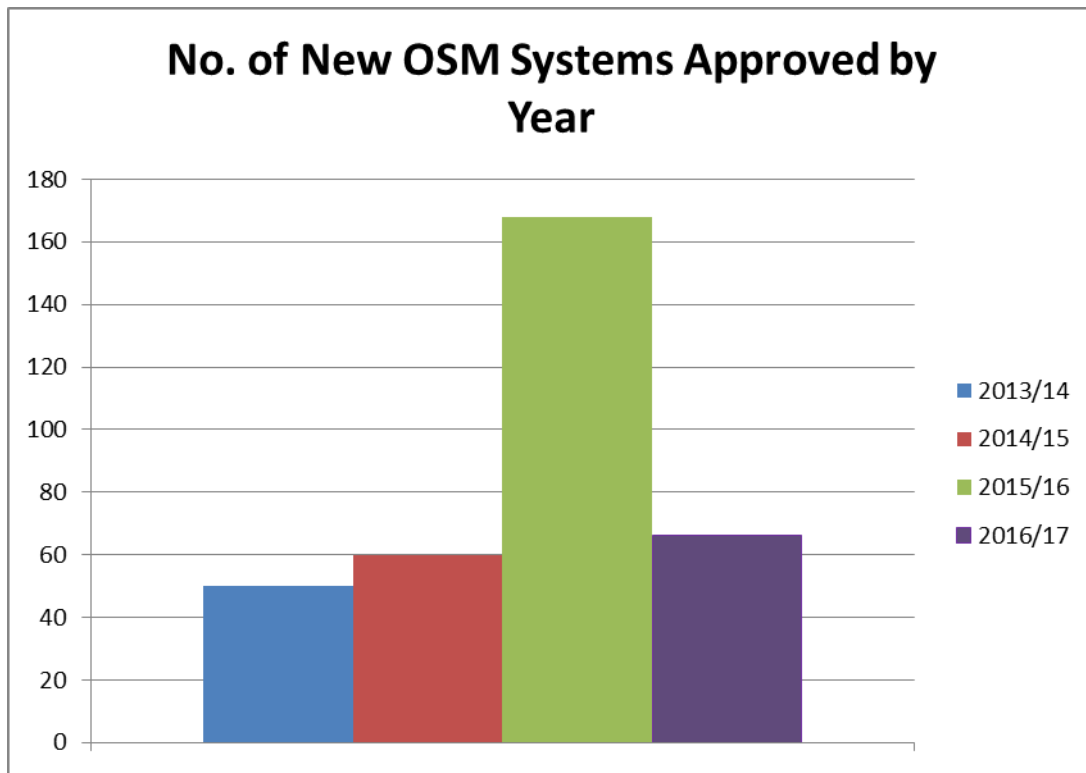


Figure 1/5 – New OSSM approved

2. AIR

Air quality in the Dungog Shire Council Area is considered to be satisfactory. The lack of heavy industry in the area means that the major impacts on air quality are from vehicle emissions and rural burning, generally during the Spring and Summer months. Use of domestic wood heaters in the colder months can also contribute to localised pollution and is the main source of complaint regarding air quality, although complaints are minimal. Some agricultural activities in the area also have the potential for odour emissions. These include dairy farming/effluent disposal, fertilizer application (including poultry manure and biosolids) and poultry raising.

