

# Water Plan (Barron) 2023

Explanatory Notes for SL 2023 No. 67

Made under the

*Water Act 2000*

## General Outline

### Short Title

*Water Plan (Barron) 2023*

### Authorising Law

Chapter 2, Part 2, Divisions 3 and 6 and sections 42, 44, 45, 46, 47, 48, 71, 72, 74, 75 and 76 of the *Water Act 2000* (the Act).

### Policy Objectives and Reasons For them

The objective of the Water Plan (Barron) 2023 (water plan) is to sustainably manage underground water and surface water resources in the Barron water plan area. The plan's strategies ensure future water requirements can be met whilst protecting natural ecosystems and maintaining supply to existing water users.

*The Water Plan (Barron) 2002* was due to expire on 19 December 2022, however, on 9 December 2022, the expiry of the *Water Plan (Barron) 2002* was extended to 30 June 2023 when the Minister for Regional Development and Manufacturing and Minister for Water (the Minister) made the *Water Plan (Barron) (Postponement of Expiry) Notice 2022* to allow additional time to engage with First Nations Peoples, and to consider feedback and submissions received on the draft plan.

### Achievement of Policy Objectives

The plan provides for the allocation and sustainable management of water in the plan area by:

- defining the availability of water
- providing a framework for sustainably managing water
- identifying priorities and mechanisms for dealing with future water requirements

- regulating the taking of and interference with surface water, and the taking of underground water
- providing a framework for establishing and managing water allocations
- providing access to water resources to help Aboriginal people and Torres Strait Islanders achieve their economic, social, and cultural needs and aspirations
- providing a framework for reversing, where practicable, the degradation of natural ecosystems caused by the taking of, or interference with, water.

## **Consistency with policy objectives of authorising law**

The subordinate legislation is consistent with the main objectives of the Act which is to ensure the “sustainable allocation and management of water and other resources”.

## **Inconsistency with policy objectives of other legislation**

The subordinate legislation is consistent with the policy objectives of other legislation.

## **Alternative ways of achieving policy objectives**

The Act sets out the framework for the development of an amendment to a water resource plan. There are no alternative means for achieving the policy objectives.

## **Benefits and costs of implementation**

Implementation of the plan will provide:

- a framework for the allocation and sustainable management of water
- for the granting of water entitlements to Aboriginal people and Torres Strait Islanders to provide for economic, social and cultural aspirations
- establishment of environmental flow objectives and management rules which aims to maintain natural flow patterns, protect environmental values, and deliver Great Barrier Reef outcomes
- enhanced management of underground water resources for existing users
- outcomes that reflect environmental and cultural values

An implementation plan has been developed by the chief executive for activities needed to implement the plan. For all of the implementation tasks the workload can be predicted and existing resources realigned for delivery as the tasks can be considered “business as usual”.

## Consistency with fundamental legislative principles

As subordinate legislation the plan is consistent with fundamental legislative principles as defined in section 4 of the *Legislative Standards Act 1992*.

## Consultation

Agencies affected by the plan have been consulted. Section 46 of the Act details the requirements for publishing the draft water plan and details how submissions may be made.

A public notice was published 6 July 2022 stating the release of the draft Water Plan (Barron) (draft water plan) and where further information could be located.

Water consultation group meetings were held with key stakeholders of the Barron Plan. These meetings included representatives from Mitchell Watershed Management Group, Cairns and Far North Environment Centre, Barron Catchment Care Group, Tablelands Regional Council, Cairns City Council, Mareeba Shire Council, Tinaroo Water Committee, water users (including supplemented water users, unsupplemented users from various sub catchments and groundwater users), Sunwater, Clean Co Queensland, and tourism operators.

Representatives of Tablelands Regional Council also met to discuss town water supply and opportunities for future development. A meeting with the members of Tinaroo Water Committee (formerly named the Mareeba Dimbulah Irrigation Area Council) was also undertaken.

Submissions were invited from entitlement holders and stakeholders. Forty-seven (47) submissions were received and were considered in finalising the plan.

Further meetings were organised with First Nations groups and individuals after the draft water plan was released and after the submission period had ended. These meetings were conducted in a manner that ensured cultural values were considered appropriately and respectfully.

Further information about the consultation process, and issues raised in submission or through engagement activities are outlined in a separate document, the *Water Plan (Barron) 2023 Minister's Consideration Report* which is publicly available on the Department of Regional Development, Manufacturing and Water website.

## Part 1 Preliminary

Part 1 provides preliminary information about the plan including the short title of the plan, the purpose of the plan and where definitions for particular words used in the plan can be found.

Clause 1 specifies the short title to the subordinate legislation as being the Water Plan (Barron) 2023.

Clause 2 states the purposes of the plan. These reflect the requirements of section 43 of the Act.

Clause 3 specifies that particular words are defined in the dictionary in schedule 7.

Clause 4 defines the meaning of **surface water** for this plan. This term is also seen in the dictionary in Schedule 7, with the meaning linked to this section.

## **Part 2 Plan area, water to which plan applies and other matters**

Clause 5 states the types of water to which the plan applies, under section 43 of the Act. This plan applies to surface water and underground water. The term surface water is defined in section 4 of the plan to include water in a watercourse, lake or spring only. The plan does not apply to overland flow.

Clause 6 states that the map of the plan area is shown in schedule 1, part 1. The plan area includes the Barron River, part of the Walsh River, and their tributaries. Other tributaries within the plan area which flow directly into the Coral Sea are also included.

Clause 7 (1) states that the Mareeba-Dimbulah water supply scheme is shown in schedule 2. Each part of the plan area shown as a water supply scheme zone on the map in schedule 2 is a water supply scheme zone for this plan.

