

# 10-YEAR RESILIENCE STRATEGY FOR THE BURNETT-MARY REGION

THREATENED SPECIES AND CRITICAL HABITATS



# SUMMARY

A consortium comprising the Burnett Mary Regional Group (BMRG), local Traditional Owner groups, local environmental organizations headed by the Mary River Catchment Coordinating Committee (MRCCC), and researchers including Griffith University (GU) have initiated a ten-year strategy for the environmental resilience of the Burnett-Mary region in Queensland. This area, defined by its unique biodiversity, is home to threatened species such as the Mary River Turtle (*Elusor macrurus*) and the Australian Lungfish (*Neoceratodus forsteri*), both of which are at the forefront of our conservation focus due to their ecological importance and vulnerability to habitat degradation, pollution, and climate change. Additionally, we recognize the region's subtropical lowland rainforests as critical ecosystems warranting protection.

Central to the resilience strategy is the preservation and integration of cultural heritage embodied within the Burnett-Mary region. The Bailai, Butchulla, Gooreng Gooreng, Gurang, Jinibara, Kabi Kabi, Taribelang, Wakka Wakka and Wullli Wullli communities hold invaluable Traditional Ecological Knowledge (TEK) and cultural connections to country. The strategy aims to integrate these custodial responsibilities, fostering respect for indigenous culture while simultaneously enhancing the effectiveness of conservation actions through engagement and involvement.

The Burnett-Mary region's water quality, a key determinant of ecosystem health, is currently impacted by land use changes, agricultural runoff, and climate change effects. This consortium will prioritize an integrated catchment management approach to address these challenges. This involves the combination of research, monitoring, restoration and mitigation actions to ameliorate water quality and habitat integrity, supporting the resilience and long-term viability of the region's flora, fauna, and human communities.

Finally, Monitoring Evaluation Reporting Strategies (MERS) and Environmental Accounting frameworks will be used to track the progress of this plan and measure the success of interventions towards recovery and resilience of the Burnett-Mary region's threatened species and critical habitats.





# INTRODUCTION

## THE BURNETT-MARY REGION

The Burnett-Mary region is internationally renowned for its ecological diversity, rich cultural heritage, and extensive primary production (Figure 1). It is also Queensland's largest regional population outside of South-East Queensland. Adjacent to the southern boundary of the Great Barrier Reef, the region includes World Heritage listed K'gari and the Ramsar listed and internationally renowned Great Sandy Strait. The region is home to half of Australia's bird species and more than 7,500 flora and fauna species that are rare, threatened or endangered. There are five catchments including the Baffle, Burnett, Kolan, Burrum and Mary connected to nine Traditional Owner groups including the Bailai, Butchulla, Gooreng Gooreng, Gurang, Jinibara, Kabi Kabi, Taribelang, Wakka Wakka and Wulli Wulli.

## OUR VISION

To bring together a consortium of stakeholders focused on management of threats, critical habitats and population viability of our Burnett-Mary region's freshwater threatened species using adaptive management principles.

## PURPOSE OF THE STRATEGY

To inform broader stakeholders of the intent, methods and overall framework that will be used by this consortium to action recovery and resilience of our Burnett-Mary region's freshwater threatened species and their critical habitats (Figure 2).

## CONSORTIUM

Burnett Mary Regional Group (BMRG)  
Mary River Catchment Coordinating Committee (MRCCC)  
Griffith University (GU)  
Butchulla Aboriginal Corporation (BAC)  
Butchulla Native Title Aboriginal Corporation (BNTAC)  
Gidarjil Development Corporation (GDC)  
Jinibara Peoples Aboriginal Corporation (JPAC)  
Kabi Kabi Peoples Aboriginal Corporation (KKPAC)  
First Nations Drones Services (FNDS)

