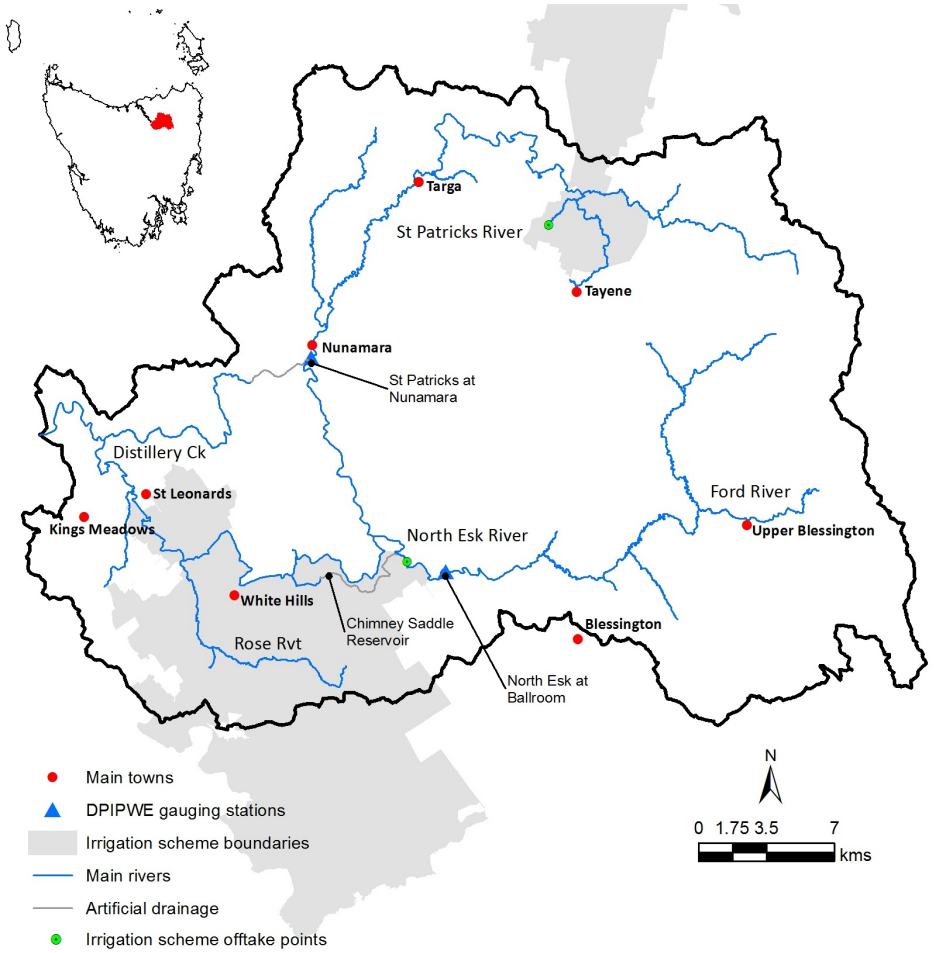
North Esk River Catchment Water Management Statement 2020

January 2020

OVERVIEW

The **North Esk River Catchment Water Management Statement** sets out how water resources in the catchment are allocated, and the rules for taking water. This Statement explains the water management arrangements in the catchment that supports the objectives of the *Water Management Act 1999* (the Act) and is 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 North Esk River catchment has an approximate area of 1,065 km^2. The two main rivers in the catchment are the North Esk River (91 km long) and the St Patricks River (68 km long). Both rivers originate on the western slopes of Ben Nevis. The St Patricks River joins the North Esk River west of Ballroom before flowing into the Tamar Estuary at Launceston.

The North Esk and St Patricks rivers form a part of the water supply for the City of Launceston and provide water to 36 licencees including Tasmanian Irrigation that manage the North Esk and Scottsdale Irrigation Schemes.

The two rivers are also popular rivers for recreational fishing, swimming and kayaking and related events.

The river system provides habitat for a range of water-dependent flora and fauna, including aquatic and riparian vegetation, macroinvertebrate communities, frogs, fish, waterbirds, platypus and some threatened species. Important biophysical values include the wetlands and saltmarshes on the Launceston floodplain and the native fish community dominated by migratory species in the lower river system and estuary. Threatened species that rely on stream flow include the Australian grayling and Tasmanian Whitebait fish species, giant freshwater crayfish, the Ouse River caddisfly and a number of freshwater dependent flora such as South Esk heath.

Water and Marine Resources
Department of Primary Industries, Parks, Water and Environment

Tasmanian Government

Water Management Outcomes

The implementation of the water management arrangements described in this Statement are intended to meet the objectives of the Act. Management rules support authorised and prioritised access to water entitlements for commercial users (i.e. for consumptive use), while ensuring town water supply, stock and domestic, and environmental water needs are protected at a higher level of priority.