Clause 8 defines the definition of a **water management area** taken from schedule 4 of the Act. In this plan, the water management area is called the Barron Water Management Area.

Clause 9 states that the underground management area on the map in schedule 3 part 1 is the **underground water management area** for this plan. References made to an underground water management area by name are a reference to the map provided in Schedule 3, part 1.

Clause 10 (1) states that the Atherton Underground Water Management Area is divided into smaller water management area zones. Clause 10 (2) states that each part on the map shown in schedule 3, part 2 is an underground water management area zone. Clause 10 (3) states that each underground water management area zone is named in schedule 3, part 2.

Clause 11 states that a map of subcatchment areas in the plan area is shown in schedule 4, part 1. References made to a subcatchment area by name are a reference to the map provided in Schedule 4, part 1. The use of the subcatchment areas provides for more effective management and planning of water resources by focusing on the ecological and consumptive needs of smaller areas within the plan area. This approach also has the benefit of enabling more effective monitoring of the impacts that local changes have on achieving plan objectives.

Clause 12 states that some subcatchments areas may have smaller zones known as subcatchment area zones. Subcatchment area zones allow for different management rules, including trading rules, to be applied in different zones. This clause separates the subcatchments shown for A, C and H in schedule 4 parts 2, 3 and 4 respectively. There are no subcatchment zones for sub-catchments B, D, E, F or G.

Clause 13 states that for the purposes of section 43(1)(e)(i) of the Act, the water supply scheme zone and subcatchment area zones for subcatchment areas A, C or H are the trading zones for water allocations to which this plan applies. There are no water allocations within subcatchments B, D, E, F or G and as such no trading zones for these subcatchments have been included in the plan.

Clause 14 defines the nodes mentioned in the plan. The location of these nodes is shown on the map in Schedule 1, part 1 and are described in schedule 1, part 2, with each node being identified on the map by a number. Nodes are generally defined as specific locations on a watercourse within the plan area. They can be used within the water plan and the water management protocol where a definitive location or reference point is necessary. For example, nodes are used in Schedule 5 for Environmental Flow Objectives and Performance Indicators.

Clause 15 states that information about, or the exact boundaries, of an area or location may be accessed at each office of the department. The location of each office of the department is available on the Department of Regional Development, Manufacturing and Water's [Contact internet page](#).

### **Part 3 Water plan outcomes**

Clause 16 states the purposes of this part of the plan (water plan outcomes) is to state the outcomes for this plan. These reflect the requirements of section 43(1)(b) of the Act, where a water plan must state the desired economic outcomes, social outcomes, cultural outcomes and environmental outcomes of the management and allocation of water to which the plan applies (the water plan outcomes).

Clause 17 states the general outcomes for the allocation and sustainable management of water in the plan area. These outcomes give an overview of what the plan is expected to achieve through implementing the identified management strategies.

A water plan outcome for this plan is that water to which this plan applies is to be allocated and managed in a way that:

- recognises that the natural state of watercourses, lakes, springs and aquifers has changed because of the taking of, or interference with, water; and
- seeks to achieve a balance between:
  - the economic water plan outcomes stated in section 18; and
  - the social water plan outcomes stated in section 19; and
  - the cultural water plan outcomes stated in section 20; and

- the environmental water plan outcomes stated in section 21; and
- promotes improved understanding of:
  - matters affecting the flow-related, and underground water dependent, health of ecosystems, including springs, in the plan area; and
  - the flow requirements of ecosystems in the plan area; and
  - the water required for social, spiritual and cultural uses by Aboriginal people and Torres Strait Islanders; and
  - the water required to deliver social and economic benefits to communities in the plan area; and
  - the impact of climate change on water availability.

Clause 18 states the economic plan outcomes for this plan, which are:

- to provide for the continued use of all water entitlements and other authorisations to take or interfere with water; and
- to maintain the probability of being able to take water to which this plan applies under a water entitlement; and
- to maintain the availability of water to which this plan applies for industries dependent on water resources in the plan area, including, for example - agriculture, hydro-electric power generation, tourism, and aquaculture; and
- to provide for mechanisms that support water being made available for growth industries dependant on water resources in the plan area; and
- to make water to which this plan applies available to support the economic aspirations of Aboriginal people and Torres Strait Islanders; and
- to improve and support the effective and efficient operation of the market in water allocations, relocatable water licences

Clause 19 outlines the social outcomes for this plan. The social outcomes for the plan are:

- to maintain:
  - the availability of water to which this plan applies for the supply of urban water to towns and community's dependant on the water resources of the plan area; and
  - the flows of water to which this plan applies to significant areas that support water related aesthetic and recreational values, including the Barron Falls, Baron Gorge, and Tinaroo Falls Dams; and
- to provide water to which this plan applies for the following:
  - domestic purposes in the plan area
  - to meet the increased demand for urban water supply for the Cairns local government area from Lake Placid; and
- to support the social aspirations of Aboriginal people and Torres Strait Islanders.

Clause 20 states the cultural water plan outcomes for this plan. These include:

- to make water to which this plan applies available to support the cultural aspirations of Aboriginal people and Torres Strait Islanders; and
- to maintain the flows of water to which this plan applies that support the water-related cultural, spiritual, and social values of Aboriginal people and Torres Strait Islanders; and
- to recognise and respect the cultural and spiritual connection to water of Aboriginal people and Torres Strait Islanders through:
  - engaging Aboriginal people and Torres Strait Islanders in the processes for making decisions about the future management and allocation of water in the plan area; and
- integrating knowledge about Aboriginal tradition, Island custom and science into the processes for making decisions about the future management and allocation of water in the plan area; and
- to manage and allocate water in Flaggy Creek in a way that protects areas of significant cultural conservation value associated with the creek.