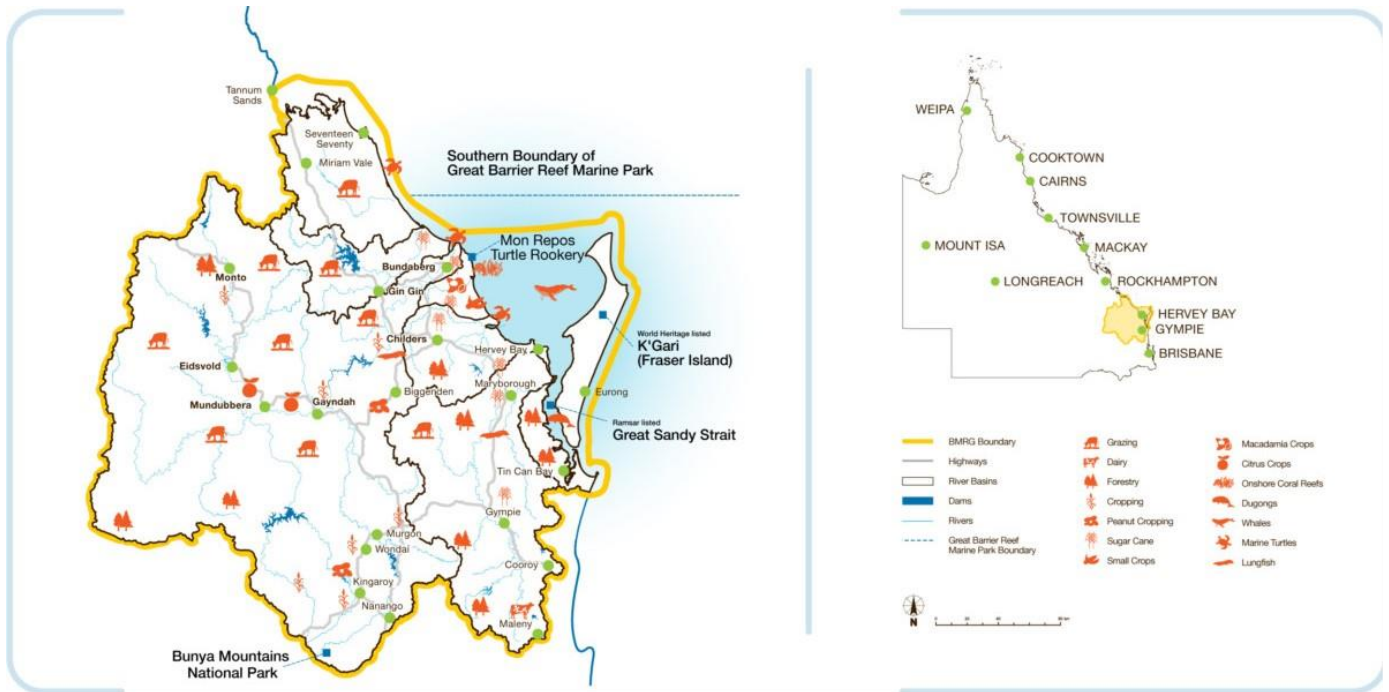


Figure 1 The Burnett-Mary Region

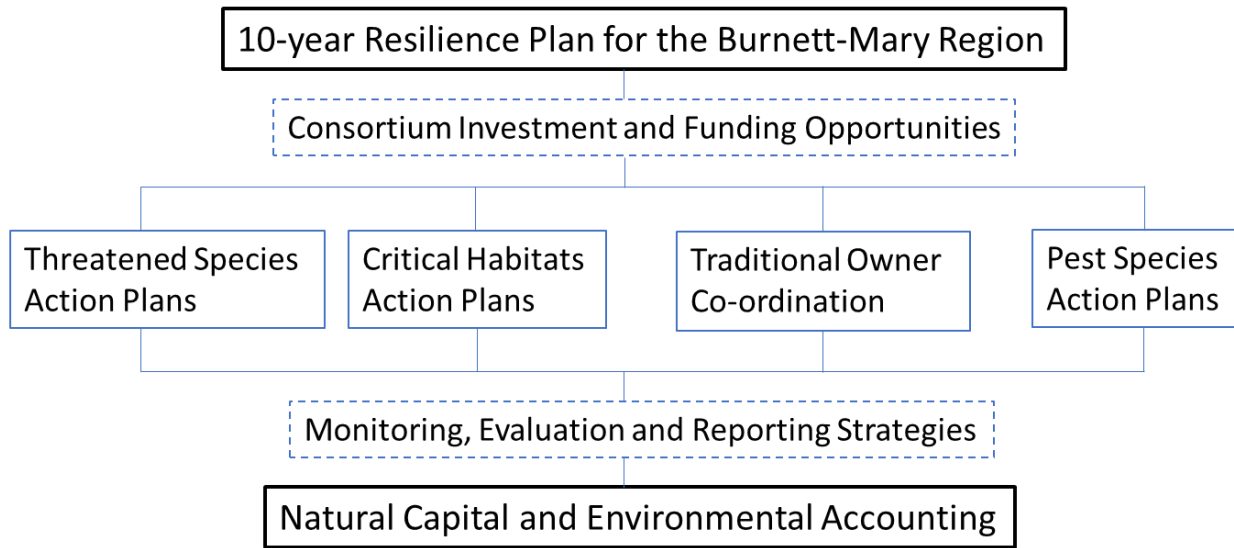


Figure 2 Framework for the Burnett-Mary 10-year Resilience Strategy for threatened species and critical habitats.



## PRIORITY SPECIES

- Australian lungfish
- White-throated snapping turtle
- Mary River turtle
- Mary River cod
- Giant barred frog



## CULTURAL PRIORITIES

- Platypus
- Fig trees
- Freshwater mussels
- Mullet



## COLLABORATIVE OPPORTUNITIES

- TS Distribution
- CS Distribution
- TS Genetic status
- Conservation stocking

# THREATENED SPECIES ACTION PLANS

## PRIORITY SPECIES

Priority species have been selected due to their conservation status, endemism, iconicity and representation of the Burnett-Mary region's freshwater environments. These species are also intimately linked to a cross-section of specialised habitats and hydrology components. Burnett-Mary Region Action Plan (BMRAPs) for threatened species will be developed that address specific knowledge gaps or support improvement in reproduction, recruitment and resilience across their current and former distributions in the Burnett-Mary region.

## CULTURAL PRIORITIES

Cultural priorities have been selected after extensive consultation with Traditional Owners of the region. These species represent various historic and contemporary cultural values, uses and aspirations of the Butchulla, Jinibara and Kabi Kabi peoples, and other Traditional Owner groups of the Burnett-Mary region.

