

# Actions

## Target Setting

### ACTIONS

- Engage with Traditional Owners, local landholders, agencies, industry and scientific community
- Identify historical works and review current knowledge
- Benchmark current awareness and skills for waterway management
- Establish works and an engagement program with Traditional Owners and key partners



## Taking Action

### ACTIONS

- Engage with communities of the Budj Bim WAP area
- Manage stock access to the waterways
- Undertake a hydrological study to improve understanding of river, estuary and wetlands connections
- Improve riparian area structure
- and connectivity through weed control and strategic revegetation activities
- Remove in-stream barriers to native fish migration
- Increase opportunities for sharing Aboriginal knowledge with land managers



## Recovery and Growth

### ACTIONS

- Maintain strong working relationships between Gunditjmara people, landholders agencies and natural resource scientists
- Celebrate successful projects and effective partnerships
- Maintain target conditions achieved for riparian fragmentation, removal of woody weeds, enhancement of
- native understory vegetation and fish passage
- Ensure policy and regulation supports maintenance of flows
- Monitor impact, if any, of flood, fire and climate change
- Capture stories of social change to illustrate integration and sharing of Aboriginal and non-Aboriginal knowledge of waterways



## Target Achieved

### ACTIONS

- Monitor and maintain works following flood or fire, including managing large outbreaks of weeds
- Monitor waterway condition change and evaluate project achievements against targets
- Demonstrate effectiveness of activities, sites and audiences for achieving project outcomes
- Demonstrate extent and depth of cross-cultural understanding of waterways and their management



# Budj Bim Waterway

The Budj Bim National Heritage Landscape is a volcanic plain that encompasses the area from Mt Eccles to the sea. The basalt lava flow created a series of wetlands and rivers including Lake Condah, Darlot Creek, Fitzroy River and Fitzroy estuary.



In 2010, Lake Condah was restored and the Gunditj Mirring Traditional Owners and other landholders are now focusing on protecting and restoring other waterways in the landscape.

The area supports manna gum woodlands and many rare and threatened aquatic fauna including Yarra pygmy perch, Australasian bitterns, growling grass frogs and Glenelg spiny crayfish. The landscape is rich in Gunditjmara cultural heritage places, including stone huts and engineered wetlands and channels used to hold and harvest eels. This site contains the oldest known record of aquaculture in the world. These values will be further realised if the current World Heritage nomination of the landscape is successful.

Additional studies will quantify the required on-ground works and improve understanding of the hydrology of the Darlot Creek and the associated wetland complex. The project will involve a comprehensive program that builds on the 'Yarns on Farms' Indigenous extension program and support activities that utilise NRM and cultural land management practices such as cultural burning. The Budj Bim rangers will be engaged to undertake on-ground works on Gunditj Mirring properties and evaluate broader project outcomes using a range of fauna monitoring techniques.

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The spatial scope of this project includes numerous wetlands and the Darlot Creek and the Fitzroy River estuary, from Lake Condah to the Fitzroy estuary entrance.

## Rivers 2040

There are four phases in the Rivers 2040 framework:

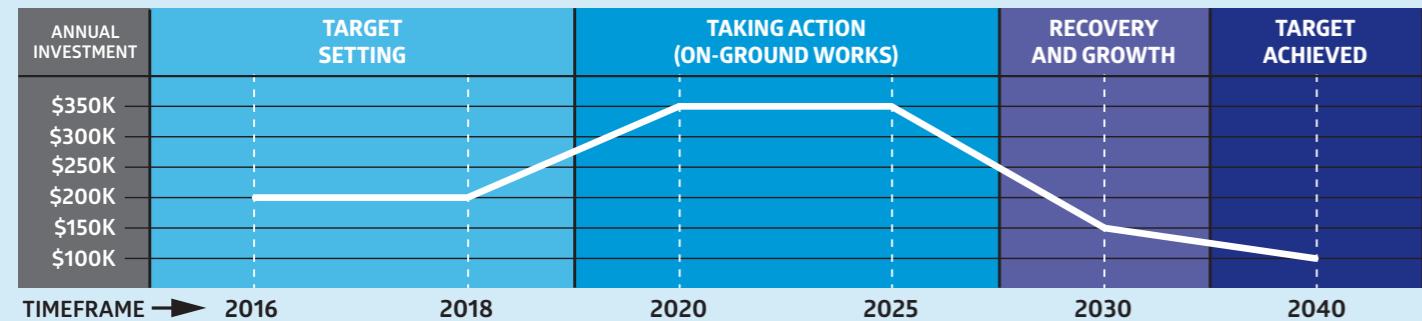
- Target setting
- Recovery and growth
- Taking action
- Target achieved

The project is currently in Phase 1 Target Setting.

