



Queensland

Water Resource (Gold Coast) Plan 2006

Explanatory Notes for SL 2006 No. 321

made under the

Water Act 2000

General Outline

Title

Water Resource (Gold Coast) Plan 2006

Authorising Law

Sections 38 to 50 of the *Water Act 2000* (Qld).

Policy objectives of the legislation

The objective of the water resource plan (the plan) is to provide a framework for the allocation and sustainable management of water in *a watercourse or lake*, and water in springs not connected to either artesian water or to subartesian water connected to artesian water, in the plan area to meet future water requirements, including the protection of natural ecosystems and security of supply to water users. This objective is required by the *Water Act 2000* (the Act). The plan area includes the catchments of the Nerang, Coomera and Pimpama rivers, and Tallebudgera and Currumbin creeks.

The plan provides for the allocation and sustainable management of water in a watercourse or lake, and water in springs not connected to either artesian water or to subartesian water connected to artesian 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 environmental flow objectives and water allocation security objectives
- outlining the strategies to achieve the plan outcomes
- requiring water and natural ecosystem monitoring to assess the effectiveness of the strategies and objectives outlined in the plan in achieving the outcomes
- by providing a framework for reversing, where practicable, degradation that has occurred in natural ecosystems.

Legislation consistent with policy objectives of authorising law

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

Estimated cost for government

Development of the plan and the Resource Operations Plan for the plan area (ROP) is fully funded from current budget estimates and it is not anticipated that any additional funds will be sought. Accordingly, the plan should not alter the present cost to government of administering the Act.

Consistency with fundamental legislative principles

The subordinate legislation is consistent with fundamental legislative principles.

Consultation

A number of panels were formed to give advice on the preparation of the draft plan.

The minister formed a Community Reference Panel to give advice on the preparation of the draft plan. The panel consisted of nine members representing sectoral and geographic interests in the plan area including agriculture business and commerce, commercial and recreational fishing, conservation, local government, traditional owners, water services providers, regional development and the broader community.

The panel members met four times throughout the development of the draft and provided advice and guidance on a wide range of issues. These included advising the minister on issues raised by the community, and on water management options, and developing principles representing the aspirations of the group for management of the water resources of the plan area.

A Technical Advisory Panel was formed to undertake environmental assessment, and the panel's findings and methodology peer reviewed by a Scientific Expert Panel.

Consultation with the Indigenous community was undertaken primarily through the Community Reference Panel, on which the Indigenous community was represented, and through the South East Queensland Traditional Owners Land and Sea Management Alliance.

An Inter-Agency Advisory Panel was formed, consisting of representatives from the Department of State Development, Trade and Innovation, Department of the Premier and Cabinet, the Environmental Protection Agency, Queensland Treasury, The Coordinator-General, and the Department of Primary Industries and Fisheries.

The following government departments or agencies were also consulted:

- Department of Local Government, Planning, Sport and Recreation
- The National Competition Policy Unit of Queensland Treasury

Five newsletters were published on the department's website between October 2005 and July 2006, outlining the planning process and how members of the public could contribute to that process, as well as informing readers of milestones in the plan's preparation.

A number of public notices and media releases were also published, including public notices calling for submissions on the notice of intention

to prepare a draft plan, the draft plan itself (upon its release), and the intention to prepare a draft ROP for the Gold Coast.

Properly-made submissions received on the draft plan were considered in its finalisation.

Outcomes of community consultation are outlined in the separate document *Gold Coast Water Resource Plan Consultation Report*.

Regulatory Impact Statement

Section 58 of the Act states that a regulatory impact statement is not required for the approval of a water resource plan.

Notes on Provisions

Part 1 Preliminary

Short title

Clause 1 sets out the short title to the subordinate legislation.

Purposes of the plan

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

Definitions

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

Part 2 Plan area and water to which plan applies

Plan area

Clause 4 provides that a map of the plan area is shown in schedule 1. The plan area includes the catchments of the Nerang, Coomera and Pimpama rivers, and the Tallebudgera and Currumbin creeks.

Subcatchment areas

Clause 5 provides that a map and names of subcatchment areas are shown in schedules 2 and 3 respectively. The use of subcatchment areas provides for more effective management and planning of water allocations than a whole-of-plan-area approach by focusing on the ecological and consumptive needs of smaller areas within the overall plan area. This approach also has the benefit of more effective monitoring of the impacts that local changes have on achieving plan objectives.

Information about areas

Clause 6 explains that the exact locations of the plan area and subcatchment area boundaries are held in digital electronic form by the department and can be inspected in detail. They are held at departmental offices.

Nodes

Clause 7 defines nodes mentioned in the plan. Nodes are specific locations on a watercourse within the plan area, where stream flow characteristics are described. In addition, modelled stream flows are estimated and reported to test consistency with environmental flow objectives. Nodes are identified by a letter of the alphabet and their locations are shown on the map in schedule 1 and described in schedule 4.

Water to which plan applies

Clause 8 states that the plan applies to water in a watercourse or lake, and water in springs not connected to either artesian water or to subartesian water connected to artesian water.

The parts of the plan area were identified through independent scientific assessments as areas of ecological significance requiring specific ecological outcomes, and through consultation. The outcomes include, for the Coomera River within the area known as Canungra Land Warfare Centre, including, in particular, Back Creek, and other waters of high ecological value under the *Environmental Protection (Water) Policy 1997*, including, in particular, Tallebudgera Creek and Currumbin Creek, minimising changes to the flow regimes of the waters; for Nerang River upstream of the Hinze Dam and Little Nerang Creek upstream of the Little Nerang Dam, minimising changes to river-forming processes, and minimising changes to flow regime; for Coomera River estuary, minimising changes, as far as practicable, to freshwater flows into the Coomera River estuary; and minimising changes to the freshwater inflows to Coombabah Lake.