## BURNETT-MARY REGIONAL ACTION PLANS

BMRAPs for priority threatened species will be developed by this consortium and guided by recommendations and actions documented in the following:

- The Australian Government's *Nature Positive Plan: better for the environment, better for business* (DCCEEW 2022)
- The Australian Government's *Threatened Species Strategy Action Plan 2022-2032* (DCCEEW 2022)
- The Queensland Government's *Threatened Species Program 2020-2040* (DES 2020)

BMRAPs will also aim to reduce the extinction risk of priority threatened species through robust science and research that ensures recovery and resilience of self-sustaining populations within healthy country. In turn, BMRAPs will support effective and targeted conservation planning for improved environmental decision-making within the Burnett-Mary region.



# CRITICAL HABITATS ACTION PLANS

## PRIORITY HABITATS

- Nesting banks
- Macrophyte beds
- Log jams
- Undercut banks
- Hydraulic habitat



## CULTURAL PRIORITIES

- Water quality
- Remnant riparian
- Cattle access
- Powerline dispersers  
for large birds of prey
- Biodiversity



## COLLABORATIVE OPPORTUNITIES

- Riparian fencing
- Cattle exclusion fencing
- Cattle watering points

## PRIORITY HABITATS

Priority habitats have been selected due to their intimate links with priority threatened species and representativeness of habitats that suit a broad range of native species. Burnett-Mary Region Action Plans (BMRAPs) for critical habitats will be developed that address key knowledge gaps or support condition, restoration and resilience of critical habitats for threatened species in the Burnett-Mary region.

