

# Water Resource (Wet Tropics) Plan 2013

Explanatory notes for SL 2013 No. 282

made under the

*Water Act 2000*

## General Outline

These explanatory notes are a 'plain English' version of the *Water Resource (Wet Tropics) Plan 2013* ('the plan'). They are intended to provide the reader with some explanation and background information on the clauses in the plan.

The numbering of the explanatory notes corresponds with the numbering of the plan. These notes should be read in conjunction with the plan. These explanatory notes are not intended to be comprehensive but merely a guide to assist the reader in understanding the plan.

## Short title

*Water Resource (Wet Tropics) Plan 2013*

## Authorising law

Chapter 2, Part 3, Division 2 of the *Water Act 2000*

## Policy objectives and the reasons for them

Section 38 of the *Water Act 2000* ('the Act') provides for the Minister to prepare a water resource plan for any part of Queensland to advance the sustainable management of water.

The objective of the plan is to provide a framework for the allocation and sustainable management of surface water and groundwater in the plan area to meet future water requirements, including the protection of natural ecosystems and security of supply to water users.

## Achievement of policy objectives

The plan provides for the allocation and sustainable management of water by—

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

- providing a framework for establishing water allocations;
- providing a framework for reversing, where practicable, degradation in natural ecosystems; and
- regulating the taking of groundwater.

## **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 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 the benefits of a modernised water resource plan. These include provisions for reserves of unallocated water for future water needs, conversion of authorisations to unsupplemented water allocations and amending water licences to include volumetric limits.

## **Consistency with fundamental legislative principles**

The plan, which is subordinate legislation, is consistent with fundamental legislative principles.

## **Consultation**

Government departments and agencies affected by the changes have been consulted in respect of the plan. In addition to government consultation, cultural, economic, environmental interest groups and water users have been consulted in accordance with the water resource planning process as outlined in the Act.

Outcomes of community consultation are outlined in a separate document, the Wet Tropics Water Resource Plan Consultation Report.

## Notes on provisions

### Chapter 1 Preliminary

Chapter 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.

#### Short title

Clause 1 specifies the short title to the subordinate legislation as the *Water Resource (Wet Tropics) Plan 2013* ('this plan').

#### Purposes of plan

Clause 2 states the purposes of the plan. The purposes reflect the requirements of section 38 of the Act.

#### Definitions

Clause 3 specifies that certain terms are defined in the dictionary in schedule 11.

### Chapter 2 Plan area and water to which plan applies

Chapter 2 defines the plan area, the catchment areas, the subcatchment areas, the water management areas, the groundwater management areas and the nodes mentioned in the plan. This chapter also states where information about the boundaries of the plan area referred to in the plan are held. The water to which the plan applies is stated in this chapter of the plan.

#### Plan area

Clause 4 states that the map of the plan area is shown in schedule 1. The plan area includes the major rivers of the Daintree, Mossman, Mulgrave, Russell, Johnstone, Tully, Murray and Herbert.

#### Catchment areas

Clause 5 states that the plan area map in schedule 1 also shows the catchment areas. Catchment areas are used to distinguish particular river systems so that targeted management arrangements can be implemented for each catchment based on ecological and consumptive needs. The catchment areas for this plan are—

- Daintree
- Mossman
- Mulgrave-Russell
- Johnstone
- Tully
- Murray
- Herbert.

### **Subcatchment areas**

Clause 6 states that a map of the subcatchment areas in the plan area is shown in schedule 2. Subcatchment area boundaries generally distinguish particular areas of a catchment area with regard to significant in-stream processes occurring at a particular point along the river (for example, the confluence of two rivers or a weir). The use of 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 catchment area with regard to hydrological processes.

### **Groundwater management areas**

Clause 7 states that a map of the groundwater management areas in the plan area is shown in schedule 3. The plan applies to all subartesian water (groundwater), however specific management arrangements are provided in eight groundwater management areas—

- Mossman
- Mulgrave-Russell
- Southern Tablelands
- Lower Johnstone
- South Johnstone
- Liverpool Creek
- Tully
- Lower Herbert.

### **Information about areas**

Clause 8 provides information for accessing further detail about the plan area boundaries which are held in digital electronic form at departmental offices where they can be inspected in detail.

### **Nodes**

Clause 9 defines nodes which are specific points on a watercourse within the plan area. Nodes can be used within the plan and the resource operations plan where a definitive reference point is necessary. For example nodes are used in the specification of environmental flow objectives under clause 16 of the plan.

The nodes used in the plan are numbered and their locations are shown on the map in schedule 1 and described in schedule 4.

### **Water to which plan applies**

Clause 10 states that the plan applies to water in a watercourse, lake or spring (surface water) within the plan area. The clause clarifies that the plan does not apply to water in springs that is either connected to artesian water or that is connected to subartesian water which is connected to artesian water. The plan does not apply to overland flow water.

Clause 10 also states that the plan applies to groundwater that is subartesian water not connected to artesian water.

## **Chapter 3 Outcomes for sustainable management of water**

Chapter 3 states the outcomes which the plan seeks to achieve through implementing particular management strategies. The inclusion of these outcomes meets the requirement of section 46(1)(e) of the Act.

There are three different types of outcomes specified under the plan—

- Economic outcomes
- Social outcomes and
- Ecological outcomes.

### **Outcomes for water in plan area**

Clause 11 establishes that outcomes in clauses 12 to 14 have been developed while recognising that in some parts of the plan area, the natural state of the environment has been altered through water resource development.

The clause also establishes that water is to be allocated and managed in a way that seeks to achieve a balance between the economic, social and ecological outcomes of the plan.

The term balance, as referred above, does not necessarily imply that each outcome will be given equal weighting or that any specific weighting is attached to particular outcomes. Instead, the outcomes should be seen as a set of complimentary responses that work together to achieve sustainable management of water in the plan area.

### **Economic outcomes**

Clause 12 states the economic outcomes for the allocation and responsible management of water in the plan area. These outcomes provide an overview of what the plan aims to achieve by implementing specified management strategies related to human use of water resources in the plan area.

