

VICTORIAN CATCHMENT MANAGEMENT AUTHORITIES'  
**ACTIONS & ACHIEVEMENTS REPORT**

2015/2016

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# CONTENTS

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|  |    |  |    |
|--|----|--|----|
| FOREWORD   | 3  | REGIONAL ACTIONS AND ACHIEVEMENTS                                      |    |
| EXECUTIVE SUMMARY  | 5  | Including regional outputs data, key events, insights and case studies | 27 |
| INTRODUCTION   | 6  | Corangamite  | 28 |
| 2015/16 SUMMARY: Statewide actions and achievements  | 8  | East Gippsland   | 32 |
| REGIONS AT A GLANCE  | 11 | Glenelg Hopkins  | 36 |
| KEY FOCUS AREAS  | 15 | Goulburn Broken  | 40 |
| Key Focus Area 1<br>Engage Victoria's communities in natural resource management                                   | 18 | Mallee   | 44 |
| Key Focus Area 2<br>Protect and improve the environmental condition of Victoria's waterways, land and biodiversity | 20 | North Central  | 48 |
| Key Focus Area 3<br>Provide good governance and leadership   | 22 | North East   | 52 |
| Statewide Case Studies   | 24 | Port Phillip and Westernport   | 56 |
| Regional Natural Resources Management: Climate Change Adaptation   | 25 | West Gippsland   | 60 |
| Victorian Landcare Program   | 26 | Wimmera  | 64 |
|  |    | Contact  | 68 |



# FOREWORD

VICTORIA'S TEN CATCHMENT MANAGEMENT AUTHORITIES (CMAS) ARE RESPONSIBLE FOR FACILITATING AND COORDINATING THE MANAGEMENT OF CATCHMENTS IN AN INTEGRATED AND SUSTAINABLE MANNER, ACROSS LAND, BIODIVERSITY AND WATER RESOURCES.



HEALTHY, SUSTAINABLE AND PRODUCTIVE LAND, WATER AND BIODIVERSITY MAINTAINED THROUGH INTEGRATED CATCHMENT MANAGEMENT THAT IS STRONGLY COMMUNITY BASED, REGIONALLY FOCUSED AND COLLABORATIVE.

In 2015/16 we continued to deliver on integrated catchment management outcomes through collaboration with catchment communities and NRM partners. This Actions and Achievements Report presents tangible outputs delivered across the state, illuminates the data through case studies, and draws a line of sight to the latest policy and strategic developments.

Government leadership enables these achievements. We commend and acknowledge the Australian Government's and the Victorian State Government's funding and support, and value productive relationships shared with their staff and Ministers.

We are proud of our role in developing Our Catchments, Our Communities - Integrated Catchment Management in Victoria 2016-19 (OCOC) with the Department of Environment, Land, Water and Planning. In a first for Victoria, this statewide strategy continues an important journey founded in the Catchment and Land Protection (CaLP) Act 1994, which sets our catchment management framework for the mutual benefit of the economy, community and natural environment.

OCOC is strengthening integrated catchment management across Victoria, and we look forward to implementing on its vision:

Partnerships with our catchment communities - and priorities identified in our respective Regional Catchment Strategies - will be at the centre of achieving this shared vision.

Lyn Coulston, OAM  
Chair of Victorian CMA Chairs Group

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# EXECUTIVE SUMMARY

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This report illustrates how Catchment Management Authorities (CMAs) are implementing “Our Catchments, Our Communities” - a strategy that reaffirms the Victorian Government’s regionally focused and community based approach to catchment management.

Victoria has a well-established integrated catchment management framework that seeks to conserve the environment, while maintaining and enhancing productivity from land and water resources.

This 2015/2016 Actions and Achievements report:

- describes collaborative approaches that CMAs are using within their region and across the State,
- highlights condition changes, and
- illustrates adaptive management approaches being used across Victoria.

Changes to the condition of an environmental asset are often incremental and subtle. However, events and cycles such as drought, flooding, large scale fires, pests, legislation, strategic documents and changes to investment can influence long and short-term catchment condition.

During 2015/2016 CMAs worked with regional partners, the Victorian Catchment Management Council and the Office of the Commissioner for Environmental Sustainability to describe changes to catchment condition across the key parameters of community, waterways, biodiversity, land and coasts.

The information and data collected for development of this report can be utilised for independent assessments on the state of Victoria’s environment.



# INTRODUCTION

THE 2015/2016 ACTIONS AND ACHIEVEMENTS OF VICTORIA'S TEN CATCHMENT MANAGEMENT AUTHORITIES (CMAS) HAVE BEEN EXECUTED AT A TIME OF SIGNIFICANT STRATEGIC DEVELOPMENT FOR NATURAL RESOURCE MANAGEMENT IN THE STATE.

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## IMPLEMENTING THE VICTORIAN GOVERNMENT'S ENVIRONMENTAL PARTNERSHIPS PRIORITIES

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IMPLEMENTATION OF THE RESPONSE TO RECOMMENDATIONS OF THE VICTORIAN AUDITOR-GENERAL'S OFFICE (VAGO) ON IMPROVING EFFECTIVENESS OF CMAS HAS CONCLUDED, AND IN THAT, **OUR CATCHMENTS, OUR COMMUNITIES - INTEGRATED CATCHMENT MANAGEMENT IN VICTORIA 2016-19** HAS EMERGED.

In a Victorian first, Our Catchments, Our Communities provides a state-level strategy that sets direction for dynamic and productive catchment management partnerships addressing land, water, biodiversity and climate change elements. CMAs actively contributed to the implementation of the VAGO action plan, including:

- contributing to oversight and participating on action groups
- leading regional coordination processes that engaged regional organisations and communities in the planning and delivery of natural resource management actions, and
- participating in the development of an improved, consistent monitoring and reporting framework at regional and statewide levels for the future.

Through collaborations, and partners integrating at regional scale, CMAs have strengthened investment planning, developed agreements, and contributed to improved linkages between funding and the overarching strategy for integrated catchment management and Regional Catchment Strategies' (RCS) priorities.

While connecting to various aspects of the action plan, this VCMA's 2015/16 Actions and Achievements Report contributes specifically to the third point. It outlines work undertaken with State and Commonwealth funds using consistent output types, towards improved future reporting that encompasses the work

undertaken by key regional partners and with local communities.

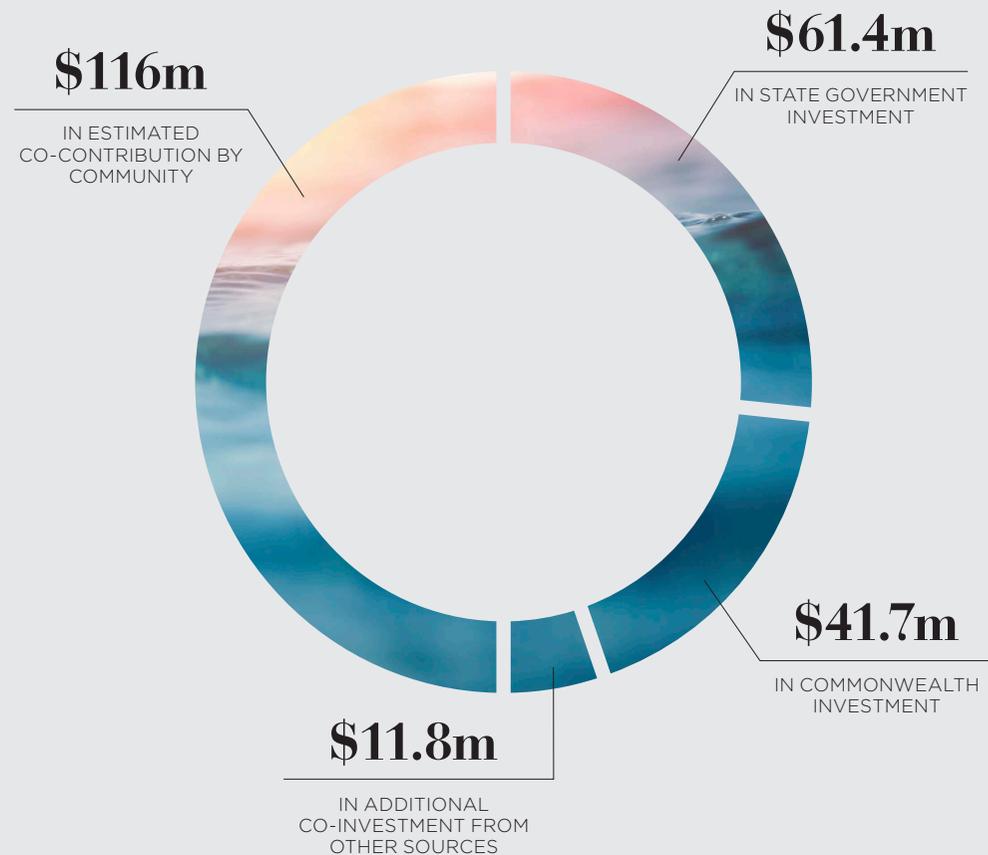
Key focus areas of this report refer further to CMAs' involvement in the action plan, and also refer to the relevant goals and respective visions of success for Our Catchments, Our Communities.

State and regional case studies showcase partnerships and recognise contribution to implementation of RCSs and other key guiding documents. Under the goal of "improved monitoring, evaluation and reporting", Our Catchments, Our Communities aims to evolve this Report into an annual RCS achievements report with input from key catchment partners including the Department of Environment, Land, Water and Planning, Parks Victoria, water corporations, local government and community natural resource management groups.

# 2015/2016 SUMMARY STATEWIDE ACTIONS AND ACHIEVEMENTS

DURING 2015/2016 THE FOLLOWING INVESTMENT  
WAS MADE THROUGH VICTORIA'S TEN CMAS:

NOTE: The community co-contribution figure is based on modelled assumptive data derived from the Catchment Condition and Management Report 2012, Victorian Catchment Management Council. Port Phillip Bay covers an area of approximately 193,000 ha. The Royal Botanic Gardens are approximately 38 ha. Melbourne City Centre is approximately 622 ha, including the area between the Yarra River and Spencer, Latrobe, Victoria and Spring Streets. The 'working day' figures assume an eight hour day and 200 work days per year.



# 2015/2016 SUMMARY STATEWIDE ACTIONS AND ACHIEVEMENTS

NOTE: The community co-contribution figure is based on modelled assumptive data derived from the Catchment Condition and Management Report 2012, Victorian Catchment Management Council. Port Phillip Bay covers an area of approximately 193,000 ha. The Royal Botanic Gardens are approximately 38 ha. Melbourne City Centre is approximately 622 ha, including the area between the Yarra River and Spencer, Latrobe, Victoria and Spring Streets. The 'working day' figures assume an eight hour day and 200 work days per year.

AS A RESULT OF THE INVESTMENT, A LARGE NUMBER OF OUTPUTS WERE ACHIEVED THROUGHOUT THE YEAR. HIGHLIGHTS ACROSS VICTORIA INCLUDED:

|         |  |  |     |   |
|---------|--|--|-----|---|
| 66,093  | event participants                     | that is  | 330 | people participating in local events every day of the year  |
| 1,387   | partnerships                           | that is on average                             | 139 | collaborative arrangements with organisations and individuals being established or maintained by each CMA |
| 956,851 | ha of pest animal and weed control     | that is an area over                           | 5   | times the size of Port Phillip Bay  |
| 5,777   | ha of vegetation                       | that is an area over                           | 152 | times the size of Melbourne's Royal Botanic Gardens which has had vegetation established and maintained   |
| 5,011   | ha of irrigation infrastructure        | that is an area                                | 8   | times the size of Melbourne City Centre with more efficient irrigation systems                            |
| 7,147   | planning approvals and advice provided | that is one every                              | 13  | minutes of every working day  |
| 838     | km of fences                           | that is about the distance of a road trip from |     | Bairnsdale to Mildura   |

# 2015/2016 SUMMARY

| OUTPUT                                  | TARGET  | ACTUAL |         |       |         |
|---|---------|--------|---------|-------|---------|
|   |         | STATE  | C'WLTH  | OTHER | TOTAL   |
| <b>1. STRUCTURAL WORKS</b>              |         |        |         |       |         |
| 1.1 Channel (km)                        | 75      | 76     | 0       | 0     | 76      |
| 1.2 Water storage (no.)                 | 129     | 133    | 24      | 0     | 157     |
| 1.3 Pump (no.)                          | 20      | 11     | 0       | 0     | 11      |
| 1.4 Irrigation Structure (ha)           | 2,078   | 273    | 3,713   | 1,025 | 5,011   |
| 1.5 Waterway structure (no.)            | 256     | 638    | 1       | 0     | 639     |
| 1.6 Terrestrial Structure (no.)         | 2       | 7      | 0       | 0     | 7       |
| 1.7 Terrestrial feature (no.)           | 49      | 117    | 1       | 19    | 137     |
| 1.8 Monitoring structure (no.)          | 238     | 179    | 1       | 1     | 181     |
| 1.9 Fence (km)                          | 671     | 578    | 256     | 2     | 838     |
| 1.10 Visitor Facility (no.)             | 111     | 117    | 5       | 6     | 128     |
| 1.11 Road (km)                          | 74      | 83     | 6       | 0     | 89      |
| 1.12 Crossing (no.)                     | 13      | 11     | 0       | 0     | 11      |
| <b>2. ENVIRONMENTAL WORKS</b>           |         |        |         |       |         |
| 2.1 Vegetation (ha)                     | 4,886   | 1,223  | 4,530   | 23    | 5,777   |
| 2.2 Weed control (ha)                   | 55,270  | 30,444 | 46,179  | 288   | 76,911  |
| 2.3 Pest animal control (ha)            | 197,206 | 27,584 | 852,132 | 224   | 879,940 |
| 2.4 Over-abundant wildlife control (ha) | 0       | 0      | 0       | 0     | 0       |
| 2.5 Threatened species response (no.)   | 23      | 3      | 20      | 0     | 23      |
| 2.6 Emergency Species response (no.)    | 0       | 0      | 0       | 0     | 0       |
| 2.7 Soil treatment (ha)                 | 53      | 94     | 2       | 0     | 96      |
| 2.8 Earth works (no.)                   | 80      | 47     | 45      | 0     | 92      |
| 2.9 Rubbish removal (ha)                | 53      | 278    | 24      | 0     | 302     |
| <b>3. MANAGEMENT SERVICES</b>           |         |        |         |       |         |
| 3.1 Grazing (ha)                        | 3,476   | 1,664  | 4,598   | 0     | 6,263   |
| 3.2 Agricultural practices (ha)         | 80,323  | 50     | 126,506 | 0     | 126,556 |
| 3.3 Water (no.)                         | 97      | 162    | 6       | 0     | 168     |
| 3.4 Fire Regime (no.)                   | 19      | 0      | 406     | 0     | 406     |
| <b>4. PLANNING AND REGULATION</b>       |         |        |         |       |         |
| 4.1 Approval and advice (no.)           | 6,741   | 6,980  | 0       | 167   | 7,147   |
| 4.2 Management agreement (no.)          | 898     | 467    | 441     | 87    | 995     |
| 4.3 Assessment (no.)                    | 6,347   | 5,641  | 1,164   | 44    | 6,849   |
| 4.4 Engagement event (no. participants) | 33,043  | 38,837 | 26,099  | 1,157 | 66,093  |
| 4.5 Partnership (no.)                   | 1,598   | 998    | 335     | 54    | 1,387   |
| 4.6 Plan (no.)                          | 670     | 182    | 202     | 19    | 403     |
| 4.7 Publication (no.)                   | 913     | 683    | 261     | 41    | 985     |
| 4.8 Information management system (no.) | 43      | 32     | 2       | 9     | 43      |

Note: A number of measurement units from the DELWP Output data standards have been amended since the execution of Service Level Agreements. Whilst every effort has been made to ensure alignment between targets and actual data some small discrepancies may still exist.

# REGIONS AT A GLANCE



Victoria has a well-established integrated catchment management framework in place that is working to conserve our environment, while maintaining and enhancing productivity from our land and water resources. The Catchment and Land Protection (CaLP) Act 1994 is the legislative basis for catchment management in Victoria, which divides the state into ten catchment regions.

Statements of Obligations document the specific responsibilities of Catchment Management Authorities (CMAs) under the CaLP Act 1994 and Water Act 1989. For each region, the role of a CMA is to “facilitate and coordinate the management of catchments in an integrated and sustainable manner including as it relates to land, biodiversity and water resources”.

Each CMA has a ministerially-appointed board of local people that is responsible for setting strategic directions for regional land and water management, and monitoring and evaluating its performance. Board members are appointed for their relevant skills, experience and commitment to statewide catchment management, and are recognised as helping prepare the state for future environmental and economic challenges such as climate change and population growth, intensifying land use, and natural disasters such as bushfires and floods.



COMMUNITY  
CHAIRS FROM THE  
TEN CMAS HAVE  
PROVIDED THE  
FOLLOWING BRIEF  
DESCRIPTIONS OF  
THEIR REGION.



## CORANGAMITE

The Corangamite region extends across 1.3 million hectares of land, with 78 per cent in private ownership. The region has rich and diverse landscapes, ranging from expansive volcanic plains, to coastal environments, and the Otway Ranges.

The diverse and productive landscapes support production forests, cropping, grazing, horticulture, viticulture and dairy enterprise.

ALICE KNIGHT



## EAST GIPPSLAND

East Gippsland is predominantly publicly owned land comprising State forests, and national and coastal parks.

About 41,000 people live along the coastal plains or the strips of farming land up the river valleys and on the mountain plateaux. The productive use of the region's assets is highly valued and includes farming, tourism, manufacturing, lifestyle and conservation.

DR PETER VENKEER



## GLENELG HOPKINS

The Glenelg-Hopkins region is characterised by flat volcanic plains in the south, with the Grampians, Dundas Tablelands and Central Highlands dominant in the north.

The region contains 44 per cent of Victoria's wetlands and 10 per cent of Victoria's threatened species. It is a highly productive region for agriculture – particularly for dairy, beef, sheep and cropping.

ANTHONY FORD



## GOULBURN BROKEN

The Goulburn Broken catchment extends north from the outskirts of Melbourne to the River Murray. The catchment yields 11% of the Murray Darling Basin's water despite covering only 2% of its area.

The catchment boasts a diversity of landscapes including seasonally snow covered alps, forests, granitic outcrops, gentle sloping plains, box woodlands and red gum floodplains.

Primary industries include dairy, horticulture, viticulture, livestock production, cropping, and timber production.

Agricultural production (irrigated and dryland) in the Goulburn Broken Catchment is worth almost \$2 billion annually, which is more than 15% of Victoria's total agricultural production.