For water in the plan area generally, subclause (2) provides that an ecological outcome is to minimise changes, as far as practicable, to the volume and seasonality of freshwater flows into Moreton Bay and the Broadwater.

Part 4 Performance indicators and objectives

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

There are two sets of plan objectives: environmental flow objectives and water allocation security objectives. An objective represents a statistic produced by the department's Integrated Quantity and Quality Model (IQQM—see clause 18) that meets a performance indicator.

Future activities that could potentially affect the allocation and management of water in the plan area — for example, new water resource development, water trades, proposed changes to operational rules, or strategies implemented in a ROP — would only be approved if they were consistent with the objectives defined in part 4 of the plan. This requirement is separate to any other approvals or assessments that may be required — for example, approvals for works under the *Integrated*

Planning Act 1997 or environmental impact assessments required by other legislation.

The impact on and consistency with the plan's objectives are assessed using the department's IQQM computer program or another approved method. This program simulates stream flows in the plan area over the period 1890 to 2000. Operational rules can be simulated through this period to ensure that objectives are not compromised.

Division 1 Environmental flow objectives

Environmental flow objectives aim to protect the health of natural ecosystems when future decisions are made under the plan. The objectives attempt to minimise change to the flow regime and are defined at nodes.

Performance indicators for environmental flow objectives

Clause 12 states the performance indicators for the environmental flow objectives. Pre-development characteristics are described through a combination of these performance indicators and the objectives stated in schedule 5. These indicators allow for environmental flow targets to be set to address the environmental impacts that may arise from changes to the flow regime.

The specified indicators are important key flow characteristics and are based on technical advice received during plan development. The indicators relate to periods of no flow, low flow, medium to high flow and flow seasonality. The variability and seasonality of flow regimes within the plan area are unique to each river system and are often critical for many ecological processes.

No one performance indicator or objective, achieved in isolation, is likely to maintain stream condition. Rather, several flow characteristics must be supported if the plan's ecological outcomes and objectives are to be achieved.

Environmental flow objectives

Clause 13 states that the environmental flow objectives are stated in schedule 5.

The objectives have been set at a level to address and achieve the general and ecological outcomes as set out in part 3. The objectives have been developed in consideration of future impacts that may occur in various parts of the plan area and balance environmental and consumptive requirements.

The objectives are a numerical target or level of performance to be achieved, and consist of a combination of mandatory and desired objectives. The mandatory objectives ensure that the outcomes are maintained, while the desired objectives, if achieved, will enhance the ecological outcomes.

Any future decisions about the allocation and management of water in the plan area must comply with the environmental flow objectives. This would be tested by the IQQM or another approved method (see clause 18). The objectives include a range of no flow, low flow, medium to high flow and seasonal flow objectives.

Division 2 Water allocation security objectives

Water allocation security objectives aim to ensure that future decisions about the allocation and management of water made under the plan will not affect the probability of groups of water users being able to obtain water under their water allocations.

Performance indicators for water allocation security objectives

Clause 14 states the performance indicators that define the water allocation security objectives according to whether the indicator is for supplemented or unsupplemented water. See the discussion regarding schedule 6 for information on water sharing indexes.

The objectives define the minimum long-term performance of a group of water allocations that will be maintained for the life of the plan. Supplemented water is water supplied under an interim resource operations licence, resource operations licence or other authority to operate water infrastructure such as a dam or weir. Unsupplemented water is water that is not supplemented water.

Water allocation security objectives

Clause 15 states that the water allocation security objectives for the plan are stated in schedule 6. Water allocation security objectives for supplemented and unsupplemented water are listed in parts 1 and 2 of schedule 6 respectively.

Water allocation security objectives do not represent a prediction or guarantee of future performance of water allocations in any particular year. The objectives represent how an allocation would have been expected to perform using historical data, assuming full development of the plan's strategic water reserve and other unallocated water, as well as full use of the plan area's water entitlements.

Actual performance under the implemented plan will depend on prevailing climatic factors, water demand distribution patterns and water users' choice in using their entitlements. In other words, the way an entitlement might have performed during the simulation period is not necessarily indicative of how it will perform in the future.

Water allocation security objectives will take effect when the water resource plan is implemented under a ROP. They will apply only to water entitlements that convert to tradable water allocations.

The objectives for supplemented water are specified in schedule 6 part 1. The objectives for unsupplemented water are based on subcatchment area and the type of entitlement (e.g. area-based entitlements or other) as specified in schedule 6 part 2.

Part 5 Strategies for achieving outcomes

Division 1 Decisions made under this plan

Application of division 1

Clause 16 outlines that division 1 applies to decisions about water allocation or management in the plan area, with two exceptions - decisions about reinstating or replacing an expired water licence and decisions to grant a water entitlement to a local government or a government agency for the taking of or interfering with water that was occurring at the

commencement of the plan. These situations are not covered in the plan because they are dealt with under the provisions of the Act.

Decisions consistent with objectives

Clause 17 requires all decisions made about the allocation or management of water in the plan area, other than decisions about a water permit, to be consistent with the environmental flow and water allocation security objectives detailed in schedules 5 and 6 respectively. This provides greater certainty and security to allocation holders, ensures environmental flows are maintained and provides consistent and transparent considerations for decision-making.

Decisions about water permits are excluded from this requirement because the water taken during short permit periods is deemed not to affect the objectives, which are derived from long-term historical data. However, separate consideration of the impacts on natural ecosystems and existing water entitlements and authorisations to take or interfere with water is required in granting these permits under section 239 of the Act.