Cultural water plan outcome 20(d), which relates to Flaggy Creek, recognises the cultural disruption which occurred as a result of historical proposals to construct a dam on Flaggy Creek. This outcome does not exclude or diminish the importance of other culturally significant sites within the plan area.

Clause 21 states the environmental outcomes for this plan area, which are:

- to maintain and if possible, improve flows of water to which this plan applies that support:
  - the native plants and animals their associated freshwater habitats; and
  - riparian systems and their functions; and
  - long term water quality suitable for riverine and estuarine ecosystems; and
  - riverine forming processes; and
  - ecosystems food chains and the provisions of carbon energy; and
  - the health and persistence of waterholes in subcatchment areas E, F and G.
- to maintain and/or improve flows of water to which this plan applies that support the continued capability of 1 part of a river system to be connected to another:
  - throughout the watercourse network; and
  - within riparian zones, floodplains and associated freshwater habitats; and
- to maintain and if possible, improve flows of water to which this plan applies that support freshwater flows to the estuary in the plan area to—
  - provide freshwater flow from the plan area to marine waters of the Great Barrier Reef; and

- deliver sediment, nutrients, and organic matter that support productivity in the waters of the Great Barrier Reef that receive flows of water from the plan area; and
- maintain brackish water estuarine habitat; and
- benefit native estuarine plants and animals.
- the management and allocation of underground water in the plan area to maintain underground water contributions to the flow of water in water courses, lakes, and springs as well as groundwater dependent ecosystems including wetlands, springs, and terrestrials vegetations communities.

Clause 21 (2) states that in this section, **waterhole** is defined as a part of a watercourse which contains water after the flow of the watercourse ceases, other than a part of a watercourse that is within the storage area of a dam on the watercourse.

## **Part 4 Measure for achieving water plan outcomes**

Clause 22 states the general measure(s) that will be undertaken to achieve the water plan outcomes. The development of a monitoring, evaluation, and reporting strategy by the chief executive by 20 December 2023 is a general measure stated under the clause.

## **Part 5 Objectives and performance indicators**

Clause 23(1) states that, for section 43(1)(d) of the Act, the environmental flow objectives for surface water are stated in schedule 5. Clause 23(2) states that the performance indicators for the environmental flow objectives are also stated in schedule 5. Natural flow characteristics are maintained through this combination of performance indicators and objectives. These indicators specify the parts of the flow regime that will be subject to the limitations set out for the environmental flow objectives. The specified performance indicators represent important key flow characteristics and are based on technical assessments undertaken during plan development. Variability and seasonality are important aspects of the flow regime which are often critical for many ecological processes.

Clause 24 states the water allocation security objectives and performance indicators associated with surface water allocations, which are required under section 43(1)(e)(ii) of the Act. The water allocation security objections for this plan are the performance ratio for each group of allocations. Clause 24(1)(a) states the performance ratio for supplemented water allocations. Clause 24(1)(b) states the performance ratio for unsupplemented water allocations. These indicators allow for water allocation security objectives to be established, protecting the long-term probability of obtaining water under a water allocation. Clause 24(3) provides a definition for '**performance ratio**' to be applied in this section of the plan.



Clause 25 states that a performance indicator mentioned in clause 23 or 24 must be calculated on the assumption that any unallocated water reserved under this plan is being taken. See clause 31 for details of the unallocated water reserved under this water plan.

## **Part 6 Strategies for achieving water plan outcomes for surface water and underground water**

Clause 26 states that Part 6 is applicable to both surface water and underground water in the plan area. See Schedule 1 for plan area.

Section 101(1)(a) of the Act provides an authorisation to take water if doing so is necessary to carry out an activity prescribed by a regulation. This authorisation can be altered or limited by a water plan. Clause 27 of the plan states that the total volume of water to which this plan applies that maybe be taken for activities prescribed under section 101(1)(a) of the Act. The volumes specified in this clause are limited to:

- water taken from part of a watercourse used for distribution by a resource operations licence holder is limited to 0ML
- water taken in subcatchment C or H is 20ML or less.

The part of the plan area included in subcatchment areas C and H is the same part included in the Atherton underground water management area.

Section 101(1)(c) of the Act provides an authorisation to take or interfere with underground water for any purpose. This authorisation may be altered or limited by a water plan. Clause 28 of the water plan limits the taking of underground water in underground water management areas. For section 101(1) of the Act, a person must not, under section 101(1)(c) of the Act, take groundwater in the Atherton underground water management area or the Cairns Northern Beaches underground water management area unless the water is taken:

- under a water licence or water permit; or
- for stock or domestic purposes; or
- for underground water in the Atherton underground water management area – in accordance with section 27(b) – Water taken in subcatchment area C or H – 20ML.

Section 103(a) of the Act provides that an owner of land (that is not adjoining a watercourse lake or spring) may take water from a watercourse, lake, or spring for stock and domestic purposes if the water is taken from a location and in the way stated in a water plan. Clause 29 states that, for section 103(a) of the Act, the location that water may be taken from, in the Barron water plan area, is a watercourse (other than a part of a watercourse used for distribution of water by a holder of a resource operations licence), lake or spring. The water taken from the specified location can be taken in any way.

## **Part 7 Additional strategies for achieving water plan outcomes for surface water**

Clause 30 states that part 7 only applies to surface water in the plan area (see clause 4 for the meaning of surface water).