MURRAY CHAPMAN



## MALLEE

The Mallee region covers almost 40,000 square kilometres, making it the largest catchment area in Victoria. It runs along the Murray River from Nyah to the South Australian border and south through vast dryland cropping areas and public reserves.

Key features of the region include the internationally recognised Hattah Lakes Ramsar site; more than 730 kilometres of high-value Murray River frontage; and vast areas of Aboriginal cultural significance.

The Mallee region is also home to large contiguous blocks of native habitat; agricultural industries which produce almost 50 per cent of Victoria's cereals, and more than 40 per cent of all fruit and nut production.

SHARYON PEART



## NORTH CENTRAL

The North Central CMA region covers 13% of Victoria. It is bordered by the Great Dividing Range in the south, the Murray River in the north, the Mount Camel range in the east and the Avon-Richardson catchment in the west.

The region has four major river catchments – the Campaspe, Loddon, Avoca and Avon-Richardson – and supports productive agriculture, cropping, grazing and mixed farming sectors.

DAVID CLARK



## NORTH EAST

Victoria's North East extends across 1.9 million hectares between the River Murray in the north, Victorian Alps in the south and the Warby Ranges in the west. The region is home to 100,000 people, provides 38% of total water to the Murray Darling Basin, and comprises 55% public land.

Key industries include agriculture (dairy, beef, wool, cropping and horticulture), forest industries, tourism and value added processing industries, particularly in the region's two largest centres of Wangaratta and Wodonga.

LYN COULSTON, OAM



## PORT PHILLIP & WESTERNPORT

Spanning 1.3 million hectares that feed into Port Phillip Bay and Western Port Bay, this region is home to around 4.5 million people and boasts Victoria's capital city plus some of the State's most productive farming lands, spectacular parks, picturesque landscapes, diverse natural ecosystems and is home to all four State emblems.

The activities and lifestyles of the region's residents, and the thriving tourism industry, are underpinned by the diversity and health of its natural resources.

Therefore, the challenges associated with a growing population, intense demands on the resources and changing climate mean the region's natural resources need to be carefully managed.

NEVILLE GOODWIN, OAM



## WEST GIPPSLAND

The West Gippsland catchment region extends from Warragul to the Gippsland Lakes and from the Great Dividing Range to Wilsons Promontory. The region provides the vast majority of Victoria's electricity, 60 per cent of Melbourne's water storage capacity, and 20 per cent of Australia's milk production.

The region's natural environment is extremely diverse and contains highly valued natural assets such as native forests, rivers, coasts and wetlands including Corner Inlet, the Thomson River and Victorian Alps.

ANGUS HUME



## WIMMERA

The Wimmera region covers 30,000 square kilometres and straddles the Wimmera River. Agriculture is the dominant land use, economic driver and employment sector. One quarter of the 50,000 people who live in the region depend directly on agriculture for their income.

Natural Wimmera features include more than 3,000 wetlands, high value recreational fishing destinations, and the Grampians and Little Desert National Parks. The region is home to 1,500 species of native plants, 420 species of native animals and more than 2,000 sites of indigenous archaeological significance.

KAREN DOUGLAS

A photograph of a kangaroo sitting in a field of yellow-green bushes. The kangaroo is brown and is looking towards the camera. The background is a clear blue sky with some light clouds. The text 'KEY FOCUS AREAS' is overlaid on the right side of the image.

# KEY FOCUS AREAS

EACH YEAR THE ACTIONS  
AND ACHIEVEMENTS REPORT  
HIGHLIGHTS A SELECTION OF  
VICTORIAN CMAS' OUTPUTS  
ALIGNED WITH THREE KEY  
FOCUS AREAS.

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## ESTABLISHING A RELATIONSHIP WITH STATEWIDE CATCHMENT INDICATORS

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Each year the Actions and Achievements Report highlights a selection of Victorian CMAs' outputs aligned with three key focus areas:



1. ENGAGE VICTORIA'S COMMUNITIES IN NATURAL RESOURCE MANAGEMENT
2. PROTECT AND IMPROVE THE ENVIRONMENTAL CONDITION OF VICTORIA'S WATERWAYS, LAND AND BIODIVERSITY
3. PROVIDE GOOD GOVERNANCE AND LEADERSHIP

This third iteration of the statewide report enables reporting of the standard outputs aligned with each of these key focus areas as trend data in the following sections. Also, recognising the latest developments in an improved framework for catchment condition and management reporting, the diagram on page 16 (On-ground Actions Achieving Strategic Outcomes) cross references standard outputs - and their respective output classes and key focus areas - with catchment indicator themes. It also illustrates links between key focus areas and the goals of Our Catchments, Our Communities.

Demonstrating a relationship between outputs and catchment indicators reflects the utility of outputs as supporting evidence for catchment indicator ratings. Theory of change can apply sound assumptions to interlink outputs of the various key focus areas through to outcomes relating to high level catchment themes.

The statewide catchment indicators case study later in this report provides further detail on this aspect of the VAGO response, by defining a set of indicators, thus advancing consistency and quality in monitoring, evaluation and reporting. Continuing to build on this area of work will contribute to goal five of Our Catchments, Our Communities (improved monitoring, evaluation and reporting).

## ON-GROUND ACTIONS ACHIEVING STRATEGIC OUTCOMES

|  |   |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |
|--|---|---|---|--|----------------------|---|-------------------------------|--|--|------------------------------------|------------------------------|-----------------------|-------------------------------|
| OUR CATCHMENT,<br>OUR COMMUNITIES<br>GOALS         | <b>OCOC GOAL 1:</b><br>Effective community engagement in catchment management |   |   | <b>OCOC GOAL 2:</b><br>Better connections between state, regional and local planning |                      |   |                               | <b>OCOC GOAL 3:</b><br>Strengthened implementation of Regional Catchment Strategies              |  |                                    |                              |                       |                               |
|  |   |   |   | <b>OCOC GOAL 4:</b><br>Clearer roles, strengthened accountability and coordination   |                      |   |                               |  |  |                                    |                              |                       |                               |
| KEY FOCUS AREAS<br>Actions and achievements report | 1 Engage Victoria's Communities in Natural Resource Management                |   |   | 3 Provide good governance and leadership   |                      |   |                               | 2 Protect and improve the environmental condition of Victoria's waterways, land and biodiversity |  |                                    |                              |                       |                               |
| CATCHMENT INDICATOR THEME                          |   |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |
| COMMUNITY  |   |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |
| WATERWAYS  |   |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |
| BIODIVERSITY                                       |   |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |
| LAND   |   |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |
| COASTS   |   |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |
| STANDARD OUTPUTS                                   | PLANNING AND REGULATION   |   |   |  |                      |   |                               | STRUCTURAL WORKS   |  | ENVIRONMENTAL WORKS                |                              | MANAGEMENT SERVICES   |                               |
|  | Participants at engagement events   | Partnerships established and maintained | Publications developed and disseminated | Approvals and advice provided  | Agreements developed | Site based or landscape scale assessments | Plans or strategies developed | Irrigation infrastructure installed or modified  | Waterways structures installed or modified | Vegetation established or modified | Weed and animal pest control | Grazing regime change | Sites of changed water regime |
|  | OCOC GOAL 5: Improved monitoring, evaluation and reporting                    |   |   |  |                      |   |                               |  |  |                                    |                              |                       |                               |



# 1. ENGAGE VICTORIA'S COMMUNITIES IN NATURAL RESOURCE MANAGEMENT

ENGAGING WITH STAKEHOLDERS AND COMMUNITIES IS CENTRAL TO THE ROLE OF CATCHMENT MANAGEMENT AUTHORITIES (CMAS).

This key focus area contributes directly to goal one of Our Catchments, Our Communities “Effective community engagement in catchment management”, and the catchment indicator theme of “Engage Victoria’s communities in natural resource management”.

As part of the VAGO response, in 2015/2016 CMAs led regional coordination processes that engaged regional organisations and communities in the planning and delivery of natural resource management actions, including:

- implementing Regional Operating Agreements in collaboration with key stakeholders including Parks Victoria, DELWP and others
- conducting activities (such as regional conferences or forums) that improve the engagement and coordination amongst regional organisations
- engaging communities and landholders in natural resource management, and
- assessing – at a regional level – their adoption of the statewide community engagement framework.

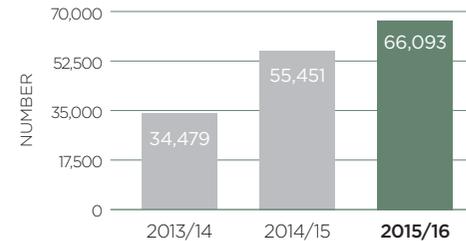
This key focus area reports on a selection of standard outputs in the “planning and regulation” standard output class. These outputs contribute to skills, awareness and collaboration outcomes.

# 1.

## ENGAGE VICTORIA'S COMMUNITIES IN NATURAL RESOURCE MANAGEMENT



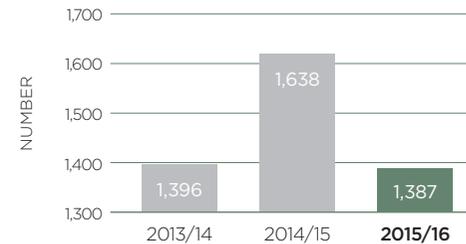
PARTICIPANTS AT ENGAGEMENT EVENTS



Number of participants at engagement events\*. This includes field days, presentations, training and work shops. These events are designed to raise or improve skills or increase collaboration between communities and organisations.

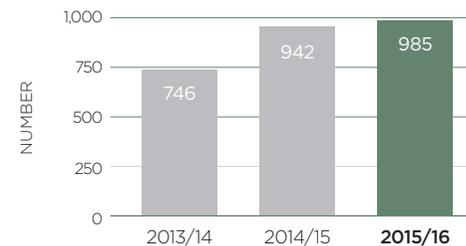
\*Please note that the 2013/14 Report captured only State funded outputs. The 2014/15 and 2015/16 data includes outputs from State and Commonwealth funding sources.

PARTNERSHIPS ESTABLISHED AND MAINTAINED



The number of partnerships established, modified or maintained. These partnerships can be with government agencies, industry bodies, community groups or individuals to support local action.

PUBLICATIONS DEVELOPED AND DISSEMINATED



Number of publications produced. These publications can include fact sheets, media releases, newsletters, reports, websites, television and social media. They are developed and disseminated to help keep regional stakeholders and the broader community informed.



## 2. PROTECT AND IMPROVE THE ENVIRONMENTAL CONDITION OF VICTORIA'S WATERWAYS, LAND AND BIODIVERSITY

CATCHMENT MANAGEMENT AUTHORITIES (CMAS) COORDINATE THE DEVELOPMENT, IMPLEMENTATION AND REVIEW OF REGIONAL CATCHMENT STRATEGIES (RCSS), WHICH ARE THE PRIMARY INTEGRATED STRATEGIC PLANNING MECHANISM FOR THE MANAGEMENT OF LAND, WATER AND BIODIVERSITY RESOURCES IN EACH REGION.

Our Catchments, Our Communities' goal 3 is for "strengthened implementation of Regional Catchment Strategies".

As part of the VAGO response, in 2015/2016 CMAs planned for future 'regional investment forums' that (subject to enhanced future funding arrangements) would improve collaboration, partnerships, leveraging and alignment of investment with priorities in the Regional Catchment Strategies.

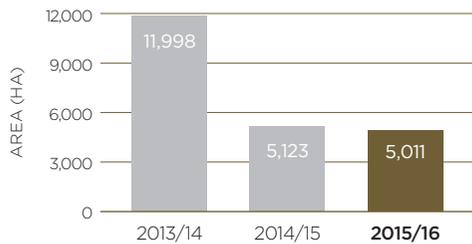
This key focus area, "Protect and improve the environmental condition of Victoria's waterways, land and biodiversity" reports on a selection of standard outputs in the following classes: structural works, environment works and management services. These outputs contribute to outcomes relating to:

- species recovery, species control, habitat availability
- amenity
- productivity, soil properties, soil stability
- vegetation extent, structure and diversity
- water quality, environmental water, groundwater
- cultural heritage, and
- extreme event preparedness.

# 2.

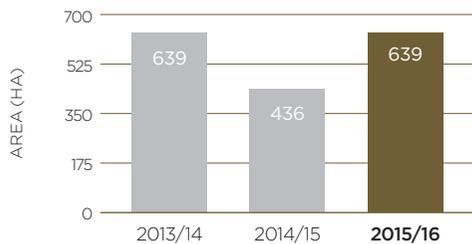
## PROTECT AND IMPROVE THE ENVIRONMENTAL CONDITION OF VICTORIA'S WATERWAYS, LAND AND BIODIVERSITY

IRRIGATION INFRASTRUCTURE INSTALLED OR MODIFIED



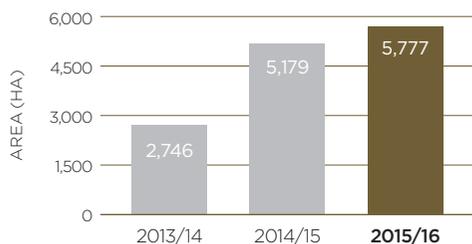
The area of irrigation infrastructure installed or modified to improve water efficiency.

WATERWAY STRUCTURES INSTALLED OR MODIFIED



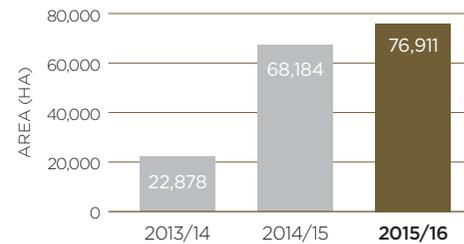
The number of waterway structures that were installed, replaced, modified, removed or maintained. This could include the construction of fishways, rock chutes, carp screens or removal of fish barriers. This work leads to improved habitats, soil stability or species control.

VEGETATION ESTABLISHED OR MODIFIED



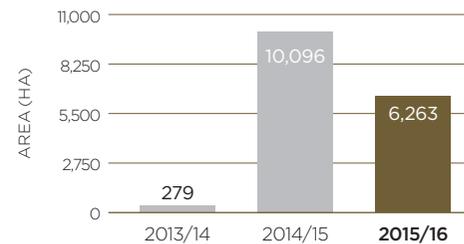
The area of vegetation established, modified or maintained. This could be either native or non-native species and includes activities such as direct seeding, planting, thinning or mulching. This can lead to increased water quality, habitat and soil stability.

WEED CONTROL



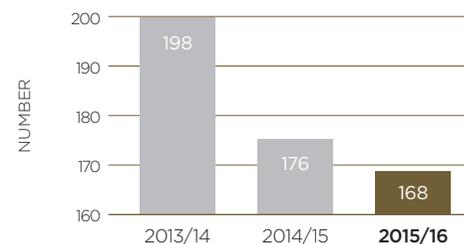
The area of land on which weed control has been undertaken. This could take the form of biological, chemical, manual or mechanical control activities. This can lead to increases in habitat, improved productivity and species control.

GRAZING REGIME CHANGE



The area of land over which grazing practices by livestock has been established, maintained, modified or removed. This could be through the removal of livestock or controlling of access in line with best practice. This can lead to increased vegetation structure and diversity and improved water quality and soil stability.

SITES OF CHANGED WATER REGIME



The number of sites over which the existing water regime was changed. This could be through the removal or delivery of water and can lead to increased habitat availability, improved vegetation structure and diversity and assist species recovery.



### 3. PROVIDE GOOD GOVERNANCE AND LEADERSHIP

CATCHMENT MANAGEMENT AUTHORITIES (CMAs) COORDINATE THE DEVELOPMENT, IMPLEMENTATION AND REVIEW OF REGIONAL CATCHMENT STRATEGIES (RCSS), WHICH ARE THE PRIMARY INTEGRATED STRATEGIC PLANNING MECHANISM FOR THE MANAGEMENT OF LAND, WATER AND BIODIVERSITY RESOURCES IN EACH REGION.

Provision of good governance and leadership will be key to achieving the following two goals of Our Catchments, Our Communities:

- GOAL 2  
Better connections between state, regional and local planning
- GOAL 4  
Clearer roles, strengthened accountability and coordination

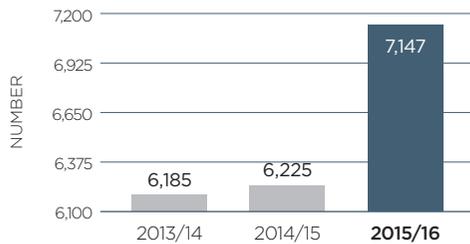
This key focus area reports on a selection of standard outputs in the “planning and regulation” standard output class. These outputs contribute to outcomes relating to:

- governance
- skills, awareness and collaboration
- cultural heritage, and
- vegetation structure and diversity, and available habitat.

# 3.

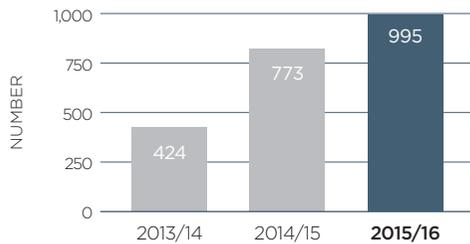
## PROVIDE GOOD GOVERNANCE AND LEADERSHIP

### APPROVALS AND ADVICE PROVIDED



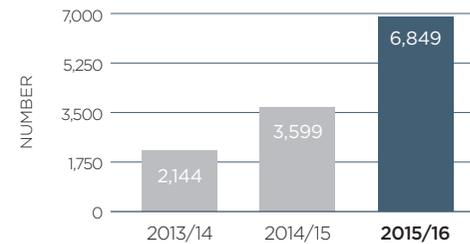
The number of approvals and advice provided to communities, stakeholders and agencies. This can be in the form of decisions in regards to permits, licences, leases or planning referrals as well as advice provided directly. This is a regulatory requirement which can lead to increases in skill and improved governance.

### AGREEMENTS DEVELOPED



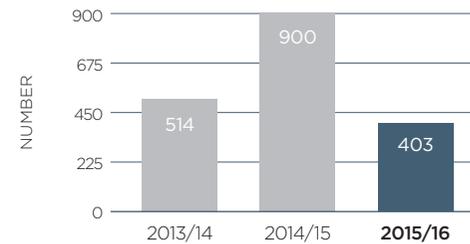
The number of management agreements developed, reviewed, maintained or removed in relation to a specific location. This can include agreements attached to titles, conservation covenants or fixed term agreements. This can lead to increased habitat, heightened awareness and increases in skill.

### ASSESSMENTS (SITE BASED OR LANDSCAPE SCALE)



The number of assessments undertaken. The assessments may be site based or landscape level and can investigate threatening processes, management outcomes or asset condition. This can assist future decision making and prioritisation.