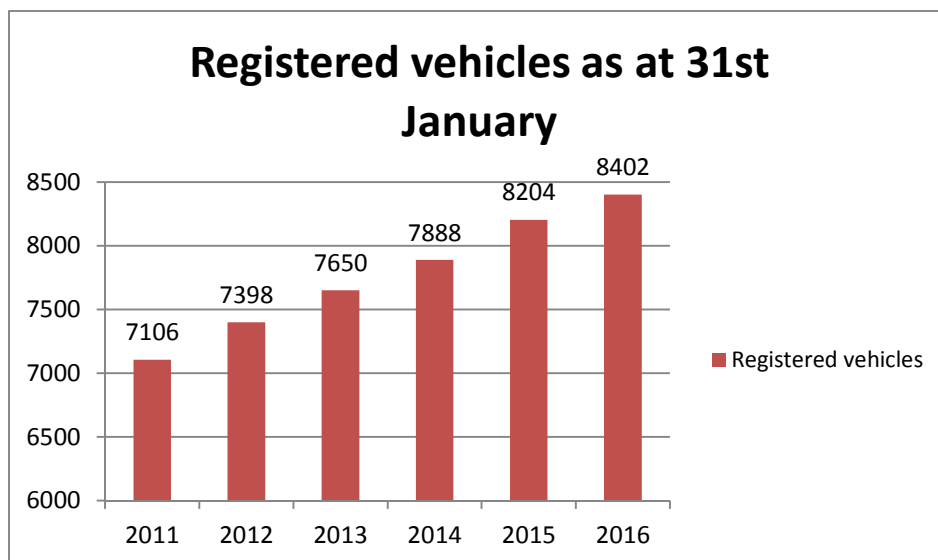
Landfills and sewage treatment works can also be a source of nuisance odours. There have however been no complaints regarding odour from the Council operated landfill at Short Street Dungog nor the Hunter Water sewage treatment plant Alison Road, Alison.

The Northern rail corridor also dissects Dungog Shire and Council flagged the impact of rail dust as a matter of environmental concern in its Community Strategic Plan.

Energy use is an important source of pollution. The creation of electricity is a significant source of air contaminants within the Hunter Valley. Although there are no electricity generating facilities within the Dungog Shire, the impact on air emissions from such sources in the region and the state should not be overlooked. Regional and global pressures on the atmosphere such as green house gas emissions and climate change, ozone depletion and increased UV radiation both effect conditions within the Shire.

INDICATORS

- There were 8402 vehicle registrations in the Shire as at the 31th January 2016. (See Figure 2/1)(For vehicle type see Annexure A)
- Traffic movements were not measured
- Council has recorded 4 complaints for 2016/2017 regarding odour, dust or smoke and air pollution is not considered to be of major community concern.



*Figures not available for January 2017

Figure 2/1: Vehicle Registrations in the Dungog LGA (source ABS)

COUNCILS RESPONSE

Continuing Programs

- Dungog Shire Bicycle Plan
- Investigate complaints related to air quality and odour
- Use of Solar Panels at the Visitor Information Centre and Council administration centre in Dungog with the surplus returned to the authority grid
- Continued four day working week for operational staff provides a reduction of fuel and time spent on travel to and from the work place.
- Building Sustainability Index (BASIX) system requiring new dwellings to meet an energy efficiency target of a 40% reduction compared with the NSW average.
- The Dungog Shire Council Climate Change Adaptation Strategy
- Council listed on Schedule B of the Protection of the Environment Operations (Clean Air) Regulation 2010 prohibiting general burning in the open except for vegetation in rural zonings.
- The Dungog Shire Council Control of Burning Policy.
- Kerbside recycling along with paper /cardboard collection and green waste processing at the waste management facility in 2016/17 provided an estimated reduction in lifetime green house gases of 1695 tonnes (equivalent to 657 cars permanently removed from the roads).- REF: National Greenhouse Accounts Factors

New Initiatives and Programs during 2012/17

- Nil

COMMUNITY STRATEGIC PLAN ALIGNMENT

Natural Environment

Strategy 8: Maintain a regional approach to the management of our natural environment

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
8.4	Coal Wagon Coverage	Approach made to Hunter Councils	HCCREMS advocacy				

3. WATER

There are two main catchments in the Dungog Shire Area, the Williams River catchment dominated by the Williams River and the Paterson-Allyn catchment dominated by two rivers, the Paterson and the Allyn. The use of these waterways as a resource for local and regional drinking water, agriculture and recreation requires that these rivers and their catchments are maintained to a high standard and monitored regularly.

The main identified pressures on water quality and local waterways are

- Demand for water as a potable water source as well as an agricultural and recreational resource.
- The impacts of new and existing development in the catchment including pollutant sources from Onsite sewage Management Systems.
- The impacts of erosion, stock access and weeds in the riparian zone.
- Periodic flooding

INDICATORS:

- Water Quality data is available through other authorities such as Hunter Water who carry out monitoring in key locations within the local waterways.
- Aquatic Biota and prevalence of algal outbreaks
- As at June 30 2017 approximately 15% of on-site sewage management systems inspected required some work to meet Council requirements.