These outcomes include—

- providing for the use of water entitlements and other authorisations, and for the continued use of existing groundwater works;
- protecting the probability of being able to take water under a water entitlement;
- making water available for growth in industries dependent on water resources, for example, irrigated agriculture and mining;
- making water available for Indigenous communities dependent on water resources to achieve their economic aspirations;
- making water available for stock purposes;
- supporting flexible and diverse water supply arrangements for water users;
- supporting water being available for low risk activities stated in schedule 1 of the *Water Regulation 2002*; for example, washing down agricultural equipment, or for produce processing and packaging;
- maintaining flows that support water-related economic activities, for example, tourism;
- encouraging continual improvement in the efficient use of water;
- maintaining the quality of groundwater for consumptive purposes;
- ensuring a reliable and secure supply of water, including for the Kareeya and the Koombooloomba hydro-electric power stations.

## **Social outcomes**

Clause 13 states the social outcomes for the allocation and responsible management of water in the plan area. These outcomes provide an overview of what the plan aims to achieve by implementing specified management strategies related to supporting the social benefits that communities derive from water resources in the plan area.

These social outcomes include—

- increasing security of town water supplies;
- making water available to support population growth in towns and communities;
- making water available for domestic purposes;
- maintaining water flows in the Mulgrave-Russell catchment to support alternative options for town water supply;
- maintaining flows which support water related aesthetic, cultural (including cultural values of the traditional owners in the plan area) and recreational values;
- maintain the quality of water for human use.

## **Ecological outcomes**

Clause 14 states the ecological outcomes for the plan area. These outcomes provide an overview of what the plan aims to achieve by implementing specified management strategies related to ecological use of water resources in the plan area.

These outcomes include—

- providing for the continued capability of a part of the river system to be connected to another, including by maintaining flows that allows for the movement of native aquatic fauna between riverine, floodplain, wetland, estuarine and marine environments, supports water-related ecosystems and supports river-forming processes;
- providing a flow regime that ensures maintenance of fresh water to the estuaries of watercourses and the Great Barrier Reef
- providing a flow regime that ensures productivity in the receiving waters of the Great Barrier Reef and inshore reefs;
- supporting ecosystems dependent on groundwater including, for example, ecosystems dependent on surface water and groundwater interactions;
- maintaining a daily flow at each node of at least 1 megalitre per day to perennial surface water flow;
- providing flows and hydraulic habitat for flow-spawning fish and endemic species, including, for example, the Pacific blue-eye (*Pseudomugil signifer*);
- minimising the impact of taking water on water-related ecosystems;
- protecting and maintaining refugia associated with waterholes, lakes and wetlands;
- minimising changes to the natural variability of flows that support water-related ecosystems, riffle habitat and the reproduction and nesting activities of the Australian freshwater crocodile (*Crocodylus johnstoni*).

## **Chapter 4 Performance indicators and objectives**

Chapter 4 states the performance objectives, environmental flow objectives and water allocation security objectives for the plan.

A performance indicator is defined in the Act to mean a measure that can be calculated and is stated in a water resource plan to assess the impact of an allocation or management decision or proposal on water allocations and natural ecosystems.

The environmental flow objectives and water allocation security objectives represent statistically derived values for performance indicators which are produced by the Integrated Quantity and Quality Model (IQQM) (see clause 21).

Environmental flow objectives aim to protect the health of natural ecosystems from decisions made under the plan. The objectives attempt to minimise changes to natural flow conditions at specified nodes.

Water allocation security objectives aim to ensure that future decisions about the allocation and management of water made under the plan will protect the probability of water users being able to obtain water under a water allocation.

Future activities that could potentially affect the allocation and management of water in the plan area (for example new water resource development, water trades or strategies implemented in a resource operations plan) will only be approved if they are consistent with the objectives stated in this chapter. This requirement is separate to any other approvals or assessments that may be required, for example, an environmental impact assessment required by other legislation.

These performance indicators form the basis for measuring the achievements of the outcomes in chapter 3.

### **Performance indicators for environmental flow objectives**

Clause 15 states the performance indicators for environmental flow objectives. 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 stated in clause 16. The specified performance indicators represent important key flow characteristics and are based on technical assessment undertaken during plan development. Variability and seasonality are important aspects of the flow regime which are often critical for many ecological processes. The performance indicators cover aspects of the low, medium and high flow regime.

### **Environmental flow objectives**

Clause 16 states the environmental flow objectives for surface water in the plan area are in schedule 5. These objectives relate to performance indicators for low flow (the 90 % non-zero daily flow), and medium and high flows (mean annual flow, median annual flow and 1.5 year daily flow volume).

The objectives are statistically derived values which must be met and support the achievements of outcomes particularly ecological outcomes set out in chapter 3. The plans objectives are consistent with the additional unallocated water that is provided for in the plan area and provide a balance between environmental and consumptive water requirements.

Any future decisions about the allocation and management of water in the plan area must comply with the environmental flow objectives. The environmental flow objectives apply at various nodes located in the Wet Tropics plan area.

## **Performance indicator for water allocation security objectives**

Clause 17 states the performance indicator for the water allocation security objectives associated with unsupplemented surface water allocations is the annual volume probability. This indicator allows for water allocation security objectives to be established, protecting the long term probability of obtaining water under a water allocation.

## **Water allocation security objectives**

Clause 18 states the water allocation security objectives for the plan. The objectives associated with water allocations are specified according to water allocation groups.

Water allocation security objectives are statistically derived values that provide a measure of how allocations would have been expected to perform using simulated historical data, assuming full use of existing water entitlements and development of the plan's additional unallocated water.

The objectives do not represent a prediction or guarantee of future performance of water allocations in any particular year. Instead, actual performance under the implemented plan will depend on prevailing climatic factors, water demand distribution patterns and water users' decisions about using their water allocations.