Assessing impact of decisions

Clause 18 states that the department's IQQM computer program is the method used to assess consistency with the environmental flow and water allocation security objectives.

The IQQM simulates all the major surface water processes that occur within a large catchment including water extractions, instream losses and the climatic and seasonal variability in surface water flow. The model was calibrated and validated using historical data from 1890–2000 (110 years). As such, the testing of compliance with the objectives is done by using the simulation data for that period.

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

Decisions not to increase amount of water taken

Clause 19 states that the chief executive must not make a decision that would increase the average volume of water available to be taken in the plan area, except in relation to a decision about unallocated water made

under clause 23 or 24; a decision about a water permit (see clause 17); or a decision about water entitlements managed under the system operating plan applying to the plan area, but only to the extent that the decision does not impact on the objectives, for either environmental flow or water allocation security, for water allocations not managed under the system operating plan.

The clause effectively caps the amount of water to be taken from the plan area at the amount identified by the plan. This is because the allocation framework has been developed in recognition of full utilisation of existing water entitlements and provision of additional allocation to meet future water needs. Any provision of water outside this framework could potentially affect the general or strategic reserves, existing water users or environmental flows.

Subclause 2(c) provides some flexibility of management of water covered by the system operating plan and regional water security program but still effectively caps the total amount of water to be taken from the plan at the amount identified by the plan.

Subclause 3 addresses applications for authorisations to take water that were made, but not dealt with, before the commencement of the plan. A moratorium on applications for water entitlements was announced on 1 October 2005 under section 26 of the Act. The purpose of the moratorium was to maintain the level of water being taken or interfered with at its then-current level while the plan was being developed. The moratorium remains in effect until commencement of the plan.

The moratorium requirements have prevented the department from dealing with water entitlement applications that were received before or after announcement of the moratorium. These applications will be refused as they were made through a process according to conditions and rules of access that changed on commencement of the plan (see section 209 of the Act that requires applications inconsistent with a water resource plan to be refused).

New water entitlements will be available only through water trading or the release of unallocated water, which are both water market-based approaches.

Restriction on taking water from waterholes or lakes

Clause 20 places restrictions on taking water from waterholes or lakes. Natural waterholes and lakes are recognised as important habitats and

places of refuge for aquatic plants and animals, and can have significant cultural value to traditional owners.

In granting an authorisation that could result in an increased take of water from a waterhole or lake, conditions may be applied to safeguard cultural and environmental values of natural waterholes and lakes. Conditions are not required if the chief executive is satisfied the taking of water will not adversely affect those values.

New restrictions will not be able to be applied to the take of water under a permit, licence or other authorisation that existed at commencement of the plan, or to a water allocation granted on conversion from an authorisation.

The clause details the minimum considerations the chief executive must take into account in setting these conditions, such as the impact the proposed taking may have on environmental, recreation, aesthetic and cultural values. Other matters may also be considered.

Division 2 General and strategic reserves

Unallocated water held as general or strategic reserve

Clause 21 establishes two types of unallocated water —general and strategic reserves.

Matters chief executive must consider

Clause 22 lists the minimum criteria that must be considered prior to the release of unallocated water under a ROP. These criteria reflect the Queensland Government's policy principles that guide the release of unallocated water. The principles seek to encourage sustainable and efficient use of water resources and are intended to ensure a clear, transparent and consistent statewide approach to providing additional allocation for consumptive use.

The minimum criteria for consideration include the need for, and efficiency of, present and proposed uses of water, the availability of an alternative water supply for the required purpose, environmental and cultural impacts, impacts on groundwater, potential for degradation of land, downstream watercourses or estuarine or marine waters, consistency with the SEQ regional plan, any system operating plan applying to the plan area, any regional water security program for the SEQ region, whether the proposed taking of or interfering with, or the proposed use of, the water is consistent

with the ecological outcomes mentioned in clause 11, and also the price of the water if being granted through a public auction, ballot or tender process. Subclause (2) provides that in considering the impact of the proposed taking of, or interfering with, the water may have on water quality under subsection (1)(c)(i), the chief executive must have regard to the *Environmental Protection (Water) Policy 1997*. Other matters may also be considered.

This approach provides flexibility in the plan, which can be used to prevent dealings with unallocated water that would be contrary to achieving plan objectives.

General reserve

The general reserve is unallocated water for areas where there is expected to be future water demand and reduced opportunity for water trading due to full utilisation of existing entitlements. This water is intended for rural purposes and will only be available under certain flow conditions in order to protect low flows.

Granting unallocated water from the general reserve

Clause 23 states that unallocated water may be granted by the chief executive from the general reserve under a process in the ROP.

Subclauses 2(a) and 2(b) provide that the chief executive may grant unallocated water from the general reserve only for the subcatchment areas and within the volumes laid down in schedule 7.

Subclause (2)(c) provides for the protection of low flows when setting flow conditions for water entitlements.

Strategic reserve

The strategic reserve is unallocated water set aside to meet the long-term urban water needs of the region. In this way, the reserve supports new or upgraded water supply infrastructure in the plan area.

Granting unallocated water from the strategic reserve

Clause 24 states that unallocated water may be granted or reserved from the strategic reserve for infrastructure for a project declared under section 26 of

the *State Development and Public Works Organisation Act 1971* to be a significant project; or for infrastructure identified for the SEQ regional plan; or for infrastructure identified for a regional water security program; or under a process in the ROP.

