

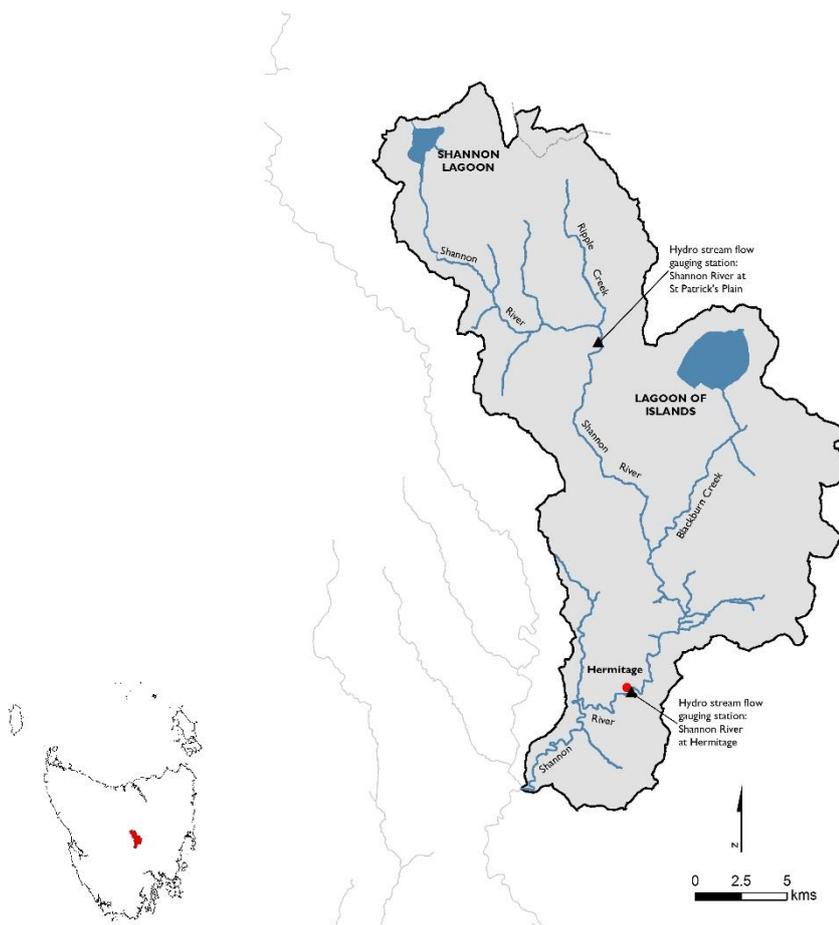
# Shannon River

## WATER MANAGEMENT STATEMENT 2018

September 2018

### Overview

The **Shannon River Catchment Water Management Statement** sets out how water resources in the Shannon River catchment (below Great Lake Dam at Miena) are allocated and the rules for taking water. This Statement explains the water management arrangements in the catchment that support the objectives of the *Water Management Act 1999* (the Act) and are consistent with the planning principles of the National Water Initiative as administered by the **Department of Primary Industries, Parks, Water and Environment (the Department)**.



**The Shannon River catchment** (from Shannon Lagoon to the confluence with the Ouse River downstream of Hermitage) has an approximate area of 424 km<sup>2</sup>. It is a sub-catchment of the Greater Derwent catchment, which drains part of the Central Plateau.

## Water Management Outcomes

The outcomes sought through the implementation of the described water management arrangements in this Statement meet the objectives of the Act. This will protect water availability for commercial users (i.e. for consumptive use), while ensuring town water supply, stock and domestic, and environmental water needs are met.

## River Characteristics

Flows in the catchment have been modified since the early 1900s when the Waddamana power scheme was developed. Nowadays almost all of the flow from *yingina*/Great Lake has been diverted via Poatina into the South Esk catchment.

Although the Shannon River is a highly regulated system it still exhibits a strong seasonal flow pattern with high flows in winter and low flows in summer with potentially large annual, seasonal and monthly variations. Releases of water from Shannon Lagoon over the summer irrigation season increase summer base flows in the river. The plot below shows the flow at the Hermitage gauge site in 2012 as an example.



## Water Managers

The Department manages water extraction from the Shannon River and its tributaries primarily through water licences issued under the Act.

The Shannon Catchment sits within the River Shannon and Lower River Derwent Hydro-Electric Water Districts. These two districts are administered by Hydro Tasmania.

Hydro Tasmania manages Shannon Lagoon for power generation at Poatina Power Station by pumping water into *yingina*/Great Lake. Releases to the Shannon River from the lagoon are designed to maintain a minimum flow in the river and supply water to riparian users and downstream irrigators. This includes the supply of water to the Ouse River irrigators from Shannon Lagoon and water releases to maintain levels in Penstock Lagoon.

Tasmanian Irrigation (TI) operates the Southern Highlands Irrigation Scheme and has a water transfer and supply agreement with Hydro Tasmania.

