

Wollombi Brook Rehabilitation Project

Newsletter # 3

HUNTER LOCAL LAND SERVICES

July 2021

Hunter Local Land Services (HLLS) are working in partnership with Broke Bulga Landcare Group together with landholders occupying a section of the Wollombi Brook at Broke to improve the condition and health of the Brook. Project activities include weed control, re-establishing native vegetation species, addressing erosion and where necessary fencing and structural works.

The Wollombi Brook Rehabilitation Project is supported by funding provided through the NSW Government's Environmental Trust and Hunter Local Land Services. Additional project partners are Bulga Coal and Singleton Council.

This is the third newsletter for this Project. These newsletters aim to keep participating landholders as well as interested community members informed of project activities as they progress.

Project Aims and Activities

The Wollombi Brook Rehabilitation Project is now in its final 12 months and will continue up to June 2022.

Project aims are to provide participating landholders with contract labour to assist with weed control, native tubestock/grass seed to revegetate and protect riverbank areas, contributions towards fencing where required, and minor material works to address erosion if necessary.



The project area extends downstream from the Milbrodale Road Bridge to just beyond the first northerly bend of the Brook.

Project activities also include holding public events to promote the importance of the Wollombi Brook and improving the health of waterways, as well as future installation of educational signage within public park areas.

Eleven landholders have been participating in the Project. Weed control work has been completed along 1.5km of the west bank and along 1.3km of the east bank. Plantings of native species has occurred across nine properties on either side of the Brook.

Figure 1: Wollombi Brook Project Area

Weed Control

Six sites downstream from the Milbrodale Road Bridge on the west bank of the Brook have now undergone initial plus follow-up weed control work with a seventh property site receiving initial control work. Another six sites on the east bank have also had initial and follow-up weed control work completed. The result has been a significant change to the riparian understorey along the reach which was previously thickly infested with African Olive. This change has shown that native species are now notably re-appearing such as Tea Trees and Green Wattles. Also, of note has been some areas where native grasses and other native groundcovers have re-emerged.



Work on the east bank – African Olive treated using frill-and-fill method (left); hand removing exotic vines (right)

A wide range of other weeds have been treated along the reach such as Moth Vine, Bridal Creeper, African Boxthorn, Tree of Heaven, Tree Pear, Green Cestrum and Cassia.

March Flood Event

The flood event experienced in late March had an impact on some weed species and previous plantings.

Some weeds such as Tree of Heaven and Cassia were negatively affected by inundation. Plantings of some native shrub species were lost, however while there had been some losses of Lomandra many of them have survived. This was particularly the case along the Brook section of Nightingales Vineyard where it was noticed that planted Lomandra had become more well established amongst stands of Casuarinas.



Cassia suffered from inundation along the Brook (left); well established Lomandras near Nightingales (right)

Revegetation

The Project aims to establish up to 7,000 native plants along the Brook, the majority of which will be the sedge *Lomandra longifolia* to help with bank stabilisation.

A total of 2,750 plants have been planted so far across nine properties. Species planted have included Mat Rush, Pink-Tipped Bottlebrush, Tea Tree, Green Wattle, Silver-Stemmed Wattle, Forest Red Gum, River Red Gum, Sandpaper Fig and Red Ash.

Plantings undertaken this year have focused on the east bank with a further batch of plantings scheduled for the west bank in late winter/early spring.



East bank: Plantings of native shrubs to in-fill areas around Casuarinas (left); contractor Toolijooa Environmental Restoration undertaking plantings after site preparation (right).

Some minor erosion and movement of sand was noticed along the reach of the Brook resulting from the flood inundation in March which appeared to be a slow-moving flood event. Planting *Lomandra* aims to prevent this from happening and they tolerate inundation well once established. Grasses alone on banks do not have the deep root system required compared to *Lomandra* and native shrubs to help hold sandy sediment together.



*Mixed plantings of trees, shrubs and *Lomandra* on back bank tier on the east bank (left); example of loss of sediment from flood inundation on the east bank, area since planted out with *Lomandra* sedges and shrubs (right).*

School Event at McNamara Park

A great day was had with students from Broke and Milbrodale Public Schools on 17th March at an EnviroDay event linked with the Wollombi Brook Project.

80 students plus their teachers attended the event to hear from several presenters set up around the Park.

Interactive activities were centred around topics including animals and habitat, Aboriginal cultural heritage, waste management, revegetation on Wollombi Brook, water quality testing and geographic positioning (geocaching).

The students had a lot of fun rotating between activities and ended up planting 240 Lomandra on the Brook.

Presenters and assisting groups included Singleton Council, Broke/Bulga Landcare Group, Bulga Coal, National Parks and Wildlife, Environment, Energy and Science and Hunter Local Land Services. The event was coordinated by consultant Envirocomm Connections P/L.



Students listening to NPWS Discovery Rangers at the Cultural Heritage activity (left); planting Lomandra on the Brook with Landcare (centre); some of the fantastic animals and habitats created by students (right).



More information

Contact Lorna Adlem, Hunter Local Land Services

Ph: 4938 4925 Mob: 0437 967 311 Email: Lorna.Adlem@lls.nsw.gov.au

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