### PLANS AND STRATEGIES DEVELOPED



The number of plans and strategies that have been developed, reviewed or modified. These can include management plans, strategy documents or engagement plans. These documents can help to guide management decisions at a specific site and define the strategic direction for a project or organisation.



# STATEWIDE CASE STUDIES

THESE CASE STUDIES ILLUSTRATE COLLABORATION  
BETWEEN CMAS IN 2015/2016:

- REGIONAL NATURAL RESOURCES MANAGEMENT:  
CLIMATE CHANGE ADAPTATION
- VICTORIAN LANDCARE PROGRAM



# REGIONAL NATURAL RESOURCE MANAGEMENT: CLIMATE CHANGE ADAPTATION

“As a result of the Regional NRM Planning for Climate Change Fund our understanding of climate change impacts on natural resources, adaptation options and how to plan for climate change has greatly increased.”

Kate Brunt, Senior Project Officer – Climate Change, Goulburn Broken CMA



## LOCATIONS

Statewide

## OUTPUT 2015/2016

10 Regional NRM Climate Change Adaptation Strategies / Plans  
Statewide NRM climate change priorities

## PARTNERS

Australian Government  
Goulburn Broken CMA  
North East CMA  
North Central CMA  
Mallee CMA  
Wimmera CMA  
Glenelg Hopkins CMA  
Corangamite CMA  
Port Phillip Western Port CMA  
East Gippsland CMA  
West Gippsland CMA  
Note: there is a range of Partners used across the regions including a number of research institutions

## REGIONAL STRATEGIES

Regional Catchment Strategies

- 1** Some of the ten climate change adaptation plans.
- 2** The Avon River in flood, July 2016.
- 3** Adaptation planning workshop at the Goulburn Broken CMA.

In a Victorian first, the Catchment Management Authorities (CMAs), funded through the Australian Government, have undertaken regional climate change adaptation planning. The aim of this work is to identify priority landscapes and natural resource management actions for climate change adaptation and mitigation.

Over three years the CMAs across Victoria undertook the development of Climate Change Adaptation Plans or Strategies. These were developed using the latest climate change projections by the CSIRO and in conjunction with key researcher organisations across Australia. This project:

- developed spatial tools to assess climate change vulnerability across the state
- pioneered adaptation pathways planning in the state
- undertook extensive engagement with the community and key stakeholders on climate change adaptation, and
- produced the most comprehensive NRM climate change adaptation planning to date in Victoria.

The work also provided guidance on carbon farming priorities within the regions. The Victorian CMAs collaborated on the development of the Plans and Strategies through the Victorian NRM Planning for Climate Change Forum which is still operating even after the project for the plans development finished in June 2016.

Through the forum the CMAs have been able to develop a list of high priority adaptation options for NRM in Victoria with the finer detail located in the individual plans, these include:

- landscape connectivity
- shared learning
- local climate change adaptation planning
- supporting carbon sequestration activities
- building resilience of soils
- protecting aboriginal cultural heritage
- protecting and enhancing Victorian “blue carbon”, and
- building on the partnership with key research organisations.

It is expected that the Plans and Strategies will help inform investment into NRM in the Regions and support State Government policy and planning. The work undertaken in the regions over the life of the Plans’ and Strategies’ development has already resulted in the development and funding of an investigation and pilot looking at catchment carbon offsets and has opened many opportunities for CMAs’ involvement in climate change adaptation within the regions.



# VICTORIAN LANDCARE PROGRAM

“The NCCMA Landcare Grants program has enabled the Trentham Landcare Group to embark on various land restoration projects in and around Trentham. These projects bring together members of the local communities who work together towards a common goal of creating an attractive, healthy and sustainable environment.

Patricia Scheltus, Trentham Landcare Group

## LOCATIONS

Statewide

## OUTPUT 2015/2016

6279 participants  
318 partnerships  
222 publications

## PARTNERS

Landcare networks and groups  
Other community-based NRM groups  
Department of Environment, Land, Water and Planning  
Department of Economic Development, Jobs, Transport and Resources

## REGIONAL STRATEGIES

Regional Catchment Strategies  
Regional Landcare Support Plans

**1** Women from Trentham Landcare at a Planting Day along the Domino Trail.

**2** Students from Woodend Primary School on their way to the Campaspe River to help Ashbourne Landcare on a planting day.

**3** Boolarra South Landcare Group's Old Mill revegetation and restoration project.

The objective of Victorian Landcare Program support delivered through Victoria's ten CMAs is to promote effective participation in Landcare activities, help build volunteer capacity and assist communities to deliver local action.

There are more than 900 groups of volunteers in the Victorian Landcare community, including 64 Landcare networks. Landcare, 'Friends of' and other community-based natural resource management groups cover 65% of the state. The Victorian Landcare Program has estimated that volunteers triple government investment and contribute \$20 million worth of hours through Landcare.

In 2015/2016 CMAs again worked together to strengthen community engagement, participation, and delivery partnerships through regional delivery of the Victorian Landcare Program. Funding was delivered to 128 groups and networks for new projects that supported volunteers and landholders to address local priorities and undertake actions that improve the condition of our environment and the sustainability of farming. Support grants also helped 289 groups with their running costs.

The Boolarra South Landcare Group (pictured) received a Victorian Landcare Grant through the West Gippsland CMA to undertake works on the historic Old Mill site, Boolarra. Thanks to this support the five acre site has been successfully revegetated and restored into a retreat for the local community.

The Victorian Landcare Program statewide review in 2015/2016 found that the Landcare community strongly supports and values the Victorian Landcare Program. CMAs are committed to supporting the implementation of review recommendations as we approach the 30 Year Anniversary of Landcare in Victoria on Friday 25 November, 2016.

Regional delivery of the Victorian Landcare Program is funded annually by the Victorian Government. This funding supports each of the ten CMA regions to deliver on their shared commitment to Landcare groups and networks to help build community capacity for local planning, engaging people, building partnerships, doing on-ground works, sharing stories and skills, and celebrating success.



# REGIONAL ACTIONS AND ACHIEVEMENTS

INCLUDING REGIONAL OUTPUTS DATA, KEY EVENTS,  
INSIGHTS AND CASE STUDIES

This section presents outputs delivered by each CMA in 2015/2016, including key insights or significant events for the year. Case studies from each region provide a snapshot of these outputs, highlighting the broad range of actions that were undertaken in partnership with the community, and demonstrating the tangible on-ground impacts of CMA projects, programs and strategies.



# CORANGAMITE

# CORANGAMITE

## KEY EVENTS AND INSIGHTS

- The Corangamite Natural Resource Management Plan for Climate Change has been completed. The plan enables the CMA to incorporate climate change mitigation and adaptation into future regional NRM plans, and identifies priority landscapes for carbon plantings and other carbon sequestration methods, as well as strategies to build landscape integrity.
- Wiyn-murrup yangarramela ('fire spirit comes back' in Wadawurrung language) is a joint fire project between the CMA, the Wadawurrung Aboriginal Corporation, Aboriginal community members and other agencies. The project has involved supporting attendance at an Indigenous Fire Workshop in Cape York, a traditional burn, and exploring ways of sharing traditional knowledge of fire practices with partner agencies.
- PlainsTender round 6 and CoastalTender round 3 added a further 1300 hectares of remnant vegetation, wetland, and coastal saltmarsh vegetation under active management.
- The CMA Land Health Program has been successful in producing management practice change in the area of soil acidity, where 92% of participants have indicated a change in practice. The success of the program comes from building on local knowledge from trial data, and events being delivered across a diverse range of soil types and farming systems.
- The CMA NRM online planning portal continues to grow, with the Bellarine and Leith landscape zones being completed in partnership with the Bellarine Landcare Network and the Leigh Catchment Network. It assists the CMA in identifying joint priorities and projects.
- EstuaryWatch and Waterwatch programs continue to grow, supporting over 150 monitors in the region to contribute critical water quality data through their citizen science activities.

| OUTPUT                                  | TARGET | ACTUAL |        |       |        |
|---|--------|--------|--------|-------|--------|
|   |        | STATE  | C'WLTH | OTHER | TOTAL  |
| <b>1. STRUCTURAL WORKS</b>              |        |        |        |       |        |
| 1.1 Channel (km)                        | 73     | 73     | 0      | 0     | 73     |
| 1.2 Water storage (no.)                 | 0      | 2      | 0      | 0     | 2      |
| 1.3 Pump (no.)                          | 0      | 0      | 0      | 0     | 0      |
| 1.4 Irrigation Structure (ha)           | 0      | 0      | 0      | 0     | 0      |
| 1.5 Waterway structure (no.)            | 3      | 12     | 0      | 0     | 12     |
| 1.6 Terrestrial Structure (no.)         | 0      | 0      | 0      | 0     | 0      |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 0      | 0     | 0      |
| 1.8 Monitoring structure (no.)          | 56     | 43     | 0      | 0     | 43     |
| 1.9 Fence (km)                          | 52     | 56     | 8      | 0     | 64     |
| 1.10 Visitor Facility (no.)             | 67     | 65     | 0      | 0     | 65     |
| 1.11 Road (km)                          | 25     | 23     | 0      | 0     | 23     |
| 1.12 Crossing (no.)                     | 0      | 0      | 0      | 0     | 0      |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |        |       |        |
| 2.1 Vegetation (ha)                     | 1,327  | 130    | 1,954  | 0     | 2,084  |
| 2.2 Weed control (ha)                   | 2,441  | 600    | 1,883  | 0     | 2,483  |
| 2.3 Pest animal control (ha)            | 2,586  | 279    | 1,551  | 0     | 1,830  |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0      | 0     | 0      |
| 2.5 Threatened species response (no.)   | 4      | 3      | 0      | 0     | 3      |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0      | 0     | 0      |
| 2.7 Soil treatment (ha)                 | 0      | 0      | 0      | 0     | 0      |
| 2.8 Earth works (no.)                   | 1      | 0      | 0      | 0     | 0      |
| 2.9 Rubbish removal (ha)                | 0      | 0      | 0      | 0     | 0      |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |        |       |        |
| 3.1 Grazing (ha)                        | 1,980  | 302    | 2,824  | 0     | 3,126  |
| 3.2 Agricultural practices (ha)         | 29,768 | 0      | 35,136 | 0     | 35,136 |
| 3.3 Water (no.)                         | 8      | 8      | 0      | 0     | 8      |
| 3.4 Fire Regime (no.)                   | 1      | 0      | 0      | 0     | 0      |
| <b>4. PLANNING AND REGULATION</b>       |        |        |        |       |        |
| 4.1 Approval and advice (no.)           | 1,387  | 1,326  | 0      | 0     | 1,326  |
| 4.2 Management agreement (no.)          | 120    | 15     | 46     | 0     | 61     |
| 4.3 Assessment (no.)                    | 381    | 401    | 68     | 0     | 469    |
| 4.4 Engagement event (no. participants) | 6,303  | 7,429  | 2,182  | 0     | 9,611  |
| 4.5 Partnership (no.)                   | 362    | 259    | 12     | 0     | 271    |
| 4.6 Plan (no.)                          | 78     | 16     | 79     | 0     | 95     |
| 4.7 Publication (no.)                   | 187    | 198    | 12     | 0     | 210    |
| 4.8 Information management system (no.) | 5      | 8      | 0      | 0     | 8      |



# CORANGAMITE LAND HEALTH PROGRAM



“The Land Health Program is based on the understanding that many sustainable agriculture practices could be more widely adopted than they are currently”

Cam Nicholson, Chair Corangamite Land Health Program Steering Committee

## LOCATIONS

Corangamite Region

## OUTPUT 2015/2016

31 events  
1,146 engagement event participants  
29,768 ha agricultural practice change  
19 partnerships

## PARTNERS

Australian Government  
Southern Farming Systems  
West Vic Dairy  
Federation University  
Agriculture Victoria  
Industry Representatives  
Vic No Till Farmers Association  
Glenelg Hopkins CMA  
Bellarine Landcare Group  
Central Otways Landcare Network  
Geelong Landcare Network  
Heytesbury District Landcare Network  
Yarrowee Leigh Catchment Group  
Moorabool Catchment Landcare Group  
Southern Otway Landcare Network  
Stony Rises Landcare Group  
Surf Coast and Inland Plains Network  
Upper Barwon Landcare Network  
Woody Yaloak Catchment Group

## REGIONAL STRATEGIES

Corangamite Regional Catchment Strategy 2013-2019

The Corangamite Land Health Program, in partnership with key stakeholders in the region, works with landholders to manage their land sustainably, and protect land and water resources in the catchment from the threats of soil degradation. The program has funding support from industry peak bodies and research institutions.

The Land Health Program is based on the understanding that many practices could be more widely adopted than they are currently. Some are innovative, while others are more commonly known.

Trials, demonstrations and extension events are offered based on topics chosen from an initial ABS statistical analysis of the agricultural sector and within the guidelines of the funding. They include; soil monitoring, soil acidity, soil biology, rotational and pasture cropping, and general soil health practices.

All of the on-farm trials and demonstration sites are established in liaison with the local Landcare network or group. The sites are set up, run and monitored by Southern Farming Systems research and extension officers who are then also available to provide extension on the sites progress and further information with regard to the topic.

A Land Health Program Steering Committee (LHPSC) was established to provide strategic guidance and advice over the life of the program. The committee comprises of representatives from industry peak bodies, advisory and services sectors, other government and educational institutions and community (primarily through Landcare), each bringing unique regional expertise.

Each of the Landcare networks are funded to organise and promote the extension events which gives the program almost complete coverage of the 15 landscape zones within the region.

Further to this the Land Health Program has completed Local Soil Action Plans with the assistance of local soil scientists, NRM specialists and Landcare for each of the region's landscape zones.

The Center for e-Research Design and Innovation at Federation University Ballarat collate and peer review regional soil data and publish it via the award winning Corangamite CMA Soil Health Knowledge Base.

- 1 Inverleigh open day.
- 2 Corangamite CMA SFS WYCG Pasture Crop Even.
- 3 James and Hamish Driffin looking at soil taken from their lime trial.



# CORANGAMITE ESTUARY WATCH



“EstuaryWatch is a successful citizen science program that connects community, waterway managers and researchers”

Alice Knight, Chair Corangamite CMA Board

## LOCATIONS

Major estuaries along the Great Ocean Road and the Barwon River and Thompson Creek.

## OUTPUT 2015/2016

79 assessments  
1086 engagement event participants  
1 information management system  
20 partnerships  
13 publications

## PARTNERS

Anglesea River, Barham River, Barwon River, Curdies, Erskine River, Gellibrand River, St George River, Skenes Creek, Spring Creek, Thompson Creek, Wild Dog Creek, Wye River & Painkalac Creek EstuaryWatch  
Great Ocean Road Coast Committee  
Barwon Coast Committee  
The Gordon  
West Gippsland CMA  
Melbourne Water  
Glenelg Hopkins CMA  
Federation University

## REGIONAL STRATEGIES

Corangamite Regional Catchment Strategy 2013-2019  
Corangamite Waterway Strategy 2014-2022

- 1 Corangamite CMA supporting regional EstuaryWatch Coordinators across the state.
- 2 Anglesea River EstuaryWatch monitoring.
- 3 Wild Dog Creek EstuaryWatch monitoring.

Corangamite EstuaryWatch is a successful citizen science program that supports community members to actively participate in the monitoring of estuary health. Waterway managers at Corangamite CMA have used EstuaryWatch data to inform artificial estuary entrance openings, algal bloom management, acid sulphate soil impacts on estuarine condition, works on waterways and flood events.

In 2004, the Victorian Government’s Large Scale River Restoration Initiative provided the stimulus to establish the Managing Our Great Ocean Road Estuaries project at the Corangamite Catchment Management Authority (CMA). The project aimed to improve the condition of key estuaries, improve community awareness and understanding of estuary management, and involve local communities and key stakeholders in estuary management. In 2006 the project funded the development of EstuaryWatch. The success of Corangamite EstuaryWatch sparked the expansion of the program in 2009, with EstuaryWatch information sessions and monitoring now occurring across the Victorian coast.

Thirteen Corangamite EstuaryWatch groups conduct monitoring of their estuary monthly and are encouraged to monitor irregular events such as openings of the estuary mouth (both artificial and natural), mouth closures, fish deaths, significant weather events, and algal blooms. At each monitoring session

estuary mouth condition is monitored and photographed at a predetermined point close to the estuary mouth. The condition of the estuary is assessed by recording the state of the estuary mouth, sand berm dimensions, estuary water level (AHD), tidal influence, wind direction, sea state and flow. After completing an assessment of the estuary mouth condition EstuaryWatchers move upstream to monitor physical and chemical parameters. On the one day, volunteers visit up to six monitoring sites along the length of the estuary. Data collected by the volunteers is entered into a statewide database, where it is available to catchment and land managers to better inform their estuary programs.

Community involvement in the monitoring of estuaries has:

- enhanced community and stakeholder knowledge regarding waterway health and related issues
- multiplied the spatial coverage and sampling frequency of formal data collection
- provided an ‘early warning system’ to waterway management issues (such as algal blooms, weed invasion and litter hot spots)
- provided data regarding long term trends in catchment health, and
- improved communication channels and strengthened relationships between government agencies and coastal communities concerned about their local estuary.



# EAST GIPPSLAND

# EAST GIPPSLAND

## KEY EVENTS AND INSIGHTS

- The East Gippsland Regional Catchment Strategy Climate Change Mitigation and Adaption Plan was released, highlighting likely impacts from climate change and variability across East Gippsland; identifying potential opportunities (such as blue carbon); and offering a range of practical options to support adaptation on freehold land and primary industries.
- The Gippsland Lakes Ramsar Site Management Plan was coordinated by the East Gippsland CMA (EGCMA) on behalf of the Victorian Government, and is now with the Federal government for final approval. The EGCMA, West Gippsland CMA, other agencies, traditional owners and the community worked together to set management priorities for the Ramsar site.
- The Gippsland Lakes Hinterland (GLH) Vegetation Plan was prepared by the EGCMA with extensive involvement from seven agency and stakeholder groups. The plan sets priorities for the management of native vegetation across the GLH for the next 10 years.
- Ten new members were appointed to the Gippsland Lakes Coordinating Committee. The Committee is overseeing the expenditure of \$2.5 million to improve the health of the lakes.
- The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) 'On Country' Team worked with multiple agencies and community groups to deliver EGCMA Australian Government funded works, including works on Ramsar sites and fox baiting to protect EPBC listed species.
- Each year the EGCMA receives an oversubscription of applications for community NRM funding. Over \$400,000 was provided to community groups in 2015/16 from over \$700,000 in applications.