Clause 18 states the water allocation security objectives (annual volume probability) for each water allocation group in the plan area are as follows—

- for water allocation group class A, the annual volume probability be at least 97 %;
- for water allocation group class B, the annual volume probability be at least 90 %;
- for water allocation group class C, the annual volume probability be at least 90 %;
- for water allocation group class D, the annual volume probability be at least 85 %.

The water allocation group classes are established and described in clause 49.

## **Chapter 5 Strategies for achieving outcomes**

Chapter 5 provides the strategies for achieving the plan outcomes discussed in chapter 3. Inclusion of these strategies meets the requirement in section 46(1)(f) of the Act.

### **Part 1 Strategies for both surface water and groundwater**

#### **Division 1 Preliminary**

##### **Application of pt 1**

Clause 19 states that this part applies to both surface water and groundwater.

##### **Decisions to be consistent with objectives**

Clause 20 states that decisions made by the chief executive about the allocation and management of water in the plan area must be consistent with the environmental flow objectives and water allocation security objectives. This ensures that key aspects of environmental flows and water allocation security are maintained and establishes consistent and transparent considerations for decision making.



Decisions about water permits are excluded from this provision because these are temporary entitlements issued to support short term projects, such as road construction and generally involve comparatively small volumes of water. However, consideration of the impacts on natural ecosystems and water authorisations is required in deciding whether to grant or refuse an application for a water permit under section 239 of the Act.

### **Assessing impact of decisions**

Clause 21 states that the departments IQQM computer program is to be used to assess the consistency of decisions about the allocation and management of water in the plan area with the environmental flow objectives and water allocation security objectives.

The IQQM simulates all of the major surface water processes that occur within a catchment including catchment runoff, storage behaviour, water extractions, in-stream losses and the climatic and seasonal variability in stream flows.

The IQQM model used for determining the environmental flow objectives and water allocation security objectives for the Wet Tropics region has included a groundwater component in areas where there is significant surface water/groundwater connectivity.

The model was developed using historical data, where available, for the period 1890 to 2008. As such, the testing of compliance with the plans objectives is done by using this simulation data.

The clause also states that if it is not practicable to use the IQQM, the chief executive may approve another method if satisfied that it will be at least as accurate as the IQQM in assessing consistency with plan objectives.

### **Division 2                    Continued effect of moratorium and interim arrangements for applications**

Division 2 deals with the continued effect of the moratorium and dealing with particular applications including arrangements for applications made before 18 January 2010.

#### **Continued effect of moratorium notice—Act, s 46(3)**

Clause 22 continues in part the effect of the moratorium notice published on 18 January 2010 and amended on 31 January 2013. This clause applies to applications which increase the amount of water, change the location or purpose the water may be taken, change the flow conditions, or increase or change the interference, until this water is dealt with under the resource operations plan.

This clause does not apply to an application—

- to replace a water licence under section 229 of the Act;
- to reinstate an expired water licence under section 221 of the Act;
- for a water permit;
- to subdivide an existing water licence or amalgamate two or more existing water licences.

This clause ensures that any future water release occurs through a process for granting unallocated water, which is detailed in the Water Regulation 2002.

### **Particular applications made before 18 January 2010**

Clause 23 applies to applications made under the Act or repealed Act that were not finally decided before the commencement of the plan. These include applications for water licences to take or interfere with groundwater in a groundwater management area and water from a watercourse, lake or spring.

This clause does not apply to an application—

- for a water licence where the reason for the impoundment of water is to generate energy using a micro hydro-electric power scheme; or
- to which chapter 5, part 2, division 2 applies.

Applications held by the chief executive must be refused if granting the application—

- increases the amount of water that may be taken;
- changes the location from which water may be taken;
- increases the rate at which water may be taken;
- changes the flow conditions under which water may be taken;
- increases or changes the interference with the water; or
- changes the purpose for which the water may be taken or interfered with.

This clause ensures that any future water release occurs through a process for granting unallocated water, which is detailed in the Water Regulation 2002.

### **Division 3                    Unallocated water**

Division 3 deals with unallocated surface water reserves held as strategic, general, Cape York Indigenous and high flow reserves. It also provides information about the process for dealing with unallocated water.

#### **Subdivision 1            Preliminary**

##### **Application of div 3**

Clause 24 states that this division applies to unallocated water.

#### **Subdivision 2            Strategic reserve, general reserve, Cape York Indigenous reserve and high flow reserve**

##### **Unallocated water held as strategic reserve, general reserve, Cape York Indigenous reserve and high flow reserve**

Clause 25 states that unallocated water is held as a strategic, general, Cape York Indigenous or a high flow reserve in the Cape York Peninsula Region.

Clause 25 also states that unallocated water can be held as a strategic, general or a high flow reserve in for all other areas in the plan area not including the Cape York Peninsula Region.

##### **Purpose for which unallocated water may be granted**

Clause 26 states the purposes for which unallocated water held as reserves stated in clause 25 may be made available. More specifically, clause 26 states that—

- unallocated water held as a strategic reserve may be made available for a State purpose or an Indigenous purpose;

- unallocated water held as a general reserve may be made available for any purpose;
- unallocated water held as a Cape York Indigenous reserve may be made available for an Indigenous purpose;
- unallocated water held as a high flow reserve may be made available for any purpose.

### **Reserve volumes**

Clause 27 states that schedule 6 of the plan sets out the total volumes of unallocated water available from the reserves stated in clause 25. This clause also states the total volume of unallocated water for the Cape York Indigenous reserve.

### **Period for which water is granted for particular State purpose**

Clause 28 states that the volume of water granted from the strategic reserve for a particular State purpose—a coordinated project or a project of regional significance—is only granted for the life of the project.

Once the project is completed the volume of water is returned to the strategic reserve for State purposes. This allows water to be continually available for new and future projects which may only require water for a limited time.

### **Projects which may be considered to be of regional significance**

Clause 29 states the factors the chief executive must consider in determining whether a project is of regional significance. The chief executive must have regard to the plan outcomes set out in chapter 3, the social and economic impacts the project would have on the region, and the public interest and welfare of the people in the region and any other relevant considerations.