Section 43(1)(c) of the Act requires that a water plan must state the volume of unallocated water reserved under the plan. Clause 31(1) states the total volume of water unallocated against the plan is 24,850ML. Clause 31(2)(a) to (c) states the volume of unallocated water reserved for each purpose to be:

- 1,250ML for water entitlements to take unallocated water for general purpose, plus any additional volume of unallocated water stated in the protocol as being reserved for general purpose; and
- 2,600ML for water entitlements to take unallocated water for Indigenous purpose, plus any additional volume of unallocated water stated in the protocol as being reserved for general purpose; and
- 4,000ML for water licences to take unallocated water for a strategic purpose.

Of the total volume defined in clause 31(1), 17 000ML has not been attributed to a purpose in the water plan. Clauses 31(2)(a) and (b) provide a head of power for some or all of this volume to be attributed to the general and/or Indigenous reserve volumes through the water management protocol.

Clause 32 states that unallocated water in the plan area may only be granted for the following purposes:

- Unallocated water held as general reserve – any purpose;
- Unallocated water held as strategic reserve – town water supply purpose;
- Unallocated water held as Indigenous reserve – an Indigenous purpose.

Section 43(2)(f) of the Act provides that a water plan may state a process for releasing unallocated reserves not held as a general reserve. Under section 40(2) of the Act, the process to release general reserve must be the process prescribed by a regulation authorised under section 39(b) of the Act and cannot be prescribed by a water plan. Clause 33 of the water plan states the following processes for releasing strategic and Indigenous unallocated water reserved in this plan:

- for unallocated water under a strategic reserve, the process stated in the *Water Regulation 2016*, part 2, division 2, subdivision 2.
- for unallocated water under an Indigenous reserve, a process stated in the water management protocol for this plan.

Clause 34 states that while implementing a process for dealing with unallocated water under a general or strategic reserve, the chief executive must consider:

- the efficiency of existing and proposed water use practices; and

- the availability of an alternate water supply for the purpose for which the water is required; and
- the impact of the proposed taking of, or interfering with, the water may have on the following:
  - water quality;
  - inundations of habitats;
  - the movement of fish/aquatic species;
  - the natural movement of sediment;
  - recreation and aesthetic values;
  - cultural values (eg, cultural values of local Aboriginal or Torres Strait Islander communities; and
- whether the proposed taking or interfering is likely to have a direct adverse effect on underground water flows.

Clause 34, subsection 2, states that subsection (1) does not limit the matters the chief executive may consider.

Clause 35 states that a decision made by the chief executive under chapter 2 of the Act about the allocation or management of water to which the plan applies, must be consistent with:

- the environmental flow objectives (see section 23); and
- the water allocation security objectives (see section 24)

Decisions about water permits do not need to be consistent with the above.

Clause 36 provides details as to how a decision mentioned in clause 35 is to be assessed with the objectives. Clause 36 (1) states that the eWater source computer program's simulation for the simulation period is to be used to assess consistency with the objectives mentioned in section 35. Clause 36 (2) states that if it is not practical to use the eWater Source computer program, another assessment method which has been approved by the chief executive may be used. Clause 36 (3) states that the chief executive may approve an assessment method for subsection (2), only if the chief executive is satisfied the method will access consistency with the objectives at least as accurately as the eWater Source computer program.

Clause 36 (4) states that in this section, eWater Source computer program means the computer program used by the department to simulate daily stream flows, flow management, storages, releases, in-stream infrastructure, water diversions, water demands and other hydrological events in the plan area

Section 43(2)(g) of the Act requires that a plan must state the arrangements and process for converting, adjusting, or granting water entitlements or other authorisations under a water entitlement notice. Clause 37 of the water plan states that the purpose of part 7, division 4 is to state the arrangements for section 43(2)(g) of the Act.

Clause 38 defines **existing authorisation** to mean a water licence to take unsupplemented surface water from a watercourse, lake, or spring in the plan area (see Schedule 1 for plan area). This definition is applicable to the interpretation of Division 4 clauses only.

Section 70(1)(a) of the Act provides that a water entitlement notice may implement a water plan. Clause 39 of the water plan provides that a water entitlement notice may implement this plan by providing for the conversion of an existing authorisation to a water allocation stated in the notice to take unsupplemented surface water from a watercourse, lake, or spring in the plan area (see Schedule 1 for plan area).

Clause 40 states the minimum requirements that a water allocation must state are the following:

- the nominal volume;
- the annual volumetric limit;
- the daily volumetric limit;
- the flow conditions under which the water may be taken;
- the purpose of the allocation.

Clauses 41 to 45 provide further detail how each of the minimum elements of a water allocation are to be decided.

Clause 41 states that the chief executive must decide the nominal volume for the water allocation based on an assessment of the existing water licence being converted. The assessment must consider the following:

- the local availability of water; and
- conditions under which the water may be taken under the existing authorisation, and
- simulated mean annual diversion.

For this clause only, **simulated mean annual diversion** is defined to mean – for a water allocation, the total volume of water simulated to have been taken under the water allocation, if the water allocation were in existence for the whole of the simulation period, divided by the number of years in the simulation period.

Clause 42 states how the chief executive must decide the annual volumetric limit. The annual volumetric limit for the water allocations is:

- for an existing authorisation that states an annual volume of water – the stated volume; or
- for an existing authorisation that states an area that may be irrigated – the volume, expressed in megalitres calculated by multiplying the area in hectares by 10; or
- for another existing authorisation – the volume decided by the chief executive having regard to:

- the conditions under which water may be taken under the authorisation; and
- the water taking capacity of any existing works for taking water under the authorisation; and
- the annual volumes of water estimated by the chief executive to have been taken under the existing authorisation during the period, of not more than 10 years, immediate before 20 December 2022; and
- the efficiency of the use of the water.

