

Draft Amended Mersey River Catchment Water Management Plan 2023 Statutory Assessments

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The Department of Natural Resources and Environment (NRE Tas)

The Department of Natural Resources and Environment Tasmania provides leadership in the sustainable management and development of Tasmania's natural resources. The Department's vision is a Tasmania where our natural resources, cultural values and environment are recognised and used sustainably to support our future prosperity.

The Primary Industries and Water Division provides a focus for water management and water development in Tasmania through a diverse range of functions, including implementing the *Water Management Act 1999* and the National Water Initiative; design of policy and regulatory frameworks to ensure sustainable use of surface water and groundwater resources; monitoring, assessment and reporting on the condition of the State's freshwater resources; and facilitating water infrastructure development projects.

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I Introduction

This Statutory Assessments document forms part of the Draft Amended Mersey River Catchment Water Management Plan 2023 and includes the assessments required under the *Water Management Act 1999* (the Act).

Under the Act, a water management plan is to include:

- (a) a statement of the objectives of the plan, including the environmental objectives (refer to section 2.2.2 the Draft Amended Mersey River Catchment Water Management Plan 2023); and
- (b) a description of the water regime that best gives effect to the environmental objectives and other relevant objectives of this plan (refer to section 3.3 of the Draft Amended Mersey River Catchment Water Management Plan 2023); and
- (c) an assessment of the ability of that water regime to achieve the environmental objectives and other relevant objectives of the plan (refer to section 3.4 of the Draft Amended Mersey River Catchment Water Management Plan 2023); and
- (d) an assessment of likely detrimental effects of the plan on the quality of water (refer to section 2 of this document).

Additionally, as this Plan provides for the allocation of water, it must:

- (e) include an assessment of the capacity of the relevant resource to meet the likely demands for water by existing and future users (refer to section 3 of this document); and
- (f) take into account the needs of existing and future users and state the likely effect of the plan on those users, including any effect on businesses carried on by those users (refer to section 4 of this document).

Components (a) – (c) listed above are provided in the main Plan document, as noted. Details of assessments (d) – (f) are provided in this document. While presented separately, this Statutory Assessments document forms part of the Mersey River Catchment Water Management Plan.

An assessment of the impacts of the Plan was undertaken in consultation with key stakeholders through the Mersey River Catchment Water Management Plan Consultative Group¹.

References in this document to the Draft Amended Mersey River Catchment Water Management Plan 2023 refers to the Draft Amended Mersey River Catchment Water Management Plan 2023 (NRE Tas 2023a).

References to the 2005 Plan refers to the Mersey Water Management Plan that was adopted in 2005 (DPIWE 2005).

¹ Further details regarding the Consultative Group can be found in Section 3 of the *Mersey River Catchment Water Resources Information* (NRE Tas 2022).

2 Likely detrimental effects of the Plan on water quality

Good quality water is essential for a healthy environment, biodiversity, domestic and stock use, recreational use, and consumptive use for economic purposes.

Under the *State Policy on Water Quality Management 1997*, Protected Environmental Values (PEVs) have been identified for surface waters within the Mersey River catchment (DPIWE 2001). PEVs are social, recreational, environmental and economic values or uses of a waterbody that support the protection of (or part of) that waterbody and form the basis of water quality management. The surface water PEVs in the Mersey River catchment are:

- Protection of Aquatic Ecosystems (Modified),
- Recreational Water Quality and Aesthetics,
- Raw Water for Drinking Water Supply, and
- Agricultural Water Uses, and Industrial Water Supply (DPIWE 2001).

Default guideline values (DGVs) for aquatic ecosystems (EPA 2021) have also been derived for aquatic ecosystems in accordance with the National Water Quality Management Strategy and are used as a guide for maintaining water quality.

The links between flow and water quality, while complex, are well recognised. It is understood that maintaining the key elements of the water regime in the river system in the Plan area, that supports the river's tributaries and augments the regulated flow release down the main stem of the river, allows important ecological processes to occur, that will in turn, affect water quality in a positive way (Boulton et al. 2014; Hardie et al. 2012).

Water quality in the Mersey River catchment can be impacted if there are insufficient baseflows (resulting in increased temperature and low dissolved oxygen) and/or insufficient high flows (reduced flushing/movement of sediment, algae, and organic matter through the system).