## **Subdivision 3      Process for granting unallocated water**

### **Process for granting unallocated water**

Clause 30 states that the process for granting unallocated water from a reserve is a process stated in the *Water Regulation 2002*, part 2, division 1C (Processes for granting unallocated water).

## **Division 4              Authorised taking or interfering with water without water entitlement**

### **Taking water for stock or domestic purposes**

Clause 31 states an owner of land may take water from a watercourse, lake or spring for stock purposes or domestic purposes without an entitlement under section 20A(5) of the Act. This clause allows land owners who are non-riparian to a watercourse, lake or spring access to water for stock or domestic purposes.

### **Limitation on taking or interfering with water**

Clause 32 states for section 20(2) of the Act, the total volume of water that may be taken or interfered with for activities prescribed under a regulation for section 20(2)(a) of the Act is limited to 20 ML per year. Examples of activities prescribed under a regulation includes

washing down agricultural equipment, washing down a dairy, and washing for processing and packaging produce produced from a single farming enterprise.

## **Part 2 Additional strategies for surface water**

### **Division 1 Preliminary**

#### **Application of pt 2**

Clause 33 states that part 2 applies to surface water in addition to the strategies outlined in part 1.

### **Division 2 Interference with water in a watercourse, lake or spring**

Division 2 outlines additional limitations and considerations when dealing with an application for a water licence to interfere with the flow of water by impoundment, under section 206 of the Act.

#### **Application of div 2**

Clause 34 states that division 2 applies to an application made under section 206 of the Act for a water licence to interfere with water in a watercourse, lake or spring by impounding the flow of water.

#### **Limitations on interference with water**

Clause 35 states that a licence to interfere may only be granted if the purpose of the proposed interference is for a purpose provided for in this division.

Clause 35 also states that a water licence to interfere may also be granted if the interference was in existence immediately before 18 January 2010 (the commencement date for moratorium notice).

#### **Interference with water to enable taking of water for stock or domestic purposes**

Clause 36 states that for an application where the purpose of the proposed interference is to store water to be taken for stock or domestic purposes, the storage capacity for water to be taken must not be greater than 20 ML. However for a proposed impoundment located in the Herbert subcatchment area B, the storage capacity must not be greater than 200 ML.

#### **Interference with water for provision of pumping pool**

Clause 37 states that for an application where the purpose of the proposed interference is to provide a pumping pool to enable water to be taken under an authorisation, the storage capacity for water to be taken must not be greater than 2 ML. However for a proposed impoundment located in the Herbert subcatchment area B, the storage capacity must not be greater than 10 ML.

This clause also states the definition for *pumping pool* that applies for this section.

### **Interference with water to improve security for town water supply**

Clause 38 states that for an application where the purpose of the proposed interference is to provide improved security for town water supplies taken under an authorisation, the application must be refused if the chief executive is not satisfied that the town has appropriate water supply security strategies, such as demand and drought management strategies, in place.

Clause 38 also states that the application must be refused if the chief executive is not satisfied that there is a demonstrated need for an increased reliability of the water supply.

### **Interference with water to store water for purpose not related to the taking of water under water entitlement**

Clause 39 states that for an application where the purpose of the proposed interference is not related to the taking of water under a water entitlement, for example community landscaping or retaining water for flood mitigation purposes, the interference must not be greater than the volume necessary for the purpose of the interference.

However, if the purpose of the proposed interference is to store water for a micro hydro-electric power scheme, the volume of the interference must not be greater than 20 ML.

### **Interference with water related to the granting of unallocated water**

Clause 40 states that for an application to interfere with water related to the granting of unallocated water under the process stated in clause 30, the interference (that is, the size of the in-stream storage) must not be greater than is necessary for the purpose of taking water under a water entitlement granted from unallocated water.

## **Division 3            Replacing authorities and granting water entitlements**

Division 3 sets out the provisions for replacing existing water authorities and granting particular water entitlements.

### **Application of div 3**

Clause 41 states that division 3 applies to decisions about replacing authorities or granting water entitlements.

### **Water licences to replace local government authorities**

Clause 42 states that water authorities mentioned in schedule 7, column 1 will be replaced with a water licence to take water described for the authority in schedule 7, column 2.

### **Water licence for industrial purpose or amenities purpose at the Kareeya hydro-electric power station**

Clause 43(1) states that this section applies to the taking of water from the Tully River for an industrial purpose or an amenities purpose at the Kareeya hydro-electric power station.

Clause 43(2) states that upon commencement of the resource operations plan, the chief executive must grant—

- a water licence to take water from the Tully River at Tully Falls Weir for an industrial purpose; and

- a water licence to take water from the Tully River at Tully Falls Weir for an amenities purpose.

Clause 43(3) states that in granting the water licence to take water for an industrial purpose, the chief executive must—

- have regard to arrangement for maintaining flow over the Tully Falls; and
- impose conditions on the licence requiring water taken under the licence, other than water lost during electricity generation, to be returned to the Tully River immediately downstream of the Kareeya hydro-electric power station and giving effect to any environmental management rules or water sharing rules included in the resource operations plan.

Clause 43(4) states that a water licence granted under subsection (2) is subject to the conditions for the licence stated in schedule 8 and any other conditions imposed by the chief executive in granting a water licence for taking water under section 212 of the Act.

### **Granting particular water licences to owner of relevant lots**

Clause 44 states that on commencement of the resource operations plan, the chief executive must grant the owner of the lots mentioned under subsection (1) a water licence subject to the conditions stated in schedule 9, items 1 and 2.

### **Granting particular water licence to Tablelands Regional Council**

Clause 45 states that on commencement of the resource operations plan, the chief executive must grant the owner of the lots mentioned under subsection (1) a water licence subject to the conditions stated in schedule 9, item 3.