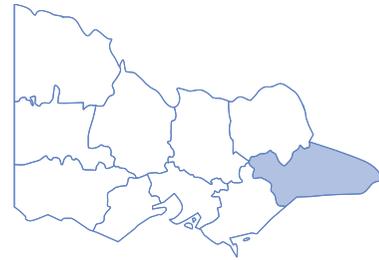


| OUTPUT                                  | TARGET | ACTUAL |         |       |         |
|---|--------|--------|---------|-------|---------|
|   |        | STATE  | C'WLTH  | OTHER | TOTAL   |
| <b>1. STRUCTURAL WORKS</b>              |        |        |         |       |         |
| 1.1 Channel (km)                        | 0      | 0      | 0       | 0     | 0       |
| 1.2 Water storage (no.)                 | 14     | 10     | 0       | 0     | 10      |
| 1.3 Pump (no.)                          | 0      | 0      | 0       | 0     | 0       |
| 1.4 Irrigation Structure (ha)           | 0      | 0      | 0       | 0     | 0       |
| 1.5 Waterway structure (no.)            | 1      | 1      | 0       | 0     | 1       |
| 1.6 Terrestrial Structure (no.)         | 1      | 7      | 0       | 0     | 7       |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 0       | 0     | 0       |
| 1.8 Monitoring structure (no.)          | 3      | 3      | 0       | 0     | 3       |
| 1.9 Fence (km)                          | 45     | 31     | 6       | 0     | 37      |
| 1.10 Visitor Facility (no.)             | 4      | 0      | 0       | 0     | 0       |
| 1.11 Road (km)                          | 1      | 0      | 5       | 0     | 5       |
| 1.12 Crossing (no.)                     | 0      | 0      | 0       | 0     | 0       |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |         |       |         |
| 2.1 Vegetation (ha)                     | 222    | 138    | 38      | 0     | 176     |
| 2.2 Weed control (ha)                   | 2,165  | 2,037  | 713     | 0     | 2,750   |
| 2.3 Pest animal control (ha)            | 74,815 | 0      | 142,782 | 0     | 142,782 |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0       | 0     | 0       |
| 2.5 Threatened species response (no.)   | 0      | 0      | 0       | 0     | 0       |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0       | 0     | 0       |
| 2.7 Soil treatment (ha)                 | 0      | 0      | 0       | 0     | 0       |
| 2.8 Earth works (no.)                   | 3      | 1      | 0       | 0     | 1       |
| 2.9 Rubbish removal (ha)                | 0      | 0      | 0       | 0     | 0       |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |         |       |         |
| 3.1 Grazing (ha)                        | 260    | 527    | 0       | 0     | 527     |
| 3.2 Agricultural practices (ha)         | 10     | 50     | 0       | 0     | 50      |
| 3.3 Water (no.)                         | 0      | 0      | 0       | 0     | 0       |
| 3.4 Fire Regime (no.)                   | 4      | 0      | 1       | 0     | 1       |
| <b>4. PLANNING AND REGULATION</b>       |        |        |         |       |         |
| 4.1 Approval and advice (no.)           | 342    | 304    | 0       | 0     | 304     |
| 4.2 Management agreement (no.)          | 30     | 23     | 0       | 0     | 23      |
| 4.3 Assessment (no.)                    | 110    | 76     | 16      | 0     | 92      |
| 4.4 Engagement event (no. participants) | 4,191  | 3,153  | 30      | 0     | 3,183   |
| 4.5 Partnership (no.)                   | 30     | 26     | 5       | 0     | 31      |
| 4.6 Plan (no.)                          | 12     | 5      | 2       | 0     | 7       |
| 4.7 Publication (no.)                   | 43     | 48     | 0       | 0     | 48      |
| 4.8 Information management system (no.) | 0      | 0      | 0       | 0     | 0       |



# LOWER MITCHELL RIVER STABILISATION & RESTORATION

“The lower Mitchell River is important to our community, this project will improve the health of the river and the community can enjoy it more. The benefits will also extend to the Ramsar listed Gippsland Lakes.” Dr Peter Venkeer, Chair East Gippsland CMA Board



## LOCATIONS

Lower Mitchell River, Bairnsdale

## OUTPUT 2015/2016

1 km earth works (rock beaching)  
4 ha woody weed control  
7 km fencing  
7 management agreements  
6.2 ha vegetation  
13 ha weed control

## PARTNERS

East Gippsland Shire  
Landholders  
Picnic Point Landcare Group  
Department of Environment, Land, Water and Planning

## REGIONAL STRATEGIES

East Gippsland Regional Waterway Strategy  
East Gippsland Regional Catchment Strategy 2013-2019  
Gippsland Lakes Priorities Plan  
Gippsland Lakes Ramsar Plan  
Regional Riparian Action Plan

- 1 Before bank stabilisation works.
- 2 After bank stabilisation works.
- 3 Willow Removal.

Water quality is essential to the ecological, social and economic values of the Gippsland Lakes and maintaining adequate water quality is vital to maintaining those values. Sediment and nutrient loads from catchment derived sources are significant risks to the ecological character and health of the Gippsland Lakes.

This project aimed to improve riparian and bank condition along the lower reaches of the Mitchell River, reducing sediment and nutrient loads and improving the water quality of river flows entering into the Gippsland Lakes.

The project included willow control, rock beaching, weed control, revegetation and the erection of stock exclusion fencing on selected sites along the lower Mitchell River. Bank stabilisation through rock beaching was required on several sites across five landholder frontages. Chemical willow control was undertaken along the areas of bank where new and existing rock was present.

To complement and ensure long term bank stability, all bank stabilisation works areas were revegetated with native plants, predominately shrubs and grasses. The revegetation of these sites will assist in building channel robustness and create resilience within the riparian zone.

The work undertaken in this project complements stock exclusion fencing works previously undertaken through EGCMA landholder incentives. These sites are excluded from stock and cropping and are currently protected with environmental works agreements.

The combination of weed control, revegetation and stock exclusion on the lower reach of the Mitchell River will contribute to improved water quality and biodiversity in the river and encourage the natural regeneration of native species in the riparian zone; resulting in an overall improvement of river health and bank stability.



## LOCATIONS

The East Gippsland coastline, between Lake Tyers and Cape Howe

## OUTPUT 2015/2016

142,782 ha pest animal control  
2 assessments (fauna)  
190 engagement event participants

## PARTNERS

Department of Environment, Land, Water and Planning  
Farmers

## REGIONAL STRATEGIES

East Gippsland Regional Catchment Strategy 2013-2019

**1** An endangered Southern Brown Bandicoot, a species which has responded positively to fox control, at Cape Conran.

**2** Monitoring programs at Cape Conran have found that Long-nosed Potoroos have also responded positively to fox control.

**3** Team member Simon Ruff releasing an endangered Southern Brown Bandicoot, at Cape Conran.



# PROTECTING EPBC LISTED SPECIES ON THE EAST GIPPSLAND COAST THROUGH FOX CONTROL

“Everyone is working together across our vast coastline to control foxes to protect our EPBC listed species. This project will enable populations of important native birds and mammals to thrive.”

Dr Peter Venkeer, Chair East Gippsland CMA Board

This project is reducing the impact of fox predation across 110 km (5,500 ha) of East Gippsland coastline (between Lake Tyers and Cape Howe) for four EPBC listed species: the Eastern Bristlebird, Long-nosed Potoroo, Southern Brown Bandicoot and Fairy Tern.

By 2018 this project will reduce the impact of fox predation on four EPBC listed species (Eastern Bristlebird, Long-nosed Potoroo, Southern Brown Bandicoot, Fairy Tern) across 5,500 ha of estuarine and coastal habitat between Lake Tyers and Cape Howe.

The project aims to reduce the impact of fox predation so that there is a 100% increase in the population of Eastern Bristlebirds from 50 to 100 pairs, a 75% increase in the populations of Long-nosed Potoroos and Southern Brown Bandicoots and a 30% increase in the breeding success of Fairy Terns.

The project is being delivered by the Department of Environment, Land, Water and Planning with assistance from the Gunaikurnai Land and Waters Aboriginal Corporation NRM crew who are coordinating land based coastal baiting (120 bait stations) between Lake Tyers and Corringale (south of the Princes Highway).

Overall the project undertakes 96 km (162 bait stations) of beach baiting along sections of the East Gippsland coast between Lake Tyers and Cape Howe.

There are two baiting rounds of six weeks duration per year for each of the above coastline sections.

In addition there are 230 near coastal bait stations baited continuously with monthly bait replacement.

To measure impact of the project 50 fixed remote camera monitoring stations have been established in the project area (in conjunction with the broader Southern Ark project). Cameras are operating at each of these stations for 20 days per year. Eastern Bristlebirds are being monitored using sound recorders at fixed stations on Howe Flat and adjacent areas.

Fairy Terns breeding success are being monitored by direct counts at weekly intervals during the nesting season (November to January).



# GLENELG HOPKINS

# GLENELG HOPKINS

## KEY EVENTS AND INSIGHTS

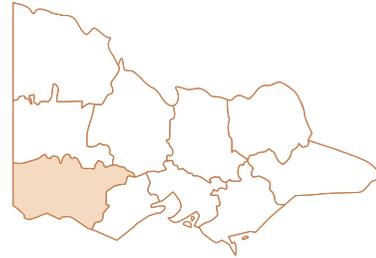
- The Aboriginal Water Values pilot aims to identify the best means of integrating Aboriginal values and traditional knowledge into environmental water planning and delivery. Glenelg Hopkins CMA has partnered with Gunditj Mirring Traditional Owners Aboriginal Corporation and Barengi Gadjin Land Council to deliver this project.
- The first Waterway Management Twinning Program was held and brought together ten waterway managers from six organisations for the purpose of sharing and coaching on successful river management techniques.
- The Merri River Estuary received native fish habitat improvement works. These included installation of rock and timber structures, weed control and bank revegetation. Two floating jetties were also built to improve public access to popular fishing sites.
- The Glenelg River Angler Engagement project sought to engage anglers and raise their awareness of the benefits of environmental flows along the Glenelg River. Four sessions attracted over 100 anglers who participated in fish surveys and discussed environmental flows and river health management.
- Waterway Action Plans to guide management of priority waterways are being undertaken for the Lower Wannon River, Fitzroy Estuary and the Darlots and Fiery Creeks.



| OUTPUT                                  | TARGET | ACTUAL |        |       |        |
|---|--------|--------|--------|-------|--------|
|   |        | STATE  | C'WLTH | OTHER | TOTAL  |
| <b>1. STRUCTURAL WORKS</b>              |        |        |        |       |        |
| 1.1 Channel (km)                        | 0      | 0      | 0      | 0     | 0      |
| 1.2 Water storage (no.)                 | 18     | 30     | 21     | 0     | 51     |
| 1.3 Pump (no.)                          | 6      | 4      | 0      | 0     | 4      |
| 1.4 Irrigation Structure (ha)           | 0      | 0      | 0      | 0     | 0      |
| 1.5 Waterway structure (no.)            | 0      | 20     | 1      | 0     | 21     |
| 1.6 Terrestrial Structure (no.)         | 0      | 0      | 0      | 0     | 0      |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 1      | 0     | 1      |
| 1.8 Monitoring structure (no.)          | 24     | 24     | 0      | 0     | 24     |
| 1.9 Fence (km)                          | 72     | 126    | 38     | 0     | 164    |
| 1.10 Visitor Facility (no.)             | 0      | 0      | 0      | 0     | 0      |
| 1.11 Road (km)                          | 0      | 0      | 0      | 0     | 0      |
| 1.12 Crossing (no.)                     | 2      | 2      | 0      | 0     | 2      |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |        |       |        |
| 2.1 Vegetation (ha)                     | 385    | 155    | 169    | 0     | 324    |
| 2.2 Weed control (ha)                   | 7,823  | 7,502  | 1,447  | 0     | 8,949  |
| 2.3 Pest animal control (ha)            | 160    | 30     | 768    | 0     | 798    |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0      | 0     | 0      |
| 2.5 Threatened species response (no.)   | 0      | 0      | 1      | 0     | 1      |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0      | 0     | 0      |
| 2.7 Soil treatment (ha)                 | 0      | 0      | 0      | 0     | 0      |
| 2.8 Earth works (no.)                   | 0      | 0      | 0      | 0     | 0      |
| 2.9 Rubbish removal (ha)                | 0      | 0      | 0      | 0     | 0      |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |        |       |        |
| 3.1 Grazing (ha)                        | 467    | 158    | 1,247  | 0     | 1,405  |
| 3.2 Agricultural practices (ha)         | 4,012  | 0      | 22,831 | 0     | 22,831 |
| 3.3 Water (no.)                         | 0      | 0      | 0      | 0     | 0      |
| 3.4 Fire Regime (no.)                   | 10     | 0      | 390    | 0     | 390    |
| <b>4. PLANNING AND REGULATION</b>       |        |        |        |       |        |
| 4.1 Approval and advice (no.)           | 345    | 326    | 0      | 0     | 326    |
| 4.2 Management agreement (no.)          | 72     | 135    | 50     | 0     | 185    |
| 4.3 Assessment (no.)                    | 166    | 168    | 60     | 0     | 228    |
| 4.4 Engagement event (no. participants) | 1,175  | 2,461  | 3,536  | 0     | 5,997  |
| 4.5 Partnership (no.)                   | 44     | 29     | 9      | 1     | 39     |
| 4.6 Plan (no.)                          | 9      | 8      | 1      | 0     | 9      |
| 4.7 Publication (no.)                   | 32     | 43     | 27     | 0     | 70     |
| 4.8 Information management system (no.) | 9      | 8      | 0      | 0     | 8      |



# WATERWAY MANAGEMENT TWINNING PROGRAM



“The Twinning Program provides an excellent capacity building opportunity for waterway management professionals to deliver world class waterway projects.”

Antony Ford, Glenelg Hopkins CMA

## LOCATIONS

Statewide

## OUTPUT 2015/2016

50 engagement event participants  
5 partnerships

## PARTNERS

North Central CMA  
OzFish Unlimited  
Arthur Rylah Institute  
Melbourne Water  
Basalt to Bay Landcare Network  
Glenelg Hopkins CMA

## REGIONAL STRATEGIES

Glenelg Hopkins Regional Catchment Strategy 2013-2019  
Glenelg Hopkins Waterway Strategy 2014-2022

- 1** Participants of the Waterway Management Twinning Program during a three-day workshop in Warrnambool.
- 2** Adam Bester and Craig Copeland visit Bromfield Street Weir as part of the Waterway Management Twinning Program three-day workshop.
- 3** Participants of the Waterway Management Twinning Program overlooking the Merri River Estuary at Warrnambool.

Glenelg Hopkins CMA is running a Waterway Management Twinning Program. The Program paired river management professionals from across south-eastern Australia with the purpose of collaborating to deliver world class river protection and rehabilitation projects.

The Program arose from the CMA’s 2013 Australian Riverprize win, from which the CMA was given \$50,000 by the International River Foundation and Australian Government to deliver a knowledge sharing and capacity-building project.

The Program currently has ten participants from six organisations including: North Central CMA, OzFish Unlimited, the Arthur Rylah Institute, Melbourne Water, the Basalt to Bay Landcare Network and Glenelg Hopkins CMA. These participants have formed twinning partnerships.

These partnerships are working together on specific waterway management projects. Grants have been provided to support the partnerships, primarily to cover travel costs associated with travelling to each other’s regions.

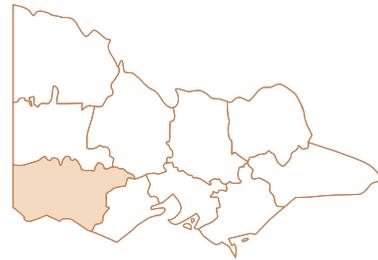
Glenelg Hopkins CMA was fortunate enough to enlist the assistance of Dr Siwan Lovett in the running of the

Twinning Program. Dr Lovett is well known in Australian River Management networks being Director of the Australian River Restoration Centre, an Australian Riverprize Judge, editor of the RipRap magazine and co-presenter/facilitator of the Peter Cullen Trust Science to Policy Leadership Program.

The Twinning Program commenced in August 2015 with all participants attending a three day workshop in Warrnambool and Melbourne. The workshop, led by Dr Lovett, proved to be both inspiring and insightful, and established strong professional bonds throughout the entire group.

The group met in February 2016 to check in on progress of individual projects, with a third workshop held in July 2016 to wrap up the Program and celebrate its collective achievements. The response from participants was overwhelmingly positive, with reports that they are feeling renewed, supported and excited about their role.

Glenelg Hopkins CMA has received sponsorship from Department of Environment, Land, Water and Planning to allow this statewide Twinning Program to be run again in the future.



## LOCATIONS

Glenelg Hopkins CMA and surrounding regions.

## OUTPUT 2015/2016

516 engagement event participants  
20,818 ha agricultural practice change  
21 publications  
9 partnerships

## PARTNERS

Department of Economic Development, Jobs, Transport and Resources  
Victorian No-Till Farmers Association  
Southern Farming Systems  
Soil Health Group  
Heytesbury District Landcare Network  
Bengworden Landcare Group  
South West Holistic Farmers  
Corangamite CMA  
Camperdown Compost Company  
Glenelg Hopkins CMA

## REGIONAL STRATEGIES

Glenelg Hopkins Regional Catchment Strategy 2013-2019  
Glenelg Hopkins Soil Health Strategy 2014-2019  
Glenelg Hopkins Landcare Support Strategy 2012-2018

# SUSTAINABLE AGRICULTURE

“This project is actively supporting landholders that are adopting sustainable agricultural practices for improved land management outcomes into the future.”

Antony Ford, Glenelg Hopkins CMA

The Sustainable Agriculture project is funded under the National Landcare Programme and will run until 2018. It aims to build the skills, knowledge and capacity of farmers to make and implement land management decisions to improve soil condition, maintain production and protect the natural resource base.

The project is being delivered through established and new partnerships with industry, government agencies and community-based organisations. Delivery programs are designed to meet the specific needs of the region's key agricultural enterprises: meat, wool, cropping and dairy.

Community groups, Landcare, production and industry are being supported to investigate innovative farming practices through dependable information sources, on-farm trials and demonstrations.

The project builds on the 2009-2013 Australian Government funded 'Reducing the risk of Soil Acidification' and provides activities that support the adoption of sustainable land management practices and innovation across a range of agricultural enterprises.

Activities are being delivered as four sub-projects. Three align with key agricultural enterprises - broadacre grazing, cropping and dairy - and are being delivered in partnership with leading industry organisations and government agencies. The fourth supports community-based initiatives to investigate innovative farming practices, with a focus on farmer-led action and facilitating networks.

A key achievement for 2015/16 was the adoption of improved farming practices by 58 landholders, including 32 landholders trialling innovative land management practices. Over 20,000 hectares are now benefitting from these practice changes, which include no-till cropping, holistic management and planned grazing.

