

Maryborough Integrated Water Management Plan Public Summary: March 2019



Shaping Our Water Future

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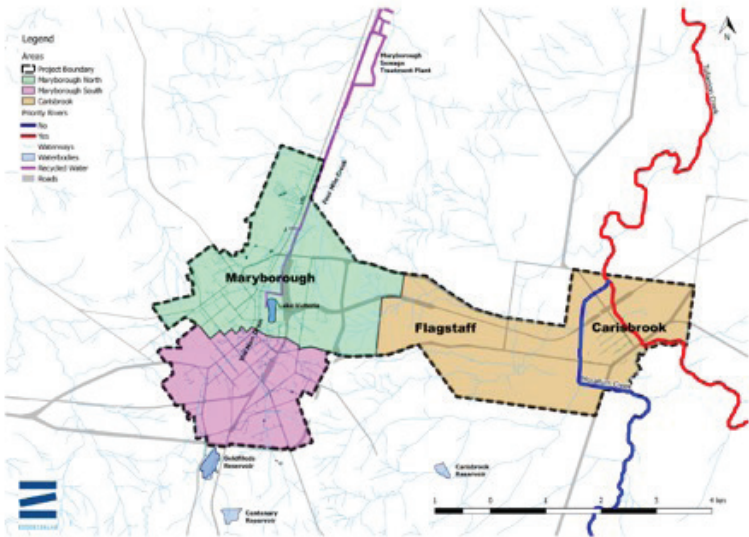
NORTH CENTRAL
Catchment Management Authority
Connecting Rivers, Landscapes, People



**CENTRAL
HIGHLANDS**
WATER

Acknowledgement of Traditional Owners

Central Highlands Water, Central Goldfields Shire Council and North Central Catchment Management Authority acknowledge the Traditional Owners of the region of Maryborough, the Dja Dja Wurrung. We pay our respect to the Elders of these communities past, present and emerging, acknowledging that they have been custodians of land and water for many centuries and that their continuing culture and contribution is important to the life of the region. We note in preparing and delivering on the outcomes of this plan the obligations to the Dja Dja Wurrung under the Traditional Owner Settlement Act, including Schedule 16 (NRM Participation Strategies) and Schedule 6 (Local Government Engagement).



Focus area for the Integrated Water Management Plan, encompassing the towns of Maryborough, and nearby Flagstaff and Carisbrook.

What is the Maryborough Integrated Water Management Plan?

The Maryborough Integrated Water Management Plan (IWM) explores options and sets out recommendations for future water management in the Maryborough area. The plan will deliver on liveability and community benefits through the whole urban water cycle, including the management of stormwater, wastewater, water supplies (surface water and groundwater) and waterways.

A copy of the full Maryborough Integrated Water Management Plan can be found at: www.chw.net.au It provides a comprehensive overview of the plan development methodology, assessment of options, stakeholder engagement and recommendations.



Maryborough IWM Vision

This plan is underpinned by a long history of community and stakeholder input. A vision was originally formed for IWM in the region through the 'Ballarat and Region's Water Future (BRWF)' (State Government of Victoria, 2014) – "A greener, more liveable and prosperous water future for the city and towns of the Ballarat region."

Through examination of the local drivers and engagement with stakeholders, a vision has been developed for this IWM plan.

Vision: "Water supports a resilient Maryborough with a thriving community, a prosperous economy, and a healthy environment."

A partnership approach to water management

This Plan has been produced by Central Highlands Water in collaboration with Central Goldfields Shire Council and North Central Catchment Management Authority. It has also benefitted greatly from the input and support of key local stakeholders including local businesses, community representatives and representatives of the traditional owners of land in the Maryborough area, Dja Dja Wurrung.

It is significant and integral that this Plan is developed through a partnership process, as this recognises that the urban water cycle is interconnected. Continuation of this partnership approach will be key to deliver the vision and the actions outlined in this Plan.



Stakeholder consultation

The development of the Maryborough Integrated Water Management Plan was managed by a project control group. The Central Goldfields Shire Council, North Central Catchment Management Authority, Central Highlands Water and the Department of Environment, Land, Water and Planning all had representatives on the project control group with technical support from staff.

Two stakeholder workshops were held in June and September 2018 to inform the development of this IWM plan. The purpose of the workshops was to confirm the vision for IWM in Maryborough and to scope and refine potential IWM projects and initiatives.

