



Photo: Glenn Leiper

# **Logan's *Melaleuca Irbyana* Recovery Plan 2013 - 2023**







# CONTENTS

<i>Melaleuca irbyana</i> - Introduction	4
Why we need the recovery plan	6
Strategic Fit	8
Our Vision - Looking Forward	9
Our Values - Policy Position	9
Our Strategic Outcomes and Objectives	10
Our Plan - Achieving Our Vision	12
Implementation, Review and Reporting	15

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# MELALEUCA IRBYANA - INTRODUCTION

*Melaleuca irbyana* (*M. irbyana*) commonly known as the Swamp Tea Tree, is an endangered plant that is found in Logan.

*M. irbyana* plants are small trees growing to 8-12m in height with thick, spongy, papery bark. They have tiny, stalk-less, pointed leaves, up to 5mm long, arranged spirally and pressed close to the branchlets. *M. irbyana* flowers in spring to summer with 20mm

fluffy creamy-white flower spikes. They produce small woody seed capsules to 3mm.

Logan's *Melaleuca Irbyana* Recovery Plan (the Plan) aims to ensure the long-term viability of *M. irbyana* in Logan by protecting and enhancing existing *M. irbyana*, and support the increase and extent of *M. irbyana* through research and revegetation.





*Photo: Deborah Metters*

# WHY WE NEED THE RECOVERY PLAN

*Melaleuca irbyana* was once common across South East Queensland, but was extensively cleared for grazing and agriculture. Now less than 10% of the original *M. irbyana* forest remains and as a result has a high level of legislative protection.

*M. irbyana* forms communities that occur in two structural forms:

- the more common form consists of a dominant Eucalypt canopy with an understorey containing *M. irbyana* thickets 8-12 metres in height
- the less common form is an open forest or thicket of *M. irbyana* with emergent Eucalypt trees with an understorey usually comprised of grasses, sedges, and herbs with a few shrubs, vines and possibly orchids present.

Some quick facts in relation to the conservation significance of *M. irbyana*:

- *M. irbyana* provides habitat and nesting sites for a large variety of birds
- a diverse range of native herbs inhabit *M. irbyana* forest
- two endangered plant species are known to be present in some of the fragments (*Stemmacantha australi* (Austral Cornflower, Native Thistle) and *Marsdenia coronata* (Slender milkvine))

*M. irbyana* provides habitat for a number of wildlife species including koalas, echidnas, macropods, native frogs and species of conservation significance including:

