Land

Moree Sewerage Treatment Plant
This chapter focuses on aspects of sustainable land management in the region. There are a number of challenges to the sustainable use and management of our soil and land resources, such as wind and water erosion, soil contamination, soil acidity, soil salinity, soil structure decline, soil nutritional fertility and water repellence. These challenges can be caused by over-grazing and pollution from disused operations such as petrol stations. The sustainable use of soil and land in agricultural areas of the region is of increasing significance, particularly in the face of a changing climate.

Sustainable land management is an environmental objective for both local councils. The Moree Community Strategic Plan has an objective “protect our key resources – our agricultural land, our artesian water and our waterways – from any adverse impacts of mining and State/Federal policies”. The Narrabri Community Strategic Plan has a strategic objective of “sustainable land use.”

**Indicator - Contaminated land sites (Contaminated Land Register)**

Across the reporting region there were a total of four sites currently on the Contaminated Land Register at 30 June 2016, all in the Moree LGA.

The sites are:

- Former Freedom Service Station Site, Moree
- Caltex Service Station, Moree
- Former Mobil Depot, Moree
- Former Golden Fleece Service Station, Moree

A further three sites in Moree LGA and three sites in Narrabri LGA are under assessment by the EPA.

One of these sites has completed the first stage and another has commenced the second stage of remediation.

**Indicator - Contaminated land sites (potentially contaminated sites)**

Fifty-one potentially contaminated sites have been identified in the Moree Plains LGA. This information was not available for Narrabri LGA.

**Indicator - Erosion affected land rehabilitated**

Approximately 269 hectares of erosion affected land were rehabilitated in the Narrabri LGA. At Cox Creek, a barrier was constructed to capture sediment and trees were planted on top of the bank to minimise further erosion.

Narrabri Shire Council reported a decline in development activity compared with 2014-15 but over the last four years development is still trending upwards. This growth has been driven by recently established mines which have attracted permanent residents. There is also continuing activity in commercial development from facilities like the Sydney University Wheat Research Centre and Santos Limited Operations.

**Indicator - Landuse conflict complaints**

There were six complaints recorded by Moree Plains Shire Council, mostly consisting of business noise and dust complaints. No complaints were recorded in Narrabri LGA.

**Indicator - Loss of primary agricultural land through rezoning**

The last time any primary agricultural land was lost was in 2014 when 196 hectares was rezoned in the Narrabri LGA.

**Indicator - Number of mining and exploration titles**

There are currently 80 titles for extractive industries and mining or petroleum exploration projects, covering a total area of 2.3 million hectares across the two LGAs, with 92.6% of the area allocated to minerals exploration.
CASE STUDY:
Illegal Dumping (Moree Plains LGA)

During the 2014/2015 financial year Moree Plains Shire Council implemented an illegal dumping program in a bid to reduce the number of illegal dumping incidents that were occurring throughout the Shire.

Council applied for funding through the Environment Protection Authority (EPA) – Waste Less Recycle More program and was fortunate enough to receive $100,156 which Council matched dollar-for-dollar.

Clean-up activities were carried out in South West Moree on Crown Land along Amaroo Drive, the Old Rifle Range and the reserve along the Mehi River adjacent to Mehi Crescent which is owned by the Moree Aboriginal Land Council.

The extent of illegal dumping in these areas alone was severe with 450 tonnes of unsorted waste, one tonne of metal, 20 tons of concrete and 118 tyres being removed at a total cost of $67,542.

Many other known hot-spots throughout the Shire were also cleared which included areas at Boggabilla, Mungindi and Pallamaliawa. The total amount of rubbish collected and disposed of during the program included just over 1,000 tonnes of unsorted waste collected, two tonnes of metal, 20 tonnes of concrete and 475 tyres costing a total of $204,677.

Proactive surveillance of the cleaned-up areas is now being undertaken by Council Rangers in partnership with Authorised Officers from Crown Lands. Surveillance cameras have been installed and twenty four ‘Report Illegal Dumping’ signs in previously known hot-spots.

Council’s program has been a huge success with the number of reoccurring incidents reducing strategically. However, it is still an area of concern due to the negative environmental effects that dumped rubbish has on our soil, waterways and animal habitats.