Division 3 Process for granting and amending interim resource operations licence

Subdivision 1 Preliminary

Process for Act, ss 176 and 184A

Clause 25 provides that division 3 states a process for the Act for granting or amending an interim resource operations licence (iROL) to meet future water requirements if unallocated water is granted or reserved from the strategic reserve for infrastructure mentioned in clause 24(a) or (b). In addition, the process applies only until it is replaced by a process stated in the ROP.

Subdivision 2 Application or amendment after notice from chief executive

Applying for, or to amend, interim resource operations licence

Clause 26 states the process for a proposed owner of particular infrastructure mentioned in section 24(a) or (b) to apply for, or to amend, an iROL. The process outlines the details to be included in an application, and the time within which the application must be made after notice is given by the chief executive. This clause permits the chief executive to give a copy of an application to any entity the chief executive considers appropriate.

Additional information may be required

Clause 27 grants the chief executive the power to give notice to an applicant to request additional information about an application, or to verify any information included in the application, or any additional information required by the chief executive to be given under subclause (a),

to be verified by statutory declaration. The application lapses if the applicant does not, without reasonable excuse, respond to the request within the reasonable time stated in the notice.

Matters chief executive must consider

Clause 28 specifies the minimum criteria that the chief executive must consider for deciding an application. Other matters may also be considered.

Deciding application for, or to amend, interim resource operations licence

Clause 29 details what the chief executive must do if satisfied the application should be approved. The application may be approved in whole or in part, with or without conditions. When granting or amending the iROL, the chief executive must also reserve, from the strategic reserve, unallocated water required for any proposed iWAs to which the approval applies.

Subdivision 3 Amendment by chief executive

Amendment of interim resource operations licence by chief executive—Act, s 184A

Clause 30 outlines a process for the Act that enables the chief executive to amend an iROL granted or amended under clause 29, at any time, to the extent the chief executive considers necessary to meet future water requirements. It also enables the chief executive to amend any other iROL as a consequence of granting or amending an iROL under clause 29, to the extent the chief executive considers necessary to meet future water requirements. Subclauses 2 to 4 detail notification requirements, including provision for the holder to make written submissions on the proposed amendment by at least 30 business days after the chief executive gives notice of the proposed amendment.

Matters chief executive must consider

Clause 31 specifies the minimum criteria that the chief executive must consider in deciding whether to amend the iROL. Other matters may also be considered.

Deciding to amend interim resource operations licence

Clause 32 enables the chief executive to amend the iROL to the extent considered necessary after consideration of clause 31 matters and any other matters considered appropriate.

Subdivision 4 Granting interim water allocations

Granting interim water allocations—Act, s 189

Clause 33 provides a process for the Act for granting iWAs to an amended iROL that relates to new infrastructure. The clause outlines criteria that the chief executive must be satisfied are met before granting the allocations. Subclause 3 provides that the chief executive may, before granting the iWAs to which the iROL relates, require the iROL holder to provide the information outlined in subclause 3.

Division 4 Interim resource operations licence for the Nerang water supply scheme

The Queensland Water Commission is undertaking a review of institutional arrangements associated with water services in south east Queensland. This includes development of an entitlements framework that would be suitable for the operation of a series of interconnected water supply sources in south east Queensland. Under the plan, the current interim water allocation (iWA) from the Nerang water supply scheme continues until such time as the broader entitlement framework for the south east Queensland region and for a series of interconnected water supply sources in the same region is finalised. At that time, it would be necessary to amend the plan and other water resource plans for south east Queensland in a single process in order to provide for water entitlements to be managed under a resource operations licence and a system operating plan, in accordance with the broader framework.

Interim water allocations in the Nerang water supply scheme to be managed under resource operations licence

Clause 34 provides that interim water allocations in the Nerang water supply scheme will not be converted to water allocations under the plan;

are to be managed under the interim resource operations licence for the scheme; and to the extent a system operating plan applies to interim water allocations in the plan area are to be managed under the system operating plan.

Matters chief executive must consider

Clause 35 specifies the minimum criteria that the chief executive must consider when determining operating arrangements and supply requirements for proposed or existing water infrastructure under the interim resource operations licence or resource operations licence under for the Nerang water supply scheme. The criteria include the impacts the proposed or existing infrastructure's operation may have on the water allocation security objectives; environmental, recreational, aesthetic and cultural matters; the joint operation of existing and proposed infrastructure; any existing critical water supply strategy; any system operating plan applying to the plan area; and any regional water security program for the south east Queensland region. Other matters may also be considered.

Division 5 Converting authorisations to water allocations

By allowing for the establishment of water allocations throughout the plan area, the plan makes a significant change in the way water entitlements will be specified and managed.

Existing water entitlements are currently attached to land and can only be bought and sold with the land to which they attach. Water entitlements that convert to water allocations can be traded separately from land.

When water entitlements convert to tradable water allocations, ownership will be recorded on a title registration system called the "Water Allocations Register", which is similar to the State's Land Titles Register. People will then be free to buy or sell water allocations in much the same way as they buy and sell land.

This market-based system allows people to obtain water and is expected to promote the movement of water to higher value uses. It will also provide an incentive for efficiency, with entitlement holders able to sell any surpluses, or use them to enhance their own production.

The rules under which water allocations can be traded, and the areas where trading can occur, will be developed in consultation with the community as part of the resource operations planning process. Among other things, the rules will be structured to ensure consistency with the plan objectives set for water allocation holders and the environment.

Water allocations within a subcatchment area will also be specified in terms of performance over the simulation period — the water allocation security objective.

Unlike water licences, water allocations are not subject to periodic renewal, and will endure beyond the 10-year life of the plan. However, improved information may lead to better assessments of the water that is available to be shared among users. In such circumstances, the water sharing rules defined in the ROP may be amended. Water users and the general community would be involved in further consultations as part of any such amendment process.