## **Division 4                      Converting authorisations to water allocations to take unsupplemented water**

### **Purpose of div 4**

Clause 46 states that division 4 contains strategies for particular authorisations that will convert to unsupplemented water allocations under the resource operations plan. These provisions are consistent with section 121 of the Act, which specifies that on the day the resource operations plan commences, all authorisations to be converted under the plan will expire and the chief executive must grant the new water allocations stated in the resource operations plan.

### **Authorisations to be converted to water allocations**

Clause 47 states that the authorisations to be converted to water allocations are existing water licences for taking unsupplemented water from the following river and creek reaches in the plan area—

- Mulgrave River from AMTD 20.5 km to AMTD 42.1 km
- Johnstone River from AMTD 14.5 km to AMTD 38.0 km
- Rankin Creek from AMTD 0.0 km to AMTD 9.6 km
- Berner Creek from AMTD 0.0 km to AMTD 15.3 km
- Fisher Creek from AMTD 0.0 km to AMTD 17.0 km
- Borton Creek from AMTD 0.0 km to AMTD 1.7 km
- South Johnstone River from AMTD 0.0 km to AMTD 17.5 km
- Liverpool Creek from AMTD 13.6 km to AMTD 43.0 km
- South Liverpool Creek from AMTD 0.0 km to AMTD 9.7 km

- Cowley Creek from AMTD 0.0 km to AMTD 5.3 km
- Tully River from AMTD 0.0 km to AMTD 74.5 km
- Echo Creek from AMTD 0.0 km to AMTD 26.5 km
- Davidson Creek from AMTD 0.0 km to AMTD 32.8 km
- Jarra Creek from AMTD 0.0 km to AMTD 47.5 km
- Banyan Creek from AMTD 0.0 km to AMTD 22.8 km
- Herbert River from AMTD 0.0 km to AMTD 83.0 km.

### **Elements of water allocations**

Clause 48 lists the attributes that will be specified on supplemented water allocations. These elements include the location from which water may be taken, the purpose for which water may be taken, the nominal volume for the water allocation, the daily volumetric limit for the water allocation, the annual volumetric limit for the water allocation, the water allocation group to which the allocation belongs, the water management area from which water may be taken and any conditions that apply to the allocation.

Any element currently stated on a water licence which is being converted to a water allocation which is not listed as an element of a water allocation under this clause will not be included on the new water allocation (for example a maximum extraction rate).

The following clauses in this division describe how elements of water allocations are to be determined.

### **Water allocation groups**

Clause 49 states that each water allocation belongs to a water allocation group for which the plan specifies water allocation security objectives. Water allocations to take unsupplemented water are grouped as follows—

- an authorisation for town water supply purposes, other than an authorisation held by Cairns Regional Council, belongs to water allocation group class A;
- an authorisation that does not state a flow condition belongs to water allocation group class B;
- an authorisation that does state a flow condition belongs to water allocation group class C;
- an authorisation for town water supply purposes held by Cairns Regional Council belongs to water allocation group class D.

### **Purpose to be stated on a water allocation**

Clause 50 specifies the purposes that must be stated on a water allocation. For an authorisation which states a purpose of stock, domestic, irrigation, stock intensive agriculture, or a similar purpose, the purpose must be 'rural'. For an authorisation which states any other purpose the purpose must be 'any'.

### **Nominal volume for a water allocation**

Clause 51 lists the factors the chief executive will consider in determining the nominal volume for unsupplemented water allocations. They comprise the local availability of water, the conditions under which water may be taken under the authorisation (such as flow conditions), any volumetric limits stated on the existing authorisation and the simulated mean annual diversion for the water allocation. The simulated mean annual diversion represents the average volume of water that could have been taken under an

authorisation or group of authorisations throughout the historic simulation period of record, and is calculated using the IQQM computer program (see clause 21).

The nominal volume is an important element of an unsupplemented water allocation. It represents, in megalitres, the share of the total volume of water available to be taken by the holders of water allocations in water allocation groups in the plan area.

The nominal volume for an unsupplemented water allocation should not be confused with the annual volumetric limit, which generally represents the maximum amount of water authorised to be taken in a water year. The amount of water that could actually be taken in any particular year will be subject to a number of factors including the local availability of water. In dry years, the amount of water available to be taken may be less than the nominal volume, while in wetter years the amount of water available to be taken may exceed the nominal volume.

### **Daily volumetric limit for a water allocation**

Clause 52 specifies how the daily volumetric limit for a water allocation is to be determined. If the daily volumetric limit is stated on the authorisation being converted then that same daily limit will apply to the water allocation.

Clause 52(1)(b) states that if the daily volumetric limit is not stated on the existing licence but a maximum rate in litres per second is stated then the daily volumetric limit in megalitres to be stated on the water allocation will be the maximum rate stated on the existing licence multiplied by 0.0864, which is derived from dividing seconds in a day by 1 million litres.

Clause 52(1)(c) states that if the authorisation being converted does not state either a daily volumetric limit nor an authorised activity referring to the capability for a particular pump size, but a related development permit states a pump size that is listed in schedule 10, column 1, then the volume stated in schedule 10, column 2 applies. If the development permit states a pump size that is not mentioned in schedule 10, column 1, then the chief executive must determine a volume having regard to schedule 10, column 2.

Clause 52(1)(d) states that if the authorisation being converted does not state a daily volumetric limit, but a related development permit states a particular pump size that is listed in schedule 10, column 1, then the volume stated in schedule 10, column 2 applies. For a pump size other than those found in schedule 10, column 1, the chief executive will decide the volume regarding similar pump sizes in schedule 10, column 2.

Clause 52(1)(e) applies to authorisations that do not state a daily volumetric limit or do not have a related development permit which states a pump size. For these authorisations the chief executive will decide the volume by considering the type of authorisation and an estimate of the rate at which water may be taken.

However, if the holder of the authorisation satisfies the chief executive that the daily volume should be different from the volume determined under clauses 52(1)(b)(c) or (d), the chief executive will determine a new volume having regard to the conditions under which water may be taken, the water-taking capacity of the pump, the irrigation or water distribution system associated with the authorisation during the period of not more than 10 years prior to the commencement of the plan and the efficiency of the water use.