Over winter, TI pumps water from the Shannon River into the Southernfield Dam.

Approximately 60% of allocated water in the Shannon River catchment is licensed to TI who manage the Southernfield Dam as irrigation rights in accordance with the *Irrigation Clauses Act 1973* and their water licence conditions.



*Shannon River near Hermitage (2018)*

## Monitoring

Hydro Tasmania monitor river levels and flow in the Shannon River at St Patrick's Plain and Hermitage (see map for locations).

Instantaneous flow data is available on the Department's Water Information Tasmania Web Portal at: [portal.wrt.tas.gov.au/](http://portal.wrt.tas.gov.au/)

## Allocation Information

The allocation framework used by the Department is used to calculate the volume of water available in a catchment. The framework aims to protect existing water users and environmental requirements. Further information about the allocation framework can be found at: [dpiwwe.tas.gov.au/Documents/Surface%20Water%20Allocation%20Decision%20Framework.pdf](http://dpiwwe.tas.gov.au/Documents/Surface%20Water%20Allocation%20Decision%20Framework.pdf)

In total 10,432 ML of water is allocated in the Shannon catchment (winter 9006 ML & summer 1426 ML). Under the Department's allocation framework the Shannon River catchment is assessed to be fully allocated. Therefore, no further allocations will be made available by the Department

for the winter or summer periods except as a water transfer from Hydro Tasmania.

## Surface Water Management

Water is extracted under a licence issued under the Act. Water licences in the catchment typically state the volume of water that can be taken, when it can be taken (a period amount, usually summer or winter) and from which location. A licence can also state further conditions under which water can be taken as appropriate.

Water licences in the catchment allow the taking of water in two take periods; summer (typically low flows) and winter (high flows). The summer take period is 01 November to 30 April and winter is 01 May to 31 October.

For more information about water licences please visit: [dpiwwe.tas.gov.au/water/water-licences](http://dpiwwe.tas.gov.au/water/water-licences)

A Watercourse Authority can be approved by the Department so that water can be released from a storage into the watercourse to be used by another user downstream. Conditions will apply to any approvals given.

For information about Watercourse Authorities please visit: [dpiwwe.tas.gov.au/water/water-licences/watercourse-authorities](http://dpiwwe.tas.gov.au/water/water-licences/watercourse-authorities)

## Groundwater Management

The Department is responsible for managing groundwater in the Shannon River catchment under the provisions of Part 7 of the Act. No licence is required to take groundwater but a permit is required to construct a bore or well.

Based on current available drilling records, development of groundwater resources within the catchment is considered to be low. Bores typically have variable yields less than 3 litres per second with water quality suitable for stock and domestic use.

Smaller, short-term irrigation volumes may potentially be available in localized areas of highly fractured rock.

For fractured rock aquifers, the borehole has to encounter sufficient water-bearing fractures within the rock to produce a useable quantity of water before it can be termed a 'successful' bore. Groundwater yields of these aquifers may vary greatly depending on location.

For further information regarding groundwater resources, bore locations and the well work permitting process, please visit:

[dipwwe.tas.gov.au/water/groundwater](http://dipwwe.tas.gov.au/water/groundwater)



*Shannon River near Hermitage (2018)*

## Natural Values

The Conservation of Freshwater Ecosystem Values (CFEV) database recognises riparian (bankside) vegetation and platypus (*Ornithorhynchus anatinus*) as high conservation water dependent values of the

Shannon River. The catchment also supports a number of rare special 'flora' values with the presence of native watercress (*Barbarea australis*), clasping-leaf heath (*Epacris acuminata*), bitter cryptandra (*Cryptandra amara*) and the hairy anchor plant (*Discaria pubescens*), all of which are threatened flora species.

With the exception of native watercress, these flora species are not strongly associated with riverine riparian habitats in particular.

For more information please refer to the Environmental flow assessment for the Shannon River at:

[dipwwe.tas.gov.au/water/water-monitoring-and-assessment/surface-water-assessment/environmental-flows-reports](http://dipwwe.tas.gov.au/water/water-monitoring-and-assessment/surface-water-assessment/environmental-flows-reports)

## Further Information

Please contact your local Regional Water Management Officer if you would like more information regarding water management in the Shannon River catchment.

**Phone: 1 300 368 550**

**Email: [Water.Operations@dipwwe.tas.gov.au](mailto:Water.Operations@dipwwe.tas.gov.au)**

Also please visit the DPIPWE website at:

[dipwwe.tas.gov.au/water](http://dipwwe.tas.gov.au/water)

Water Operations Branch

Phone: 1800 368 550

Email: [Water.Operations@dipwwe.tas.gov.au](mailto:Water.Operations@dipwwe.tas.gov.au) Visit: [dipwwe.tas.gov.au/water](http://dipwwe.tas.gov.au/water)