Water Managers

The Department manages water extraction for commercial and other purposes from the North Esk and St Patricks Rivers and their tributaries through water licences issued under the Act.

SURFACE WATER MANAGEMENT

Surface water taken for irrigation and other commercial purposes must be extracted under a water licence issued under the Act. Water licences in the catchment typically state the priority (surety level) of access, volume of water that can be taken, when it can be taken (usually a summer or winter take period) and from which location. A licence may also state further conditions under which water must be taken. For more information visit:
dpipwe.tas.gov.au/water/water-licences

A Watercourse Authority must be approved by the Department if water that has already been taken and stored is released into a watercourse to be transferred and used by another user downstream. Conditions apply to any approvals. For information visit:
dpipwe.tas.gov.au/water/water-licences/watercourse-authorities

Allocation information

The Department uses an allocation policy approach to calculate the volume of water available for allocation in a catchment. The allocation policy aims to make a sustainable volume of water available for access while protecting the security of existing water users' access and entitlements. In conjunction with daily access rules the allocation policy ensures commercial extraction does not significantly impact environmental values or other higher surety water users. Further information about the allocation policy can be found at:
dpipwe.tas.gov.au/water/water-legislation-policies-and-strategies/water-resources-policies-and-guidelines

Water licences in the catchment allow the taking of water in two take periods: summer (typically 1 December to 30 April, when there are low flows) and winter (typically 1 May to 30 November, when there are generally higher flows), although some allocations are annual and can be taken across both take periods.

Summer Take Period

Under the Department's Surface Water Allocation Decision Framework, the North Esk River catchment is fully allocated in the summer take period.

Winter Take Period

Table 1 outlines the volume of water currently allocated in the North Esk River catchment and the water available for future allocations in the winter take period.

Table 1 Winter allocation information for the North Esk River catchment (as of December 2019).

Total consumptive allocation	42,876 ML
Total non consumptive allocation	9,675 ML
Total allocated	52,551 ML
Allocation limit	55,746 ML
Total available downstream of non-consumptive allocations	**12,870 ML***

*Any future allocation that is granted for the **winter period** will be assessed on a case by case basis and be subject to conditions that protect access for existing water users.

Restriction Management

While water licence holders may have specific access conditions on their licence the restriction protocols and access thresholds applied to allocations across the North Esk River catchment when flow in the rivers become extremely low are presented in Table 2 below.

Table 2 Daily restriction management thresholds in the North Esk River catchment for the whole year.

North Esk River at Ballroom stream flow gauging station.

ML/day	Stage	% of take	Restriction
40	1	100	Ban on surety 6 takes.
35	2	100	Ban on surety 5 takes.
30	3	100	Ban on TasWater surety 5*.

St Patricks River at Nunamara stream flow gauging station.

ML/day	Stage	% of take	Restriction
22	1	100	Ban on surety 6 takes.
17	2	50	Ban on surety 5 takes.
10	3	100	Ban on surety 5 takes. Commence engagement with TasWater on stopping their surety 5 take.
<10 for 5 days	4	100	Ban on TasWater surety 5*.

*Under section 94(2) of the Act in reducing the taking or restricting the taking of water first preference must be given to the taking of water for domestic purposes, public health purposes, consumption by livestock or firefighting.

The Department announces that a trigger has been reached and when restrictions apply using SMS and the Tasmanian Government Public Notices website: https://www.tas.gov.au/publicinfo/
or through the Department's Water Restrictions website: https://dpipwe.tas.gov.au/water/water-lic

Figure 1 The North Esk River at Corra Linn.

Opportunistic flood takes

Licensees are permitted to take water from a water course during periods of very high flow once the specific opportunistic take, high flow, access thresholds have been reached and notification has been provided by the Department.

The Department notifies licensees when access is authorised using SMS, the Tasmanian Government Public Notices Website and through the Department's Water Restrictions website: https://dpipwe.tas.gov.au/water/water-licences/water-restrictions.

For licensees in the St Patricks River and North Esk River below the confluence of the two rivers the threshold for opportunistic access to water is a flow of greater than or equal to 2,100 ML/day, as measured at the stream flow gauging station at Nunamara.

For licensees in the North Esk River catchment above the confluence of the North Esk and St Patricks Rivers the threshold for opportunistic access to water is a flow of greater than or equal to 1,300 ML/day as measured at the stream flow gauging station at Ballroom.

Once the above thresholds have been reached, authorisation is provided to licensees to take water. Permission will remain in place until flow falls below the above thresholds and authorisation is revoked.

