

extension

Approximately 50% of the industry within the valley participated in natural resource training.



Best Practice Partnerships

Some of the training workshops and extension tools developed:

- Irrigated Cotton and Grains Workshop series
- 2007 Lippia Management Forum
- BMP Land and Water Management Workshop series
- Birds on Farms: Monitoring Biodiversity and Habitat Workshop series.



Cotton Catchment Communities CRC

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For the past five years the Cotton Catchment Communities CRC (Cotton CRC) and the Namoi Catchment Management Authority (Namoi CMA) have had a partnership to work with cotton growers within the Namoi valley as well as other government organisations, industry bodies, research organisations and the general community to deliver natural resource management outcomes in line with the Namoi Catchment Action Plan (CAP).

The three areas of investment were research, extension and adoption. The collaborative investment for each area was \$6.2 million in research, \$4.1 million in extension and \$2.5 million in adoption.

research

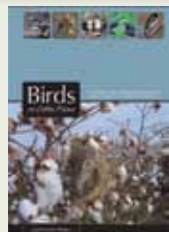
“Without the partnership, neither organisation would of been able to achieve the same level of NRM outcomes which resulted from better management practices, improved use of resources, conservation and re-vegetation.” (Roberts Evaluation Report, 2009)

The Namoi CMA and Cotton CRC worked collaboratively with research organisations to provide industry and agency extension staff and growers with the best available information to make land management decisions. Some of the research projects undertaken include:

- Identifying bird habitat requirements on cotton farms in the Lower Namoi. *Birds Australia*
- Development of a 3D geological mapping database interface to support interconnected groundwater and surface management. *UNSW, NWI*
- Riparian Conditions Assessment Index for Namoi River. *EcoLogical*



2008 Biodiversity in cotton landscapes Calendar (maintaining our natural workforce) and factsheet series



Birds on cotton farms (A guide to common species and habitat management)



Common Plants of grazing pastures on the Lower Namoi floodplain



Fishes on cotton farms (A guide to Native fish habitat management for north-west NSW)



Lippia Management Book

PUBLICATIONS

FUNDING CONTRIBUTORS

- Namoi CMA ●●●●●
- Cotton CRC ●●●●●
- NSW Industry & Investment (Former NSW DPI) ●●●●●
- Department of Agriculture, Fisheries and Forestry ●●●●●
- Exchange National Vegetation Knowledge Service ●●●●●
- Greening Australia ●●●●●
- Swift NRM ●●●●●
- Central West CMA ●●●●●
- Border Rivers Gwydir CMA ●●●●●
- National Lippia Working Group ●●●●●
- Western CMA ●●●●●
- Queensland Murray-Darling Committee ●●●●●
- UNE ●●●●●
- Birds Australia ●●●●●
- Natural Heritage Trust ●●●●●
- Condamine Alliance ●●●●●
- Envirofund ●●●●●
- Murray Darling Basin Authority ●●●●●
- Australian Cotton Grower Association ●●●●●
- CSIRO ●●●●●



BIODIVERSITY

TARGET: Improvement in the health of native plants and animals on cotton farms within the Namoi Catchment.

WHAT WAS ACHIEVED: 440ha of native habitat conserved and 540ha of native vegetation enhanced.

BEST PRACTICE IMPLEMENTED: Pest animal and weed control, strategic grazing, re-vegetation, retention of dead trees and hollow logs, fencing to restrict stock access.

PRODUCTION BENEFIT: Healthier more diverse native pastures, better soil health and soil biodiversity through better groundcover, healthy habitats for natural pest controllers like spiders and damsel bugs.

NRM BENEFIT: Increased populations of native plants and animals and improved habitat conditions.

CASE STUDY EXAMPLE: David Grellman "Sandhurst" "Subdividing our paddocks has made stock management much easier because we now know how much feed we have ahead of us".



WHOLE FARM WATER USE EFFICIENCY

TARGET: Improve WUE on cotton farms across the Namoi valley.

WHAT WAS ACHIEVED: 15% improvement across participating farms in WUE, 5000ML of water saved over 8000ha.

BEST PRACTICE IMPLEMENTED: Benchmarking and evaluating whole farm water balance and infield efficiencies and making necessary land management changes.

PRODUCTION BENEFIT: More bales per ML.

NRM BENEFIT: Reduced deep drainage and potential for salinisation of underlying aquifers.

CASE STUDY EXAMPLE: Paul Hawkins "Willawah" "We are now able to better match our irrigation to our soil variability".



PROPERTY PLANNING

TARGET: Increased number of Cotton Growers within the Namoi valley participating in the industry's BMP Program.