## **Annual volumetric limits for a water allocation**

Clause 53 specifies how the annual volumetric limit for a water allocation, expressed in megalitres, is to be determined. The annual volumetric limit represents the maximum amount of water that can be taken under the authorisation in a water year.

If the existing authorisation states an annual volume of water that may be taken under the authorisation, the stated volume will be the annual volumetric limit.

Clause 53(b) states that for an existing authorisation that states the area that may be irrigated, the annual volumetric limit will be determined by the chief executive having regard to the volume of water required for the allocation's intended purpose. However the annual volumetric limit determined by the chief executive for a water allocation cannot be greater than the area in hectares multiplied by—

- for subcatchment area A of the Mulgrave-Russell catchment area—9;
- for subcatchment area B of the Mulgrave-Russell catchment area—8;
- for the Johnstone catchment area—9;
- for the Tully catchment area—9;
- for subcatchment area C or D of the Herbert catchment area—5.

Where an existing authorisation states an annual volume that may be taken and the area that may be irrigated, the nominal entitlement for the water allocation will be based on the higher volume, having regard to clauses 53(a) and (b).

Where the existing authorisation does not state the annual volume of water that may be taken or an area that may be irrigated under the entitlement (for example, a typical water-harvesting licence), then the annual volumetric limit will be decided by the chief executive having regard to the conditions for taking water under the existing authorisation, the water-taking capacity of any works, the volume required for the intended purpose, the annual volumes of water estimated to have been taken under the existing authorisation during a period of not more than 10 years prior to the commencement of the plan, and the efficiency of this water use.

## **Division 5            Water licences to take water from watercourse, lake or spring**

Division 5 deals with water licences to take water from a watercourse, lake or spring. This division outlines the elements that must be stated on a water licence and how existing licences are to be amended to include these elements.

### **Subdivision 1        Form of water licences to take water from watercourse, lake or spring**

Subdivision 1 outlines the elements that must be stated on a water licence to take water from a watercourse, lake or spring in the plan area.

#### **Elements of water licences to take water from a watercourse, lake or spring**

Clause 54 outlines the elements that must be stated on a water licence, including the purpose for which water may be taken, the location from where water may be taken, the daily volumetric limit and the nominal entitlement for the licence. Water licences may also state conditions such as flow conditions.

Clause 54 also states that the purpose for which water may be taken must be stated on the licence. For a licence granted under clause 43 the purpose to be stated on the licence

is 'industrial' or 'amenities'. For any other licence the purpose to be stated on the licence is 'rural' or 'any'

## **Subdivision 2      Criteria for amending water licences to achieve plan outcomes**

Subdivision 2 specifies how the elements of a water licence are to be determined when amending an existing water licence.

### **Definition for sdiv 2**

Clause 55 defines the term *amended water licence*, a term used throughout this subdivision.

### **Purpose to be stated on a water licence**

Clause 56 specifies how the purpose for an amended water licence is to be determined. For an amended water licence which states a purpose of agriculture, irrigation, stock intensive or a similar purpose, the purpose is to be amended to 'rural'. For an amended water licence which states any other purpose the purpose is to be amended to 'any'.

### **Nominal entitlement**

Clause 57 specifies how the nominal entitlement for an amended water licence is to be determined. The nominal entitlement represents the maximum amount of water that can be taken under the water licence in a water year.

If the existing licence states the annual volume of water that may be taken under the licence, the stated volume will be the nominal entitlement for the amended water licence.

Where the existing licence does not state the annual volume of water that may be taken but states an area that may be irrigated under the licence, the nominal entitlement will be decided by the chief executive having regard to the volume of water required for the intended purpose. This nominal entitlement must not be more than the volume, in megalitres, calculated by multiplying the area in hectares by—

- for the Daintree catchment area—6;
- for the Mossman catchment area—6;
- for subcatchment area A of the Mulgrave-Russell catchment area—9;
- for subcatchment area B or C of the Mulgrave-Russell catchment area—8;
- for subcatchment area D of the Mulgrave-Russell catchment area—9;
- for the Johnstone catchment area—9;
- for the Tully catchment area—9;
- for the Murray catchment area—9;
- for subcatchment area A of the Herbert catchment area—9;
- for subcatchment area B of the Herbert catchment area—12;
- for subcatchment area C or D of the Herbert catchment area—5.

Where an existing licence states an annual volume that may be taken and the area that may be irrigated, the nominal entitlement for the water allocation will be based on the higher volume, having regard to clauses 57(a) and (b).

Where the existing licence does not state the annual volume of water that may be taken or an area that may be irrigated under the licence (for example, typical water-harvesting licence), then the nominal entitlement will be decided by the chief executive having regard

to the conditions for taking water under the licence, the water taking capacity of any works, the volume required for the intended purpose, the annual volumes of water estimated to have been taken with the licence during the period of not more than 10 years prior to the commencement of the plan and the efficiency of this water use.

### **Daily volumetric limit for a water licence**

Clause 58 specifies how the daily volumetric limit for an amended water licence is to be determined.

Clause 58(1)(a) states that if the daily volumetric limit is stated on the existing licence then that same daily limit will apply to the amended water licence.

Clause 58(1)(b) states that if the daily volumetric limit is not stated on the existing licence but a maximum rate in litres per second is stated then the daily volumetric limit in megalitres to be stated on the amended licence will be the maximum rate stated on the existing licence multiplied by 0.0864, which is derived from dividing seconds in a day by 1 million litres.

Clause 58(1)(c) states that if the existing licence stated neither a daily volumetric limit nor a maximum rate, but stated an authorised activity referring to the capability for a particular pump size that is listed in schedule 10, column 1, then the corresponding volume stated in schedule 10, column 2 applies. For a pump size other than those found in schedule 10, column 1, the chief executive will decide the volume regarding similar pump sizes in schedule 10, column 2.