Education and enforcement will continue to ensure that the previously cleaned up sites are not contaminated in the future.
Crown Land / Stock Route off Amaroo Drive, Moree commonly known as the Old Rifle Range. Hot Spot for Illegal Dumpers where intense clean-up activities were undertaken during 2014-2015 financial year
Biodiversity

Sheep grazing, Moree LGA
Biodiversity is the variety of all life forms on earth - the different plants, animals and micro-organisms and the ecosystems of which they are a part.

Ecosystems that are rich in biodiversity are more resilient and healthy and are better able to recover from outside stresses such as drought, pests, bushfire and climate change.

The Community Strategic Plans of both councils recognise the importance of biodiversity management. The Moree Community Strategic Plan has two environmental objectives for biodiversity management:

E1.1 identify and manage threats to our native flora and fauna
E1.2 Support the healthy function of our ecosystems

A measure of success in the Narrabri Community Strategic Plan is “Biodiversity respected by maintaining native vegetation.”

Indicator – Total area in the National Parks Estate
Indicator – Addition to the National Parks estate

The National Park estate includes national parks, nature reserves, state conservation areas and regional parks. In June 2016, the total area of the National Park estate in the reporting region was 273,876 hectares, 84.4% of which is in Narrabri LGA. There was an addition of 2,989 hectares in the region from the previous year.

Indicator – Total Area of State Forests
Indicator – Change in Area of State Forests

In June 2016, there were 184,274 hectares of State Forests in Narrabri LGA and none in Moree Plains LGA. There was a slight decline in the area of State Forests in the reporting region from the previous year.

Indicator – Total Area Protected in Wildlife Refuges

The Wildlife Refuges scheme has existed since 1948 and is one of the longest-running schemes in Australia that supports conservation on private and public land. Wildlife refuges may contain remnant native vegetation, as well as habitat provided by wildlife corridors, windbreaks, woodlots or farm dams. The area protected in Wildlife Refuges on private property for the two LGAs is 11,611 hectares, almost 90% of which is in the Moree Plains LGA.

Indicator – Total area protected under voluntary conservation agreements and property agreements

The Conservation Partners Program supports landholders in voluntarily protecting and managing native vegetation, wildlife habitat, geological features, historic heritage and Aboriginal cultural heritage on their properties. A conservation agreement is a joint agreement between landholders and the NSW Minister for the Environment. The agreement provides permanent protection for the special features of land. The area under the agreement is registered on the title of the land, ensuring that, if the land is sold, the agreement and management requirements remain in place. Landholders can choose from a range of protection options which recognise and formalise their commitment to conservation on their properties.

Almost 4,000 hectares of land was protected under Voluntary Conservation Agreements and property agreements in 2015-16 with all but 33 hectares of this area in the Moree Plains LGA.

Indicator - Proportion of Council reserves that is bushland/remnant vegetation

The lower bank and land along Broadwater Creek are the only bushland reserves in the Moree Plains LGA - they represent just 16.7% of their Council Reserves area.

This data was not available for the Narrabri LGA.

Indicator - Roadside vegetation management plans

Moree Plains Shire reported that it has a roadside vegetation management plan in place, managed by its Engineering Department. Narrabri Shire Council does not have a plan in place yet.

Indicator – Area of roadside vegetation rehabilitated

Whilst only roadside clearing took place in 2015-16, Moree Plains Shire Council is looking into rehabilitation in the 2016-2017 financial year.

Indicator - State Threatened species listed in the region

There are 327 listed threatened species, Endangered Ecological Communities (EECs) and Endangered Populations across the region. There are a total of 154 species listed in Narrabri LGA and 173 in Moree Plains LGA. There were no formal threatened species actions implemented in either LGA during 2015-16.

Indicator - Fish restocking activities: native species

Almost 80,000 native fish were restocked across the two LGAs, with the majority of these in the Narrabri LGA where a total of just under 63,000 native fish were restocked comprising Golden Perch, Murray Cod and Silver Perch.

Indicator - Fish restocking activities: non-native species

There was no restocking of non-native fish (for recreational fishing) in either LGA during 2015-16.
Indicator - Number of declared noxious weeds

The reporting area has 118 declared noxious weeds (NSW Department of Primary Industries, 2016), and a significant number of environmental weeds present. Noxious weeds declared for the reporting Councils can be found at www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/noxweed.

Narrabri Shire Council actively controls Green Cestrum (highly toxic to cattle), Mother of Millions (again highly toxic to stock), African Boxthorn, Common Pear, Tiger Pear, Noogoora Burr and to a lesser extent Rope Pear, St. John's Wort, Honey Locust. Council is in a program with Gunnedah Shire Council to control Honey Locust in the riparian zone along the Namoi River. It is constantly monitoring High Risk Pathways for Parthenium weed.