## CULTURAL PRIORITIES

Cultural priorities have been selected after extensive consultation with Traditional Owners of the region. These priorities represent various historic and contemporary cultural values, uses and aspirations of the Butchulla, Jinibara and Kabi Kabi peoples, and other Traditional Owner groups of the Burnett-Mary region.

## BURNETT-MARY REGIONAL ACTION PLANS

BMRAPs for priority critical habitats will be developed by this consortium and guided by recommendations and actions documented in the following:

- The Australian Government's *Nature Positive Plan: better for the environment, better for business* (DCCEE 2022)
- The Australian Government's *Threatened Species Strategy Action Plan 2022-2032* (DCCEE 2022)
- The Queensland Government's *Threatened Species Program 2020-2040* (DES 2020)

BMRAPs will also aim to improve the condition and reduce the degradation and fragmentation of priority critical habitats through robust science and research that ensures restoration and connectivity of healthy country. In turn, BMRAPs will support effective and targeted conservation planning for improved environmental decision-making within the Burnett-Mary region.



## TRADITIONAL OWNER PRIORITIES

- Engagement and involvement
- Capacity and capability
- Cultural flows



## ADDED PRIORITIES

- Intellectual property
- Equal opportunities



## COLLABORATIVE OPPORTUNITIES

- Joint funding
- Project contracts
- Employment
- Cultural assessments

# TRADITIONAL OWNER CO-ORDINATION

## TRADITIONAL OWNER PRIORITIES

Traditional Owner priorities have been selected due to inherent connections to country, and custodial responsibilities to the Burnett-Mary region. Traditional Owner action plans will be developed that support engagement and involvement, capacity and capability across all aspects of threatened species management and their critical habitats.

## COLLABORATIVE OPPORTUNITIES

Collaborative opportunities will be scoped and developed within the consortium including contract work, employment and joint funding proposals.

## BURNETT-MARY REGIONAL ACTION PLANS

BMRAPs for Traditional Owner co-ordination will be developed by this consortium and guided by recommendations and actions documented in the following:

- The Australian Government's *Nature Positive Plan: better for the environment, better for business* (DCCEEW 2022)
- The Australian Government's *Threatened Species Strategy Action Plan 2022-2032* (DCCEEW 2022)
- The Queensland Government's *Threatened Species Program 2020-2040* (DES 2020)

BMRAPs will also aim to establish respectful and meaningful relationships with Traditional Owner groups that aim to engage and involve TOs in all aspects of threatened species and critical habitat management for improved environmental outcomes. In turn, BMRAPs will support effective integration of cultural values, uses and aspirations of Traditional Owners in the Burnett-Mary region.



## PRIORITY PEST SPECIES

- Tilapia
- Fox
- Pig
- Gambusia



## CULTURAL PRIORITIES

- Pest harvest contracts
- Pest monitoring contracts



## COLLABORATIVE OPPORTUNITIES

- PS Distribution
- PS Management

# PEST SPECIES ACTION PLANS

## PRIORITY SPECIES

Priority pest species have been selected due to impacts on threatened priority species and their critical habitats. Pest species can impact native species through multiple direct and indirect pathways including competition, predation and alteration of food webs and other ecological processes. Burnett-Mary Region Action Plans (BMRAPs) for pest species will be developed that address knowledge gaps or support management of pest species' impacts to threatened species, and critical habitats, across the Burnett-Mary region.

## CULTURAL PRIORITIES

Cultural priorities have been selected after extensive consultation with Traditional Owners of the Burnett-Mary region. Traditional Owners support eradication of all introduced and pest species from the region.