The Plan includes several rules (for example, low and high flow access thresholds, and water allocation limits) that promote a water regime that broadly protects key features of the flow regime and provides water access in a way that manages risks to water quality associated with extraction. The rules of the Plan support maintaining key ecological and geomorphological processes, while allowing for the extraction of water for essential community needs and economic purposes.

It is considered that the flow conditions that are most likely to lead to a reduction in water quality - for example, very low flow or cease-to-flow events - are not likely to occur with any greater frequency or duration because of the water management regime provided in the Draft Amended Plan. It is expected that the revised management arrangements, including no step down in environmental releases from Lake Parangana and clearer low flow access rules, for the mainstem of the river will improve minimum flows during low flow periods compared to the rules in the 2005 Plan.

In addition to the rules in the Draft Amended Plan that are specific to the Mersey River catchment, there are other conditions identified in the Mersey River catchment Water Management Protocol that are applied state-wide under the Act. The conveyance or transfer of water via a watercourse is required to be assessed and approved in accordance with Part 6A of the Act. A key consideration in such assessments is whether there are likely to be any detrimental impacts on water quality.

Agricultural and other industry practices relating to land clearing, stock access to riparian areas and the use of agricultural chemicals such as fertilisers, herbicides and pesticides have the potential to impact water quality. A water management plan, under the *Water Management Act 1999*, cannot regulate the above factors, however the rules in the Draft Amended Plan can mitigate the risk related to water access, by setting management rules that protect key components of the natural water regime that maintain water quality.

It is considered that the rules in the Draft Amended Plan are unlikely to cause any detrimental effect on water quality in rivers in the Mersey River catchment through the direct extraction or storage of water.

3 Capacity of resource to meet existing and future demands for water

The Mersey River catchment lies in the north of Tasmania and has moderate rainfall that follows a distinct seasonal pattern throughout the catchment – wetter in winter and drier in summer. Extended dry periods can occur at times, and it is at these times clear and explicit water management rules are required.

3.1 Overview

The Mersey River is regulated by the operations related to the release of water from Lake Parangana. Minimum environmental release conditions from Lake Parangana are identified in Hydro Tasmania's Special Licence Agreement², but the Lake also spills during times of higher inflow. Hydro Tasmania also releases water under agreements with Tasmanian Irrigation and groups of farmers to secure water for irrigation during times of restriction.

The Department, in conjunction with Hydro Tasmania, has reviewed Hydro Tasmania's environmental release conditions that have been prescribed in the 2005 Plan and their Special Licence Agreement. A revised approach is proposed that increases the minimum environmental releases during dry conditions compared to the minimum environmental releases required by the 2005 Plan rules.

The proposed approach includes:

- removing the current Arm River rule that allows the minimum environmental release to drop below 160 ML per day during dry conditions.
- replacing the measurement of the minimum environmental release at the Liena stream flow gauge (of 173 ML per day³) with a flow release of 160 ML per day measured at the outlet of Lake Parangana.

² With the commencement of the *Water Management Act 1999* in 2000, Hydro Tasmania held a special licence under s.115(2) of the Act. The Minister for Primary Industries and Water and Hydro Tasmania (the licensee) entered into a Special Licence Agreement describing Hydro Tasmania's rights under the special licence in respect of the taking of water and the terms and conditions to which those rights are subject.

³ The flow at Liena stream flow gauge is a combination of environmental and other releases, and spill from Lake Parangana, and tributary and groundwater inflows to the Mersey River below Lake Parangana.

The intent of the minimum 160 ML per day environmental release from the outlet of Lake Parangana is to continue to provide a minimum flow of 173 ML per day at the Liena stream flow gauge without Hydro Tasmania needing to adjust for the complexities of the inflows between Lake Parangana and the Liena stream flow gauge.

It should be noted that there is not a requirement for the conditions on Hydro Tasmania's Special Licence Agreement to be included in a Water Management Plan.

The revised environmental release from Lake Parangana means that flows for the environment down the main stem of the Mersey River are likely to be higher during dry times than in the past.

Water that is available for licensed water users downstream of Lake Parangana is sourced from:

- the contribution of natural flows from tributaries in the catchment,
- groundwater input to the Mersey River's baseflow,
- any spills from Lake Parangana or flood flows that provide opportunistic takes, and
- water supply arrangements with Hydro Tasmania to release additional water from Lake Parangana for consumptive water users during periods of restriction.