Subdivision 1 General

Application of division 5

Clause 36 explains that division 5 applies to water allocations converted, under the ROP, from authorisations.

Section 121(1)(a) of the Act establishes that on the day the ROP commences, all authorisations to be converted under the plan will expire and the chief executive must supply the holders of these expired water licences with water allocations or other authorities.

Location for taking water

Clause 37 requires the location for taking water stated on a water allocation to include the place at which water could have been taken under the authorisation. This location to take water is not to be confused with the location of works. For example, a location may be specified as a particular reach of a watercourse, in kilometres or Adopted Middle Thread Distance (see the dictionary in schedule 11), from which water may be accessed.

Traditionally, holders of authorisations were limited to taking water from a specified ‘place’ that was usually identified by a lot and plan number and was the point where a bore or pump was situated. By changing this to a location, the ROP will allow holders of allocations to take water from

anywhere within their designated location, irrespective of where that water is to be used.

Purpose to be stated on water allocation

Clause 38 states that the purpose stated on a water allocation must be ‘any’. The ‘any’ specification is designed to allow maximum flexibility in a trading environment as the entitlement is not tied to a particular activity (e.g. irrigation) and could move to other uses.

Subdivision 2 Water allocations for taking supplemented water

In this subdivision, a framework is set down for conversion of water authorisations into water allocations.

Nominal volumes for water allocations to take supplemented water

Clause 39 states that a water allocation to take supplemented water must state a nominal volume.

Subclause 2 states that the nominal volume for a water allocation to take supplemented water is the annual volume stated on the authorisation.

Priority group for water allocations to take supplemented water

Clause 40 defines a water allocation to take supplemented water in the Nerang water supply scheme as a high priority entitlement.

High priority entitlements will receive a higher level of reliability of water supply than other entitlements to reflect the supply provided for under the plan (schedule 6 details the water allocation security objectives).

Subdivision 3 Water allocations to take unsupplemented water

The plan provides for some existing unsupplemented water entitlements (for example, area-based or licences for taking water under ‘waterharvesting’ conditions) to convert to tradable volumetric water allocations through the ROP. Water allocations will be tradable in accordance with rules established under the ROP. The ROP will be amended within two years (priority area 1) and within four years (priority area 2) after commencement of the water resource plan to effect these conversions (see clause 59).

Elements of a water allocation to take unsupplemented water

Clause 41 outlines what must be stated on a water allocation to take unsupplemented water and includes location and purpose of take, nominal volume, maximum rate of take and annual volumetric limit for the allocation. The allocation may state daily or monthly volumetric limits, flow conditions and any other elements of the allocation the chief executive considers appropriate.

Nominal volumes for water allocations to take unsupplemented water

The plan proposes that all water entitlements being converted to water allocations will state a nominal volume on the water allocation. The nominal volume represents, in megalitres, the share of water available to holders of water allocations in the particular group of entitlements to which they belong (i.e. area-based licences or other entitlements). This volume will be an important part of a water allocation because it will define the water allocation’s proportional annual volumetric share of the total water available to a group of water allocations.

The nominal volume should not be confused with the extraction limits that would be applied as part of the water sharing rules to be developed in a ROP—for example, the annual volumetric limit. The water that could actually be taken by the water allocation within a particular year will be subject to the water sharing rules and the actual local availability of water in each subcatchment area. In dry years, the amount of water that could actually be taken by each water allocation may be less than the nominal

volume, while in wetter years the amount of water that could be taken may exceed the nominal volume.

Clause 42 states the criteria that must be considered or ensured in deciding the nominal volumes for water allocations to take unsupplemented water. Subclause (a) specifies matters for consideration including the local availability of water; the conditions under which water may be taken under the authorisation; the annual volumes of water estimated by the chief executive to have been taken under the authorisation during the period, of not more than 10 years, immediately before commencement of the plan and the efficiency of the use of that water; and the simulated mean annual diversion for the authorisation.

Subclause (b)(i) specifies that the chief executive must ensure the total of the nominal volumes for the water allocations, converted from authorisations that state an area that may be irrigated, in the subcatchment area is not more than the volume stated in schedule 8, column 2, for the area.

Subclause (b)(ii) specifies that the chief executive must ensure the total of the nominal volumes for the water allocations, converted from authorisations that do not state an area that may be irrigated, in the subcatchment area is not more than the volume stated in schedule 8, column 3, for the area. These diversions are calculated using the IQQM and represent the average volume of water taken under authorisations in the simulation period (1890-2000) and the addition of the water as identified in the general reserve.

The process for determining the nominal volumes will involve progressive assessment of groups of area licences throughout the plan area by the department prior to their conversion in the ROP.

Annual volumetric limit for taking unsupplemented water

The annual volumetric limit represents the maximum amount of unsupplemented water that can be taken under an entitlement in a year.

Clause 43 specifies how the annual volumetric limit for the take of unsupplemented water under a water allocation converted from existing authorisations is to be decided.

If the authorisation already states an annual volume, that volume will be the annual volumetric limit.

For other authorisations that convert to water allocations, the annual volumetric limit will be decided by the chief executive having regard to the

criteria set out in subclause (b). These criteria include the conditions under which water may be taken under the authorisation, including any stated area that may be irrigated and the volume of water required to irrigate the area efficiently; the water taking capacity of any works, being used or authorised to be used, for taking water under the authorisation; the annual volumes of water estimated by the chief executive to have been taken under the authorisation during the period, of not more than 10 years, immediately before the commencement of the plan; and the efficiency of the use of that water. Other matters may also be considered.