The draft Maryborough IWM Plan is being made available for public comment throughout March 2019. This feedback will be valuable in helping to shape the final version of the Plan.



The first workshop was designed to consider the vision and objectives for the plan with input from local stakeholders, and the second workshop shared the preferred IWM projects and discussed delivery and potential challenges. Attendees included:

- Traditional Owners
- project partners
- local businesses, developers and consultants
- volunteer groups
- educational institutions
- large water users

The workshops highlighted several key factors that underpin the IWM plan for Maryborough and included:

- growth and development are a major opportunity for improved water management
- take a long-term view of water management to plan for population growth and climate change
- deliver sustainable water services, improve local waterways, enhance recreation and liveability are priority objectives
- opportunities are wide ranging in scale and location and can deliver multiple benefits if planned and coordinated well.



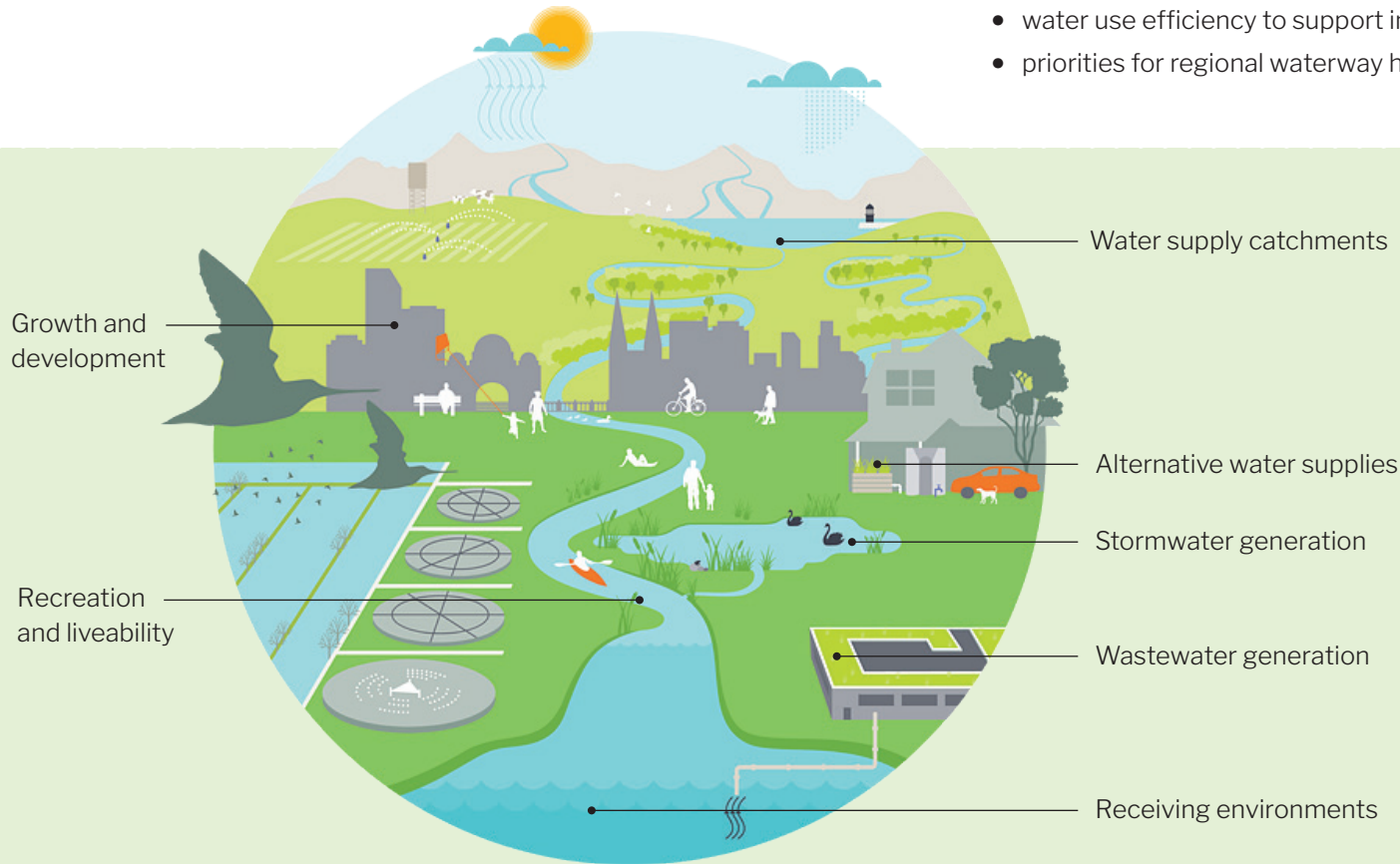
Water for Victoria Water Plan, 2016

Water for Victoria, launched in October 2016, is the Victorian government's strategic plan for management of our water resources, now and into the future - <https://www.water.vic.gov.au/water-for-victoria>