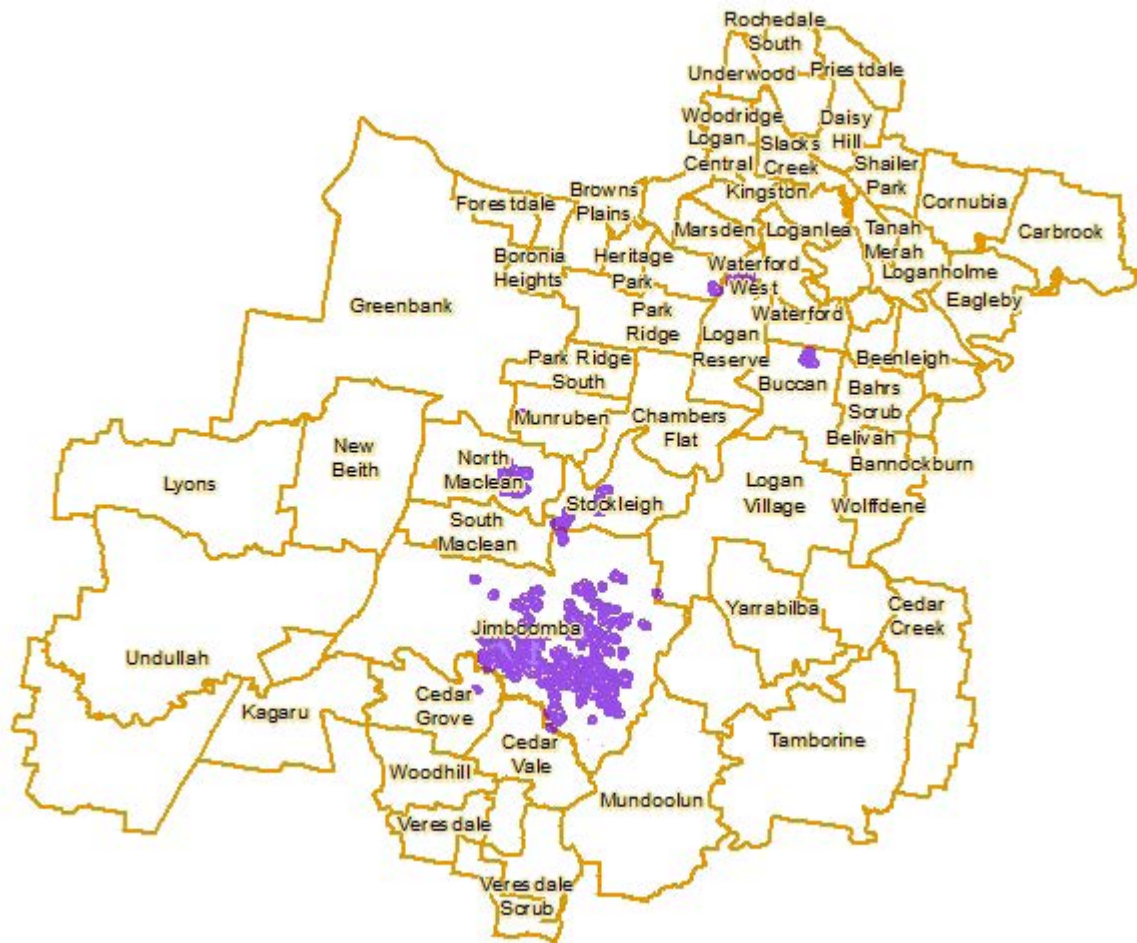
- Red Goshawk (*Erythrotriorchis radiates*)
- Black-chinned honeyeater (*Melithreptus gularis*)
- Grey Snake (*Hemiaspis damelii*)

## Current Distribution

Today *M. irbyana* is only found in a small number of restricted sites in north-eastern New South Wales and south-eastern Queensland.

In Logan, *M. irbyana* is found mostly around the Jimboomba and Waterford West areas.

## Distribution of *Melaleuca irybana* in Logan



# STRATEGIC FIT

Integrating with existing local, regional, State and Federal programs and plans will ensure the Plan is effective, efficient and able to achieve multiple outcomes. Strategically, the Plan aligns with Council's long-term corporate outcomes and key strategic documents as outlined in Table 1 below.

**Table 1: Strategic Alignment of the Plan**

Strategic Document	Strategic Level Link	Strategy
Logan 2026 City Directions	Strategic Theme	Strategic Theme 3: Green & Sustainable In 2026, Logan is a green city. Council is renowned for its stewardship of the natural environment.
Logan City Corporate Plan 2013-2018	Corporate Plan Priority:	Priority: Building our Environment (E)
Logan City Corporate Plan 2013-2018	Corporate Plan Priority Focus:	E2 Build our future wildlife corridors through vegetation, koala and water quality offsets and focussed community partnerships
South East Queensland Regional Plan (2009-2031)	Desired regional outcomes and policies	Measurable targets for the condition and extent of environment and natural resources
South East Queensland (SEQ) Natural Resource Management (NRM) Plan (2009-2031)	Desired regional outcomes and policies	Targets include maintaining and improving conservation status of native species and maintaining or increasing habitat for priority species
Australia's Native Vegetation Framework 2012	National framework to guide the ecologically sustainable management of Australia's native vegetation	Goals include increasing the national extent and connectivity of native vegetation and maintaining and improving the condition and function of native vegetation
National Wildlife Corridors Plan 2012	Australian Government's framework to retain, restore and manage ecological connections in the Australian landscape	Vision: Diverse, connected and healthy landscapes that support and sustain biodiversity, communities and wellbeing

*M irbyana* is protected under the following legislation:

- Individual *M. irbyana* plants are listed as endangered under the Queensland State Government Nature Conservation Act 1992.
- *M. irbyana* communities are listed as Critically Endangered under the Federal Government Environment Protection and Biodiversity Conservation Act 1999.