Some tributaries like Mole Creek, Lobster Rivulet and the Dasher and Minnow Rivers and Caroline Creek have a reliable baseflow from groundwater input, while others have much lower baseflows.

Table I outlines the median yields and current allocation of the Mersey River catchment below Lake Parangana. It should be noted that 11% of the median annual yield is allocated in the catchment. There is a distinct seasonal-related pattern in yield between the drier November to April, and wetter May to October allocation periods (Table I). The majority of the existing allocation in the Mersey catchment Plan area is full year allocation (20,801 ML) and taken from the main channel of Mersey River, so may be taken in either the summer or winter period. The Draft Amended Plan provides daily access rules that mitigate the risks of the full year allocation to higher surety level water users.

Table I Median yields and current total water allocation in the Mersey catchment Plan area.

Median annual yield (measured at the Shale Road stream flow gauging station near Latrobe)	347,243 megalitres (ML)
Volume of water currently allocated to consumptive water use from the entire catchment.	37,027 ML
Percent of median annual yield allocated to consumptive water use.	11%
Median yield in the 1 November to 30 April allocation period.	71,905 ML
Median yield in the 1 May to 31 October allocation period.	275,338 ML

3.2 Formalisation of historic water use

During the development of the 2005 Plan, it was recognised that high levels of water had been allocated from the catchment in the summer months and the 2005 Plan made no further water available for allocation in the period from 1 November to 30 April. The exception was a volume (approximately 1,800 ML) set aside under the Plan to allocate at Surety Level 6 which reflected historic water use identified in a 2003 Water Use Survey.

The volumes allocated historically are greater than volumes that would be allocated under the current allocation policy. Despite the higher volume allocated, the risks to essential water (Surety Level 1) and the environment (Surety Level 2) are managed by the access rules in the Draft Amended Plan. It is recognised that the impact of the higher volumes allocated historically means that, under full use, allocations will have a lower notional reliability than would be the case under the current allocation policy (that provides less water for allocation at higher reliability).

3.3 Notional reliability for daily water access

Despite the high levels of water allocation, reliability assessments undertaken by the Department based on existing levels of water use under the Draft Amended Plan's 195 ML per day cease-to-take threshold for the period from December to May found that daily water access for Surety Level 5 water users is available, between 94% and 100% of the time, indicating high reliability. Water access for water allocated at Surety 5 from June to November is also available at least 95% of the time.

3.4 Capacity of the resource to meet potential future demand

An assessment based on Land Capability Classes 1 to 4 (irrigable land) within the Mersey River catchment indicates the potential for an additional 34.5% or 22,500 km² of the Plan area to be expanded for irrigation purposes, assuming all irrigable land is available for further development (NRE Tas 2022, Section 9). Given an average application rate of 3 ML per hectare per year (DPIPWE 2015), this would require a potential maximum irrigation water demand of a further 67,500 ML annually.

While the Draft Amended Plan does not provide further surface water allocations from 1 November to 30 April, it does not prevent further development of the catchment's water resources in the future that could use water available in the 1 May to 31 October period at Surety Level 6, or water from alternative sources such as groundwater, water available under 'opportunistic take' access rules and greater use of the water market through trading or transferring existing water allocations in the Mersey River catchment (especially in the 1 November to 30 April period).

Groundwater use occurs in five key areas throughout the catchment and provides an additional source of water to those water users that have access to it. There is a range of requirements for the management of groundwater resources under the Act and *Water Management Regulations 2019*. The risk of impact of groundwater use on the groundwater resource at a catchment wide scale has been assessed as being low at this time (NRE Tas 2022, Section 6) and the current level of management has been identified as adequate.

The greatest factor effecting the capacity of the water resource in the Mersey River catchment to meet the needs of water users is climate change. Future climate predictions suggest the north of Tasmania will experience a decline in rainfall and, as a result, runoff (CSIRO 2009). Recent analysis of rainfall, evaporation and temperature for the Mersey River catchment (NRE Tas 2022, Section 4) indicates that some effects of climate change are already being seen. Average annual rainfall is declining, and temperature and evaporation are increasing. This leads to a reduction in water yield. Water yield declines are following a trajectory towards what was predicted under a future 'dry' climate (CSIRO 2009). The CSIRO (2009) report predicted annual average rainfall across the Mersey catchment to reduce by 7% and runoff was predicted to reduce by 11% by 2030 under a future dry scenario.