Water is central to every community, powering our industries and economy, improving our quality of life, and nurturing our natural environment.

The Maryborough IWM Plan aligns with Water for Victoria in considering:

- diverse water sources to achieve water security
- strategic investments in wastewater
- better stormwater management for a healthy and resilient urban environment and community
- partnerships across government to support healthy and resilient urban landscapes
- improved urban planning to help deliver integrated water management
- water use efficiency to support integrated water management planning
- priorities for regional waterway health



Key features of Maryborough's urban water cycle

<https://www.melbournewater.com.au/getinvolved/education/pages/urban-water-cycle.aspx>



What this plan means for Maryborough and surrounds

- a more liveable town and surrounding areas
- an active and healthy community
- secure and sustainable water services
- diverse supply sources
- long-term water security to meet future water demands
- climate change resilience
- promoting water efficiency
- supporting river health, habitat creation and creek bed stabilisation
- reducing nutrients and pollutants to waterways
- reducing excess urban run-off into waterways
- reducing flooding risks
- supporting local sport and recreation
- supporting liveability outcomes in new developments
- increasing greening and tree canopy cover
- supporting local industry
- minimising impacts to the surrounding rural environment



Integrated water management diagram showing the interaction of the three 'types' of water within a context of urban form and landscapes.

Maryborough IWM themes and objectives

Water can support and enable the liveability and wellbeing of communities in a number of ways.

Through feedback from stakeholders and community representatives, the key objectives for IWM in Maryborough have been identified and fall into three themes.



Maryborough overhead

Resilient water cycle

- secure new water resources for the area
- match fit-for-purpose water supplies with demands
- enable the sustainable use of recycled water by reducing salinity
- reduce 'urban excess' stormwater

Healthy landscapes and environment

- improve the waterway health of Four Mile Creek, Bet Bet Creek and Tullaroop Creek
- provide water for key assets including open spaces and water bodies
- create new green assets and tree cover

Prosperous community and economy

- support health and wellbeing of communities
- support economic development
- create great places to live that are affordable and effective
- raise awareness of water in the community