Clause 43 states how the chief executive must decide the daily volumetric limit for the water allocation.

Clause 43(1) states that the volumetric limit for the water allocation is:

- the daily volumetric limit that will be taken in a day will remain as the daily volumetric limit for pre-existing authorisation; or
- for another existing authorisation, the daily volumetric limit decided by the chief executive having regard to both the authorisation type and the estimate or measurement of the rate at which water can be taken under the authorisation.

However, clause 43(2) provides that if the holder of an existing authorisation satisfies the chief executive that the water taking capacity of an existing pump is different from the daily volumetric limit decided under the subsection, the daily volumetric limit is the volumetric limit is the volume decided by the chief executive having regard to the following:

- conditions under which the water may be taken under the authorisation;
- the water taking capacity of the existing pump under normal operating conditions;
- the irrigation or water distribution system related to the existing pump during the period of not more than 10 years immediately before 27 November 2009;
- the efficiency of the water use associated with the irrigation or water distribution system mentioned in the above point.

Clause 43 (3) states that for section 43, an **existing pump** in relation to existing authorisations means a pump under:

- the existing authorisation; or
- a development permit for the existing authorisation.

Clause 44 states how the chief executive must decide the conditions for the water allocation. When deciding the conditions under which water may be taken under the new water allocation the chief executive must consider the existing conditions stated on the existing water authorisation.

Clause 45(a) to (c) states how the chief executive must decide the purpose of the water allocation:

- Clause 45(a) states that if the existing authorisation has a purpose listed as stock, domestic, irrigation, stock intensive, agriculture, dairy, water harvesting, aquaculture, or a similar purpose, the purpose stated on the new allocation must be 'rural'; or
- Clause 45(b) states that if the purpose listed is distribution loss on an existing authorisation, the purpose stated on the new allocation must be 'distribution loss'; or
- Clause 45(c) states that if the purpose on the existing authorisation is not mentioned in clause 45(a) or (b), the purpose on the allocation must be 'any'.

Clause 46 states that, for schedule 4 of the Act, a water allocation group is defined as meaning a group of water allocations mentioned in the water plan. Clause 46 states the definition of a water allocation group for the Barron water plan to be:

- a water allocation to take unsupplemented water in subcatchment area C belongs to:
  - for a water allocation in relation to town water supply - the class CA water allocation group
  - for a water allocation that states a purpose or similar purpose mentioned in section 45(a), other than water harvesting or a purpose mentioned in section 45(c) - the class CB water allocation group
  - for other water allocations – the class CC water allocation group; and
- a water allocation to take unsupplemented water in subcatchment area H belongs to the class HB water allocation group.

Section 43(2)(j) of the Act states that a water plan may state the types of application that must not be accepted under section 107 of the Act (applying for a water licence). Clause 47 states that the chief executive must not accept an application for a water licence made under section 107 of the Act unless it is an application:

- to which subdivision 2 of the plan applies (interference with water in a watercourse, lake or spring); or
- for a licence that states the purpose of 'hydro-electric' or 'relift'.

Clause 48 states that any application made under section 121 of the Act for a dealing with a water licences is inconsistent with the plan if it must be assessed under section 130 of the Act as if it were a new licence. Noting that section 129 of the Act provides that the chief executive must refuse a dealing application if the dealing would be inconsistent with a water plan (amongst other instruments). However, clause 48(1) does not apply if the provisions of clause 48(2) are met.

Clause 48(2) of the plan excludes specific dealings which would otherwise be inconsistent with the plan under clause 48(1) of the plan. These dealings are therefore consistent with this plan if all the following application requirements are met:

- is a change to the daily volumetric limit; and

- the change will not result in a volume that is greater than the daily volumetric limit stated in schedule 6, having regard to the pump size stated on the related development permit for the licence; and
- the chief executive is satisfied that the change will not have a significant adverse effect on the availability water for existing water holders in the subcatchment area in which the water is taken.

Clause 48(3) states that, for section 48 only, the definition of ***related development permit*** for a water licence means the development permit for the works for taking water under the licence.

Clause 49 states the part 7, division 5, subdivision 2 applies to an application made under section 107 of the Act, for a licence to interfere with water in a watercourse, lake or spring in the plan area.

Clause 50 states the additional matters the chief executive must consider when deciding an application for proposed interference with water in the watercourse, lake or spring. The chief executive must consider the impact the proposed interference may have on:

- in-stream water levels in the watercourse, lake or spring; and
- the natural movement of sediment; and
- the bed and banks of the watercourse, lake or spring; and
- riparian vegetation; and
- habitats for native plants and animals; and
- the movement of fish and other aquatic species; and
- the cultural and environmental values of the watercourse, lake or spring.

Clause 51 states that a licence to interfere may only be granted if the purpose of the proposed interference is for a purpose provided for in part 7, division 5, subdivision 2. Clauses 52 to 56 provide further detail of relevant purpose and any storage capacity limit for clause 51.

Clauses 52(1) and (2) allows the chief executive to grant a licence to interfere with water if it is to:

- store water to be taken for a stock or domestic purposes; and
- the storage capacity of the proposed interference must not be greater than:
  - 20ML for a water licence to interfere with water in subcatchment A, B, C or H; or
  - 200ML for licences in other subcatchments.

Clauses 53(1) and (2) allows the chief executive to grant a licence to interfere with water if it is to:

- provide a pump to take water under another authorisation; and

- the storage capacity of the pumping pool must not be greater than 2ML.