While there is no further water available for allocation in the 1 November to 30 April period, the Draft Amended Plan has set allocation limits for the 1 May to 31 October period which incorporates CSIRO sustainable yields projections based on a 2030 dry future climate scenario. The methods used to determine allocation limits in the Draft Amended Plan are the same as those used in the Department's Water Availability Tool⁴ that will be updated as new future climate studies occur.

Although a decline in rainfall has been observed at a local level in recent decades, changes to the frequency and severity of extreme weather events across Tasmania were also expected to occur (ACE CRC 2010).

3.5 Capacity of the resource to meet requirements for essential use and the environment

Most of the essential water use in the catchment is likely to be taken for use by people with riparian properties or who use groundwater from bores on their properties. These people are authorised to take water without a licence by Rights under Part 5 of the Act. The maximum volumes that can be taken from a water course under Part 5 Rights are managed by daily limits that are specified in the *Water Management Regulations 2019*.

Essential access is very secure on the main stem of the Mersey River and in tributaries that have high levels of groundwater fed baseflow. However, some tributaries do intermittently cease-to-flow naturally.

Essential water for non-riparian water users is allocated at Surety Level 1⁵. Currently 29 ML of water is allocated on an annual basis at Surety Level 1, which is largely to supply the town of Mole Creek with essential water and fits within the capacity of the resource to meet demand.

Water is also allocated for non-essential town water supply at Surety Level 5, which is subject to the same rules as water users who use water for irrigation and commercial purposes. As there are no further water allocations available from 1 November to 30 April, any additional water required in this period for town water in the future will need to be sourced by obtaining:

⁴ More information about the Department Water Assessment Tool (WAT) can be found at [https://nre.tas.gov.au/water/water-monitoring-and-assessment/hydrological-assessment/water-assessment-tool-\(wat\)](https://nre.tas.gov.au/water/water-monitoring-and-assessment/hydrological-assessment/water-assessment-tool-(wat))

⁵ Water surety levels are explained in Section 4.1 of the Draft Amended Plan.

- a 1 May to 31 October Surety Level 6 allocation and storing it,
- access to groundwater,
- opportunistic high flow access, or
- existing or future water markets.

Water for the environment (Surety 2) is not allocated as a volume of water but is protected by the implementation of allocation limits and access rules to manage extraction by water users with lower surety allocations (Surety 3 and above). The Plan implements monthly cease-to-take thresholds to protect baseflows and seasonal minimum baseflow variation in the river and its tributaries. A high flow opportunistic take threshold supports additional extraction and storage during high flows when there is very low risk of impacts. There is also no more water allocation available from 1 November to 30 April, and a new sustainable allocation limit has been identified in the Draft Amended Plan for the period 1 May to 31 October. Protecting flows for environmental purposes also provides better flows for recreation and tourism such as fishing, paddling, caving and other riverside activities.

4 Effects of the Plan on the needs of existing and future users

The likely effects of The Draft Amended Plan on existing and future users, including any effects on businesses carried out by those users are considered in the context of, and limited to, the management of water resources. The Draft Amended Plan sets out a management framework for the water resources of the Mersey River catchment, and hence any effects of the Draft Amended Plan must be considered strictly in relation to changes in access to water under the Draft Amended Plan, both in terms of the volume of water available and the way that water may be taken.

The objectives presented in section 2 of the Draft Amended Plan support the range of environmental, social and economic values identified in the catchment (section 3.1 of the Draft Amended Plan).

The Draft Amended Plan defines water users as: a) any person who has a right or authorisation to take water under the Act (including those that use water under Part 5 of the Act, for domestic, stock watering or firefighting purposes, and licenced water users); b) any other person who uses the water resources for recreation or any other purposes. In the Mersey catchment fishing, paddling caving and river side activities are the main recreational activities and there are also tourism industries supported by these activities. The environmental objectives and rules also support these water users.

The rules in the Draft Amended Plan support the main water use and development objectives (objectives 4 and 5), by providing certainty and security for current and future water-dependent businesses through providing legally recognised water entitlements, and the application of a fair and equitable framework to sustainably share this catchment's water resources.