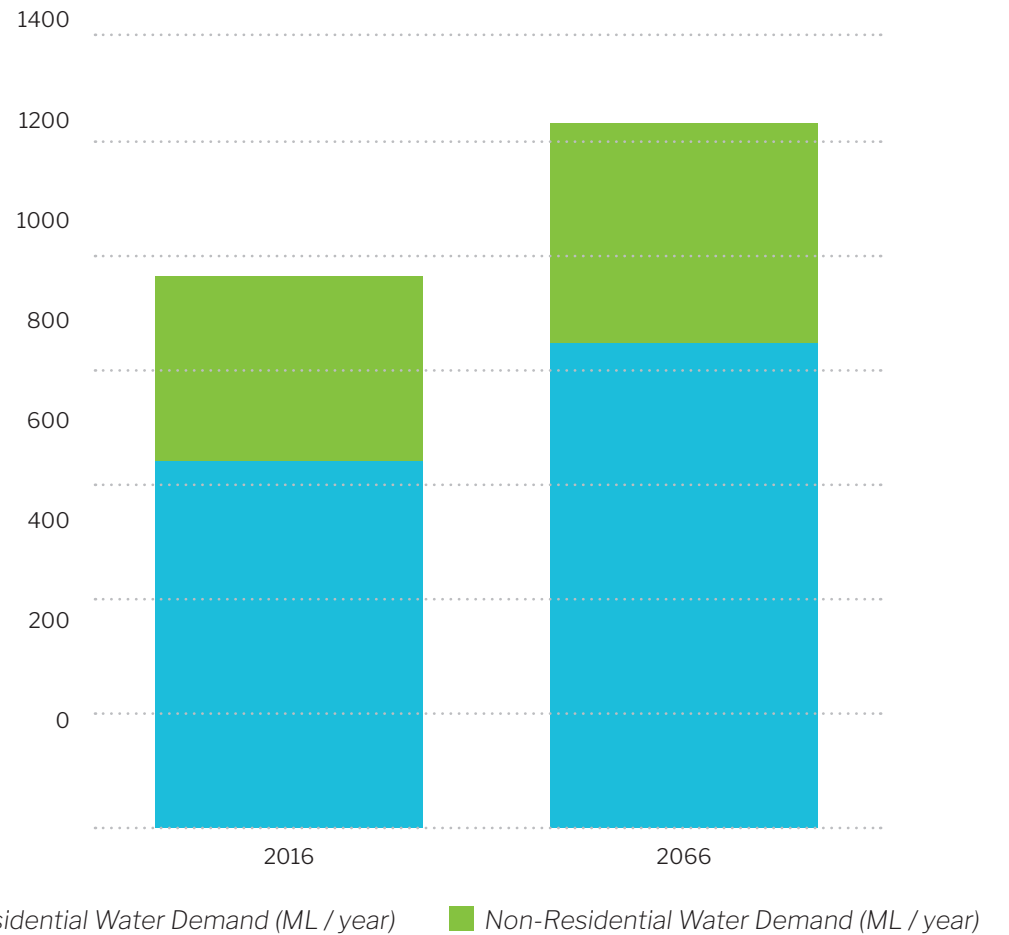
Challenges and opportunities

The water supply and demand balance for the Maryborough system indicates that under a high climate change scenario, supply and/or demand actions may be required between 2023 and 2049 as outlined in Central Highlands Water’s 2017 Urban Water Strategy.

Moving forward, Maryborough will face a range of water cycle challenges and opportunities, including:

| | |
|---|---|
| Population growth | water demand will increase with the expected population growth of 0.6% per annum in the Maryborough area. |
| Economy | the creation of a green, attractive, and liveable town is a community priority and may help to improve the socio-economic status of Maryborough. |
| Climate change | over recent decades our catchments have become drier and temperatures have increased. Climate modelling indicates that Victoria will become warmer and drier in the coming decades, with more extreme events including drought, floods and heatwaves. Average annual streamflow reductions of around 50 per cent could occur in some catchments by the year 2065. |
| Regional and interconnected water system | with rural and urban water cycles interacting there will be a significant increase in urban stormwater runoff and available recycled water. |

Current and Future Water Demand Maryborough and Carisbrook



Expected increases in water demand in the Maryborough area over the plan period

Plan of action

The Maryborough IWM Plan has a 50-year horizon and sets out recommendations to be delivered in the short, medium and long-term. The recommendations are based on extensive community consultation, analysis of Maryborough's urban needs and a deeper understanding of the evolving water cycle and water system interactions.

The recommendations fall into three categories:

Project options

Within the next five years we will seek to:

- create governance and delivery structures to support IWM
- harness stormwater for healthier street trees in new development areas, central commercial & highly trafficked areas and town entrances
- implement schemes for greening Station Domain as a key community asset
- create a resilient and local alternative water supply network
- improve local lakes and waterways, including Lake Victoria, Tullaroop Creek and Goldfields Reservoir for community wellbeing
- continue improvement of waterways and flood management

The full report outlines a larger number of 'project options' for further consideration as opportunities arise for funding and delivery.