Clauses 53(3) defines the term **pumping pool** to mean a pool of water near a pump in a watercourse, lake or spring that ensures the water level of the watercourse, lake or spring is appropriate to enable the pump to function properly. This definition is applicable for section 53 only.

Clauses 54(1) and (2) allows the chief executive to grant a licence to interfere with water if it is to:

- provide improved security for town water supplies taken under an authorisation; and
- the chief executive is satisfied, before granting a licence for a purpose, that -
  - the town has appropriate water supply security strategies, such as demand and drought management strategies, in place; and
  - there is a demonstrated need for improved security of the water supply

Clauses 55 (1) and (2) allows the chief executive to grant a licence to interfere with water if:

- it is not related to the take of water (noting, examples are provided, however are not an exhaustive list); and
- the storage capacity is not greater than the volume necessary for the purpose of the interference.

Clauses 56 (1) and (2) allows the chief executive to grant a licence to interfere with water if:

- it relates to the release of unallocated water; and
- the interference is not greater than is necessary for the purpose for which the unallocated water is granted.

Clause 57 (1) states the minimum elements that must be stated on a water licence to take unsupplemented water to be each of the following:

- the purpose for which water may be taken under the licence;
- the nominal entitlement for the licence (noting, under clause 57(2)(a) this element does not apply to a licence that has a stated purpose of 'hydro-electric' or 'relift');
- the daily volumetric limit for the licence (noting, under clause 57(2)(b) this element does not apply to a licence that has a stated purpose of 'relift');
- if a condition applies to the licence, for example, a flow condition under which may be taken or a condition about storing water taken under the licence – the condition.

Clause 57 (2) excludes certain licences with a specified purpose from requiring some elements stated in clause 57 (1).



Clause 58 (1) states the purpose that must be stated on a licence to take unsupplemented water that replaces an existing licence. The purpose for the replacement licence is to be determined based on the purpose of the licence it replaces as follows:

- if the purpose stated on the existing licence is stock or domestic – ‘stock and domestic’; or
- if the purpose stated on the existing licence is irrigation, stock intensive, agriculture, dairy, water harvesting, aquaculture or a similar purpose – ‘rural’; or
- if the purpose stated on the existing licence is relift or a similar purpose – ‘relift’; or
- if the purpose stated on the existing licence is hydro-electric or similar purpose – ‘hydro-electric’; or
- otherwise – ‘any’

Clause 58 (2) states the purpose which must be stated on licences which are not the replacement of an existing licence. Clause 58 (3) defines the term ‘existing licence’ in this section to mean a water licence to take unsupplemented water in effect immediately before 27 November 2009.

Clause 59 (1) states that the nominal entitlement for a water licence to take unsupplemented water is to be determined using the methodology in clause 59(2).

Clause 59(2) states that the methodology to calculate nominal entitlement is:

- for a licence that states a volume of water that may be taken – the stated volume; or
- for a licence that states an area to be irrigated – the volume decided by the chief executive having regard to the volume of water required to efficiently irrigate the area, but not more than the volume, expressed in megalitres, calculated by multiplying the area, in hectares by:
  - 3 for subcatchment B only; or
  - 10 for subcatchment C or H only; or
  - 6.6 for all other subcatchment areas.
- for another licence, the volume is decided by the chief executive having regard to:
  - the conditions under which water may be taken under the licence
  - the water taking capacity of any existing works for taking water under the licence
  - the annual volumes of water estimated by the chief executive to have been taken under the licence during the period, of not more than 10 years, immediately before 20 December 2002; and
  - the efficiency of the use of the water mentioned in the point above.

Clause 60 states that the methodology to calculate the daily volumetric limit to take unsupplemented water under water licence, is the same methodology as section 43 of this plan (daily volumetric limit methodology for converting an existing licence to a water allocation), or as decided by the chief executive under that section as if the water licence were a water allocation.

## **Part 8 Additional strategies for achieving water plan outcomes for underground water**

Clause 61 states that part 8 only applies to underground water in the plan area.

Clause 62 states that a licence to take underground water must state both the purpose for which the water may be taken under the licence (see clause 63) and the nominal entitlement for the licence (see clause 68 for the Cairns Northern Beaches underground water management area).

Clause 63 states how the purpose for a water licence is to be determined.

Clause 63(1) states the purpose for a licence which replaces an existing licence:

- for a licence which replaces an existing water licence which states a purpose of irrigation, stock intensive, agriculture, dairy, water harvesting, aquaculture or a similar purpose – the purpose is to be amended to ‘rural’; or
- otherwise – the purpose is to be amended to ‘any’.

Clause 63(2) states how the purpose for a licence, other than a licence which replaces another licence, is to be determined:

- for a water licence which does not replace an existing licence - the purpose is to be ‘rural’ or ‘any or ‘town water supply’.

Clause 63(3) defines the meaning of an **existing licence** to be a water licence to take underground water in effect immediately before 27 November 2009. This definition is applicable for clause 63 only.

Clause 64 states that division 3 (clauses 64 to 66) only applies to water licences to take water in the Atherton underground water management area (refer to schedule 3, part 1 for location of management area).

Clause 65 states that under section 43(2)(j) of the Act, the chief executive must not accept an application under section 107 of the Act for a water licence in the Atherton underground water management area.

Clause 66 states that, if the granting a dealing application under section 121 of the Act must be assessed as if it were a new licence under section 130 of the Act, the application is inconsistent with this plan. *Note* – See section 129 of the Act for the actions the chief executive must take if the granting of an application for a dealing with a water licence is inconsistent with a water plan.