## BURNETT-MARY REGIONAL ACTION PLANS

BMRAPs for priority pest species will be developed by this consortium and guided by recommendations and actions documented in the following:

- The Australian Government's *Nature Positive Plan: better for the environment, better for business* (DCCEE 2022)
- The Australian Government's *Threatened Species Strategy Action Plan 2022-2032* (DCCEE 2022)
- The *Queensland Biosecurity Strategy 2018-2023* (DAF 2018)

BMRAPs will also aim to further enhance protection and conservation of threatened species by managing threats associated with pest species through robust science. In turn, BMRAPs will support effective and targeted conservation planning for improved environmental decision-making within the Burnett-Mary region.





## MERS PRIORITIES

- Develop MERS by 2023
- Draft outcomes, strategies and measures for MERS



## CULTURAL PRIORITIES

- Inclusion of cultural priorities in MERS



## COLLABORATIVE OPPORTUNITIES

- Develop BMRAPs for threatened species, critical habitat, Traditional Owner coordination, pest species

# MONITORING, REPORTING AND EVALUATION STRATEGIES (MERS)

## MERS

MERS set out the evaluation questions, monitoring objectives and information to be collected over the life of a plan to support its evaluation, including whether the plan's outcomes have been achieved. Due to the life of the Resilience Strategy being 10 years, MERS are agnostic on how or by whom this information is collected. This is an important principle that acknowledges that resourcing, expertise and methodologies change over time.

## OUTCOMES

- (1) To address key knowledge gaps and support improvement in reproduction, recruitment and resilience of threatened species across the Burnett-Mary region
- (2) To address key knowledge gaps and support condition, restoration and resilience of critical habitats for threatened species in the Burnett-Mary region
- (3) To support engagement and involvement, capacity and capability of Traditional Owners across all aspects of threatened species management including their critical habitats.
- (4) To address knowledge gaps or support management of pest species' impacts to threatened species, and critical habitats, across the Burnett-Mary region.

## BURNETT-MARY REGIONAL MERS

The MERS for the Resilience Strategy (Appendix A) will be developed by this consortium and guided by recommendations and actions documented in the following:

- The Australian Government's *Nature Positive Plan: better for the environment, better for business* (DCCEEW 2022)
- The Australian Government's *Threatened Species Strategy Action Plan 2022-2032* (DCCEEW 2022)
- The Queensland Government's *Threatened Species Program 2020-2040* (DES 2020)

The MERS will serve to ensure BMRAPs and associated actions are delivered within agreed timeframes.



## ENVIRONMENTAL ACCOUNTING

### PRIORITIES

- Environmental accounts documenting every on-country project



## CULTURAL PRIORITIES

- AfN certified methodologies for Traditional Owner engagement and involvement



## COLLABORATIVE OPPORTUNITIES

- Traditional ecological knowledge indicators are used alongside western scientific measures.
- AfN certified methodologies for threatened species and critical habitats

# ENVIRONMENTAL ACCOUNTING

## THE ACCOUNTING FOR NATURE FRAMEWORK

The Accounting for Nature® Framework (AfN) is a world-leading, scientifically rigorous methodology for measuring environmental condition. Measures of environmental condition can be used to understand whether actions are improving or degrading natural assets. They are critical for guiding investment in sustainable land and sea management. The AfN sets the overarching Standard and Technical Protocols for measuring the trend in ecological health of natural capital (e.g. soils, vegetation, fauna) in a cost-effective, scientifically robust, fully transparent and verifiable way.

### PRIORITIES

This consortium will use the AfN Framework to measure the condition of our assets including threatened species, and their critical habitats, at regional and project scales, enabling prioritisation and focus of our environmental initiatives on those assets most requiring intervention. Environmental accounting also provides a toolkit for measuring the effectiveness of our actions, by assessing condition before, during and after project delivery. This consortium will certify methodologies that combine conventional monitoring techniques, with cutting edge technology, alongside the important ecological and cultural knowledge of our Traditional Owners.