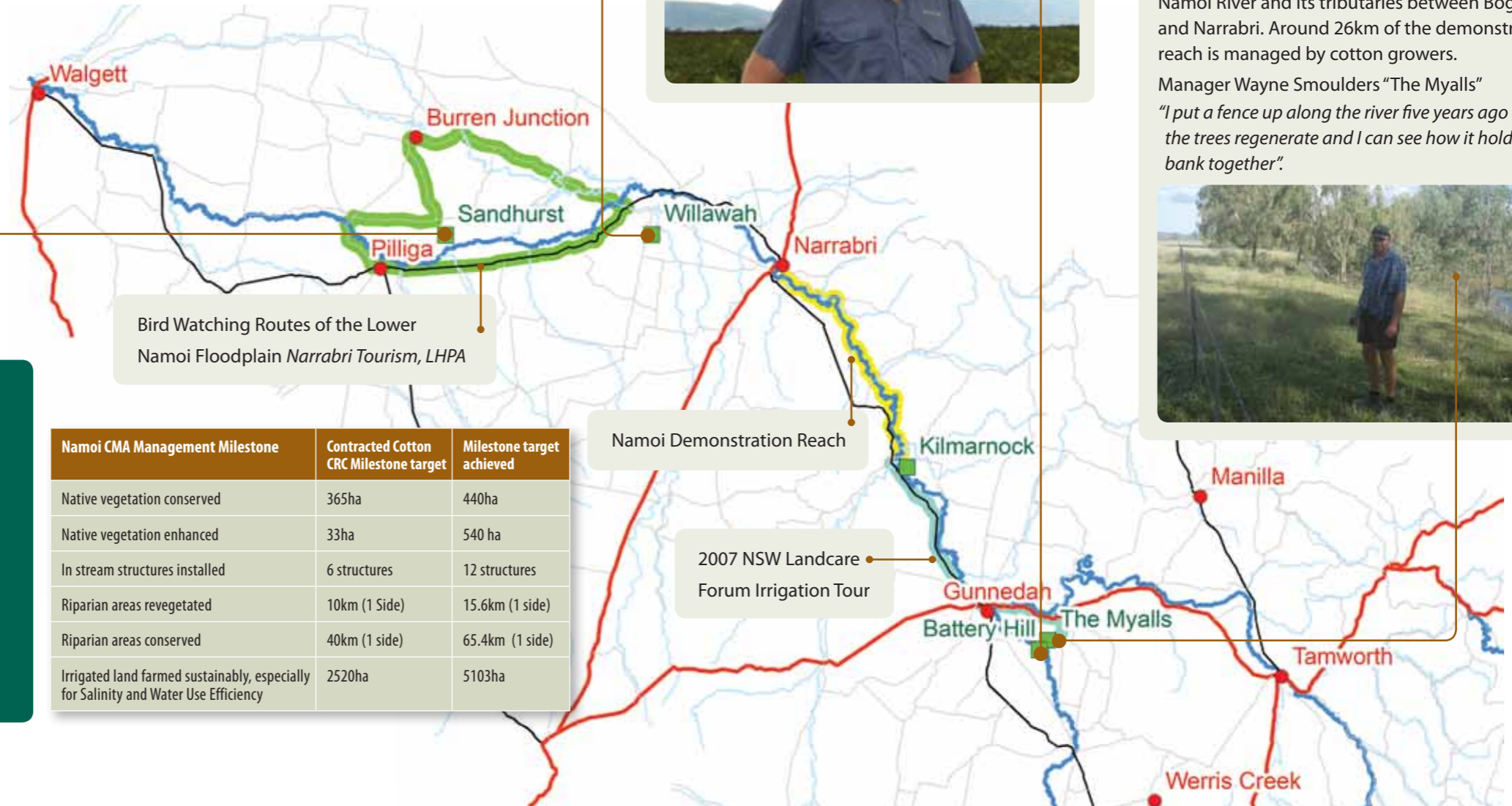
WHAT WAS ACHIEVED: 110,000ha of land covered by a BMP plan.

BEST PRACTICE IMPLEMENTED: Identification of key environmental and human risks on farm and development of action plans to address those risks.

PRODUCTION BENEFIT: A planning tool and process to monitor and evaluate management practices.

NRM BENEFIT: Improved sustainability of on-farm natural resources, improved ability to adapt to climate variability.

CASE STUDY EXAMPLE: Phil Morgan "Battery Hill" "The Land and Water Management module has helped us identify our on-farm risks, identify what our compliance issues were, and gave us guidelines for managing the sensitive areas on our farm such as areas of native vegetation and the riparian zones".



Bird Watching Routes of the Lower Namoi Floodplain Narrabri Tourism, LHPA

Namoi Demonstration Reach

2007 NSW Landcare Forum Irrigation Tour

Namoi CMA Management Milestone	Contracted Cotton CRC Milestone target	Milestone target achieved
Native vegetation conserved	365ha	440ha
Native vegetation enhanced	33ha	540 ha
In stream structures installed	6 structures	12 structures
Riparian areas revegetated	10km (1 Side)	15.6km (1 side)
Riparian areas conserved	40km (1 side)	65.4km (1 side)
Irrigated land farmed sustainably, especially for Salinity and Water Use Efficiency	2520ha	5103ha

RIPARIAN

TARGET: Improved health of riparian ecosystems on cotton farms within the Namoi valley.

WHAT WAS ACHIEVED: 90km of riparian vegetation within the Lower Namoi valley conserved and improved.

BEST PRACTICE IMPLEMENTED: Revegetation, weed and pest control, re-snagging of river to stop bend erosion and provide more fish habitat, bank battering, strategic grazing and fencing to restrict stock access.

PRODUCTION BENEFIT: Reduced streambank erosion and loss of valuable agricultural land and improved water quality.

NRM BENEFIT: Improved health of riparian ecosystems and surface water quality.

CASE STUDY EXAMPLE: The Namoi Demonstration Reach is part of the Namoi Aquatic Habitat Initiative which is a partnership with NSW Industry and Investment which restored 120km of the Namoi River and its tributaries between Boggabri and Narrabri. Around 26km of the demonstration reach is managed by cotton growers.

Manager Wayne Smoulders "The Myalls" "I put a fence up along the river five years ago and let the trees regenerate and I can see how it holds the bank together".



adoption

Forty-Five Cotton Growers across the Namoi valley undertook on-ground projects to improve the condition of their natural assets on their farm.