Example of dropped kerb to facilitate passive irrigation



Tullaroop Creek



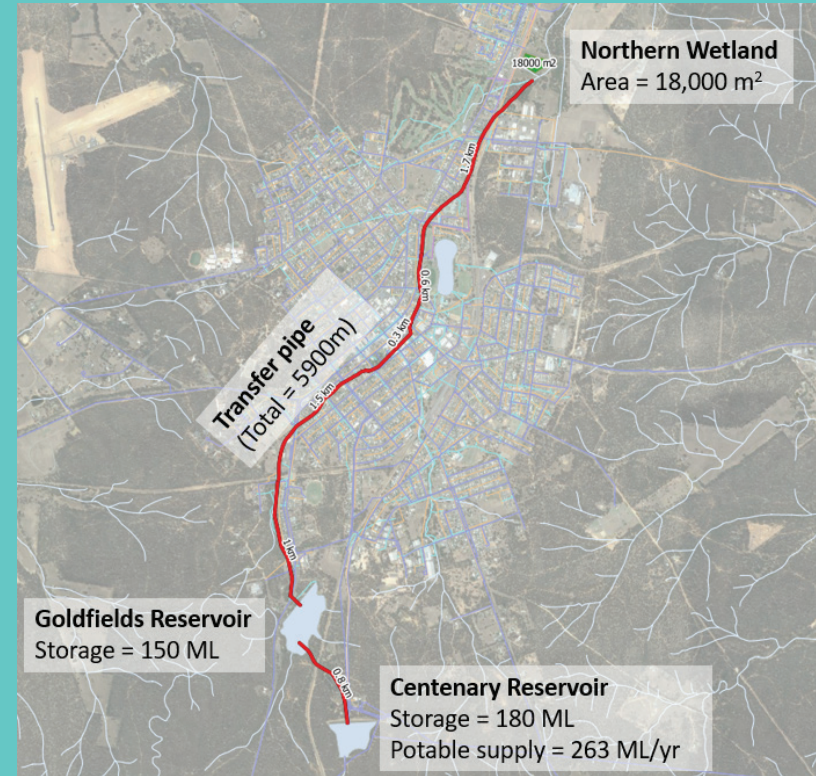
Goldfields Reservoir

Planning for growth

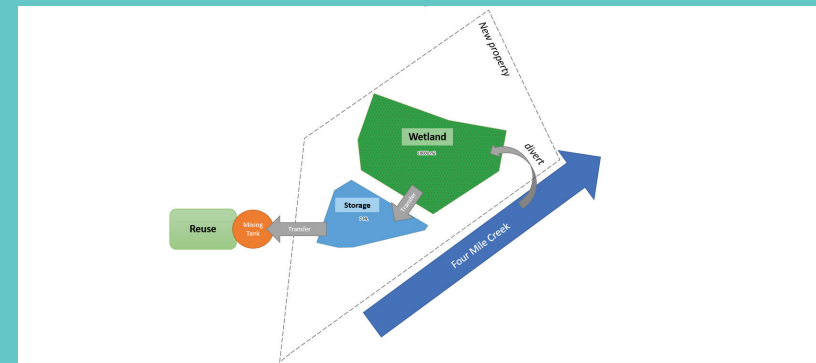
Growth and development initiatives that will support sustainability in our growing town and surrounds.

Within the next 15 years we will further pursue the following project options:

- complete detailed design for stormwater harvesting scheme and construct scheme
- investigate medium-long term utilisation of large-scale stormwater harvesting to contribute to raw water supplies and supplement Goldfields Reservoir
- creation of new wetland in the north of Maryborough to treat harvested stormwater from the main drain to ensure that recycled water can be used sustainably through a shandy arrangement. This also unlocks the opportunity to harness stormwater as a major new resource for the town, with the opportunity to deliver a cross-town transfer to Goldfields Reservoir and Centenary Reservoir in the future
- creek and waterway restoration outcomes
- utilise preferred IWM strategies (such as stormwater harvesting, recycled water and rainwater tanks) to drive water-wise development in designated areas
- litter management for preservation of water quality
- investigate partnerships for water-wise developments