The project delivered 28 engagement events, attracting 516 participants and enabling 216 farming entities to improve their skills and knowledge of sustainable land management practices.

The project also involved forming partnerships with nine regional groups and communities engaged in NRM based activities and the production of 21 sustainable land management publications over the 2015/16 period.

Monitoring land use change across the catchment through a biannual land use transect was also undertaken in partnership with Department of Economic Development, Jobs, Transport and Resources.

**1** The 'Farming Fantasies. Rural Realities' organising committee members are recognised at the conclusion of a highly successful seminar recognising the contribution of women to family, farming and community, May 2016.

**2** Rob Harris of Department of Economic Development, Jobs, Transport and Resources explains nitrogen use efficiency results at the Southern Farming Systems (Hamilton Branch) Spring Crop Walk at Tarrington on October 2015.

**3** Farmers from the Glenelg Hopkins region inspect an Aqua-Till demonstration as part of the 'No-Till Experience' project with Vic No-Till, July 2015.



# GOULBURN BROKEN

## KEY EVENTS AND INSIGHTS

- A huge effort by community NRM groups and CMA Staff saw over 13,000 school kids, volunteers, Traditional Owners and landholders participate in activities to improve NRM and sustainable agriculture across the Catchment.
- The Farm Water Program continued to reach significant milestones on time and on budget with 514 projects (out of a possible 517 projects) from Rounds 1, 2 and 3, worth \$138M being completed. This generated on-farm productivity as well as 68 gigalitres of water savings that are shared between the environment and irrigators.
- Led the development of the Goulburn River Constraints Management Business Case. This involved two rounds of extensive community information sessions, the latest in January 2016 attended by 246 people. Feedback from these sessions combined with input from community advisory groups and technical reports, resulted in significant revisions of the earlier proposal.
- A total of 698,264 megalitres of environmental water was delivered to support fish, macroinvertebrate, water bird and vegetation ecological objectives in the lower Goulburn River, lower Broken Creek, Barmah Forest (including Barmah Millewa Forest), Doctors Swamp, Black Swamp, Kinnairds Wetland, Reedy Swamp and Moodie Swamp.

| OUTPUT                                  | TARGET | ACTUAL          |        |       |        |
|---|--------|-----------------|--------|-------|--------|
|   |        | STATE           | C'WLTH | OTHER | TOTAL  |
| <b>1. STRUCTURAL WORKS</b>              |        |                 |        |       |        |
| 1.1 Channel (km)                        | 0      | 0               | 0      | 0     | 0      |
| 1.2 Water storage (no.)                 | 3      | 19              | 0      | 0     | 19     |
| 1.3 Pump (no.)                          | 0      | 0               | 0      | 0     | 0      |
| 1.4 Irrigation Structure (ha)           | 0      | -----3,713----- | 0      | 0     | 3,713  |
| 1.5 Waterway structure (no.)            | 201    | 335             | 0      | 0     | 335    |
| 1.6 Terrestrial Structure (no.)         | 0      | 0               | 0      | 0     | 0      |
| 1.7 Terrestrial feature (no.)           | 45     | 106             | 0      | 19    | 125    |
| 1.8 Monitoring structure (no.)          | 14     | 39              | 0      | 0     | 39     |
| 1.9 Fence (km)                          | 51     | 58              | 0      | 2     | 60     |
| 1.10 Visitor Facility (no.)             | 36     | 30              | 0      | 6     | 36     |
| 1.11 Road (km)                          | 0      | 0               | 0      | 0     | 0      |
| 1.12 Crossing (no.)                     | 0      | 0               | 0      | 0     | 0      |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |                 |        |       |        |
| 2.1 Vegetation (ha)                     | 625    | 296             | 452    | 3     | 751    |
| 2.2 Weed control (ha)                   | 1,270  | 1,067           | 1,776  | 3     | 2,846  |
| 2.3 Pest animal control (ha)            | 7,021  | 6,081           | 1,240  | 0     | 7,321  |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0               | 0      | 0     | 0      |
| 2.5 Threatened species response (no.)   | 0      | 0               | 0      | 0     | 0      |
| 2.6 Emergency Species response (no.)    | 0      | 0               | 0      | 0     | 0      |
| 2.7 Soil treatment (ha)                 | 0      | 0               | 0      | 0     | 0      |
| 2.8 Earth works (no.)                   | 1      | 2               | 0      | 0     | 2      |
| 2.9 Rubbish removal (ha)                | 0      | 0               | 0      | 0     | 0      |
| <b>3. MANAGEMENT SERVICES</b>           |        |                 |        |       |        |
| 3.1 Grazing (ha)                        | 533    | 123             | 468    | 0     | 591    |
| 3.2 Agricultural practices (ha)         | 11,811 | 0               | 15,529 | 0     | 15,529 |
| 3.3 Water (no.)                         | 25     | 19              | 0      | 0     | 19     |
| 3.4 Fire Regime (no.)                   | 0      | 0               | 0      | 0     | 0      |
| <b>4. PLANNING AND REGULATION</b>       |        |                 |        |       |        |
| 4.1 Approval and advice (no.)           | 835    | 964             | 0      | 0     | 964    |
| 4.2 Management agreement (no.)          | 58     | 103             | 15     | 0     | 118    |
| 4.3 Assessment (no.)                    | 3,629  | 3,525           | 14     | 0     | 3,539  |
| 4.4 Engagement event (no. participants) | 2,899  | 9,257           | 4,020  | 87    | 13,364 |
| 4.5 Partnership (no.)                   | 301    | 213             | 102    | 0     | 315    |
| 4.6 Plan (no.)                          | 270    | 55              | 4      | 0     | 59     |
| 4.7 Publication (no.)                   | 72     | 62              | 12     | 1     | 75     |
| 4.8 Information management system (no.) | 0      | 0               | 0      | 0     | 0      |





# CADETSHIP SUPPORTS TRADITIONAL OWNER CAPACITY BUILDING

“The cadetship was established to reflect Wayne’s commitment to supporting engagement and educational opportunities for Traditional Owners in caring for the catchment’s land, water and biodiversity.”

Murray Chapman, Chair Goulburn Broken CMA Board



## LOCATIONS

Dookie  
Seymour  
Barmah National Park

## OUTPUT 2015/2016

Building Traditional Owner capacity and engagement in NRM

## PARTNERS

Yorta Yorta Nation Aboriginal Corporation  
Taungurung Clans Aboriginal Corporation  
Tallis Winery  
Seymour P-12 College  
Swinburne University  
Nestle

## REGIONAL STRATEGIES

Goulburn Broken Regional Catchment Strategy 2013-2019  
Aboriginal Participation Guideline for Victorian CMAs  
Biodiversity Strategy for the Goulburn Broken Catchment 2015/16  
Goulburn Broken Waterway Strategy 2014-2022  
Yorta Yorta Working on Country Plan  
Taungurung Clans Working on Country Plan (Draft)



Goulburn Broken CMA is committed to continuing to engage in meaningful ways with Traditional Owners to increase their participation in managing Country.

The Rock Correa Walk at Tallis Winery at Dookie celebrates Aboriginal and European heritage while providing breathtaking views across the Goulburn Broken Catchment.

Signs along the walk, a unique partnership between the winery, Traditional Owners and Goulburn Broken CMA, describe the area’s past and current significance to the Yorta Yorta people as well as describing its rich agricultural heritage.

The importance of sharing Traditional Owners’ connection to Country with the broader community was also the aim of establishing an Indigenous garden at Seymour P-12 College. The project involved students and staff, community volunteers and staff from Taungurung Clans and the GB CMA developing a garden that features local plants, signage highlighting the Taungurung Clans as the Traditional Owners of the region and installation of two striking sculptures of totems ‘Bunjil’ (the Eagle) and ‘Waa’ (the Crow). The project received funding support from Nestlé, which has a factory at nearby Broadford, through the Nestlé Community Environment Program.

Encouraging young Indigenous people to complete post-secondary studies in natural resource management was one of the main goals of the recently established Wayne Tennant Cadetship.

Wayne headed up the Goulburn Broken CMA’s waterway programs for more than 15 years. After a long battle with ill-health, Wayne passed away on August 4, 2015. The inaugural Wayne Tennant Cadetship was awarded to Ash Hurd.

“Ash has been with Yorta Yorta’s Woka Wolla crew for the past two years. His quiet, focussed approach to leading the team as it carries out works such as fencing, pest animal and plant control and cultural assessments across Yorta Yorta country, makes him a deserving recipient of the inaugural Wayne Tennant Cadetship,” Goulburn Broken CMA Chair Murray Chapman said.

These three initiatives are all supported through the Australian Government’s National Landcare Programme.

- 1** GB CMA CEO Chris Norman, GB CMA Chair Murray Chapman, Mitchell Tennant, Ash Hurd and Yorta Yorta Nation Aboriginal Corporation Elder Peter Ferguson.
- 2** Seymour P-12 College Indigenous Garden.
- 3** The view from the Rock Correa walk at Dookie.



# COW COLLARS THE KEY TO A FENCELESS FUTURE

“This trial aims to demonstrate virtual fencing is a cost-effective way of managing livestock access to riparian areas without the need for physical fencing.” Murray Chapman, Chair Goulburn Broken CMA Board



## LOCATIONS

NSW: beef cattle farm in Murray LLS region

## OUTPUT 2015/2016

2 Partnerships  
1 Assessment  
5 Publications

## PARTNERS

Agersons  
Victorian Government  
Commonwealth Government  
North East CMA  
Murray Local Land Services

## REGIONAL STRATEGIES

Water for Victoria (discussion paper)  
Regional Riparian Action Plan  
Goulburn Broken Waterway Strategy 2014-2022  
Goulburn Broken Regional Catchment Strategy 2013-2019  
Improving Our Waterways - Victorian Waterway Management Strategy  
Shepparton Irrigation Region Land and Water Management Plan

**1** Ian Reilly with a cow collar.

**2** Cow with concept collar.

**3** Virtual fencing could also help avoid spending millions of dollars replacing fences after flood and fire.

A trial is under way of technology that could help protect the health of rivers and creeks and save farmers thousands of dollars in fencing costs.

Goulburn Broken CMA and technology company Agersens are leading a “virtual fencing” thanks to funding from the Victorian and Australian governments. The project is also supported by the North East CMA and Murray Local Land Service.

The trial involves setting up a virtual fence around a riparian area using GPS coordinates. Livestock are trained to keep away from the area by wearing a GPS-operated collar that uses an animal friendly training program developed by CSIRO in a six year research program. It operates in a similar way to an electric fence but can be installed or removed using a smartphone.

Goulburn Broken CMA Chair Murray Chapman said the virtual fencing trial had been listed as a priority action in the Victorian Government’s Regional Riparian Action Plan, launched late last year.

“The plan highlighted that a major threat to healthy riparian land and waterways is uncontrolled stock access,” Mr Chapman said.

“This trial aims to demonstrate virtual fencing is a cost-effective way of managing livestock access to riparian areas without the need for physical

fencing. Getting rid of fencing would also reduce the risk of wildlife, and livestock, getting caught and injured in barbed wire.” The technology has other potential on-farm uses such as keeping stock off revegetation sites and managing rotational grazing.

“It could also help land managers avoid spending millions of dollars replacing fences after flood, storms and fire, climate change-related events that have tested the resilience of our communities all too often in recent years,” Mr Chapman said.

Agersens managing director Ian Reilly said CSIRO testing of the technology had shown that it was effective at controlling stock movement.

“The improvement in mobile device and cloud technology has made the technology a lot more affordable,” Mr Reilly said.

“An on-farm trial is the next step in making this technology widely available.”

As Victorian regulations currently do not allow collars that deliver a mild electric shock to be worn by livestock, the virtual fencing trial will be conducted on a cattle property in New South Wales, thanks to support from the Murray Local Land Services.



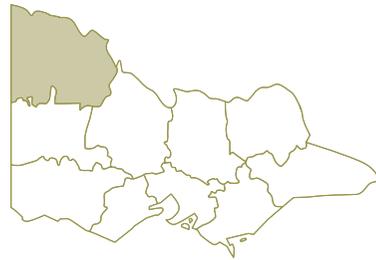
# MALLEE

# MALLEE

## KEY EVENTS AND INSIGHTS

- Development of key regional planning documents (i.e. Riparian Action Plan, Indigenous Participation Plan, and NRM Plan for Climate Change) builds on the Mallee Regional Catchment Strategy and its associated sub strategies by further targeting investment and accelerating improvements in the condition of priority assets.
- Planning for delivery partnerships and engagement activities continues to be informed and enhanced by advice received from regional stakeholders through forums such as the Mallee CMA's Aboriginal Reference Group, Community Advisory Committee, and Technical Advisory Committees (Land, Water and Biodiversity).
- Ongoing monitoring and evaluation programs are supporting the development of a regional evidence base from which the impact of investment on both threat mitigation (short term) and resource condition (long term) can be quantified. Progressing the implementation of a 'Community Capacity for NRM monitoring tool' and establishing standards for assessing the immediate impact of on ground works (e.g. rabbit control, revegetation) has further enhanced this framework.
- The Victorian Drought Response Program provided people affected by drought in the Southern Mallee with employment opportunities and with financial incentives to establish stock containment areas on farm.

| OUTPUT                                  | TARGET | ACTUAL |        |       |        |
|---|--------|--------|--------|-------|--------|
|   |        | STATE  | C'WLTH | OTHER | TOTAL  |
| <b>1. STRUCTURAL WORKS</b>              |        |        |        |       |        |
| 1.1 Channel (km)                        | 0      | 0      | 0      | 0     | 0      |
| 1.2 Water storage (no.)                 | 0      | 0      | 0      | 0     | 0      |
| 1.3 Pump (no.)                          | 11     | 7      | 0      | 0     | 7      |
| 1.4 Irrigation Structure (ha)           | 1,288  | 143    | 0      | 1,025 | 1,168  |
| 1.5 Waterway structure (no.)            | 23     | 25     | 0      | 0     | 25     |
| 1.6 Terrestrial Structure (no.)         | 0      | 0      | 0      | 0     | 0      |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 0      | 0     | 0      |
| 1.8 Monitoring structure (no.)          | 18     | 17     | 1      | 0     | 18     |
| 1.9 Fence (km)                          | 142    | 42     | 121    | 0     | 163    |
| 1.10 Visitor Facility (no.)             | 0      | 0      | 0      | 0     | 0      |
| 1.11 Road (km)                          | 48     | 54     | 1      | 0     | 55     |
| 1.12 Crossing (no.)                     | 9      | 9      | 0      | 0     | 9      |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |        |       |        |
| 2.1 Vegetation (ha)                     | 1,372  | 8      | 1,343  | 0     | 1,351  |
| 2.2 Weed control (ha)                   | 31,756 | 9,130  | 34,808 | 0     | 43,938 |
| 2.3 Pest animal control (ha)            | 65,033 | 11,634 | 70,533 | 0     | 82,167 |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0      | 0     | 0      |
| 2.5 Threatened species response (no.)   | 0      | 0      | 0      | 0     | 0      |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0      | 0     | 0      |
| 2.7 Soil treatment (ha)                 | 0      | 0      | 0      | 0     | 0      |
| 2.8 Earth works (no.)                   | 73     | 30     | 45     | 0     | 75     |
| 2.9 Rubbish removal (ha)                | 53     | 118    | 24     | 0     | 142    |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |        |       |        |
| 3.1 Grazing (ha)                        | 0      | 0      | 0      | 0     | 0      |
| 3.2 Agricultural practices (ha)         | 11     | 0      | 15     | 0     | 15     |
| 3.3 Water (no.)                         | 55     | 58     | 0      | 0     | 58     |
| 3.4 Fire Regime (no.)                   | 0      | 0      | 0      | 0     | 0      |
| <b>4. PLANNING AND REGULATION</b>       |        |        |        |       |        |
| 4.1 Approval and advice (no.)           | 435    | 204    | 0      | 163   | 367    |
| 4.2 Management agreement (no.)          | 323    | 94     | 202    | 67    | 363    |
| 4.3 Assessment (no.)                    | 706    | 274    | 399    | 37    | 710    |
| 4.4 Engagement event (no. participants) | 6,914  | 3,754  | 4,255  | 577   | 8,586  |
| 4.5 Partnership (no.)                   | 180    | 103    | 44     | 35    | 182    |
| 4.6 Plan (no.)                          | 126    | 40     | 67     | 18    | 125    |
| 4.7 Publication (no.)                   | 348    | 180    | 130    | 39    | 349    |
| 4.8 Information management system (no.) | 18     | 9      | 1      | 8     | 18     |



## LOCATIONS

Wargan, Carwarp, Murrayville, Patchewollock, Birchip, Walpeup and Manangatang

## OUTPUT 2015/2016

7 assessments  
87 ha of agricultural practice change  
281 engagement event participants  
3 partnerships  
12 publications

## PARTNERS

The Australian Government's National Landcare Programme  
Department of Economic Development, Jobs, Transport and Resources  
Mallee Sustainable Farming  
Birchip Cropping Group

## REGIONAL STRATEGIES

Mallee Regional Catchment Strategy 2013-2019

- 1** Sheep taking part in a fodder trial.
- 2** The "Native forage shrubs for low rainfall areas" field guide.
- 3** Carwarp farmer Ian McNabb, has been planting forage shrubs across his property for more than 20 years.

# RESEARCH INFORMS READY-REFERENCE FOR MALLEE FARMERS

"This field guide is just one of the many ways the Mallee CMA is working with dryland farmers across the region to use the latest research to inform sustainable agriculture practices."

Sharyon Peart, Chair Mallee CMA Board

Mallee farmers looking to grow native forage shrubs for stockfeed now have a comprehensive ready-reference tool to help with their decision-making and practices.

Informed by more than a decade of research, a field guide released by the Mallee CMA during 2015/16 brings together all of the information, data and findings and presents it in a simple and user-friendly way.

The field guide is called "Native forage shrubs for low rainfall areas" and has been a popular resource for farmers who have grazing livestock as part of their operation. Utilising alternative fodder sources helps them manage feed gaps at certain times of the year, while also supporting their work in reducing erosion and improving farm health.

The field guide helps farmers do the sums about the costs and benefits of using native shrubs as a fodder source, while also giving them tried and tested information about what types of shrubs to grow and how to get them well-established.

Ian McNabb has been planting forage shrubs across his property at Carwarp, south of Mildura, for more than 20 years

and mainly uses them over summer, when other feed is limited as well as early in the year before pasture takes off.

"We started planting shrubs because we have a lot of salty country, which is unsuitable for anything else and we wanted to limit the spread of these areas," Mr McNabb said.