COUNCILS RESPONSE

Continuing Programs

- Implementation of the Dungog Shire Urban Stormwater Management Plan
- Investigation of water pollution and failing septic system complaints
- Program to secure sewer connection to all premises with a connection point in Clarence Town.
- Monitoring and maintenance of the Gross Pollution Trap in Brown street Dungog
- Comprehensive inspection program of all onsite sewage management systems in the Shire.

Achievements during 2012/2017

- Adoption of the Clarence Town Floodplain Risk Management Study and Plan
- Adoption of Paterson Flood Study
- Dungog Flood Study completed as a component of the Dungog Flood Risk management Study and Plan
- Voluntary acquisition of 5 properties considered to be in high flood risk locations in Dungog
- Dungog Flood Risk management Study and Plan near completion
- Participation in the Dairy Improvement Project which is a Hunter Water project which has seen effluent management improvements to 13 dairies in Dungog Shire.

COMMUNITY STRATEGIC PLAN ALIGNMENT

Natural Environment

Strategy 4: Ensure that council's policies and processes adequately protect and enhance our natural environment and biodiversity

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
4.1	Onsite sewage management	No. of systems failing as a %age	Range has varied with SIRP program significantly more properties being reviewed				
4.7	Development Control	No. of environmental complaints		7	47	31	30
4.8	Work with Hunter Water & other state agencies to develop sustainable management of effluent in villages	No. of meetings with HWC to progress sewer service provision.			1	Nil	Nil
4.9	Enforce sewer connection in Clarence Town	No. of premises not connected		15%	10%	19	15
4.12	Erosion & sediment control policy	New policy in place	Not reviewed due to priorities				
4.13	Development control - review environmental conditions	Environmental conditions updated			Ongoing at this stage		

Strategy 5: Ensure that local waterways and riparian areas are clean and healthy

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
5.1	Erosion & sediment control policy	Extent of erosion within Council road corridors.	Not reviewed due to priorities				
5.2	Source grant funding to improve Council causeways and crossings.	\$ secured	Nil	Nil	Nil	Nil	One project commenced in partnership with Hunter LLS
5.3	On site sewage management system inspection and approval program	No. of inspections carried out.	Previously reported @ 3.1				
5.4	Reduce point source pollution within LGA catchments	HWC Septic tank improvement and rectification project is on track	N/A	N/A	82	611	420 inspections
5.5	Lower Hunter water plan	participation in the consultation process	✓	✓	N/A	N/A	Review of plan considered by Council

9. OTHER COUNCIL PROGRAMS AND ACTIVITIES SUPPORTING OUR NATURAL ENVIRONMENT

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
9.1	Healthy rivers - continue to provide financial support to Dungog High for river watch program	Re-stocking of equipment as required	✓	✓	✓	✓	✓

4. BIODIVERSITY

Biological diversity, or biodiversity, is the “variety of life forms, the different plants, animals and micro-organisms, the genes they contain, and the ecosystems they form” (NPWS, 1999).

The Dungog Council area is located within the NSW North Coast bioregion identified in the Interim Biogeographic Regionalisation of Australia (Thackway & Cresswell 1995). This means that Dungog has generally similar characteristics (and threatened species) to the north coast of NSW, and this region provides a context for determination of the conservation status of species and ecosystems within the Council area. It is important to note that many plant species are at the limit of their southern distribution within the Dungog Council area.

Although 22% of the Shire is dedicated National Park and State Forest, a substantial part of the biodiversity of the Council area occurs on private land.

A wide range of habitat types occur within the Council area, ranging from sub-alpine woodland, rainforests, moist forests, woodlands, riparian vegetation and aquatic ecosystems. This range of habitats combines to give important biodiversity values.

