State of the Environment Report 2016–21

A State of the Environment (SoE) Report is an important management tool which aims to provide the community and Local Council with information on the condition of the environment in the local area to assist in decision-making.

Since 2007, the Councils of the Greater Central West Region of NSW (see map) have joined to produce Regional SoE Reports as part of Council reporting requirements.

NSW legislation means that Councils are not required to produce SoE reports each year, but in the year of the Council election. However, the participating Councils have decided to continue reporting on an annual basis so that they can provide a detailed SoE report that covers trends in the intervening years.

The 2020 Council elections were postponed until 2021 due to the COVID-19 pandemic. Being the year of the Council election, this SoE report responds to the requirement in the *Local Government Act 1993* that Councils measure and report on the progress of the environmental objectives or goals in their Community Strategic Plan (CSP).

This report lists Council's environmental strategic outcomes, identifies appropriate indicators to measure them and briefly reports on trends in these indicators since the last Council election (2016). It also discusses any major environmental impacts on the environmental strategic outcomes between 2016 and 2021.

Environmental Strategic Outcomes

In the Lachlan Shire CSP, there are five environmental strategic outcomes under Theme 5 – People and Environment:

- 5.1 Modern waste management system including recycling and rationalisation of Waste Management facilities
- 5.2 Care for our community land
- 5.3 Ensure that animals are properly controlled
- 5.4 Community Safety
- 5.5 Celebrating and preserving our heritage

Environmental Indicators

Over 100 indicators have been identified and used to measure the state of the environment across the Greater Central West region using data compiled over the past five years. The indicators are categorised into five themes:

- 1. Land
- 2. Biodiversity
- 3. Water and Waterways
- 4. People and Communities
- 5. Towards Sustainability

The table below shows how Council's Environmental Strategic Outcomes are measured by the Environmental Indicators detailed in the remainder of the report.

ENVIRONMENTAL INDICATORS
Towards Sustainability
Land, Biodiversity, Water and Waterways
Biodiversity, Water and Waterways, People and Communities
Towards Sustainability
Biodiversity, Water and Waterways, People and Communities

Trends/Environmental Impacts

Land The number of development consents and building approvals remained relatively stable over the past five years. The number of mining and exploration titles decreased whilst the area of mining in the LGA increased.

Biodiversity The number of clearing complaints to Council declined from last year. There was a decline in the restocking of native fish into local waterways. The number of priority weeds identified steadily increased across the LGA in the past five years.

Water and Waterways There was a substantial increase in the volume of load-based licensing, particularly in 2020-21. Drinking water and water pollution complaints declined to both being zero in 2020-21. The irrigation footprint in the LGA remained relatively stable during the past five years. The consumption of town water dropped in the past five years most likely related to water restrictions during the drought.

People and Communities The number of indigenous sites listed on the AHIMS rose steadily over the past five years. Council continued to actively manage indigenous and non-indigenous heritage.

Towards Sustainability There was an increase in the amount of waste sent to landfill in the past five years, although the rate of recycling also generally rose. There was a general decline in Council's greenhouse gas emissions. There was a significant increase in the uptake of small-scale renewable energy across the LGA.

Land

lssue	Indicator	2016-17	2017-18	2018-19	2019-20	2020-21	Trend
Contamination	Contaminated land sites - Contaminated Land Register (number)	I	I	I	0	0	0
	Contaminated land sites - potentially contaminated sites (number)	176	178	179	179	179	0
	Contaminated sites rehabilitated (number)	0	I	I	5	0	0
Erosion	Erosion affected land rehabilitated (ha)	20	7	7	0	0	0
Land use planning and management	Number of development consents and building approvals	60	65	58	42	47	•
	Landuse conflict complaints (number)	3	П	2	2	3	•
	Loss of primary agricultural land through rezoning (ha)	0	0	0	0	0	-
Minerals & Petroleum	Number of mining and exploration titles	95	21		130	68	•
	Area covered by mining and exploration titles (ha)	421,000	485,000	571,000	610,000	659,000	•

🚯 improvement 📀 no or little change 🕕 worsening trend

Note - the trend is based on comparing the average of the four previous years of reporting with 2020-21