Clause 58(1)(d) states that if the existing licence stated neither a daily volumetric limit nor a maximum rate nor an authorised activity referring to the capability for a particular pump size, but the associated development permit states a pump size that is listed in schedule 10, column 1, then the corresponding volume stated in schedule 10, column 2 applies. If the development permit states a pump size that is not mentioned in schedule 10, column 1, then the chief executive must determine a volume having regard to schedule 10, column 2.

Clause 58(1)(e) states that for another amended licence, the chief executive will decide the volume by considering the type of licence and an estimate of the rate at which water may be taken.

However, if the holder of the licence satisfies the chief executive that the daily volume should be different from the volume determined under clauses 58(1)(c) and 58(1)(d), the chief executive will determine a new volume having regard to the conditions under which water may be taken, the water taking capacity of the pump, the irrigation or water distribution system associated with the licence during the period of not more than 10 years prior to the commencement of the plan and the efficiency of the water use.

### **Conditions for amended water licences**

Clause 59 states that the chief executive must consider existing conditions already stated on a water licence, when deciding the new conditions to be stated on an amended water licence.

## **Part 3 Additional strategies for groundwater**

Part 3 deals with water licences to take groundwater. This part outlines—

- the limitations on taking or interfering with groundwater;
- the relationship between works that allow the taking of groundwater and the *Sustainable Planning Act 2009*;
- elements that must be stated on a water licence and how existing licences are to be amended to include these elements;
- the taking of groundwater using particular authorised groundwater works including the process for granting water licences under the resource operations plan.

## **Division 1            Preliminary**

### **Application and purpose of pt 3**

Clause 60 states that part 3 applies only to groundwater in a groundwater management area and states the strategies for achieving the outcomes mentioned in chapter 3.

### **Limitation on taking or interfering with groundwater—Act, s 20(2)**

Clause 61 specifies the situations in which a person may take groundwater in accordance with 20(2) of the Act. This means that the taking of groundwater in a groundwater management area is prohibited unless authorised under this clause.

In a groundwater management area, groundwater may not be taken or interfered with other than—

- under a water permit;
- under a water entitlement;
- under clause 68; or
- for stock or domestic purposes
- for an activity prescribed under a regulation for section 20(2)(a) of the Act.

### **Relationship with Sustainable Planning Act 2009**

Clause 62 states that the construction of works for taking groundwater in a groundwater management area is self-assessable for the *Sustainable Planning Act 2009*, where works are for a purpose other than stock and domestic, and:

- are constructed within 400 metres of a watercourse, lake, spring or another bore; or
- are for a replacement water bore that is constructed at a distance greater than 10 metres from the bore being replaced.

All other works for taking groundwater within a groundwater management area are exempt for the *Sustainable Planning Act 2009*.

## **Division 2            Water licences to take groundwater**

Division 2 deals with water licences to take groundwater. This part outlines the elements that must be stated on a water licence and how existing licences are to be amended to include these elements.

### **Subdivision 1        General**

Subdivision 1 outlines the elements that must be stated on a water licence to take groundwater in the plan area.

## **Elements of water licences**

Clause 63 outlines the elements that must be stated on a water licence, including the purpose for which water may be taken and the nominal entitlement for the licence. The purpose for which water may be taken must be stated on the licence as either 'rural' or 'any'. Water licences may also state conditions.

### **Subdivision 2      Criteria for amending water entitlements to achieve plan outcomes**

Subdivision 2 specifies how the elements of a water licence are to be determined when amending an existing water licence.

#### **Definition for sdiv 2**

Clause 64 defines the term *amended water licence*, a term used throughout this subdivision.

#### **Purpose to be stated on a water licence**

Clause 65 specifies how the purpose for an amended water licence is to be determined. For an amended water licence which states a purpose of agriculture, irrigation, stock intensive or a similar purpose, the purpose is to be amended to 'rural'. For an amended water licence which states any other purpose the purpose is to be amended to 'any'.

#### **Conditions for amended water licences**

Clause 66 states that the chief executive must consider existing conditions already stated on a water licence, when deciding the new conditions to be stated on an amended water licence.

### **Subdivision 3      Dealing with particular existing groundwater works**

#### **Definitions for sdiv 3**

Clause 67 defines the term *prescribed existing groundwater works* as works that the chief executive is satisfied were used, or were capable of being used, to take groundwater for a purpose, other than stock or domestic purposes, from a prescribed groundwater management area and that the works were in existence on 20 June 2012.

Clause 67 also defines the term *prescribed groundwater management area* as any part of the following groundwater management areas in which, before commencement of this plan, a water licence was not required to take groundwater—

- Mulgrave-Russell groundwater management area;
- Southern Tablelands groundwater management area;
- Lower Johnstone groundwater management area;
- South Johnstone groundwater management area;
- Liverpool Creek groundwater management area;
- Tully groundwater management area;
- Lower Herbert groundwater management area.

### **Taking groundwater using prescribed existing groundwater works**

Clause 68 states that for an owner of land on which there are prescribed existing groundwater works, the owner may continue to take groundwater using the works for 60 business days after the commencement of this plan.

This clause also states that if the owner of the groundwater works notifies the chief executive of the bore and the taking of groundwater using the bore, the owner may continue to use the bore to take groundwater after the notice is given, and until the owner is granted a water licence under clause 69. The notice given to the chief executive must be in the approved form.

### **Granting water licences for using prescribed existing groundwater works**

Clause 69 states that the chief executive, in accordance with 212 of the Act, may grant a water licence to a person authorised under clause 68(3) to continue taking groundwater.

### **Nominal entitlements for authorisations**

Clause 70 states the process for determining the nominal entitlement for a water licence granted by the chief executive under clause 69.

The nominal entitlement will be determined by the chief executive having regard to any other water entitlements for the land to which the licence relates, the density of water bores for taking groundwater in the area to which the entitlement relates, any water allocations in the area to which the entitlement relates and the estimated volume taken during each 1-year period during the period of not more than 10 years immediately before the commencement of this plan (the relevant period).