Clause 67(1) states that section 67 only applies to an application for a water licence, or an application made under 121 of the Act for dealing with a water licence to take underground water in the Cairns Northern Beaches underground water management area, if granting the application would increase the volume of underground water authorised to be taken.

Clause 67(2) states that, for section 43(2)(h) of the Act, the criteria for deciding an application mentioned in clause 67(1) are:

- the availability of alternative water supply for the purpose for which the water is required; and
- the efficiency of existing and proposed water use practicing; and
- whether the proposed taking is likely to have a direct adverse effect on surface water flows; and
- the cumulative impact of taking underground water on surface water flows and underground water flows; and
- existing water entitlements and authorities to take or interfere with water in the Cairns and Northern Beaches underground water management area; and
- any information about the effects of taking, or interfering with, water on natural ecosystems generally, including the impact of seawater intrusion; and
- any information about the effects of taking or interfering with, water on natural the physical integrity of watercourses, lakes, springs or aquifers generally; and
- any information about the effect of taking or interfering with, water on cultural values.

Clause 67(3) states the criteria listed in clause 67(2) does not a limit on the matters that the chief executive may consider.

Clause 68 states the matters that process for deciding the nominal entitlement for a water licence to take underground water in the Cairns Northern Beaches underground water management area. The nominal entitlement must not be a volume that is more than:

- for a licence to take water for irrigation of a crop - 1.75ML per hectare of crop to be irrigated; or
- for a licence to take water for another purpose – the volume estimated by the chief executive to be required for the purpose (examples of another purpose of which water is taken include irrigation of lawns, parks, sports ovals, pastures).

## **Part 9 Implementing and amending this plan**

Clause 69(1) states that, for section 43(2)(1) of the Act, a water management protocol must be prepared for the plan area.

Clause 69(2) states that, for section 67 of the Act, the water management protocol must address the following matters for the plan area:

- the volumes of unallocated water reserved for stated purposes or stated locations;
- the process for releasing unallocated water held as an Indigenous reserve;
- the criteria and processes for deciding applications for a seasonal water assignment or relation of a water licence;
- for water allocations managed under a resource operations licence – the water allocation dealing rules;
- for water allocations not managed under a resource water operations licence:
  - the seasonal water assignment rules; and
  - the water allocation dealing rules; and
  - the water sharing rules; and
- the water sharing rules for water licence to take underground water in the Atherton underground water management area
- monitoring requirements for water and natural ecosystems in the plan area.

Clause 70 states that, for section 43(2)(m) of the Act, the following amendments may be made to this plan without public consultation:

- an amendment or addition of a performance indicator or environmental flow objectives if the amendment does not affect–
  - the achievements of the water plan outcomes stated in part 3; or
  - the water allocation security objectives stated in section 24;
- an amendment or addition of a water allocation security objective if the amendment or addition does not adversely affect:
  - the achievements of the water plan outcomes stated in part 3; or
  - the environmental flow objectives stated in section 23;
- an amendment or addition of a node;
- an amendment or addition of a priority group mentioned in section 24(1)(a);
- an amendment or addition of a water allocation group;
- an amendment to adjust to the boundaries of the following areas if more accurate information about the boundaries, or hydrological characteristics of the plan area becomes available:
  - the plan area;
  - water management area;
  - an underground water management area;
  - sub catchment area areas;
- an amendment to change the period within which a measure for achieving a stated water plan outcome is to be achieved;

- an amendment to remove a provision of this plan that no longer has effect.

## **Part 10 Repeal and transitional provisions**

Clause 71 states that the *Water Plan (Baron) 2002*, SL No. 378 is repealed.

Clause 72 states that, for part 10, division 2, the term ***repealed plan*** means the repealed *Water Plan (Barron) 2002*.

Clause 73 applies to an application to take or interfere with water to which the repealed plan applied that was made, but not decided, before commencement of this plan. If the application would not be accepted by the chief executive, under section 47 of this plan, the application is of no effect and will proceed as if it had not been made. Clause 73(3) states that if the chief executive would be permitted, under section 47 of this plan, to accept the application had it been made after the commencement and the application is to be decided under this plan.

Clause 74 applies to applications for a dealing of a water licence to take or interfere with water which were made, but not decided, before the commencement of this plan. Clause 74(2) If the granting of the application would be inconsistent with this plan had the application been made after the commencement, it remains inconsistent with this plan. Clause 74 (3) states if the granting of the application would not be inconsistent had the dealing been made after the commencement, the application is to be decided under this plan.

## **Schedule 1 Plan area and nodes**

Schedule 1 shows the area to which this plan applies and the location of nodes.

Schedule 1, part 2 lists the nodes referred to in the plan and a description of their location. Some of the descriptions refer to a measurement of Adopted Middle Thread Distance (AMTD). This is the distance in kilometres, measured along the middle of the watercourse, that a particular node is situated, from the mouth of the watercourse, or junction with the main watercourse. See clause 14 for more information.

## **Schedule 2 Water supply scheme and water supply scheme zones**

Schedule 2 shows the map of the water supply scheme and the water supply scheme zones. Each water supply scheme and water supply scheme zone are identified on the map by their names.

### **Schedule 3      Underground water management areas and underground water management area zones**

Schedule 3 shows the map of the underground water management areas and underground water management area zones for the plan.

Schedule 3, Part 1 shows the underground water management areas for the plan.

Schedule 3, Part 2 shows the underground water management area zones for the plan.

### **Schedule 4      Subcatchment areas and subcatchment area zones**

Schedule 4, part 1 shows the boundaries of the subcatchment areas referred to in the plan.