Daily and monthly volumetric limits for taking unsupplemented water

Clause 44 specifies how the daily or monthly volumetric limit for the take of water is determined for existing authorisations that are to be converted to water allocations. The daily volumetric limit, for a water allocation, means the maximum volume of water that may be taken under the allocation in a day. The monthly volumetric limit, for a water allocation, means the maximum volume of water that may be taken under the water allocation in any month.

For authorisations that convert to water allocations, the daily and/or monthly volumetric limit will be decided by the chief executive. The criteria that must be considered by the chief executive include the local availability of water; the conditions under which water may be taken under the authorisation; the volumes of water estimated by the chief executive to have been taken under the authorisation during the period, of not more than 10 years, immediately before the commencement of the plan, and the efficiency of the use of that water; and the simulated mean annual diversion for the authorisation. Other matters may also be considered.

Maximum rates for taking unsupplemented water

Clause 45 specifies how the maximum rate for taking unsupplemented water under a water allocation is determined.

Where an authorisation states a maximum rate, that is the maximum rate of take for unsupplemented water under that allocation.

Where the maximum rate is not stated but a pump size that is listed in schedule 9, column 1 is specified on a related development permit, then the rate stated in schedule 9, column 2 applies. However, if the authorisation holder can demonstrate to the chief executive's satisfaction that the rate of

these licences may be amended for consistency with plan objectives to state a purpose, an annual volumetric limit, a maximum rate of take and flow conditions.

Annual volumetric limit for taking unsupplemented water

Clause 48 specifies how the annual volumetric limit for the take of unsupplemented water is determined for authorisations in force on commencement of the plan. The annual volumetric limit for an authorisation means the maximum volume of water that may be taken under the authorisation in a water year.

If an authorisation already states an annual volume, that volume will be used as the annual volumetric limit.

If a licence or authority states an area that may be irrigated, the volume will be decided by the chief executive, having regard to the matters set out in subclause (2)(b), namely the volume of water required to irrigate the area efficiently; the water taking capacity of any works, in existence on commencement of the plan, for taking water under the authorisation; the annual volumes of water estimated by the chief executive to have been taken under the authorisation during the period, of not more than 10 years, immediately before the commencement; the efficiency of the use of that water; the flow conditions under which water may be taken under the authorisation; and the local availability of water. In deciding the volume for subclause (2)(b), the chief executive must ensure the sum of the annual volumetric limits for all authorisations converted from authorisations that state an area that may be irrigated in the subcatchment area is not more than the volume stated in schedule 8, column 2, opposite the subcatchment area in column 1 of the schedule. Other matters may also be considered.

For other authorisations that convert to water allocations, the annual volumetric limit will be decided by the chief executive having regard to the criteria set out in subclause (c). These criteria include the conditions under which water may be taken under the authorisation; the water taking capacity of any works, in existence on the commencement of the plan, for taking water under the authorisation; the annual volumes of water estimated by the chief executive to have been taken under the authorisation during the period, of not more than 10 years, immediately before commencement of the plan, and the efficiency of that water use. In deciding the volume for subclause (2)(c), the chief executive must ensure the sum of the annual volumetric limits for all authorisations converted from authorisations that do not state an area that may be irrigated in the

subcatchment area is not more than the volume stated in schedule 8, column 3, opposite the subcatchment area in column 1 of the schedule. Other matters may also be considered.

Maximum rates for taking unsupplemented water

Clause 49 specifies how the maximum rates for taking unsupplemented water under a water licence are determined. Where a water licence states a maximum rate, that will be the maximum rate of take for unsupplemented water under that licence.

Where the maximum rate is not stated but a pump size that is listed in schedule 9, column 1 is specified on a related development permit, then the rate stated in schedule 9, column 2 applies. However, if the licence holder can demonstrate to the chief executive's satisfaction that the rate of take is different from the rate listed in schedule 9, column 2, then in deciding the rate regard must be had for the conditions under which water may be taken under the licence; the water taking capacity of the pump to which the development permit relates under normal operating conditions; and the irrigation or water distribution system related to the pump and its efficiency over time. If the chief executive is not satisfied of these criteria, the maximum rate of take is the rate stated in schedule 9, column 2, for the pump size. These considerations also apply to deciding a rate where a licence does not state a maximum rate and where a pump size specified on a related development permit is not mentioned in schedule 9, column 1.

The maximum rate for any other licence is determined by the chief executive in consideration of the nature of the existing licence and an estimate of the rate, or measurement of the actual rate, at which water is taken under the licence.

Division 7 Critical water supply strategy

As continued take of water during critical water supply periods can affect all users including town water supply, there is a need to develop a critical water supply strategy for the plan area.

Critical water supply strategy

Clause 50 states that a critical water supply strategy for water in the plan area must be developed as part of the ROP. The strategy is needed to ensure

essential supplies are met in times of drought conditions worse than any that have occurred in the period of historical record.

Subclause 2 provides that if the strategy is not included in the ROP at the time it is approved, the ROP must state that an amendment may be made to the ROP in accordance with the Act to include the strategy within one year after commencement of the water resource plan.

Subclause 3 states that in deciding the critical water supply strategy, the chief executive must consider any existing strategy for critical water supply management, any system operating plan area, and any regional water security program for the SEQ region.

Water sharing and infrastructure operating rules

Clause 51 specifies what rules and details must be included in the critical water supply strategy, including the water sharing and infrastructure operating rules that state the share of water that will be managed under the system operating plan applying to the plan area, the details of situations in which the rules will apply, and the necessary consultation with affected parties in deciding the strategy's content. It also requires that the strategy include monitoring and reporting requirements.