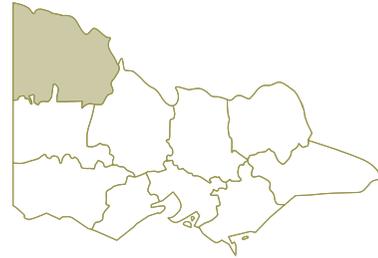
"Usually we fence off small isolated salt-affected areas where nothing else will grow and plant the shrubs in rows about two metres apart," he said.

"But in larger areas we are planting the shrubs up to six metres between rows.

"We've been able to turn about 600ha of unproductive ground into grazing country."

The "Native forage shrubs for low rainfall areas" field guide was supported by the Mallee CMA, through funding from the Australian Government's National Landcare Programme. It is available free of charge from the Mallee CMA.

The development of the field guide was part of a larger Alternative Fodder Crops project, which established seven on farm experimental sites to demonstrate the use and management of forage shrub species.



# SHARING THE BENEFITS OF ENVIRONMENTAL WATERING

“Face-to-face and targeted engagement has helped build effective and strong partnerships and, when community consultation began on the 2015/16 environmental watering priorities for our region, our community was at the centre of the decision making process.”

Sharyon Peart, Chair Mallee CMA Board



## LOCATIONS

Wallpolla Island to Nyah

## OUTPUT 2015/2016

1156 engagement event participants  
136 publications (including media releases, flyers, posters and social media posts)

## PARTNERS

Victorian Environmental Water Holder  
Department of Environment, Land, Water and Planning  
Parks Victoria

## REGIONAL STRATEGIES

Mallee Regional Catchment Strategy 2013-2019  
Mallee Waterway Strategy 2014-22



**1** Research scientist Jarod Lyon with a Murray Cod caught during monitoring activities in the Mallee CMA region.

**2** Local fisherman Vas Saris on the River Murray.

**3** Jacob Oxley and Ryan Fox, both 14 of Swan Hill College, at Nyah completing the Wetland Learning program.

Showcasing the shared benefits of environmental watering helped the Mallee Catchment Management Authority (CMA) directly engage more than 1150 people through one project during 2015/16.

By crafting a range of innovative and engaging activities, the Mallee CMA was able to tap into new sectors of the community to develop relationships and improve people’s understanding of the many ways the wider community shares in the benefits of environmental watering.

This focus gave us the opportunity to reinvigorate the organisation’s focus on community and stakeholder partnerships. Existing relationships with local Landcare and Friends of Groups, bird observer groups and bushwalking groups were enhanced, while new relationships were established with numerous groups including recreational fishers and angling groups, secondary schools, business groups and Traditional Owners.

We worked together to shine the spotlight on all the benefits the community shares in when a wetland receives environmental water, and we did this in a wide variety of ways.

The Mallee CMA hosted a “Fishing of the Future” forum for local fishing enthusiasts to hear directly from some of Australia’s leading fisheries researchers; we worked with scientists to “get the word out” about how environmental watering is helping increase native fish numbers; and we tapped into the network of a widely-respected fishing commentator who used his social media channels to release a Mallee CMA video about Murray Cod research, reaching more than 2300 people in a matter of hours.

To reach teenagers, the Mallee CMA developed a “Wetland Learning” package tailored to a number of Murray River wetlands, where more than 300 local Year 9 students got the chance to build on their classroom learning with a field trip to a local wetland. To date, schools from Werrimull to Nyah have taken part in this program.

To engage the business community, the Mallee CMA also became a regular presenter at Rotary and Probus meetings across the region.

# NORTH CENTRAL



# NORTH CENTRAL

## KEY EVENTS AND INSIGHTS

- Supported drought affected farmers through the Victorian Government's Drought Recovery Package with funding to establish four Drought Employment Crews and 93 stock containment areas. Hosted a collaborative event supporting the drought-stricken Donald community, with over 250 community members in attendance.
- Formalised a Partnership Statement with Dja Dja Wurrung to further develop the relationship and future joint works.
- Initiated planning and works delivery with Coliban Water and other catchment partners around the Upper Coliban Integrated Catchment Management Plan to improve water availability and quality in these critical drinking water catchments.
- Launched the NatureBlitz citizen science App. The App enables community members to collect and share information about native fauna.
- Developed the Soil Health Guide North Central Victoria – a practical, easy guide to understanding key concepts of soil health.
- Undertook works as part of the Caring for the Campaspe project that has resulted in 123 ha of weed control, 15 km of fencing and 64 ha of revegetation to improve the river's health.

| OUTPUT                                  | TARGET | ACTUAL |        |       |        |
|---|--------|--------|--------|-------|--------|
|   |        | STATE  | C'WLTH | OTHER | TOTAL  |
| <b>1. STRUCTURAL WORKS</b>              |        |        |        |       |        |
| 1.1 Channel (km)                        | 2      | 3      | 0      | 0     | 3      |
| 1.2 Water storage (no.)                 | 16     | 29     | 0      | 0     | 29     |
| 1.3 Pump (no.)                          | 3      | 0      | 0      | 0     | 0      |
| 1.4 Irrigation Structure (ha)           | 0      | 0      | 0      | 0     | 0      |
| 1.5 Waterway structure (no.)            | 10     | 1      | 0      | 0     | 1      |
| 1.6 Terrestrial Structure (no.)         | 0      | 0      | 0      | 0     | 0      |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 0      | 0     | 0      |
| 1.8 Monitoring structure (no.)          | 1      | 0      | 0      | 0     | 0      |
| 1.9 Fence (km)                          | 121    | 116    | 24     | 0     | 140    |
| 1.10 Visitor Facility (no.)             | 3      | 20     | 5      | 0     | 25     |
| 1.11 Road (km)                          | 0      | 0      | 0      | 0     | 0      |
| 1.12 Crossing (no.)                     | 0      | 0      | 0      | 0     | 0      |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |        |       |        |
| 2.1 Vegetation (ha)                     | 420    | 110    | 258    | 14    | 382    |
| 2.2 Weed control (ha)                   | 3,400  | 5,995  | 2,003  | 34    | 8,032  |
| 2.3 Pest animal control (ha)            | 16,265 | 7,391  | 16,067 | 0     | 23,458 |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0      | 0     | 0      |
| 2.5 Threatened species response (no.)   | 9      | 0      | 9      | 0     | 9      |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0      | 0     | 0      |
| 2.7 Soil treatment (ha)                 | 53     | 0      | 2      | 0     | 2      |
| 2.8 Earth works (no.)                   | 0      | 0      | 0      | 0     | 0      |
| 2.9 Rubbish removal (ha)                | 0      | 160    | 0      | 0     | 160    |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |        |       |        |
| 3.1 Grazing (ha)                        | 25     | 61     | 4      | 0     | 65     |
| 3.2 Agricultural practices (ha)         | 661    | 0      | 601    | 0     | 601    |
| 3.3 Water (no.)                         | 0      | 58     | 6      | 0     | 64     |
| 3.4 Fire Regime (no.)                   | 0      | 0      | 0      | 0     | 0      |
| <b>4. PLANNING AND REGULATION</b>       |        |        |        |       |        |
| 4.1 Approval and advice (no.)           | 1,442  | 2,142  | 0      | 0     | 2,142  |
| 4.2 Management agreement (no.)          | 83     | 6      | 1      | 0     | 7      |
| 4.3 Assessment (no.)                    | 832    | 664    | 574    | 2     | 1,240  |
| 4.4 Engagement event (no. participants) | 4,024  | 5,099  | 2,643  | 253   | 7,995  |
| 4.5 Partnership (no.)                   | 16     | 13     | 7      | 0     | 20     |
| 4.6 Plan (no.)                          | 89     | 27     | 12     | 0     | 39     |
| 4.7 Publication (no.)                   | 52     | 49     | 13     | 0     | 62     |
| 4.8 Information management system (no.) | 2      | 0      | 0      | 1     | 1      |



# BARAPA BARAPA WATER FOR COUNTRY

“Too often Traditional Owners are engaged late in the process, that is, on the ‘back page’. This project has provided both time and resources, to put Traditional Owners ‘front page’ as they spend time on Country with staff to communicate their perspectives and values so these can be embedded in the watering plans.”

David Clark, Chair North Central CMA Board

## LOCATIONS

Gunbower Forest and  
Gunbower Creek

## OUTPUT 2015/2016

6 assessments  
55 engagement event participants

## PARTNERS

Murray Darling Basin Authority  
Barapa Barapa

## REGIONAL STRATEGIES

North Central Regional Catchment  
Strategy 2013-2019  
North Central Regional Waterway  
Strategy 2014-22

**1** Uncle 'Ducky' and Zak  
recording an earth mound  
with archaeologist Colin.

**2** Garth records site  
information on a GPS tablet.

**3** Sharnie inspects the  
results of the exclusion  
plot established to monitor  
impacts of carp on cultural  
plants.

Barapa Barapa people have historically not been able to participate in decision making around their land and water, to a level that appropriately reflects their interests. The project activities have been planned to assist overcoming some of the barriers; firstly by building cultural awareness of staff through shared time on Country. Secondly, the project supports Barapa Barapa participants to gain an understanding of the regional processes that influence water management, and how to have their say.

The project has been driven by the Traditional Owner Steering Committee; which has planned and overseen the project, ensuring decision making is culturally appropriate in a culturally safe environment. This enabled the CMA and our partners to understand and acknowledge the unique cultural connection that Barapa Barapa has to Country.

Initial works started through desktop mapping to identify and prioritise significant cultural sites. Two weeks of field work was undertaken by the Barapa Culture Team, supported by an

archaeologist and ecologists. Six cultural 'hot spots' within the Gunbower Forest had their cultural values mapped; with a focus on sharing knowledge of culturally important plants used for food, fibre and medicines, and cultural heritage such as scarred trees, shell middens and earth mounds. The team also planned and delivered cultural awareness training to build relationships.

A draft framework to Develop Cultural Watering Objectives is now available. Further work will be undertaken over the next year to ensure this initial understanding and approach develops into a more concrete set of objectives. The CMA has changed its perspective through the project. Delivery of the project confirms the importance of active participation with Traditional Owner groups in the design and monitoring of an environmental watering regime that is complementary to their needs, rather than specified by it. The project won the Victorian Landcare Indigenous Land Management Award in 2015.



# NATIVE FISH RECOVERY PLAN

“The Native Fish Recovery Plan provides a novel way to achieve ecological outcomes within a highly regulated waterway system by embedding fish restoration flows into irrigation flows – that is using every drop twice, once to assist native fish and again to meet consumptive uses. The project uses a multi-partner, multi-benefit approach to provide benefits to the environment, irrigators and recreational anglers.” David Clark, Chair North Central CMA Board



## LOCATIONS

Lower Loddon River, Box Creek, Pyramid Creek, Little Murray River, Gunbower Creek, Kow Swamp and Taylor’s Creek

## OUTPUT 2015/2016

14 km fencing  
5 off-stream watering points  
14 ha revegetation  
10 management agreements  
50 ha weed control  
2 assessments  
230 engagement event participants

## PARTNERS

Murray Darling Basin Authority  
Goulburn Murray Water  
Victorian Environmental Water Holder  
Gannawarra Shire  
VR Fish  
Barapa Barapa  
Department of Environment, Land, Water and Planning  
Department of Economic Development, Jobs, Transport and Resources

## REGIONAL STRATEGIES

North Central Regional Catchment Strategy 2013-2019  
North Central Regional Waterway Strategy 2014-22  
Native Fish Recovery Plan – Gunbower and Lower Loddon

Improving native fish populations and the ecological health in over 200 km of streams and wetlands in the Gunbower and lower Loddon area is the long-term objective of the Native Fish Recovery Plan. The plan also aims to improve connectivity and habitat utilising the potential of the irrigation supply network, and associated water deliveries.

There is a cumulative benefit in the rehabilitation of rivers through improving fish passage and connectivity, environmental flows, instream woody habitat reinstatement, stock exclusion, revegetation and weed control.

In the second year of the project’s delivery, previously installed instream woody habitat is showing success with the presence and abundance of key native fish species recordings along key waterways within the plan.

The Victorian Government’s Regional Riparian Action Plan funding enables the exclusion of stock from waterways through fencing and supplying stock with alternative water sources-imperative to improving water quality and riparian zones.

Another key part of the plan is establishing healthy stream bank vegetation, which is critical for healthy native fish populations as it provides shade, shelter and predatory cover for fish. Native vegetation is also a source of food for native fish with leaf litter and terrestrial insects falling into the water as is the recruitment of instream woody habitat (snags).

The local community continues to show substantial support for the project due to tourism and recreational angling opportunities. A local action group of volunteers is contributing monitoring data to Research Angler Diaries, measuring water quality and assisting in the construction of fish habitat structures along the lower Loddon River.

Barriers ear-marked for removal at key structures will also improve connectivity within the project area.

The project’s success, including ongoing works, is attributed to strong partnerships with key stakeholders and the local community.



- 1 World Fish Migration Day - Welcome to Country.
- 2 Loddon River red gums.
- 3 Native Fish Recovery Plan Launch event
- 4 Carp Forum presenter Matt Barwick



# NORTH EAST

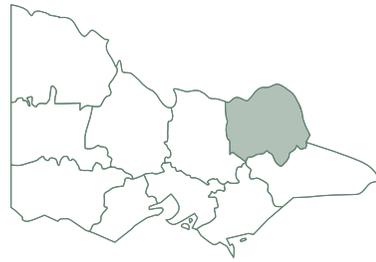
## KEY EVENTS AND INSIGHTS

- Supporting community led practice change and collaborative governance models: Blackberry Action Groups, the Springhurst Rabbit Roundtable, the Hume Region Community Deer Roundtable, and the Lake Omeo and Morass Creek Wetland Management Plan Project.
- Exploring new approaches to riparian management: working side by side with landholders in the mid King to share and build understanding about a river system that has experienced intense flooding and channel change.
- Innovation in agriculture: supporting a trial release of dung beetle in the Kiewa Valley for increased soil carbon levels and improved soil health; and developing virtual fencing that can be used to control domestic livestock in floodplain areas.
- Enabling a better understanding of flood risk: jointly investigating with the Rural City of Wangaratta towards improved flood mapping, land-use planning, emergency planning and response, and community preparation.
- Developing strategy: completing the North East Climate Ready NRM Strategy in support of the North East Regional Catchment Strategy and on behalf the catchment community.
- Guiding development of the Aboriginal Participation Guidelines: for Victorian CMAs with support from the National Landcare Program and Department of Environment, Land, Water and Planning.



**NORTH EAST  
CATCHMENT  
MANAGEMENT  
AUTHORITY**

| OUTPUT                                  | TARGET | ACTUAL |         |       |         |
|---|--------|--------|---------|-------|---------|
|   |        | STATE  | C'WLTH  | OTHER | TOTAL   |
| <b>1. STRUCTURAL WORKS</b>              |        |        |         |       |         |
| 1.1 Channel (km)                        | 0      | 0      | 0       | 0     | 0       |
| 1.2 Water storage (no.)                 | 35     | 32     | 3       | 0     | 35      |
| 1.3 Pump (no.)                          | 0      | 0      | 0       | 0     | 0       |
| 1.4 Irrigation Structure (ha)           | 0      | 0      | 0       | 0     | 0       |
| 1.5 Waterway structure (no.)            | 10     | 233    | 0       | 0     | 233     |
| 1.6 Terrestrial Structure (no.)         | 1      | 0      | 0       | 0     | 0       |
| 1.7 Terrestrial feature (no.)           | 4      | 11     | 0       | 0     | 11      |
| 1.8 Monitoring structure (no.)          | 98     | 29     | 0       | 0     | 29      |
| 1.9 Fence (km)                          | 49     | 96     | 3       | 0     | 99      |
| 1.10 Visitor Facility (no.)             | 0      | 2      | 0       | 0     | 2       |
| 1.11 Road (km)                          | 0      | 6      | 0       | 0     | 6       |
| 1.12 Crossing (no.)                     | 2      | 0      | 0       | 0     | 0       |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |         |       |         |
| 2.1 Vegetation (ha)                     | 119    | 296    | 11      | 0     | 308     |
| 2.2 Weed control (ha)                   | 545    | 1,970  | 612     | 0     | 2,582   |
| 2.3 Pest animal control (ha)            | 12,554 | 11     | 584,042 | 0     | 584,053 |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0       | 0     | 0       |
| 2.5 Threatened species response (no.)   | 5      | 0      | 5       | 0     | 5       |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0       | 0     | 0       |
| 2.7 Soil treatment (ha)                 | 0      | 94     | 0       | 0     | 94      |
| 2.8 Earth works (no.)                   | 1      | 8      | 0       | 0     | 8       |
| 2.9 Rubbish removal (ha)                | 0      | 0      | 0       | 0     | 0       |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |         |       |         |
| 3.1 Grazing (ha)                        | 81     | 269    | 56      | 0     | 325     |
| 3.2 Agricultural practices (ha)         | 30,000 | 0      | 39,700  | 0     | 39,700  |
| 3.3 Water (no.)                         | 3      | 3      | 0       | 0     | 3       |
| 3.4 Fire Regime (no.)                   | 0      | 0      | 4       | 0     | 4       |
| <b>4. PLANNING AND REGULATION</b>       |        |        |         |       |         |
| 4.1 Approval and advice (no.)           | 452    | 397    | 0       | 0     | 397     |
| 4.2 Management agreement (no.)          | 34     | 49     | 10      | 0     | 59      |
| 4.3 Assessment (no.)                    | 189    | 359    | 19      | 0     | 378     |
| 4.4 Engagement event (no. participants) | 2,768  | 4,738  | 3,752   | 0     | 8,490   |
| 4.5 Partnership (no.)                   | 254    | 46     | 0       | 0     | 46      |
| 4.6 Plan (no.)                          | 21     | 8      | 1       | 0     | 9       |
| 4.7 Publication (no.)                   | 118    | 45     | 22      | 0     | 67      |
| 4.8 Information management system (no.) | 5      | 5      | 0       | 0     | 5       |



# RESTORING THE MORASS: LAKE OMEO & MORASS WETLAND MANAGEMENT PLAN PROJECT

“The scale of this project is unprecedented in North East Victoria. Eighty hectares is the largest single site willow infestation that we’ve taken on, and has been a very positive opportunity to re-engage with the Benambra community”

Lyn Coulston, OAM, Chair North East CMA Board



## LOCATIONS

The Morass and Lake Omeo, Benambra

## OUTPUT 2015/2016

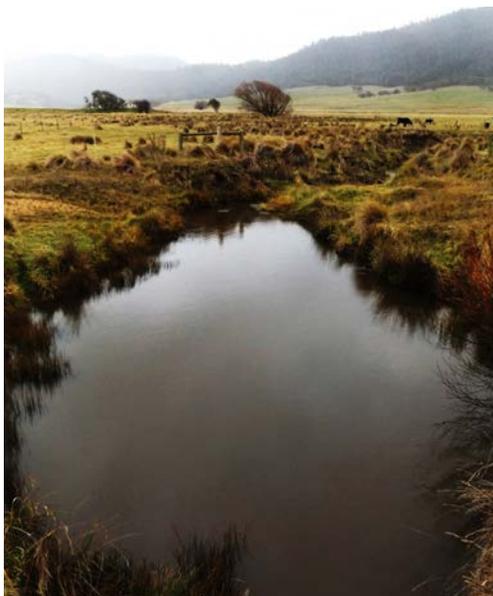
4 photo point monitoring structures  
7.2 ha woody weed control  
5 management agreements  
35 participants in engagement events  
1 partnership

## PARTNERS

Benambra community  
Parks Victoria  
Department of Environment, Land,  
Water and Planning

## REGIONAL STRATEGIES

North East Regional Catchment  
Strategy 2013-2019  
North East Waterway Strategy  
2014-22



**1** View of Benambra and the Morass from above.

**2** Benambra local, Ben Buckley.

**3** Morass pool.

Putting community at the centre of the planning process, the Lake Omeo and Morass Creek Wetland Management Plan Project is making progress on weed management, and is celebrating a remote community’s enduring connection with their waterways.