Schedule 4, part 2 shows the boundaries of the subcatchment area zone for subcatchment area A referred to in the plan.

Schedule 4, part 3 shows the boundaries of the subcatchment area zones for subcatchment area C referred to in the plan.

Schedule 4, part 4 shows the boundaries of the subcatchment area zones for subcatchment area H referred to in the plan.

### **Schedule 5      Environmental flow objectives and performance indicators**

Schedule 5 states the environmental flow objectives and performance indicators for the plan. This section links to clause 23 (environmental flow objectives and performance indicators – Act, s 43) of the plan.

Clause 1 describes the environmental flow objective and performance indicator for mean annual flow.

Clause 1(1) describes the mean annual flow environmental flow objective for surface water to which the plan applies to be:

- the performance indicator in subsection 1(2) must be at least the percentage of pre-development flow for each node stated in the table in section 1.

Clause 1(2) defines the performance indicator mentioned in subsection 1(1) to be mean annual flow, and

Clause 1(3) describes the definition of mean annual flow and pre-development flow to be:

- **mean annual flow:** at a node, means the total volume of flow of water at the node in the simulation period divided by the number of years in the simulation period.
- **pre-development flow,** for a node, means the mean annual flow at the node, during the simulation period, simulated as if:
  - there were no dams or other water infrastructure in the plan area; and
  - no water had been taken under authorisations in the plan area.

Clause 2 describes the environmental flow objective and performance indicator for days in low flow periods.

Clause 2(1) defines the days in low flow periods environmental flow objective for surface water to which the plan applies to be:

- at each node stated in column 1 of the following table the performance indicator mentioned in subsection 2(2) must be no more than the percentage, of the total number of days in the simulation period, that is stated in column 4 of the table opposite the node.

Clause 2(2) defines the performance indicator mentioned in clause 2(1) to be the total number of days in low flow periods.

Clause 2(3) defines **low flow period** for this section to be:

- for a node, means a continuous period:
  - a) that is greater than the number of days stated in column 2 of the table opposite the node; and
  - b) that is during the simulation period; and
  - c) during which daily water flows at the node are no more than the daily low flow volume stated in column 3 of the table opposite the node.

Clause 3 describes the environmental flow objective and performance indicator for days in riffle drown-out periods.

Clause 3(1) defines the days in riffle drown-out periods environmental flow objective for surface water to which the plan applies to be:

- at each node stated in column 1 in the following table the performance indicator mentioned in subsection (2) must be no more than the percentage, of the total number of days in the simulation period, that is stated in column 3 of the table opposite the node.

Clause 3(2) defines the performance indicator mentioned in clause 3(1) to be the total number of days in riffle drown out flow periods.

Clause 3(3) defines **riffle drown out flow period** for this section to be:

- for a node, is a continuous period:

- that is during the simulation period; and
- during which daily water flows at the node are greater than the daily riffle drown-out flow volume stated in column 2 of the table opposite the node.

Clause 4 describes the environmental flow objective and performance indicator for days in riparian and floodplain vegetation flow periods.

Clause 4(1) defines the days in riparian and floodplain vegetation flow periods environmental flow objective for surface water to which the plan applies to be:

- at each node stated in column 1 in the following table the performance indicator mentioned in subsection (2) must be no more than the percentage, of the total number of days in the simulation period, that is stated in column 3 of the table opposite the node.

Clause 4(2) defines the performance indicator mentioned in clause 4(1) to be the total number of days in riparian and floodplain vegetation flow period.

Clause 4(3) defines ***riparian and floodplain vegetation flow period***, for this section to be:

- for a node, is a continuous period:
  - of more than 1 year; and
  - that is during the simulation period; and
  - during which daily water flows at the node are no more than the daily bank full flow volume stated in column 2 of the table opposite the node.

Clause 5 describes the environmental flow objective and performance indicator for days in river-forming flow periods.

Clause 5(1) defines the days with river-forming flow periods environmental flow objective for surface water to which the plan applies to be:

- at each node stated in column 1 in the following table the performance indicator mentioned in subsection (2) must be at least the percentage, of the total number of days in the simulation period, that is stated in column 3 of the table opposite the node.

Clause 5(2) defines the performance indicator mentioned in clause 5(1) to be the total number of days in river-forming flow periods.

Clause 5(3) subsection 3 defines ***river-forming flow period*** for this section to be:

- for a node, is a continuous period:
  - that is during the simulation period; and
  - during which daily water flows at the node are at least the daily bank full flow volume stated in column 2 of the table opposite the node.



Clause 6 describes the environmental flow objective and performance indicator for days in Barron River estuarine salinity periods.

Clause 6(1) defines the days in Barron River estuarine salinity periods environmental flow objective for surface water to which the plan applies to be:

- at node 2 the performance indicator mentioned in subsection (2) must be no more than 52.5% of the total number of days in the simulation period.

Clause 6(2) defines the performance indicator mentioned in clause 6(1) to be the total number of days in Barron River estuarine salinity periods.

Clause 6(3) defines ***Barron River estuarine salinity period*** for this section to be:

- a continuous period:
  - of at least 120 days; and
  - that is during the simulation period; and
  - during which daily water flows at the node are no more than 1,000ML.

## **Schedule 6 Rates and pump sizes**

Schedule 6 states the rates of take of water for various pump sizes. For each pump size stated the maximum rate is expressed in litres per second and the daily volumetric limit in megalitres. See clause 48(2) for more information.

## **Schedule 7 Dictionary**

Schedule 7 contains the dictionary, which contains the meaning for particular words and phrases used in this plan.