The Draft Amended Plan sets limits for allocation at different levels of Surety and thus provides security for existing and future water entitlements and outlines a clear hierarchy of access to water for stock and domestic water supply (Surety 1), the environment (Surety 2), irrigation and other uses (Surety 5 and 6) to prioritise and share access when supply of water is limited. The Draft Amended Plan also specifies cease-to-take thresholds for lower surety

entitlements (Surety 5 and 6), that ensures the taking of water for commercial uses does not impact higher surety essential uses and is conducted in an orderly and equitable fashion, thereby ensuring that existing water entitlements are clearly defined and not compromised.

4.1 Cease-to-take thresholds from December to May

The cease-to-take threshold of 195 ML/day (measured at the Mersey River at Shale Road stream flow gauging station) between December and May remains unchanged. However, under the 2005 Plan the cease-to-take during low flows was able to be continually reduced to align with the corresponding reduction in Hydro Tasmania's environmental release conditions (when flows entering Lake Parangana were estimated to be less than 173 ML/day based on flows less than 21 ML/day as measured at the Arm River stream flow gauging station). This meant that in many cases the cease-to-takes were not implemented until flow fell well below 195 ML/day. The environmental release conditions under Hydro Tasmania's Special Licence Agreement be amended to a minimum release of 160 ML/day, and subsequently, under the Draft Amended Plan the reduction in the cease-to-take will no longer occur. The simpler rules are designed to provide more clarity and certainty to both water managers and water users, while ensuring that environmental releases and inflows from tributaries during well below average flow conditions are protected and allowed to pass through the system.

Two independent assessments were undertaken on the reliability of access of Surety Level 5 allocations using past flow records for the December to May period but applying Hydro Tasmania's new minimum environmental release from Lake Parangana. These assessments indicated that Surety Level 5 water users would have had access between 94% and 100% of the time under the 195 ML/day cease-to-take threshold over the historic flow record period. This is comparable to the reliability of access in the 2005 Plan over the same period (NRE Tas 2022 Sections 15 and 16).

The amended minimum release from Lake Parangana represents an improvement in environmental releases during dry periods compared to the 2005 Plan. It will also support the transfer and trade of water to businesses downstream, rafting and kayaking, and aids in maintaining water quality to support healthy ecosystems for aquatic life and fisheries in the catchment.

The greatest impact on river flow that will affect water users in the future is climate change and the potential resultant decrease in runoff and yield (NRE Tas 2022, Section 4.5), greater climate variability (frequency and severity of extremes such as flooding and heatwaves) (ACE CRC 2010) and greater uptake of water to the full volume of existing allocations during very dry periods. While the Plan cannot prevent these changes from occurring, the limits and management practices outlined in the Draft Amended Plan aim to lessen the impact in the future.

4.2 Cease-to-take thresholds from June to November

The Draft Amended Plan applies monthly cease-to-take thresholds that apply from June to November in the same manner as the 2005 Plan. The cease-to-take thresholds attempt to balance the need for reliable access to water by licensed water users with the needs of the environment and stock and domestic use (under Part 5 of the Act).

The cease-to-take thresholds for June to September period have been amended slightly to support seasonality in flows whilst providing a consistent probability of access for each month

by setting the access threshold at flows that occur 95% of the time (NRE Tas 2022, Section 13). The cease-to-take thresholds for October and November have remained the same and are based on flows that occur 97% of the time (NRE Tas 2022, Section 13).

4.3 Take periods

The 2005 Plan identified that water was allocated for direct use in the period 1 November to 30 April and made further water available for taking (primarily for storage) in the period from 1 May to 31 October. However, take periods on allocations are variable in the Mersey catchment resulting from historic allocations and changes to policy through time. To ensure security of existing water allocations under the Draft Amended Plan, allocations that fall within the 1 November to 30 April period, will retain their existing take periods. New water allocations will only be made available in the period from 1 May to 31 October at Surety Level 6 in accordance with the allocation limits identified in the Draft Amended Plan.

4.4 Water available for allocation

There has been a steady increase in demand for irrigation and commercial water allocations through time and the volume of water allocated in the catchment has increased since the 2005 Plan was adopted.

There was an increase in the total volume allocated after the 2005 Plan was adopted due to Surety Level 6 summer water being allocated (approximately 1,800 ML) to water users on the main stem of the Mersey River and Lobster Rivulet which was identified as water historically accessed and used before 2003, during the development of the 2005 Plan.