## BURNETT-MARY REGIONAL ACTION PLANS

Environmental-economic accounts put nature and natural capital on the balance sheet, alongside financial and economic measures of performance. Environmental-economic accounts will be developed by this consortium, guided by recommendations and actions documented in the following:

- The Australian Government's *Nature Positive Plan: better for the environment, better for business* (DCCEE 2022)
- The Australian Government's *Threatened Species Strategy Action Plan 2022-2032* (DCCEE 2022)
- The Queensland Government's *Threatened Species Program 2020-2040* (DES 2020)

This accounting framework will serve to ensure the Resilience Strategy is improving the long-term viability of threatened species, and condition of critical habitats.



# SYNERGIES

The BMRAPs developed for the Burnett-Mary 10-year Resilience Strategy will integrate key recommendations and actions from existing State and Federal environmental policies and programs including:

This  
Resilience  
Strategy  
will align  
with  
existing  
planning  
frameworks

- Australia's Conservation Strategy 2010–2030 ([Natural Resource Management Ministerial Council, 2010](#))
- Reef 2050 Long-Term Sustainability Plan 2021–2025 ([Commonwealth of Australia, 2021](#))
- Nature Positive Plan: better for the environment, better for business ([DCCEEW, 2022](#))
- Threatened Species Strategy Action Plan 2022–2032 ([DCCEEW, 2022](#))
- Threatened Species Strategy Action Plan 2021–2026 ([DAWE, 2022](#))
- Threatened Species Program 2020–2040 ([DES, 2020](#))
- National Environmental Science Program (NESP) – [Resilient Landscapes Hub](#)
- *Draft* Mary River Threatened Aquatic Species Recovery Plan ([MRCCC, 2016](#))
- The Mary River Cod Research and Recovery Plan ([Simpson & Jackson, 1996](#))
- National Recovery Plan for the White-throated Snapping Turtle (*Eseya albagula*) ([Commonwealth of Australia, 2020](#))
- Queensland Biosecurity Strategy 2018–2023 ([State of Queensland, 2018](#))

This Resilience Strategy will ensure effective use of existing resources to inform environmental decision-making for the Burnett-Mary region's threatened species and critical habitats



# CURRENT PROJECTS

## Emergency Flood Recovery for Wildlife and Habitat (EFR):

The Mary River from Conondale to Tiaro includes critical habitats for threatened species, remnant riparian habitat and cultural heritage. This project aims to undertake both threatened species sampling at priority sites along the Mary River, and rapid assessments of select flood-impacted sites in the Mary, Burnett, Burrum, Kolan, Baffle and K'gari areas. [VIDEO](#)

## Disaster Recovery Funding Arrangements - Biodiversity Conservation Program (BCG):

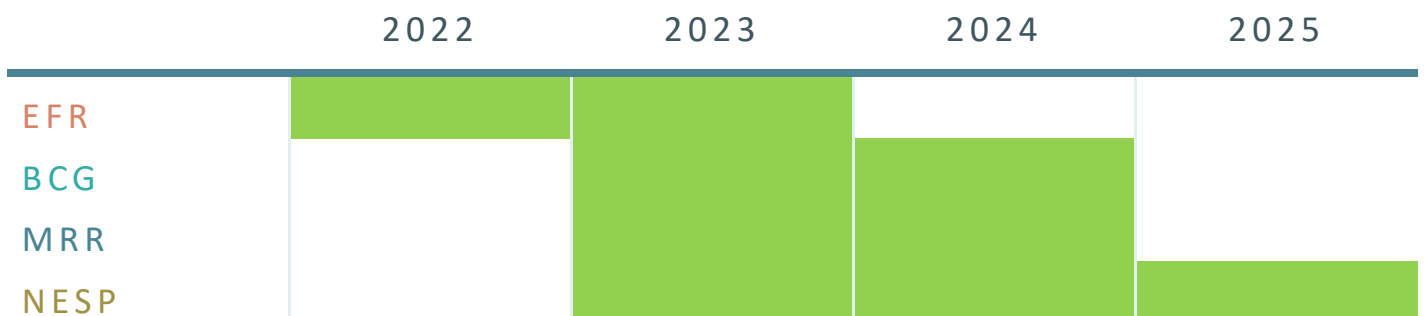
This project will undertake a catchment scale, post flood, baseline ecological assessment of threatened aquatic fauna and invasive fauna species in the Moonaboola (Mary River) catchment. The project will be undertaken between June 2023 and June 2024. Led by BMRG, a consortium of stakeholders will deliver baseline surveys to collate species distribution and abundance data from 50 sites across the Moonaboola (Mary River) catchment, using modern scientific and traditional sampling methods. The data will be used to plan and prioritise an ongoing program of flood recovery and resilience actions for threatened species across the catchment.