Division 8 Miscellaneous

Releasing water through fish ways

Clause 52 requires the use of fish ways to release water from dams or weirs where possible. This aims to mitigate the effects of water infrastructure on fish movement along watercourses. Environmental management rules for infrastructure in the ROP must reflect this requirement.

Measuring devices

Clause 53 requires meters to be used to measure volumes taken under water entitlements, other than for stock and domestic purposes, in accordance with the state-wide metering regulation to the Act.

Metering water extractions will promote improved compliance monitoring, reporting and overall management of the resource throughout the catchment, particularly for compliance with the water sharing rules and rate of take limits. It will also lead to improved information being available

for future assessments and assist in assessments of the effectiveness of the plan's strategies.

Part 6 Monitoring and reporting requirements

Monitoring and reporting are essential elements of plan implementation because they provide a basis for measuring and enforcing compliance with the plan's objectives and requirements. They also provide a trigger for any review of the plan that may be necessary and help identify further research needs.

Monitoring and regular reporting on the plan will ensure that any emerging issues are addressed promptly through plan amendment, rather than awaiting the mandatory 10-year review. In this way, water users and other interested parties can have confidence in the security of water entitlements beyond the 10-year life of the plan.

Monitoring

Clause 54 details the water and natural ecosystems monitoring requirements used to assist assessing the effectiveness of proposed management strategies (under part 5) for achieving the outcomes of the plan stated in part 3. Subclause 2 provides that the monitoring requirements are to be achieved by programs undertaken by operators of infrastructure for interfering with water under the ROP, monitoring programs administered by the chief executive and relevant State agencies; and other monitoring programs considered by the chief executive to be relevant to the matters mentioned in subclause 1.

Monitoring programs to be undertaken by holders of resource operations licences

Clause 55 details the specific requirements of a resource operations licence holder's monitoring program and they must be satisfactory to the chief executive. Subclause 3 provides that the strategies must assist the chief executive to assess the effectiveness of the strategies under part 5 of the water resource plan.

Resource operations licence holders to give reports

Clause 56 sets out the reporting requirements for a resource operations licence holder in relation to the monitoring programs in clause 55. It specifies the content required, the way in which the reports must be given, and time limits for completing the reports.

Minister's report on plan—Act, s 53

Clause 57 specifies the reporting requirements for the Minister, including the timing and content of reports. The report assesses the effectiveness of the implementation of the plan in achieving the plan outcomes. If the Minister is satisfied about any of the matters outlined as triggers in clause 61 for a plan amendment or replacement of the plan, the report must include a consideration of the matters.

As a result of preliminary investigations undertaken in developing the plan, the plan does not regulate the take of or interference with groundwater or overland flow. However, this clause includes a requirement that the Minister report on groundwater and overland flow three years after the resource operation plan's commencement, to the extent that information is available about the level of development of works for taking overland flow water and subartesian water in the plan area.

In accordance with section 1009 of the Act, the chief executive must make a copy of the report available for inspection or purchase by the public, during office hours on business days, at the head office or the appropriate regional office of the department.

Part 7 Implementing and amending this plan

The water resource plan will be primarily implemented through a ROP. The ROP will set out how existing water entitlements will convert to tradable volumetric water allocations in accordance with the water resource plan. The ROP will also define, for each part of the plan area, the water sharing and environmental flow rules that will be applied in the day-to-day management of stream flows and water infrastructure to ensure the water resource plan's outcomes are achieved. Water service providers will be

required to show through monitoring and reporting that operating arrangements for their supply infrastructure comply with these rules.

A critical water supply strategy detailing how water will be managed and shared in times of extreme drought will be another important element of the ROP. In addition, the ROP will detail trading rules for each part of the plan area to ensure that the water resource plan's environmental flow objectives and water allocation security objectives are not compromised under a water market system.

Priorities for converting to, or granting, water allocations

Clause 58 refers to schedule 10 for description of the priority areas within the plan area for converting entitlements to, or granting, water allocations.

Priority area 1 consists of the area downstream of the Nerang River at AMTD 16.1 km for which there are water entitlements to take unsupplemented water.

Priority area 2 consists of the parts of the plan area, other than priority area 1, that have unsupplemented water.

Implementation schedule

Clause 59 provides a schedule for implementation of the plan and conversion to, or granting of, water allocations. Whereas certain elements are to be implemented on commencement of the plan or shortly afterwards, this clause provides the longer term staged implementation and conversion arrangements. The priority stages are based on relative urgency. Within two years after the commencement of the plan, the matters detailed in subclause 2 will be implemented through a ROP. Within four years after the commencement of the plan, the matters detailed in subclause 3 will be implemented through an amendment to the ROP. It is also proposed, as detailed in subclause 4, to make a system operating plan that will apply to the plan area and, to the extent to which it applies to water entitlements in the Nerang water supply scheme, will state additional arrangements for taking water under the water entitlements. Subclause 5 provides that subclauses 2 and 3 do not limit the matters that may be included in the ROP.

Minor or stated amendment of plan—Act, s 57

Clause 60 states the types of amendments that may be made to the plan under section 57(b) of the Act that do not require public notification. These amendments allow for efficient and timely responses to changes occurring in the plan area that may be adversely affecting the achievement of plan outcomes.

Amending or replacing plan

Clause 61 outlines the situations where the Minister must consider either amending the plan, or preparing a new plan to replace it. Subclause (a) ensures that options for making additional water available to meet any future water demand can be considered for inclusion in the plan. This is provided that existing entitlements are being efficiently utilised and an economically viable and ecologically sustainable need for the extra water supplies exists. Under clauses (b) and (c) respectively, the Minister may also amend or replace the plan if ecological outcomes are not being achieved or the plan is inconsistent with the SEQ regional plan.