The project sought to find an appropriate way to develop a wetland management plan to deal with a range of threats to two waterways, which sit either side of Benambra, a small community in North East Victoria.

Both waterways are identified as having a number of environmental, social and economic values that are confronted with a series of threats. Development of the plan was driven by the Benambra community.

In 2015/16 the plan:

- established and strengthened community knowledge and involvement of the waterways
- removed 7.2 hectares of willows along a 2km reach of the Morass Creek upstream of the wetland, and
- negotiated 5 management agreements to complete further works such as riparian fencing and weed management.

Whilst the program started off as an invasive species management program, other exciting outcomes have included:

- collection of historic photos, a regional artist and writer creating the Restoring the Morass book – focusing on the connection between people; heritage and the waterways, and
- plans in the pipeline for interpretive signs and a heritage walk to be established around Lake Omeo.

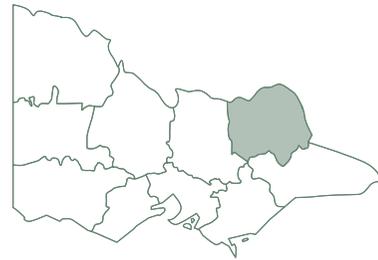
Due for release in Spring 2016, the book gathers recollections of the waterways and brings a sense of poetry to Benambra’s relationship with water in their landscape. Highlights include:

- watching the platypus and water rats while fishing on The Morass
- the resilience and sense of humour of this remote community
- the size of The Morass’ tiger snakes, which are subject of local mythology, and
- the frequently dry lake bed of Lake Omeo which is better known now for landing planes than of sailing regattas of the past. Locals smile at hopeful visitors turning up with sailboats and fishing rods.

Work on The Morass and Lake Omeo continues, and the book offers a heart-warming springboard to further community ownership of their transforming landscape.



# TACKLING DEER IN NORTH EAST VICTORIA



“Community leaders of North East Victoria have proactively stood up to the issue of deer, leading the way to find effective solutions”

Lyn Coulston, OAM, Chair North East CMA Board



## LOCATIONS

The Communities of the Upper Murray, Mitta Valley, Kiewa Valley, King Valley and Ovens Valley

## OUTPUT 2015/2016

414 participants across 13 engagement events

## PARTNERS

Arthur Rylah Institute  
 Australian Deer Association  
 Charles Sturt University  
 Department of Economic Development, Jobs, Transport and Resources  
 Department of Environment, Land, Water and Planning  
 Game Management Authority  
 HVP Plantations  
 Edi Black Range Landcare Group, Kiewa Valley Landcare Network, King Basin Landcare Group, Landcare North East Victoria, Mitta Valley Landcare Group, Ovens Landcare Network, Upper Murray Landcare Network, Upper Ovens Valley Landcare Group  
 North East CMA  
 Parks Victoria  
 Prime Safe  
 Private sector businesses  
 Sporting Shooters' Association of Aust  
 Victorian Farmers Federation  
 Victoria Police

## REGIONAL STRATEGIES

North East Regional Catchment Strategy 2013-2019  
 North East Landcare Support Plan



Locals are describing deer as the rabbit, the fox – or the cane toad – of our generation, with distribution and numbers skyrocketing in the past 20 years. The deer population has hit a tipping point for the communities of North East Victoria, and they are coming together to take action.

Concerned communities are coming together to take action on deer. Identifying deer as an emerging issue, the North East CMA has brought community and agencies together to collaborate, understand and find solutions to the broad ranging social, environmental and economic impacts of growing deer populations.

Deer numbers have grown exponentially following major fires and the millennium drought. They have high reproductive capacity, few predators and are spreading further across the catchment from Alpine and Forest, through to Agriculture and Lifestyle landscapes.

Poor behaviour of some hunters – including trespassing – is causing public safety concerns and stretching rural policing resources. Deer create hazards on road networks.

Environmental damage is occurring in terms of water quality, native vegetation regeneration and revegetation success. Endangered peatland ecosystems are being particularly impacted.

Economic and productivity impacts are also significant, with deer capable of consuming pasture at 2 ½ dry sheep equivalents. The opportunity cost of

managing deer (e.g. additional fencing, time spent on population control) is experienced across grazing, horticulture, dairy and viticulture enterprises, and landowners express concern for biosecurity risks carried by deer.

Over 400 people have participated in forums and discussions across 13 engagement events. The community ownership of the issue is strong, as is their resilience and energy to progress the deer issue.

It is recognised that there is no easy fix or single solution. Deer populations are so firmly established that mitigating impacts – rather than eradication – is the viable option. However, early progress is promising, including:

- The Upper Murray community has developed a Deer Kit
- Parks Victoria has trialled deer control in the Alpine National Park, and
- Agencies are now all working together to plan for future activities and approaches.

The emerging effort of all partners is anticipated to combine education, research, legislative options, market-based and tourism opportunities, sustained community leadership, compliance and law enforcement.

**1** A deer in an alpine peatland.

**2** Agencies tour the Bogong High Plains to gain a better understanding of deer issues.

**3** Storm over Mount Porepunkah, North East Victoria.



# PORT PHILLIP & WESTERNPORT

# PORT PHILLIP & WESTERNPORT

## KEY EVENTS AND INSIGHTS

- Building the support for implementation of the Regional Catchment Strategy by signing on 11 new organisations as partners and hosting the inaugural PPWCMA Knowledge Banquet attracting nearly 200 participants.
- Securing a lead role in the delivery and coordination of over 700,000 trees for the Greening the West - 1 Million Trees project, funded through the Australian Governments 20 Million Trees Programme.
- Building strong relationships with Indigenous communities and providing tangible support through various projects and events including the Indigenous Wetland Wardens training courses, the Chick Shelter Workshop and the signing of a partnership agreement with the Wathaurung Aboriginal Co-Operative.
- Laying the foundation for improved NRM through supporting 37 Landcare groups to develop Conservation Action Plans for their areas.

| OUTPUT                                  | TARGET | ACTUAL |        |       |        |
|---|--------|--------|--------|-------|--------|
|   |        | STATE  | C'WLTH | OTHER | TOTAL  |
| <b>1. STRUCTURAL WORKS</b>              |        |        |        |       |        |
| 1.1 Channel (km)                        | 0      | 0      | 0      | 0     | 0      |
| 1.2 Water storage (no.)                 | 0      | 0      | 0      | 0     | 0      |
| 1.3 Pump (no.)                          | 0      | 0      | 0      | 0     | 0      |
| 1.4 Irrigation Structure (ha)           | 0      | 0      | 0      | 0     | 0      |
| 1.5 Waterway structure (no.)            | 0      | 0      | 0      | 0     | 0      |
| 1.6 Terrestrial Structure (no.)         | 0      | 0      | 0      | 0     | 0      |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 0      | 0     | 0      |
| 1.8 Monitoring structure (no.)          | 0      | 0      | 0      | 0     | 0      |
| 1.9 Fence (km)                          | 31     | 2      | 19     | 0     | 21     |
| 1.10 Visitor Facility (no.)             | 1      | 0      | 0      | 0     | 0      |
| 1.11 Road (km)                          | 0      | 0      | 0      | 0     | 0      |
| 1.12 Crossing (no.)                     | 0      | 0      | 0      | 0     | 0      |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |        |       |        |
| 2.1 Vegetation (ha)                     | 238    | 16     | 157    | 6     | 179    |
| 2.2 Weed control (ha)                   | 2,900  | 267    | 1,645  | 198   | 2,110  |
| 2.3 Pest animal control (ha)            | 17,795 | 1,854  | 30,931 | 198   | 32,983 |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0      | 0     | 0      |
| 2.5 Threatened species response (no.)   | 0      | 0      | 0      | 0     | 0      |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0      | 0     | 0      |
| 2.7 Soil treatment (ha)                 | 0      | 0      | 0      | 0     | 0      |
| 2.8 Earth works (no.)                   | 0      | 0      | 0      | 0     | 0      |
| 2.9 Rubbish removal (ha)                | 0      | 0      | 0      | 0     | 0      |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |        |       |        |
| 3.1 Grazing (ha)                        | 0      | 0      | 0      | 0     | 0      |
| 3.2 Agricultural practices (ha)         | 4,028  | 0      | 12,671 | 0     | 12,671 |
| 3.3 Water (no.)                         | 0      | 0      | 0      | 0     | 0      |
| 3.4 Fire Regime (no.)                   | 4      | 0      | 11     | 0     | 11     |
| <b>4. PLANNING AND REGULATION</b>       |        |        |        |       |        |
| 4.1 Approval and advice (no.)           | 0      | 0      | 0      | 0     | 0      |
| 4.2 Management agreement (no.)          | 55     | 9      | 59     | 0     | 68     |
| 4.3 Assessment (no.)                    | 5      | 0      | 3      | 0     | 3      |
| 4.4 Engagement event (no. participants) | 2,832  | 1,570  | 4,232  | 200   | 6,002  |
| 4.5 Partnership (no.)                   | 153    | 67     | 103    | 17    | 187    |
| 4.6 Plan (no.)                          | 11     | 2      | 15     | 0     | 17     |
| 4.7 Publication (no.)                   | 6      | 1      | 13     | 0     | 14     |
| 4.8 Information management system (no.) | 0      | 0      | 0      | 0     | 0      |



# COMPOST MULCH UNDER VINES SPREADS BENEFITS

“This trial has already shown the positive impacts of using compost mulch under vines with the practice spreading rapidly across the Mornington Peninsula. Already the number of vineyards using compost mulch has risen over 50% in just 12 months.”

Neville Goodwin, OAM, Chair Port Phillip and Westernport CMA Board



## LOCATIONS

Mornington Peninsula

## OUTPUT 2015/2016

Engagement event with 132 participants

## PARTNERS

Western Port Catchment Landcare Network  
Mornington Peninsula Vignerons Association  
Australian Organics Recycling Association

## REGIONAL STRATEGIES

Healthy Waterways  
Port Phillip & Western Port Regional Catchment Strategy

**1** PPWCMA's Regional Landcare Facilitator, Karen Thomas, with project partners at a trial site.

**2** Federal Minister for the Environment, Hon Greg Hunt MP, with project partners at a mid-trial results day.

**3** Compost mulch under vines on the Mornington Peninsula.

A partnership between Port Phillip & Westernport CMA, Westernport Catchment Landcare Network, Mornington Peninsula Vignerons Association and the Australian Organics Recycling Association is demonstrating how under vine composting can reduce the weed load and improve soil moisture and soil structure, minimising off farm impacts from sediment and nutrient run off and creating healthier vineyards.

The trial is being funded through the Australian Government's National Landcare Programme and run in conjunction with the Western Port Catchment Landcare Network, the Mornington Peninsula Vignerons Association and the Australian Organics Recycling Association. The aim was to assess whether the application of compost mulch under vines would reduce weed densities and herbicide use, improve water use efficiency and soil health and reduce vine stress on extreme heat days.

The results of the trial to date are definitive. During periods of heat, the control rows had limited biological activity and a significant decrease in irrigation infiltration, whilst the test rows using both a fine and coarse compost mulch showed more efficient infiltration and did not require night irrigation.

Alternatively during the wetter months, the compost mulch test rows also showed positive results. This was first evident during a significant rainfall event in the last week of April 2015. All rows became waterlogged, however after 24 hours, the compost rows began to dry out, whilst the control row remained waterlogged for over a week. This resulted in a decline in biological activity and plant health as a result of the waterlogging.

Joe Vaughn from 100 Hunts Vineyard in Tuerong hosted one of the trial sites. He noted that using compost mulch on his vines over the past two years has resulted in a 50% decrease in herbicide use due to less weed pressure.

Karl Roberts from Handpicked Wines has now been trialling compost mulch after learning about our trials and he found a 20% reduction in irrigation on the mulched block this last summer compared to the control block.

The findings of these trials so far have not only shown benefits to the vines at the trial sites, but the practice has already been adopted more widely.

The number of vineyards on the Mornington Peninsula using compost mulch on their vines has risen over 50% in the last 12 months. This is a great outcome and will result in more productive and efficient vineyards across the region.





## LOCATIONS

Port Phillip Bay western shoreline

## OUTPUT 2015/2016

Engagement event with 400 participants

## PARTNERS

Hobson's Bay City Council

## REGIONAL STRATEGIES

Port Phillip Bay (Western Shoreline) & Bellarine Peninsula Ramsar Site - Strategic Management Plan  
Port Phillip & Western Port Regional Catchment Strategy

# DOG'S BREAKFAST EVENT A HOWLING SUCCESS

"The Annual Dog's Breakfast event is a great way to educate pet owners on the importance of these Ramsar-listed wetlands and what they can do to become a responsible pet owner and protect these special areas."

Neville Goodwin, OAM, Chair Port Phillip and Westernport CMA Board

Collaboration between Port Phillip & Westernport CMA and Hobsons Bay City Council is having a major impact raising the awareness of local residents about the important environmental values found along the Port Phillip Bay's western shoreline.

The 2nd Annual Dog's Breakfast engagement event held in early 2016, brought together passionate dog owners to learn about dog behaviour and nutrition and how their beloved pets interact with the local native wildlife. More than 400 dog lovers from the Hobsons Bay area were treated to the free event at Altona's Doug Grant Reserve.

Port Phillip Bay's shoreline is widely utilised by the community for a variety of reasons: including dog walking, running, cycling, bird-watching and swimming. Similarly, parts of the shoreline and wetlands are also used by shorebirds that migrate to the region over Australia's warmer months from as far away as Alaska, Siberia, China, Japan and Korea.

A number of wetland sites along the bay are listed under the Convention on Wetlands of International Importance, better known as Ramsar Wetlands. These Ramsar wetlands are deemed to be rare, unique and environmentally diverse.

Hosted by Hobsons Bay City Council, and funded through the Australian Government's National Landcare Programme as part of the PPWCMA's Ramsar Protection Program, this event aimed to raise awareness of the important ecological and environmental values of the Port Phillip Bay shoreline.

By educating local dog owners on the importance of these wetlands for migratory shorebirds and native wildlife, it is hoped that owners will adopt responsible behaviours, such as keeping their pets on leads, sticking to marked footpaths and keeping out of fenced areas.

A collective effort will help to ensure that these wetlands are protected and that native wildlife and migratory birds will continue to return and thrive in these areas.

- 1** Partners involved in the Dog's Breakfast event.
- 2** Local dog owner and his furry friend at the Dog's Breakfast event.
- 3** Learning about migratory shorebirds' amazing journey at the Dog's Breakfast event.



# WEST GIPPSLAND

# WEST GIPPSLAND

## KEY EVENTS AND INSIGHTS

- Supporting farmers with more than \$700,000 in grants that funded 50 projects in the Macalister Irrigation District (MID) including completing farm plans and on ground works to improve irrigation efficiency. These projects will save water, reduce salinity, improve farm productivity and reduce the amount of nutrients entering our waterways, including the Gippsland Lakes. This program was funded by the Victorian State Government.
- Renewed commitment to Memorandum of Understanding (MoU) with the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC). This commitment was made at a ceremony at the Knob Reserve in Stratford. We continued to consult and work with GLaWAC in all areas of Aboriginal Cultural Heritage for works within the Registered Aboriginal Party (RAP) boundary area, and are a partner in funding the Gunaikurnai Whole of Country Plan.
- Creating a land subject to inundation overlay (LSIO) with Bass Coast Shire Council. This completed overlay was the result of several years' work. It includes planning controls for coastal inundation that incorporates potential sea level rise to 2100. It is believed to be the first time in Australia that sea level rises to 2100 have been used in a planning scheme.
- The Regional Waterway Program, funded through the Victorian Government, achieved more than 641ha of weed control; 373ha of Spartina control; over 22km of waterway fencing; installation of eight water troughs and around 12 ha of revegetation works.

| OUTPUT                                  | TARGET | ACTUAL |        |       |       |
|---|--------|--------|--------|-------|-------|
|   |        | STATE  | C'WLTH | OTHER | TOTAL |
| <b>1. STRUCTURAL WORKS</b>              |        |        |        |       |       |
| 1.1 Channel (km)                        | 0      | 0      | 0      | 0     | 0     |
| 1.2 Water storage (no.)                 | 43     | 11     | 0      | 0     | 11    |
| 1.3 Pump (no.)                          | 0      | 0      | 0      | 0     | 0     |
| 1.4 Irrigation Structure (ha)           | 790    | 130    | 0      | 0     | 130   |
| 1.5 Waterway structure (no.)            | 0      | 0      | 0      | 0     | 0     |
| 1.6 Terrestrial Structure (no.)         | 0      | 0      | 0      | 0     | 0     |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 0      | 0     | 0     |
| 1.8 Monitoring structure (no.)          | 9      | 9      | 0      | 1     | 10    |
| 1.9 Fence (km)                          | 88     | 32     | 40     | 0     | 72    |
| 1.10 Visitor Facility (no.)             | 0      | 0      | 0      | 0     | 0     |
| 1.11 Road (km)                          | 0      | 0      | 0      | 0     | 0     |
| 1.12 Crossing (no.)                     | 0      | 0      | 0      | 0     | 0     |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |        |       |       |
| 2.1 Vegetation (ha)                     | 116    | 45     | 84     | 0     | 129   |
| 2.2 Weed control (ha)                   | 2,074  | 1,266  | 856    | 0     | 2,122 |
| 2.3 Pest animal control (ha)            | 539    | 0      | 4,000  | 0     | 4,000 |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0      | 0     | 0     |
| 2.5 Threatened species response (no.)   | 0      | 0      | 0      | 0     | 0     |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0      | 0     | 0     |
| 2.7 Soil treatment (ha)                 | 0      | 0      | 0      | 0     | 0     |
| 2.8 Earth works (no.)                   | 2      | 6      | 0      | 0     | 6     |
| 2.9 Rubbish removal (ha)                | 0      | 0      | 0      | 0     | 0     |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |        |       |       |
| 3.1 Grazing (ha)                        | 0      | 0      | 0      | 0     | 0     |
| 3.2 Agricultural practices (ha)         | 10     | 0      | 10     | 0     | 10    |
| 3.3 Water (no.)                         | 6      | 6      | 0      | 0     | 6     |
| 3.4 Fire Regime (no.)                   | 0      | 0      | 0      | 0     | 0     |
| <b>4. PLANNING AND REGULATION</b>       |        |        |        |       |       |
| 4.1 Approval and advice (no.)           | 1,202  | 1,090  | 0      | 4     | 1,094 |
| 4.2 Management agreement (no.)          | 105    | 17     | 47     | 20    | 84    |
| 4.3 Assessment (no.)                    | 271    | 108    | 11     | 5     | 124   |
| 4.4 Engagement event (no. participants) | 782    | 474    | 716    | 40    | 1,230 |
| 4.5 Partnership (no.)                   | 241    | 237    | 40     | 1     | 278   |
| 4.6 Plan (no.)                          | 52     | 16     | 20     | 1     | 37    |
| 4.7 Publication (no.)                   | 34     | 49     | 17     | 1     | 67    |
| 4.8 Information management system (no.) | 4      | 2      | 1      | 0     | 3     |



# MACALISTER RIVER ENVIRONMENTAL WATER MANAGEMENT PLAN

“With the community, we will preserve and enhance habitat to support native water dependent plants, animals and the ecological character of the Macalister River for current and future generations.”