The identified pressures on Biodiversity within the Shire are

- Habitat fragmentation and vegetation clearing
- Introduced species of flora and fauna including weeds
- Fire

INDICATORS

- There are 10 species of plants in the Shire which are listed as threatened on the National Parks and Wildlife Atlas.
- There are 56 species of animals in the Shire, which are listed as threatened on the National Parks and Wildlife Atlas.
- There are 60 Regional priority weeds listed under the Hunter Regional Strategic Weeds Management Plan 2017-2022 and a further 32 weeds of concern in the Hunter Region. All of these potentially occur in Dungog Shire.
- The area of protected land in the Shire is 17.8% including Forestry, National Parks and Nature Reserves.
- 47% of the Shire is considered to be cleared land

COUNCILS RESPONSE

Continuing Programs

- Biodiversity issues are considered when approving development within the Shire
- Council employs a full time Noxious Weed Officer and has an ongoing Noxious Weed Program involving inspections, treatment and education on declared regional and local noxious weeds
- 233 inspections were carried out on properties within the Shire for noxious weeds in 2016/2017
- Provide support for Landcare and community based initiatives and programs
- Council actively participates and promotes National Tree Day and other tree planting activities within the Shire
- On going mapping program for Priority Weeds in the Shire
- Operation of Local Weeds Advisory Committee
- Participation in Tocal Farm and other Noxious Weed Field Days
- Continual reinforcement and assessment of DA's against SEPP 44

Achievements during 2012/17

- Membership on the Regional Weeds Committee and contribution to the Hunter Regional Strategic Weed Management Plan 2017-22.
- 14 meetings of Local Weeds committee with 9 field days/information sessions delivered.
- Development of community data base with contacts of approximately 120 landholders who have an interest in weed management and biodiversity.
- Pilchers Reserve access to public restricted for preservation. Unsuccessful grant application lodged to address actions under the Pilchers Reserve Plan of Management.
- Partnership with Hunter Local Land Services in African Olive project which saw the removal of approx. 30 ha of African Olive and the participation of 12 landholders.
- Partnership with Hunter Councils Inc to address roadside Biodiversity in Martins Creek and Vacy areas. 150km of roadsides treated for weed infestation.

COMMUNITY STRATEGIC PLAN ALIGNMENT

Natural Environment

Strategy 4: Ensure that council's policies and processes adequately protect and enhance our natural environment and biodiversity

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
4.3	Roadside environmental management strategy	Biodiversity retained within the corridor	Roadside Env Management strategy in place and considered during operational works				
4.6	Noxious Weeds	Indicator previously reported at 2.3					
4.11	HCCREMS Roadside marker program	Roadside markers in place				✓	✓

Strategy 6: Manage and reduce the impact of weeds and pest animals on the natural environment.

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
6.1	Public Education	No. of field days attended	Refer 2.5				
6.2	Noxious Weeds property inspection	No. of properties inspected	Previously reported @2.3				
6.3	Noxious weeds management	Km's of roadways treated.		685	398	370	636
6.4	Roadside marker program	Implementation of program				✓	✓
6.5	Regional weed action plan	Compliance with target actions in strategy	✓	✓	✓	✓	✓
6.6	Pest animal management	Effective links and information provided to LLS programs	✓	✓	✓	✓	✓

5. NOISE

Noise pollution can be a major contributor to the reduction in amenity and the quality of life of residents, particularly in urban areas.

Dungog Shire consists mainly of rural developments that generate low levels of noise emissions. The concentration of light industry in the Common Road area of Dungog and the lack of major through roads in the Dungog Township and other village areas also reduces the potential for noise generation, however the Northern Rail corridor does provide a major noise source to some areas of the Shire along with Martins Creek quarry, the only medium-large extractive site in the Shire.

LEP amendment applications where slightly conflicting or where higher intensity uses may be proposed also attract public submissions in regards to potential noise issues.

Generally noise level issues are domestic in nature. Most complaints received by Dungog Shire Council relate to

- Amplified music and musical instruments in residential areas
- Inappropriate use of machinery and vehicles including off road recreational vehicles
- Barking Dogs and
- Noise generated at entertainment venues and licensed premises.

INDICATORS

For the period 2016/2017 Council received 14 complaints in relation to noise, with 48 received for the total period 2012-17.(an average of <10 complaints per year). These complaints were in relation to: musical instruments, motorbikes, roosters and barking dogs.

1 complaint was received regarding noise from blasting at Martins Creek Quarry and as this premises holds an Environmental protection licence was referred to the EPA.