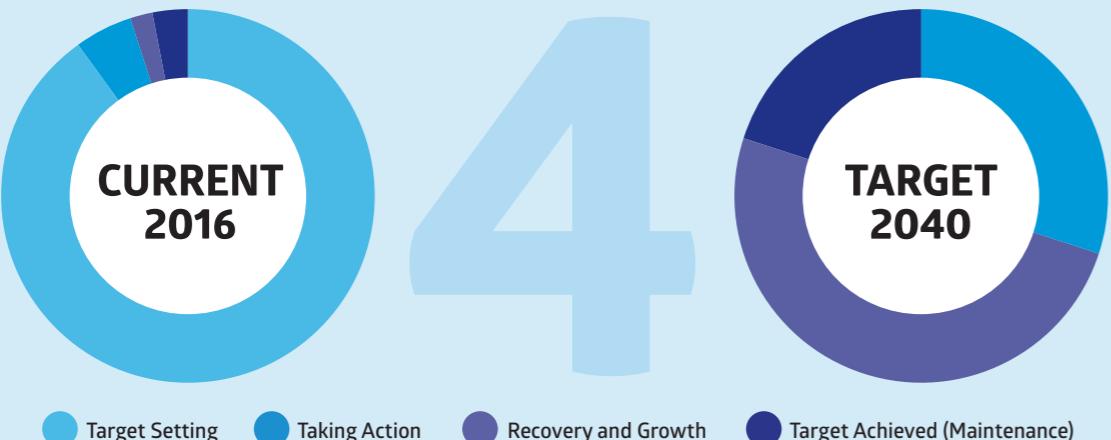
## Project Objective

By 2040, the community will have knowledge of cultural and ecological values of the Budj Bim Waterway Action Plan landscape. The condition of riparian vegetation along the Fitzroy River and Darlots Creek will be sufficiently improved, have base flows consistent with ecological requirements and allow for passage of native fish. The waterways of the Budj Bim landscape will also support viable communities of threatened species including growling grass frogs, Yarra pygmy perch, Australasian bitterns and Glenelg spiny crayfish.

## Budj Bim Waterway - Investment and Environmental Condition



## Budj Bim Waterway - Overall Phase Progression



## Target Outcomes

To achieve the project objective, a number of target outcomes will be met.

- **Riverbank vegetation:** Riverbank areas are connected and condition improved by woody weed management, stock exclusion and revegetation.
- **Flow regimes and connectivity:** Connectivity of aquatic environments is improved by fish barrier removal; and improved knowledge of river and wetland hydrology and potential barriers to water movement.
- **Indigenous connections:** Knowledge and experiences of the Gunditjmara Traditional Owners and other landholders are shared and integrated into project design and delivery.

The following table provides further detail on the current state and target of selected outcomes.

## Riverbank Vegetation

### CURRENT STATE 2016



There is limited connected native riverbank vegetation in the Fitzroy (and Darlots Creek) system.

- Native streamside vegetation fragmented with sections dominated by willows
- Riverbank vegetation width is insufficient along the majority of the waterway.
- Uncontrolled stock access

### TARGET OUTCOME 2040



Extensively connected native riverbank vegetation.

- Continuous connected native riverbank vegetation with reduced willows
- Riverbank vegetation increased to a width of 20m.
- Control stock access

## Flow Regimes and Connectivity

### CURRENT STATE 2016



Aquatic habitat disconnected and limited knowledge regarding connectivity between rivers, wetland and estuary habitats.

- Physical barriers to restrict fish migration
- Physical barriers reduce hydrological connectivity of the landscape
- Limited understanding of flow pathways for connecting river, wetland and estuary habitats.

### TARGET OUTCOME 2040



Waterway habitats connected and clear understanding of flow pathways across landscape

- Barriers to native fish migration reduced
- Hydraulic connections with wetlands improved
- Strong understanding of flow pathways across landscape

## Indigenous Connections

### CURRENT STATE 2016



Aboriginal people's connection to waterways as important places for traditional culture, place and Country are recovering from a history of dispossession.

- Limited opportunities for Aboriginal people to participate in waterway management
- Non-Indigenous landowners, government agencies and other stakeholders have a limited understanding of Aboriginal peoples interests and knowledge in waterway management

### TARGET OUTCOME 2040



Aboriginal people are connecting to waterways for tradition culture, place and Country.

- Aboriginal people's rights and interests acknowledged and integrated into waterway project planning, implementation and review
- Knowledge and experiences of the Gunditjmara Traditional Owners and other landholders are shared and integrated into project design and delivery.