Other weeds Narrabri Shire Council controls are Blue Heliotrope, Silver Leaf Nightshade and Bridal Creeper. Sweet Briar has recently been discovered in south eastern area of its boundary with Tamworth Regional LGA.

Indicator - Invasive species (listed noxious or Weeds of National Significance) under active management

Twenty different noxious species are being actively managed across the two LGAs. African Boxthorn, Cats Claw Creeper and Madeira Vine are the only three species being actively managed by both Councils.

One of the key initiatives in the Narrabri LGA has been the partnership between Council and the Local Land Services to remove invasive weeds from river foreshores.
CASE STUDY: Rehabilitation of Tarriaro Reserve (Narrabri LGA)

In 2015, Narrabri Shire Council received $22,605 from a Recreational Fishing Trust Grant to enhance and rehabilitate a degraded recreational fishing reserve by removing noxious, invasive and environmental weeds, revegetating with native species, and removing rubbish along the Namoi River. The grant is to be equalled by Narrabri Shire Council with another $22,605 as an in-kind contribution.

The project site is located within the Namoi Demonstration Reach and is commonly known as the Tarriaro Reserve, 14 km from the town of Narrabri. The Travelling Stock Reserve (TSR) has approximately 2 km of river frontage and consists of 148 hectares.

There are a substantial amount of billabongs and flood runners in the reserve which provide an important habitat for native fish during high river flow. The control of African Boxthorns, Osage Orange, Willows, Tree of Heaven and Mimosa (which are either noxious, environmental weeds or invasive native species) will help to protect these important fish habitats. By controlling these weeds remnant vegetation will be protected and the river system’s health will improve. Native trees will be planted along the river bank where erosion has begun and in locations where the removal of Willows is proposed. Removal of rubbish from the reserve will also help with the restoration of the river.

The works to be undertaken will directly benefit key recreational fish species including Yellow Belly and Murray Cod. By returning the reserve back to its natural environment, any run off water around this area will be clean. Debris from rubbish will be reduced encouraging a cleaner river system which in turn will be a safer environment for native fish and an improvement to their fish habitat. Control of environmental weeds within the reserve will improve biodiversity of native flora and fauna and will provide improved access to the river for local fishers. The reserve is a popular place for fishers and campers throughout the year and especially at the Annual Carp Muster during the month of March.

The project is midway through its funding with Osage Orange, Willows and Tree of Heaven controlled. African Boxthorn and Mimosa have started to be controlled but rain events and climatic conditions have slowed this down. Community engagement will be encouraged with tree planting and further removal of rubbish. The project is due to finish by June 2017.
CASE STUDY:
Mehi River Corridor Revitalisation Plan (Moree Plains LGA)

The Mehi River is a prominent feature in Moree’s landscape running through the middle of the township. The central location of the Mehi River Corridor gives it the potential to become a significant focal point for locals and tourists visiting Moree through its leisure, recreational and environmental opportunities.

The purpose of the revitalisation plan is to consolidate the work done in previous studies and provide a coordinated approach to revitalising the Mehi River Corridor. The corridor is a major asset to Moree and has opportunities for improvement and embellishment.

The Mehi River Corridor will have a revitalised and attractive landscape which promotes its use for leisure and recreational activities while maintaining and protecting its environmental integrity.

The Corridor, with the river as the focal point, will become a tourist attraction for Moree complementing its water image and identity as the nation’s Spa Capital. The River Corridor will promote outdoor activities for locals (especially youth) with facilities nearby including the BMX track, Skate Park, proposed Moree Scout hall, proposed leash free dog park, tennis courts, fishing, canoeing, botanic gardens, Lloyd Oval, Kirkby Park and nature walks through various interconnected shared cycle/walking paths which navigate the corridor.

The Mehi River Corridor revitalisation will provide pedestrian/bicycle linkage to Jellicoe Park and the MAAC through integration with the Spa Bath’s Precinct Beautification Master Plan.

Collaboration with North West Local Land Service (LLS) through funding initiatives has provided opportunities for Council to work together to undertake planting activities to increase the number of native species along the Mehi River Corridor and invasive weed species control works including the removal of willow, caster-oil, balloon vine, green panic and other invasive weed species from within riparian corridor.

This will be a long term project which will engage various user groups and will promote Moree in a positive manner.