

Gunnedah Urban Riverine Sustainability Project

COUNCIL NAME

Gunnedah Shire Council

WEB ADDRESS

gunnedah.nsw.gov.au

SIZE

4994 square kilometres

POPULATION

12,162

Overview

The Gunnedah Urban Riverine Sustainability Project has improved the water quality and environmental sustainability of the Namoi River within the urban limits of Gunnedah. Best practice weed removal and revegetation have contributed to improved water quality and flow, a reduction of noxious weeds, increased biodiversity and improved bank stability. The revegetated area is now providing enhanced opportunities for future recreational use.



Gunnedah Urban Landcare Group volunteers clearing invasive trees at Cushan's Reserve in 2012.

Background

Namoi Councils (Gunnedah, Liverpool Plains, Narrabri and Walcha Shire Councils, the Tamworth Regional Council and the Namoi Catchment Management Authority) received funding from the NSW Environmental Trust to undertake the program titled 'Namoi – Towards a Sustainable Future' which includes the Gunnedah Urban Riverine Sustainability Project.

The project objectives include:

1. Improve water quality and stream hydrology
2. Promote natural regeneration through the rehabilitation of the bank with native trees, shrubs and grasses and on going maintenance and weed control
3. Achieve urban riverine sustainability through improved water quality and efficiency and reduced erosion.
4. Removal of willows (Control Class 5 – Noxious Weeds Act 1993), Johnson Grass and Noogoora Burr (Control Class 4 – Noxious Weeds Act 1993)
5. Involve community volunteers.

REFERENCES

gunnedah.nsw.gov.au

Implementation

The project plan was developed in consultation with Department of Primary Industries – Fisheries and the Namoi CMA and was underpinned with scientific data. The project took 12 months to complete.

The project involved contractors and volunteers removing willow trees from 1.4 km from the southern bank and 400 metres from the northern bank of the Namoi River. The work was undertaken using best management practice weed removal and revegetated to ensure bank stability and rehabilitation. In addition, 0.2 ha of land infested with *Cestrum*, Mother of Millions and Johnson's Grass was controlled.

The project was managed by internal staff, namely Council's Environmental & Natural Resource Planner. Crucial to the success of the project was the partnership between the NSW Environmental Trust, DPI – Fisheries and Gunnedah Urban Landcare Group.

Outcomes

The on-ground works have been very successful with the following outcomes achieved:

- Area of riparian zone regenerated = 5 ha
- Mass of weeds removed = 90-100 tonnes
- Number of volunteers involved = 20
- Water Quality Improvements = Water quality has improved with reduced erosion following the removal of willows and the regeneration of the banks with native trees, shrubs and grasses

Monitoring of revegetation was carried out at short intervals to monitor tree survival rates, ground moisture and weed infestations. There has been approximately 75-85% survival rate within plantings which occurred on the high bank.

Plantings which occurred during spring on the low bank and to the waters edge were relatively unsuccessful (survival rates of between 5-15%) due to sustained high water flows above the planting level for over three months. Follow up planting of aquatic species were undertaken once low river flows were once again established. Importantly, the plantings undertaken in the project area have now reached a self sustaining stage.

Key Learnings

Although the project ran relatively smoothly a number of key learnings have been identified:

- The risk management plan needs to identify risks such as unforeseeable seasonal conditions, high river levels (natural & artificial flows). Build flexibility into your works program to account for these factors.
- Management of multiple community organisations takes time and expectations, roles and responsibilities need to be clearly established from the outset. Regular communication is essential to maintain involvement from all stakeholders
- Long term commitment is crucial to the success of the project. The project is part of the wider vision of Gunnedah Council and is endorsed by Senior Management and the community.

Contact

Name: Lachlan Johnson

Position: Environmental & Natural Resources Manager

Phone: 02 6740 2126

Email: council@infogunnedah.com.au