## OUR VISION - LOOKING FORWARD

Logan's *Melaleuca Irbyana* Recovery Plan aims to ensure the long-term viability of *M. irbyana* in Logan by protecting and enhancing existing *M. irbyana*, and supporting the increase and extent of *M. irbyana* through research and revegetation. Ideally, it is envisaged that this unique species will recover to the point where its endangered status listing can be removed.

The Plan provides a framework with quantifiable outcomes, objectives and deliverable actions.

## OUR VALUES - POLICY POSITION

Logan's bushland and biodiversity values are highly valued by the community as reflected through the 'Logan Listens: Residents' survey results in 2010, 2011 and 2012 which recorded a high importance (top 5) of bushland and environmental values.

*M. irbyana* is a locally significant species valued for its distinctive look, unique habitat values and its contribution to ecological diversity in the city.

The Plan recognises these values and the important role Logan City can play in the recovery of this locally significant endangered species.



Photo: Deborah Metters

# OUR STRATEGIC OUTCOMES AND OBJECTIVES

## The Plan is based on achieving the following key strategic outcomes:

- **SO 1** - Enhanced understanding and knowledge of *M. irbyana*
- **SO 2** - Identified preferred growing conditions of *M. irbyana* to support revegetation
- **SO 3** - Increased positive community engagement of *M. irbyana* recovery actions

## Strategic Outcome 1: Enhanced understanding and knowledge of *M. irbyana*

To maximise recovery actions it is essential that we enhance our understanding and knowledge of *M. irbyana*. The key areas for improvement include:

- Determining the hydrological requirements of *M. irbyana*

*M. irbyana* can be found in a variety of locations with different hydrology. For example, it grows in tea-tree clay soils (seasonal cracking clay soils) that drain slowly after heavy rains, and become waterlogged and form temporary ponds. It can also grow on perched water tables in locations where runoff flows overland rather than in distinct drainage lines. Increased understanding of

*M. irbyana*'s level of dependency on groundwater and/or surface water hydrology is required as well as the impact of reduced catchment permeability, water table levels, surface run-off flow changes, sedimentation and soil compaction.

- Increasing knowledge of *M. irbyana* reproduction and genetics

To support the increase and extent of *M. irbyana* in Logan it is essential that genetic variability is maintained through assisted seed germination and propagation. Currently there is limited information available on *M. irbyana* reproduction and genetics. Research is required particularly in the areas of seed production triggers, germination, genetic variation and what factors influence reproductive output.

To achieve this Strategic Outcome Council will:

- support research into *M. irbyana* hydrological requirements, reproduction and genetics
- establish, maintain and enhance partnerships with universities and reputable research groups
- develop and maintain a *M. irbyana* map for the city
- incorporate *M. irbyana* mapping into appropriate planning instruments

## Strategic Outcome 2: Identified preferred growing conditions of *M. irbyana* to support revegetation

To support the recovery of *M. irbyana* it is essential that we identify the abiotic and biotic factors that will maximise survival and growth of the species. This includes information on preferred soil types, elevation, exposure and hydrological conditions.

This information will support targeted revegetation and ensure the most ecologically suitable locations are selected to ensure the greatest chance of success for establishment and functional habitat.

Research is required to determine if there are any common attributes shared by locations where *M. irbyana* is currently found. This information can then be used to select sites that would be most suitable for revegetation and recovery actions.

To achieve this Strategic Outcome Council will:

- support research into the growing conditions for *M. irbyana*
- identify potential preferred locations suitable for future *M. irbyana* revegetation
- investigate opportunities to support revegetation using a range of mechanisms including environmental offset revenue, sponsorship, partnerships and external grants
- support the monitoring of *M. irbyana* revegetation, including growth, mortality, herbivory and recruitment

## Strategic Outcome 3: Increased positive community engagement of *M. irbyana* recovery actions

To ensure the long term viability of *M. irbyana* in Logan it is essential that this Plan is supported by an active, engaged and supportive community including residents, land owners, businesses and the development industry.

Council property containing *M. irbyana* should be correctly managed to ensure that the uses are compatible with the vision to protect and enhance existing *M. irbyana*. In addition, Council should proactively promote the presence and importance of *M. irbyana*, for example by installing interpretive signage or interactive materials such as QR Codes.