COUNCILS RESPONSE

Continuing Programs

- Investigate and take action where required in respect to noise complaints
- Consider noise-generating issues in the approval of new developments
- Local Orders Policy for the Keeping of Animals and a DCP chapter addressing the Keeping of Dogs for Commercial Purposes
- Buffer Zone policy which provides guidelines for the appropriate distances required between various types of development
- At site specific rezoning stage consider likely future noise issues
- Dog Noise Policy applied to all barking dog complaints

New Initiatives and Programs during 2012/17

Nil

COMMUNITY STRATEGIC PLAN ALIGNMENT

There are no Noise specific strategies or goals in the Community Strategic Plan.

6. WASTE

The management and disposal of waste is an important issue for all levels of Government. The environmental implications of waste disposal, the costs in developing new sites for disposal and the scarce amount of suitable space have increased focus on the reduction of waste at its source and greater emphasis on re-use and recycling.

The disposal of sewage is also an important issue. Public concerns due to ocean outfall disposal of effluent off the Sydney coastline during the 1980's was further heightened by a noticed decline in waterway health in many areas and blue-green algal blooms that appeared for the first time in the early 1990's. The importance of safe and appropriate disposal of effluent was highlighted during an outbreak of Hepatitis associated with oysters from the Wallis Lake region which prompted a review of Onsite Sewage Management regulation in NSW.

The Shires population is well dispersed over a large area with approximately half located within small urban centres and the remainder on rural or rural residential properties. This has led to a high reliance on the use of on-site sewage systems. Currently Dungog and Clarence Town have reticulated sewerage systems, with an ongoing program in place to secure connection of all premises to the Clarence Town system- only 15 premises out of approximately 400 remain unconnected to sewer.

The dispersed nature of the population also makes the provision of solid waste services more difficult than in areas with higher and more concentrated populations.

The identified pressures in the Shire are

- To maximise the life of the existing disposal site for solid waste.
- The production of effluent wastes and the requirement for suitable disposal.
- To reduce the cost of waste handling and disposal.
- To prevent the contamination of the environment by inappropriate handling or disposal of waste.
- To apply best practice principles to waste management and align with Regional and state waste reduction targets

INDICATORS

- Issued Approvals to operate (section 68 Local Government Act) for 2550 on-site sewage management systems for 2016/17
- Inspection of 605 (420 within the Septic Tank Inspection and Rectification Project) on-site sewage management systems during 2016/17. 1810 inspections on OSSMS were carried out during the total 2012-17 period.
- 67% of the population rely on On-Site Sewage Management Systems
- 5527.72 tonnes of solid waste was received at Council Waste Management Facility during 2016/2017. Of this 3548.22 tonnes went to landfill (64%) with the remainder, 1979.5 tonnes, diverted for recycling/reprocessing (See figure 6/1 for breakdown of recyclables diverted)
- Domestic waste service collection 4026 services and 3776 recycling services

Table 6/1: Waste Diversion through Council Operated Programs for 2016/17

Domestic Recycling Kerbside Collection	843.21 tonnes
Metals	789.1 tonnes
Co-mingled recyclables	41.86 tonnes
Waste Oils	4.78 tonnes
Green Waste	225.57 tonnes
Paper and Cardboard	62.92 tonnes
Mattresses	7.17 tonnes
Car batteries	2.4 tonnes
Gas Bottles	1.97 tonnes
Soft Plastics	0.52 tonnes
Agricultural Drums	0.034 tonnes
Second Hand Shop (in \$)	\$13,508