Schedule 1 Plan area

Schedule 1 contains a map of the area of the Gold Coast catchment to which the plan applies, as well as the location of nodes within the plan area. See clauses 4 and 7 and schedule 4 for more information.

Schedule 2 Subcatchment areas

Schedule 2 contains a map of the subcatchment area boundaries within the plan area. See clause 5 and schedule 3 for more information.

Schedule 3 Subcatchment area names

Schedule 3 lists the subcatchment area names in the plan area. See clause 5 and schedule 2 for more information.

Schedule 4 Nodes

Schedule 4 lists the nodes used in the plan and their location. The location is given as a measurement of Adopted Middle Thread Distance (AMTD). This gives the distance, measured along the middle of the water system, that a particular node is located from the mouth of that water system, or from a junction with the main watercourse. See clause 7 for more information.

Schedule 5 Environmental flow objectives

Schedule 5 states the environmental flow objectives for particular performance requirements. See part 4, division 1 for more information.

Part 1 Low flow objectives

This part states the no flow and low flow objectives that should be achieved at particular nodes. The following table describes the purposes of the various indicators.

Performance Indicator	Description	Key Ecological and Geomorphological Functions
Number of periods of no flow (for example, of at least 1 month but less than 3 months)	Indicator of drying spells, and measure of difference between pre-development and scenario case.	Dewatering of aquatic habitats, isolation of pools, no fluvial transport of organic matter or sediment, dominance of marine influence in estuaries.
Daily flow less than 1 Megalitre	A broad-brush indicator of low flows and used to determine changes, from reference condition, to periods of low flows.	Dewatering of aquatic habitats, isolation of pools, no fluvial transport of organic matter or sediment, dominance of marine influence in estuaries.
50% and 90% daily flow	A statistical measure of low flow into estuaries.	Maintaining ambient hydrodynamic conditions in the estuaries, maintaining connectivity between pools and between non-tidal reaches and estuaries.

Source: Brizga, S.O.: *Burrum River Environmental Flow Strategy*, March 2002.

Part 2 Medium to high flow objectives

This part states the medium to high flow objectives to be achieved at particular nodes. This schedule consists of mandatory objectives. The following table describes the purposes of the various indicators.

Performance Indicator	Description	Key Ecological and Geomorphological Functions
Mean annual flow	A broad brush indicator to quickly indicate volumes of water removed from the system. Mean annual flow does not take into account flow variability.	An important determinant of water availability in riverine systems and overall freshwater input to estuarine and marine areas.
1.5 year daily flow volume	A measure of a volume of flow expected to occur, on average, every 1.5 years.	Localised movement in stream beds, inundation of riparian vegetation.
5 year daily flow volume	A measure of a volume of flow expected to occur, on average, every 5 years.	Bed movement in whole reaches, riparian zone and wetland wetting.
20 year daily flow volume	A measure of a volume of flow expected to occur, on average, every 20 years. A significantly large flow event that occurred 5 times throughout the simulation period.	"Resets" changes in stream bed stability, provision of wetland connectivity and replenishment.

Source: Brizga, S.O.: *Burrum River Environmental Flow Strategy*, March 2002.

Part 3 Seasonal flow objectives

This part states the seasonal flow objectives to be achieved at particular nodes. The following table describes the purposes of the various indicators.

Performance Indicator	Description	Key Ecological and Geomorphological Functions
Annual proportional flow deviation	A measure of variability of flow.	Significant because native in-stream flora and fauna have adapted to variable flow patterns.
Flow regime class	An indicator of the seasonality of flows, and when large flows normally start occurring.	Lifecycles of riverine, estuarine and marine biota. Trigger flows for ecological processes should reflect timing.

Source: Brizga, S.O.: *Burrum River Environmental Flow Strategy*, March 2002.

Schedule 6 Water allocation security objectives

Schedule 6 states the water allocation security objectives of the plan. See part 4, division 2 for more information.

Part 1 Supplemented water

This part states the water allocation security objectives for supplemented water allocations. The following table describes the performance indicator used for the objectives.

Water User Type	Performance Indicators	Description
Supplemented water	Monthly supplemented water sharing index	The percentage of months that a water user in a particular priority group could have expected to get 100% of their monthly allocation over the simulated period.

Part 2 Unsupplemented water

This part states the water allocation security objectives for unsupplemented water allocations. The following table describes the performance indicators used for the objectives.

Water User Type	Performance Indicators	Description
Unsupplemented water (all entitlements)	70% Unsupplemented water sharing index	The percentage of the simulated mean annual diversion that water users, in a particular water group within a particular subcatchment area, could have expected to take in the 70 th percentile wettest years.

Schedule 7 General reserve

Schedule 7 states the total volume of unsupplemented water held in the general reserve to be diverted. See clause 23 for more information.

Schedule 8 Unsupplemented water to be taken

Schedule 8 states the total volume of unsupplemented water to be diverted. See clauses 42 and 48 for more information.

Schedule 9 Rates and pump sizes

Schedule 9 states the maximum rate of take of water in litres per second according to pump sizes. See clauses 45 and 49 for more information.

Schedule 10 Priority areas

Schedule 10 describes the two priority areas for converting to, or granting of, water allocations. See clause 58 for more information.

Schedule 11 Dictionary

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

ENDNOTES

- 1 Laid before the Legislative Assembly on . . .
- 2 The administering agency is the Department of Natural Resources and Water.

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