To achieve this Strategic Outcome Council will:

- provide information to landowners with *M. irbyana* on management options and assistance in developing management plans for specific sites
- support land owners to undertake *M. irbyana* recovery actions on appropriate sites through the provision of Enviro-Grants and conservation incentives
- deliver a *M. irbyana* awareness and identification campaign including the provision of *M. irbyana* recovery information and investment opportunities
- review management of Council properties containing *M. irbyana*



# OUR PLAN - ACHIEVING OUR VISION

The following tables outline the key foundational actions required to achieve the Plan's key strategic outcomes.

**Table 1: Key Actions under Strategic Outcome 1 of the Plan**

Strategic Outcome 1 (SO 1)		
Enhanced understanding and knowledge of <i>M. irbyana</i>		
Actions	Performance Indicators	Priority
Establish, maintain and enhance partnerships with universities and reputable research groups	Delivery on research findings and resources	Long term
Support research into <i>M. irbyana</i> hydrological requirements, reproduction and genetics	Increased information on hydrological requirements, reproduction and genetics of <i>M. irbyana</i>	Long term
Develop and maintain a <i>M. irbyana</i> map	Provision of <i>M. irbyana</i> mapping in the city	Medium

**Table 2: Key Actions under Strategic Outcome 2 of the Plan**

Strategic Outcome 2 (SO 2)		
Identified preferred growing conditions of <i>M. irbyana</i> to support revegetation		
Actions	Performance Indicators	Priority
Establish, maintain and enhance partnerships with universities and reputable research groups	Delivery on research findings and resources	Long term
Identify preferred growing conditions for future <i>M. irbyana</i>	A portfolio of locations for <i>M. irbyana</i> revegetation	High
Develop a potential preferred targeted revegetation map for <i>M. irbyana</i> in the city	An increase in the extent of <i>M. irbyana</i> in Logan	Medium
Investigate options and funding opportunities to support <i>M. irbyana</i> revegetation projects including environmental offset revenue, sponsorship, partnerships and external grants	An increase in the extent of <i>M. irbyana</i> in Logan	Medium
Support the monitoring of <i>M. irbyana</i> revegetation and provide a repository of result information– including measuring growth, mortality, herbivory, suckering, recruitment, and photo-monitoring.	Data available on growth and establishment of <i>M. irbyana</i> plantings over time	Long term

**Table 3: Key Actions under Strategic Outcome 3 of the Plan**

Strategic Outcome 3 (SO 3)		
Increased positive community engagement of <i>M. irbyana</i> recovery actions		
Actions	Performance Indicators	Priority
<p>Deliver a range of community programs to support community stewardship of <i>M. irbyana</i> such as:</p> <ul style="list-style-type: none"> <li>- Conservation Incentive Partnerships</li> <li>- EnviroGrants</li> <li>- Environmental workshops</li> <li>- Property Management Planning support</li> </ul>	Measured increase in participating properties/area of private land proactively managing <i>M. irbyana</i>	Medium
Incorporate <i>M. irbyana</i> as a Locally Significant species into the Planning Scheme Biodiversity Areas Overlay mapping and code	Enhanced protection and awareness of <i>M. irbyana</i>	High
Provide up-to-date information and advice to landowners on effectively managing <i>M. irbyana</i>	Improved knowledge of landowners in effective management of <i>M. irbyana</i>	Long term
Facilitate <i>M. irbyana</i> identification and awareness workshops	An increase in awareness and identification of <i>M. irbyana</i> amongst Council staff	High
Review of management of Council properties containing <i>M. irbyana</i>	Park uses are compatible to achieving the protection and enhancement of existing <i>M. irbyana</i>	High
Investigate options for proactive promotion and information about <i>M. irbyana</i>	Installation of interpretive signage and/or interactive materials (such as QR Codes) in Council parks	Medium



# IMPLEMENTATION, REVIEW AND REPORTING

The Plan will be implemented through delivery of the functional actions to achieve the identified strategic outcomes. To successfully deliver on this Plan it is essential that it is supported by an active, engaged and supportive community including residents and land owners.

Documenting and evaluating the progress of the Plan will be communicated as part of Council's operational plan with the Plan reviewed and updated every five years.



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