Except for the historically accessed water, the 2005 Plan made no further water available for the 1 November to 30 April period. However, some Surety Level 6 summer water was allocated under the 2005 Plan (as indicated in Section 3.2 above) prior to the adoption of the Department's current allocation policy. The Department's Surface Water Allocation Decision Framework which was first implemented in 2014⁶. The volumes allocated historically are greater than volumes that would be allocated under the current allocation decision framework. While the impacts of this higher level of allocation are managed by the access rules in the Draft Amended Plan in dry years, the impact of the higher volumes allocated may mean that under full use allocations may not have the same level of notional reliability as would be the case under the current policy (that provides less water for allocation at higher reliability). Given the risks associated with the higher levels of water allocation and to mitigate further impact on water user's entitlements, there will continue to be no more water allocated for the period from 1 November to 30 April.

There has also been a gradual increase in the number of allocations for the period 1 May to 31 October as water users construct new storages in the catchment's tributaries to secure their water supply, or develop new water supply, for irrigation.

Under the Draft Amended Plan a higher sustainable catchment wide allocation limit of 96,811 ML has been established for the period from 1 May to 31 October, of which 77,071 ML remains available for allocation for existing and future water users⁷. However, actual availability will depend on the location of the proposed extraction point in the catchment. This allocation limit is largely consistent with the approach used by the Department's current

⁶ Last amended in 2020.

⁷ This figure was as of 9 September 2022 and may be less with the further allocation of water.

allocation policy⁸. However, new allocations, regardless of their location, will only be available at Surety Level 6, which provides security to existing water users with Surety Level 5 allocations at times of low flows and limited water supply.

4.5 Opportunistic flow access

The opportunistic flow access threshold is a new addition to the water access arrangements in the Plan area. The rule supports existing and future water users by allowing them to take additional water (in excess of the volume allocated on their licence) once a high flow threshold of 15,000 ML per day⁹ has been reached at any time of the year. This water may only be accessed by people who hold a water licence in accordance with the rules set out in the Draft Amended Plan.

In the Mersey River catchment, most dams (for irrigation, town water supply and commercial use) are instream and capture flood water as it passes through. While water taken under the opportunistic take rule is not allocated as a volume on water licences, the inclusion of the opportunistic take access threshold in the Draft Amended Plan authorises licensed water users to take and use this water, providing greater access to water than has previously occurred. Even though the 1 November to 30 April water allocation has been capped, the Plan provides the opportunity for existing and future water users to take additional water during high flow events at any time of the year, if they occur.

The infrequency of occurrence and short time that flow usually remains above the opportunistic take access threshold does, make this water less reliable. This provision will be of no advantage to water users without storages who solely rely on a direct take from the river to support their businesses.

4.6 Groundwater management

Groundwater use is concentrated in roughly five key areas of the Mersey catchment, where most higher yielding successful bores are located¹⁰. Typically, groundwater provides a supplementary source of water to those water users able to access it. As surface water is fully allocated in the Mersey catchment during the 1 November to 30 April period, there is potential for future demand to be met by increased use of groundwater resources in areas where it can be accessed.

Groundwater discharge is a significant contributor to stream flows in many parts of the Mersey catchment, which has important implications both for surface water availability and for water quality. Poorly regulated groundwater abstraction can lead to unsustainable levels of extraction in time, particularly at the local scale. This could cause a number of adverse future impacts (e.g. unsustainable reductions to groundwater discharge to streams or to groundwater-dependent ecosystems, or impact on access of existing surface and/or groundwater users).

⁸Web link to current allocation policy
<https://nre.tas.gov.au/Documents/Surface%20Water%20Allocation%20Decision%20Framework.pdf>

⁹ As measured at the Shale Road stream flow gauge.

¹⁰ Including the Mole Creek karst area, and the groundwater aquifer areas of Kimberley – Deloraine, Sheffield – Barrington, and Spreyton.

To ensure the groundwater abstraction is not having adverse impacts within the Plan area, the Department has undertaken an assessment of risk to groundwater resources from groundwater development and water extraction. The risk assessment indicates that the current risk to groundwater and surface flows from water management and extraction is low (NRE Tas 2022, Section 6). Permits are required to construct new bores and are assessed on a case-by-case basis under the provisions of the Act. Accountability and record keeping is required from groundwater users as per the *Water Management Regulations 2019*.

The current level of groundwater management that is being applied is appropriate considering the level of risk. Groundwater risk will be monitored and reviewed during the life of the Draft Amended Plan.

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