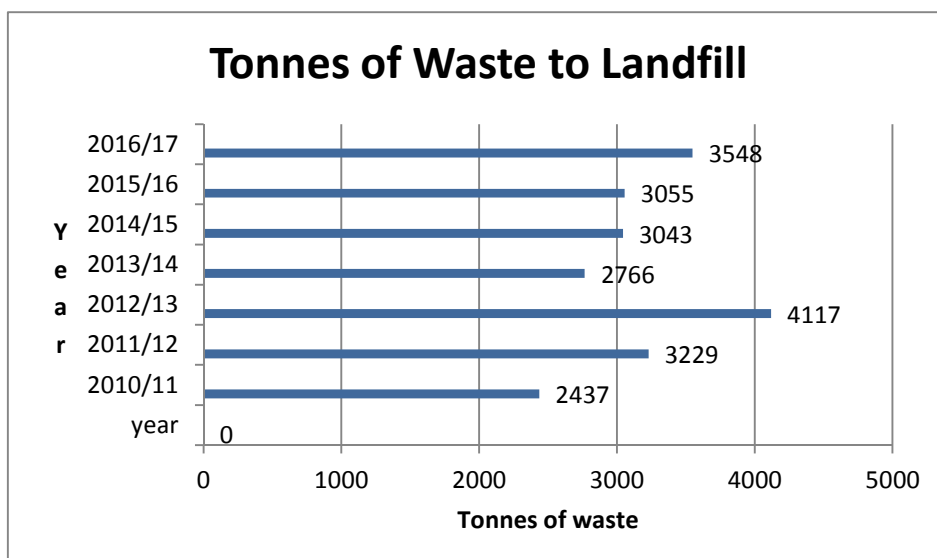


Figure 6/1 Total Waste to Landfill

COUNCILS RESPONSE

Continuing Programs

- Continual improvements at Dungog Waste Management Facility
- Monitor surface and groundwater at landfill site
- Ongoing monitoring at Martins Creek Landfill
- Council provides a number of waste diversion programs at the Dungog landfill. These include, free domestic recycling drop off, second hand shop, waste oil facility, DrumMuster for empty farm and veterinary chemical containers, ferrous and non ferrous metals collection, Mattresses, gas bottles, mobile phones, green waste and free drop off for paper, cardboard and soft plastics.
- Green waste processing for raw mulch in accordance with the EPA's raw mulch exemption policy. Product is sold to the public or used for municipal purposes.
- Annual bulk waste and scrap metal collection service provided to all domestic properties within the service area
- Annual bulk green waste collection provided to all domestic properties in the villages and town areas.
- Operate a program of inspection for all onsite sewage management systems within the Shire
- Provided support to Community groups involved in Clean-up Australia Day
- Kerbside fortnightly collection of recyclables.

Achievements during 2012/2017

- Review and adoption of new Onsite sewage management Policy, Development Assessment Framework and Technical Manual to ensure consistency in the design, installation and operation of OSSMS.
- Adoption of new 10 year Local Waste Strategy which aligns with Regional and State Strategies.
- Awarding of new 10 year waste collection contract.
- Installation of weighbridge at waste facility for more accurate waste accounting and to comply with the POEO (Waste) Regulation.
- Addition of new diversion streams including mattresses, soft plastics, car batteries, gas bottles, mobile phones and household batteries
- Provision of free e-waste disposal between 2012-2015- ceased with changes to product stewardship arrangement.
- Commencement of "plastic bag free" Strategy aligning with community groups to change behaviours.
- Remediation of former sanitary waste depot at Vacy.
- Waste audit carried out to determine composition of waste and recycling bins to guide waste strategy.
- Successful negotiations with major dairy at Main Creek to change practices in order to reduce land and water pollution
- Establishment of Septic inspection and Rectification Program (SIRP) in partnership with Port Stephens Council and Hunter water to focus on OSSM surveillance in drinking catchment areas.

COMMUNITY STRATEGIC PLAN ALIGNMENT

Natural Environment

Strategy 3: Involve the community in maintaining and enhancing environmental health

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
3.1	On site sewage management strategy	No. of systems failing as a %age		10%	20%	10-20%	15%
		No. of systems inspected	43	72	211	779	605
3.3	Waste Diversion and resource recovery	Meeting OEH waste reduction targets	x	x	x	x	x
3.4	Illegal Dumping	No. of incidents recorded		12	35	11	19
3.5	Waste Minimisation (2015/2016)	No. of info sessions	N/A	N/A	N/A	4	3

Strategy 4: Ensure that council's policies and processes adequately protect and enhance our natural environment and biodiversity