Angus Hume, Chair West Gippsland CMA Board

## LOCATIONS

The Macalister River, downstream of Lake Glenmaggie

## OUTPUT 2015/2016

1 water assessment  
1 publication  
1 management plan

## PARTNERS

Victorian Environmental Water Holder  
Southern Rural Water  
Department of Environment, Land, Water and Planning  
VRFish  
Native Fish Australia  
Wellington Shire Council  
Macalister Irrigation District Landholders  
Environment Victoria  
Maffra and District Landcare Network  
Gippsland Water

## REGIONAL STRATEGIES

West Gippsland Waterway Strategy 2014-2022  
West Gippsland Regional Catchment Strategy 2013-2019

**1** Community reference group members working on the draft of the EWMP.

**2** Macalister River, downstream of Lake Glenmaggie.

The natural hydrology of the lower Macalister River has changed with water extraction and the construction of an on-stream water storage. It supports important irrigated agriculture, but we need to ensure that its environmental values are also protected.

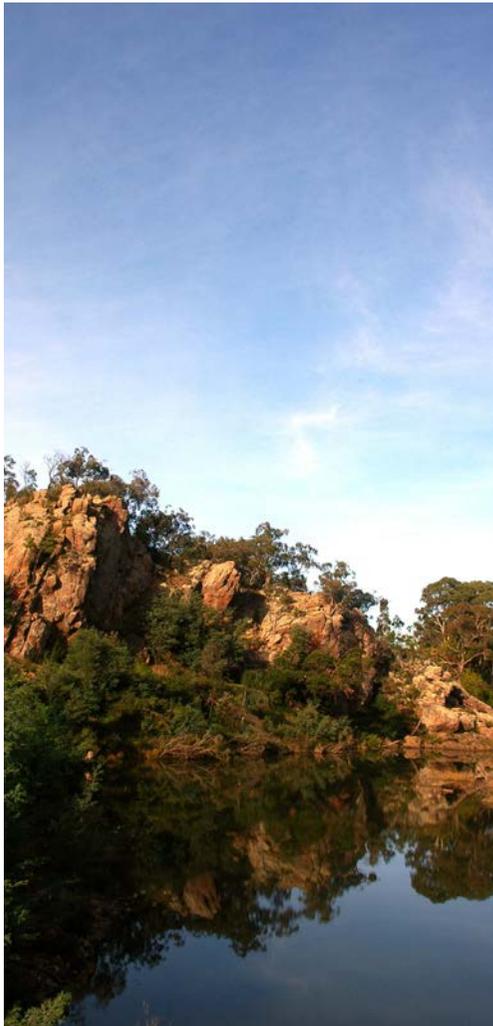
The Macalister River Environmental Water Management Plan (EWMP) is a long term guiding document that stipulates the ecological outcomes, objectives and water requirements for the Macalister River downstream of Lake Glenmaggie. It is the first plan of this type prepared in West Gippsland.

This EWMP sets out a flow management template to maintain and rehabilitate the ecological health of the Macalister. The plan clearly identifies where environmental water (and flow management) can improve habitat and ecological values. The EWMP draws on guidance from a variety of sources including the overarching West Gippsland Waterway Strategy, technical studies and community input.

While developing the EWMP, we worked with a community reference group to ensure the plan was informed by community experiences and expectations of the river. This group was able to capture a range of interests. Members represented irrigators, special interests groups (such as recreational fishers), Landcare, water corporations and local government.

This plan provides the blue print for optimising the river as it is today so it can support its native flora and fauna while providing water for agriculture and jobs.

The plan defines a suite of flow recommendations that are prioritised annually to determine the environmental watering actions that will be delivered from each year. We expect the long term focus of the plan to provide strong direction and provide better environmental outcomes for the river and ensure it remains an important and reliable community asset for future generations.





# KEEPING NUTRIENTS ON FARM

“This partnership between government, industry and landholders shows how using the expertise of different sectors can have a positive result – both for farm productivity and the environment.”

Angus Hume, Chair West Gippsland CMA Board



## LOCATIONS

2009-10 Upper Latrobe Catchment,  
2011-12 Corner Inlet catchment,  
2013-14 Upper Latrobe catchment,  
2015/16 West Tarwin catchment

## OUTPUT 2015/2016

25 Nutrient Management Infrastructure Plans developed  
16 projects were provided funding based upon a benefit cost ratio process  
In all 2889 kg/annum of phosphorus and 20,640 kg/annum of nitrogen will be retained on farm as a result of these on farm works.

## PARTNERS

GippsDairy  
Dairy Australia  
Southern Rural Water  
Murray Goulburn  
Fonterra  
Burra Foods  
Bega Cheese

## REGIONAL STRATEGIES

West Gippsland Regional Catchment Strategy 2013-2019  
West Gippsland Waterway Strategy 2014-22

**1** Dairy farmer, Matt Gleeson, was part of the Core 4 Program.

**2** Dairy farmer, Dan Knee, by the Franklin River which runs through his property.

Supporting farmers and landholders in our region is fundamental for productive and sustainable farming systems and for the health of our waterways. Through our Core 4 program we work with industry and farmers to keep nutrients on farm.

Core 4 is a partnership project that provides funding to help dairy farmers keep nutrient and sediment on farm. We work with GippsDairy and milk processors, to build the awareness and skills of farmers to manage nutrients better. The key principles of Core 4 are:

- REBALANCE nutrient applications across the farm
- RECOVER and reuse nutrients and effluent
- RETAIN sediment and nutrients on-farm, and
- RESTORE the health of local wetlands, waterways and the Gippsland Lakes.

Keeping nutrients and sediment on-farm contributes to productivity by turning run-off back into a valuable farm asset.

It also helps improve the health of local waterways. Dairy farms cycle large amounts of nutrient that, if released into waterways, can cause problems for the aquatic environment. The modern dairy

farmer is well aware of these potential issues and works hard to keep nutrients on-farm where they can be used as valuable fertiliser.

Through Core 4, we've helped build awareness and skills about how to best manage on farm nutrients. The key way we've done this is using farm consultants to help farmers complete nutrient management planning and on farm projects.

Projects like these are both time-consuming and expensive, which can be a barrier to many farmers. Core 4 has been designed to provide financial support and information to allow farmers higher in the catchment to undertake action that reduce the risk of nutrients leaving the farm.

In the 2015/16 financial year 16 landholders were supported in the Core 4 program. This brings the number of landholders who have received incentive payments in the program over the last 5 years to 105. In all, in excess of 150 farmers have been engaged in CORE 4 and have received technical assistance via extension advice.

The outcomes achieved from the Core 4 project are collectively celebrated and well supported by the broader dairy industry.



# WIMMERA

| OUTPUT                                  | TARGET | ACTUAL |        |       |       |
|---|--------|--------|--------|-------|-------|
|   |        | STATE  | C'WLTH | OTHER | TOTAL |
| <b>1. STRUCTURAL WORKS</b>              |        |        |        |       |       |
| 1.1 Channel (km)                        | 0      | 0      | 0      | 0     | 0     |
| 1.2 Water storage (no.)                 | 0      | 0      | 0      | 0     | 0     |
| 1.3 Pump (no.)                          | 0      | 0      | 0      | 0     | 0     |
| 1.4 Irrigation Structure (ha)           | 0      | 0      | 0      | 0     | 0     |
| 1.5 Waterway structure (no.)            | 8      | 11     | 0      | 0     | 11    |
| 1.6 Terrestrial Structure (no.)         | 0      | 0      | 0      | 0     | 0     |
| 1.7 Terrestrial feature (no.)           | 0      | 0      | 0      | 0     | 0     |
| 1.8 Monitoring structure (no.)          | 15     | 15     | 0      | 0     | 15    |
| 1.9 Fence (km)                          | 20     | 19     | 0      | 0     | 19    |
| 1.10 Visitor Facility (no.)             | 0      | 0      | 0      | 0     | 0     |
| 1.11 Road (km)                          | 0      | 0      | 0      | 0     | 0     |
| 1.12 Crossing (no.)                     | 0      | 0      | 0      | 0     | 0     |
| <b>2. ENVIRONMENTAL WORKS</b>           |        |        |        |       |       |
| 2.1 Vegetation (ha)                     | 62     | 28     | 63     | 0     | 91    |
| 2.2 Weed control (ha)                   | 897    | 609    | 437    | 53    | 1,099 |
| 2.3 Pest animal control (ha)            | 438    | 305    | 219    | 26    | 549   |
| 2.4 Over-abundant wildlife control (ha) | 0      | 0      | 0      | 0     | 0     |
| 2.5 Threatened species response (no.)   | 5      | 0      | 5      | 0     | 5     |
| 2.6 Emergency Species response (no.)    | 0      | 0      | 0      | 0     | 0     |
| 2.7 Soil treatment (ha)                 | 0      | 0      | 0      | 0     | 0     |
| 2.8 Earth works (no.)                   | 0      | 0      | 0      | 0     | 0     |
| 2.9 Rubbish removal (ha)                | 0      | 0      | 0      | 0     | 0     |
| <b>3. MANAGEMENT SERVICES</b>           |        |        |        |       |       |
| 3.1 Grazing (ha)                        | 130    | 224    | 0      | 0     | 224   |
| 3.2 Agricultural practices (ha)         | 12     | 0      | 13     | 0     | 13    |
| 3.3 Water (no.)                         | 0      | 10     | 0      | 0     | 10    |
| 3.4 Fire Regime (no.)                   | 0      | 0      | 0      | 0     | 0     |
| <b>4. PLANNING AND REGULATION</b>       |        |        |        |       |       |
| 4.1 Approval and advice (no.)           | 301    | 227    | 0      | 0     | 227   |
| 4.2 Management agreement (no.)          | 18     | 16     | 11     | 0     | 27    |
| 4.3 Assessment (no.)                    | 58     | 66     | 0      | 0     | 66    |
| 4.4 Engagement event (no. participants) | 1,155  | 902    | 733    | 0     | 1,635 |
| 4.5 Partnership (no.)                   | 17     | 5      | 13     | 0     | 18    |
| 4.6 Plan (no.)                          | 2      | 5      | 1      | 0     | 6     |
| 4.7 Publication (no.)                   | 21     | 8      | 15     | 0     | 23    |
| 4.8 Information management system (no.) | 0      | 0      | 0      | 0     | 0     |

## KEY EVENTS AND INSIGHTS

- During 2015/16 the Wimmera experienced the continuation of below average rainfall with many parts of the catchment measuring their lowest rainfall on record.
- The community rallied together for the Victorian Government's Drought Response Package that provided confidence and targeted assistance. The Drought Employment Program for farmers and agribusinesses achieved significant environmental and community projects right across the Wimmera.
- Environmental water resulted in successful fish breeding and expansion of some threatened species populations, and supported a range of community events and festivals.
- Wimmera CMA released its Carbon Ready Plan in February 2016. It is also being used as an action plan for native vegetation and soils under the Wimmera RCS.
- Wimmera CMA partnered with Charles Sturt University to undertake the fourth 'Social Drivers of NRM in the Wimmera' survey. The longest continual social survey of its type in Australia, it is vital in assisting Wimmera CMA to understand the social and economic factors that shape decision-making by landholders.



**Wimmera CMA**



## LOCATIONS

Wimmera CMA region

## OUTPUT 2015/2016

33 people employed

## PARTNERS

Local Government  
Landcare  
Department of Economic Development,  
Jobs, Transport and Resources  
Department of Environment, Land,  
Water and Planning

## REGIONAL STRATEGIES

Wimmera Regional Catchment Strategy  
2013-2019  
Wimmera Waterway Strategy  
2014-22  
Wimmera Carbon Ready Plan

**1 & 2** Wimmera Drought  
Employment Crew  
members working on a  
Green Lake project near  
Horsham.

# DROUGHT EMPLOYMENT PROGRAM

“This is a really positive project and everyone involved is extremely proud of what the crews are doing. We are really pleased to be able to help people with flexible work arrangements that enable them to keep things running on their farms as well.”

Karen Douglas, Chair Wimmera CMA Board

The Wimmera drought employment program gives farmers, farm workers and individuals in the agricultural sector who have been impacted by drought an opportunity to develop skills and undertake training while working with local councils, communities and land managers on regional environmental projects.

Thirty-three people have been employed on Wimmera Drought Employment Crews to work on community and environmental projects as part of Victorian Government Drought Response package. Crew members come from a range of backgrounds and include grain growers, farm workers, agricultural business owners and cattle and sheep producers.

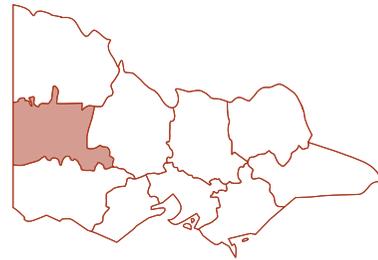
Crew members say it's not just the paid employment they are enjoying – it's getting together with others, working as a team and contributing towards community and environmental projects.

Steve Sallmann, who has a cattle farm near Dimboola, says the program's flexibility works well and he appreciates being able to earn off-farm income. But what he enjoys most is getting together with other people and contributing to community projects.

“Working with different people, doing different jobs, but mainly working with people is really good. A lot of days are highlights. We worked at the Jeparit Museum and they (the local community) were delighted. They were jobs they thought would never get done and they were so appreciative and we felt pretty good about it. Some are doing it hard and some harder than others – but this is not all about that – it's about getting with other people, a bit of money coming in, enjoying yourself.”

In 2015/16 the Wimmera Drought Employment Crews worked in partnership with local Councils, Landcare and community groups to deliver pest plant and animal control, walking track upgrades, restoration works for wetland and stormwater wetland areas and riparian protection fencing. They also helped with clean-ups around public halls, parks, flora and fauna reserves, museums and along the Wimmera River.

The Wimmera Drought Employment Program is part of a broader program supporting farmers, farm workers and individuals affected by drought that also includes the Mallee CMA, North Central CMA and Glenelg Hopkins CMA regions.



## LOCATIONS

Wimmera CMA region

## OUTPUT 2015/2016

323 engagement event participants  
4 publications

## PARTNERS

Barengi Gajin Land Council  
Department of Environment, Land,  
Water and Planning  
Landcare  
Parks Victoria  
Horsham Primary School  
Department of Education and Training  
Victoria

## REGIONAL STRATEGIES

Wimmera Regional Catchment Strategy  
2013-2019  
Wimmera Waterway Strategy  
2014-22  
Wimmera Carbon Ready Plan

- 1** Local Elder Aunty Nancy shares her knowledge with community members on a Yanga Track cultural walk.
- 2** Barengi Gadjin Land Council staff showed strong support for community Landcare activities in 2015/16.
- 3** Brett Harrison, Cultural Heritage Officer with Barengi Gadjin Land Council.

# INCREASING INDIGENOUS PARTICIPATION AND ENGAGEMENT IN THE WIMMERA REGION

“The Wimmera NRM community is committed to exploring opportunities to incorporate and increase Aboriginal participation in NRM. It is essential that NRM practitioners continue to build strong ongoing partnerships and working relationships with Barengi Gadjin Land Council.”

Karen Douglas, Chair Wimmera CMA Board

Working in partnership with Barengi Gadjin Land Council (BGLC), Wimmera CMA aimed to increase participation by – and engagement of – Aboriginal community members in Wimmera natural resource management activities and Regional Catchment Strategy implementation.

Funded by the Australian Government’s National Landcare Programme, this project delivered a suite of activities including the Wimmera CMA traineeship program, Barengi Gadjin Land Council works crew employment, training to provide industry recognised qualifications, and cultural awareness activities in partnership with Traditional Owners to increase participation and engagement of local Aboriginal community members in natural resource management in the Wimmera.

Regular planning sessions with Traditional Owners and Aboriginal communities were held to review and develop projects and activities. Project partners focused on supporting activities that contribute to wider social and economic benefits such as Aboriginal employment, training and enterprise development. One catchment management traineeship was completed and a catchment management officer position was created in 2015/16.

Other project highlights included establishment of the Nyupun pilot project with BGLC, Department of Environment,

Land, Water and Planning, Horsham Primary School and the Department of Education and Training to support local Aboriginal students. One short film documentary was published in conjunction with BGLC, called ‘Surveying Gurru,’ to highlight cultural heritage survey activities and community aspirations at the iconic Lake Hindmarsh. The film was launched with BGLC and Wimmera CMA staff and stakeholders as part of the local community’s 2016 Reconciliation Week program.

Community planting activities and cultural walks were delivered with BGLC at Yanga Track (see picture) in 2015/16. Yanga Track acknowledges and celebrates an important gathering place for communities who traversed up and down the Wimmera River – the site supports many native plants that grew along the river’s edge for food, tools and shelter.

To help nurture long-term partnerships Wimmera CMA is now supporting BGLC and Native Title Services Victoria to undertake a Country Planning process to establish the context and direction for guiding how community and government can partner to manage Country, explore new business opportunities and leverage resources that benefit Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk people.

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