Schematic layout of the reuse scheme



Schematic of storage and wetland adjacent to Four Mile Creek

Strategic investigations and options

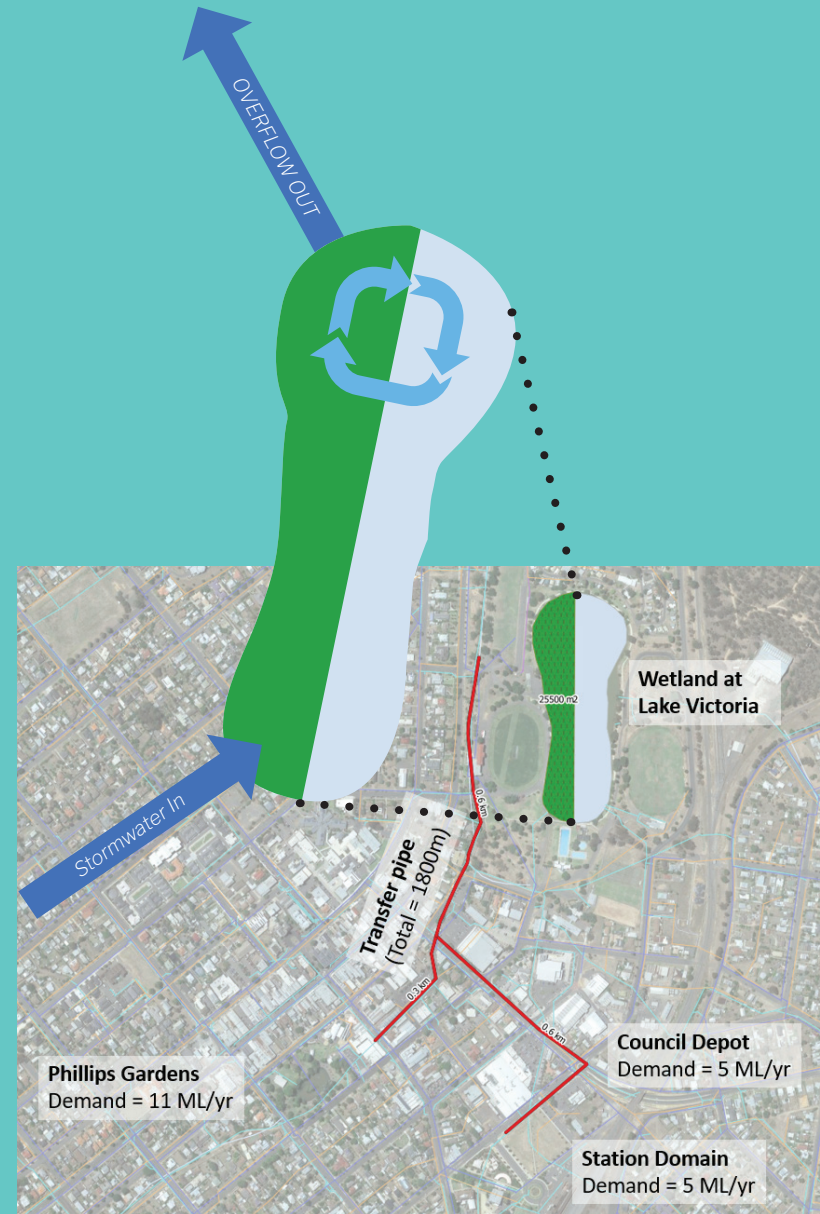
Commence active planning and further investigations now to better position ourselves for a future of diversified water uses.

In the long-term we will investigate the following project options:

- introduce a wetland for Lake Victoria and treated stormwater from the lake being utilised for irrigation of nearby green spaces
- develop programs to monitor local stormwater yields and water quality
- actively explore agricultural recycled water use opportunities
- pursue solutions to reduce large volumes of run-off and discharge to waterways
- continue delivery of stormwater management measures to improve waterways including litter management and water sensitive urban design
- provide input to and influence regional and state-wide water strategies



Stormwater drainage to water street trees in new developments



Proposed conversion of Lake Victoria

Have your say

Central Highlands Water, Central Goldfields Shire Council and North Central Catchment Management Authority value your input and ideas. Please support us in addressing Maryborough's integrated water management opportunities and challenges by providing your feedback.

Help us shape our water future by having your say on the Maryborough Integrated Water Management Plan

Let us know what you think:

Online at www.centralgoldfields.vic.gov.au/haveyoursay

Email: mail@cgoldshire.vic.gov.au

Enquiries: Jason McGregor – jason.mcgregor@chw.net.au

By Friday 5 April 2019

The complete document will be on public exhibition at the offices of:
Central Goldfields Shire Council
Customer Service Centre
22 Nolan Street, Maryborough

or can be downloaded at www.centralgoldfields.vic.gov.au/haveyoursay

Reference documents

Victoria State Government, Water for Victoria: Water Plan 2016
Victoria State Government, Integrated Water Management Framework for Victoria
Victoria State Government, Ballarat and Region's Water Future
Central Goldfields Shire Council, Township Tree Management Plan
North Central Catchment Management Authority, 2013-19 North Central Regional Catchment Strategy
Central Highlands Water, Urban Water Strategy 2017



CENTRAL HIGHLANDS WATER, CENTRAL GOLDFIELDS
SHIRE COUNCIL, NORTH CENTRAL CATCHMENT
MANAGEMENT AUTHORITY

MARYBOROUGH INTEGRATED WATER MANAGEMENT PLAN

November 2018