## Mary River Recovery Program (MRR):

The main aim of the Mary River Recovery Program is to stabilise and revegetate badly eroding sections of the Mary River by working directly with cooperative landholders over a four-year period. Over four years, ending June 2024, erosion-prone points along the Mary riverbanks will be stabilised. Sites were determined according to where sediment saving was most cost-effective for the project and landholder cooperation, while in-kind contributions are negotiated with landholders, including riverbank fencing and environmental weed control.

## National Environmental Science Program – Resilient Landscapes Hub (NESP):

This project aims to identify practical solutions for catchment-scale restoration and threatened species recovery, with a focus on the Moonaboola (Mary River) catchment in south-east Queensland – a hotspot of threatened species that rely on freshwater and riparian habitats. These species include fish (Australian lungfish, Mary River cod, Oxleyan pygmy perch), turtles (Mary River turtle, white-throated snapping turtle), frogs (giant barred frog, wallum sedge frog), birds (Coxen's fig parrot) and mammals (water mouse). [WEBSITE](#)



# APPENDIX A – MERS

## Monitoring, Evaluation and Reporting Strategy for the 10-year Resilience Strategy for the Burnett-Mary Region

Outcome	BMRAP	Indicator	Measure
<b>To address key knowledge gaps and support improvement in reproduction, recruitment and resilience of threatened species across the Burnett-Mary region</b>	Burnett-Mary Region Action Plans (BMRAPs) for threatened species will be developed that address specific knowledge gaps or support improvement in reproduction, recruitment and resilience across their current and former distributions in the Burnett-Mary region	Australian lungfish White-throated snapping turtle Mary River turtle Mary River cod Giant barred frog	By 2024, BMRAPs developed for all priority threatened species
<b>To address key knowledge gaps and support condition, restoration and resilience of critical habitats for threatened species in the Burnett-Mary region</b>	Burnett-Mary Region Action Plans (BMRAPs) for critical habitats will be developed that address key knowledge gaps or support condition, restoration, mitigation and resilience of critical habitats for threatened species in the Burnett-Mary region	Macrophyte beds Nesting banks Log jams Undercut banks Hydraulic habitat	By 2024, BMRAPs developed for all priority critical habitats
<b>To support engagement and involvement, capacity and capability of Traditional Owners across all aspects of threatened species management including their critical habitats</b>	Burnett-Mary Region Action Plans (BMRAPs) for Traditional Owner co-ordination will be developed that support engagement and involvement, capacity and capability across all aspects of threatened species management and their critical habitats	Engagement and involvement Capacity and Capability Cultural flows	By 2025, BMRAPs developed for all priority Traditional Owner co-ordination activities
<b>To address knowledge gaps or support management of pest species' impacts to threatened species, and critical habitats, across the Burnett-Mary region</b>	Burnett-Mary Region Action Plans (BMRAPs) for pest species will be developed that address knowledge gaps or support management of pest species' impacts to threatened species, and critical habitats, across the Burnett-Mary region	Tilapia Fox Pig Gambusia	By 2025, BMRAPs developed for all priority pest species