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
4.1	Onsite sewage management	No. of systems failing as a %age	Range has varied with SIRP program significantly more properties being reviewed				
4.2	Waste Diversion	Tonnes of recyclables collected		807	815	857	843
		Tonnes of waste diverted	1058	1995	1754	1976	1980
4.4	Waste Collection Service	DWM Charge as compared to neighbouring Councils	✓	✓	✓	✓	✓
4.5	Landfill Operation	Landfill actual cost within 10% of budget forecast	✓	✓	✓	✓	✓
4.8	Work with Hunter Water & other state agencies to develop sustainable management of effluent in villages	No. of meetings with HWC to progress sewer service provision.			1	Nil	Nil
4.9	Enforce sewer connection in Clarence Town	No. of premises not connected		15%	10%	19	15
4.10	Waste Minimisation	previously reported					

Strategy 5: Ensure that local waterways and riparian areas are clean and healthy

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
5.3	On site sewage management system inspection and approval program	No. of inspections carried out.	Previously reported @ 3.1				
5.4	Reduce point source pollution within LGA catchments	HWC Septic tank improvement and rectification project is on track	N/A	N/A	82	611	420

7. HERITAGE

The NSW Heritage Act 1977 defines environmental heritage as being “those buildings, works, relics, or places of historic, scientific, cultural, social, archaeological, natural, or aesthetic significance”. Relics are further defined as any deposit, object, or material evidence, relating to the (non Aboriginal) settlement of New South Wales and which is 50 or more years old.

Sites of aboriginal heritage may include relics or characteristics which range from stone tools, to a major ceremonial complex of art, campsites and burial sites. Aboriginal heritage in New South Wales is protected by the NSW National Parks and Wildlife Act, 1974.

All heritage areas, structures and items are threatened by development and resource use activities such as -

- Agriculture;
- Forestry;
- Mining/Extraction Industries;
- Roadwork;
- Urban construction and development

INDICATORS

- There are 33 known Aboriginal sites, structures and landscapes that have been identified and are recorded by National Parks and Wildlife Service for the Dungog LGA.
- Currently 155 heritage sites are listed in the Dungog Local Environment Plan 2014

COUNCILS RESPONSE

Continuing Programs

- Dungog Shire Council has engaged with a local heritage consultant to liaise in regard to various heritage issues. The public have had access to the heritage consultant on a bi-monthly bases. This is a free heritage advisory service to the public.
- Consideration of heritage issues in all development assessment by a qualified heritage advisor.
- Council refers to the Heritage Development Control Plan Chapter to provide guidelines for development involving identified heritage items.

New Initiatives and Programs during 2012/2017

- A review of the Dungog Heritage study was completed in 2014 with a potential 34 additional sites recommended for Heritage listing.
- Approximately \$15,000 of Heritage Grant funding was received in this period funding 10 small projects

COMMUNITY STRATEGIC PLAN ALIGNMENT

Rural and Urban Development

Strategy 5: Ensure the heritage and streetscapes of our villages are preserved and enhanced.

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
5.1	Identification and preservation of heritage items within Dungog LGA	Adoption of a revised heritage strategy	Strategy adopted. Amending LEP in process of gazettal to reflect study outcomes.				
5.2	Local Heritage fund	No. Projects completed that preserve & enhance heritage buildings and places	✓	✓	✓	x	x
5.3	Heritage advisory service	Increase in community numbers utilising the service	✓	✓	✓	✓	✓
5.4	Engage with local communities to identify projects and to seek funding and work cooperatively towards the beautification of local towns and villages	Works undertaken that improve the amenity of towns and villages	Both Clarence Town & Gresford have developed plans for improvement. Council not in a position to financially support, however have consulted before any works have been undertaken in area to assure not compromising their aspirations. Dowling & Brown Streets intersection in Dungog has been improved in recent works.				
5.5	Increased local heritage awareness of indigenous Australians in Dungog Shire	Greater understanding and documentation of the role of indigenous Australians in the history of Dungog LGA	Referrals of major re-zonings and DA's to Aboriginal Land Councils as required. No detailed studies undertaken.				

8. CLIMATE CHANGE

Climate change is an emerging and vital issue for Australian communities. Even with international action to reduce greenhouse gas emissions, the global climate is projected to undergo significant change in the 21st century, with the potential to create many risks as well as opportunities. It is important that the impacts of climate change are addressed at the local level, since local attributes including socio-economic characteristics and the physical environment will significantly determine the extent of the risks, as well as the nature of adaptation responses.