However, if the chief executive is satisfied the volume of groundwater taken during the relevant period is more than the estimated volume, the chief executive may decide a nominal entitlement that is more than the estimated volume.

## **Chapter 6 Monitoring and reporting requirements**

Chapter 6 states the provisions for monitoring and reporting for the plan area under—

- Monitoring and reporting requirements; and
- Minister's report on plan—Act, s53.

These provisions are essential elements of a water resource plan's implementation because they provide a basis for the Minister to assess the effectiveness of the plan's strategies in achieving its outcomes.

### **Monitoring and reporting requirements**

Clause 71(1)(a) states that the water and natural ecosystem monitoring requirements for the plan are to be specified in the resource operations plan to help the Minister to assess the effectiveness of the plan's strategies in achieving its outcomes.

Typical monitoring requirements, which will be specified in the resource operations plan, include—

- water monitoring for stream flows, taking and diverting water, releases from water storages and water quantity for storages including inflow, storage volume or level and outflow, and groundwater levels; and
- natural ecosystem monitoring for volume, frequency, duration and timing of stream flows and information on hydraulic habitat requirements of ecological assets in the plan area.

Clause 71(1)(b) states that the reporting requirements for operators of infrastructure which interfere with water in the plan area for this plan are stated in the resource operations plan.

The chief executive may require additional monitoring requirements.

### **Minister's report on plan—Act, s53**

Clause 72 specifies the requirements for the preparation of the Minister's report on the plan. The intent of this report is to assess the effectiveness of the implementation of the plan in achieving the plan's outcomes.

The first report must be prepared within 12 months of the reporting period. The reporting period is the period of time between the financial year in which the plan commenced and up to 5 years later. Subsequent reports must also be prepared within 12 months of the previous reporting period.

In accordance with section 1009 of the Act, the chief executive must make a copy of the report available for inspection or purchase.

## **Chapter 7 Implementing and amending this plan**

Chapter 7 outlines the schedule for implementation of the plan and the minor or stated amendments for the plan.

### **Implementation schedule**

Clause 73 states the proposed arrangements for implementing the plan. The water resource plan will be implemented primarily through a resource operations plan, which will include—

- a process to grant or convert existing authorisations to water allocations to take water from locations mentioned in clause 47;
- provisions to implement the monitoring requirements mentioned in chapter 6.

This clause also states that the chief executive may consider if it is appropriate to commence a process for granting unallocated water under section 30 prior to the commencement of the resource operations plan.

### **Minor or stated amendment of plan—Act, s 57**

Clause 74 states the types of amendments that may be made to the plan under section 57(b) of the Act. An amendment made under this section of the Act is of a type allowed under the water resource plan for this paragraph, and the Minister reasonably believes the amendment will not adversely affect the rights of water entitlement holders or natural ecosystems.

This clause provides for a number of stated amendments to be made to the plan—

- an amendment or addition of an environmental flow objective if the amendment or addition achieves an equivalent or improved ecological outcome without adversely affecting the outcomes mentioned in chapter 3 or the water allocation security objective mentioned in clause 18;
- an amendment or addition of a water allocation security objective if the amendment or addition does not adversely affect the outcomes mentioned in chapter 3 or the environmental flow objectives mentioned in clause 16 (Schedule 5);
- an amendment or addition of a node;
- an amendment to subdivide a subcatchment area;
- an amendment to adjust the boundaries of a groundwater management area if more accurate information about the boundaries of the plan area or hydrological characteristics of the plan area becomes available;
- an amendment or addition of a water allocation group;
- an amendment or addition of a groundwater management area;
- an amendment or addition of a monitoring or reporting requirement under chapter 6;
- an amendment of or to remove a redundant provision of this plan;
- an amendment to remove provisions related to the granting, amending or converting of authorisations after the granting, amending or converting has been completed.

## **Schedule 1 Plan area, catchment areas and node locations**

Schedule 1 contains a map showing the area to which the plan applies, the catchment areas within the plan area and the nodes referred to in the plan and a description of their location.

## **Schedule 2 Subcatchment areas**

Schedule 2 contains a map showing the subcatchment areas within the Wet Tropics plan area referred to in the plan.

## **Schedule 3 Groundwater management areas**

Schedule 3 contains a map showing the groundwater management areas within the Wet Tropics plan area referred to in the plan.

## **Schedule 4 Nodes**

Schedule 4 contains a table describing the location of surface water nodes referred to in the plan.



## **Schedule 5 Environmental flow objectives**

Schedule 5 states the environmental flow objectives for the plan. Part 1 tabulates the low flow objectives for particular surface water nodes in the plan area. Part 2 tabulates the medium to high flow objectives for particular surface water nodes in the plan area.

## **Schedule 6 Total volumes of strategic, general, Indigenous and high flow reserve unallocated water**

Schedule 6 tabulates the locations and available volumes of unallocated water.

- Table 1 tabulates the strategic unallocated water reserve for State Purposes, in units of volumetric limit (ML),
- Table 2 tabulates the strategic unallocated water reserve for Indigenous purposes, in units of volumetric limit (ML).
- Table 3 tabulates the general unallocated water reserve, in units of volumetric limit (ML).
- Table 4 tabulates the high flow unallocated water reserve, in units of volumetric limit (ML).

## **Schedule 7 Water licence to replace local government authority**

Schedule 7 states the details of licences that may be granted under clause 42.

## **Schedule 8 Limitations on licences to take water for industrial or amenities purpose**

Schedule 8 states the details of licences that may be granted under a resource operations plan in accordance with clause 43(4).

## **Schedule 9 Conditions for particular licences**

Schedule 9 states the details of licences that may be granted under a resource operations plan in accordance with clause 44(2) and 45(2).

## **Schedule 10 Rates and pump sizes**

Schedule 10 states the rates of take of water for various pump sizes. For each pump size stated, the daily volumetric limit in megalitres per day. See clauses 52(1) and 58(1) for more information.

## **Schedule 11 Dictionary**

Schedule 11 contains the dictionary of defined terms used in the plan.