Opportunistic takes are not allocated as a volume on water licences. However, licensees are required to account for the water taken.

River Characteristics

Annual rainfall ranges from 1,300 mm in the headwaters of the catchment to about 750 mm in the lower catchment near Launceston. The river exhibits a strong seasonal flow pattern with high flows in winter-spring and low flows in summer, with potentially large monthly, seasonal and annual variations due to varying climatic conditions (Fig. 2a). Because of this seasonal flow pattern, most of the river's annual yield (total discharge) occurs during 'winter' (May-November) (Fig. 2b).

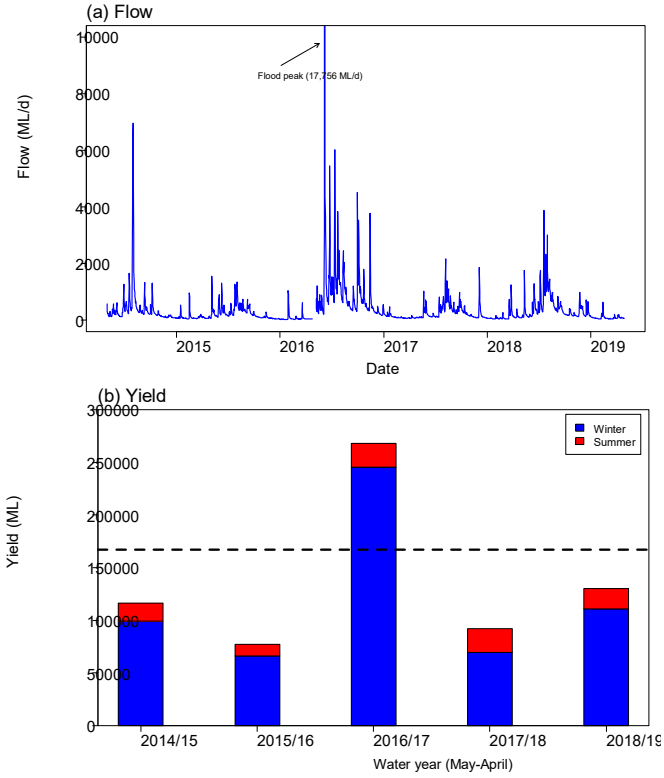


Figure 2 (a) Flow and **(b)** yield during the last five water years in the North Esk River at Ballroom. The long-term average yield (167,094 ML; dashed line) is shown with the yield data.

Monitoring

The Department monitors flow at two surface water gauging stations in the North Esk catchment. One is at Ballroom in the North Esk River and the other is in the St. Patricks River at Nunamurra, downstream of the TasWater offtake.

Tasmanian Irrigation also operates a stream flow gauging station, located at Chimney Saddle downstream of the TasWater and North Esk Irrigation Scheme offtakes.

All three gauges provide instantaneous flow data that is available in real-time on the Department's Water Information Tasmania web portal: portal.wrt.tas.gov.au

River health is monitored at four long-term sites in the catchment. This monitoring uses waterbugs as indicators of condition, and also assesses habitats and water quality. Monitoring between 1994 and 2019 indicates that the mid to upper reaches of the North Esk and St Patricks rivers are in good condition, whereas the lower reaches of the North Esk River are in moderate condition.

GROUNDWATER MANAGEMENT

The Department is responsible for managing groundwater under the provisions of Part 7 of the Act. Unless a groundwater area has been declared under the Act, there is no licence required for taking groundwater. Groundwater take is authorised under Part 5 of the Act which provides access to groundwater without a water licence. However, groundwater take is currently managed and regulated. Approvals and Permits are required to construct a bore or well. Groundwater users are required to keep records of wells and quantities of groundwater taken under the *Water Management Regulations 2019*. Current usage levels are low and the impact of pumping on groundwater levels is also low. Based on previous studies the groundwater system is thought to be in equilibrium.

For further information regarding groundwater resources, bore locations and the well work permitting process, please visit:
dpipwe.tas.gov.au/water/groundwater

REVIEW OF MANAGEMENT

A review of water management in the North Esk River catchment was undertaken by the Department during 2019, in which available information was assessed and key stakeholders were consulted about management in the catchment. It was found that existing management practices could be retained on the condition that future winter allocations had higher take thresholds that would not impact on existing water users or the environment, and that there was scope for opportunistic flood takes. Due to the recent water development that has been recently approved in the catchment the key stakeholders requested a review after 5 years, however management of the catchment can be reviewed at any time if there is evidence of impact from extraction.

FURTHER INFORMATION

Please contact Water Operation Branch if you would like more information:

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Email: Water.Operations@dpipwe.tas.gov.au
Website: dpipwe.tas.gov.au/water