The need for local action on climate change was recognised by Councils in the Hunter in partnership with the Hunter and Central Coast Regional Environmental Management Strategy (HCCREMS) and a generic Climate Change Adaptation Plan was prepared for Rural councils, which was in turn converted to become Dungog Shire specific in November 2010.

The Plan consists of a risk assessment which focuses on Council organisational assets, operations and liabilities. The Plan does not focus on broader scale community risk arising from climate change.

INDICATORS

The following critical climate change indicators are flagged in the Climate Change Adaptation Plan:

- Increased damage to council buildings and structures due to wind and storm damage and water inundation
- Stormwater and drainage systems overwhelmed or damaged

- Increased damage to roads (incl. gravel roads), causeways, bridges and footpaths due to increased rainfall intensity or flooding leads to higher maintenance costs.
- Existing water supplies become unreliable.
- Sewerage treatment system overloaded/fails due to intense rainfall / infiltration or loss of power.
- Flood modelling and planning scheme fail to reflect the extent of inundation under climate change scenarios.
- Increased flooding of low lying roads and other transport corridors leads to disruption to traffic.
- Increased flooding of bridges (in particular timber bridges) and causeways leads to disruption to traffic
- Council unable to meet demand for localised emergency response and its obligations (financial and in-kind) under the DISPLAN
- Council unable to meet demand for recovery services
- Exhaustion of Council's capacity to deliver services due to staff responding to emergencies arising from extreme weather events.
- Increased pollution of waterways and estuaries.
- Increased incidence of algal blooms in waterways and estuaries.
- Loss of remnant vegetation as a result of water and heat stress.
- Increased incidence of pests and weeds due to altered climate regime.
- Decline in viability of regional agricultural sector linked to changed climate Region wide actions.

COUNCILS RESPONSE

Whilst a generic Climate Change Adaptation Plan exists for Dungog Shire, the plan primarily contains actions of a Regional nature and Council's CSP (Strategy 1- Natural Environment) highlights a Strategy of working regionally in conjunction with Hunter Councils to deliver regional programs without specific local climate change actions. Resourcing to address local actions has not been allocated during the reporting term and involvement has been limited to participation in infrequent Regional programs delivered by HCCREMS.

Achievements during 2012/2017

- Participation in Hunter Councils Inc Heatwave Resilience project with staff training and the provision of posters and signage in key locations.
- Climate change impacts have been specifically acknowledged and considered in Flood Management Strategy including Clarence Town Flood Risk Management Study and Plan, Paterson River Flood Study and the Dungog Flood Risk Management Study and Plan.

COMMUNITY STRATEGIC PLAN ALIGNMENT

Natural Environment

Strategy 1: Ensure that appropriate agencies at all levels are involved in addressing issues surrounding climate change.

STRATEGY NO & INDEX	PROGRAM/ACTIVITY OR ACTION	PERFORMANCE INDICATOR/ INDICATOR OF PROGRESS	TARGET MET/APPLICABLE				
			12/13	13/14	14/15	15/16	16/17
1.1	Waste & Sustainability Program	Reduction of power usage at Council facilities	✓	✓	✓	✓	✓
1.2	Involvement & Support for regionally based climate change programs	No. of regional programs actively supported	N/F	1	N/F	1	1
1.3	Work with Hunter Councils to develop and implement regional strategy to address impacts of climate change	No. of programs promoted in the community	No funding provided to support.			1	1

ANNEXURE 'A'

Dungog – Type of registered vehicle as at 31st January of each year

	2016	2015	2014	2013	2012	2011
Passenger Vehicles	5271	5195	5051	4925	4801	4646
Campervans	31	26	24	30	21	20
Light Commercial	2155	2084	1959	1859	1779	1678
Light Rigid trucks	81	82	64	71	73	73
Heavy Rigid Trucks	240	226	225	248	244	238
Articulated Trucks	32	30	29	27	26	25
Non Freight Carrying Trucks	4	7	4	7	5	5
Buses	63	59	68	56	59	58
Motorcycles	525	495	464	427	390	363
TOTAL VEHICLES	8402	8204	7888	7650	7398	7106
Petrol	5566	5537	5424	5338	5259	5129
Diesel	2708	2502	2272	2093	1956	1785
LPG/Dual/Other	137	146	166	175	183	193