Biodiversity

Issue	Indicator	2016-17	2017-18	2018-19	2019-20	2020-21	Trend
Habitat Loss	Total area in the National Parks Estate (ha)	9,639	9,639	9,639	9,639	9,653	-
	Total area of State Forests (ha)	23,261	23,260	23,257	23,260	23,293	-
	Area Protected in Wildlife Refuges	16,619			22,322	16,465	0
	Area protected in conservation reserves & under voluntary conservation agreements (ha)	639	22,322	639	3,965	3,272	0
	Extent of Traveling Stock Reserves in LGA (ha)	17,496		17,604	17,075	17,595	0
	Proportion of Council reserves that is bushland/remnant vegetation	30%	30%	30%	30%	30%	•
	Habitat areas revegetated (ha)	0	2	0	0	0	0
	Clearing complaints (number)	2	3	I	4	I	•
	Roadside vegetation management plan (Yes/No)	Yes	Yes	Yes	Yes	Yes	-
	Roadside vegetation rehabilitated (ha)	0	0	0	0	0	-
	Threatened species listed (number)				81	81	•
Threatened Species	Threatened species actions implemented (e.g. PAS, recovery plans) (number)	0	0	0	0	0	•
	Fish restocking activities: native species (number)	50,035	45,000	24,500	30,000	26,000	0
Priority weeds and feral animals	Fish restocking activities: non-native species (number)	0	0	0	0	0	-
	Number of declared priority weeds	91	91	92	94	99	0
	Invasive species (listed priority or WONS) under active management	53	53	53	53	46	0

Water and Waterways

Water	and Waterways		5		•••				
Issue	Indicator	2016-17	2017-18	2018-19	2019-20	2020-21	Trend		
Surface & Ground Water Quality	Ecoli remote from wastewater treatment plants (per 100ml)	90		0	0	0	•		
Riparian	Riparian vegetation recovery actions (number)	0	I	I	0	0	•		
паранан	Riparian vegetation recovery area (ha)	0	60	60	60	0	•		
	Load Based Licencing Volume (kg)	14,380	8,436	16,555	8,397	20,670	•		
Industrial/ Agricultural	Exceedances of license discharge consent recorded (number)	0	0	0	0	0	-		
Pollution	Erosion & Sediment Control complaints received by Council (number)	0	21	4	21	I	•		
Stormwater Pollution	Number of gross pollutant traps installed	3	2	2	2	2	•		
	Total catchment area of GPTs (ha)	111	92	92	92	92	•		
	Water pollution complaints (number)	2	0	0	2	0			
Terrer Meters Overlier	Number of instances drinking water guidelines not met	0	I	4	I	22	•		
Iowin Water Quality	Number of drinking water complaints	5	3	3	3	0			
Dam Levels	Average dam levels	125.0%	81.0%	73.0%	66.0%	70.0%	•		
	Number of Water Supply Work Approvals from surface water sources	366			341	353			
	Volume of surface water permissible for extraction under licences (GL)	108			80	110	•		
Water extraction	Actual volume extracted through surface water licences (GL)					12	-		
vidler extraction	Number of Water Supply Work Approvals from groundwater resources	538			560	561			
	Volume of groundwater permissible for extraction under licences (GL)	25			22	24	•		
	Actual volume extracted through groundwater licences (GL)				15	5.7			
Council water	Area of irrigated Council managed parks, sportsgrounds, public open space (ha)	40	20	20	20	20			
consumption	Water used by council for irrigation (including treated and untreated) (ML) $% \left(ML\right) =0$		98	111	98	177	U		
	Annual metered supply (ML)		1,075	1,097	1,075	788	\bullet		
Ŧ	Annual consumption (Total from WTP) (ML)		1,704	1,750	1,704	1,172	\bullet		
Town water consumption	Average annual household mains potable water usage (kL)		317	333	316	241	\bullet		
	Average level of water restrictions implemented		I	4	I	2	-		
	Water conservation programs (number)	0	0	0	0	0	-		

People and Communities

lssue	Indicator	2016-17	2017-18	2018-19	2019-20	2020-21	Trend
Active community involvement	Environmental volunteers working on public open space (hours)	40	618	30	10	0	0
	Number of environmental community engagement programs	2	3	2	2	2	0
	Number of growers' markets/local food retailers specialising in local food	0	0	0	0	0	-
Indigenous Heritage	Number of Indigenous sites on AHIMS register	410	435	464	485	489	•
	Inclusion in DCPs & rural strategies (Yes/No)	Yes	Yes	Yes	Yes	Yes	•
	Extent of liaison with Indigenous communities (self-assessed from $0 =$ none to $3 =$ High)	2	I	0	2	I	0
	Development approvals on listed Indigenous sites (number)	0	0	0	0	0	-
	Number of indigenous heritage management actions/responses	I	0	3	3	2	•
	NSW Heritage Items (number)	I	I	I	I	I	-
Non-Indigenous Heritage	Locally listed heritage items (number)	31	31	31	31	31	•
	Actions to protect non-Indigenous heritage (including management plans)	I.	2	2	2	2	
	Heritage buildings on statutory heritage lists demolished/degraded in past year (number)	0	0	0	0	0	•
	Heritage buildings on statutory heritage lists renovated/improved in past year (number)	I	0	0	0	0	•

Towards Sustainability

Issue	Indicator	2016-17	2017-18	2018-19	2019-20	2020-21	Trend	
Waste Generation	Total waste entombed at primary landfill (tonnes)	١,890	1,614	I,800	2,000	2,200	0	
	Total waste entombed at other landfills (exc recyclables) (tonnes)	900	400	115	150	140	•	
	Average total waste generated per person (tonnes)	0.36	0.32	0.31	0.35	0.38	0	
	Average cost of waste service per residential household	\$326	\$433	\$459		\$551	•	
Hazardous/Liquid Waste	DrumMuster collections (number of drums)	3,419	21,636	7,600	7,931	3,985	0	
	Household Hazardous Wastes collected (kg)	1467	1,279	2,112	1,913	0	0	
Deduce	Organics collected (diverted from landfill) (tonnes)	300	260	200	200	200	0	
Reduce	E-Waste collected (diverted from landfill) (tonnes)	0	2	6	6	40		
Porvelo	Volume of material recycled (tonnes)	550	230	799	154	589		
Recycle	Volume of material recycled per person (kg)	70	37	130	25	97	•	
Littering and illegal dumping	Number of illegal waste disposal complaints to Council	4	5	5	5	10	0	
Engineering, Infrastructure and Civil Works	New road construction (km)		0	0	0	0	•	
	Road upgrades (km)	45	46	65	99	86	0	
Risk Management	Flood management plans/ flood mapping - increase in area covered (ha)	1,500	0	0	0	0	0	
	Hazard reduction burns (number)	0	0	0	0	0	-	
	Office paper used by Council (A4 & A3 reams)	745	648	1,031	1,030	836	•	ļ
Climate Change Mitigation	Council sustainability initiatives (number)	3	5	5	2	18		
	Council mitigation initiatives (number)	3	9	9	0	18	•	
	Annual electricity consumption for Council controlled facilities (MWh)	2,800	2,850	3,602	3,659	3,047		
	Annual natural gas consumption for Council controlled facilities (Gj)	0	0	0	0	0	•	
Council	Annual bottled gas consumption for Council controlled facilities (L)	95	100	100	97	105	0	
Greenhouse Gas Emissions	Total fuel consumption (KL)	691	692	645	645	670	0	
	Proportion of Council's electrical energy demand met from council-owned renewable energy infrastructure	0.0%	0.0%	0.0%	0.0%	0.0%	•	
	Council total operational greenhouse gas emissions (tCO ₂ -e/year)	6,317	6,295	6,795	6,850	6,393	•	
Community	Small scale renewable energy uptake (kW installed)	517	672	899	729	1,722		
Greenhouse Gas Emissions	Number of solar water heaters and heat pumps installed	18	3	I	0.41	3	•	

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CASE STUDY: Renewable Energy Projects (Lachlan LGA)

In 2021, Lachlan Shire Council installed 612 kW of solar power at fourteen Council owned/operated sites and a 180 kWh battery at the Lake Cargelligo Water Treatment Plant.

The renewable energy projects incorporate a range of different systems including ground mound, roof top mounted, battery storage and a solar carport at Council's administration building which will produce renewable energy and serve as a carport to protect vehicles from the elements.

The projects consist of:

- Lake Cargelligo Water Treatment Plant – 240 kW and 180 kWh Battery
- Merri Abba High lift Pump 100 kW
- Condobolin Administration Building – 45 kW solar carport
- Condobolin Swimming Pool 45 kW
- Condobolin Caravan Park 32 kW
- Condobolin Sewer Treatment Plant – 20 kW
- Lake Cargelligo Sewer Treatment Plant – 20 kW
- 16 Mile Pump, Tullibigeal 20 kW
- Lake Cargelligo Multi Service Centre – 15 kW
- Tottenham Swimming Pool 15 kW
- Tottenham Water Treatment Plant – 15 kW
- Home and Community Centre 15 kW
- Condobolin Children Services 15 kW
- Condobolin Library 15 kW

The renewable energy portfolio will generate 978 MWh of energy per annum and will offset 27% of Council's net energy usage.



Caption

The installation of renewable energy projects will reduce Council's carbon emissions by 792 tonnes per annum.

The fourteen projects will deliver and estimated \$144,000 in savings by offsetting energy imported from the grid. These saving equates to 14% of Council's electricity costs.

Lachlan Shire Council funded the \$1.1 million project through the federal government Local Roads and Community Infrastructure Grant Program. The projects were implemented to improve resilience through the reconfiguration of the sites to incorporate renewable energy, facilitate trials in battery storage, peak demand shavings, intelligent demand response and control, provisions of electric vehicle charging, virtual power plant trials and comprehensive monitoring of savings, energy usage and reduction in carbon emissions through a dedicated monitoring platform.



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